

Autorizzazione Unica Regionale - art. 12 del dlgs. 387/2003



Progetto Definitivo

Parco Eolico Ischia Finata

Titolo elaborato:

Studio sugli effetti dello shadow flickering

DLB	TL	GD	EMISSIONE	01/07/24	0	0
REDATTO	CONTR.	APPROV.	DESCRIZIONE REVISIONE DOCUMENTO	DATA	REV	

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1. PREMESSA

Nella presente trattazione si descrive l'evoluzione giornaliera delle ombre generate dalle pale eoliche facenti parte dell'impianto eolico denominato "Ischia Finata" al fine di verificare che l'alternanza ciclica dell'ombra non arrechi danni alla salute della popolazione.

2. DESCRIZIONE DEL PROGETTO

L'impianto eolico presenta una potenza totale pari a 72 MW ed è costituito da 12 aerogeneratori, ciascuno di potenza nominale pari a 6 MW, altezza della torre pari a 125 m e rotore pari a 162 m.

Gli aerogeneratori sono collegati tra loro mediante cavi interrati in Media Tensione a 33 kV che convogliano l'elettricità presso una Stazione Elettrica Utente (SEU) di trasformazione 150/33 kV, collegata tramite una terna di cavi interrati di Alta Tensione a 150 kV alla Stazione di Consegna Utente (SCU), contenuta in una Stazione Elettrica Condivisa (SEC) con altri produttori.

Tale Stazione condivisa si collega attraverso una seconda linea di cavi interrati di Alta Tensione a 150 kV alla Stazione Elettrica (SE) di smistamento 150 kV della Rete di Trasmissione Nazionale (RTN) Terna di Sant'Arcangelo (di futura realizzazione) in corrispondenza di uno stallo assegnato da Terna in condivisione con altri produttori.

L'ambito territoriale considerato si trova nella zona meridionale della Regione Basilicata, nei pressi del confine con la Regione Calabria.

L'impianto interessa i Comuni di Colobraro, ove ricadono 9 aerogeneratori e la SEU 150/33 kV, Tursi, ove ricadono 3 aerogeneratori, e Sant'Arcangelo, dove ricadono la SEC e la nuova SE 150 kV della RTN.

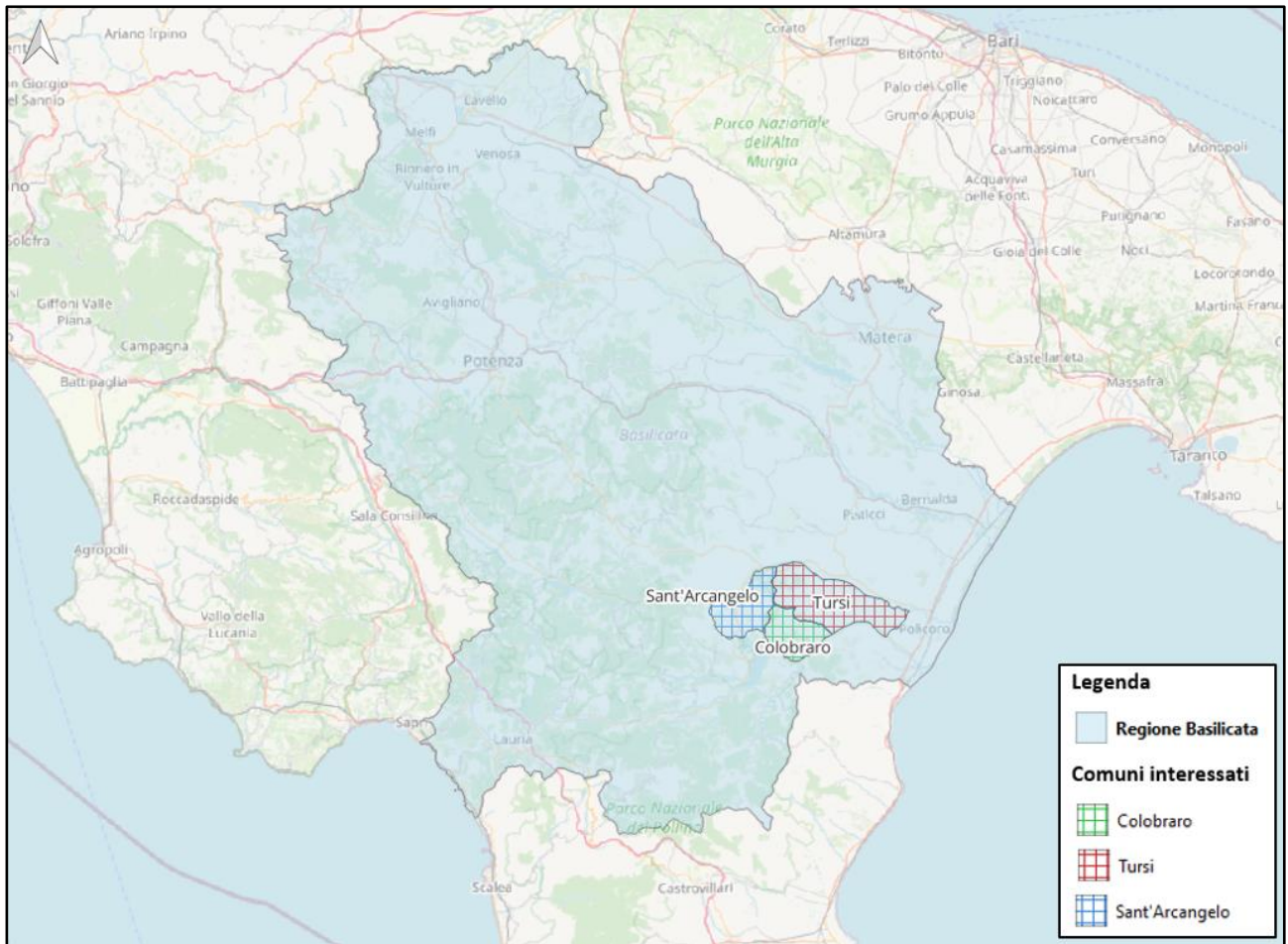


Figura 2.1: Inquadramento territoriale - Limiti amministrativi comuni interessati

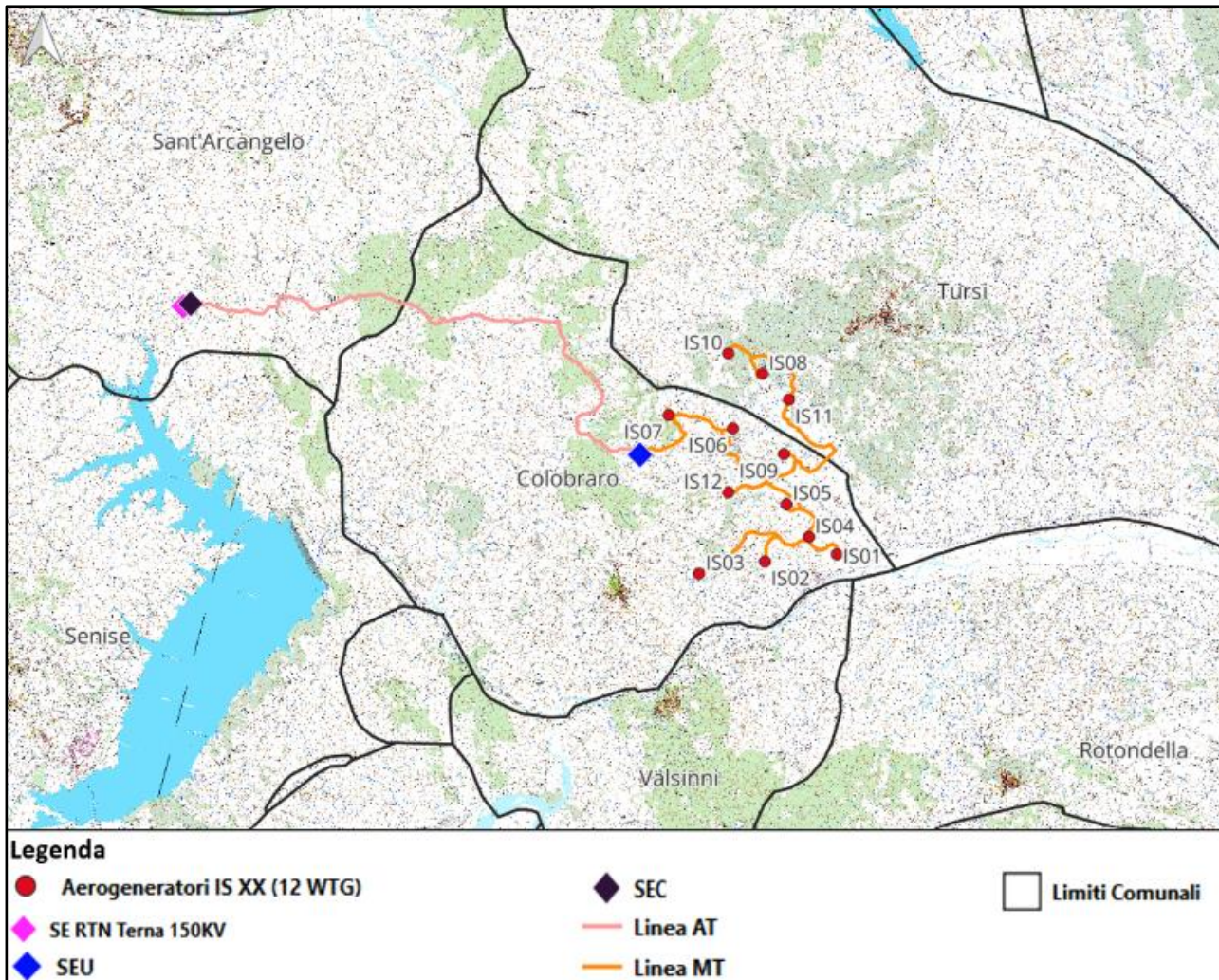


Figura 2.2: Layout d’impianto su CTR

Il sistema di linee elettriche interrato in Media Tensione a 33 kV è allocato in corrispondenza del sistema di viabilità interna, necessario alla costruzione e alla gestione futura dell’impianto, e realizzato adeguando il sistema viario esistente, ove possibile, e realizzando nuovi tratti di raccordo per consentire il transito dei mezzi eccezionali.

La Stazione Elettrica Utente 150/33 kV è posizionata ad Est rispetto agli aerogeneratori, mentre la Stazione Elettrica Condivisa e la Stazione Elettrica 150 kV della RTN sono localizzate ad Est rispetto alla stessa SEU 150/33 kV.

Per la connessione alla RTN, la società Etesia Prime s.r.l. è titolare della Soluzione Tecnica Minima Generale STMG - Codice Pratica (CP) del preventivo di connessione 202400133 e il progetto prevede che l’impianto eolico venga collegato in antenna a 150 kV su una nuova Stazione Elettrica (SE) di smistamento a 150 kV della RTN nel Comune di Sant’Arcangelo, da inserire in doppio entra – esce alle linee RTN a 150 kV “Aliano – Senise” e “Pisticci – Rotonda”.

La consegna in sito dei componenti degli aerogeneratori avverrà mediante l'utilizzo di mezzi di trasporto eccezionali, tra cui anche il blade lifter, al fine di ridurre gli impatti sui movimenti terra.

Il percorso ipotizzato prevede di partire dal Porto di Taranto ed arrivare in sito passando per la E90, la SS653 e la SP154 (**Figura 2.3**).

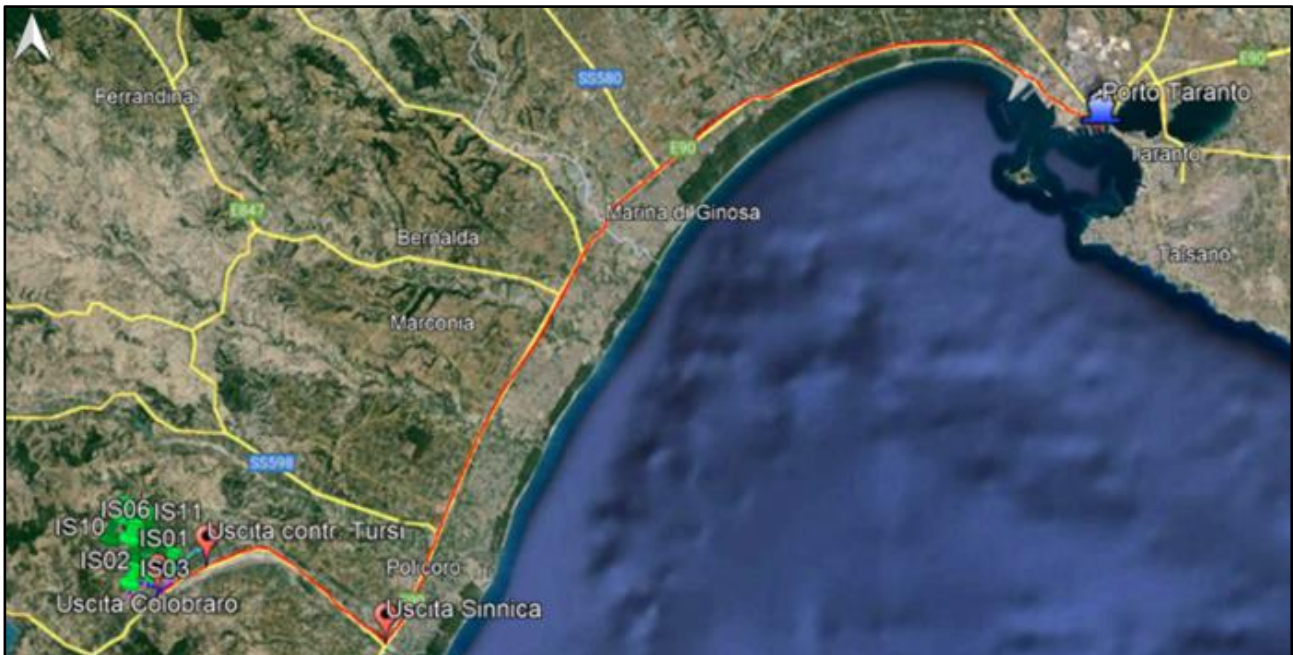


Figura 2.3: Layout d'impianto con viabilità di accesso dal Porto di Taranto (linea rossa) su immagine satellitare

Per maggiori dettagli si fa riferimento all'elaborato "ISEG017 Relazione viabilità di accesso al cantiere (road survey)".

2.1. Caratteristiche tecniche dell'aerogeneratore

L'aerogeneratore è una macchina rotante che trasforma l'energia cinetica del vento in energia elettrica ed è essenzialmente costituito da una torre (suddivisa in più parti), dalla navicella, dal Drive Train, dall'Hub e tre pale che costituiscono il rotore.

Il progetto prevede l'installazione di un aerogeneratore modello Vestas V 162 di potenza nominale pari a 6,0 MW, altezza torre all'hub pari a 125 m e diametro del rotore pari a 162 m (**Figura 2.1.1**).

Oltre ai componenti sopra elencati, un sistema di controllo esegue il controllo della potenza ruotando le pale intorno al proprio asse principale e il controllo dell'orientamento della navicella, detto controllo dell'imbardata, che permette l'allineamento della macchina rispetto alla direzione del vento.

Il rotore, a passo variabile, è in resina epossidica rinforzata con fibra di vetro ed è posto sopravvento al sostegno con mozzo rigido in acciaio.

Altre caratteristiche principali sono riassunte nella **Tabella 2.1.1** e in allegato alla presente.

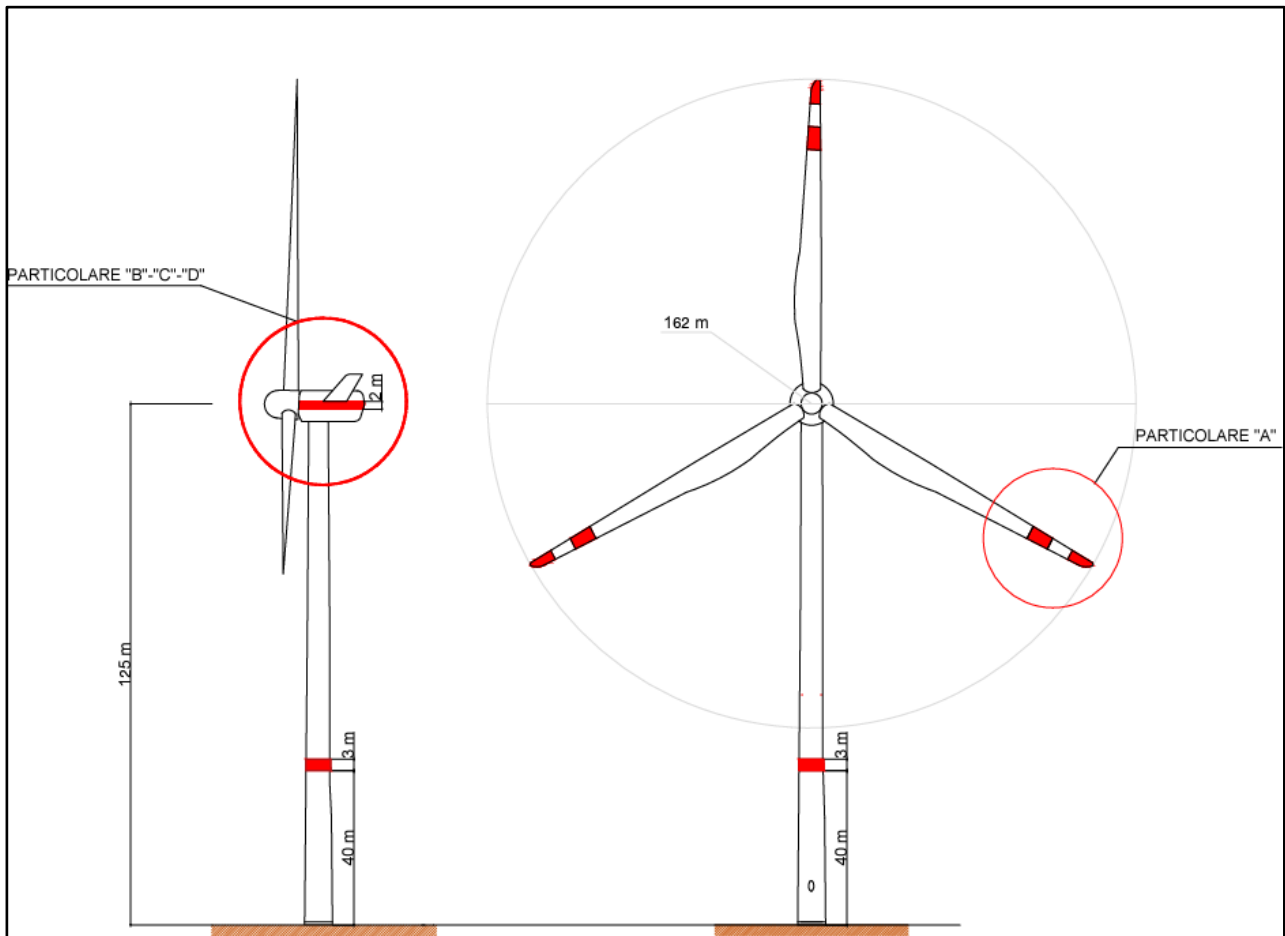


Figura 2.1.1: Profilo aerogeneratore V162 – 6,0 MWp – HH = 125 m – D = 162 m

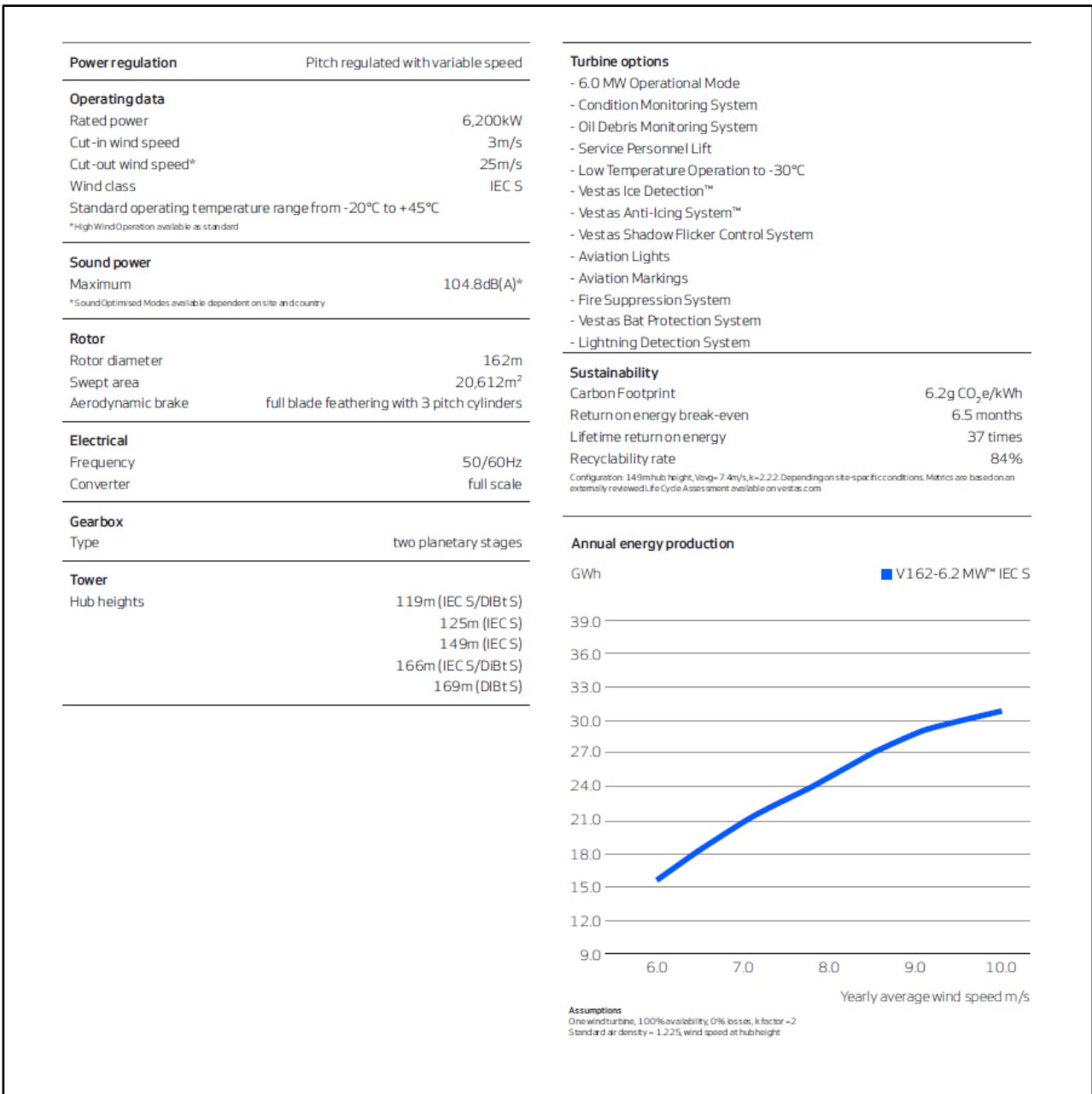


Tabella 2.1.1: Specifiche tecniche aerogeneratore di progetto

2.2. Viabilità e piazzole

La viabilità e le piazzole del parco eolico sono elementi progettati considerando la fase di costruzione e la fase di esercizio dell’impianto eolico.

In merito alla viabilità, come detto sopra, si è cercato di utilizzare il sistema viario esistente adeguandolo al passaggio dei mezzi eccezionali. Tale indirizzo progettuale ha consentito di minimizzare l’impatto sul territorio e di ripristinare tratti di viabilità comunale e interpoderali che si trovano in stato di dissesto migliorando l’accessibilità dei luoghi anche alla popolazione locale.

Nei casi in cui tale approccio non è stato perseguibile sono stati progettati tratti di nuova viabilità seguendo il profilo naturale del terreno senza interferire con il reticolo idrografico presente in sito.

Nella **Figura 2.2.1** è riportata una sezione stradale tipo di riferimento per i tratti di viabilità da adeguare e per quelli di nuova realizzazione.

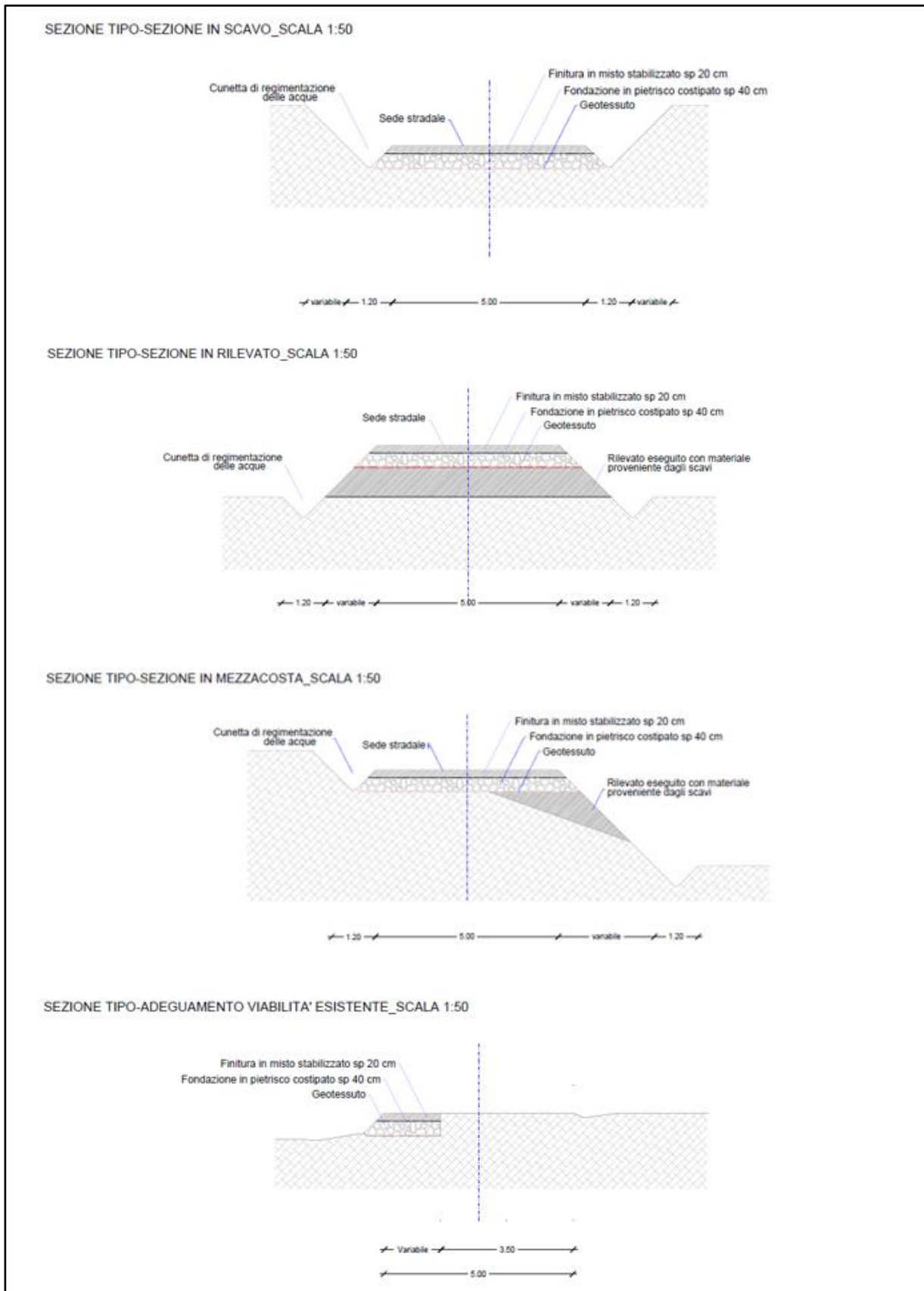


Figura 2.2.1: Sezioni tipo viabilità parco eolico

La progettazione delle piazzole da realizzare per l'installazione di ogni aerogeneratore prevede due configurazioni, la prima necessaria all'installazione dell'aerogeneratore e la seconda, a seguito di opere di ripristino parziale, necessaria alla fase di esercizio e manutenzione dell'impianto (**Figura 2.2.2**).

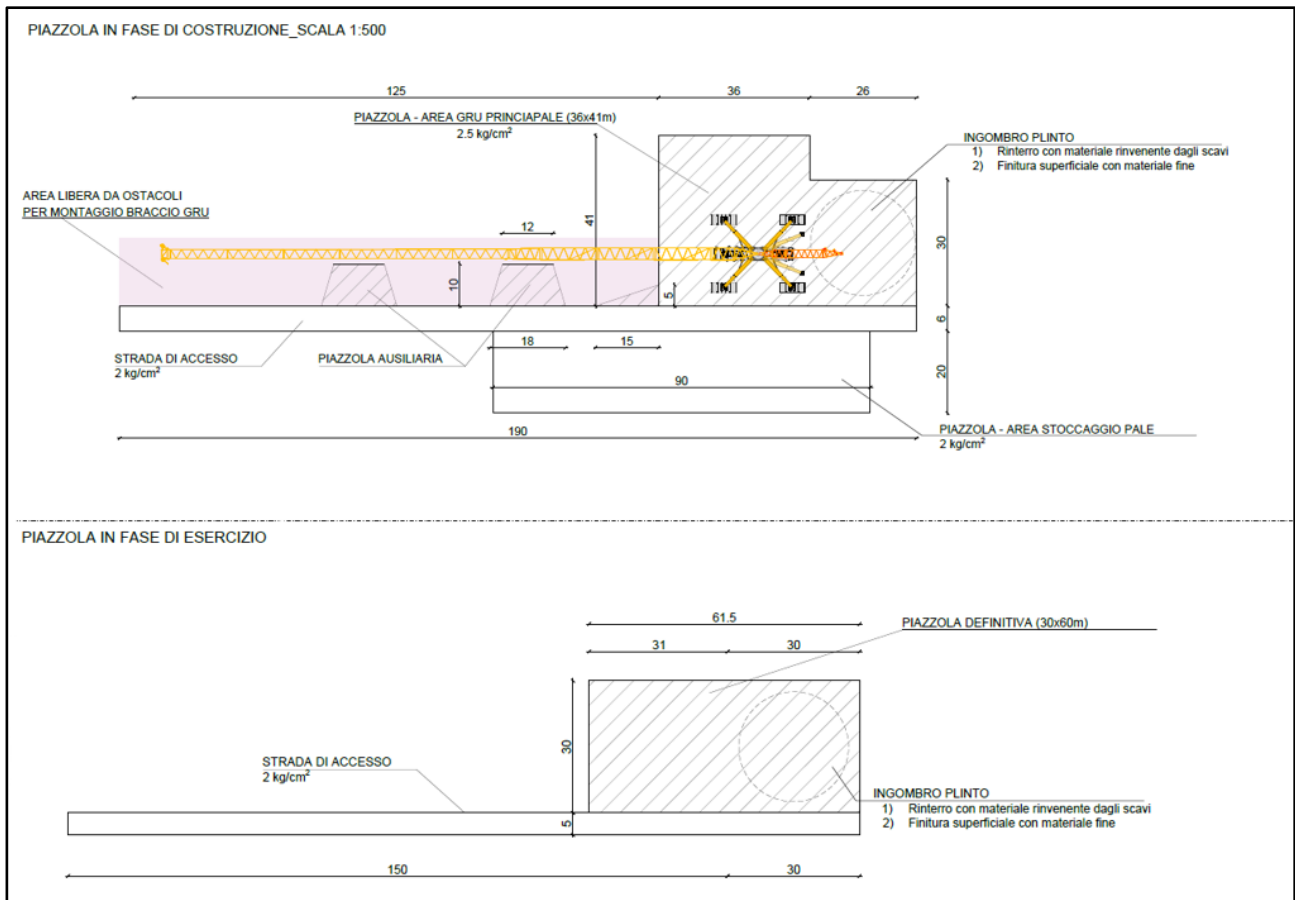


Figura 2.2.2: Planimetria piazzola tipo per la fase di installazione e fase di esercizio e manutenzione

3. CARATTERISTICHE PRINCIPALI DEL PARCO EOLICO

L'impianto eolico sarà costituito essenzialmente da 12 aerogeneratori la cui posizione è stata stabilita a seguito di valutazioni che riguardano diversi aspetti quali l'esposizione a tutti i settori della rosa dei venti, la morfologia del territorio, la distanza da fabbricati e strade esistenti ed utilizzate da un elevato numero di veicoli, distanza dal centro abitato e da beni monumentali presenti nell'area oltre agli aspetti legati alla sicurezza e volti a minimizzare l'impatto sull'ambiente:

- ottemperare alle previsioni della normativa vigente e delle linee guida sia nazionali che regionali;
- minimizzare l'impatto visivo;
- migliorare in sistema viario esistente al fine di migliorare l'accessibilità ai terreni per lo sviluppo dell'agricoltura e dell'allevamento di animali;

- disposizione delle macchine ad una distanza reciproca minima pari ad almeno 450 m, atta a minimizzare l'effetto scia, l'effetto selva e l'impatto sull'avifauna;
- condizioni di massima sicurezza, sia in fase di installazione che di esercizio.

La disposizione finale del parco è stata verificata e confermata a seguito di uno studio di fattibilità condotto sulla base delle informazioni sugli aspetti vincolistici dal punto di vista ambientale e paesaggistico e sulla base dei sopralluoghi svolti sul posto per verificare le interferenze presenti in sito e la fattibilità di realizzazione delle opere.

Il progetto prevede l'adeguamento di tratti di strada esistenti, in particolare strade comunali, e la realizzazione di una nuova viabilità a servizio degli aerogeneratori di progetto, ossia di una rete viaria interna al parco che si snoderà seguendo lo sviluppo degli esistenti tratturi non vincolati dalla Soprintendenza.

La disponibilità delle aree, necessaria per l'installazione degli aerogeneratori e le relative opere connesse, è garantita grazie alla Dichiarazione di Pubblica utilità ai sensi degli artt. 52-quater "Disposizioni generali in materia di conformità urbanistica, apposizione del vincolo preordinato all'esproprio e pubblica utilità" e 52-quinquies "Disposizioni particolari per le infrastrutture lineari energetiche facenti parte delle reti energetiche nazionali" D.P.R. 327/2001 a conclusione del procedimento autorizzatorio di cui all'art.12, d.lgs. 387/2003 e gli effetti dell'Autorizzazione Unica ottenuta dopo opportuna conferenza di servizi.

Tutte le aree oggetto interessate dal progetto sono riportate nello specifico elaborato di progetto "ISEG011 Piano particellare delle occupazioni descrittivo".

4. FENOMENO DI SHADOW FLICKERING

La presenza delle turbine eoliche provoca la proiezione dell'ombra sulle aree ad esse adiacenti in presenza di luce solare diretta.

Il fenomeno causa effetti quasi statici dovuti alla presenza della torre fissa ed effetti dinamici legati alla rotazione del rotore delle tre pale della turbina.

Gli effetti statici possono aumentare, nelle prime ed ultime ore del giorno, la probabilità di formazione di ghiaccio su eventuali strade asfaltate soggette a traffico.

Gli effetti dinamici si traducono in una variazione alternata di intensità luminosa che, a lungo andare, può provocare fastidio agli occupanti le abitazioni le cui finestre risultano esposte al fenomeno stesso.

Lo “**shadow flickering**” descrive appunto l’effetto stroboscopico delle ombre proiettate dalle pale rotanti degli aerogeneratori allorché il sole si trova alle loro spalle, come si evince dalla **Figura 4.1**.



Figura 4.1: Ombre proiettate dalle pale in rotazione di una turbina

Il conseguente effetto sugli individui è simile a quello che si sperimenterebbe in seguito alle variazioni di intensità luminosa di una lampada ad incandescenza a causa di continui sbalzi della tensione della rete di alimentazione elettrica.

Lo shadow flickering risulta assente nei casi di presenza di nuvole e nebbia che oscurano il sole e nei casi in cui le pale dell’aerogeneratore sono a riposo (per esempio in assenza del vento).

Per effettuare l’analisi del fenomeno vengono considerati alcuni parametri che ne influenzano la rilevanza.

Il primo di essi da tenere in conto è la frequenza di rotazione delle pale; in particolare, le frequenze che possono provocare un senso di fastidio sono comprese tra i 2,5 ed i 20 Hz.

Solitamente gli aerogeneratori tripala operano ad una velocità di rotazione inferiore ai 35 giri al minuto, corrispondente ad una frequenza di passaggio delle pale sulla verticale inferiore a 1,75 Hz, minore, quindi, della frequenza critica di 2,5 Hz.

Inoltre, i generatori di grande potenza (dal MW in su) raramente superano la velocità di rotazione di 20 giri al minuto, corrispondente a frequenze di passaggio delle pale ampiamente minori di quelle ritenute fastidiose per la maggioranza degli individui.

Un ulteriore aspetto da considerare per l’analisi della durata del fenomeno è la relazione spaziale tra un aerogeneratore ed un ricettore (abitazione), così come la direzione del vento.

Per distanze dell'ordine dei 300 m il fenomeno è più rilevante all'alba oppure al tramonto, ovvero in quelle ore in cui le ombre risultano molto lunghe per effetto della piccola elevazione solare. Al di là di una certa distanza l'effetto delle ombre è meno consistente perché il diametro del sole risulta essere di gran lunga superiore rispetto allo spessore della singola pala.

In questo scenario la condizione più penalizzante corrisponde al caso in cui il piano del rotore risulta essere ortogonale alla congiungente tra sole e ricettore; infatti, in tali condizioni, l'ombra proiettata darà origine ad un cerchio di diametro pari al rotore dell'aerogeneratore.

L'effetto dello shadow flickering risulta evidente e fastidioso in quegli ambienti con finestrate rivolte verso le ombre.

In linea di massima, si può ritenere che l'area soggetta al fenomeno in questione non si estenda oltre i 500 ÷ 1000 m dall'aerogeneratore e le zone a maggiore impatto ricadono entro i 300 m di distanza dalle turbine.

Al fine di analizzare qualitativamente e quantitativamente il fenomeno, risulta necessario individuare la posizione occupata dal sole in maniera univoca tramite due coordinate angolari, azimut ed altezza.

L'azimut per convenzione è l'angolo valutato sul piano orizzontale ed in senso orario, a partire dal nord geografico fino alla proiezione della congiungente (origine del sistema) - sole sul piano orizzontale stesso, ovvero il punto direttamente sotto al sole.

L'altezza o elevazione è misurata sul piano verticale, partendo da tale punto sino ad arrivare in corrispondenza del sole.

Tali coordinate variano con continuità grazie al moto della Terra intorno al sole e la traiettoria descritta nel cielo dal sole è assimilabile ad un arco; ogni giorno si caratterizza per un proprio arco, il quale si discosta, se pur di poco, da quello del giorno immediatamente precedente e successivo.

In particolare, la seguente trattazione fa riferimento alle norme e linee guida tedesche, in base alle quali il fenomeno in questione deve essere valutato nei casi seguenti:

- fino alle distanze in corrispondenza delle quali il rotore dell'aerogeneratore copre il 20 % del disco solare (per distanze superiori a quella menzionata lo shadow - flickering arreca danni considerati trascurabili);
- per angoli del sole sull'orizzonte superiori a 3°;
- ad un'altezza di 2 m dal suolo.

Inoltre, come anticipato, le linee guida tedesche stabiliscono i limiti di esposizione al fenomeno di:

- 30 ore all'anno;
- 30 minuti al giorno.

6. IPOTESI E METODO DI CALCOLO

L'obiettivo della trattazione è la stima quantitativa dell'effetto shadow flickering prodotto dall'impianto eolico, fenomeno per cui si genera una intermittenza dell'ombra a seguito del movimento del rotore dell'aerogeneratore quando in esercizio (in particolare quando il piano del rotore risulta perpendicolare alla congiungente tra l'osservatore e il sole) e che potrebbe risultare fastidioso per un osservatore.

Nell'analisi condotta sono stati considerati 12 aerogeneratori di nuova realizzazione e relativi al progetto del Parco Eolico Ischia Finata.

Gli aerogeneratori di progetto hanno un'altezza al mozzo di 125 m, diametro del rotore di 162 m, potenza nominale di 6 MW e 8,2 giri al minuto (RPM media).

La verifica è stata effettuata in corrispondenza di 24 ricettori, rappresentativi di fabbricati di "civile abitazione", riportati nella **Tabella 6.1**, sui quali l'effetto trattato potrebbe avere una certa rilevanza.

ID	Comune	Latitudine [°]	Longitudine [°]	Distanza WTG più vicina [m]	Foglio	Particella	Stato Accatastamento
R01	Colobrarò	40.198478°	16.443225°	452 (IS03)	38	161	Catasto Terreni
R02	Colobrarò	40.198122°	16.443011°	406 (IS03)	38	351	A03
R03	Colobrarò	40.198047°	16.443234°	402 (IS03)	38	161	Catasto Terreni
R04	Colobrarò	40.195714°	16.432639°	881 (IS03)	38	89	F02
R05	Colobrarò	40.194917°	16.433276°	818 (IS03)	38	120; 93; 121; 122	n.a.
R06	Colobrarò	40.191575°	16.431893°	985 (IS03)	38	103	Catasto Terreni
R07	Colobrarò	40.191318°	16.439635°	439 (IS03)	38	323	Catasto Terreni
R08	Colobrarò	40.189945°	16.438571°	614 (IS03)	38	310	Catasto Terreni
R09	Colobrarò	40.188978°	16.438060°	729 (IS03)	38	311	Catasto Terreni
R10	Colobrarò	40.188507°	16.438253°	760 (IS03)	38	314	C02
R11	Colobrarò	40.187790°	16.444205°	743 (IS03)	38	324	Catasto Terreni

ID	Comune	Latitudine [°]	Longitudine [°]	Distanza WTG più vicina [m]	Foglio	Particella	Stato Accatastamento
R12	Colobrarò	40.188546°	16.442856°	651 (IS03)	38	324	Catasto Terreni
R13	Colobrarò	40.191535°	16.442305°	319 (IS03)	38	323	Catasto Terreni
R14	Colobrarò	40.191279°	16.445391°	408 (IS03)	38	323	Catasto Terreni
R15	Colobrarò	40.190769°	16.445253°	452 (IS03)	38	323	Catasto Terreni
R16	Colobrarò	40.189766°	16.446179°	588 (IS03)	38	285	Catasto Terreni
R17	Colobrarò	40.190000°	16.447060°	606 (IS03)	38	285	Catasto Terreni
R18	Colobrarò	40.190565°	16.449296°	694 (IS03)	38	323	Catasto Terreni
R19	Colobrarò	40.191042°	16.455408°	939 (IS02)	39	229	A03
R20	Colobrarò	40.191141°	16.455593°	928 (IS02)	39	228	n.a.
R21	Colobrarò	40.191589°	16.454656°	893 (IS02)	39	235	C02
R22	Colobrarò	40.191689°	16.455680°	867 (IS02)	41	344	D10
R23	Colobrarò	40.192180°	16.455299°	813 (IS02)	41	341	A02
R24	Colobrarò	40.192532°	16.455205°	782 (IS02)	41	343	F02

Tabella 6.1: Ricettori oggetto di verifica

La localizzazione dei suddetti ricettori e degli aerogeneratori di progetto è riportata nella figura seguente.

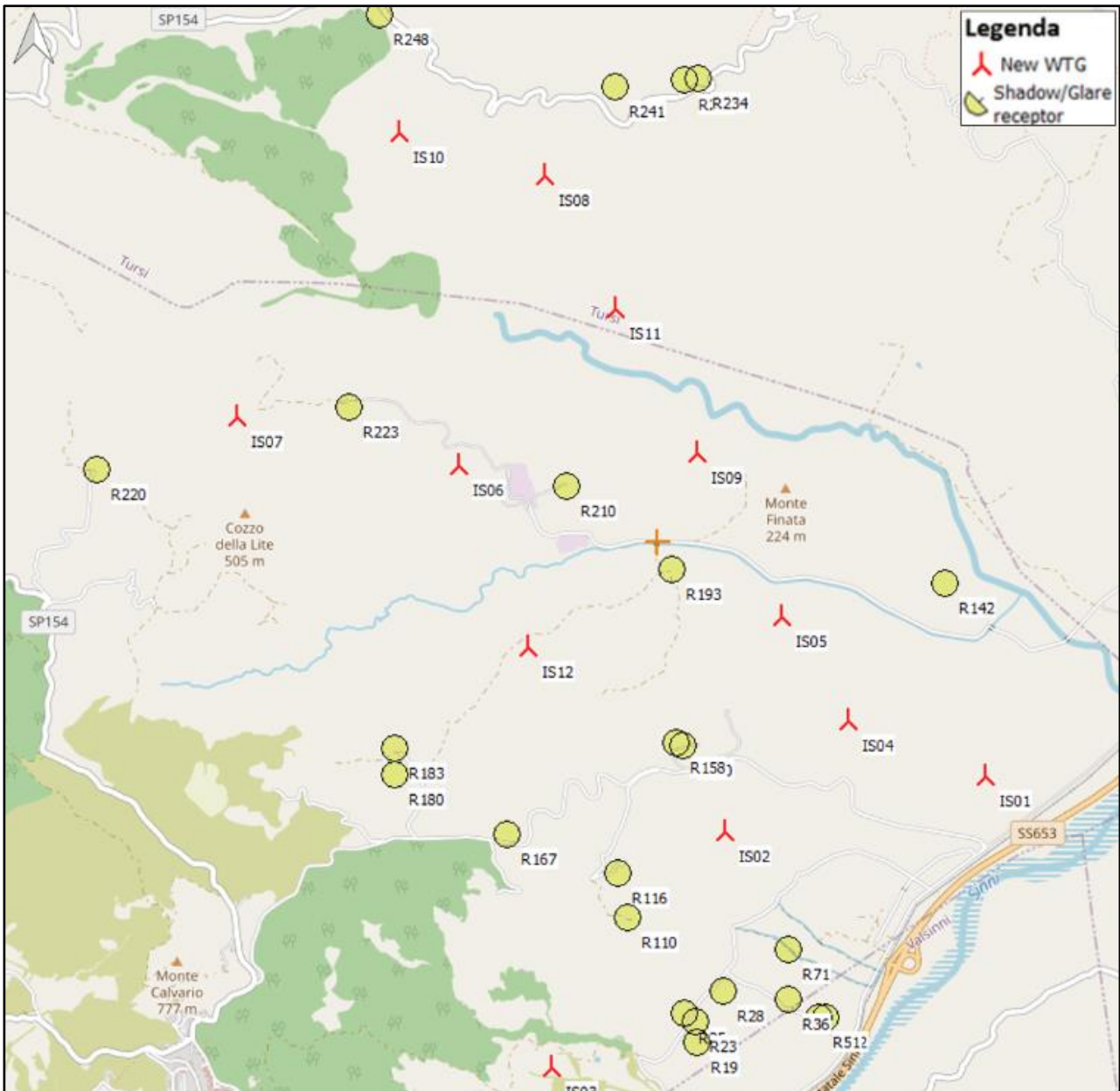


Figura 6.1: Localizzazione dei ricettori rispetto agli aerogeneratori di progetto

Il software impiegato per effettuare la verifica di sicurezza all'effetto shadow flickering è il WindPRO versione 4.0.

Tale software esegue la valutazione di zone di influenza degli aerogeneratori (ZVI), considerando l'orografia del terreno e altezza dell'osservatore (nel caso specifico altezza della finestra di un'abitazione) pari a 2 m, prima di effettuare il calcolo flicker zvi in modo da escludere il contributo di quegli aerogeneratori che non sono visibili dal ricettore.

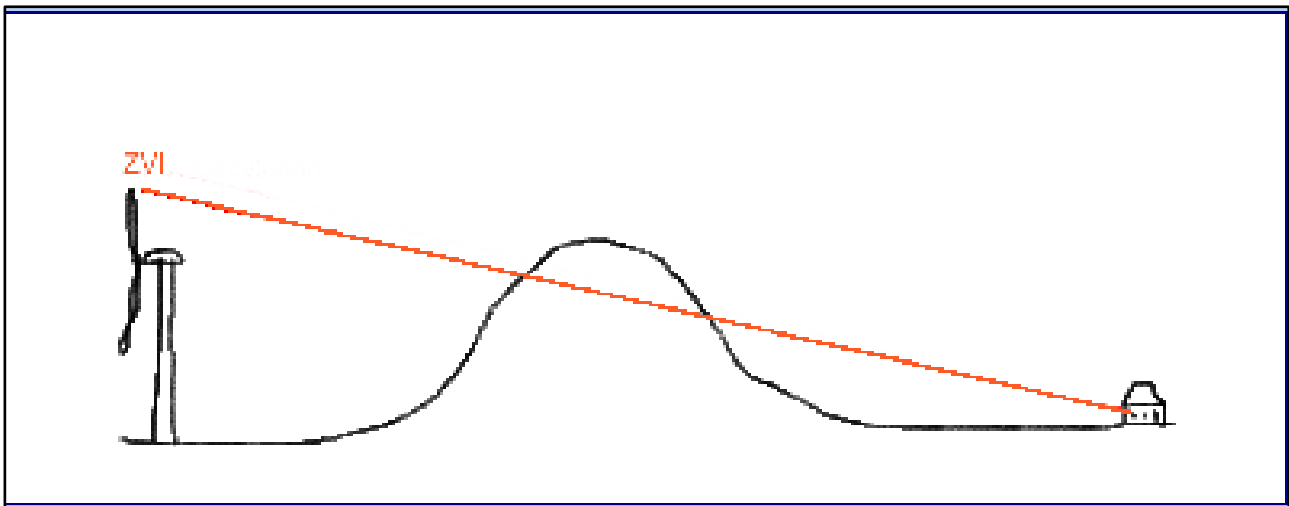


Figura 6.2: Impatto della ZVI, l'orografia del territorio può rendere non visibile l'aerogeneratore al ricevitore

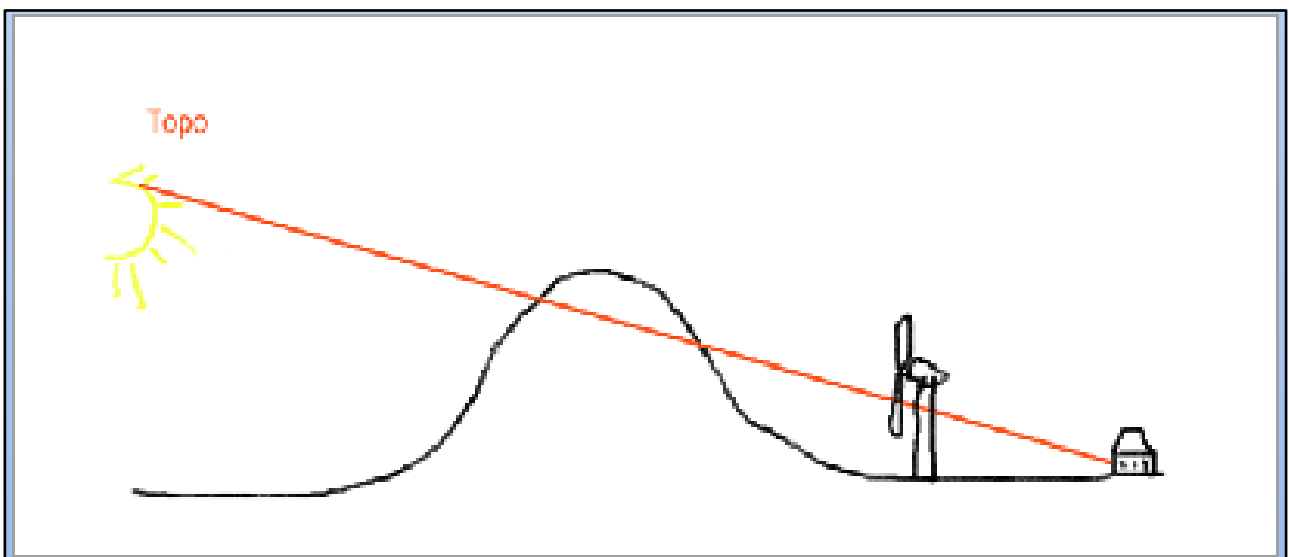


Figura 6.3: Impatto dell'orografia del territorio sull'ombreggiamento

Nella prima stima effettuata (**worst case**) si assumono le seguenti ipotesi restrittive:

- l'impianto eolico sempre in funzione durante le ore di sole;
- altezza minima del sole sull'orizzonte pari a 3° ;
- piano del rotore sempre ortogonale alla congiungente tra l'osservatore e il sole;
- totale assenza di ostacoli o schermi vegetazionali presenti negli spazi circostanti i possibili ricettori e che potrebbero inficiare il fenomeno;
- ricettori in modalità "green house", ovvero le finestre delle abitazioni attenzionate non orientate in una particolare direzione ma omnidirezionali.

Inoltre, in una seconda stima, allo scopo di pervenire a valori più realistici di impatto (**real case**), si è impiegato il valore di eliofania, che tiene in conto del numero medio di ore di cielo libero da nubi durante il giorno, e le ore di funzionamento degli aerogeneratori in presenza del sole.

Per l'area in esame, è stato considerato il valore medio annuale di 7,40 h come da fonte ISPRA con riferimento al Comune di Aliano (MT) e le ore di funzionamento degli aerogeneratori in presenza del sole in funzione della direzione del vento, come riportato nelle tabelle seguenti:

MESE	gen	feb	mar	apr	mag	giu	lug	ago	set	ott	nov	dic
GIORNI	31	28	31	30	31	30	31	31	30	31	30	31
PROB. MEDIA ELIOFANIA	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40

Tabella 6.2: Probabilità medie di eliofania e ore di funzionamento aerogeneratori in presenza del sole

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Somma
807	387	301	422	457	333	302	421	1645	786	483	1129	7473

Tabella 6.3: Ore di funzionamento degli aerogeneratori in presenza del sole in funzione della direzione del vento (ipotesi di funzionamento dell'impianto per circa 85% del totale ore annue)

Il modello numerico utilizzato, al pari degli altri presenti sul mercato, produce statisticamente un output relativo al valore atteso delle ore d'ombra per anno relativo ai ricettori.

7. CONCLUSIONI

Nella **Figura 7.1** sono rappresentati i ricettori attenzionati rispetto alle posizioni degli aerogeneratori di progetto e gli intervalli delle ore d'ombra intermettente per anno ottenute dalla simulazione effettuata nell'area d'impianto nell'ipotesi di Real case.

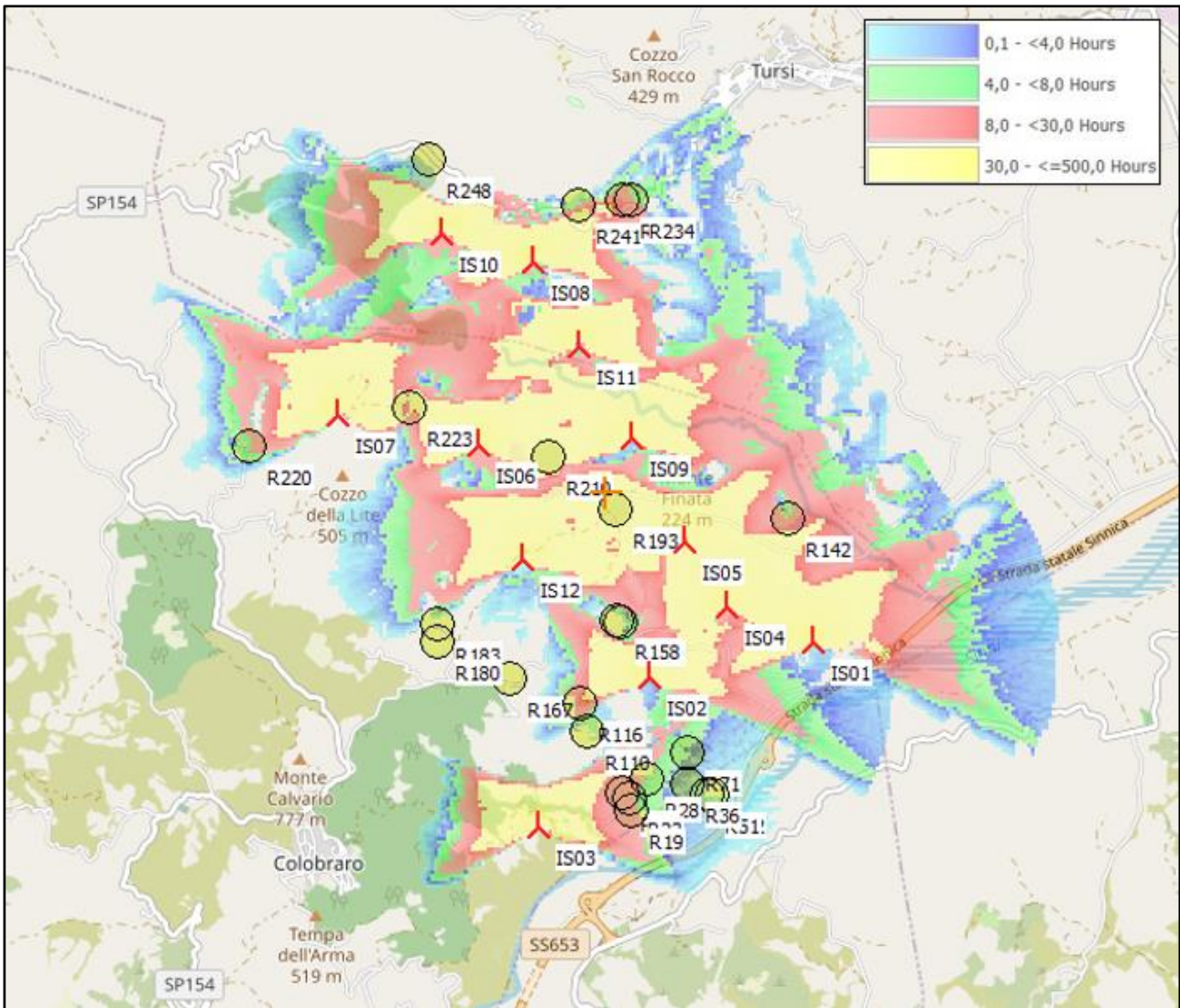


Figura 7.1: Localizzazione dei ricettori attenzionati rispetto agli aerogeneratori di progetto e ore d’ombra per anno – real case

Nella **Tabella 7.1** si riportano i valori attesi delle ore d’ombra intermittente per anno relativamente ai ricettori considerati nelle ipotesi precedentemente indicate.

Ricettore	ORE/ANNO – WORST CASE	ORE/ANNO – REAL CASE (EXPECTED VALUES)
R19	28:19	9:29
R23	27:14	9:33
R25	32:50	12:06
R28	19:26	7:21
R36	5:55	2:06
R51	3:50	1:18
R52	3:20	1:08
R71	9:57	3:54
R110	0:03	0:00

Ricettore	ORE/ANNO – WORST CASE	ORE/ANNO – REAL CASE (EXPECTED VALUES)
R116	97:47	27:54
R142	48:20	18:32
R158	0:00	0:00
R160	0:32	0:09
R167	0:00	0:00
R180	0:00	0:00
R183	0:00	0:00
R193	154:01	56:22
R210	137:00	40:43
R220	30:08	8:41
R223	96:14	34:02
R234	23:16	9:39
R236	41:53	17:30
R241	16:39	6:27
R248	0:00	0:00

Tabella 7.1: Ore d'ombra intermittente per anno sui ricettori nel worst case e real case

Dai risultati riportati nella **Tabella 7.1**, si evince che, nelle ipotesi precedentemente elencate e con riferimento al Real Case, per i ricettori attenzionati, il valore atteso delle ore d'ombra intermittente per anno, per ognuno dei ricettori considerati, è inferiore al valore di 30 ore/anno, parametro considerato di qualità a livello internazionale, eccetto che per i ricettori R193, R210, R223.



Figura 7.2: Localizzazione del ricettore R193 rispetto agli aerogeneratori IS01, IS05, IS06, IS12.

Come l'immagine precedentemente riportata evidenzia, l'immobile R193 risulta essere interessato dalla presenza dei seguenti aerogeneratori:

- IS01 posto ad una distanza di circa 2 km;
- IS05 posto ad una distanza di circa 0,6 km;
- IS06 posto ad una distanza di circa 1,3 km;
- IS12 posto ad una distanza di circa 0,9 km.

Si riporta a seguire nella **Figura 7.3** il grafico estrapolato dal Report Real Case in allegato, nel quale sono analizzati gli effetti degli aerogeneratori sopra citati sul ricettore R193.

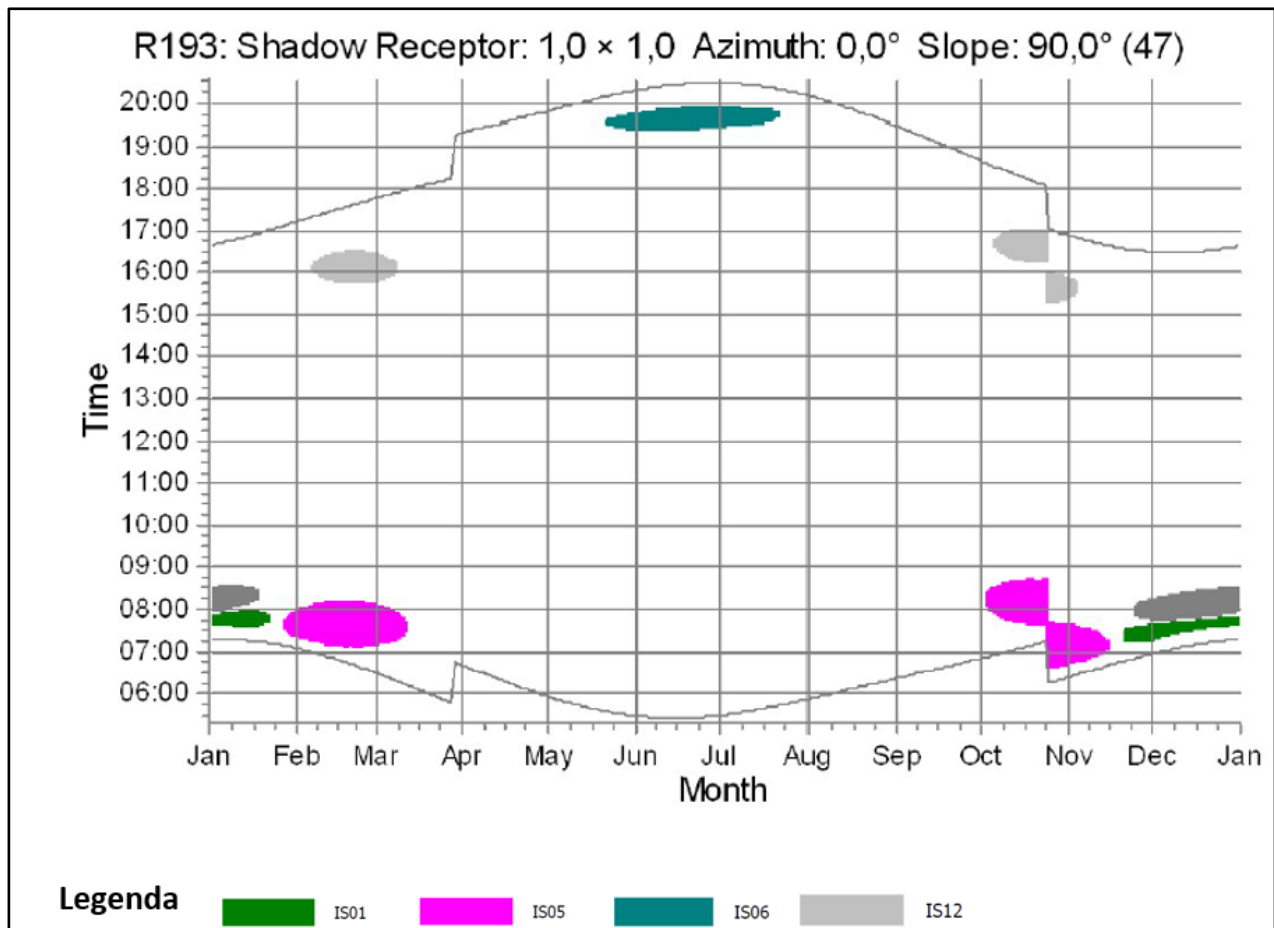


Figura 7.3: Effetto Shadow flickering sul ricevitore R193

La **Figura 7.4** mostra come l'immobile risulti essere schermato dalla presenza di due fabbricati nella direzione degli aerogeneratori IS06 ed IS12, e dalla presenza sia di fabbricati che di vegetazione in direzione degli aerogeneratori IS01 ed IS05.



Figura 7.4: Zoom sul ricettore R193

Pertanto, alla luce di quanto sopra esposto, tale situazione non è da considerarsi nel calcolo sopra riportato e, quindi è possibile ritenere che l'effetto dello shadow flickering sull'immobile di cui sopra, sia molto più attenuato di quello stimato.



Figura 7.5: Localizzazione del ricettore R210 rispetto agli aerogeneratori IS05, IS06, IS07, IS09

Come l'immagine precedentemente riportata evidenzia, l'immobile R210 risulta essere interessate dalla presenza dei seguenti aerogeneratori:

- IS05 posto ad una distanza di circa 1,3 km;
- IS06 posto ad una distanza di circa 0,6 km;
- IS07 posto ad una distanza di circa 1,8 km;
- IS09 posto ad una distanza di circa 0,7 km.

Si riporta a seguire nella **Figura 7.6** il grafico estrapolato dal Report Real Case in allegato, nel quale sono analizzati gli effetti degli aerogeneratori sopra citati sul ricettore R210.

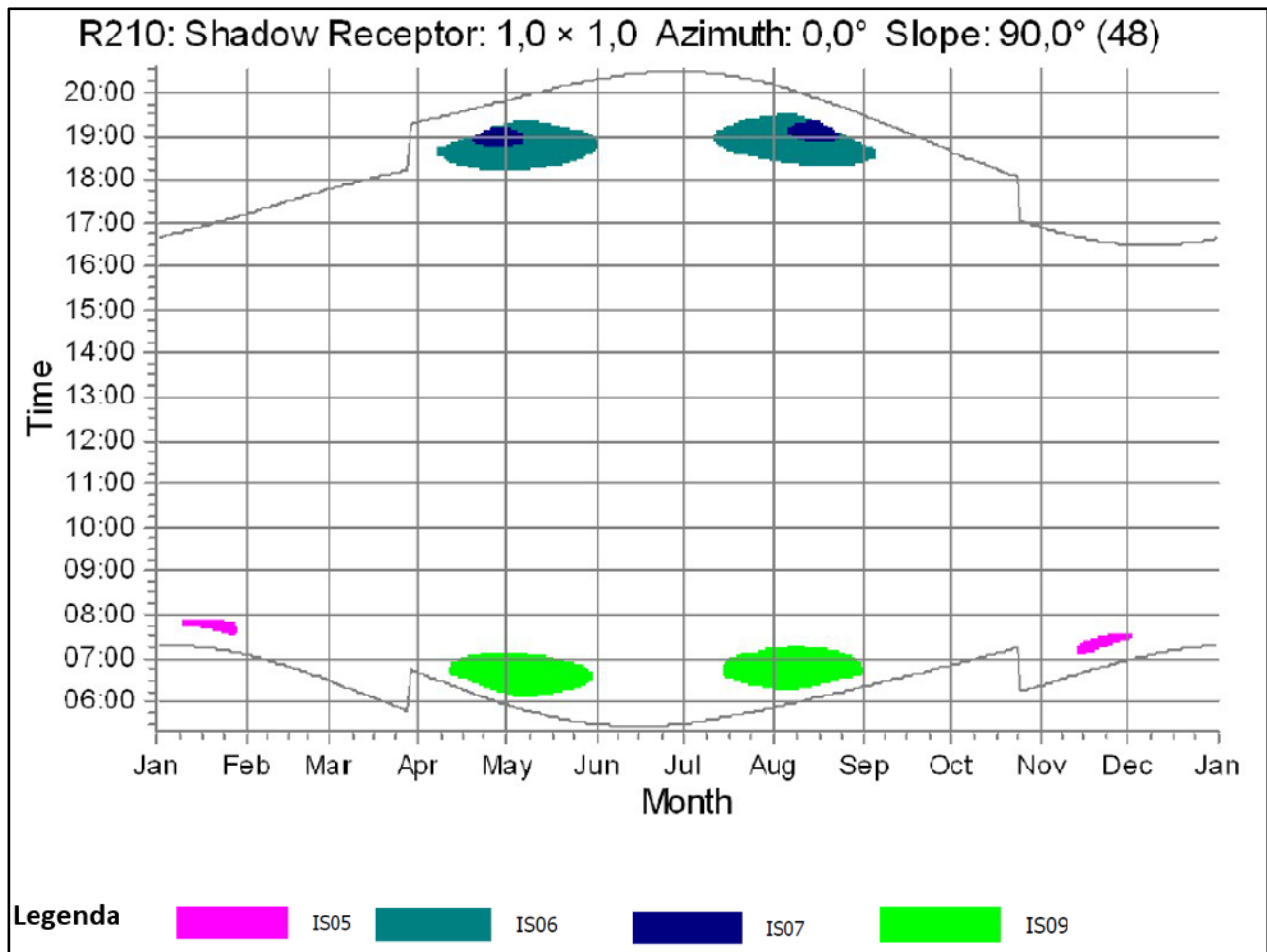


Figura 7.6: Effetto Shadow flickering sul ricevitore 210

La Figura 7.7 mostra come l'immobile risulti essere schermato dalla presenza di un fabbricato nella direzione degli aerogeneratori IS06 ed IS07, e dalla presenza sia di fabbricati che di vegetazione in direzione degli aerogeneratori IS05 ed IS09.



Figura 7.7: Zoom sul ricevitore 210

Pertanto, alla luce di quanto sopra esposto, tale situazione non è da considerarsi nel calcolo sopra riportato e, quindi è possibile ritenere che l'effetto dello shadow flickering sull'immobile di cui sopra, sia molto più attenuato di quello stimato.



Figura 7.8: Localizzazione del ricevitore R223 rispetto agli aerogeneratori IS06, IS07

Come l'immagine precedentemente riportata evidenzia, l'immobile R223 risulta essere interessate dalla presenza dei seguenti aerogeneratori:

- IS06 posto ad una distanza di circa 0,7 km;
- IS07 posto ad una distanza di circa 0,7 km.

Si riporta a seguire nella **Figura 7.9** il grafico estrapolato dal Report Real Case in allegato, nel quale sono analizzati gli effetti degli aerogeneratori sopra citati sul ricettore R223.

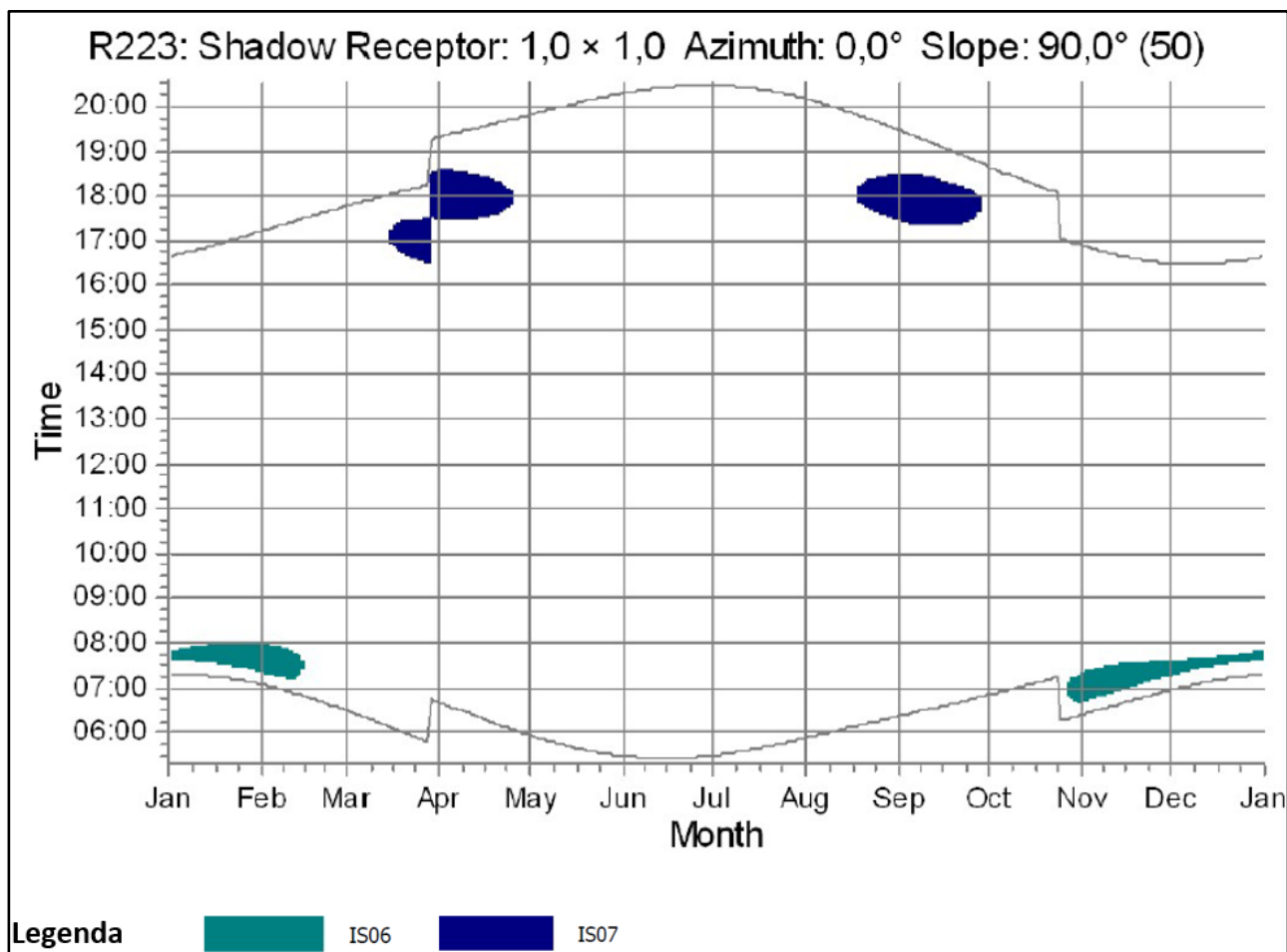


Figura 7.9: Effetto Shadow flickering sul ricettore 223

La **Figura 7.10** mostra come l'immobile risulti essere schermato dalla presenza di due fabbricati nella direzione dell'aerogeneratore IS07, e dalla presenza di vegetazione in direzione dell'aerogeneratore IS06.



Figura 7.10: Zoom sul ricettore R223

Pertanto, alla luce di quanto sopra esposto, tale situazione non è da considerarsi nel calcolo sopra riportato e, quindi è possibile ritenere che l'effetto dello shadow flickering sull'immobile di cui sopra, sia molto più attenuato di quello stimato.

Come già precedentemente esposto, nell'analisi condotta sono state adottate ipotesi molto restrittive, tra le quali quella secondo cui l'impianto sia sempre in funzione durante le ore di sole, il piano del rotore sempre ortogonale alla congiungente tra l'osservatore e il sole e ci sia totale assenza di ostacoli o schermi vegetazionali presenti negli spazi circostanti i possibili ricettori e che potrebbero attenuare il fenomeno.

Nella stima effettuata è stata considerata l'ulteriore ipotesi conservativa secondo la quale i ricettori siano in modalità "green house", ovvero le finestre delle abitazioni attenzionate siano omnidirezionali, situazione non sempre verificata nella realtà.

Nello scenario reale ci si aspetta che il fenomeno, quindi, risulti ulteriormente meno rilevante di quello a cui ha condotto la stima effettuata.

Pertanto, si può ragionevolmente affermare che l'effetto shadow flickering non abbia un impatto negativo sul territorio circostante, in particolare sui fabbricati adibiti a "civile abitazione".

8. **ALLEGATO 1: SHADOW – MAIN RESULT – ELABORAZIONE MEDIANTE IL SOFTWARE
WINDPRO 4.0 – WORST CASE**

9. **ALLEGATO 2: SHADOW – MAIN RESULT – ELABORAZIONE MEDIANTE IL SOFTWARE
WINDPRO 4.0 – EXPECTED VALUES**

SHADOW - Main Result

Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

Minimum sun height over horizon for influence 3 °
Day step for calculation 1 days
Time step for calculation 1 minutes

The calculated times are "worst case" given by the following assumptions:
The sun is shining all the day, from sunrise to sunset
The rotor plane is always perpendicular to the line from the WTG to the sun
The WTG is always operating

A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values.

A WTG will be visible if it is visible from any part of the receiver window.

The ZVI calculation is based on the following assumptions:

Height contours used: Elevation Grid Data Object: WF IS_EMDGrid_0.wpg (5)
Receptor grid resolution: 1,0 m
Topographic shadow included in calculation

All coordinates are in
Geo [deg]-WGS84

WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type			Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.	Type-generator				Calculation distance [m]	RPM [RPM]
			[m]									
IS01	16,473201° E	40,203815° N	196,4	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS02	16,457104° E	40,201167° N	228,8	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS03	16,446350° E	40,190039° N	200,1	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS04	16,464691° E	40,206396° N	223,5	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS05	16,460622° E	40,211307° N	174,9	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS06	16,440596° E	40,218440° N	221,1	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS07	16,426861° E	40,220760° N	358,2	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS08	16,445907° E	40,232138° N	306,2	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS09	16,455405° E	40,219030° N	210,2	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS10	16,436958° E	40,234174° N	322,4	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS11	16,450349° E	40,225866° N	178,3	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS12	16,444896° E	40,209889° N	303,3	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-

Shadow receptor-Input

No.	Longitude	Latitude	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
R110	16,451090° E	40,197116° N	291,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R116	16,450477° E	40,199216° N	267,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R142	16,470757° E	40,212904° N	125,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R158	16,454070° E	40,205353° N	312,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R160	16,454513° E	40,205218° N	319,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R167	16,443602° E	40,201034° N	437,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R180	16,436657° E	40,203848° N	441,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R183	16,436630° E	40,205130° N	414,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R19	16,455408° E	40,191194° N	126,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R193	16,453863° E	40,213556° N	190,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R210	16,447311° E	40,217507° N	244,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R220	16,418232° E	40,218280° N	453,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R223	16,433853° E	40,221225° N	326,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R23	16,455299° E	40,192180° N	129,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R234	16,455475° E	40,236730° N	307,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R236	16,454628° E	40,236663° N	318,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R241	16,450320° E	40,236333° N	355,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R248	16,435683° E	40,239750° N	408,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R25	16,454610° E	40,192567° N	146,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R28	16,457034° E	40,193601° N	126,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0

To be continued on next page...

SHADOW - Main Result

...continued from previous page

No.	Longitude	Latitude	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
R36	16,461036° E	40,193231° N	116,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R51	16,462915° E	40,192390° N	112,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R52	16,463391° E	40,192385° N	113,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R71	16,461020° E	40,195584° N	120,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0

Calculation Results

Shadow receptor

Shadow, worst case

No.	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]
R110	0:03	3	0:01
R116	97:47	122	1:05
R142	48:20	107	0:42
R158	0:00	0	0:00
R160	0:32	18	0:03
R167	0:00	0	0:00
R180	0:00	0	0:00
R183	0:00	0	0:00
R19	28:19	59	0:43
R193	154:01	209	1:42
R210	137:00	145	1:55
R220	30:08	89	0:28
R223	96:14	190	1:00
R23	27:14	58	0:41
R234	23:16	84	0:31
R236	41:53	120	0:37
R241	16:39	60	0:25
R248	0:00	0	0:00
R25	32:50	64	0:43
R28	19:26	51	0:29
R36	5:55	33	0:17
R51	3:50	25	0:13
R52	3:20	23	0:12
R71	9:57	41	0:20

Total amount of flickering on the shadow receptors caused by each WTG

No.	Name	Worst case [h/year]
IS01	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)	13:24
IS02	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (2)	97:22
IS03	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)	79:37
IS04	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)	45:21
IS05	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)	96:50
IS06	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)	129:37
IS07	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)	99:23
IS08	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)	48:31
IS09	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)	58:56
IS10	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)	10:53
IS11	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (11)	0:00
IS12	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)	31:14

Total times in Receptor wise and WTG wise tables can differ, as a WTG can lead to flicker at 2 or more receptors simultaneously and/or receptors may receive flicker from 2 or more WTGs simultaneously.

SHADOW - Calendar

Shadow receptor: R110 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (41)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:30
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:03	06:49 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	07:16 17:01	06:52 16:32	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	05:27 20:28	05:47 20:15	06:17 19:36	06:46 18:45	07:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09	06:30 17:45	05:46 18:15	06:00 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	07:19 16:57	06:55 16:30	07:16 16:36
30	07:06 17:10	06:29 17:46	05:45 18:16	05:59 19:48	05:28 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11	06:28 17:47	05:44 18:17	05:58 19:49	05:27 20:17	05:28 20:28	05:51 20:11	06:20 19:30	06:50 18:40	07:21 16:55	06:57 16:30	07:17 16:37
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Total, worst case					1		2					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R116 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (42)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15 (IS02) 20:17	05:49 (IS02) 64 06:53 (IS02)
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	06:13 (IS02) 20:18	05:48 (IS02) 64 06:52 (IS02)
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12 (IS02) 20:19	05:48 (IS02) 65 06:53 (IS02)
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	06:11 (IS02) 20:20	05:49 (IS02) 64 06:53 (IS02)
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10 (IS02) 20:20	05:49 (IS02) 65 06:54 (IS02)
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	06:09 (IS02) 20:21	05:49 (IS02) 64 06:53 (IS02)
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:08 (IS02) 20:21	05:49 (IS02) 64 06:53 (IS02)
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	06:07 (IS02) 20:22	05:50 (IS02) 64 06:54 (IS02)
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	06:06 (IS02) 20:23	05:50 (IS02) 64 06:54 (IS02)
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	06:05 (IS02) 20:23	05:51 (IS02) 63 06:54 (IS02)
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	06:04 (IS02) 20:24	05:50 (IS02) 63 06:53 (IS02)
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	06:03 (IS02) 20:24	05:50 (IS02) 63 06:53 (IS02)
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	06:02 (IS02) 20:25	05:51 (IS02) 63 06:54 (IS02)
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	06:01 (IS02) 20:25	05:51 (IS02) 63 06:54 (IS02)
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	06:00 (IS02) 20:26	05:51 (IS02) 63 06:54 (IS02)
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:59 (IS02) 20:26	05:51 (IS02) 63 06:54 (IS02)
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:58 (IS02) 20:26	05:52 (IS02) 63 06:55 (IS02)
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:57 (IS02) 20:27	05:53 (IS02) 62 06:55 (IS02)
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:56 (IS02) 20:27	05:53 (IS02) 62 06:55 (IS02)
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:56 (IS02) 20:27	05:53 (IS02) 62 06:55 (IS02)
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:55 (IS02) 20:27	05:53 (IS02) 62 06:55 (IS02)
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:54 (IS02) 20:28	05:53 (IS02) 62 06:55 (IS02)
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:54 (IS02) 20:28	05:54 (IS02) 62 06:56 (IS02)
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:53 (IS02) 20:28	05:54 (IS02) 62 06:56 (IS02)
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:52 (IS02) 20:28	05:53 (IS02) 63 06:56 (IS02)
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:52 (IS02) 20:28	05:54 (IS02) 63 06:57 (IS02)
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:51 (IS02) 20:28	05:54 (IS02) 63 06:57 (IS02)
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:51 (IS02) 20:28	05:54 (IS02) 63 06:57 (IS02)
29	07:07 17:09		06:45 19:15	05:58 19:47	06:17 (IS01) 20:15	05:29 20:28	05:55 (IS02) 63 06:58 (IS02)
30	07:06 17:10		06:44 19:16	05:57 19:48	06:16 (IS02) 20:16	05:29 20:28	05:54 (IS02) 63 06:57 (IS02)
31	07:06 17:11		06:42 19:17		06:38 (IS02) 20:16	05:28 20:28	05:49 (IS02) 64 06:53 (IS02)
Potential sun hours	300	298	370	398	446	449	1894
Total, worst case				82	1530		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R116 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (42)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July		August		September		October		November		December	
1	05:28	05:55 (IS02)	05:52	06:13 (IS02)	06:21	06:50	06:23	06:57				
	20:28	63 06:58 (IS02)	20:10	46 06:59 (IS02)	19:28	18:39	16:53	16:30				
2	05:29	05:55 (IS02)	05:53	06:14 (IS02)	06:22	06:51	06:24	06:58				
	20:28	63 06:58 (IS02)	20:09	45 06:59 (IS02)	19:26	18:37	16:52	16:29				
3	05:29	05:55 (IS02)	05:53	06:15 (IS02)	06:23	06:52	06:25	06:59				
	20:28	64 06:59 (IS02)	20:08	43 06:58 (IS02)	19:25	18:35	16:51	16:29				
4	05:30	05:55 (IS02)	05:54	06:16 (IS02)	06:24	06:53	06:26	07:00				
	20:28	64 06:59 (IS02)	20:07	42 06:58 (IS02)	19:23	18:34	16:50	16:29				
5	05:30	05:55 (IS02)	05:55	06:17 (IS02)	06:25	06:54	06:28	07:01				
	20:28	64 06:59 (IS02)	20:06	40 06:57 (IS02)	19:22	18:32	16:49	16:29				
6	05:31	05:55 (IS02)	05:56	06:18 (IS02)	06:26	06:55	06:29	07:02				
	20:27	64 06:59 (IS02)	20:04	38 06:56 (IS02)	19:20	18:31	16:47	16:29				
7	05:32	05:55 (IS02)	05:57	06:19 (IS02)	06:27	06:56	06:30	07:03				
	20:27	65 07:00 (IS02)	20:03	36 06:55 (IS02)	19:18	18:29	16:46	16:29				
8	05:32	05:55 (IS02)	05:58	06:20 (IS02)	06:28	06:57	06:31	07:04				
	20:27	64 06:59 (IS02)	20:02	34 06:54 (IS02)	19:17	18:27	16:45	16:29				
9	05:33	05:55 (IS02)	05:59	06:21 (IS02)	06:29	06:58	06:32	07:05				
	20:26	65 07:00 (IS02)	20:01	32 06:53 (IS02)	19:15	18:26	16:44	16:29				
10	05:34	05:56 (IS02)	06:00	06:22 (IS02)	06:30	06:59	06:33	07:05				
	20:26	65 07:01 (IS02)	20:00	30 06:52 (IS02)	19:13	18:24	16:43	16:29				
11	05:34	05:56 (IS02)	06:01	06:22 (IS02)	06:31	07:00	06:35	07:06				
	20:26	64 07:00 (IS02)	19:58	27 06:49 (IS02)	19:12	18:23	16:42	16:29				
12	05:35	05:57 (IS02)	06:02	06:23 (IS02)	06:32	07:01	06:36	07:07				
	20:25	64 07:01 (IS02)	19:57	25 06:48 (IS02)	19:10	18:21	16:41	16:29				
13	05:36	05:58 (IS02)	06:03	06:24 (IS02)	06:33	07:02	06:37	07:08				
	20:25	63 07:01 (IS02)	19:56	22 06:46 (IS02)	19:09	18:20	16:40	16:29				
14	05:36	05:59 (IS02)	06:04	06:25 (IS01)	06:34	07:03	06:38	07:09				
	20:24	63 07:02 (IS02)	19:54	18 06:43 (IS02)	19:07	18:18	16:40	16:29				
15	05:37	05:59 (IS02)	06:05	06:26 (IS01)	06:35	07:04	06:39	07:09				
	20:24	62 07:01 (IS02)	19:53	15 06:41 (IS02)	19:05	18:16	16:39	16:30				
16	05:38	06:00 (IS02)	06:06	06:27 (IS01)	06:36	07:05	06:40	07:10				
	20:23	62 07:02 (IS02)	19:52	10 06:37 (IS02)	19:04	18:15	16:38	16:30				
17	05:39	06:01 (IS02)	06:07	06:28 (IS01)	06:36	07:06	06:42	07:11				
	20:23	61 07:02 (IS02)	19:50	4 06:32 (IS01)	19:02	18:13	16:37	16:30				
18	05:39	06:02 (IS02)	06:08	06:29 (IS01)	06:37	07:08	06:43	07:11				
	20:22	60 07:02 (IS02)	19:49	4 06:33 (IS01)	19:00	18:12	16:36	16:30				
19	05:40	06:02 (IS02)	06:09	06:30 (IS01)	06:38	07:09	06:44	07:12				
	20:21	60 07:02 (IS02)	19:48	3 06:33 (IS01)	18:59	18:11	16:36	16:31				
20	05:41	06:03 (IS02)	06:10	06:31 (IS01)	06:39	07:10	06:45	07:13				
	20:21	59 07:02 (IS02)	19:46	2 06:33 (IS01)	18:57	18:09	16:35	16:31				
21	05:42	06:04 (IS02)	06:11	06:32 (IS01)	06:40	07:11	06:46	07:13				
	20:20	58 07:02 (IS02)	19:45	1 06:33 (IS01)	18:55	18:08	16:34	16:32				
22	05:43	06:05 (IS02)	06:12		06:41	07:12	06:47	07:14				
	20:19	57 07:02 (IS02)	19:43		18:54	18:06	16:34	16:32				
23	05:44	06:06 (IS02)	06:13		06:42	07:13	06:48	07:14				
	20:18	56 07:02 (IS02)	19:42		18:52	18:05	16:33	16:33				
24	05:44	06:06 (IS02)	06:14		06:43	07:14	06:49	07:15				
	20:17	55 07:01 (IS02)	19:40		18:50	18:03	16:33	16:33				
25	05:45	06:07 (IS02)	06:15		06:44	06:15	06:51	07:15				
	20:17	55 07:02 (IS02)	19:39		18:49	17:02	16:32	16:34				
26	05:46	06:08 (IS02)	06:16		06:45	06:16	06:52	07:15				
	20:16	54 07:02 (IS02)	19:37		18:47	17:01	16:32	16:34				
27	05:47	06:09 (IS02)	06:16		06:46	06:17	06:53	07:16				
	20:15	52 07:01 (IS02)	19:36		18:45	16:59	16:31	16:35				
28	05:48	06:10 (IS02)	06:17		06:47	06:18	06:54	07:16				
	20:14	51 07:01 (IS02)	19:34		18:44	16:58	16:31	16:36				
29	05:49	06:11 (IS02)	06:18		06:48	06:20	06:55	07:16				
	20:13	50 07:01 (IS02)	19:33		18:42	16:57	16:30	16:36				
30	05:50	06:12 (IS02)	06:19		06:49	06:21	06:56	07:17				
	20:12	49 07:01 (IS02)	19:31		18:40	16:56	16:30	16:37				
31	05:51	06:12 (IS02)	06:20				06:22	07:17				
	20:11	48 07:00 (IS02)	19:30				16:54	16:38				
Potential sun hours	456		426		375		346		300			291
Total, worst case	1844			517								

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R142 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (38)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June			
1	07:17	14:18 (IS04)	07:05	06:30	06:40	05:56	05:28		
	16:39	31 14:49 (IS04)	17:12	17:45	19:18	19:49	20:17		
2	07:17	14:19 (IS04)	07:04	06:28	06:39	05:54	05:27		
	16:40	30 14:49 (IS04)	17:13	17:46	19:19	19:50	20:18		
3	07:17	14:20 (IS04)	07:03	06:27	06:37	05:53	05:27		
	16:40	29 14:49 (IS04)	17:15	17:48	19:20	19:51	20:19		
4	07:17	14:21 (IS04)	07:02	06:25	16:56 (IS05)	06:35	05:52	05:26	
	16:41	28 14:49 (IS04)	17:16	17:49	11 17:07 (IS05)	19:21	19:52	20:19	
5	07:17	14:22 (IS04)	07:01	06:24	16:51 (IS05)	06:34	05:51	05:26	
	16:42	27 14:49 (IS04)	17:17	17:50	17 17:08 (IS05)	19:22	19:53	20:20	
6	07:17	14:23 (IS04)	07:00	06:22	16:49 (IS05)	06:32	05:49	05:26	
	16:43	26 14:49 (IS04)	17:18	17:51	21 17:10 (IS05)	19:23	19:54	20:21	
7	07:17	14:25 (IS04)	06:59	06:21	16:47 (IS05)	06:31	05:48	05:25	
	16:44	23 14:48 (IS04)	17:20	17:52	24 17:11 (IS05)	19:24	19:55	20:21	
8	07:17	14:26 (IS04)	06:57	06:19	16:46 (IS05)	06:29	05:47	05:25	
	16:45	22 14:48 (IS04)	17:21	17:53	28 17:14 (IS05)	19:25	19:56	20:22	
9	07:17	14:28 (IS04)	06:56	06:17	16:44 (IS05)	06:27	05:46	05:25	
	16:46	19 14:47 (IS04)	17:22	17:54	32 17:16 (IS05)	19:26	19:57	20:23	
10	07:17	14:29 (IS04)	06:55	06:16	16:42 (IS05)	06:26	05:45	05:25	
	16:47	17 14:46 (IS04)	17:23	17:55	35 17:17 (IS05)	19:27	19:58	20:23	
11	07:17	14:32 (IS04)	06:54	06:14	16:42 (IS05)	06:24	05:44	05:25	
	16:48	13 14:45 (IS04)	17:24	17:56	37 17:19 (IS05)	19:28	19:59	20:24	
12	07:17	14:36 (IS04)	06:53	06:13	16:41 (IS05)	06:23	05:43	05:25	
	16:49	6 14:42 (IS04)	17:26	17:57	38 17:19 (IS05)	19:29	20:00	20:24	
13	07:16		06:52	06:11	16:41 (IS05)	06:21	05:42	05:25	
	16:50		17:27	17:58	39 17:20 (IS05)	19:30	20:01	20:25	
14	07:16		06:50	06:09	16:40 (IS05)	06:20	05:41	05:24	
	16:51		17:28	17:59	40 17:20 (IS05)	19:31	20:02	20:25	
15	07:16		06:49	06:08	16:39 (IS05)	06:18	05:40	05:24	
	16:52		17:29	18:01	41 17:20 (IS05)	19:32	20:03	20:26	
16	07:15		06:48	06:06	16:39 (IS05)	06:17	05:39	05:24	
	16:53		17:30	18:02	41 17:20 (IS05)	19:33	20:04	20:26	
17	07:15		06:47	06:05	16:38 (IS05)	06:15	05:38	05:25	19:35 (IS09)
	16:55		17:32	18:03	42 17:20 (IS05)	19:34	20:05	20:26	1 19:36 (IS09)
18	07:14		06:45	06:03	16:38 (IS05)	06:14	05:37	05:25	19:36 (IS09)
	16:56		17:33	18:04	41 17:19 (IS05)	19:35	20:06	20:27	1 19:37 (IS09)
19	07:14		06:44	06:01	16:39 (IS05)	06:12	05:36	05:25	19:36 (IS09)
	16:57		17:34	18:05	40 17:19 (IS05)	19:37	20:06	20:27	1 19:37 (IS09)
20	07:13		06:43	06:00	16:38 (IS05)	06:11	05:35	05:25	19:36 (IS09)
	16:58		17:35	18:06	40 17:18 (IS05)	19:38	20:07	20:27	1 19:37 (IS09)
21	07:13		06:41	05:58	16:38 (IS05)	06:09	05:35	05:25	19:36 (IS09)
	16:59		17:36	18:07	39 17:17 (IS05)	19:39	20:08	20:27	1 19:37 (IS09)
22	07:12		06:40	05:57	16:39 (IS05)	06:08	05:34	05:25	19:36 (IS09)
	17:00		17:37	18:08	38 17:17 (IS05)	19:40	20:09	20:28	1 19:37 (IS09)
23	07:12		06:38	05:55	16:40 (IS05)	06:06	05:33	05:25	19:37 (IS09)
	17:01		17:38	18:09	35 17:15 (IS05)	19:41	20:10	20:28	1 19:38 (IS09)
24	07:11		06:37	05:53	16:41 (IS05)	06:05	05:32	05:26	19:37 (IS09)
	17:03		17:40	18:10	34 17:15 (IS05)	19:42	20:11	20:28	1 19:38 (IS09)
25	07:10		06:36	05:52	16:42 (IS05)	06:04	05:32	05:26	19:37 (IS09)
	17:04		17:41	18:11	31 17:13 (IS05)	19:43	20:12	20:28	1 19:38 (IS09)
26	07:10		06:34	05:50	16:42 (IS05)	06:02	05:31	05:26	19:37 (IS09)
	17:05		17:42	18:12	29 17:11 (IS05)	19:44	20:13	20:28	1 19:38 (IS09)
27	07:09		06:33	05:48	16:45 (IS05)	06:01	05:30	05:27	
	17:06		17:43	18:13	24 17:09 (IS05)	19:45	20:13	20:28	
28	07:08		06:31	05:47	16:46 (IS05)	05:59	05:30	05:27	
	17:07		17:44	18:14	20 17:06 (IS05)	19:46	20:14	20:28	
29	07:07			06:45	17:49 (IS05)	05:58	05:29	05:27	
	17:09			19:15	13 18:02 (IS05)	19:47	20:15	20:28	
30	07:06			06:43		05:57	05:29	05:28	
	17:10			19:16		19:48	20:16	20:28	
31	07:05			06:42			05:28		
	17:11			19:17			20:17		
Potential sun hours	300		298	370	398	446	450		10
Total, worst case	271			830					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R142 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (38)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December	
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:20 (IS05) 17:58 (IS05)	06:23 16:53	06:57 14:14 (IS04) 16:30 14:26 (IS04)
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	17:20 (IS05) 17:58 (IS05)	06:24 16:52	06:58 14:12 (IS04) 16:29 14:29 (IS04)
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:21 (IS05) 17:56 (IS05)	06:25 16:51	06:59 14:11 (IS04) 16:29 14:30 (IS04)
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	17:21 (IS05) 17:54 (IS05)	06:26 16:50	07:00 14:10 (IS04) 16:29 14:32 (IS04)
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	17:22 (IS05) 17:52 (IS05)	06:28 16:48	07:01 14:10 (IS04) 16:29 14:33 (IS04)
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	17:23 (IS05) 17:49 (IS05)	06:29 16:47	07:02 14:09 (IS04) 16:29 14:35 (IS04)
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	17:24 (IS05) 17:46 (IS05)	06:30 16:46	07:03 14:09 (IS04) 16:29 14:36 (IS04)
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	17:26 (IS05) 17:44 (IS05)	06:31 16:45	07:04 14:09 (IS04) 16:29 14:37 (IS04)
9	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	17:28 (IS05) 17:42 (IS05)	06:32 16:44	07:05 14:09 (IS04) 16:29 14:38 (IS04)
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	17:33 (IS05) 17:40 (IS05)	06:33 16:43	07:05 14:09 (IS04) 16:29 14:39 (IS04)
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23		06:35 16:42	07:06 14:09 (IS04) 16:29 14:40 (IS04)
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21		06:36 16:41	07:07 14:08 (IS04) 16:29 14:40 (IS04)
13	05:35 20:25	06:03 19:56	06:33 19:08	07:02 18:19		06:37 16:40	07:08 14:09 (IS04) 16:29 14:41 (IS04)
14	05:36 20:24	06:04 19:54	06:34 19:07	17:41 (IS05) 17:52 (IS05)	07:03 18:18	06:38 16:40	07:09 14:09 (IS04) 16:29 14:42 (IS04)
15	05:37 20:24	06:05 19:53	06:34 19:05	17:36 (IS05) 17:55 (IS05)	07:04 18:16	06:39 16:39	07:09 14:09 (IS04) 16:29 14:43 (IS04)
16	05:38 20:23	06:06 19:52	06:35 19:03	17:33 (IS05) 17:57 (IS05)	07:05 18:15	06:40 16:38	07:10 14:09 (IS04) 16:30 14:43 (IS04)
17	05:39 20:22	06:07 19:50	06:36 19:02	17:31 (IS05) 17:58 (IS05)	07:06 18:13	06:41 16:37	07:11 14:10 (IS04) 16:30 14:44 (IS04)
18	05:39 20:22	06:08 19:49	06:37 19:00	17:29 (IS05) 18:00 (IS05)	07:07 18:12	06:43 16:36	07:11 14:09 (IS04) 16:30 14:44 (IS04)
19	05:40 20:21	06:09 19:47	06:38 18:58	17:28 (IS05) 18:01 (IS05)	07:09 18:10	06:44 16:36	07:12 14:10 (IS04) 16:31 14:45 (IS04)
20	05:41 20:20	06:10 19:46	06:39 18:57	17:26 (IS05) 18:01 (IS05)	07:10 18:09	06:45 16:35	07:13 14:11 (IS04) 16:31 14:46 (IS04)
21	05:42 20:20	06:11 19:45	06:40 18:55	17:25 (IS05) 18:02 (IS05)	07:11 18:08	06:46 16:34	07:13 14:11 (IS04) 16:32 14:46 (IS04)
22	05:43 20:19	06:12 19:43	06:41 18:53	17:24 (IS05) 18:02 (IS05)	07:12 18:06	06:47 16:34	07:14 14:12 (IS04) 16:32 14:47 (IS04)
23	05:43 20:18	06:13 19:42	06:42 18:52	17:23 (IS05) 18:02 (IS05)	07:13 18:05	06:48 16:33	07:14 14:12 (IS04) 16:33 14:47 (IS04)
24	05:44 20:17	06:13 19:40	06:43 18:50	17:22 (IS05) 18:02 (IS05)	07:14 18:03	06:49 16:32	07:15 14:12 (IS04) 16:33 14:47 (IS04)
25	05:45 20:17	06:14 19:39	06:44 18:48	17:21 (IS05) 18:02 (IS05)	06:15 17:02	06:51 16:32	07:15 14:13 (IS04) 16:34 14:48 (IS04)
26	05:46 20:16	06:15 19:37	06:45 18:47	17:21 (IS05) 18:02 (IS05)	06:16 17:01	06:52 16:31	07:15 14:14 (IS04) 16:34 14:48 (IS04)
27	05:47 20:15	06:16 19:36	06:46 18:45	17:21 (IS05) 18:02 (IS05)	06:17 16:59	06:53 16:31	07:16 14:14 (IS04) 16:35 14:48 (IS04)
28	05:48 20:14	06:17 19:34	06:47 18:43	17:20 (IS05) 18:01 (IS05)	06:18 16:58	06:54 16:31	07:16 14:15 (IS04) 16:36 14:49 (IS04)
29	05:49 20:13	06:18 19:33	06:48 18:42	17:20 (IS05) 18:01 (IS05)	06:20 16:57	06:55 16:30	07:16 14:16 (IS04) 16:36 14:49 (IS04)
30	05:50 20:12	06:19 19:31	06:49 18:40	17:20 (IS05) 18:00 (IS05)	06:21 16:56	06:56 16:30	14:17 (IS04) 07:17 14:16 (IS04) 16:37 14:49 (IS04)
31	05:51 20:11	06:20 19:30		06:22 16:54		6 14:23 (IS04)	07:17 14:17 (IS04) 16:38 14:49 (IS04)
Potential sun hours	456	426	375	346	300	290	
Total, worst case			579	261	6	943	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R158 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (43)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:07 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:03	06:49 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	07:16 17:01	06:52 16:32	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	07:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:28	05:49 20:13	06:18 19:33	06:48 18:42	07:19 16:57	06:55 16:30	07:16 16:36
30	07:06 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R160 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (44)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	06:57 (IS04) 06:58 (IS04)	05:41 20:02	05:25 20:25	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	06:56 (IS04) 06:57 (IS04)	05:40 20:03	05:25 20:26	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	06:54 (IS04) 06:56 (IS04)	05:39 20:04	05:25 20:26	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	06:53 (IS04) 06:55 (IS04)	05:38 20:05	05:25 20:26	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	06:51 (IS04) 06:54 (IS04)	05:37 20:06	05:25 20:27	06:08 19:49	06:37 19:00	07:07 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	06:50 (IS04) 06:53 (IS04)	05:36 20:07	05:25 20:27	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	06:49 (IS04) 06:51 (IS04)	05:35 20:07	05:25 20:27	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	06:48 (IS04) 06:49 (IS04)	05:35 20:08	05:25 20:27	06:11 19:45	06:52 (IS04) 06:53 (IS04)	07:11 18:55	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	06:46 (IS04) 06:47 (IS04)	05:34 20:09	05:25 20:28	06:12 19:43	06:53 (IS04) 06:54 (IS04)	07:12 18:53	06:47 16:34	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:54 (IS04) 06:56 (IS04)	07:13 18:52	06:48 16:33	07:14 16:33
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25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:54 (IS04) 06:57 (IS04)	07:15 18:49	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:55 (IS04) 06:57 (IS04)	07:16 18:47	06:52 16:32	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:56 (IS04) 06:58 (IS04)	07:17 18:45	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:57 (IS04) 06:58 (IS04)	07:18 18:44	06:54 16:31	07:16 16:36
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31	07:06 17:11	06:30 17:47	05:46 18:17	05:57 19:49	05:29 20:17	05:28 20:29	05:51 20:11	06:20 19:30	06:50 18:41	07:21 16:57	06:57 16:31	07:18 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case				16				16				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R167 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (58)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:30
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:54 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:42	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
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16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
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31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Total, worst case												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R180 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (45)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
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3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:54 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
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31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R183 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (46)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
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6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:22	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:28 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:14	06:59 18:24	06:33 16:43	07:06 16:29
11	07:17 16:48	06:54 17:25	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:41	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:53	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	06:39 16:39	07:09 16:30
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:37 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:36 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:04	06:50 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	07:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:17 19:36	06:46 18:45	07:17 17:00	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	07:19 16:57	06:55 16:30	07:17 16:36
30	07:06 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R19 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (29)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	17:31 (IS03) 18:11 (IS03)	05:56 19:49	05:28 20:17	05:52 20:10	06:21 19:28	06:50 18:39	17:26 (IS03) 17:32 (IS03)	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	17:32 (IS03) 18:11 (IS03)	05:54 19:50	05:27 20:18	05:53 20:09	06:22 19:26	06:51 18:37	17:30 (IS03) 17:31 (IS03)	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	17:32 (IS03) 18:09 (IS03)	05:53 19:51	05:27 20:19	05:53 20:08	06:23 19:25	17:42 (IS03) 17:54 (IS03)	06:52 18:35	06:25 16:51	06:59 16:29
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	17:34 (IS03) 18:08 (IS03)	05:52 19:52	05:27 20:19	05:54 20:07	06:24 19:23	17:37 (IS03) 17:56 (IS03)	06:53 18:34	06:26 16:50	07:00 16:29
5	07:17 16:42	07:01 17:17	06:24 17:50	06:34 19:22	17:34 (IS03) 18:06 (IS03)	05:51 19:53	05:26 20:20	05:55 20:06	06:25 19:22	17:34 (IS03) 17:58 (IS03)	06:54 18:32	06:28 16:49	07:01 16:29
6	07:17 16:43	07:00 17:18	06:22 17:51	06:32 19:23	17:35 (IS03) 18:04 (IS03)	05:50 19:54	05:26 20:21	05:56 20:04	06:26 19:20	17:32 (IS03) 18:00 (IS03)	06:55 18:31	06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	17:38 (IS03) 18:02 (IS03)	05:48 19:55	05:26 20:21	05:57 20:03	06:27 19:18	17:30 (IS03) 18:01 (IS03)	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:57 17:21	06:19 17:53	06:29 19:25	17:40 (IS03) 17:59 (IS03)	05:47 19:56	05:25 20:22	05:58 20:02	06:28 19:17	17:28 (IS03) 18:02 (IS03)	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	17:44 (IS03) 17:56 (IS03)	05:46 19:57	05:25 20:23	05:59 20:01	06:29 19:15	17:26 (IS03) 18:03 (IS03)	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:24	05:34 20:26	06:00 20:00	06:30 19:13	17:25 (IS03) 18:04 (IS03)	06:59 18:24	06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	17:24 (IS03) 18:04 (IS03)	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 16:52 (IS03)	05:25 19:29	05:35 20:25	06:02 19:57	06:32 19:10	17:23 (IS03) 18:05 (IS03)	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	16:45 (IS03) 16:54 (IS03)	06:21 19:30	05:42 20:01	06:03 19:56	06:33 19:08	17:22 (IS03) 18:05 (IS03)	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	16:42 (IS03) 16:55 (IS03)	06:20 19:31	05:41 20:02	06:04 19:54	06:34 19:07	17:21 (IS03) 18:03 (IS03)	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	16:40 (IS03) 16:56 (IS03)	06:18 19:32	05:40 20:03	06:05 19:53	06:35 19:05	17:20 (IS03) 18:01 (IS03)	07:04 18:16	06:39 16:39	07:09 16:30
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:33	16:39 (IS03) 16:58 (IS03)	06:17 19:33	05:39 20:04	06:06 19:52	06:36 19:03	17:19 (IS03) 17:59 (IS03)	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	16:37 (IS03) 16:59 (IS03)	06:15 19:35	05:38 20:05	06:07 19:50	06:36 19:02	17:18 (IS03) 17:56 (IS03)	07:06 18:13	06:41 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	16:35 (IS03) 17:00 (IS03)	06:14 19:36	05:37 20:06	06:08 19:49	06:37 19:00	17:18 (IS03) 17:54 (IS03)	07:07 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	16:35 (IS03) 17:02 (IS03)	06:12 19:37	05:36 20:06	06:09 19:48	06:38 18:58	17:17 (IS03) 17:53 (IS03)	07:09 18:11	06:44 16:36	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	16:33 (IS03) 17:02 (IS03)	06:11 19:38	05:35 20:07	06:10 19:46	06:39 18:57	17:17 (IS03) 17:51 (IS03)	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	16:33 (IS03) 17:04 (IS03)	06:09 19:39	05:35 20:08	06:11 19:45	06:40 18:55	17:17 (IS03) 17:50 (IS03)	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	16:32 (IS03) 17:04 (IS03)	06:08 19:40	05:34 20:09	06:12 19:43	06:41 18:53	17:17 (IS03) 17:49 (IS03)	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	16:31 (IS03) 17:04 (IS03)	06:06 19:41	05:33 20:10	06:13 19:42	06:42 18:52	17:17 (IS03) 17:47 (IS03)	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	16:31 (IS03) 17:06 (IS03)	06:05 19:42	05:32 20:11	06:14 19:40	06:43 18:50	17:18 (IS03) 17:45 (IS03)	07:14 18:03	06:49 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	16:30 (IS03) 17:06 (IS03)	06:04 19:43	05:32 20:12	06:15 19:39	06:44 18:49	17:18 (IS03) 17:44 (IS03)	06:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	16:30 (IS03) 17:07 (IS03)	06:02 19:44	05:31 20:13	06:16 19:37	06:45 18:47	17:19 (IS03) 17:42 (IS03)	06:16 17:01	06:52 16:32	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	16:30 (IS03) 17:10 (IS03)	06:01 19:45	05:30 20:13	06:16 19:36	06:46 18:45	17:20 (IS03) 17:40 (IS03)	06:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	16:30 (IS03) 17:11 (IS03)	06:00 19:46	05:30 20:14	06:17 19:34	06:47 18:44	17:21 (IS03) 17:39 (IS03)	06:18 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09	06:30 17:45	05:46 18:15	05:58 19:47	17:30 (IS03) 18:12 (IS03)	05:58 19:47	05:29 20:15	06:18 19:33	06:48 18:42	17:22 (IS03) 17:37 (IS03)	06:20 16:57	06:55 16:30	07:16 16:36
30	07:06 17:10	06:29 17:46	05:45 18:16	05:57 19:48	17:31 (IS03) 18:14 (IS03)	05:57 19:48	05:29 20:16	06:19 19:31	06:49 18:40	17:24 (IS03) 17:34 (IS03)	06:21 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11	06:28 17:47	05:44 18:17	05:56 19:49	17:31 (IS03) 18:13 (IS03)	05:56 19:49	05:28 20:17	06:20 19:30	06:50 18:40	17:24 (IS03) 17:54 (IS03)	06:22 16:54	06:57 16:30	07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291	
Total, worst case			576	266					850	7			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker (WTG causing flicker first time)	Last time (hh:mm) with flicker (WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R193 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (47)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June				
1	07:17 16:39	07:39 (IS01) 08:30 (IS04)	07:05 17:12	07:24 (IS05) 17:45	06:30 17:45	07:12 (IS05) 16:25 (IS12)	06:40 19:18	05:56 19:49	05:28 20:17	19:24 (IS06) 19:43 (IS06)
2	07:17 16:40	07:39 (IS01) 08:30 (IS04)	07:04 17:14	07:23 (IS05) 17:46	06:28 17:46	07:13 (IS05) 16:23 (IS12)	06:39 19:19	05:54 19:50	05:27 20:18	19:23 (IS06) 19:43 (IS06)
3	07:17 16:41	07:39 (IS01) 08:30 (IS04)	07:03 17:15	07:22 (IS05) 17:48	06:27 17:48	07:13 (IS05) 16:21 (IS12)	06:37 19:20	05:53 19:51	05:27 20:19	19:23 (IS06) 19:44 (IS06)
4	07:18 16:41	07:39 (IS01) 08:30 (IS04)	07:02 17:16	07:21 (IS05) 17:49	06:25 17:49	07:14 (IS05) 16:20 (IS12)	06:35 19:21	05:52 19:52	05:26 20:20	19:24 (IS06) 19:45 (IS06)
5	07:18 16:42	07:39 (IS01) 08:31 (IS04)	07:01 17:17	07:20 (IS05) 17:50	06:24 17:50	07:15 (IS05) 16:18 (IS12)	06:34 19:22	05:51 19:53	05:26 20:20	19:23 (IS06) 19:45 (IS06)
6	07:18 16:43	07:39 (IS01) 08:31 (IS04)	07:00 17:18	07:19 (IS05) 17:51	06:22 17:51	07:17 (IS05) 16:16 (IS12)	06:32 19:23	05:49 19:54	05:26 20:21	19:23 (IS06) 19:46 (IS06)
7	07:18 16:44	07:39 (IS01) 08:31 (IS04)	06:59 17:20	07:18 (IS05) 17:52	06:21 17:52	07:18 (IS05) 16:12 (IS12)	06:31 19:24	05:48 19:55	05:26 20:21	19:23 (IS06) 19:47 (IS06)
8	07:17 16:45	07:39 (IS01) 08:31 (IS04)	06:58 17:21	07:17 (IS05) 17:53	06:19 17:53	07:20 (IS05) 16:14 (IS12)	06:29 19:25	05:47 19:56	05:25 20:22	19:24 (IS06) 19:47 (IS06)
9	07:17 16:46	07:39 (IS01) 08:31 (IS04)	06:56 17:22	07:16 (IS05) 17:54	06:18 17:54	07:22 (IS05) 16:17 (IS12)	06:27 19:26	05:46 19:57	05:25 20:23	19:24 (IS06) 19:48 (IS06)
10	07:17 16:47	07:38 (IS01) 08:30 (IS04)	06:55 17:23	07:15 (IS05) 17:55	06:16 17:55	07:25 (IS05) 16:20 (IS12)	06:26 19:27	05:45 19:58	05:25 20:23	19:24 (IS06) 19:49 (IS06)
11	07:17 16:48	07:38 (IS01) 08:31 (IS04)	06:54 17:24	07:13 (IS05) 17:56	06:14 17:56	07:32 (IS05) 16:21 (IS12)	06:24 19:28	05:44 19:59	05:25 20:24	19:23 (IS06) 19:48 (IS06)
12	07:17 16:49	07:38 (IS01) 08:31 (IS04)	06:53 17:26	07:12 (IS05) 17:57	06:13 17:57	07:32 (IS05) 16:22 (IS12)	06:23 19:29	05:43 20:00	05:25 20:24	19:23 (IS06) 19:49 (IS06)
13	07:16 16:50	07:37 (IS01) 08:29 (IS04)	06:52 17:27	07:11 (IS05) 17:58	06:11 17:58	07:32 (IS05) 16:24 (IS12)	06:21 19:30	05:42 20:01	05:25 20:25	19:24 (IS06) 19:49 (IS06)
14	07:16 16:51	07:37 (IS01) 08:29 (IS04)	06:50 17:28	07:11 (IS05) 18:00	06:10 18:00	07:32 (IS05) 16:25 (IS12)	06:20 19:31	05:41 20:02	05:25 20:25	19:24 (IS06) 19:50 (IS06)
15	07:16 16:52	07:37 (IS01) 08:29 (IS04)	06:49 17:29	07:10 (IS05) 18:01	06:08 18:01	07:32 (IS05) 16:25 (IS12)	06:18 19:32	05:40 20:03	05:25 20:26	19:24 (IS06) 19:50 (IS06)
16	07:15 16:54	07:37 (IS01) 08:27 (IS04)	06:48 17:30	07:10 (IS05) 18:02	06:06 18:02	07:32 (IS05) 16:26 (IS12)	06:17 19:34	05:39 20:04	05:25 20:26	19:24 (IS06) 19:51 (IS06)
17	07:15 16:55	07:38 (IS01) 08:26 (IS04)	06:47 17:32	07:10 (IS05) 18:03	06:05 18:03	07:32 (IS05) 16:27 (IS12)	06:15 19:35	05:38 20:05	05:25 20:26	19:24 (IS06) 19:51 (IS06)
18	07:15 16:56	07:39 (IS01) 07:54 (IS01)	06:45 17:33	07:09 (IS05) 18:04	06:03 18:04	07:32 (IS05) 16:27 (IS12)	06:14 19:36	05:37 20:06	05:25 20:27	19:25 (IS06) 19:52 (IS06)
19	07:14 16:57	07:41 (IS01) 07:54 (IS01)	06:44 17:34	07:10 (IS05) 18:05	06:01 18:05	07:32 (IS05) 16:28 (IS12)	06:12 19:37	05:36 20:07	05:25 20:27	19:25 (IS06) 19:52 (IS06)
20	07:13 16:58	07:42 (IS01) 07:53 (IS01)	06:43 17:35	07:10 (IS05) 18:06	06:00 18:06	07:32 (IS05) 16:28 (IS12)	06:11 19:38	05:35 20:07	05:25 20:27	19:25 (IS06) 19:52 (IS06)
21	07:13 16:59	07:43 (IS01) 07:51 (IS01)	06:41 17:36	07:09 (IS05) 18:07	05:58 18:07	07:32 (IS05) 16:28 (IS12)	06:09 19:39	05:35 20:08	05:25 20:27	19:25 (IS06) 19:52 (IS06)
22	07:12 17:00	06:40 17:37	06:40 17:37	07:10 (IS05) 18:08	05:57 18:08	07:32 (IS05) 16:28 (IS12)	06:08 19:40	05:34 20:09	19:33 (IS06) 20:28	05:25 19:25 (IS06)
23	07:12 17:02	06:39 17:39	06:39 17:39	07:09 (IS05) 18:09	05:55 18:09	07:32 (IS05) 16:27 (IS12)	06:06 19:41	05:33 20:10	19:35 (IS06) 20:28	05:25 19:26 (IS06)
24	07:11 17:03	06:37 17:40	06:37 17:40	07:10 (IS05) 18:10	05:53 18:10	07:32 (IS05) 16:28 (IS12)	06:05 19:42	05:32 20:11	19:37 (IS06) 20:28	05:26 19:26 (IS06)
25	07:10 17:04	06:36 17:41	06:36 17:41	07:10 (IS05) 18:11	05:52 18:11	07:32 (IS05) 16:27 (IS12)	06:04 19:43	05:32 20:12	19:38 (IS06) 20:28	05:26 19:26 (IS06)
26	07:10 17:05	06:34 17:42	06:34 17:42	07:10 (IS05) 18:12	05:50 18:12	07:32 (IS05) 16:27 (IS12)	06:02 19:44	05:31 20:13	19:37 (IS06) 20:28	05:26 19:27 (IS06)
27	07:09 17:06	06:33 17:43	06:33 17:43	07:11 (IS05) 18:13	05:48 18:13	07:32 (IS05) 16:26 (IS12)	06:01 19:45	05:30 20:14	19:26 (IS06) 20:28	05:27 19:27 (IS06)
28	07:08 17:07	07:33 (IS05) 07:43 (IS05)	06:31 17:44	07:11 (IS05) 18:14	05:47 18:14	07:32 (IS05) 16:25 (IS12)	06:00 19:46	05:30 20:14	19:26 (IS06) 20:28	05:27 19:27 (IS06)
29	07:07 17:09	07:29 (IS05) 07:47 (IS05)	06:29 17:45	07:11 (IS05) 18:15	05:45 18:15	07:32 (IS05) 16:25 (IS12)	05:58 19:47	05:29 20:15	19:25 (IS06) 20:28	05:27 19:28 (IS06)
30	07:06 17:10	07:26 (IS05) 07:50 (IS05)	06:26 17:46	07:11 (IS05) 18:16	05:44 18:16	07:32 (IS05) 16:25 (IS12)	05:57 19:48	05:29 20:16	19:25 (IS06) 20:28	05:28 19:28 (IS06)
31	07:06 17:11	07:25 (IS05) 07:53 (IS05)	06:25 17:47	07:11 (IS05) 18:17	05:44 18:17	07:32 (IS05) 16:25 (IS12)	05:57 19:48	05:29 20:17	19:25 (IS06) 20:28	05:28 19:28 (IS06)
Potential sun hours	300	298	298	370	582	398	446	120	450	750
Total, worst case	792	2211	370	582	398	446	120	450	750	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R193 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (47)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December							
1	05:28	19:28 (IS06)	05:52	06:21	06:50	06:23	06:44 (IS05)	06:57	07:20 (IS01)				
	20:28	26 19:54 (IS06)	20:10	19:28	18:39	16:53	75 15:48 (IS12)	16:30	41 08:13 (IS04)				
2	05:29	19:28 (IS06)	05:53	06:22	06:51	06:24	06:46 (IS05)	06:58	07:21 (IS01)				
	20:28	25 19:53 (IS06)	20:09	19:26	18:37	16:52	70 15:47 (IS12)	16:29	41 08:13 (IS04)				
3	05:29	19:29 (IS06)	05:53	06:23	06:52	08:06 (IS05)	06:25	06:47 (IS05)	06:59	07:22 (IS01)			
	20:28	24 19:53 (IS06)	20:08	19:25	18:35	15	08:21 (IS05)	16:51	62 15:44 (IS12)	16:29	41 08:14 (IS04)		
4	05:30	19:29 (IS06)	05:54	06:24	06:53	06:26	08:01 (IS05)	06:26	06:48 (IS05)	07:00	07:23 (IS01)		
	20:28	24 19:53 (IS06)	20:07	19:23	18:34	24	08:25 (IS05)	16:50	45 07:33 (IS05)	16:29	41 08:15 (IS04)		
5	05:30	19:30 (IS06)	05:55	06:25	06:54	07:58 (IS05)	06:28	06:49 (IS05)	07:01	07:24 (IS01)			
	20:28	23 19:53 (IS06)	20:06	19:22	18:32	30	08:28 (IS05)	16:48	43 07:32 (IS05)	16:29	42 08:16 (IS04)		
6	05:31	19:29 (IS06)	05:56	06:26	06:55	07:56 (IS05)	06:29	06:50 (IS05)	07:02	07:25 (IS01)			
	20:27	23 19:52 (IS06)	20:04	19:20	18:31	39	16:45 (IS12)	16:47	41 07:31 (IS05)	16:29	42 08:17 (IS04)		
7	05:32	19:30 (IS06)	05:57	06:27	06:56	07:53 (IS05)	06:30	06:52 (IS05)	07:03	07:26 (IS01)			
	20:27	22 19:52 (IS06)	20:03	19:18	18:29	54	16:50 (IS12)	16:46	39 07:31 (IS05)	16:29	42 08:18 (IS04)		
8	05:32	19:30 (IS06)	05:58	06:28	06:57	07:51 (IS05)	06:31	06:53 (IS05)	07:04	07:27 (IS01)			
	20:27	21 19:51 (IS06)	20:02	19:17	18:27	63	16:52 (IS12)	16:45	36 07:29 (IS05)	16:29	42 08:18 (IS04)		
9	05:33	19:31 (IS06)	05:59	06:29	06:58	07:50 (IS05)	06:32	06:54 (IS05)	07:05	07:28 (IS01)			
	20:26	20 19:51 (IS06)	20:01	19:15	18:26	70	16:54 (IS12)	16:44	33 07:27 (IS05)	16:29	41 08:19 (IS04)		
10	05:33	19:31 (IS06)	06:00	06:30	06:59	07:48 (IS05)	06:33	06:55 (IS05)	07:05	07:29 (IS01)			
	20:26	20 19:51 (IS06)	20:00	19:13	18:24	76	16:55 (IS12)	16:43	31 07:26 (IS05)	16:29	42 08:20 (IS04)		
11	05:34	19:31 (IS06)	06:01	06:31	07:00	07:47 (IS05)	06:35	06:57 (IS05)	07:06	07:30 (IS01)			
	20:26	19 19:50 (IS06)	19:58	19:12	18:23	81	16:56 (IS12)	16:42	28 07:25 (IS05)	16:29	41 08:21 (IS04)		
12	05:35	19:32 (IS06)	06:02	06:32	07:01	07:46 (IS05)	06:36	06:58 (IS05)	07:07	07:30 (IS01)			
	20:25	18 19:50 (IS06)	19:57	19:10	18:21	85	16:57 (IS12)	16:41	24 07:22 (IS05)	16:29	41 08:20 (IS04)		
13	05:36	19:33 (IS06)	06:03	06:33	07:02	07:44 (IS05)	06:37	07:01 (IS05)	07:08	07:31 (IS01)			
	20:25	17 19:50 (IS06)	19:56	19:08	18:19	90	16:58 (IS12)	16:40	18 07:19 (IS05)	16:29	40 08:21 (IS04)		
14	05:36	19:33 (IS06)	06:04	06:34	07:03	07:43 (IS05)	06:38	07:05 (IS05)	07:09	07:32 (IS01)			
	20:24	16 19:49 (IS06)	19:54	19:07	18:18	93	16:58 (IS12)	16:40	9 07:14 (IS05)	16:29	41 08:22 (IS04)		
15	05:37	19:34 (IS06)	06:05	06:35	07:04	07:43 (IS05)	06:39	07:09	07:09	07:33 (IS01)			
	20:24	15 19:49 (IS06)	19:53	19:05	18:16	94	16:58 (IS12)	16:39	16:29	40 08:23 (IS04)			
16	05:38	19:35 (IS06)	06:06	06:36	07:05	07:43 (IS05)	06:40	07:10	07:10	07:33 (IS01)			
	20:23	14 19:49 (IS06)	19:52	19:04	18:15	96	16:59 (IS12)	16:38	16:30	40 08:23 (IS04)			
17	05:39	19:36 (IS06)	06:07	06:36	07:06	07:42 (IS05)	06:42	07:11	07:11	07:34 (IS01)			
	20:23	13 19:49 (IS06)	19:50	19:02	18:13	98	16:59 (IS12)	16:37	16:30	41 08:24 (IS04)			
18	05:39	19:36 (IS06)	06:08	06:37	07:08	07:41 (IS05)	06:43	07:11	07:11	07:35 (IS01)			
	20:22	12 19:48 (IS06)	19:49	19:00	18:12	100	16:59 (IS12)	16:36	16:30	39 08:24 (IS04)			
19	05:40	19:38 (IS06)	06:09	06:38	07:09	07:41 (IS05)	06:44	07:12	07:12	07:35 (IS01)			
	20:21	10 19:48 (IS06)	19:48	18:59	18:11	101	16:59 (IS12)	16:36	16:31	39 08:24 (IS04)			
20	05:41	19:39 (IS06)	06:10	06:39	07:10	07:40 (IS05)	06:45	07:13	07:13	07:36 (IS01)			
	20:21	8 19:47 (IS06)	19:46	18:57	18:09	101	16:59 (IS12)	16:35	16:31	39 08:25 (IS04)			
21	05:42	19:42 (IS06)	06:11	06:40	07:11	07:40 (IS05)	06:46	07:19 (IS01)	07:13	07:36 (IS01)			
	20:20	4 19:46 (IS06)	19:45	18:55	18:08	100	16:58 (IS12)	16:34	8 07:27 (IS01)	16:32	39 08:25 (IS04)		
22	05:43		06:12	06:41	07:12	07:40 (IS05)	06:47	07:18 (IS01)	07:14	07:37 (IS01)			
	20:19		19:43	18:54	18:06	101	16:58 (IS12)	16:34	11 07:29 (IS01)	16:32	39 08:26 (IS04)		
23	05:43		06:13	06:42	07:13	07:40 (IS05)	06:48	07:17 (IS01)	07:14	07:37 (IS01)			
	20:18		19:42	18:52	18:05	101	16:58 (IS12)	16:33	13 07:30 (IS01)	16:33	39 08:26 (IS04)		
24	05:44		06:14	06:43	07:14	07:40 (IS05)	06:49	07:16 (IS01)	07:15	07:37 (IS01)			
	20:17		19:40	18:50	18:03	100	16:57 (IS12)	16:33	15 07:31 (IS01)	16:33	39 08:26 (IS04)		
25	05:45		06:15	06:44	06:15	06:40 (IS05)	06:51	07:16 (IS01)	07:15	07:38 (IS01)			
	20:17		19:39	18:49	17:02	98	15:57 (IS12)	16:32	27 08:04 (IS04)	16:34	39 08:27 (IS04)		
26	05:46		06:15	06:45	06:16	06:40 (IS05)	06:52	07:16 (IS01)	07:16	07:38 (IS01)			
	20:16		19:37	18:47	17:01	97	15:56 (IS12)	16:32	32 08:06 (IS04)	16:34	40 08:27 (IS04)		
27	05:47		06:16	06:46	06:17	06:40 (IS05)	06:53	07:16 (IS01)	07:16	07:38 (IS01)			
	20:15		19:36	18:45	16:59	95	15:55 (IS12)	16:31	35 08:08 (IS04)	16:35	40 08:28 (IS04)		
28	05:48		06:17	06:47	06:19	06:40 (IS05)	06:54	07:17 (IS01)	07:16	07:39 (IS01)			
	20:14		19:34	18:44	16:58	93	15:54 (IS12)	16:31	37 08:09 (IS04)	16:36	40 08:29 (IS04)		
29	05:49		06:18	06:48	06:20	06:41 (IS05)	06:55	07:18 (IS01)	07:17	07:39 (IS01)			
	20:13		19:33	18:42	16:57	89	15:53 (IS12)	16:30	38 08:10 (IS04)	16:36	41 08:29 (IS04)		
30	05:50		06:19	06:49	06:21	06:42 (IS05)	06:56	07:19 (IS01)	07:17	07:39 (IS01)			
	20:12		19:31	18:40	16:56	86	15:52 (IS12)	16:30	40 08:12 (IS04)	16:37	40 08:29 (IS04)		
31	05:51		06:20	06:22	06:22	06:43 (IS05)		07:17	07:17	07:39 (IS01)			
	20:11		19:30		16:54	80	15:50 (IS12)		16:38	40 08:29 (IS04)			
Potential sun hours	456		426		375		346		300		290		1252
Total, worst case		374				2350			810				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R210 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (48)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June		
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15 (IS09) 19:13 (IS06)	05:28 20:17	
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	06:13 (IS09) 19:13 (IS06)	05:27 20:18	
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12 (IS09) 19:14 (IS06)	05:27 20:19	
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	06:11 (IS09) 19:16 (IS06)	05:27 20:20	
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10 (IS09) 19:17 (IS06)	05:26 20:20	
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	06:10 (IS09) 19:18 (IS06)	05:26 20:21	
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:10 (IS09) 19:18 (IS06)	05:26 20:22	
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	18:36 (IS06) 18:41 (IS06)	05:47 19:17 (IS06)	05:25 20:22	
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	18:34 (IS06) 18:43 (IS06)	05:46 19:17 (IS06)	05:25 20:23	
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	18:31 (IS06) 18:43 (IS06)	05:45 19:58	05:25 20:23	
11	07:17 16:48	07:48 (IS05) 07:49 (IS05)	06:54 17:24	06:24 17:56	12 16	18:29 (IS06) 18:45 (IS06)	05:44 19:59	05:25 20:24
12	07:17 16:49	07:47 (IS05) 07:49 (IS05)	06:53 17:26	06:13 17:57	23	06:41 (IS09) 18:46 (IS06)	05:43 20:00	05:25 20:24
13	07:16 16:50	07:47 (IS05) 07:50 (IS05)	06:52 17:27	06:11 17:58	33	06:40 (IS09) 18:48 (IS06)	05:42 20:01	05:25 20:25
14	07:16 16:51	3 07:50 (IS05)	06:51 17:28	06:10 18:00	40	06:38 (IS09) 18:49 (IS06)	05:41 20:02	05:25 20:25
15	07:16 16:52	4 07:50 (IS05)	06:49 17:29	06:08 18:01	47	06:37 (IS09) 18:51 (IS06)	05:40 20:03	05:25 20:26
16	07:15 16:54	4 07:50 (IS05)	06:48 17:30	06:06 18:02	52	06:35 (IS09) 18:52 (IS06)	05:39 20:04	05:25 20:26
17	07:15 16:55	5 07:50 (IS05)	06:47 17:32	06:05 18:03	59	06:34 (IS09) 18:55 (IS06)	05:38 20:05	05:25 20:26
18	07:15 16:56	7 07:51 (IS05)	06:45 17:33	06:03 18:04	63	06:32 (IS09) 18:55 (IS06)	05:37 20:06	05:25 20:27
19	07:14 16:57	7 07:50 (IS05)	06:44 17:34	06:01 18:05	67	06:31 (IS09) 18:56 (IS06)	05:36 20:07	05:25 20:27
20	07:14 16:58	8 07:50 (IS05)	06:43 17:35	06:00 18:06	70	06:29 (IS09) 18:56 (IS06)	05:35 20:07	05:25 20:27
21	07:13 16:59	8 07:50 (IS05)	06:41 17:36	05:58 18:07	73	06:28 (IS09) 18:57 (IS06)	05:35 20:08	05:25 20:28
22	07:12 17:00	9 07:50 (IS05)	06:40 17:37	05:57 18:08	77	06:26 (IS09) 18:58 (IS06)	05:34 20:09	05:25 20:28
23	07:12 17:02	10 07:39 (IS05)	06:39 17:39	05:55 18:09	83	06:25 (IS09) 19:01 (IS06)	05:33 20:10	05:26 20:28
24	07:11 17:03	10 07:38 (IS05)	06:37 17:40	05:53 18:10	88	06:24 (IS09) 19:04 (IS06)	05:32 20:11	05:26 20:28
25	07:10 17:04	10 07:48 (IS05)	06:36 17:41	05:52 18:11	91	06:22 (IS09) 19:05 (IS06)	05:32 20:12	05:26 20:28
26	07:10 17:05	10 07:47 (IS05)	06:34 17:42	05:50 18:12	95	06:21 (IS09) 19:08 (IS06)	05:31 20:13	05:26 20:28
27	07:09 17:06	10 07:35 (IS05)	06:33 17:43	05:48 18:13	98	06:20 (IS09) 19:10 (IS06)	05:30 20:14	05:27 20:28
28	07:08 17:08	10 07:45 (IS05)	06:31 17:43	05:47 18:13	101	06:18 (IS09) 19:10 (IS06)	05:30 20:14	05:27 20:28
29	07:07 17:09	4 07:41 (IS05)	06:31 17:44	05:47 18:14	103	06:17 (IS09) 19:11 (IS06)	05:29 20:15	05:27 20:28
30	07:06 17:10			05:44 19:16	105	06:16 (IS09) 19:12 (IS06)	05:29 20:16	05:28 20:28
31	07:06 17:11			06:42 19:17		05:28 20:17	18:44 (IS06) 18:53 (IS06)	
Potential sun hours	300	298	370	398	446	9	450	
Total, worst case	122			1410	2560			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R210 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (48)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:22 (IS09) 19:25 (IS06)	06:21 19:28	18:28 (IS06) 18:39	06:23 16:53
2	05:29 20:28	05:53 20:09	06:21 (IS09) 19:25 (IS06)	06:22 19:26	18:30 (IS06) 18:37	06:24 16:52
3	05:29 20:28	05:53 20:08	06:21 (IS09) 19:26 (IS06)	06:23 19:25	18:32 (IS06) 18:35	06:25 16:51
4	05:30 20:28	05:54 20:07	06:21 (IS09) 19:27 (IS06)	06:24 19:23	18:33 (IS06) 18:34	06:27 16:50
5	05:30 20:28	05:55 20:06	06:20 (IS09) 19:27 (IS06)	06:25 19:22	18:34 (IS06) 18:32	06:28 16:49
6	05:31 20:27	05:56 20:04	06:20 (IS09) 19:27 (IS06)	06:26 19:20	18:35 (IS06) 18:31	06:29 16:47
7	05:32 20:27	05:57 20:03	06:20 (IS09) 19:28 (IS06)	06:27 19:18	18:36 (IS06) 18:29	06:30 16:46
8	05:32 20:27	05:58 20:02	06:20 (IS09) 19:26 (IS06)	06:28 19:17	18:37 (IS06) 18:27	06:31 16:45
9	05:33 20:26	05:59 20:01	06:21 (IS09) 19:25 (IS06)	06:29 19:15	18:38 (IS06) 18:26	06:32 16:44
10	05:34 20:26	06:00 20:00	06:22 (IS09) 19:24 (IS06)	06:30 19:13	18:39 (IS06) 18:24	06:33 16:43
11	05:34 20:26	06:01 19:58	06:22 (IS09) 19:22 (IS06)	06:31 19:12	18:40 (IS06) 18:23	06:35 16:42
12	05:35 20:25	18:55 (IS06) 18:58 (IS06)	06:02 19:57	06:32 (IS09) 19:10	07:01 18:21	06:36 16:41
13	05:36 20:25	18:51 (IS06) 19:03 (IS06)	06:03 19:56	06:33 (IS09) 19:09	07:02 18:20	06:37 16:40
14	05:36 20:24	18:47 (IS06) 19:05 (IS06)	06:04 19:54	06:34 (IS09) 19:07	07:03 18:18	06:38 16:40
15	05:37 20:24	06:40 (IS09) 19:07 (IS06)	06:05 19:53	06:35 (IS09) 19:05	07:04 18:16	06:39 16:39
16	05:38 20:23	06:37 (IS09) 19:09 (IS06)	06:06 19:52	06:36 (IS09) 19:04	07:05 18:15	06:40 16:38
17	05:39 20:23	06:36 (IS09) 19:11 (IS06)	06:07 19:50	06:36 (IS09) 19:02	07:06 18:13	06:42 16:37
18	05:39 20:22	06:34 (IS09) 19:12 (IS06)	06:08 19:49	06:37 (IS09) 19:00	07:08 18:12	06:43 16:36
19	05:40 20:21	06:32 (IS09) 19:13 (IS06)	06:09 19:48	06:38 (IS09) 18:59	07:09 18:11	06:44 16:36
20	05:41 20:21	06:31 (IS09) 19:15 (IS06)	06:10 19:46	06:39 (IS09) 18:57	07:10 18:09	06:45 16:35
21	05:42 20:20	06:31 (IS09) 19:16 (IS06)	06:11 19:45	06:40 (IS09) 18:55	07:11 18:08	06:46 16:34
22	05:43 20:19	06:30 (IS09) 19:18 (IS06)	06:12 19:43	06:41 (IS09) 18:54	07:12 18:06	06:47 16:34
23	05:44 20:18	06:29 (IS09) 19:19 (IS06)	06:13 19:42	06:42 (IS09) 18:52	07:13 18:05	06:48 16:33
24	05:44 20:17	06:27 (IS09) 19:19 (IS06)	06:14 19:40	06:43 (IS09) 18:50	07:14 18:03	06:50 16:33
25	05:45 20:17	06:27 (IS09) 19:20 (IS06)	06:15 19:39	06:44 (IS09) 18:49	07:15 17:02	06:51 16:32
26	05:46 20:16	06:26 (IS09) 19:21 (IS06)	06:15 19:37	06:45 (IS09) 18:47	07:16 17:01	06:52 16:32
27	05:47 20:15	06:25 (IS09) 19:22 (IS06)	06:16 19:36	06:46 (IS09) 18:45	07:17 16:59	06:53 16:31
28	05:48 20:14	06:25 (IS09) 19:23 (IS06)	06:17 19:34	06:47 (IS09) 18:44	07:18 16:58	06:54 16:31
29	05:49 20:13	06:24 (IS09) 19:24 (IS06)	06:18 19:33	06:48 (IS09) 18:42	07:19 16:57	06:55 16:30
30	05:50 20:12	06:24 (IS09) 19:24 (IS06)	06:19 19:31	06:49 (IS09) 18:40	07:20 16:56	06:56 16:30
31	05:51 20:11	06:22 (IS09) 19:24 (IS06)	06:20 19:30	06:49 (IS09) 18:46	07:21 16:54	06:57 16:38
Potential sun hours	456	426	375	346	300	290
Total, worst case	1282	2680	42		123	1

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R220 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (49)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April		May		June
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18		05:56 19:49		05:28 20:18
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19		05:54 19:50	12	05:50 (IS07) 06:16 (IS07)
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20		05:53 19:51	13	05:52 (IS07) 06:15 (IS07)
4	07:18 16:42	07:02 17:16	06:25 17:49	06:36 19:21		05:52 19:52	14	05:27 (IS07) 06:14 (IS07)
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22		05:51 19:53	16	05:27 (IS07) 06:12 (IS07)
6	07:18 16:43	07:00 17:19	06:22 17:51	06:32 19:23		05:50 19:54	17	05:26 (IS07) 06:10 (IS07)
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24		05:48 19:55	18	05:26 (IS07) 06:09 (IS07)
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25		05:47 19:56	19	05:25 (IS07) 06:08 (IS07)
9	07:17 16:46	06:57 17:22	06:18 17:54	06:28 19:27		05:46 19:57	20	05:25 (IS07) 06:07 (IS07)
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:28		05:45 19:58	21	05:25 (IS07) 06:06 (IS07)
11	07:17 16:48	06:54 17:25	06:14 17:56	06:24 19:29		05:44 19:59	22	05:25 (IS07) 06:05 (IS07)
12	07:17 16:49	06:53 17:26	06:13 17:58	06:23 19:30		05:43 20:00	23	05:25 (IS07) 06:04 (IS07)
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31		05:42 20:01	24	05:25 (IS07) 06:03 (IS07)
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32		05:41 20:02	25	05:25 (IS07) 06:02 (IS07)
15	07:16 16:53	06:49 17:29	06:08 18:01	06:18 19:33		05:40 20:03	26	05:25 (IS07) 06:01 (IS07)
16	07:16 16:54	06:48 17:31	06:06 18:02	06:17 19:34		05:39 20:04	27	05:25 (IS07) 06:00 (IS07)
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35		05:38 20:05	28	05:25 (IS07) 06:00 (IS07)
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36		05:37 20:06	29	05:25 (IS07) 06:00 (IS07)
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37		05:36 20:07	30	05:25 (IS07) 06:00 (IS07)
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38		05:36 20:08	31	05:25 (IS07) 06:00 (IS07)
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39		05:35 20:09	1	05:25 (IS07) 06:00 (IS07)
22	07:13 17:00	06:40 17:38	05:57 18:08	06:08 19:40		05:34 20:09	2	05:25 (IS07) 06:00 (IS07)
23	07:12 17:02	06:39 17:39	05:55 18:09	06:07 19:41		05:33 20:10	3	05:25 (IS07) 06:00 (IS07)
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42		05:32 20:11	4	05:25 (IS07) 06:00 (IS07)
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	06:22 (IS07)	05:32 20:12	5	05:25 (IS07) 06:00 (IS07)
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	06:23 (IS07)	05:31 20:13	6	05:25 (IS07) 06:00 (IS07)
27	07:09 17:06	06:33 17:43	05:49 18:13	06:01 19:45	06:24 (IS07)	05:31 20:14	7	05:25 (IS07) 06:00 (IS07)
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	06:25 (IS07)	05:30 20:15	8	05:25 (IS07) 06:00 (IS07)
29	07:07 17:09		06:45 19:15	05:58 19:47	06:19 (IS07)	05:29 20:15	9	05:25 (IS07) 06:00 (IS07)
30	07:07 17:10		06:44 19:16	05:57 19:48	06:17 (IS07)	05:29 20:16	10	05:25 (IS07) 06:00 (IS07)
31	07:06 17:11		06:42 19:17		06:16 (IS07)	05:28 20:17		05:28 (IS07) 06:16 (IS07)
Potential sun hours	300	298	370	398		446		450
Total, worst case				34		732		135

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R220 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (49)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December		
1	05:28	05:52	06:13 (IS07)	06:21	06:50	06:23	06:57	
	20:28	20:10	23 06:36 (IS07)	19:28	18:39	16:53	16:30	
2	05:29	05:53	06:14 (IS07)	06:22	06:51	06:24	06:58	
	20:28	20:09	22 06:36 (IS07)	19:27	18:37	16:52	16:30	
3	05:29	05:54	06:15 (IS07)	06:23	06:52	06:25	06:59	
	20:28	20:08	22 06:37 (IS07)	19:25	18:35	16:51	16:29	
4	05:30	05:55	06:16 (IS07)	06:24	06:53	06:27	07:00	
	20:28	20:07	21 06:37 (IS07)	19:23	18:34	16:50	16:29	
5	05:31	06:06 (IS07)	05:55	06:17 (IS07)	06:25	06:54	06:28	07:01
	20:28	8 06:14 (IS07)	20:06	20 06:37 (IS07)	19:22	18:32	16:49	16:29
6	05:31	06:03 (IS07)	05:56	06:18 (IS07)	06:26	06:55	06:29	07:02
	20:28	13 06:16 (IS07)	20:05	19 06:37 (IS07)	19:20	18:31	16:48	16:29
7	05:32	06:02 (IS07)	05:57	06:19 (IS07)	06:27	06:56	06:30	07:03
	20:27	16 06:18 (IS07)	20:03	18 06:37 (IS07)	19:19	18:29	16:46	16:29
8	05:32	06:02 (IS07)	05:58	06:20 (IS07)	06:28	06:57	06:31	07:04
	20:27	18 06:20 (IS07)	20:02	17 06:37 (IS07)	19:17	18:27	16:45	16:29
9	05:33	06:00 (IS07)	05:59	06:21 (IS07)	06:29	06:58	06:32	07:05
	20:27	20 06:20 (IS07)	20:01	15 06:36 (IS07)	19:15	18:26	16:44	16:29
10	05:34	06:00 (IS07)	06:00	06:22 (IS07)	06:30	06:59	06:34	07:06
	20:26	22 06:22 (IS07)	20:00	14 06:36 (IS07)	19:14	18:24	16:43	16:29
11	05:34	05:58 (IS07)	06:01	06:23 (IS07)	06:31	07:00	06:35	07:06
	20:26	25 06:23 (IS07)	19:58	13 06:36 (IS07)	19:12	18:23	16:42	16:29
12	05:35	05:58 (IS07)	06:02	06:24 (IS07)	06:32	07:01	06:36	07:07
	20:25	26 06:24 (IS07)	19:57	11 06:35 (IS07)	19:10	18:21	16:41	16:29
13	05:36	05:58 (IS07)	06:03	06:24 (IS07)	06:33	07:02	06:37	07:08
	20:25	27 06:25 (IS07)	19:56	10 06:34 (IS07)	19:09	18:20	16:41	16:29
14	05:36	05:59 (IS07)	06:04	06:25 (IS07)	06:34	07:03	06:38	07:09
	20:24	28 06:27 (IS07)	19:55	8 06:33 (IS07)	19:07	18:18	16:40	16:29
15	05:37	05:59 (IS07)	06:05	06:26 (IS07)	06:35	07:04	06:39	07:10
	20:24	28 06:27 (IS07)	19:53	6 06:32 (IS07)	19:05	18:17	16:39	16:30
16	05:38	06:00 (IS07)	06:06	06:27 (IS07)	06:36	07:06	06:41	07:10
	20:23	28 06:28 (IS07)	19:52	4 06:31 (IS07)	19:04	18:15	16:38	16:30
17	05:39	06:01 (IS07)	06:07	06:28 (IS07)	06:37	07:07	06:42	07:11
	20:23	28 06:29 (IS07)	19:51	2 06:30 (IS07)	19:02	18:14	16:37	16:30
18	05:39	06:02 (IS07)	06:08		06:38	07:08	06:43	07:12
	20:22	28 06:30 (IS07)	19:49		19:00	18:12	16:36	16:30
19	05:40	06:02 (IS07)	06:09		06:39	07:09	06:44	07:12
	20:21	28 06:30 (IS07)	19:48		18:59	18:11	16:36	16:31
20	05:41	06:03 (IS07)	06:10		06:39	07:10	06:45	07:13
	20:21	28 06:31 (IS07)	19:46		18:57	18:09	16:35	16:31
21	05:42	06:04 (IS07)	06:11		06:40	07:11	06:46	07:13
	20:20	28 06:32 (IS07)	19:45		18:55	18:08	16:34	16:32
22	05:43	06:05 (IS07)	06:12		06:41	07:12	06:47	07:14
	20:19	28 06:33 (IS07)	19:43		18:54	18:06	16:34	16:32
23	05:44	06:06 (IS07)	06:13		06:42	07:13	06:49	07:14
	20:18	28 06:34 (IS07)	19:42		18:52	18:05	16:33	16:33
24	05:44	06:06 (IS07)	06:14		06:43	07:14	06:50	07:15
	20:18	27 06:33 (IS07)	19:40		18:50	18:04	16:33	16:33
25	05:45	06:07 (IS07)	06:15		06:44	06:15	06:51	07:15
	20:17	27 06:34 (IS07)	19:39		18:49	17:02	16:32	16:34
26	05:46	06:08 (IS07)	06:16		06:45	06:16	06:52	07:16
	20:16	27 06:35 (IS07)	19:37		18:47	17:01	16:32	16:34
27	05:47	06:09 (IS07)	06:17		06:46	06:18	06:53	07:16
	20:15	26 06:35 (IS07)	19:36		18:45	17:00	16:31	16:35
28	05:48	06:10 (IS07)	06:18		06:47	06:19	06:54	07:16
	20:14	26 06:36 (IS07)	19:34		18:44	16:58	16:31	16:36
29	05:49	06:11 (IS07)	06:18		06:48	06:20	06:55	07:17
	20:13	25 06:36 (IS07)	19:33		18:42	16:57	16:30	16:36
30	05:50	06:12 (IS07)	06:19		06:49	06:21	06:56	07:17
	20:12	25 06:37 (IS07)	19:31		18:40	16:56	16:30	16:37
31	05:51	06:13 (IS07)	06:20			06:22		07:17
	20:11	24 06:37 (IS07)	19:30			16:54		16:38
Potential sun hours	456	426		375	346	300	290	
Total, worst case	662	245						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R223 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (50)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17	07:39 (IS06)	07:05	07:25 (IS06)	06:30	06:40
	16:39	7 07:46 (IS06)	17:12	31 07:56 (IS06)	17:45	19:18
2	07:17	07:39 (IS06)	07:04	07:24 (IS06)	06:28	06:39
	16:40	8 07:47 (IS06)	17:14	32 07:56 (IS06)	17:47	19:19
3	07:18	07:40 (IS06)	07:03	07:22 (IS06)	06:27	06:37
	16:41	8 07:48 (IS06)	17:15	32 07:54 (IS06)	17:48	19:20
4	07:18	07:39 (IS06)	07:02	07:21 (IS06)	06:25	06:35
	16:41	9 07:48 (IS06)	17:16	33 07:54 (IS06)	17:49	19:21
5	07:18	07:39 (IS06)	07:01	07:20 (IS06)	06:24	06:34
	16:42	10 07:49 (IS06)	17:17	33 07:53 (IS06)	17:50	19:22
6	07:18	07:39 (IS06)	07:00	07:19 (IS06)	06:22	06:32
	16:43	10 07:49 (IS06)	17:18	33 07:52 (IS06)	17:51	19:23
7	07:18	07:39 (IS06)	06:59	07:18 (IS06)	06:21	06:31
	16:44	11 07:50 (IS06)	17:20	33 07:51 (IS06)	17:52	19:24
8	07:18	07:39 (IS06)	06:58	07:17 (IS06)	06:19	06:29
	16:45	12 07:51 (IS06)	17:21	33 07:50 (IS06)	17:53	19:25
9	07:17	07:39 (IS06)	06:57	07:16 (IS06)	06:18	06:28
	16:46	13 07:52 (IS06)	17:22	33 07:49 (IS06)	17:54	19:26
10	07:17	07:39 (IS06)	06:55	07:15 (IS06)	06:16	06:26
	16:47	13 07:52 (IS06)	17:23	32 07:47 (IS06)	17:55	19:27
11	07:17	07:38 (IS06)	06:54	07:13 (IS06)	06:14	06:24
	16:48	14 07:52 (IS06)	17:25	31 07:44 (IS06)	17:56	19:28
12	07:17	07:38 (IS06)	06:53	07:16 (IS06)	06:13	06:23
	16:49	15 07:53 (IS06)	17:26	26 07:42 (IS06)	17:57	19:30
13	07:17	07:38 (IS06)	06:52	07:20 (IS06)	06:11	06:21
	16:50	16 07:54 (IS06)	17:27	19 07:39 (IS06)	17:59	19:31
14	07:16	07:37 (IS06)	06:51	07:26 (IS06)	06:10	06:20
	16:51	17 07:54 (IS06)	17:28	7 07:33 (IS06)	18:00	19:32
15	07:16	07:37 (IS06)	06:49		06:08	06:18
	16:52	18 07:55 (IS06)	17:29		18:01	19:33
16	07:15	07:36 (IS06)	06:48		06:06	06:17
	16:54	18 07:54 (IS06)	17:30		18:02	19:34
17	07:15	07:36 (IS06)	06:47		06:05	06:15
	16:55	19 07:55 (IS06)	17:32		18:03	19:35
18	07:15	07:35 (IS06)	06:45		06:03	06:14
	16:56	20 07:55 (IS06)	17:33		18:04	19:36
19	07:14	07:35 (IS06)	06:44		06:02	06:12
	16:57	21 07:56 (IS06)	17:34		18:05	19:37
20	07:14	07:34 (IS06)	06:43		06:00	06:11
	16:58	22 07:56 (IS06)	17:35		18:06	19:38
21	07:13	07:33 (IS06)	06:41		05:58	06:09
	16:59	23 07:56 (IS06)	17:36		18:07	19:39
22	07:12	07:33 (IS06)	06:40		05:57	06:08
	17:00	24 07:57 (IS06)	17:37		18:08	19:40
23	07:12	07:32 (IS06)	06:39		05:55	06:06
	17:02	25 07:57 (IS06)	17:39		18:09	19:41
24	07:11	07:31 (IS06)	06:37		05:53	06:05
	17:03	26 07:57 (IS06)	17:40		18:10	19:42
25	07:10	07:31 (IS06)	06:36		05:52	06:04
	17:04	26 07:57 (IS06)	17:41		18:11	19:43
26	07:10	07:30 (IS06)	06:34		05:50	06:02
	17:05	27 07:57 (IS06)	17:42		18:12	19:44
27	07:09	07:29 (IS06)	06:33		05:48	06:01
	17:06	28 07:57 (IS06)	17:43		18:13	19:45
28	07:08	07:28 (IS06)	06:31		05:47	06:00
	17:08	29 07:57 (IS06)	17:44		18:14	19:46
29	07:07	07:27 (IS06)			06:45	05:58
	17:09	29 07:56 (IS06)			19:15	19:47
30	07:07	07:26 (IS06)			06:44	05:57
	17:10	30 07:56 (IS06)			19:16	19:48
31	07:06	07:25 (IS06)			06:42	05:56
	17:11	31 07:56 (IS06)			19:17	19:49
Potential sun hours	300	298	370	398	446	450
Total, worst case	579	408	682	1151		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R223 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (50)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	17:31 (IS07) 18:26 (IS07)	06:50 18:39	06:23 16:53
2	05:29 20:28	05:53 20:09	06:22 19:26	17:30 (IS07) 18:26 (IS07)	06:51 18:37	06:24 16:52
3	05:29 20:28	05:53 20:08	06:23 19:25	17:29 (IS07) 18:26 (IS07)	06:52 18:35	06:25 16:51
4	05:30 20:28	05:54 20:07	06:24 19:23	17:28 (IS07) 18:26 (IS07)	06:53 18:34	06:27 16:50
5	05:30 20:28	05:55 20:06	06:25 19:22	17:26 (IS07) 18:25 (IS07)	06:54 18:32	06:28 16:49
6	05:31 20:27	05:56 20:05	06:26 19:20	17:26 (IS07) 18:25 (IS07)	06:55 18:31	06:29 16:47
7	05:32 20:27	05:57 20:03	06:27 19:18	17:25 (IS07) 18:25 (IS07)	06:56 18:29	06:30 16:46
8	05:32 20:27	05:58 20:02	06:28 19:17	17:25 (IS07) 18:25 (IS07)	06:57 18:27	06:31 16:45
9	05:33 20:27	05:59 20:01	06:29 19:15	17:25 (IS07) 18:24 (IS07)	06:58 18:26	06:32 16:44
10	05:34 20:26	06:00 20:00	06:30 19:14	17:24 (IS07) 18:24 (IS07)	06:59 18:24	06:34 16:43
11	05:34 20:26	06:01 19:58	06:31 19:12	17:24 (IS07) 18:24 (IS07)	07:00 18:23	06:35 16:42
12	05:35 20:25	06:02 19:57	06:32 19:10	17:24 (IS07) 18:22 (IS07)	07:01 18:21	06:36 16:41
13	05:36 20:25	06:03 19:56	06:33 19:09	17:24 (IS07) 18:20 (IS07)	07:02 18:20	06:37 16:41
14	05:36 20:24	06:04 19:55	06:34 19:07	17:24 (IS07) 18:18 (IS07)	07:03 18:18	06:38 16:40
15	05:37 20:24	06:05 19:53	06:35 19:05	17:24 (IS07) 18:17 (IS07)	07:04 18:17	06:39 16:39
16	05:38 20:23	06:06 19:52	06:36 19:04	17:24 (IS07) 18:16 (IS07)	07:05 18:15	06:40 16:38
17	05:39 20:23	06:07 19:50	06:37 19:02	17:24 (IS07) 18:14 (IS07)	07:07 18:14	06:42 16:37
18	05:39 20:22	06:08 19:49	06:37 19:00	17:24 (IS07) 18:13 (IS07)	07:08 18:12	06:43 16:36
19	05:40 20:21	06:09 19:48	06:38 18:59	17:25 (IS07) 18:12 (IS07)	07:09 18:11	06:44 16:36
20	05:41 20:21	06:10 19:46	06:39 18:57	17:25 (IS07) 18:11 (IS07)	07:10 18:09	06:45 16:35
21	05:42 20:20	06:11 19:45	06:40 18:55	17:26 (IS07) 18:10 (IS07)	07:11 18:08	06:46 16:34
22	05:43 20:19	06:12 19:43	06:41 18:54	17:27 (IS07) 18:09 (IS07)	07:12 18:06	06:47 16:34
23	05:44 20:18	06:13 19:42	06:42 18:52	17:29 (IS07) 18:08 (IS07)	07:13 18:05	06:48 16:33
24	05:44 20:18	06:14 19:40	06:43 18:50	17:30 (IS07) 18:06 (IS07)	07:14 18:04	06:50 16:33
25	05:45 20:17	06:15 19:39	06:44 18:49	17:32 (IS07) 18:04 (IS07)	06:15 17:02	06:51 16:32
26	05:46 20:16	06:16 19:37	06:45 18:47	17:35 (IS07) 18:01 (IS07)	06:16 17:01	06:52 16:32
27	05:47 20:15	06:17 19:36	06:46 18:45	17:39 (IS07) 17:56 (IS07)	06:17 17:00	06:53 16:31
28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:53 (IS06) 07:05 (IS06)	06:54 16:31
29	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:48 (IS06) 07:10 (IS06)	06:55 16:30
30	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:45 (IS06) 07:12 (IS06)	06:56 16:30
31	05:51 20:11	06:20 19:30	06:50 18:25 (IS07)	06:22 16:54	06:43 (IS06) 07:14 (IS06)	06:57 16:30
Potential sun hours	456	426	375	346	300	290
Total, worst case		512	1344	92	789	217

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R23 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (30)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December		
1	07:17	07:05	06:30	16:22 (IS03)	06:40	05:56	05:28	05:28	05:52	06:21	06:50	16:55 (IS03)	06:23	06:57
	16:39	17:12	17:45	20 16:42 (IS03)	19:18	19:49	20:17	20:28	20:10	19:28	18:39	39 17:34 (IS03)	16:53	16:30
2	07:17	07:04	06:28	16:21 (IS03)	06:39	05:54	05:27	05:29	05:53	06:22	06:51	16:55 (IS03)	06:24	06:58
	16:40	17:14	17:46	22 16:43 (IS03)	19:19	19:50	20:18	20:28	20:09	19:26	18:37	37 17:32 (IS03)	16:52	16:29
3	07:17	07:03	06:27	16:20 (IS03)	06:37	05:53	05:27	05:29	05:53	06:23	06:52	16:54 (IS03)	06:25	06:59
	16:41	17:15	17:48	23 16:43 (IS03)	19:20	19:51	20:19	20:28	20:08	19:25	18:35	37 17:31 (IS03)	16:51	16:29
4	07:17	07:02	06:25	16:19 (IS03)	06:35	05:52	05:27	05:30	05:54	06:24	06:53	16:54 (IS03)	06:26	07:00
	16:41	17:16	17:49	25 16:44 (IS03)	19:21	19:52	20:19	20:28	20:07	19:23	18:34	35 17:29 (IS03)	16:50	16:29
5	07:17	07:01	06:24	16:18 (IS03)	06:34	05:51	05:26	05:30	05:55	06:25	06:54	16:54 (IS03)	06:28	07:01
	16:42	17:17	17:50	27 16:45 (IS03)	19:22	19:53	20:20	20:28	20:06	19:22	18:32	33 17:27 (IS03)	16:49	16:29
6	07:17	07:00	06:22	16:18 (IS03)	06:32	05:50	05:26	05:31	05:56	06:26	06:55	16:53 (IS03)	06:29	07:02
	16:43	17:18	17:51	29 16:47 (IS03)	19:23	19:54	20:21	20:27	20:04	19:20	18:31	32 17:25 (IS03)	16:47	16:29
7	07:17	06:59	06:21	16:17 (IS03)	06:31	05:48	05:26	05:32	05:57	06:27	06:56	16:53 (IS03)	06:30	07:03
	16:44	17:20	17:52	30 16:47 (IS03)	19:24	19:55	20:21	20:27	20:03	19:18	18:29	30 17:23 (IS03)	16:46	16:29
8	07:17	06:57	06:19	16:17 (IS03)	06:29	05:47	05:25	05:32	05:58	06:28	06:57	16:53 (IS03)	06:31	07:04
	16:45	17:21	17:53	32 16:49 (IS03)	19:25	19:56	20:22	20:27	20:02	19:17	18:27	28 17:21 (IS03)	16:45	16:29
9	07:17	06:56	06:17	16:16 (IS03)	06:27	05:46	05:25	05:33	05:59	06:29	06:58	16:54 (IS03)	06:32	07:05
	16:46	17:22	17:54	34 16:50 (IS03)	19:26	19:57	20:23	20:26	20:01	19:15	18:26	26 17:20 (IS03)	16:44	16:29
10	07:17	06:55	06:16	16:16 (IS03)	06:26	05:45	05:25	05:34	06:00	06:30	06:59	16:54 (IS03)	06:33	07:05
	16:47	17:23	17:55	35 16:51 (IS03)	19:27	19:58	20:23	20:26	20:00	19:13	18:24	24 17:18 (IS03)	16:43	16:29
11	07:17	06:54	06:14	16:16 (IS03)	06:24	05:44	05:25	05:34	06:01	06:31	07:00	16:55 (IS03)	06:35	07:06
	16:48	17:24	17:56	37 16:53 (IS03)	19:28	19:59	20:24	20:26	19:58	19:12	18:23	22 17:17 (IS03)	16:42	16:29
12	07:17	06:53	06:13	16:16 (IS03)	06:23	05:43	05:25	05:35	06:02	06:32	07:01	16:55 (IS03)	06:36	07:07
	16:49	17:26	17:57	38 16:54 (IS03)	19:29	20:00	20:24	20:25	19:57	19:10	18:21	21 17:16 (IS03)	16:41	16:29
13	07:16	06:52	06:11	16:16 (IS03)	06:21	05:42	05:25	05:36	06:03	06:33	07:02	16:56 (IS03)	06:37	07:08
	16:50	17:27	17:58	40 16:56 (IS03)	19:30	20:01	20:25	20:25	19:56	19:08	18:20	19 17:15 (IS03)	16:40	16:29
14	07:16	06:50	06:10	16:16 (IS03)	06:20	05:41	05:25	05:36	06:04	06:34	07:03	16:57 (IS03)	06:38	07:09
	16:51	17:28	18:00	42 16:56 (IS03)	19:31	20:02	20:25	20:24	19:54	19:07	18:17	17 17:14 (IS03)	16:40	16:29
15	07:16	06:49	06:08	16:16 (IS03)	06:18	05:40	05:25	05:37	06:05	06:35	07:04	16:59 (IS03)	06:39	07:09
	16:52	17:29	18:01	41 16:57 (IS03)	19:32	20:03	20:26	20:24	19:53	19:05	18:16	15 17:14 (IS03)	16:39	16:30
16	07:15	06:48	06:06	16:17 (IS03)	06:17	05:39	05:25	05:38	06:06	06:36	07:05	17:02 (IS03)	06:40	07:10
	16:54	17:30	18:02	41 16:58 (IS03)	19:33	20:04	20:26	20:23	19:52	19:03	18:15	13 17:15 (IS03)	16:38	16:30
17	07:15	06:47	06:05	16:17 (IS03)	06:15	05:38	05:25	05:39	06:07	06:36	07:06	17:05 (IS03)	06:41	07:11
	16:55	17:32	18:03	40 16:57 (IS03)	19:35	20:05	20:26	20:22	19:50	19:02	18:13	9 17:14 (IS03)	16:37	16:30
18	07:14	06:45	06:03	16:18 (IS03)	06:14	05:37	05:25	05:39	06:08	06:37	07:07	17:05 (IS03)	06:43	07:11
	16:56	17:33	18:04	37 16:55 (IS03)	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30	
19	07:14	06:44	06:01	16:19 (IS03)	06:12	05:36	05:25	05:40	06:09	06:38	07:09	17:17 (IS03)	06:44	07:12
	16:57	17:34	18:05	35 16:54 (IS03)	19:37	20:06	20:27	20:21	19:48	18:58	18:11	17:27 (IS03)	16:31	16:31
20	07:13	06:43	06:00	16:20 (IS03)	06:11	05:35	05:25	05:41	06:10	06:39	07:10	17:12 (IS03)	06:45	07:13
	16:58	17:35	18:06	32 16:52 (IS03)	19:38	20:07	20:27	20:20	19:46	18:57	19 17:31 (IS03)	18:09	16:35	16:31
21	07:13	06:41	05:58	16:22 (IS03)	06:09	05:35	05:25	05:42	06:11	06:40	07:11	17:09 (IS03)	06:46	07:13
	16:59	17:36	18:07	29 16:51 (IS03)	19:39	20:08	20:27	20:20	19:45	18:55	25 17:34 (IS03)	18:08	16:34	16:32
22	07:12	06:40	05:57	16:23 (IS03)	06:08	05:34	05:25	05:43	06:12	06:41	07:12	17:07 (IS03)	06:47	07:14
	17:00	17:37	18:08	26 16:49 (IS03)	19:40	20:09	20:28	20:19	19:43	18:53	28 17:35 (IS03)	18:06	16:34	16:32
23	07:12	06:38	05:55	16:25 (IS03)	06:06	05:33	05:26	05:44	06:13	06:42	07:13	17:05 (IS03)	06:48	07:14
	17:02	17:39	18:09	21 16:46 (IS03)	19:41	20:10	20:28	20:18	19:42	18:52	31 17:36 (IS03)	18:05	16:33	16:33
24	07:11	06:37	05:53	16:29 (IS03)	06:05	05:32	05:26	05:44	06:14	06:43	07:14	17:03 (IS03)	06:49	07:15
	17:03	17:40	7 16:43 (IS03)	18:10	13 16:42 (IS03)	19:42	20:11	20:28	20:17	19:40	18:50	34 17:37 (IS03)	18:03	16:33
25	07:10	06:36	05:52	16:31 (IS03)	06:04	05:32	05:26	05:45	06:15	06:44	07:15	17:01 (IS03)	06:51	07:15
	17:04	17:41	11 16:42 (IS03)	18:11	19:43	20:12	20:28	20:17	19:39	18:49	37 17:38 (IS03)	17:02	16:32	16:34
26	07:10	06:34	05:50	16:28 (IS03)	06:02	05:31	05:26	05:46	06:15	06:45	07:16	17:00 (IS03)	06:52	07:15
	17:05	17:42	14 16:42 (IS03)	18:12	19:44	20:13	20:28	20:16	19:37	18:47	39 17:39 (IS03)	17:01	16:32	16:34
27	07:09	06:33	05:48	16:27 (IS03)	06:01	05:30	05:27	05:47	06:16	06:46	07:17	16:59 (IS03)	06:53	07:16
	17:06	17:43	15 16:42 (IS03)	18:13	19:45	20:13	20:28	20:15	19:36	18:45	40 17:39 (IS03)	16:59	16:31	16:35
28	07:08	06:31	05:47	16:24 (IS03)	06:00	05:30	05:27	05:48	06:17	06:47	07:18	16:58 (IS03)	06:54	07:16
	17:08	17:44	18 16:42 (IS03)	18:14	19:46	20:14	20:28	20:14	19:34	18:44	41 17:39 (IS03)	16:58	16:31	16:36
29	07:07	06:30	05:45	16:21 (IS03)	06:00	05:30	05:27	05:48	06:17	06:47	07:18	16:58 (IS03)	06:54	07:16
	17:09	17:45	19:15	19:47	20:15	20:28	20:13	19:33	18:42	41 17:38 (IS03)	16:57	16:30	16:36	
30	07:06	06:29	05:44	16:19 (IS03)	06:00	05:30	05:27	05:48	06:17	06:47	07:18	16:58 (IS03)	06:54	07:16
	17:10	17:46	19:16	19:48	20:16	20:28	20:12	19:31	18:40	40 17:36 (IS03)	16:56	16:30	16:37	
31	07:06	06:28	05:43	16:18 (IS03)	06:00	05:30	05:27	05:48	06:17	06:47	07:18	16:58 (IS03)	06:54	07:16
	17:11	17:47	19:17	19:49	20:17	20:29	20:13	19:33	18:42	41 17:38 (IS03)	16:57	16:30	16:36	
Potential sun hours	300	298	370	398	446	449	456	426	375	385	346	437	300	291
Total, worst case		65	747											

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R234 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (51)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17 16:39	07:05 17:12	15:58 (IS08) 06:30 16:26 (IS08) 17:45	06:40 19:18	05:56 19:49	05:28 20:17
2	07:17 16:40	07:04 17:13	15:58 (IS08) 06:28 16:27 (IS08) 17:46	06:39 19:19	05:54 19:50	05:27 20:18
3	07:18 16:40	07:03 17:15	15:59 (IS08) 06:27 16:29 (IS08) 17:48	06:37 19:20	05:53 19:51	05:27 20:19
4	07:18 16:41	07:02 17:16	16:00 (IS08) 06:25 16:30 (IS08) 17:49	06:35 19:21	05:52 19:52	05:26 20:20
5	07:18 16:42	07:01 17:17	16:01 (IS08) 06:24 16:31 (IS08) 17:50	06:34 19:22	05:51 19:53	05:26 20:20
6	07:18 16:43	15:56 (IS08) 07:00 15:57 (IS08) 17:18	16:02 (IS08) 06:22 16:33 (IS08) 17:51	06:32 19:23	05:49 19:54	05:26 20:21
7	07:18 16:44	1 15:56 (IS08) 06:59 15:59 (IS08) 17:20	31 16:04 (IS08) 06:21 16:32 (IS08) 17:52	06:31 19:24	05:48 19:55	05:25 20:22
8	07:17 16:45	3 15:56 (IS08) 06:58 16:00 (IS08) 17:21	28 16:06 (IS08) 06:19 16:31 (IS08) 17:53	06:29 19:25	05:47 19:56	05:25 20:22
9	07:17 16:46	4 16:00 (IS08) 06:56 15:56 (IS08) 17:22	25 16:08 (IS08) 06:18 16:30 (IS08) 17:54	06:27 19:26	05:46 19:57	05:25 20:23
10	07:17 16:47	5 16:01 (IS08) 06:55 15:56 (IS08) 17:23	22 16:10 (IS08) 06:16 16:27 (IS08) 17:55	06:26 19:27	05:45 19:58	05:25 20:23
11	07:17 16:48	6 16:02 (IS08) 06:54 15:55 (IS08) 17:24	17 16:13 (IS08) 06:14 16:23 (IS08) 17:56	06:24 19:28	05:44 19:59	05:25 20:24
12	07:17 16:49	7 16:02 (IS08) 06:53 15:55 (IS08) 17:26	10 06:13 17:26	17:12 (IS10) 06:23 17:57	06:23 19:29	05:43 20:00
13	07:16 16:50	9 16:04 (IS08) 06:52 15:55 (IS08) 17:27	1 06:11 17:58	17:13 (IS10) 06:21 17:15 (IS10) 19:30	05:42 20:01	05:25 20:25
14	07:16 16:51	10 16:05 (IS08) 06:51 15:55 (IS08) 17:28	2 06:10 17:59	17:14 (IS10) 06:20 17:16 (IS10) 19:31	05:41 20:02	05:24 20:25
15	07:16 16:52	11 16:06 (IS08) 06:49 15:55 (IS08) 17:29	2 06:08 18:01	17:15 (IS10) 06:18 17:17 (IS10) 19:33	05:40 20:03	05:24 20:26
16	07:15 16:53	12 16:07 (IS08) 06:48 15:54 (IS08) 17:30	2 06:06 18:02	17:18 (IS10) 06:17 17:19 (IS10) 19:34	05:39 20:04	05:24 20:26
17	07:15 16:55	14 16:08 (IS08) 06:47 16:09 (IS08) 17:32	1 06:05 18:03	06:15 19:35	05:38 20:05	05:24 20:26
18	07:15 16:56	14 16:09 (IS08) 06:45 15:54 (IS08) 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27
19	07:14 16:57	16 16:10 (IS08) 06:44 15:55 (IS08) 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27
20	07:14 16:58	17 16:12 (IS08) 06:43 16:12 (IS08) 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27
21	07:13 16:59	17 16:12 (IS08) 06:41 15:54 (IS08) 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:28
22	07:12 17:00	19 16:13 (IS08) 06:39 15:55 (IS08) 17:37	05:55 18:08	06:06 19:40	05:34 20:09	05:25 20:28
23	07:12 17:01	20 16:15 (IS08) 06:37 15:55 (IS08) 17:39	05:53 18:09	06:05 19:41	05:33 20:10	05:25 20:28
24	07:11 17:03	21 16:16 (IS08) 06:35 15:55 (IS08) 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28
25	07:10 17:04	22 16:17 (IS08) 06:33 15:56 (IS08) 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28
26	07:10 17:05	23 16:19 (IS08) 06:31 15:56 (IS08) 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28
27	07:09 17:06	24 16:20 (IS08) 06:29 15:56 (IS08) 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28
28	07:08 17:07	25 16:21 (IS08) 06:27 15:56 (IS08) 17:44	05:47 18:14	05:59 19:46	05:30 20:14	05:27 20:28
29	07:07 17:09	26 16:22 (IS08) 06:25 15:56 (IS08) 17:45	05:45 19:15	05:58 19:47	05:29 20:15	05:27 20:28
30	07:06 17:10	27 16:23 (IS08) 06:23 15:57 (IS08) 17:46	05:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28
31	07:06 17:11	27 16:24 (IS08) 06:21 15:57 (IS08) 17:47	05:42 19:17	05:56 19:49	05:28 20:17	05:28 20:28
Potential sun hours	300	298	370	398	446	450
Total, worst case	408	280	8			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R234 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (51)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December			
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:52 (IS10) 17:53 (IS10)	06:23 16:53	15:39 (IS08) 15:57 (IS08)	06:57 16:30	15:37 (IS08) 15:44 (IS08)
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:24 16:23	15:37 (IS08) 16:00 (IS08)	06:58 16:29	15:38 (IS08) 15:44 (IS08)
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:25 16:26	15:35 (IS08) 16:01 (IS08)	06:59 16:29	15:39 (IS08) 15:44 (IS08)
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	06:27 16:29	15:33 (IS08) 16:02 (IS08)	07:00 16:29	15:40 (IS08) 15:44 (IS08)
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	06:28 16:30	15:32 (IS08) 16:02 (IS08)	07:01 16:29	15:41 (IS08) 15:44 (IS08)
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	06:29 16:47	06:29 16:30	15:31 (IS08) 16:01 (IS08)	07:02 16:29	15:42 (IS08) 15:44 (IS08)
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	06:30 16:30	15:31 (IS08) 16:01 (IS08)	07:03 16:29	15:43 (IS08) 15:44 (IS08)
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	06:31 16:29	15:30 (IS08) 15:59 (IS08)	07:04 16:29	15:44 (IS08) 15:47 (IS08)
9	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	06:32 16:29	15:29 (IS08) 15:58 (IS08)	07:05 16:29	15:44 (IS08) 15:47 (IS08)
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	06:33 16:28	15:29 (IS08) 15:57 (IS08)	07:06 16:29	15:47 (IS08) 15:48 (IS08)
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	06:35 16:28	15:29 (IS08) 15:57 (IS08)	07:06 16:29	15:48 (IS08) 15:49 (IS08)
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	06:36 16:27	15:29 (IS08) 15:56 (IS08)	07:07 16:29	15:49 (IS08) 15:50 (IS08)
13	05:35 20:25	06:03 19:56	06:33 19:09	07:02 18:19	06:37 16:40	06:37 16:27	15:28 (IS08) 15:55 (IS08)	07:08 16:29	15:50 (IS08) 15:51 (IS08)
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	06:38 16:26	15:28 (IS08) 15:54 (IS08)	07:09 16:29	15:51 (IS08) 15:52 (IS08)
15	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	06:39 16:25	15:29 (IS08) 15:54 (IS08)	07:09 16:29	15:52 (IS08) 15:53 (IS08)
16	05:38 20:23	06:06 19:52	06:35 19:04	07:05 18:15	06:40 16:38	06:40 16:24	15:29 (IS08) 15:53 (IS08)	07:10 16:30	15:53 (IS08) 15:54 (IS08)
17	05:38 20:23	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	06:42 16:23	15:29 (IS08) 15:52 (IS08)	07:11 16:30	15:54 (IS08) 15:55 (IS08)
18	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	06:43 16:22	15:29 (IS08) 15:51 (IS08)	07:11 16:30	15:55 (IS08) 15:56 (IS08)
19	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:10	06:44 16:36	06:44 16:21	15:30 (IS08) 15:51 (IS08)	07:12 16:31	15:56 (IS08) 15:57 (IS08)
20	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	06:45 16:20	15:30 (IS08) 15:50 (IS08)	07:13 16:31	15:57 (IS08) 15:58 (IS08)
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	06:46 16:19	15:30 (IS08) 15:49 (IS08)	07:13 16:32	15:58 (IS08) 15:59 (IS08)
22	05:43 20:19	06:12 19:43	06:41 18:53	07:12 18:06	06:47 16:34	06:47 16:17	15:31 (IS08) 15:48 (IS08)	07:14 16:32	15:59 (IS08) 16:00 (IS08)
23	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	06:48 16:17	15:31 (IS08) 15:48 (IS08)	07:14 16:33	16:01 (IS08) 16:02 (IS08)
24	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:32	06:50 16:16	15:31 (IS08) 15:47 (IS08)	07:15 16:33	16:03 (IS08) 16:04 (IS08)
25	05:45 20:17	06:14 19:39	06:44 18:49	07:15 17:02	06:51 16:32	06:51 16:14	15:33 (IS08) 15:47 (IS08)	07:15 16:34	16:05 (IS08) 16:06 (IS08)
26	05:46 20:16	06:15 19:37	06:45 18:47	07:16 17:01	06:52 16:31	06:52 16:14	15:33 (IS08) 15:47 (IS08)	07:16 16:34	16:07 (IS08) 16:08 (IS08)
27	05:47 20:15	06:16 19:36	06:46 18:45	07:17 16:59	06:53 16:31	06:53 16:12	15:34 (IS08) 15:46 (IS08)	07:16 16:35	16:09 (IS08) 16:10 (IS08)
28	05:48 20:14	06:17 19:34	06:47 18:44	07:19 17:57 (IS10) 17:59 (IS10)	06:19 16:58	06:19 16:31	15:35 (IS08) 15:46 (IS08)	07:16 16:36	16:11 (IS08) 16:12 (IS08)
29	05:49 20:13	06:18 19:33	06:48 18:42	07:20 17:57 (IS10) 17:55 (IS10)	06:20 16:57	06:20 16:30	15:36 (IS08) 15:45 (IS08)	07:17 16:36	16:13 (IS08) 16:14 (IS08)
30	05:50 20:12	06:19 19:31	06:49 18:40	07:21 17:53 (IS10) 17:55 (IS10)	06:21 16:56	06:21 16:30	15:36 (IS08) 15:45 (IS08)	07:17 16:37	16:15 (IS08) 16:16 (IS08)
31	05:51 20:11	06:20 19:30		06:22 16:54	15:42 (IS08) 15:54 (IS08)			07:17 16:38	
Potential sun hours	457	426	375	346	300	290			
Total, worst case			6	13	653	28			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R236 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (52)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January		February		March		April	May	June		
1	07:17	15:42 (IS08)	07:05	15:54 (IS08)	06:30		06:40	05:56	05:28		
	16:39	16	15:58 (IS08)	17:12	34	16:28 (IS08)	17:45	19:18	19:49	20:18	
2	07:17	15:42 (IS08)	07:04	15:55 (IS08)	06:28		06:39	05:54	05:27		
	16:40	16	15:58 (IS08)	17:13	33	16:28 (IS08)	17:46	19:19	19:50	20:18	
3	07:18	15:42 (IS08)	07:03	15:56 (IS08)	06:27		06:37	05:53	05:27		
	16:40	17	15:59 (IS08)	17:15	31	16:27 (IS08)	17:48	19:20	19:51	20:19	
4	07:18	15:42 (IS08)	07:02	15:58 (IS08)	06:25		06:35	05:52	05:26		
	16:41	18	16:00 (IS08)	17:16	27	16:25 (IS08)	17:49	19:21	19:52	20:20	
5	07:18	15:43 (IS08)	07:01	16:00 (IS08)	06:24		17:13 (IS10)	06:34	05:51	05:26	
	16:42	18	16:01 (IS08)	17:17	24	16:24 (IS08)	17:50	19:22	19:53	20:20	
6	07:18	15:43 (IS08)	07:00	16:02 (IS08)	06:22		17:12 (IS10)	06:32	05:49	05:26	
	16:43	19	16:02 (IS08)	17:18	20	16:22 (IS08)	17:51	19:23	19:54	20:21	
7	07:18	15:43 (IS08)	06:59	16:05 (IS08)	06:21		17:11 (IS10)	06:31	05:48	05:25	
	16:44	20	16:03 (IS08)	17:20	14	16:19 (IS08)	17:52	19:24	19:55	20:22	
8	07:17	15:44 (IS08)	06:58		06:19		17:12 (IS10)	06:29	05:47	05:25	
	16:45	20	16:04 (IS08)	17:21		17:53	7	17:19 (IS10)	19:25	19:56	20:22
9	07:17	15:44 (IS08)	06:56		06:18		17:11 (IS10)	06:27	05:46	05:25	
	16:46	21	16:05 (IS08)	17:22		17:54	9	17:20 (IS10)	19:26	19:57	20:23
10	07:17	15:44 (IS08)	06:55		06:16		17:11 (IS10)	06:26	05:45	05:25	
	16:47	23	16:07 (IS08)	17:23		17:55	10	17:21 (IS10)	19:27	19:58	20:23
11	07:17	15:44 (IS08)	06:54		06:14		17:12 (IS10)	06:24	05:44	05:25	
	16:48	23	16:07 (IS08)	17:24		17:56	11	17:23 (IS10)	19:28	19:59	20:24
12	07:17	15:44 (IS08)	06:53		06:13		17:12 (IS10)	06:23	05:43	05:25	
	16:49	24	16:08 (IS08)	17:26		17:57	12	17:24 (IS10)	19:29	20:00	20:24
13	07:16	15:45 (IS08)	06:52		06:11		17:13 (IS10)	06:21	05:42	05:25	
	16:50	25	16:10 (IS08)	17:27		17:58	13	17:26 (IS10)	19:30	20:01	20:25
14	07:16	15:45 (IS08)	06:51		06:10		17:14 (IS10)	06:20	05:41	05:24	
	16:51	25	16:10 (IS08)	17:28		18:00	13	17:27 (IS10)	19:31	20:02	20:25
15	07:16	15:45 (IS08)	06:49		06:08		17:15 (IS10)	06:18	05:40	05:24	
	16:52	27	16:12 (IS08)	17:29		18:01	12	17:27 (IS10)	19:33	20:03	20:26
16	07:15	15:45 (IS08)	06:48		06:06		06:17	05:39	05:24		
	16:53	27	16:12 (IS08)	17:30		18:02		19:34	20:04	20:26	
17	07:15	15:46 (IS08)	06:47		06:05		06:15	05:38	05:24		
	16:55	28	16:14 (IS08)	17:32		18:03		19:35	20:05	20:26	
18	07:15	15:46 (IS08)	06:45		06:03		06:14	05:37	05:25		
	16:56	28	16:14 (IS08)	17:33		18:04		19:36	20:06	20:27	
19	07:14	15:46 (IS08)	06:44		06:01		06:12	05:36	05:25		
	16:57	30	16:16 (IS08)	17:34		18:05		19:37	20:07	20:27	
20	07:14	15:46 (IS08)	06:43		06:00		06:11	05:35	05:25		
	16:58	31	16:17 (IS08)	17:35		18:06		19:38	20:08	20:27	
21	07:13	15:46 (IS08)	06:41		05:58		06:09	05:35	05:25		
	16:59	32	16:18 (IS08)	17:36		18:07		19:39	20:08	20:28	
22	07:12	15:47 (IS08)	06:40		05:57		06:08	05:34	05:25		
	17:00	32	16:19 (IS08)	17:37		18:08		19:40	20:09	20:28	
23	07:12	15:48 (IS08)	06:39		05:55		06:06	05:33	05:25		
	17:01	32	16:20 (IS08)	17:39		18:09		19:41	20:10	20:28	
24	07:11	15:48 (IS08)	06:37		05:53		06:05	05:32	05:26		
	17:03	33	16:21 (IS08)	17:40		18:10		19:42	20:11	20:28	
25	07:10	15:49 (IS08)	06:36		05:52		06:04	05:32	05:26		
	17:04	34	16:23 (IS08)	17:41		18:11		19:43	20:12	20:28	
26	07:10	15:49 (IS08)	06:34		05:50		06:02	05:31	05:26		
	17:05	35	16:24 (IS08)	17:42		18:12		19:44	20:13	20:28	
27	07:09	15:50 (IS08)	06:33		05:48		06:01	05:30	05:27		
	17:06	35	16:25 (IS08)	17:43		18:13		19:45	20:14	20:28	
28	07:08	15:50 (IS08)	06:31		05:47		05:59	05:30	05:27		
	17:07	36	16:26 (IS08)	17:44		18:14		19:46	20:14	20:28	
29	07:07	15:51 (IS08)			06:45		05:58	05:29	05:27		
	17:09	36	16:27 (IS08)		19:15		19:47	20:15	20:28		
30	07:06	15:52 (IS08)			06:43		05:57	05:29	05:28		
	17:10	37	16:29 (IS08)		19:16		19:48	20:16	20:28		
31	07:06	15:53 (IS08)			06:42			05:28			
	17:11	36	16:29 (IS08)		19:17			20:17			
Potential sun hours	300		298		370		398	446	450		
Total, worst case	834		183		98						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R236 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (52)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:52 (IS10) 18:04 (IS10)	06:23 16:53
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	17:50 (IS10) 18:02 (IS10)	06:24 16:52
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:50 (IS10) 18:00 (IS10)	06:25 16:51
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	17:49 (IS10) 17:58 (IS10)	06:27 16:50
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	17:48 (IS10) 17:56 (IS10)	06:28 16:48
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	17:48 (IS10) 17:54 (IS10)	06:29 16:47
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	17:48 (IS10) 17:52 (IS10)	06:30 16:46
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	17:48 (IS10) 17:51 (IS10)	06:31 16:45
9	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	17:48 (IS10) 17:49 (IS10)	06:32 16:44
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	17:48 (IS10) 18:00 (IS10)	06:33 16:43
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	17:48 (IS10) 18:00 (IS10)	06:35 16:42
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	17:48 (IS10) 18:00 (IS10)	06:36 16:41
13	05:35 20:25	06:03 19:56	06:33 19:09	07:02 18:19	17:48 (IS10) 18:00 (IS10)	06:37 16:40
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	17:48 (IS10) 18:00 (IS10)	06:38 16:40
15	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	17:48 (IS10) 18:00 (IS10)	06:39 16:39
16	05:38 20:23	06:06 19:52	06:35 19:04	07:05 18:15	17:48 (IS10) 18:00 (IS10)	06:40 16:38
17	05:38 20:23	06:07 19:50	06:36 19:02	07:06 18:13	17:48 (IS10) 18:00 (IS10)	06:42 16:37
18	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	17:48 (IS10) 18:00 (IS10)	06:43 16:36
19	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:10	17:48 (IS10) 18:00 (IS10)	06:44 16:36
20	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	17:48 (IS10) 18:00 (IS10)	06:45 16:35
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	17:48 (IS10) 18:00 (IS10)	06:46 16:34
22	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	17:48 (IS10) 18:00 (IS10)	06:47 16:34
23	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	17:48 (IS10) 18:00 (IS10)	06:48 16:33
24	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	17:48 (IS10) 18:00 (IS10)	06:50 16:32
25	05:45 20:17	06:14 19:39	06:44 18:49	06:15 17:02	17:48 (IS10) 18:00 (IS10)	06:51 16:32
26	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	17:48 (IS10) 18:00 (IS10)	06:52 16:31
27	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	17:48 (IS10) 18:00 (IS10)	06:53 16:31
28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 18:08 (IS10)	17:48 (IS10) 18:00 (IS10)	06:54 16:31
29	05:49 20:13	06:18 19:33	06:48 18:42	06:20 17:55 (IS10)	17:48 (IS10) 18:00 (IS10)	06:55 16:30
30	05:50 20:12	06:19 19:31	06:49 18:40	06:21 17:53 (IS10)	17:48 (IS10) 18:00 (IS10)	06:56 16:30
31	05:51 20:11	06:20 19:30		06:22 16:54	17:48 (IS10) 18:00 (IS10)	
Potential sun hours	457	426	375	346	300	290
Total, worst case			35	65	810	488

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R241 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (53)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17 16:39	07:05 17:12	06:30 17:45	17:07 (IS10) 17:22 (IS10)	06:40 19:18	05:56 20:18
2	07:17 16:40	07:04 17:14	06:28 17:46	15 17:06 (IS10) 16 17:22 (IS10)	06:39 19:19	05:54 20:18
3	07:18 16:41	07:03 17:15	06:27 17:48	17 17:06 (IS10) 17 17:23 (IS10)	06:37 19:20	05:53 20:19
4	07:18 16:41	07:02 17:16	06:25 17:49	18 17:05 (IS10) 18 17:23 (IS10)	06:35 19:21	05:52 20:20
5	07:18 16:42	07:01 17:17	06:24 17:50	18 17:05 (IS10) 18 17:23 (IS10)	06:34 19:22	05:51 20:20
6	07:18 16:43	07:00 17:18	06:22 17:51	20 17:05 (IS10) 20 17:25 (IS10)	06:32 19:23	05:49 20:21
7	07:18 16:44	06:59 17:20	06:21 17:52	21 17:05 (IS10) 21 17:26 (IS10)	06:31 19:24	05:48 20:22
8	07:17 16:45	06:58 17:21	06:19 17:53	21 17:06 (IS10) 21 17:27 (IS10)	06:29 19:25	05:47 20:22
9	07:17 16:46	06:56 17:22	06:18 17:54	22 17:06 (IS10) 22 17:28 (IS10)	06:27 19:26	05:46 20:23
10	07:17 16:47	06:55 17:23	06:16 17:55	23 17:06 (IS10) 23 17:29 (IS10)	06:26 19:27	05:45 20:23
11	07:17 16:48	06:54 17:24	06:14 17:56	24 17:07 (IS10) 24 17:31 (IS10)	06:24 19:28	05:44 20:24
12	07:17 16:49	06:53 17:26	06:13 17:57	23 17:08 (IS10) 23 17:31 (IS10)	06:23 19:29	05:43 20:24
13	07:17 16:50	06:52 17:27	06:11 17:58	19 17:10 (IS10) 19 17:29 (IS10)	06:21 19:30	05:42 20:25
14	07:16 16:51	06:51 17:28	06:10 18:00	14 17:12 (IS10) 14 17:26 (IS10)	06:20 19:32	05:41 20:25
15	07:16 16:52	06:49 17:29	06:08 18:01	3 17:17 (IS10) 3 17:20 (IS10)	06:18 19:33	05:40 20:26
16	07:15 16:53	06:48 17:30	06:06 18:02		06:17 19:34	05:39 20:26
17	07:15 16:55	06:47 17:32	06:05 18:03		06:15 19:35	05:38 20:26
18	07:15 16:56	06:45 17:33	06:03 18:04		06:14 19:36	05:37 20:27
19	07:14 16:57	06:44 17:34	06:01 18:05		06:12 19:37	05:36 20:27
20	07:14 16:58	06:43 17:35	06:00 18:06		06:11 19:38	05:35 20:27
21	07:13 16:59	06:41 17:36	05:58 18:07		06:09 19:39	05:35 20:28
22	07:12 17:00	06:40 17:37	05:57 18:08		06:08 19:40	05:34 20:28
23	07:12 17:01	06:39 17:39	05:55 18:09		06:06 19:41	05:33 20:28
24	07:11 17:03	06:37 17:40	17:14 (IS10) 17:16 (IS10)	05:53 18:10	06:05 19:42	05:32 20:28
25	07:10 17:04	06:36 17:41	17:12 (IS10) 17:18 (IS10)	05:52 18:11	06:04 19:43	05:32 20:28
26	07:10 17:05	06:34 17:42	17:10 (IS10) 17:18 (IS10)	05:50 18:12	06:02 19:44	05:31 20:28
27	07:09 17:06	06:33 17:43	17:09 (IS10) 17:20 (IS10)	05:48 18:13	06:01 19:45	05:30 20:28
28	07:08 17:07	06:31 17:44	17:08 (IS10) 17:20 (IS10)	05:47 18:14	06:00 19:46	05:30 20:28
29	07:07 17:09		06:45 19:15		05:58 19:47	05:29 20:28
30	07:06 17:10		06:44 19:16		05:57 19:48	05:29 20:28
31	07:06 17:11		06:42 19:17			05:28 20:17
Potential sun hours	300	298	370	398	446	450
Total, worst case		39	274			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R241 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (53)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December	
1	05:28	05:52	06:21	06:50	17:48 (IS10)	06:23	06:57
	20:28	20:10	19:28	18:39	22 18:10 (IS10)	16:53	16:30
2	05:29	05:52	06:22	06:51	17:46 (IS10)	06:24	06:58
	20:28	20:09	19:26	18:37	25 18:11 (IS10)	16:52	16:29
3	05:29	05:53	06:23	06:52	17:45 (IS10)	06:25	06:59
	20:28	20:08	19:25	18:35	23 18:08 (IS10)	16:51	16:29
4	05:30	05:54	06:24	06:53	17:44 (IS10)	06:27	07:00
	20:28	20:07	19:23	18:34	22 18:06 (IS10)	16:50	16:29
5	05:30	05:55	06:25	06:54	17:43 (IS10)	06:28	07:01
	20:28	20:06	19:22	18:32	21 18:04 (IS10)	16:48	16:29
6	05:31	05:56	06:26	06:55	17:42 (IS10)	06:29	07:02
	20:27	20:05	19:20	18:31	21 18:03 (IS10)	16:47	16:29
7	05:32	05:57	06:27	06:56	17:41 (IS10)	06:30	07:03
	20:27	20:03	19:18	18:29	20 18:01 (IS10)	16:46	16:29
8	05:32	05:58	06:28	06:57	17:40 (IS10)	06:31	07:04
	20:27	20:02	19:17	18:27	20 18:00 (IS10)	16:45	16:29
9	05:33	05:59	06:29	06:58	17:40 (IS10)	06:32	07:05
	20:27	20:01	19:15	18:26	18 17:58 (IS10)	16:44	16:29
10	05:33	06:00	06:30	06:59	17:40 (IS10)	06:34	07:06
	20:26	20:00	19:13	18:24	17 17:57 (IS10)	16:43	16:29
11	05:34	06:01	06:31	07:00	17:40 (IS10)	06:35	07:06
	20:26	19:58	19:12	18:23	16 17:56 (IS10)	16:42	16:29
12	05:35	06:02	06:32	07:01	17:40 (IS10)	06:36	07:07
	20:25	19:57	19:10	18:21	15 17:55 (IS10)	16:41	16:29 9 14:49 (IS08)
13	05:36	06:03	06:33	07:02	17:40 (IS10)	06:37	07:08 14:48 (IS08)
	20:25	19:56	19:09	18:19	14 17:54 (IS10)	16:40	16:29 13 15:01 (IS08)
14	05:36	06:04	06:34	07:03	17:41 (IS10)	06:38	07:09 14:47 (IS08)
	20:24	19:54	19:07	18:18	11 17:52 (IS10)	16:40	16:29 16 15:03 (IS08)
15	05:37	06:05	06:35	07:04	17:41 (IS10)	06:39	07:09 14:47 (IS08)
	20:24	19:53	19:05	18:16	10 17:51 (IS10)	16:39	16:29 18 15:05 (IS08)
16	05:38	06:06	06:36	07:05	17:43 (IS10)	06:40	07:10 14:46 (IS08)
	20:23	19:52	19:04	18:15	7 17:50 (IS10)	16:38	16:30 19 15:05 (IS08)
17	05:39	06:07	06:36	07:06	17:44 (IS10)	06:42	07:11 14:46 (IS08)
	20:23	19:50	19:02	18:13	5 17:49 (IS10)	16:37	16:30 21 15:07 (IS08)
18	05:39	06:08	06:37	07:08	17:46 (IS10)	06:43	07:12 14:47 (IS08)
	20:22	19:49	19:00	18:12	1 17:47 (IS10)	16:36	16:30 21 15:08 (IS08)
19	05:40	06:09	06:38	07:09		06:44	07:12 14:46 (IS08)
	20:21	19:48	18:59	18:11		16:36	16:31 22 15:08 (IS08)
20	05:41	06:10	06:39	07:10		06:45	07:13 14:47 (IS08)
	20:21	19:46	18:57	18:09		16:35	16:31 22 15:09 (IS08)
21	05:42	06:11	06:40	07:11		06:46	07:13 14:47 (IS08)
	20:20	19:45	18:55	18:08		16:34	16:32 22 15:09 (IS08)
22	05:43	06:12	06:41	07:12		06:47	07:14 14:48 (IS08)
	20:19	19:43	18:54	18:06		16:34	16:32 22 15:10 (IS08)
23	05:43	06:13	06:42	07:13		06:48	07:14 14:48 (IS08)
	20:18	19:42	18:52	18:05		16:33	16:33 22 15:10 (IS08)
24	05:44	06:14	06:43	07:14		06:50	07:15 14:49 (IS08)
	20:18	19:40	18:50	18:03		16:33	16:33 22 15:11 (IS08)
25	05:45	06:14	06:44	06:15		06:51	07:15 14:49 (IS08)
	20:17	19:39	18:49	17:02		16:32	16:34 22 15:11 (IS08)
26	05:46	06:15	06:45	06:16		06:52	07:16 14:50 (IS08)
	20:16	19:37	18:47	17:01		16:32	16:34 21 15:11 (IS08)
27	05:47	06:16	06:46	06:17		06:53	07:16 14:52 (IS08)
	20:15	19:36	18:45	16:59		16:31	16:35 19 15:11 (IS08)
28	05:48	06:17	06:47	06:19		06:54	07:16 14:53 (IS08)
	20:14	19:34	18:44	16:58		16:31	16:36 18 15:11 (IS08)
29	05:49	06:18	06:48	17:54 (IS10)	06:20	06:55	07:17 14:54 (IS08)
	20:13	19:33	18:42	11 18:05 (IS10)	16:57	16:30	16:36 16 15:10 (IS08)
30	05:50	06:19	06:49	17:51 (IS10)	06:21	06:56	07:17 14:55 (IS08)
	20:12	19:31	18:40	17 18:08 (IS10)	16:56	16:30	16:37 14 15:09 (IS08)
31	05:51	06:20			06:22		07:17 14:57 (IS08)
	20:11	19:30			16:54		16:38 11 15:08 (IS08)
Potential sun hours	457	426	375	346	300	290	370
Total, worst case			28	288			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R248 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (54)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:27	06:51 18:37	06:24 16:52	06:58 16:29
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:22	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:57 17:22	06:18 17:54	06:28 19:26	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:33 20:26	06:00 20:00	06:30 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:29	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:30	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:55	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	06:39 16:39	07:10 16:29
16	07:16 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:41 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:27	05:39 20:23	06:07 19:50	06:37 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:09	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:49 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:33	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	07:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	07:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:28	05:49 20:13	06:18 19:33	06:48 18:42	07:19 16:57	06:55 16:30	07:17 16:36
30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Total, worst case												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R25 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (31)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December							
1	07:17	07:05	06:30	16:05 (ISO3)	06:40	05:56	05:28	05:28	06:21	06:50	16:51 (ISO3)	06:23	06:57						
	16:39	17:12	17:45	16:41 (ISO3)	19:18	19:49	20:17	20:28	20:10	19:28	18:39	33	17:24 (ISO3)	16:53	16:30				
2	07:17	07:04	06:28	16:06 (ISO3)	06:39	05:54	05:27	05:29	05:53	06:22	06:51		16:49 (ISO3)	06:24	06:58				
	16:40	17:14	17:46	16:43 (ISO3)	19:19	19:50	20:18	20:28	20:09	19:26	18:37	36	17:25 (ISO3)	16:52	16:29				
3	07:17	07:03	06:27	16:05 (ISO3)	06:37	05:53	05:27	05:29	05:53	06:23	06:52		16:48 (ISO3)	06:25	06:59				
	16:41	17:15	17:48	16:43 (ISO3)	19:20	19:51	20:19	20:28	20:08	19:25	18:35	38	17:26 (ISO3)	16:51	16:29				
4	07:17	07:02	06:25	16:06 (ISO3)	06:35	05:52	05:27	05:30	05:54	06:24	06:53		16:46 (ISO3)	06:26	07:00				
	16:41	17:16	17:49	16:45 (ISO3)	19:21	19:52	20:19	20:28	20:07	19:23	18:34	40	17:26 (ISO3)	16:50	16:29				
5	07:18	07:01	06:24	16:06 (ISO3)	06:34	05:51	05:26	05:30	05:55	06:25	06:54		16:45 (ISO3)	06:28	07:01				
	16:42	17:17	17:50	16:46 (ISO3)	19:22	19:53	20:20	20:28	20:06	19:22	18:32	42	17:27 (ISO3)	16:49	16:29				
6	07:17	07:00	06:22	16:07 (ISO3)	06:32	05:50	05:26	05:31	05:56	06:26	06:55		16:44 (ISO3)	06:29	07:02				
	16:43	17:18	17:51	16:48 (ISO3)	19:23	19:54	20:21	20:27	20:04	19:20	18:31	42	17:26 (ISO3)	16:47	16:29				
7	07:17	06:59	06:21	16:07 (ISO3)	06:31	05:48	05:26	05:32	05:57	06:27	06:56		16:43 (ISO3)	06:30	07:03				
	16:44	17:20	17:52	16:49 (ISO3)	19:24	19:55	20:21	20:27	20:03	19:18	18:29	41	17:24 (ISO3)	16:46	16:29				
8	07:17	06:58	06:19	16:08 (ISO3)	06:29	05:47	05:25	05:32	05:58	06:28	06:57		16:42 (ISO3)	06:31	07:04				
	16:45	17:21	17:53	16:51 (ISO3)	19:25	19:56	20:22	20:27	20:02	19:17	18:27	40	17:22 (ISO3)	16:45	16:29				
9	07:17	06:56	06:17	16:08 (ISO3)	06:27	05:46	05:25	05:33	05:59	06:29	06:58		16:41 (ISO3)	06:32	07:05				
	16:46	17:22	17:54	16:49 (ISO3)	19:26	19:57	20:23	20:26	20:01	19:15	18:26	39	17:20 (ISO3)	16:44	16:29				
10	07:17	06:55	06:16	16:08 (ISO3)	06:26	05:45	05:25	05:34	06:00	06:30	06:59		16:40 (ISO3)	06:33	07:05				
	16:47	17:23	17:55	16:48 (ISO3)	19:27	19:58	20:23	20:26	20:00	19:13	18:24	39	17:19 (ISO3)	16:43	16:29				
11	07:17	06:54	06:14	16:10 (ISO3)	06:24	05:44	05:25	05:34	06:01	06:31	07:00		16:40 (ISO3)	06:35	07:06				
	16:48	17:24	17:56	16:47 (ISO3)	19:28	19:59	20:24	20:26	19:58	19:12	18:23	37	17:17 (ISO3)	16:42	16:29				
12	07:17	06:53	06:13	16:11 (ISO3)	06:23	05:43	05:25	05:35	06:02	06:32	07:01		16:39 (ISO3)	06:36	07:07				
	16:49	17:26	17:57	16:45 (ISO3)	19:29	20:00	20:24	20:25	19:57	19:10	18:21	36	17:15 (ISO3)	16:41	16:29				
13	07:16	06:52	16:30 (ISO3)	06:11	16:13 (ISO3)	06:21	05:42	05:25	05:36	06:03	06:33		07:02	16:39 (ISO3)	06:37	07:08			
	16:50	17:27	2	16:32 (ISO3)	17:58	31	16:44 (ISO3)	19:30	20:01	20:25	20:25	19:56	19:08	18:20	35	17:14 (ISO3)	16:40	16:29	
14	07:16	06:50	16:23 (ISO3)	06:10	16:14 (ISO3)	06:20	05:41	05:25	05:36	06:04	06:34		07:03	16:38 (ISO3)	06:38	07:09			
	16:51	17:28	15	16:38 (ISO3)	18:00	27	16:41 (ISO3)	19:31	20:02	20:25	20:24	19:54	19:07	18:18	35	17:13 (ISO3)	16:40	16:29	
15	07:16	06:49	16:19 (ISO3)	06:08	16:16 (ISO3)	06:18	05:40	05:25	05:37	06:05	06:35		07:04	16:38 (ISO3)	06:39	07:09			
	16:52	17:29	19	16:38 (ISO3)	18:01	22	16:38 (ISO3)	19:32	20:03	20:26	20:24	19:53	19:05	18:16	34	17:12 (ISO3)	16:39	16:30	
16	07:15	06:48	16:17 (ISO3)	06:06	16:20 (ISO3)	06:17	05:39	05:25	05:38	06:06	06:36		07:05	16:39 (ISO3)	06:40	07:10			
	16:54	17:30	21	16:38 (ISO3)	18:02	15	16:35 (ISO3)	19:33	20:04	20:26	20:23	19:52	19:03	18:15	33	17:12 (ISO3)	16:38	16:30	
17	07:15	06:47	16:16 (ISO3)	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06		07:06	16:39 (ISO3)	06:41	07:11			
	16:55	17:32	23	16:39 (ISO3)	18:03	19:35	20:05	20:26	20:22	19:50	19:02	18:13	32	17:11 (ISO3)	16:37	16:30			
18	07:14	06:45	16:13 (ISO3)	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07		07:07	16:39 (ISO3)	06:43	07:11			
	16:56	17:33	25	16:38 (ISO3)	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	32	17:11 (ISO3)	16:36	16:30			
19	07:14	06:44	16:12 (ISO3)	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:09		07:09	16:40 (ISO3)	06:44	07:12			
	16:57	17:34	27	16:39 (ISO3)	18:05	19:37	20:06	20:27	20:21	19:48	18:58	18:11	30	17:10 (ISO3)	16:36	16:31			
20	07:13	06:43	16:11 (ISO3)	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10		07:10	16:40 (ISO3)	06:45	07:13			
	16:58	17:35	29	16:40 (ISO3)	18:06	19:38	20:07	20:27	20:20	19:46	18:57	18:09	30	17:10 (ISO3)	16:35	16:31			
21	07:13	06:41	16:10 (ISO3)	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11		07:11	16:41 (ISO3)	06:46	07:13			
	16:59	17:36	29	16:39 (ISO3)	18:07	19:39	20:08	20:27	20:20	19:45	18:55	18:08	29	17:10 (ISO3)	16:34	16:32			
22	07:12	06:40	16:09 (ISO3)	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12		07:12	16:41 (ISO3)	06:47	07:14			
	17:00	17:37	31	16:40 (ISO3)	18:08	19:40	20:09	20:28	20:19	19:43	18:53	18:06	28	17:09 (ISO3)	16:34	16:32			
23	07:12	06:38	16:08 (ISO3)	05:55	06:06	05:33	05:26	05:44	06:13	06:42	07:13		07:13	16:42 (ISO3)	06:48	07:14			
	17:02	17:39	31	16:39 (ISO3)	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	27	17:09 (ISO3)	16:33	16:33			
24	07:11	06:37	16:08 (ISO3)	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14		07:14	16:44 (ISO3)	06:49	07:15			
	17:03	17:40	31	16:39 (ISO3)	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	25	17:09 (ISO3)	16:33	16:33			
25	07:10	06:36	16:07 (ISO3)	05:52	06:04	05:32	05:26	05:45	06:15	06:44	07:15		07:15	16:45 (ISO3)	06:51	07:15			
	17:04	17:41	32	16:39 (ISO3)	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02	22	16:08 (ISO3)	16:32	16:34			
26	07:10	06:34	16:07 (ISO3)	05:50	06:02	05:31	05:26	05:46	06:16	06:45	07:16		07:16	16:46 (ISO3)	06:52	07:15			
	17:05	17:42	33	16:40 (ISO3)	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	21	16:08 (ISO3)	16:32	16:34			
27	07:09	06:33	16:07 (ISO3)	05:48	06:01	05:30	05:27	05:47	06:16	06:46	07:17		07:17	16:47 (ISO3)	06:53	07:16			
	17:06	17:43	34	16:41 (ISO3)	18:13	19:45	20:13	20:28	20:15	19:36	18:45	10	17:14 (ISO3)	16:59	18	16:08 (ISO3)	16:31	16:35	
28	07:08	06:31	16:06 (ISO3)	05:47	06:00	05:30	05:27	05:48	06:17	06:47	07:18		07:18	16:59 (ISO3)	06:18	15:53 (ISO3)	06:54	07:16	
	17:08	17:44	35	16:41 (ISO3)	18:14	19:46	20:14	20:28	20:14	19:34	18:44	19	17:18 (ISO3)	16:58	13	16:06 (ISO3)	16:31	16:36	
29	07:07			06:45	06:58	05:29	05:28	05:49	06:18	06:48	07:19		07:19	16:56 (ISO3)	06:20		06:55	07:16	
	17:09			19:15	19:47	20:15	20:28	20:13	19:33	18:42	25	17:21 (ISO3)	16:57		16:30		16:36		
30	07:06			06:44	06:57	05:29	05:28	05:50	06:19	06:49	07:20		07:20	16:53 (ISO3)	06:21		06:56	07:17	
	17:10			19:16	19:48	20:16	20:28	20:12	19:31	18:40	29	17:22 (ISO3)	16:56		16:30		16:37		
31	07:06			06:42	06:55	05:28	05:27	05:51	06:20	06:50	07:21		07:21	16:54 (ISO3)	06:22		06:57	07:17	
	17:11			19:17	19:49	20:17	20:29	20:11	19:30	18:40	29	17:22 (ISO3)	16:54		16:34		16:38		
Potential sun hours	300	298	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Total, worst case		417		563		398	446	449	456	426	375	83	907		346		300		291

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker (WTG causing flicker first time)	Last time (hh:mm) with flicker (WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R28 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (32)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17	07:05	06:30		05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57
	16:39	17:12		16:15 (ISO3)	16:40	19:49	20:17	20:28	20:10	19:28	18:39	16:53
2	07:17	07:04	06:28	29	16:44 (ISO3)	19:18	19:49	20:17	20:28	20:10	19:28	16:53
	16:40	17:14		16:16 (ISO3)	16:39	19:19	19:50	20:18	20:28	20:09	19:26	16:52
3	07:17	07:03	06:27	29	16:45 (ISO3)	19:19	19:50	20:18	20:28	20:09	19:26	16:52
	16:41	17:15		16:17 (ISO3)	16:37	19:20	19:51	20:19	20:28	20:08	19:25	16:51
4	07:17	07:02	06:25	26	16:43 (ISO3)	19:20	19:51	20:19	20:28	20:08	19:25	16:51
	16:41	17:16		16:19 (ISO3)	16:35	19:21	19:52	20:19	20:28	20:07	19:23	16:50
5	07:17	07:01	06:24	23	16:42 (ISO3)	19:21	19:52	20:19	20:28	20:07	19:23	16:50
	16:42	17:17		16:20 (ISO3)	16:34	19:22	19:53	20:20	20:28	20:06	19:22	16:49
6	07:17	07:00	06:22	19	16:39 (ISO3)	19:22	19:53	20:20	20:28	20:06	19:22	16:49
	16:43	17:18		16:24 (ISO3)	16:32	19:23	19:54	20:21	20:27	20:04	19:20	16:47
7	07:17	06:59	06:21	13	16:37 (ISO3)	19:23	19:54	20:21	20:27	20:04	19:20	16:47
	16:44	17:20		16:21 (ISO3)	16:31	19:24	19:55	20:22	20:27	20:03	19:18	16:46
8	07:17	06:57	06:19		17:52	19:24	19:55	20:21	20:27	20:03	19:18	16:46
	16:45	17:21		16:19 (ISO3)	16:11	19:25	19:56	20:22	20:27	20:02	19:17	16:45
9	07:17	06:56	06:17		17:53	19:25	19:56	20:22	20:27	20:02	19:17	16:45
	16:46	17:22		16:19 (ISO3)	16:11	19:25	19:56	20:22	20:27	20:02	19:17	16:45
10	07:17	06:55	06:16		17:54	19:26	19:57	20:23	20:26	20:01	19:15	16:44
	16:47	17:23	8	16:27 (ISO3)	16:16	19:26	19:57	20:23	20:26	20:00	19:15	16:44
11	07:17	06:54	06:14		17:55	19:27	19:58	20:23	20:26	20:00	19:13	16:43
	16:48	17:24	13	16:35 (ISO3)	16:14	19:27	19:58	20:23	20:26	20:01	19:13	16:43
12	07:17	06:53	06:13		17:56	19:28	19:59	20:24	20:26	20:01	19:13	16:43
	16:49	17:26	16	16:35 (ISO3)	16:13	19:28	19:59	20:24	20:26	20:01	19:13	16:43
13	07:16	06:52	06:11		17:57	19:29	20:00	20:24	20:25	20:01	19:13	16:43
	16:50	17:27	19	16:37 (ISO3)	16:11	19:29	20:00	20:24	20:25	20:01	19:13	16:43
14	07:16	06:50	06:10		17:58	19:30	20:01	20:25	20:25	20:01	19:13	16:43
	16:51	17:28	20	16:38 (ISO3)	16:10	19:30	20:01	20:25	20:25	20:01	19:13	16:43
15	07:16	06:49	06:08		18:00	19:31	20:02	20:25	20:24	20:01	19:13	16:43
	16:52	17:29	22	16:38 (ISO3)	16:09	19:31	20:02	20:25	20:24	20:01	19:13	16:43
16	07:15	06:48	06:06		18:01	19:32	20:03	20:26	20:24	20:01	19:13	16:43
	16:54	17:30	22	16:38 (ISO3)	16:08	19:32	20:03	20:26	20:24	20:01	19:13	16:43
17	07:15	06:47	06:05		18:02	19:33	20:04	20:26	20:23	20:01	19:13	16:43
	16:55	17:32	24	16:39 (ISO3)	16:07	19:33	20:04	20:26	20:23	20:01	19:13	16:43
18	07:14	06:45	06:03		18:03	19:34	20:05	20:26	20:22	20:01	19:13	16:43
	16:56	17:33	25	16:39 (ISO3)	16:06	19:34	20:05	20:26	20:22	20:01	19:13	16:43
19	07:14	06:44	06:01		18:04	19:35	20:06	20:27	20:22	20:01	19:13	16:43
	16:57	17:34	25	16:39 (ISO3)	16:05	19:35	20:06	20:27	20:22	20:01	19:13	16:43
20	07:13	06:43	06:00		18:05	19:36	20:06	20:27	20:22	20:01	19:13	16:43
	16:58	17:35	25	16:39 (ISO3)	16:04	19:36	20:06	20:27	20:22	20:01	19:13	16:43
21	07:13	06:41	05:58		18:06	19:37	20:07	20:27	20:22	20:01	19:13	16:43
	16:59	17:36	26	16:39 (ISO3)	16:03	19:37	20:07	20:27	20:22	20:01	19:13	16:43
22	07:12	06:40	05:57		18:07	19:38	20:08	20:27	20:22	20:01	19:13	16:43
	17:00	17:37	26	16:39 (ISO3)	16:02	19:38	20:08	20:27	20:22	20:01	19:13	16:43
23	07:12	06:38	05:55		18:08	19:39	20:09	20:28	20:19	20:01	19:13	16:43
	17:02	17:39	27	16:39 (ISO3)	16:01	19:39	20:09	20:28	20:19	20:01	19:13	16:43
24	07:11	06:37	05:53		18:09	19:40	20:10	20:28	20:18	20:01	19:13	16:43
	17:03	17:40	27	16:40 (ISO3)	16:00	19:40	20:10	20:28	20:18	20:01	19:13	16:43
25	07:10	06:36	05:52		18:10	19:41	20:11	20:28	20:17	20:01	19:13	16:43
	17:04	17:41	27	16:40 (ISO3)	16:00	19:41	20:11	20:28	20:17	20:01	19:13	16:43
26	07:10	06:34	05:50		18:11	19:42	20:12	20:28	20:17	20:01	19:13	16:43
	17:05	17:42	28	16:41 (ISO3)	16:00	19:42	20:12	20:28	20:17	20:01	19:13	16:43
27	07:09	06:33	05:48		18:12	19:43	20:13	20:28	20:16	20:01	19:13	16:43
	17:06	17:43	28	16:41 (ISO3)	16:00	19:43	20:13	20:28	20:16	20:01	19:13	16:43
28	07:08	06:31	05:47		18:13	19:44	20:13	20:28	20:15	20:01	19:13	16:43
	17:08	17:44	29	16:43 (ISO3)	16:00	19:44	20:13	20:28	20:15	20:01	19:13	16:43
29	07:07		05:45		18:14	19:45	20:14	20:28	20:14	20:01	19:13	16:43
	17:09		19:15		18:15	19:46	20:14	20:28	20:14	20:01	19:13	16:43
30	07:06		05:44		18:16	19:47	20:15	20:28	20:13	20:01	19:13	16:43
	17:10		19:16		18:17	19:48	20:16	20:28	20:12	20:01	19:13	16:43
31	07:05		05:43		18:17	19:49	20:17	20:28	20:11	20:01	19:13	16:43
	17:11		19:17		18:18	19:50	20:17	20:28	20:11	20:01	19:13	16:43
Potential sun hours	300	298	370		398	446	449	456	426	375	346	291
Total, worst case		437		139							582	8

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker (WTG causing flicker first time)	Last time (hh:mm) with flicker (WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R36 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (33)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	07:17	07:05	06:30	16:45 (IS03) 06:40	05:56	05:28	05:28	05:52	06:21	06:50	17:26 (IS03) 06:23	06:57	
	16:39	17:12	17:45	5 16:50 (IS03) 19:18	19:49	20:17	20:28	20:10	19:28	18:39	17:43 (IS03) 16:53	16:30	
2	07:17	07:04	06:28	16:44 (IS03) 06:39	05:54	05:27	05:29	05:53	06:22	06:51	17:24 (IS03) 06:24	06:58	
	16:40	17:14	17:46	7 16:51 (IS03) 19:19	19:50	20:18	20:28	20:09	19:26	18:37	17:41 (IS03) 16:52	16:29	
3	07:17	07:03	06:27	16:43 (IS03) 06:37	05:53	05:27	05:29	05:53	06:23	06:52	17:23 (IS03) 06:25	06:59	
	16:41	17:15	17:48	8 16:51 (IS03) 19:20	19:51	20:19	20:28	20:08	19:25	18:35	16 17:39 (IS03) 16:51	16:29	
4	07:17	07:02	06:25	16:43 (IS03) 06:35	05:52	05:27	05:30	05:54	06:24	06:53	17:21 (IS03) 06:26	07:00	
	16:41	17:16	17:49	10 16:53 (IS03) 19:21	19:52	20:19	20:28	20:07	19:23	18:34	17 17:38 (IS03) 16:50	16:29	
5	07:17	07:01	06:24	16:43 (IS03) 06:34	05:51	05:26	05:30	05:55	06:25	06:54	17:20 (IS03) 06:28	07:01	
	16:42	17:17	17:50	11 16:54 (IS03) 19:22	19:53	20:20	20:28	20:06	19:22	18:32	16 17:36 (IS03) 16:49	16:29	
6	07:17	07:00	06:22	16:43 (IS03) 06:32	05:50	05:26	05:31	05:56	06:26	06:55	17:19 (IS03) 06:29	07:02	
	16:43	17:18	17:51	13 16:56 (IS03) 19:23	19:54	20:21	20:27	20:04	19:20	18:30	15 17:34 (IS03) 16:47	16:29	
7	07:17	06:59	06:21	16:43 (IS03) 06:31	05:48	05:26	05:32	05:57	06:27	06:56	17:19 (IS03) 06:30	07:03	
	16:44	17:20	17:52	14 16:57 (IS03) 19:24	19:55	20:21	20:27	20:03	19:18	18:29	13 17:32 (IS03) 16:46	16:29	
8	07:17	06:57	06:19	16:43 (IS03) 06:29	05:47	05:25	05:32	05:58	06:28	06:57	17:18 (IS03) 06:31	07:04	
	16:45	17:21	17:53	16 16:59 (IS03) 19:25	19:56	20:22	20:27	20:02	19:17	18:27	12 17:30 (IS03) 16:45	16:29	
9	07:17	06:56	06:17	16:43 (IS03) 06:27	05:46	05:25	05:33	05:59	06:29	06:58	17:18 (IS03) 06:32	07:05	
	16:46	17:22	17:54	16 16:59 (IS03) 19:26	19:57	20:23	20:26	20:01	19:15	18:26	11 17:29 (IS03) 16:44	16:29	
10	07:17	06:55	06:16	16:44 (IS03) 06:26	05:45	05:25	05:34	06:00	06:30	06:59	17:18 (IS03) 06:33	07:05	
	16:47	17:23	17:55	16 17:00 (IS03) 19:27	19:58	20:23	20:26	20:00	19:13	18:24	9 17:27 (IS03) 16:43	16:29	
11	07:17	06:54	06:14	16:45 (IS03) 06:24	05:44	05:25	05:34	06:01	06:31	07:00	17:17 (IS03) 06:35	07:06	
	16:48	17:24	17:56	17 17:02 (IS03) 19:28	19:59	20:24	20:26	19:58	19:12	18:23	7 17:25 (IS03) 16:42	16:29	
12	07:17	06:53	06:13	16:46 (IS03) 06:23	05:43	05:25	05:35	06:02	06:32	07:01	17:18 (IS03) 06:36	07:07	
	16:49	17:26	17:57	17 17:03 (IS03) 19:29	20:00	20:24	20:25	19:57	19:10	18:21	6 17:24 (IS03) 16:41	16:29	
13	07:16	06:52	06:11	16:49 (IS03) 06:21	05:42	05:25	05:36	06:03	06:33	07:02	17:18 (IS03) 06:37	07:08	
	16:50	17:27	17:58	14 17:03 (IS03) 19:30	20:01	20:25	20:25	19:56	19:08	18:19	5 17:23 (IS03) 16:40	16:29	
14	07:16	06:50	06:10	16:52 (IS03) 06:20	05:41	05:25	05:36	06:04	06:34	07:03	17:19 (IS03) 06:38	07:09	
	16:51	17:28	17:59	6 16:58 (IS03) 19:31	20:02	20:25	20:24	19:54	19:07	18:18	3 17:22 (IS03) 16:40	16:29	
15	07:16	06:49	06:08	16:58 (IS03) 06:18	05:40	05:25	05:37	06:05	06:35	07:04	17:20 (IS03) 06:39	07:09	
	16:52	17:29	18:01	19:32	20:03	20:25	20:24	19:53	19:05	18:16	2 17:22 (IS03) 16:39	16:29	
16	07:15	06:48	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	07:05	06:40	07:10
	16:54	17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	18:15	16:38	16:30
17	07:15	06:47	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	07:06	06:41	07:11
	16:55	17:32	18:03	19:34	20:05	20:26	20:22	19:50	19:02	18:13	18:13	16:37	16:30
18	07:14	06:45	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	07:07	06:43	07:11
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	18:12	16:36	16:30
19	07:14	06:44	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:09	07:09	06:44	07:12
	16:57	17:34	18:05	19:37	20:06	20:27	20:21	19:48	18:58	18:11	18:11	16:36	16:31
20	07:13	06:43	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:07	20:27	20:20	19:46	18:57	18:09	18:09	16:35	16:31
21	07:13	06:41	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:08	20:27	20:20	19:45	18:55	18:08	18:08	16:34	16:32
22	07:12	06:40	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:53	18:06	18:06	16:34	16:32
23	07:12	06:38	05:55	06:06	05:33	05:26	05:44	06:13	06:42	07:13	07:13	06:48	07:14
	17:02	17:39	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	18:05	16:33	16:33
24	07:11	06:37	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	07:14	06:49	07:15
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	18:03	16:33	16:33
25	07:10	06:36	05:52	06:04	05:32	05:26	05:45	06:15	06:44	07:15	07:15	06:51	07:15
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:48	18:02	18:02	16:32	16:34
26	07:10	06:34	16:49 (IS03) 05:50	06:02	05:31	05:26	05:46	06:15	06:45	07:16	07:16	06:52	07:15
	17:05	17:42	1 16:50 (IS03) 18:12	19:44	20:13	20:28	20:16	19:37	18:47	18:01	18:01	16:32	16:34
27	07:09	06:33	16:47 (IS03) 05:48	06:01	05:30	05:27	05:47	06:16	06:46	07:17	07:17	06:53	07:16
	17:06	17:43	2 16:49 (IS03) 18:13	19:45	20:13	20:28	20:15	19:36	18:45	18:00	18:00	16:31	16:35
28	07:08	06:31	16:46 (IS03) 05:47	06:00	05:30	05:27	05:48	06:17	06:47	07:18	07:18	06:54	07:16
	17:08	17:44	4 16:50 (IS03) 18:14	19:46	20:14	20:28	20:14	19:34	18:44	18:00	18:00	16:31	16:36
29	07:07		06:45	05:58	05:29	05:28	05:49	06:18	06:48	07:19	07:19	06:55	07:16
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	18:00	18:00	16:30	16:36
30	07:06		06:43	05:57	05:29	05:28	05:50	06:19	06:49	17:29 (IS03) 06:21	17:29 (IS03) 06:21	06:56	07:17
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	12 17:41 (IS03) 06:22	17:41 (IS03) 06:22	16:30	16:37
31	07:05		06:42	05:58	05:28		05:51	06:20		12 17:41 (IS03) 06:22	17:41 (IS03) 06:22	06:57	07:17
	17:11		19:17	19:49	20:17		20:11	19:30		12 17:41 (IS03) 06:23	17:41 (IS03) 06:23	16:54	16:38
Potential sun hours	300	298	300	300	300	300	300	300	300	300	300	300	300
Total, worst case		7	170	398	446	449	456	426	375	12	166	300	291

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R51 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (34)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December	
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:38 (IS03) 16:53 (IS03)	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	17:38 (IS03) 16:52 (IS03)	06:24 16:29	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:39 (IS03) 16:51 (IS03)	06:25 16:51	06:59 16:29
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:19	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	17:41 (IS03) 16:50 (IS03)	06:26 16:50	07:00 16:29
5	07:17 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:27	05:55 20:06	06:25 19:22	06:54 18:32	17:41 (IS03) 16:50 (IS03)	06:28 16:48	07:01 16:29
6	07:17 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	17:41 (IS03) 16:50 (IS03)	06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	17:41 (IS03) 16:50 (IS03)	06:30 16:46	07:03 16:29
8	07:17 16:45	06:57 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	17:41 (IS03) 16:50 (IS03)	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	17:41 (IS03) 16:50 (IS03)	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	17:00 (IS03) 17:01 (IS03)	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:00	06:30 19:13	06:59 18:24	17:41 (IS03) 16:50 (IS03)	06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	17:00 (IS03) 17:04 (IS03)	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:31 19:58	07:00 19:12	17:41 (IS03) 16:50 (IS03)	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	16:59 (IS03) 17:05 (IS03)	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	17:41 (IS03) 16:50 (IS03)	07:01 18:21	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	16:59 (IS03) 17:06 (IS03)	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	17:41 (IS03) 16:50 (IS03)	07:02 18:19	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 17:59	16:58 (IS03) 17:07 (IS03)	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	17:41 (IS03) 16:50 (IS03)	07:03 18:18	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	16:58 (IS03) 17:08 (IS03)	06:18 19:32	05:40 20:03	05:25 20:25	05:37 20:24	06:05 19:53	06:35 19:05	17:41 (IS03) 16:50 (IS03)	07:04 18:16	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	16:58 (IS03) 17:10 (IS03)	06:17 19:33	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:35 19:03	17:41 (IS03) 16:50 (IS03)	07:05 18:15	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	16:58 (IS03) 17:10 (IS03)	06:15 19:34	05:38 20:05	05:25 20:26	05:39 20:22	06:07 19:50	06:36 19:02	17:41 (IS03) 16:50 (IS03)	07:06 18:13	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	16:58 (IS03) 17:10 (IS03)	06:14 19:35	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	17:41 (IS03) 16:50 (IS03)	07:07 18:12	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	17:00 (IS03) 17:12 (IS03)	06:12 19:37	05:36 20:06	05:25 20:27	05:40 20:21	06:09 19:47	06:38 18:58	17:41 (IS03) 16:50 (IS03)	07:09 18:11	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	17:01 (IS03) 17:13 (IS03)	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:20	06:10 19:46	06:39 18:57	17:41 (IS03) 16:50 (IS03)	07:10 18:09	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	17:02 (IS03) 17:14 (IS03)	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55	17:41 (IS03) 16:50 (IS03)	07:11 18:08	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	17:06 (IS03) 17:12 (IS03)	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:53	17:48 (IS03) 18:00 (IS03)	07:12 18:06	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:33 20:28	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	17:45 (IS03) 17:58 (IS03)	07:13 18:05	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:32 20:28	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	17:44 (IS03) 17:56 (IS03)	07:14 18:03	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:32 20:28	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:48	17:42 (IS03) 17:54 (IS03)	07:15 18:02	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:31 20:28	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	17:41 (IS03) 17:53 (IS03)	07:16 17:01	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	05:27 20:28	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	17:40 (IS03) 17:52 (IS03)	06:17 16:59	07:16 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	17:39 (IS03) 17:50 (IS03)	06:18 16:58	07:16 16:36
29	07:07 17:09	06:30 17:45	05:45 18:15	05:58 19:47	05:29 20:15	05:28 20:28	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	17:39 (IS03) 17:48 (IS03)	06:20 16:57	07:16 16:36
30	07:06 17:10	06:29 17:46	05:43 18:16	05:57 19:48	05:29 20:16	05:28 20:28	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	17:38 (IS03) 17:46 (IS03)	06:21 16:56	07:17 16:37
31	07:05 17:11	06:28 17:47	05:42 18:17	05:56 19:49	05:28 20:17	05:28 20:28	05:28 20:28	05:51 20:11	06:20 19:30	06:48 18:40	17:46 (IS03) 16:56 (IS03)	06:22 16:54	07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291	
Total, worst case			115						101	14			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R52 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (39)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:40 (IS03) 16:53	06:23 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	17:40 (IS03) 16:52	06:24 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:44 (IS03) 16:51	06:25 16:29
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:19	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	16:50 16:50	06:26 16:29
5	07:17 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:27	05:55 20:06	06:25 19:22	06:54 18:32	16:50 16:48	06:28 16:29
6	07:17 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	16:50 16:47	06:29 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	16:50 16:46	06:30 16:29
8	07:17 16:45	06:57 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	16:51 16:45	06:31 16:29
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	16:52 16:44	06:32 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	16:53 16:43	06:33 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	17:02 (IS03) 19:28	06:24 19:59	05:44 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	16:54 16:42	06:35 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	17:01 (IS03) 19:29	06:23 20:00	05:43 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	16:55 16:41	06:36 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	17:01 (IS03) 19:30	06:21 20:01	05:42 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:19	16:56 16:40	06:37 16:29
14	07:16 16:51	06:50 17:28	06:10 17:59	17:00 (IS03) 19:31	06:20 20:02	05:41 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	16:57 16:40	06:38 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	17:00 (IS03) 19:32	06:18 20:03	05:40 20:25	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	16:58 16:39	06:39 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	17:00 (IS03) 19:33	06:17 20:04	05:39 20:26	05:38 20:23	06:06 19:52	06:35 19:03	07:05 18:15	16:59 16:38	06:40 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	17:00 (IS03) 19:34	06:15 20:05	05:38 20:26	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:13	16:59 16:37	06:41 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	17:11 (IS03) 19:35	06:14 20:06	05:37 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:07 18:12	16:59 16:36	06:43 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	17:02 (IS03) 19:37	06:12 20:06	05:36 20:27	05:40 20:21	06:09 19:47	06:38 18:58	07:09 18:11	16:59 16:36	06:44 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	17:13 (IS03) 19:38	06:11 20:07	05:35 20:27	05:41 20:20	06:10 19:46	06:39 18:57	07:10 18:09	16:59 16:35	06:45 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	17:04 (IS03) 19:39	06:09 20:08	05:35 20:27	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	16:59 16:34	06:46 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	17:15 (IS03) 19:40	06:08 20:09	05:34 20:28	05:43 20:19	06:12 19:43	06:41 18:53	17:50 (IS03) 18:00 (IS03)	07:12 18:06	06:47 16:34
23	07:12 17:02	06:38 17:39	05:55 18:09	17:13 (IS03) 19:41	06:06 20:10	05:33 20:28	05:44 20:18	06:13 19:42	06:42 18:52	17:47 (IS03) 17:59 (IS03)	07:13 18:05	06:48 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:32 20:28	05:44 20:17	06:14 19:40	06:43 18:50	17:45 (IS03) 17:57 (IS03)	07:14 18:03	06:49 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:31 20:28	05:45 20:17	06:15 19:39	06:44 18:48	17:44 (IS03) 17:55 (IS03)	06:15 17:02	06:50 16:32
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:30 20:28	05:46 20:16	06:15 19:37	06:45 18:47	17:43 (IS03) 17:54 (IS03)	06:16 17:01	06:52 16:32
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	17:42 (IS03) 17:52 (IS03)	06:17 16:59	06:53 16:31
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	17:41 (IS03) 17:51 (IS03)	06:18 16:58	06:54 16:31
29	07:07 17:09	06:30 17:45	05:46 18:15	05:58 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	17:41 (IS03) 17:49 (IS03)	06:20 16:57	06:55 16:30
30	07:06 17:10	06:29 17:46	05:45 18:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	17:40 (IS03) 17:47 (IS03)	06:21 16:56	06:56 16:30
31	07:05 17:11	06:28 17:47	05:44 18:17	05:56 19:49	05:28 20:17	05:27 20:28	05:51 20:11	06:20 19:30	06:48 18:40	16:54 16:54	16:54 16:54	06:57 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	91	9	300
Total, worst case			100									291

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R71 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (40)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

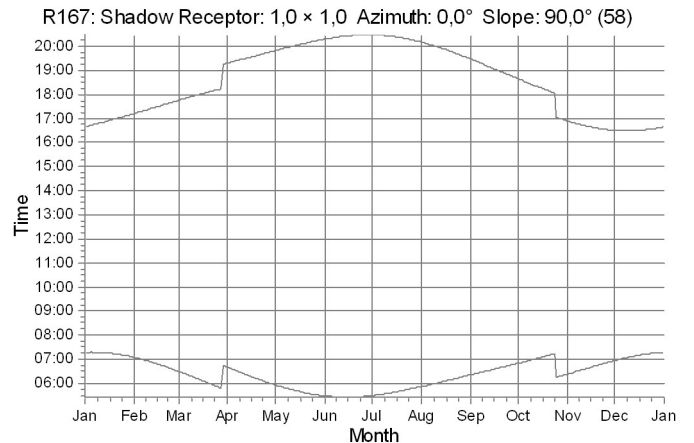
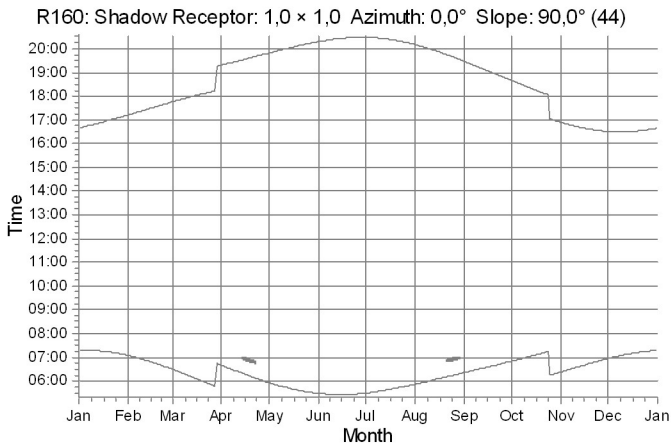
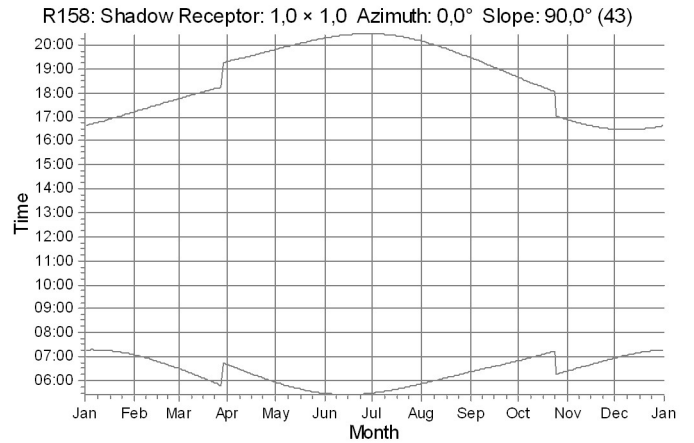
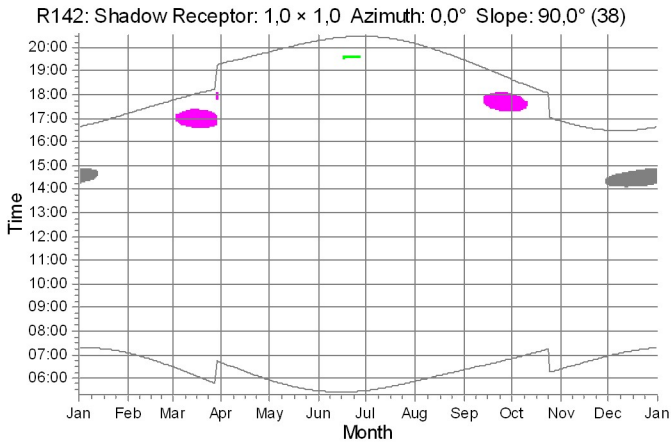
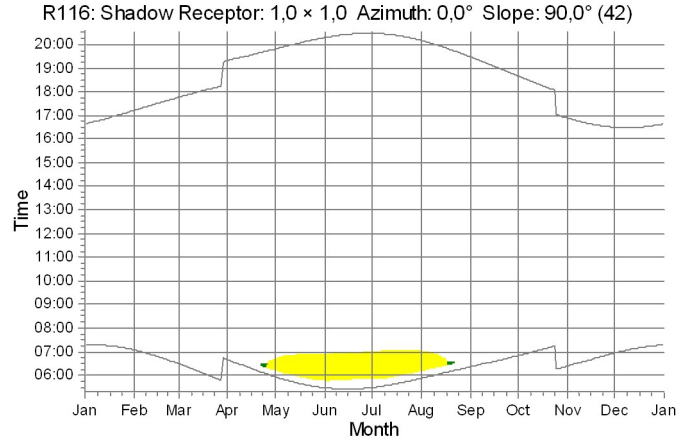
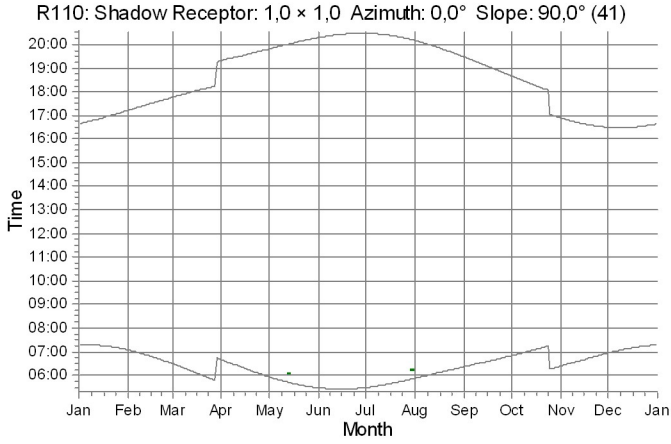
- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December		
1	07:17 16:39	07:05 17:12	16:27 (IS03) 16:29 (IS03)	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	15:48 (IS03) 16:07 (IS03)	06:57 16:30
2	07:17 16:40	07:04 17:14	16:24 (IS03) 16:30 (IS03)	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	15:48 (IS03) 15:49 (IS03)	06:58 06:59
3	07:17 16:41	07:03 17:15	16:23 (IS03) 16:31 (IS03)	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	15:49 (IS03) 16:07 (IS03)	06:59 07:00
4	07:17 16:41	07:02 17:16	16:22 (IS03) 16:32 (IS03)	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:19	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	15:50 (IS03) 16:06 (IS03)	07:00 16:29
5	07:17 16:42	07:01 17:17	16:21 (IS03) 16:33 (IS03)	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	15:50 (IS03) 16:04 (IS03)	07:01 16:29
6	07:17 16:43	07:00 17:18	16:20 (IS03) 16:35 (IS03)	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	06:29 16:47	15:51 (IS03) 16:03 (IS03)	07:02 16:29
7	07:17 16:44	06:59 17:20	16:20 (IS03) 16:36 (IS03)	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	15:53 (IS03) 16:03 (IS03)	07:03 16:29
8	07:17 16:45	06:57 17:21	16:19 (IS03) 16:37 (IS03)	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	15:54 (IS03) 16:02 (IS03)	07:04 16:29
9	07:17 16:46	06:56 17:22	16:19 (IS03) 16:38 (IS03)	06:17 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	15:55 (IS03) 16:01 (IS03)	07:05 16:29
10	07:17 16:47	06:55 17:23	16:19 (IS03) 16:38 (IS03)	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	15:58 (IS03) 16:00 (IS03)	07:05 16:29
11	07:17 16:48	06:54 17:24	16:18 (IS03) 16:37 (IS03)	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	15:54 (IS03) 16:00 (IS03)	07:06 16:29
12	07:17 16:49	06:53 17:26	16:18 (IS03) 16:38 (IS03)	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	15:55 (IS03) 16:01 (IS03)	07:07 16:29
13	07:17 16:50	06:52 17:27	16:18 (IS03) 16:39 (IS03)	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:19	06:37 16:40	15:58 (IS03) 16:00 (IS03)	07:08 16:29
14	07:17 16:51	06:50 17:28	16:20 (IS03) 16:39 (IS03)	06:10 17:59	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	15:58 (IS03) 16:00 (IS03)	07:09 16:29
15	07:17 16:52	06:49 17:29	16:20 (IS03) 16:38 (IS03)	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	15:58 (IS03) 16:00 (IS03)	07:09 16:29
16	07:15 16:54	06:48 17:30	16:21 (IS03) 16:39 (IS03)	06:06 18:02	06:17 19:33	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:35 19:03	07:05 18:15	06:40 16:38	15:59 (IS03) 16:00 (IS03)	07:10 16:30
17	07:15 16:55	06:47 17:32	16:19 (IS03) 16:39 (IS03)	06:05 18:03	06:15 19:34	05:38 20:05	05:25 20:26	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:13	06:41 16:37	15:59 (IS03) 16:00 (IS03)	07:11 16:30
18	07:14 16:56	06:45 17:33	16:23 (IS03) 16:39 (IS03)	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:07 18:12	06:43 16:36	15:59 (IS03) 16:00 (IS03)	07:11 16:30
19	07:14 16:57	06:44 17:34	16:25 (IS03) 16:40 (IS03)	06:01 18:05	06:12 19:37	05:36 20:06	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:58	07:09 18:11	06:44 16:36	15:59 (IS03) 16:00 (IS03)	07:12 16:31
20	07:13 16:58	06:43 17:35	16:28 (IS03) 16:38 (IS03)	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:20	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	15:59 (IS03) 16:00 (IS03)	07:13 16:31
21	07:13 16:59	06:41 17:36	16:30 (IS03) 16:39 (IS03)	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	15:59 (IS03) 16:00 (IS03)	07:13 16:32
22	07:12 17:00	06:40 17:37	16:31 (IS03) 16:39 (IS03)	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:53	07:12 18:06	06:47 16:34	15:59 (IS03) 16:00 (IS03)	07:14 16:32
23	07:12 17:02	06:38 17:39	16:32 (IS03) 16:39 (IS03)	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	15:59 (IS03) 16:00 (IS03)	07:14 16:33
24	07:11 17:03	06:37 17:40	16:33 (IS03) 16:39 (IS03)	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:03	06:49 16:33	15:59 (IS03) 16:00 (IS03)	07:15 16:33
25	07:10 17:04	06:36 17:41	16:34 (IS03) 16:39 (IS03)	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:48	06:15 17:02	06:51 16:32	15:59 (IS03) 16:00 (IS03)	07:15 16:34
26	07:10 17:05	06:34 17:42	16:35 (IS03) 16:39 (IS03)	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	06:52 16:32	15:59 (IS03) 16:00 (IS03)	07:15 16:34
27	07:09 17:06	06:33 17:43	16:36 (IS03) 16:39 (IS03)	05:48 18:13	06:01 19:45	05:30 20:13	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	15:59 (IS03) 16:00 (IS03)	07:16 16:35
28	07:08 17:08	06:31 17:44	16:37 (IS03) 16:39 (IS03)	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:18 16:58	06:54 16:31	15:59 (IS03) 16:00 (IS03)	07:16 16:36
29	07:07 17:09	06:30 17:45	16:38 (IS03) 16:39 (IS03)	05:45 18:15	05:58 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	15:59 (IS03) 16:00 (IS03)	07:16 16:36
30	07:06 17:10	06:29 17:46	16:39 (IS03) 16:39 (IS03)	05:43 18:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	15:59 (IS03) 16:00 (IS03)	07:17 16:37
31	07:05 17:11	06:28 17:47	16:40 (IS03) 16:39 (IS03)	05:42 18:17	05:56 19:49	05:28 20:17	05:27 20:28	05:51 20:11	06:20 19:30	06:22 18:40	06:22 16:54	06:57 16:30	15:59 (IS03) 16:00 (IS03)	07:17 16:38
Potential sun hours	300	298	295	370	398	446	449	456	426	375	346	179	300	291
Total, worst case														

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar, graphical

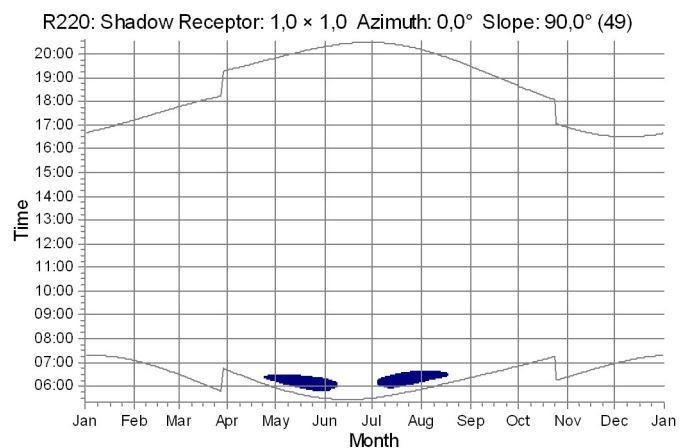
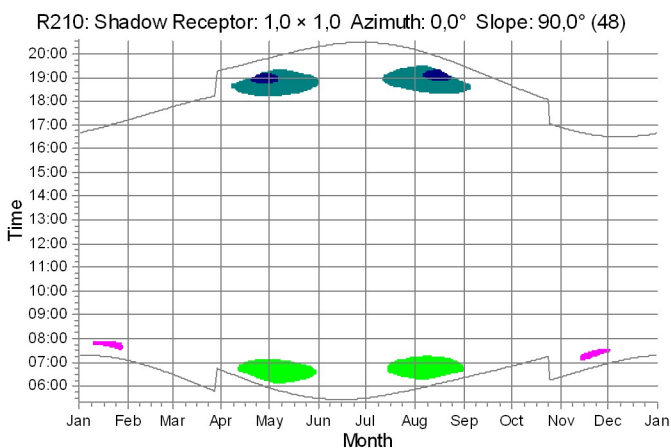
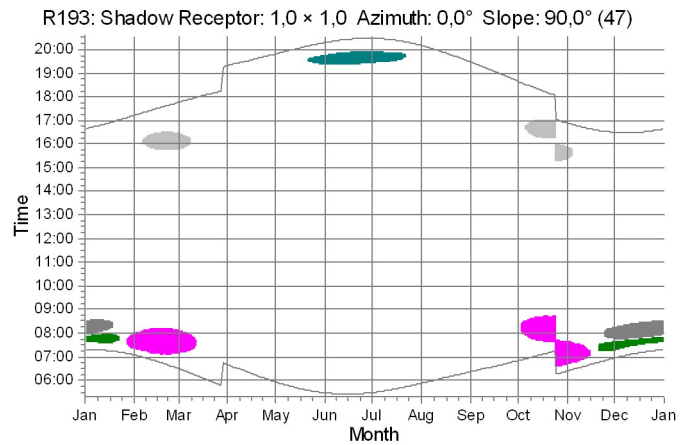
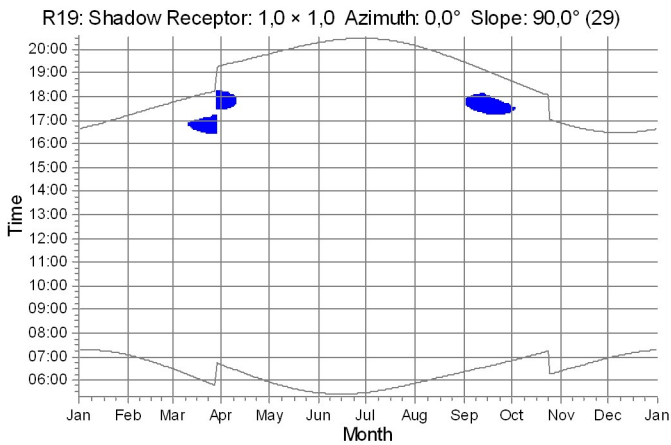
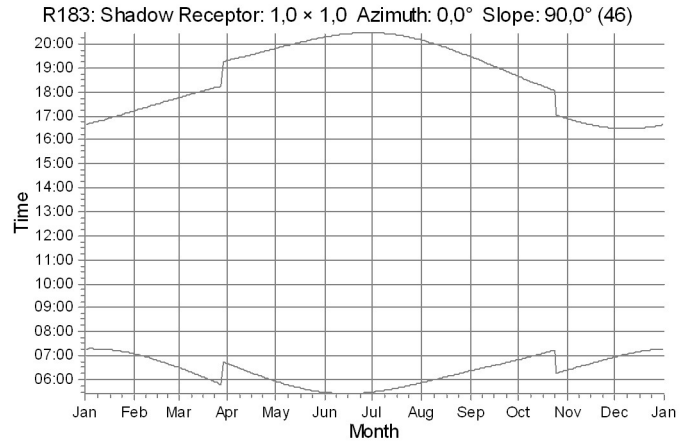
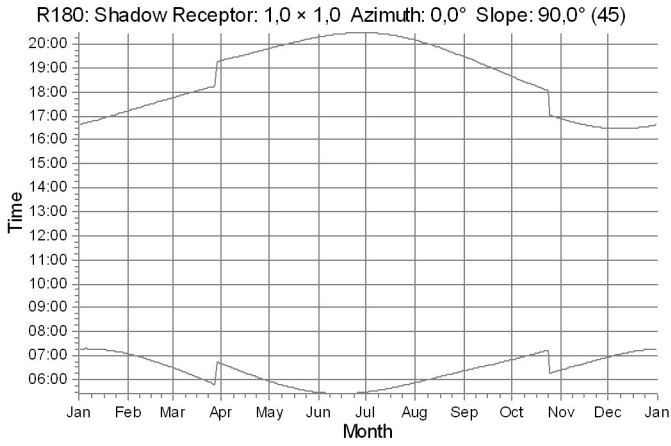


WTGs





- IS01: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)
- IS02: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (2)
- IS04: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)





- IS05: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)
- IS09: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)

SHADOW - Calendar, graphical

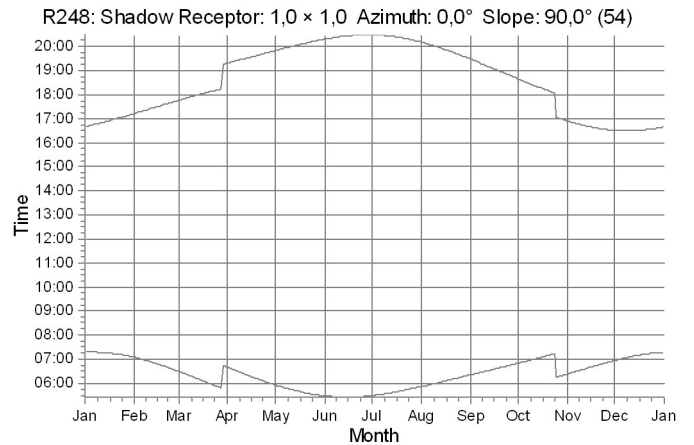
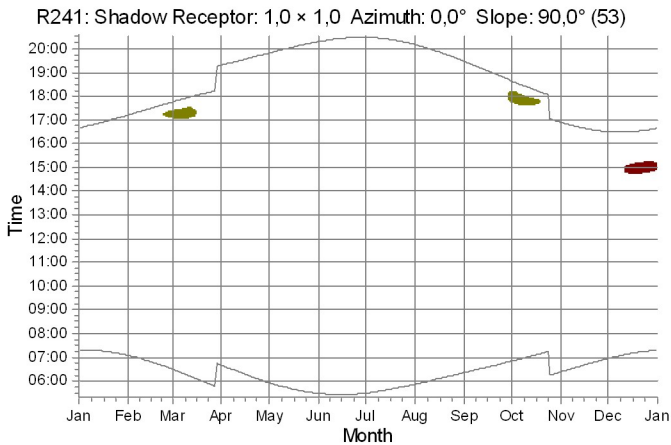
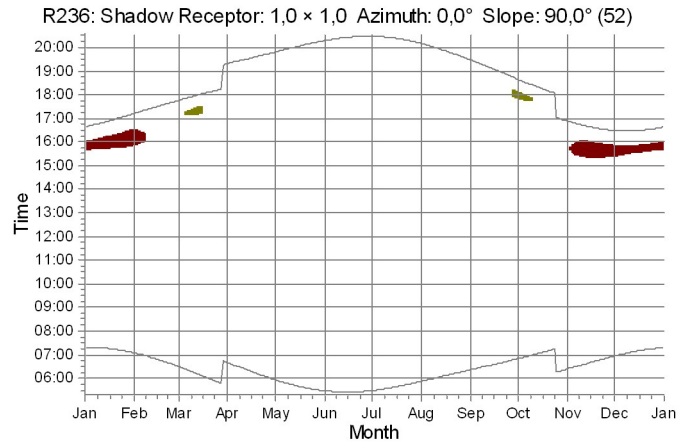
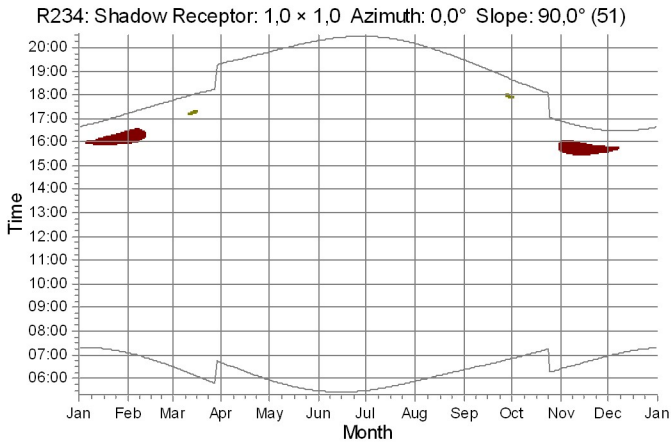
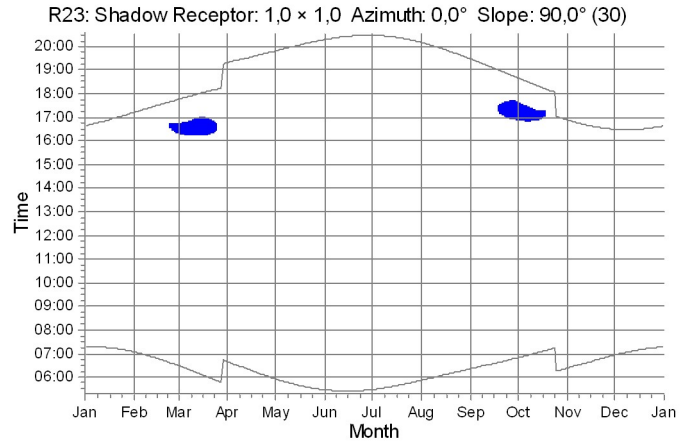
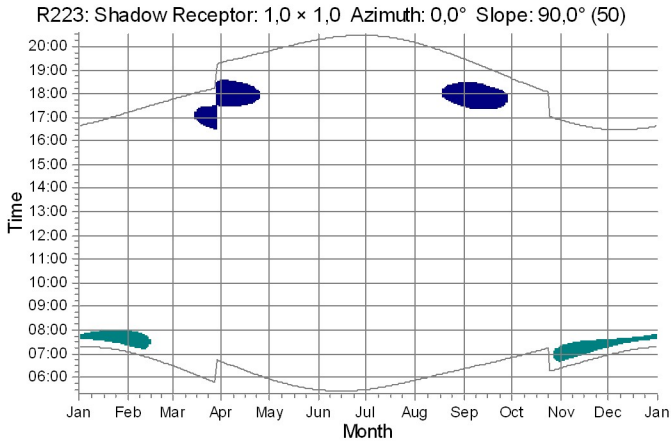


WTGs

	IS01: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)
	IS03: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)
	IS04: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)
	IS05: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)

	IS06: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)
	IS07: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)
	IS09: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)
	IS12: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)

SHADOW - Calendar, graphical

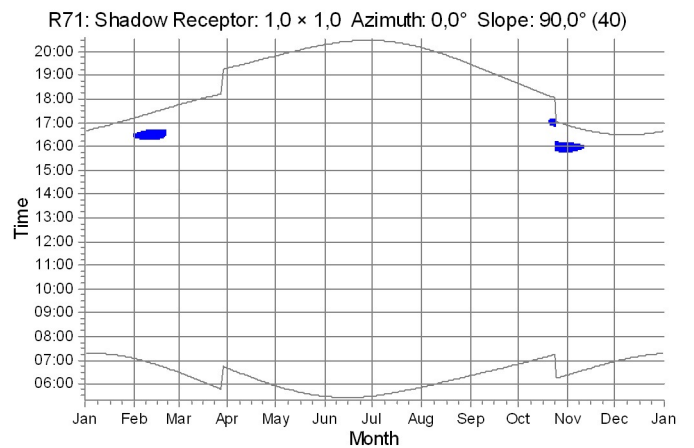
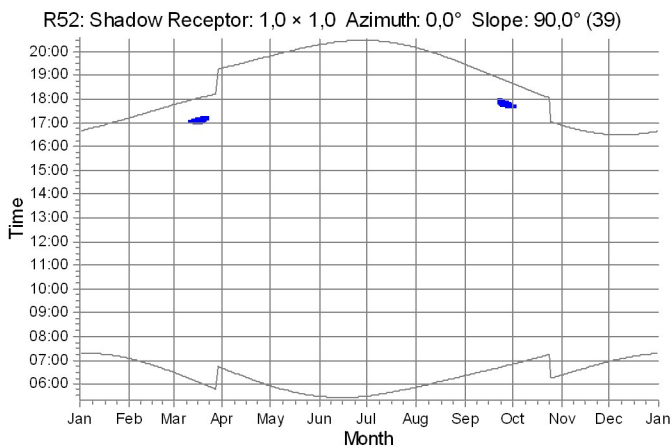
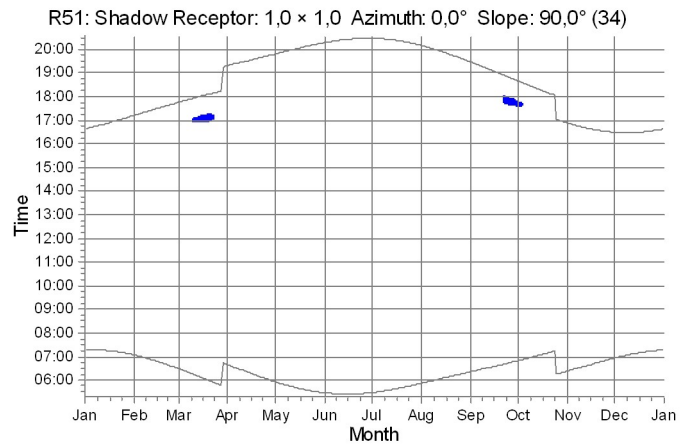
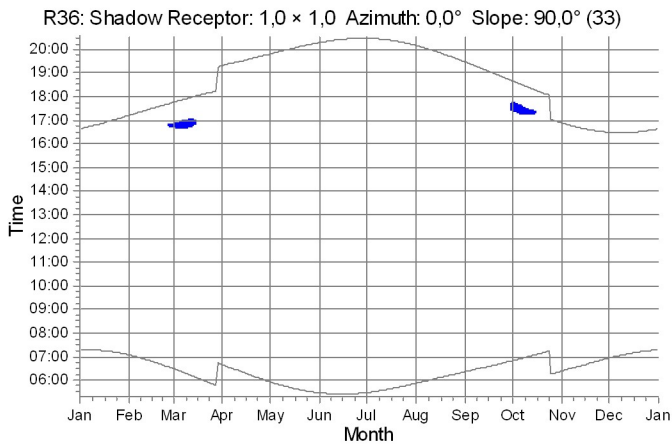
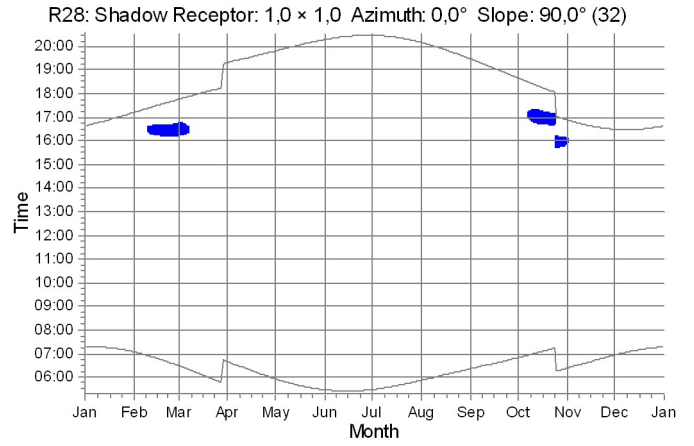
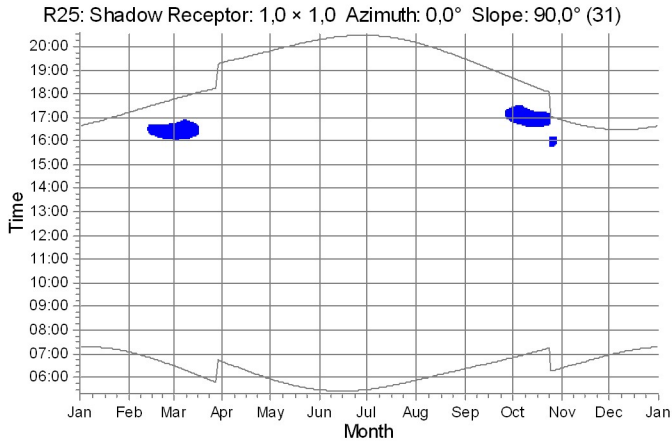


WTGs

- IS03: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)
- IS06: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)
- IS07: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)

- IS08: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)
- IS10: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)

SHADOW - Calendar, graphical



WTGs

IS03: VESTAS V162-6.0 6000 162.0 !0! hub: 125,0 m (TOT: 206,0 m) (3)

SHADOW - Calendar per WTG

WTG: IS01 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17 07:39-07:49/10 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17
2	07:17 07:39-07:50/11 16:40	07:04 17:13	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18
3	07:17 07:39-07:50/11 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19
4	07:17 07:39-07:51/12 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:19
5	07:17 07:39-07:51/12 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20
6	07:17 07:39-07:52/13 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:49 19:54	05:26 20:21
7	07:17 07:39-07:53/14 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21
8	07:17 07:39-07:53/14 16:45	06:57 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22
9	07:17 07:39-07:54/15 16:46	06:56 17:22	06:17 17:54	06:27 19:26	05:46 19:57	05:25 20:23
10	07:17 07:38-07:54/16 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23
11	07:17 07:38-07:54/16 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24
12	07:17 07:38-07:55/17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24
13	07:16 07:37-07:54/17 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	06:02-06:03/1 05:25 20:25
14	07:16 07:37-07:55/18 16:51	06:50 17:28	06:09 17:59	06:20 19:31	05:41 20:02	05:24 20:25
15	07:16 07:37-07:55/18 16:52	06:49 17:29	06:08 18:00	06:18 19:32	05:40 20:03	05:24 20:25
16	07:15 07:37-07:55/18 16:53	06:48 17:30	06:06 18:02	06:17 19:33	05:39 20:04	05:24 20:26
17	07:15 07:38-07:55/17 16:55	06:47 17:32	06:05 18:03	06:15 19:34	05:38 20:05	05:25 20:26
18	07:14 07:39-07:54/15 16:56	06:45 17:33	06:03 18:04	06:14 19:35	05:37 20:06	05:25 20:27
19	07:14 07:41-07:54/13 16:57	06:44 17:34	06:01 18:05	06:12 19:36	05:36 20:06	05:25 20:27
20	07:13 07:42-07:53/11 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27
21	07:13 07:43-07:51/8 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:27
22	07:12 17:00	06:40 17:37	05:56 18:08	06:08 19:40	06:26-06:27/1 05:34 20:09	05:25 20:28
23	07:12 17:01	06:38 17:38	05:55 18:09	06:06 19:41	06:25-06:27/2 05:33 20:10	05:25 20:28
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	06:24-06:27/3 05:32 20:11	05:26 20:28
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	06:22-06:26/4 05:32 20:12	05:26 20:28
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	06:21-06:25/4 05:31 20:13	05:26 20:28
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	06:20-06:24/4 05:30 20:13	05:27 20:28
28	07:08 17:07	06:31 17:44	05:47 18:14	05:59 19:46	06:18-06:22/4 05:30 20:14	05:27 20:28
29	07:07 17:09		06:45 19:15	05:58 19:47	06:17-06:20/3 05:29 20:15	05:27 20:28
30	07:06 17:10		06:43 19:16	05:57 19:48		05:28 20:28
31	07:05 17:11		06:42 19:17			05:28 20:17
Potential sun hours	300	298	370	398	446	449
Sum of minutes with flicker	296	0	0	25	1	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS01 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	05:30 20:27	05:55 20:05	06:25 19:22	06:54 18:32	06:28 16:48	07:01 16:29
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	06:29 16:47	07:02 16:29
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:04 16:29
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:05 16:29
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:19	06:37 16:40	07:08 16:29
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	05:37 20:24	06:05 19:53	06:34 19:05	07:04 18:16	06:39 16:39	07:09 16:29
16	05:38 20:23	06:06 19:52	06:35 19:03	07:05 18:15	06:40 16:38	07:10 16:30
17	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:13	06:41 16:37	07:11 16:30
18	05:39 20:22	06:08 19:49	06:37 19:00	07:07 18:12	06:43 16:36	07:11 16:30
19	05:40 20:21	06:09 19:47	06:38 18:58	07:08 18:10	06:44 16:36	07:12 16:31
20	05:41 20:20	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	05:43 20:19	06:12 19:43	06:41 18:53	07:12 18:06	06:47 16:34	07:14 16:32
23	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	05:44 20:17	06:13 19:40	06:43 18:50	07:14 18:03	06:49 16:32	07:15 16:33
25	05:45 20:17	06:14 19:39	06:44 18:48	06:15 17:02	06:50 16:32	07:15 16:34
26	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	06:52 16:32	07:15 16:34
27	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	07:16 16:35
28	05:48 20:14	06:17 19:34	06:47 18:43	06:18 16:58	06:54 16:31	07:16 16:36
29	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:16 16:36
30	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	05:51 20:11	06:20 19:29		06:22 16:54		07:17 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	2	25	0	0	152	303

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS02 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (2)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December		
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15-06:40/25 19:54	05:28 20:17	05:49-06:53/64 20:28	05:52 20:10	06:13-06:59/46 20:28	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	06:13-06:41/28 19:50	05:27 20:18	05:48-06:52/64 20:28	05:53 20:09	06:14-06:59/45 20:08	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12-06:42/30 19:51	05:27 20:19	05:48-06:53/65 20:29	05:53 20:08	06:15-06:58/43 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	06:11-06:44/33 19:52	05:27 20:20	05:49-06:53/64 20:28	05:54 20:07	06:16-06:58/42 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10-06:45/35 19:53	05:26 20:20	05:49-06:54/65 20:28	05:55 20:06	06:17-06:57/40 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	06:09-06:46/37 19:54	05:26 20:21	05:49-06:53/64 20:27	05:55 20:04	06:18-06:56/38 20:04	06:26 19:20	06:55 18:30	06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:08-06:47/39 19:55	05:26 20:21	05:49-06:53/64 20:27	05:57 20:03	06:19-06:55/36 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	06:07-06:48/41 19:56	05:25 20:22	05:50-06:54/64 20:27	05:55 20:02	06:20-06:54/34 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	05:46 19:57	06:06-06:48/42 19:57	05:25 20:23	05:50-06:54/64 20:26	05:57 20:01	06:21-06:53/32 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	06:05-06:49/44 19:58	05:25 20:23	05:51-06:54/63 20:26	06:00 20:00	06:22-06:52/30 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	06:04-06:49/45 19:59	05:25 20:24	05:50-06:53/63 20:26	06:31 19:58	06:22-06:49/27 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	06:03-06:50/47 20:00	05:25 20:24	05:50-06:53/63 20:25	06:35 19:57	06:23-06:48/25 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	06:02-06:50/48 20:01	05:25 20:25	05:51-06:54/63 20:25	06:36 19:56	06:24-06:46/22 19:56	06:33 19:08	07:02 18:19	06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	06:01-06:50/49 20:02	05:25 20:25	05:51-06:54/63 20:24	06:36 19:54	06:25-06:43/18 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	06:00-06:51/51 20:03	05:25 20:26	05:51-06:54/63 20:24	06:05 19:53	06:26-06:41/15 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:33	05:39 20:04	05:59-06:51/52 20:04	05:25 20:26	05:51-06:54/63 20:23	06:38 19:52	06:27-06:37/10 19:52	06:35 19:03	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:58-06:51/53 20:05	05:25 20:26	05:52-06:55/63 20:22	06:39 19:50	06:01-07:02/61 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:57-06:51/54 20:06	05:25 20:27	05:53-06:55/62 20:22	06:39 19:49	06:02-07:02/60 19:49	06:37 19:00	07:07 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:06	05:56-06:51/55 20:06	05:25 20:27	05:53-06:55/62 20:21	06:40 19:48	06:02-07:02/60 19:48	06:38 18:58	07:09 18:11	06:44 16:36	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:56-06:52/56 20:07	05:25 20:27	05:53-06:55/62 20:20	06:41 19:46	06:03-07:02/59 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:55-06:52/57 20:08	05:25 20:27	05:53-06:55/62 20:20	06:42 19:45	06:04-07:02/58 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:54-06:52/58 20:09	05:25 20:28	05:53-06:55/62 20:19	06:43 19:43	06:05-07:02/57 19:43	06:41 18:53	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:54-06:52/58 20:10	05:25 20:28	05:54-06:56/62 20:18	06:44 19:42	06:06-07:02/56 19:42	06:43 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:53-06:52/59 20:11	05:26 20:28	05:54-06:56/62 20:17	06:44 19:40	06:06-07:01/55 19:40	06:43 18:50	07:14 18:03	06:49 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:52-06:52/60 20:12	05:26 20:28	05:53-06:56/63 20:17	06:45 19:39	06:07-07:02/55 19:39	06:44 18:48	07:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	06:21-06:24/3 20:13	05:26 20:28	05:54-06:57/63 20:16	06:45 19:37	06:08-07:02/54 19:37	06:45 18:47	07:16 17:01	06:52 16:32	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	06:20-06:31/11 20:13	05:27 20:28	05:54-06:57/63 20:15	06:16 19:36	06:09-07:01/52 19:36	06:46 18:45	07:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	06:18-06:34/16 20:14	05:27 20:28	05:54-06:57/63 20:14	06:17 19:34	06:10-07:01/51 19:34	06:47 18:44	07:18 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	06:17-06:36/19 19:47	05:29 20:15	05:58-06:53/63 20:15	05:28 20:28	05:55-06:58/63 20:13	06:18 19:33	06:11-07:01/50 19:33	06:48 18:42	07:19 16:57	06:55 16:30	07:16 16:36
30	07:06 17:10		06:43 19:16	05:57-06:16-06:38/22 19:48	05:29 20:16	05:50-06:53/63 20:16	05:28 20:28	06:12-07:01/49 20:12	06:19 19:31	06:12-07:01/49 19:31	06:49 18:40	07:20 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17	05:49-06:53/64 20:17	05:28 20:28	06:12-07:00/48 20:11	06:20 19:30		06:54 18:40	07:21 16:54	06:57 16:30	07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291	0	0
Sum of minutes with flicker	0	0	0	71	1530	1894	1844	503	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker <td>Last time (hh:mm) with flicker <td>Minutes with flicker </td></td>	Last time (hh:mm) with flicker <td>Minutes with flicker </td>	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS03 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17 16:39	07:05 16:27-16:29/2 17:12	06:30 16:45-16:50/5 17:45 16:05-16:44/39	06:40 17:31-18:11/40 19:18	05:56 19:49	05:28 20:17
2	07:17 16:40	07:04 16:24-16:30/6 17:14	06:28 16:06-16:51/45 17:47	06:39 17:32-18:11/39 19:19	05:54 19:50	05:27 20:18
3	07:17 16:41	07:03 16:23-16:31/8 17:15	06:27 16:05-16:51/46 17:48	06:37 17:32-18:09/37 19:20	05:53 19:51	05:27 20:19
4	07:18 16:42	07:02 16:22-16:32/10 17:16	06:25 16:06-16:53/47 17:49	06:35 17:34-18:08/34 19:21	05:52 19:52	05:27 20:20
5	07:18 16:42	07:01 16:21-16:33/12 17:17	06:24 16:06-16:54/48 17:50	06:34 17:34-18:06/32 19:22	05:51 19:53	05:26 20:20
6	07:18 16:43	07:00 16:20-16:35/15 17:18	06:22 16:07-16:56/49 17:51	06:32 17:35-18:04/29 19:23	05:50 19:54	05:26 20:21
7	07:17 16:44	06:59 16:20-16:36/16 17:20	06:21 16:07-16:57/50 17:52	06:31 17:38-18:02/24 19:24	05:48 19:55	05:26 20:21
8	07:17 16:45	06:58 16:19-16:37/18 17:21	06:19 16:08-16:59/51 17:53	06:29 17:40-17:59/19 19:25	05:47 19:56	05:25 20:22
9	07:17 16:46	06:56 16:19-16:38/19 17:22	06:18 16:08-16:59/51 17:54	06:28 17:44-17:56/12 19:26	05:46 19:57	05:25 20:23
10	07:17 16:47	06:55 16:19-16:38/19 17:23	06:16 16:08-17:01/53 17:55	06:26 19:27	05:45 19:58	05:25 20:23
11	07:17 16:48	06:54 16:19-16:37/18 17:25	06:14 16:10-17:04/54 17:56	06:24 19:28	05:44 19:59	05:25 20:24
12	07:17 16:49	06:53 16:19-16:38/19 17:26	06:13 16:11-17:05/54 17:57	06:23 19:29	05:43 20:00	05:25 20:24
13	07:16 16:50	06:52 16:19-16:39/20 17:27	06:11 16:13-17:07/54 17:58	06:21 19:30	05:42 20:01	05:25 20:25
14	07:16 16:51	06:50 16:18-16:39/21 17:28	06:10 16:14-17:08/54 18:00	06:20 19:31	05:41 20:02	05:25 20:25
15	07:16 16:53	06:49 16:16-16:38/22 17:29	06:08 16:58-17:09/11 18:01 16:16-16:57/41	06:18 19:32	05:40 20:03	05:25 20:26
16	07:15 16:54	06:48 16:16-16:39/23 17:30	06:06 16:17-17:10/53 18:02	06:17 19:34	05:39 20:04	05:25 20:26
17	07:15 16:55	06:47 16:15-16:39/24 17:32	06:05 16:17-17:11/54 18:03	06:15 19:35	05:38 20:05	05:25 20:26
18	07:14 16:56	06:45 16:13-16:39/26 17:33	06:03 16:18-17:11/53 18:04	06:14 19:36	05:37 20:06	05:25 20:27
19	07:14 16:57	06:44 16:12-16:40/28 17:34	06:01 16:19-17:13/54 18:05	06:12 19:37	05:36 20:07	05:25 20:27
20	07:13 16:58	06:43 16:11-16:40/29 17:35	06:00 16:20-17:14/54 18:06	06:11 19:38	05:36 20:07	05:25 20:27
21	07:13 16:59	06:41 16:10-16:39/29 17:36	05:58 16:22-17:15/53 18:07	06:09 19:39	05:35 20:08	05:25 20:27
22	07:12 17:00	06:40 16:09-16:40/31 17:37	05:57 17:06-17:13/7 18:08 16:23-17:04/41	06:08 19:40	05:34 20:09	05:25 20:28
23	07:12 17:02	06:39 16:08-16:39/31 17:39	05:55 16:25-17:04/39 18:09	06:06 19:41	05:33 20:10	05:26 20:28
24	07:11 17:03	06:37 16:08-16:43/35 17:40	05:53 16:29-17:06/37 18:10	06:05 19:42	05:32 20:11	05:26 20:28
25	07:10 17:04	06:36 16:07-16:42/35 17:41	05:52 16:30-17:06/36 18:11	06:04 19:43	05:32 20:12	05:26 20:28
26	07:10 17:05	06:34 16:49-16:50/1 17:42 16:07-16:42/35	05:50 16:30-17:07/37 18:12	06:02 19:44	05:31 20:13	05:26 20:28
27	07:09 17:06	06:33 16:47-16:49/2 17:43 16:07-16:42/35	05:48 16:30-17:10/40 18:13	06:01 19:45	05:30 20:13	05:27 20:28
28	07:08 17:08	06:31 16:46-16:50/4 17:44 16:06-16:43/37	05:47 16:30-17:11/41 18:14	06:00 19:46	05:30 20:14	05:27 20:28
29	07:07 17:09		06:45 17:30-18:12/42 19:15	05:58 19:47	05:29 20:15	05:28 20:28
30	07:06 17:10		06:44 17:31-18:14/43 19:16	05:57 19:48	05:29 20:16	05:28 20:28
31	07:06 17:11		06:42 17:31-18:13/42 19:17		05:28 20:17	
Potential sun hours	300	298	370	398	446	449
Sum of minutes with flicker	0	630	1478	266	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS03 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	16:51-17:45/54 16:53	06:23 16:30
2	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	16:49-17:44/55 16:52	06:58 16:30
3	05:29 20:28	05:54 20:08	06:23 19:25	06:52 18:35	16:48-17:41/53 16:51	06:59 16:29
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	16:46-17:38/52 16:50	07:00 16:29
5	05:31 20:28	05:55 20:06	06:25 19:22	06:54 18:32	16:45-17:36/51 16:49	07:01 16:29
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	16:44-17:34/50 16:47	07:02 16:29
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	16:43-17:32/49 16:46	07:03 16:29
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	16:42-17:30/48 16:45	07:04 16:29
9	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	16:41-17:29/48 18:26	07:05 16:29
10	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	16:40-17:27/47 16:43	07:05 16:29
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	16:40-17:25/45 16:42	07:06 16:29
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	16:39-17:24/45 16:41	07:07 16:29
13	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	17:18-17:23/5 16:39-17:17/38	07:08 16:29
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	17:19-17:22/3 16:38-17:15/37	07:09 16:29
15	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	17:20-17:22/2 16:38-17:14/36	07:09 16:30
16	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	16:39-17:15/36 18:15	07:10 16:30
17	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:14	16:39-17:14/35 16:37	07:11 16:30
18	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	16:39-17:11/32 16:36	07:11 16:30
19	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	16:40-17:10/30 16:36	07:12 16:31
20	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	16:40-17:10/30 16:35	07:13 16:31
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	16:41-17:10/29 16:34	07:13 16:32
22	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	16:41-17:09/28 16:34	07:14 16:32
23	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	16:42-17:09/27 16:33	07:14 16:33
24	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:04	16:44-17:09/25 16:33	07:15 16:33
25	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	15:45-16:09/24 16:32	07:15 16:34
26	05:46 20:16	06:16 19:37	06:45 18:47	07:16 17:01	15:45-16:08/23 16:32	07:15 16:34
27	05:47 20:15	06:16 19:36	06:46 18:45	07:17 17:00	15:46-16:08/22 16:31	07:16 16:35
28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 16:58	15:47-16:08/21 16:31	07:16 16:36
29	05:49 20:13	06:18 19:33	06:48 18:42	07:19 16:57	15:49-16:08/19 16:30	07:16 16:36
30	05:50 20:12	06:19 19:31	06:49 18:40	07:20 16:56	15:49-16:08/19 16:30	07:17 16:37
31	05:51 20:11	06:20 19:30		07:21 16:54	15:48-16:07/19 16:30	07:17 16:38
Potential sun hours	456	426	375	346	300	291
Sum of minutes with flicker	0	0	1143	1137	123	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm) Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
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SHADOW - Calendar per WTG

WTG: IS04 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)
Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 07:59-08:30/31	07:05 06:30	06:40	06:40	05:56 05:28	05:28	05:28	05:52	06:21 06:50	06:23	06:23	06:57 07:48-08:13/25
	16:39 14:18-14:49/31	17:12 17:45	19:18	19:18	19:49 20:17	20:28	20:10	19:28	19:28 18:39	16:53	16:53	16:30 14:14-14:26/12
2	07:17 07:59-08:30/31	07:04 06:28	06:39	06:39	05:54 05:27	05:29	05:52	06:22 06:51	06:24	06:24	06:58 07:48-08:13/25	
	16:40 14:19-14:49/30	17:14 17:46	19:19	19:19	19:50 20:18	20:28	20:09	19:26 18:37	16:52	16:52	16:29 14:12-14:29/17	
3	07:17 08:00-08:30/30	07:03 06:27	06:37	06:37	05:53 05:27	05:29	05:53	06:23 06:52	06:25	06:25	06:59 07:48-08:14/26	
	16:41 14:20-14:49/29	17:15 17:48	19:20	19:20	19:51 20:19	20:28	20:08	19:25 18:35	16:51	16:51	16:29 14:11-14:30/19	
4	07:17 08:00-08:30/30	07:02 06:25	06:35	06:35	05:52 05:26	05:30	05:54	06:24 06:53	06:26	06:26	07:00 07:48-08:15/27	
	16:41 14:21-14:49/28	17:16 17:49	19:21	19:21	19:52 20:19	20:28	20:07	19:23 18:34	16:50	16:50	16:29 14:10-14:32/22	
5	07:18 08:01-08:31/30	07:01 06:24	06:34	06:34	05:51 05:26	05:30	05:55	06:25 06:54	06:28	06:28	07:01 07:48-08:16/28	
	16:42 14:22-14:49/27	17:17 17:50	19:22	19:22	19:53 20:20	20:28	20:06	19:22 18:32	16:48	16:48	16:29 14:10-14:33/23	
6	07:17 08:02-08:31/29	07:00 06:22	06:32	06:32	05:49 05:26	05:31	05:56	06:26 06:55	06:29	06:29	07:02 07:48-08:17/29	
	16:43 14:23-14:49/26	17:18 17:51	19:23	19:23	19:54 20:21	20:27	20:04	19:20 18:30	16:47	16:47	16:29 14:09-14:35/26	
7	07:17 08:03-08:31/28	06:59 06:21	06:31	06:31	05:48 05:26	05:32	05:57	06:27 06:56	06:30	06:30	07:03 07:48-08:18/30	
	16:44 14:25-14:48/23	17:20 17:52	19:24	19:24	19:55 20:21	20:27	20:03	19:18 18:29	16:46	16:46	16:29 14:09-14:36/27	
8	07:17 08:04-08:31/27	06:57 06:19	06:29	06:29	05:47 05:25	05:32	05:58	06:28 06:57	06:31	06:31	07:04 07:48-08:18/30	
	16:45 14:26-14:48/22	17:21 17:53	19:25	19:25	19:56 20:22	20:27	20:02	19:17 18:27	16:45	16:45	16:29 14:09-14:37/28	
9	07:17 08:05-08:31/26	06:56 06:17	06:27	06:27	05:46 05:25	05:33	05:59	06:29 06:58	06:32	06:32	07:05 07:49-08:19/30	
	16:46 14:28-14:47/19	17:22 17:54	19:26	19:26	19:57 20:23	20:26	20:01	19:15 18:26	16:44	16:44	16:29 14:09-14:38/29	
10	07:17 08:05-08:30/25	06:55 06:16	06:26	06:26	05:45 05:25	05:33	06:00	06:30 06:59	06:33	06:33	07:05 07:49-08:20/31	
	16:47 14:29-14:46/17	17:23 17:55	19:27	19:27	19:58 20:23	20:26	20:00	19:13 18:24	16:43	16:43	16:29 14:09-14:39/30	
11	07:17 08:06-08:31/25	06:54 06:14	06:24	06:24	05:44 05:25	05:34	06:01	06:31 07:00	06:35	06:35	07:06 07:50-08:21/31	
	16:48 14:32-14:45/13	17:24 17:56	19:28	19:28	19:59 20:24	20:26	19:58	19:12 18:23	16:42	16:42	16:29 14:09-14:40/31	
12	07:17 08:06-08:31/23	06:53 06:13	06:23	06:23	05:43 05:25	05:35	06:02	06:32 07:01	06:36	06:36	07:07 07:49-08:20/31	
	16:49 14:36-14:42/6	17:26 17:57	19:29	19:29	20:00 20:24	20:25	19:57	19:10 18:21	16:41	16:41	16:29 14:08-14:40/32	
13	07:16 08:08-08:29/21	06:52 06:11	06:21	06:21	05:42 05:25	05:36	06:03	06:33 07:02	06:37	06:37	07:08 07:50-08:21/31	
	16:50 17:27	17:58	19:30	19:30	20:01 20:25	20:25	19:56	19:08 18:19	16:40	16:40	16:29 14:09-14:41/32	
14	07:16 08:10-08:29/19	06:50 06:10	06:20	06:57-06:58/1	05:41 05:25	05:36	06:04	06:34 07:03	06:38	06:38	07:09 07:50-08:22/32	
	16:51 17:28	17:59	19:31	20:02	20:25	20:24	19:54	19:07 18:18	16:40	16:40	16:29 14:09-14:42/33	
15	07:16 08:12-08:29/17	06:49 06:08	06:18	06:56-06:57/1	05:40 05:24	05:37	06:05	06:35 07:04	06:39	06:39	07:09 07:51-08:23/32	
	16:52 17:29	18:01	19:32	20:03	20:26	20:24	19:53	19:05 18:16	16:39	16:39	16:29 14:09-14:43/34	
16	07:15 08:13-08:27/14	06:48 06:06	06:17	06:54-06:56/2	05:39 05:25	05:38	06:06	06:35 07:05	06:40	06:40	07:10 07:51-08:23/32	
	16:54 17:30	18:02	19:33	20:04	20:26	20:23	19:52	19:03 18:15	16:38	16:38	16:30 14:09-14:43/34	
17	07:15 08:16-08:26/10	06:47 06:05	06:15	06:53-06:55/2	05:38 05:25	05:39	06:07	06:36 07:06	06:41	06:41	07:11 07:51-08:24/33	
	16:55 17:32	18:03	19:34	20:05	20:26	20:22	19:50	19:02 18:13	16:37	16:37	16:30 14:10-14:44/34	
18	07:14 16:56	06:45 06:03	06:14	06:51-06:54/3	05:37 05:25	05:39	06:08	06:37 07:07	06:43	06:43	07:11 07:52-08-24/32	
	17:33 18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12 16:36	16:36	16:36	16:30 14:09-14:44/35	
19	07:14 16:57	06:44 06:01	06:12	06:50-06:53/3	05:36 05:25	05:40	06:09	06:38 07:09	06:44	06:44	07:12 07:52-08-24/32	
	17:34 18:05	19:37	20:06	20:27	20:21	19:48	19:00	18:58 18:10	16:36	16:36	16:31 14:10-14:45/35	
20	07:13 16:58	06:43 06:00	06:11	06:49-06:51/2	05:35 05:25	05:41	06:10	06:39 07:10	06:45	06:45	07:13 07:53-08-25/32	
	17:35 18:06	19:38	20:07	20:27	20:20	19:46	19:00	18:57 18:09	16:35	16:35	16:31 14:11-14:46/35	
21	07:13 16:59	06:41 05:58	06:09	06:48-06:49/1	05:35 05:25	05:42	06:11	06:52-06:53/1	06:40	06:40	07:13 07:53-08-25/32	
	17:36 18:07	19:39	20:08	20:27	20:20	19:45	19:00	18:55 18:08	16:34	16:34	16:32 14:11-14-46/35	
22	07:12 17:00	06:40 05:57	06:08	06:46-06:47/1	05:34 05:25	05:43	06:12	06:53-06:54/1	06:41	06:41	07:14 07:54-08-26/32	
	17:37 18:08	19:40	20:09	20:28	20:19	19:43	19:00	18:53 18:06	16:34	16:34	16:32 14:12-14-47/35	
23	07:12 17:02	06:38 05:55	06:06	05:33 05:25	05:43	06:13	06:54-06:56/2	06:42 07:13	06:48	06:48	07:14 07:54-08-26/32	
	17:39 18:09	19:41	20:10	20:28	20:18	19:42	19:00	18:52 18:05	16:33	16:33	16:33 14:12-14-47/35	
24	07:11 17:03	06:37 05:53	06:05	05:32 05:26	05:44	06:14	06:53-06:56/3	06:43 07:14	06:49	06:49	07:15 07:54-08-26/32	
	17:40 18:10	19:42	20:11	20:28	20:17	19:40	19:00	18:50 18:03	16:33	16:33	16:33 14:12-14-47/35	
25	07:10 17:04	06:36 05:52	06:04	05:32 05:26	05:45	06:14	06:54-06:57/3	06:44 06:15	06:51	07:54-08-04/10	07:15 07:55-08-27/32	
	17:41 18:11	19:43	20:12	20:28	20:17	19:39	19:00	18:48 17:02	16:32	16:32	16:34 14:13-14-48/35	
26	07:10 17:05	06:34 05:50	06:02	05:31 05:26	05:46	06:15	06:55-06:57/2	06:45 06:16	06:52	07:52-08-06/14	07:15 07:55-08-27/32	
	17:42 18:12	19:44	20:13	20:28	20:16	19:37	19:00	18:47 17:01	16:32	16:32	16:34 14:14-14-48/34	
27	07:09 17:06	06:33 05:48	06:01	05:30 05:27	05:47	06:16	06:56-06-58/2	06:46 06:17	06:53	07:51-08-08/17	07:16 07:56-08-28/32	
	17:43 18:13	19:45	20:13	20:28	20:15	19:36	19:00	18:45 16:31	16:31	16:31	16:35 14:14-14-48/34	
28	07:08 17:07	06:31 05:47	06:00	05:30 05:27	05:48	06:17	06:57-06-58/1	06:47 06:18	06:54	07:50-08-09/19	07:16 07:57-08-29/32	
	17:44 18:14	19:46	20:14	20:28	20:14	19:34	19:00	18:43 16:58	16:31	16:31	16:36 14:15-14-49/34	
29	07:07 17:09	06:45 05:58	06:05	05:29 05:27	05:49	06:18	06:58-06-59/1	06:48 06:20	06:55	07:49-08-10/21	07:16 07:57-08-29/32	
	17:45 18:15	19:47	20:15	20:28	20:13	19:33	19:00	18:42 16:57	16:30	16:30	16:36 14:16-14-49/33	
30	07:06 17:10	06:43 05:57	06:04	05:29 05:28	05:50	06:19	06:49	06:51	06:56	07:49-08-12/23	07:17 07:58-08-29/31	
	17:46 18:16	19:48	20:16	20:28	20:12	19:31	19:00	18:40 16:56	16:30	14:17-14-23/6	16:37 14:16-14-49/33	
31	07:05 17:11	06:42 05:56	06:03	05:28 05:27	05:51	06:20	06:49	06:52	06:57	07:49-08-13/24	07:17 07:58-08-29/31	
	17:47 18:17	19:49	20:17	20:29	20:11	19:30	19:00	18:41 16:54	16:30	16:30	16:38 14:17-14-49/32	
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Sum of minutes with flicker	687	0	0	16	0	0	0	16	0	0	110	1892

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS05 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17 16:39	07:05 07:24-07:55/31 17:12	06:30 07:12-08:04/52 17:45	06:40 19:18	05:56 19:49	05:28 20:17
2	07:17 16:40	07:04 07:23-07:57/34 17:14	06:28 07:13-08:03/50 17:46	06:39 19:19	05:54 19:50	05:27 20:18
3	07:17 16:41	07:03 07:22-07:58/36 17:15	06:27 07:13-08:01/48 17:48	06:37 19:20	05:53 19:51	05:27 20:19
4	07:18 16:41	07:02 07:21-08:00/39 17:16	06:25 07:14-08:00/46 17:49	06:35 19:21	05:52 19:52	05:26 20:20
5	07:18 16:42	07:01 07:20-08:01/41 17:17	06:24 07:15-07:58/43 17:50	06:34 19:22	05:51 19:53	05:26 20:20
6	07:18 16:43	07:00 07:19-08:03/44 17:18	06:22 07:17-07:57/40 17:51	06:32 19:23	05:49 19:54	05:26 20:21
7	07:17 16:44	06:59 07:18-08:04/46 17:20	06:21 07:18-07:54/36 17:52	06:31 19:24	05:48 19:55	05:26 20:21
8	07:17 16:45	06:58 07:17-08:05/48 17:21	06:19 07:20-07:52/32 17:53	06:29 19:25	05:47 19:56	05:25 20:22
9	07:17 16:46	06:56 07:16-08:06/50 17:22	06:17 07:22-07:49/27 17:54	06:27 19:26	05:46 19:57	05:25 20:23
10	07:17 16:47	06:55 07:15-08:07/52 17:23	06:16 07:25-07:45/20 17:55	06:26 19:27	05:45 19:58	05:25 20:23
11	07:17 07:48-07:49/1 16:48	06:54 07:13-08:07/54 17:24	06:14 07:32-07:39/7 17:56	06:24 19:28	05:44 19:59	05:25 20:24
12	07:17 07:47-07:49/2 16:49	06:53 07:12-08:08/56 17:26	06:13 16:41-17:19/38 17:57	06:23 19:29	05:43 20:00	05:25 20:24
13	07:16 07:47-07:50/3 16:50	06:52 07:11-08:08/57 17:27	06:11 16:41-17:20/39 17:58	06:21 19:30	05:42 20:01	05:25 20:25
14	07:16 07:46-07:50/4 16:51	06:50 07:11-08:09/58 17:28	06:10 16:40-17:20/40 17:59	06:20 19:31	05:41 20:02	05:25 20:25
15	07:16 07:46-07:50/4 16:52	06:49 07:10-08:09/59 17:29	06:08 16:39-17:20/41 18:01	06:18 19:32	05:40 20:03	05:24 20:26
16	07:15 07:45-07:50/5 16:54	06:48 07:10-08:09/59 17:30	06:06 16:39-17:20/41 18:02	06:17 19:33	05:39 20:04	05:25 20:26
17	07:15 07:44-07:51/7 16:55	06:47 07:10-08:10/60 17:32	06:05 16:38-17:20/42 18:03	06:15 19:35	05:38 20:05	05:25 20:26
18	07:14 07:43-07:50/7 16:56	06:45 07:09-08:09/60 17:33	06:03 16:38-17:19/41 18:04	06:14 19:36	05:37 20:06	05:25 20:27
19	07:14 07:43-07:51/8 16:57	06:44 07:10-08:09/59 17:34	06:01 16:39-17:19/40 18:05	06:12 19:37	05:36 20:07	05:25 20:27
20	07:13 07:42-07:50/8 16:58	06:43 07:10-08:10/60 17:35	06:00 16:38-17:18/40 18:06	06:11 19:38	05:35 20:07	05:25 20:27
21	07:13 07:41-07:50/9 16:59	06:41 07:09-08:09/60 17:36	05:58 16:38-17:17/39 18:07	06:09 19:39	05:35 20:08	05:25 20:27
22	07:12 07:40-07:50/10 17:00	06:40 07:10-08:09/59 17:37	05:57 16:39-17:17/38 18:08	06:08 19:40	05:34 20:09	05:25 20:28
23	07:12 07:39-07:49/10 17:02	06:38 07:09-08:08/59 17:39	05:55 16:40-17:15/35 18:09	06:06 19:41	05:33 20:10	05:25 20:28
24	07:11 07:38-07:48/10 17:03	06:37 07:10-08:08/58 17:40	05:53 16:41-17:15/34 18:10	06:05 19:42	05:32 20:11	05:26 20:28
25	07:10 07:38-07:48/10 17:04	06:36 07:10-08:07/57 17:41	05:52 16:42-17:13/31 18:11	06:04 19:43	05:32 20:12	05:26 20:28
26	07:10 07:37-07:47/10 17:05	06:34 07:10-08:07/57 17:42	05:50 16:42-17:11/29 18:12	06:02 19:44	05:31 20:13	05:26 20:28
27	07:09 07:35-07:45/10 17:06	06:33 07:11-08:06/55 17:43	05:48 16:45-17:09/24 18:13	06:01 19:45	05:30 20:13	05:27 20:28
28	07:08 07:33-07:43/10 17:07	06:31 07:11-08:05/54 17:44	05:47 16:46-17:06/20 18:14	06:00 19:46	05:30 20:14	05:27 20:28
29	07:07 07:29-07:47/18 17:09		06:45 17:49-18:02/13 19:15	05:58 19:47	05:29 20:15	05:27 20:28
30	07:06 07:26-07:50/24 17:10		06:43 19:16	05:57 19:48	05:29 20:16	05:28 20:28
31	07:06 07:25-07:53/28 17:11		06:42 19:17		05:28 20:17	
Potential sun hours	300	298	370	398	446	450
Sum of minutes with flicker	198	1462	1231	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS05 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 17:20-17:58/38 18:39	06:23 06:44-07:35/51 16:53	06:57 07:30-07:31/1 16:30
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 17:20-17:58/38 18:37	06:24 06:46-07:36/50 16:52	06:58 16:29
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 08:06-08:21/15 18:35 17:21-17:56/35	06:25 06:47-07:35/48 16:51	06:59 16:29
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 08:01-08:25/24 18:34 17:21-17:54/33	06:26 06:48-07:33/45 16:50	07:00 16:29
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 07:58-08:28/30 18:32 17:22-17:52/30	06:28 06:49-07:32/43 16:48	07:01 16:29
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 07:56-08:30/34 18:30 17:23-17:49/26	06:29 06:50-07:31/41 16:47	07:02 16:29
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 07:53-08:31/38 18:29 17:24-17:46/22	06:30 06:52-07:31/39 16:46	07:03 16:29
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 07:51-08:33/42 18:27 17:26-17:44/18	06:31 06:53-07:29/36 16:45	07:04 16:29
9	05:33 20:26	05:59 20:01	06:29 19:15	06:58 07:50-08:34/44 18:26 17:28-17:42/14	06:32 06:54-07:27/33 16:44	07:05 16:29
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 07:48-08:35/47 18:24 17:33-17:40/7	06:33 06:55-07:26/31 16:43	07:05 16:29
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 07:47-08:36/49 18:23	06:35 06:57-07:25/28 16:42	07:06 16:29
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 07:46-08:37/51 18:21	06:36 06:58-07:22/24 16:41	07:07 16:29
13	05:36 20:25	06:03 19:56	06:33 19:08	07:02 07:44-08:37/53 18:19	06:37 07:01-07:19/18 16:40	07:08 16:29
14	05:36 20:24	06:04 19:54	06:34 17:41-17:52/11 19:07	07:03 07:43-08:38/55 18:18	06:38 07:05-07:14/9 16:40	07:09 16:29
15	05:37 20:24	06:05 19:53	06:35 17:36-17:55/19 19:05	07:04 07:43-08:38/55 18:16	06:39 07:08-07:18/10 16:39	07:09 16:29
16	05:38 20:23	06:06 19:52	06:35 17:33-17:57/24 19:03	07:05 07:43-08:39/56 18:15	06:40 07:10-07:20/10 16:38	07:10 16:30
17	05:39 20:22	06:07 19:50	06:36 17:31-17:58/27 19:02	07:06 07:42-08:39/57 18:13	06:42 07:11-07:21/10 16:37	07:11 16:30
18	05:39 20:22	06:08 19:49	06:37 17:29-18:00/31 19:00	07:07 07:41-08:40/59 18:12	06:43 07:12-07:22/10 16:36	07:11 16:30
19	05:40 20:21	06:09 19:48	06:38 17:28-18:01/33 18:58	07:09 07:41-08:40/59 18:10	06:44 07:14-07:24/10 16:36	07:12 16:31
20	05:41 20:21	06:10 19:46	06:39 17:26-18:01/35 18:57	07:10 07:40-08:39/59 18:09	06:45 07:15-07:25/10 16:35	07:13 16:31
21	05:42 20:20	06:11 19:45	06:40 17:25-18:02/37 18:55	07:11 07:40-08:39/59 18:08	06:46 07:17-07:26/9 16:34	07:13 16:32
22	05:43 20:19	06:12 19:43	06:41 17:24-18:02/38 18:53	07:12 07:40-08:39/59 18:06	06:47 07:18-07:26/8 16:34	07:14 16:32
23	05:43 20:18	06:13 19:42	06:42 17:23-18:02/39 18:52	07:13 07:40-08:40/60 18:05	06:48 07:19-07:27/8 16:33	07:14 16:33
24	05:44 20:17	06:14 19:40	06:43 17:22-18:02/40 18:50	07:14 07:40-08:40/60 18:03	06:49 07:20-07:27/7 16:33	07:15 16:33
25	05:45 20:17	06:14 19:39	06:44 17:21-18:02/41 18:48	06:15 06:40-07:39/59 17:02	06:51 07:22-07:29/7 16:32	07:15 16:34
26	05:46 20:16	06:15 19:37	06:45 17:21-18:02/41 18:47	06:16 06:40-07:39/59 17:01	06:52 07:23-07:29/6 16:32	07:15 16:34
27	05:47 20:15	06:16 19:36	06:46 17:21-18:02/41 18:45	06:17 06:40-07:38/58 16:59	06:53 07:25-07:29/4 16:31	07:16 16:35
28	05:48 20:14	06:17 19:34	06:47 17:20-18:01/41 18:44	06:18 06:40-07:38/58 16:58	06:54 07:26-07:30/4 16:31	07:16 16:36
29	05:49 20:13	06:18 19:33	06:48 17:20-18:01/41 18:42	06:20 06:41-07:38/57 16:57	06:55 07:27-07:30/3 16:30	07:16 16:36
30	05:50 20:12	06:19 19:31	06:49 17:20-18:00/40 18:40	06:21 06:42-07:37/55 16:56	06:56 07:28-07:30/2 16:30	07:17 16:37
31	05:51 20:11	06:20 19:30		06:22 06:43-07:36/53 16:54		07:17 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	0	0	579	1725	614	1

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm) Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
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SHADOW - Calendar per WTG

WTG: IS06 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17 07:39-07:46/7 16:39	07:05 07:25-07:56/31 17:12	06:30 17:45	06:40 19:18	05:56 18:15-19:13/58 19:49	05:28 19:24-19:43/19 20:18
2	07:17 07:39-07:47/8 16:40	07:04 07:24-07:56/32 17:14	06:28 17:47	06:39 19:19	05:54 18:15-19:13/58 19:50	05:27 19:23-19:43/20 20:18
3	07:18 07:40-07:48/8 16:41	07:03 07:22-07:54/32 17:15	06:27 17:48	06:37 19:20	05:53 18:15-19:14/59 19:51	05:27 19:23-19:44/21 20:19
4	07:18 07:39-07:48/9 16:41	07:02 07:21-07:54/33 17:16	06:25 17:49	06:35 19:21	05:52 18:15-19:16/61 19:52	05:27 19:24-19:45/21 20:20
5	07:18 07:39-07:49/10 16:42	07:01 07:20-07:53/33 17:17	06:24 17:50	06:34 19:22	05:51 18:16-19:17/61 19:53	05:26 19:23-19:45/22 20:20
6	07:18 07:39-07:49/10 16:43	07:00 07:19-07:52/33 17:18	06:22 17:51	06:32 19:23	05:50 18:16-19:18/62 19:54	05:26 19:23-19:46/23 20:21
7	07:18 07:39-07:50/11 16:44	06:59 07:18-07:51/33 17:20	06:21 17:52	06:31 19:24	05:48 18:17-19:18/61 19:55	05:26 19:23-19:47/24 20:22
8	07:17 07:39-07:51/12 16:45	06:58 07:17-07:50/33 17:21	06:19 17:53	06:29 18:36-18:41/5 19:25	05:47 18:17-19:17/60 19:56	05:25 19:24-19:47/23 20:22
9	07:17 07:39-07:52/13 16:46	06:56 07:16-07:49/33 17:22	06:18 17:54	06:28 18:34-18:43/9 19:26	05:46 18:18-19:17/59 19:57	05:25 19:24-19:48/24 20:23
10	07:17 07:39-07:52/13 16:47	06:55 07:15-07:47/32 17:23	06:16 17:55	06:26 18:31-18:43/12 19:27	05:45 18:18-19:16/58 19:58	05:25 19:24-19:49/25 20:23
11	07:17 07:38-07:52/14 16:48	06:54 07:13-07:44/31 17:24	06:14 17:56	06:24 18:29-18:45/16 19:28	05:44 18:19-19:16/57 19:59	05:25 19:23-19:48/25 20:24
12	07:17 07:38-07:53/15 16:49	06:53 07:16-07:42/26 17:26	06:13 17:57	06:23 18:27-18:46/19 19:29	05:43 18:20-19:15/55 20:00	05:25 19:23-19:49/26 20:24
13	07:16 07:38-07:54/16 16:50	06:52 07:20-07:39/19 17:27	06:11 17:59	06:21 18:26-18:48/22 19:31	05:42 18:20-19:14/54 20:01	05:25 19:24-19:49/25 20:25
14	07:16 07:37-07:54/17 16:51	06:51 07:26-07:33/7 17:28	06:10 18:00	06:20 18:24-18:49/25 19:32	05:41 18:21-19:14/53 20:02	05:25 19:24-19:50/26 20:25
15	07:16 07:37-07:55/18 16:52	06:49 17:29	06:08 18:01	06:18 18:23-18:51/28 19:33	05:40 18:21-19:13/52 20:03	05:25 19:24-19:50/26 20:26
16	07:15 07:36-07:54/18 16:54	06:48 17:30	06:06 18:02	06:17 18:22-18:52/30 19:34	05:39 18:22-19:12/50 20:04	05:25 19:24-19:51/27 20:26
17	07:15 07:36-07:55/19 16:55	06:47 17:32	06:05 18:03	06:15 18:21-18:55/34 19:35	05:38 18:23-19:11/48 20:05	05:25 19:24-19:51/27 20:26
18	07:15 07:35-07:55/20 16:56	06:45 17:33	06:03 18:04	06:14 18:20-18:55/35 19:36	05:37 18:23-19:10/47 20:06	05:25 19:25-19:52/27 20:27
19	07:14 07:35-07:56/21 16:57	06:44 17:34	06:02 18:05	06:12 18:19-18:56/37 19:37	05:36 18:24-19:09/45 20:07	05:25 19:25-19:52/27 20:27
20	07:14 07:34-07:56/22 16:58	06:43 17:35	06:00 18:06	06:11 18:18-18:56/38 19:38	05:35 18:26-19:09/43 20:08	05:25 19:25-19:52/27 20:27
21	07:13 07:33-07:56/23 16:59	06:41 17:36	05:58 18:07	06:09 18:18-18:57/39 19:39	05:35 18:27-19:08/41 20:08	05:25 19:25-19:52/27 20:28
22	07:12 07:33-07:57/24 17:00	06:40 17:37	05:57 18:08	06:08 18:17-18:58/41 19:40	05:34 18:28-19:06/38 19:33-19:35/2	05:25 19:25-19:52/27 20:28
23	07:12 07:32-07:57/25 17:02	06:39 17:39	05:55 18:09	06:06 18:16-19:01/45 19:41	05:33 18:29-19:06/37 20:10 19:31-19:37/6	05:26 19:26-19:53/27 20:28
24	07:11 07:31-07:57/26 17:03	06:37 17:40	05:53 18:10	06:05 18:16-19:04/48 19:42	05:32 18:30-19:05/35 20:11 19:29-19:38/9	05:26 19:26-19:53/27 20:28
25	07:10 07:31-07:57/26 17:04	06:36 17:41	05:52 18:11	06:04 18:15-19:05/50 19:43	05:32 18:31-19:03/32 20:12 19:27-19:38/11	05:26 19:26-19:53/27 20:28
26	07:10 07:30-07:57/27 17:05	06:34 17:42	05:50 18:12	06:02 18:16-19:08/52 19:44	05:31 18:33-19:03/30 20:13 19:27-19:39/12	05:26 19:27-19:54/27 20:28
27	07:09 07:29-07:57/28 17:06	06:33 17:43	05:48 18:13	06:01 18:16-19:10/54 19:45	05:30 18:34-19:01/27 20:14 19:26-19:40/14	05:27 19:27-19:53/26 20:28
28	07:08 07:28-07:57/29 17:08	06:31 17:44	05:47 18:14	06:00 18:15-19:10/55 19:46	05:30 18:37-19:00/23 20:14 19:26-19:41/15	05:27 19:27-19:53/26 20:28
29	07:07 07:27-07:56/29 17:09		06:45 19:15	05:58 18:15-19:11/56 19:47	05:29 18:38-18:58/20 20:15 19:25-19:41/16	05:28 19:28-19:54/26 20:28
30	07:06 07:26-07:56/30 17:10		06:44 19:16	05:57 18:15-19:12/57 19:48	05:29 18:41-18:56/15 20:16 19:25-19:42/17	05:28 19:28-19:53/25 20:28
31	07:06 07:25-07:56/31 17:11		06:42 19:17		05:28 18:44-18:53/9 20:17 19:24-19:42/18	
Potential sun hours	300	298	370	398	446	450
Sum of minutes with flicker	579	408	0	807	1528	750

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS06 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 19:28-19:54/26 20:28	05:52 18:29-19:25/56 20:10	06:21 18:28-18:44/16 19:28	06:50 18:39	06:23 06:44-07:16/32 16:53	06:57 07:20-07:34/14 16:30
2	05:29 19:28-19:53/25 20:28	05:53 18:28-19:25/57 20:09	06:22 18:30-18:42/12 19:26	06:51 18:37	06:24 06:46-07:19/33 16:52	06:58 07:21-07:34/13 16:29
3	05:29 19:29-19:53/24 20:28	05:53 18:28-19:26/58 20:08	06:23 18:32-18:41/9 19:25	06:52 18:35	06:25 06:47-07:20/33 16:51	06:59 07:22-07:35/13 16:29
4	05:30 19:29-19:53/24 20:28	05:54 18:27-19:27/60 20:07	06:24 18:33-18:38/5 19:23	06:53 18:34	06:27 06:48-07:21/33 16:50	07:00 07:23-07:35/12 16:29
5	05:30 19:30-19:53/23 20:28	05:55 18:27-19:27/60 20:06	06:25 19:22	06:54 18:32	06:28 06:49-07:22/33 16:49	07:01 07:24-07:35/11 16:29
6	05:31 19:29-19:52/23 20:27	05:56 18:26-19:27/61 20:05	06:26 19:20	06:55 18:31	06:29 06:51-07:24/33 16:47	07:02 07:25-07:35/10 16:29
7	05:32 19:30-19:52/22 20:27	05:57 18:26-19:28/62 20:03	06:27 19:18	06:56 18:29	06:30 06:52-07:24/32 16:46	07:03 07:26-07:36/10 16:29
8	05:32 19:30-19:51/21 20:27	05:58 18:25-19:26/61 20:02	06:28 19:17	06:57 18:27	06:31 06:53-07:25/32 16:45	07:04 07:27-07:36/9 16:29
9	05:33 19:31-19:51/20 20:27	05:59 18:25-19:25/60 20:01	06:29 19:15	06:58 18:26	06:32 06:54-07:26/32 16:44	07:05 07:28-07:36/8 16:29
10	05:34 19:31-19:51/20 20:26	06:00 18:25-19:24/59 20:00	06:30 19:14	06:59 18:24	06:34 06:56-07:27/31 16:43	07:06 07:29-07:37/8 16:29
11	05:34 19:31-19:50/19 20:26	06:01 18:23-19:22/59 19:58	06:31 19:12	07:00 18:23	06:35 06:57-07:28/31 16:42	07:06 07:30-07:37/7 16:29
12	05:35 18:55-18:58/3 20:25	06:02 18:23-19:20/57 19:57	06:32 19:10	07:01 18:21	06:36 06:58-07:28/30 16:41	07:07 07:30-07:37/7 16:29
13	05:36 18:51-19:03/12 20:25	06:03 18:23-19:19/56 19:56	06:33 19:09	07:02 18:20	06:37 06:59-07:28/29 16:40	07:08 07:31-07:37/6 16:29
14	05:36 18:47-19:05/18 20:24	06:04 18:23-19:18/55 19:55	06:34 19:07	07:03 18:18	06:38 07:00-07:29/29 16:40	07:09 07:32-07:38/6 16:29
15	05:37 18:46-19:07/21 20:24	06:05 18:22-19:18/56 19:53	06:35 19:05	07:04 18:17	06:39 07:02-07:30/28 16:39	07:09 07:33-07:38/5 16:29
16	05:38 18:45-19:09/24 20:23	06:06 18:22-19:16/54 19:52	06:36 19:04	07:05 18:15	06:40 07:03-07:30/27 16:38	07:10 07:33-07:38/5 16:30
17	05:39 18:43-19:11/28 20:23	06:07 18:22-19:14/52 19:50	06:37 19:02	07:06 18:14	06:42 07:04-07:30/26 16:37	07:11 07:34-07:39/5 16:30
18	05:39 18:41-19:12/31 20:22	06:08 18:22-19:12/50 19:49	06:37 19:00	07:08 18:12	06:43 07:05-07:31/26 16:36	07:12 07:35-07:40/5 16:30
19	05:40 18:40-19:13/33 20:21	06:09 18:22-19:09/47 19:48	06:38 18:59	07:09 18:11	06:44 07:07-07:32/25 16:36	07:12 07:35-07:39/4 16:31
20	05:41 18:39-19:15/36 20:21	06:10 18:22-19:07/45 19:46	06:39 18:57	07:10 18:09	06:45 07:08-07:32/24 16:35	07:13 07:36-07:40/4 16:31
21	05:42 18:39-19:16/37 20:20	06:11 18:22-19:04/42 19:45	06:40 18:55	07:11 18:08	06:46 07:09-07:32/23 16:34	07:13 07:36-07:40/4 16:32
22	05:43 18:38-19:18/40 20:19	06:12 18:23-19:02/39 19:43	06:41 18:54	07:12 18:06	06:47 07:10-07:32/22 16:34	07:14 07:37-07:41/4 16:32
23	05:44 18:37-19:19/42 20:18	06:13 18:23-19:00/37 19:42	06:42 18:52	07:13 18:05	06:48 07:11-07:32/21 16:33	07:14 07:37-07:41/4 16:33
24	05:44 18:35-19:19/44 20:18	06:14 18:22-18:58/36 19:40	06:43 18:50	07:14 18:04	06:50 07:13-07:33/20 16:33	07:15 07:38-07:42/4 16:33
25	05:45 18:34-19:20/46 20:17	06:15 18:23-18:58/35 19:39	06:44 18:49	07:15 17:02	06:51 07:14-07:33/19 16:32	07:15 07:38-07:43/5 16:34
26	05:46 18:34-19:21/47 20:16	06:16 18:23-18:56/33 19:37	06:45 18:47	07:16 17:01	06:52 07:15-07:34/19 16:32	07:16 07:38-07:43/5 16:34
27	05:47 18:33-19:22/49 20:15	06:16 18:24-18:54/30 19:36	06:46 18:45	07:17 16:59	06:53 07:16-07:34/18 16:31	07:16 07:39-07:44/5 16:35
28	05:48 18:32-19:23/51 20:14	06:17 18:24-18:51/27 19:34	06:47 18:44	07:18 16:58	06:19 06:53-07:05/12 16:31	07:16 07:39-07:44/5 16:36
29	05:49 18:32-19:24/52 20:13	06:18 18:25-18:49/24 19:33	06:48 18:42	07:19 16:57	06:20 06:48-07:10/22 16:30	07:17 07:39-07:45/6 16:36
30	05:50 18:31-19:24/53 20:12	06:19 18:26-18:48/22 19:31	06:49 18:40	07:20 16:56	06:21 06:45-07:12/27 16:30	07:17 07:39-07:45/6 16:37
31	05:51 18:29-19:24/55 20:11	06:20 18:27-18:46/19 19:30		07:21 16:54	06:22 06:43-07:14/31 16:30	07:17 07:39-07:46/7 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	1096	1469	42	92	789	217

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm) Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
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SHADOW - Calendar per WTG

WTG: IS07 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	17:32-18:31/59 19:19	05:56 20:18
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19	17:31-18:31/60 19:19	05:54 20:18
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	17:30-18:30/60 19:20	05:53 20:19
4	07:18 16:42	07:02 17:16	06:25 17:49	06:36 19:21	17:31-18:31/60 19:21	05:52 20:20
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	17:30-18:30/60 19:22	05:51 20:20
6	07:18 16:43	07:00 17:19	06:22 17:51	06:32 19:23	17:31-18:30/59 19:23	05:50 20:21
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	17:30-18:29/59 19:24	05:48 20:22
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	17:30-18:28/58 19:25	05:47 20:22
9	07:17 16:46	06:57 17:22	06:18 17:54	06:28 19:26	17:31-18:28/57 19:26	05:46 20:23
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	17:31-18:27/56 19:27	05:45 20:23
11	07:17 16:48	06:54 17:25	06:14 17:56	06:24 19:29	17:32-18:27/55 19:29	05:44 20:24
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:30	17:32-18:25/53 19:30	05:43 20:24
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	17:33-18:25/52 19:31	05:42 20:25
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	17:33-18:24/51 19:32	05:41 20:25
15	07:16 16:53	06:49 17:29	06:08 18:01	06:18 19:33	17:34-18:23/49 19:33	05:40 20:26
16	07:16 16:54	06:48 17:31	06:06 18:02	06:17 19:34	17:34-18:21/47 19:34	05:39 20:26
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	17:36-18:20/44 19:35	05:38 20:26
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	17:36-18:18/42 19:36	05:37 20:27
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	17:38-18:17/39 19:37	05:36 20:27
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	17:39-18:15/36 19:38	05:36 20:27
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	17:41-18:13/32 19:39	05:35 20:28
22	07:12 17:00	06:40 17:38	05:57 18:08	06:08 19:40	17:44-18:11/27 19:40	05:34 20:28
23	07:12 17:02	06:39 17:39	05:55 18:09	06:07 19:41	17:46-18:08/22 19:41	05:33 20:28
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	17:50-18:04/14 19:42	05:32 20:28
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	06:22-06:23/1 19:43	05:32 20:28
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	06:21-06:24/3 19:44	05:31 20:28
27	07:09 17:06	06:33 17:43	05:49 18:13	06:01 19:45	06:20-06:25/5 19:45	05:30 20:28
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	06:19-06:26/7 19:46	05:30 20:28
29	07:07 17:09		06:45 19:15	05:58 19:47	06:17-06:25/8 19:47	05:29 20:28
30	07:07 17:10		06:44 19:16	05:57 19:48	06:16-06:26/10 19:48	05:29 20:28
31	07:06 17:11		06:42 19:17		06:15-06:26/10 19:48	05:28 20:28
Potential sun hours	300	298	370	398	446	450
Sum of minutes with flicker	0	0	682	1344	803	135

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm) Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
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SHADOW - Calendar per WTG

WTG: IS07 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	05:28 20:28	05:52 06:13-06:36/23 20:10	06:21 17:31-18:26/55 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	05:29 20:28	05:53 06:14-06:36/22 20:09	06:22 17:30-18:26/56 19:27	06:51 18:37	06:24 16:52	06:58 16:30
3	05:29 20:28	05:54 06:15-06:37/22 20:08	06:23 17:29-18:26/57 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	05:30 20:28	05:54 06:16-06:37/21 20:07	06:24 17:28-18:26/58 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	05:30 06:06-06:14/8 20:28	05:55 06:17-06:37/20 20:06	06:25 17:26-18:25/59 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	05:31 06:03-06:16/13 20:27	05:56 06:18-06:37/19 20:05	06:26 17:26-18:25/59 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	05:32 06:02-06:18/16 20:27	05:57 06:19-06:37/18 20:03 19:06-19:08/2	06:27 17:25-18:25/60 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	05:32 06:02-06:20/18 20:27	05:58 06:20-06:37/17 20:02 19:02-19:12/10	06:28 17:25-18:25/60 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	05:33 06:00-06:20/20 20:27	05:59 06:21-06:36/15 20:01 19:00-19:14/14	06:29 17:25-18:24/59 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	05:34 06:00-06:22/22 20:26	06:00 06:22-06:36/14 20:00 18:59-19:15/16	06:30 17:24-18:24/60 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	05:34 05:58-06:23/25 20:26	06:01 06:23-06:36/13 19:58 18:57-19:15/18	06:31 17:24-18:24/60 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	05:35 05:58-06:24/26 20:25	06:02 06:24-06:35/11 19:57 18:56-19:15/19	06:32 17:24-18:22/58 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	05:36 05:58-06:25/27 20:25	06:03 06:24-06:34/10 19:56 18:55-19:16/21	06:33 17:24-18:20/56 19:09	07:02 18:20	06:37 16:41	07:08 16:29
14	05:36 05:59-06:27/28 20:24	06:04 06:25-06:33/8 19:55 18:55-19:16/21	06:34 17:24-18:18/54 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	05:37 05:59-06:27/28 20:24	06:05 06:26-06:32/6 19:53 18:55-19:16/21	06:35 17:24-18:17/53 19:05	07:04 18:17	06:39 16:39	07:10 16:30
16	05:38 06:00-06:28/28 20:23	06:06 06:27-06:31/4 19:52 18:55-19:16/21	06:36 17:24-18:16/52 19:04	07:05 18:15	06:41 16:38	07:10 16:30
17	05:39 06:01-06:29/28 20:23	06:07 06:28-06:30/2 19:50 18:55-19:14/19	06:37 17:24-18:14/50 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	05:39 06:02-06:30/28 20:22	06:08 18:55-19:12/17 19:49	06:38 17:24-18:13/49 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	05:40 06:02-06:30/28 20:21	06:09 17:55-18:11/16 19:48 18:55-19:09/14	06:38 17:25-18:12/47 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	05:41 06:03-06:31/28 20:21	06:10 17:51-18:14/23 19:46 18:56-19:07/11	06:39 17:25-18:11/46 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	05:42 06:04-06:32/28 20:20	06:11 17:48-18:16/28 19:45 18:56-19:04/8	06:40 17:26-18:10/44 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	05:43 06:05-06:33/28 20:19	06:12 17:46-18:18/32 19:43 18:58-19:02/4	06:41 17:27-18:09/42 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	05:44 06:06-06:34/28 20:18	06:13 17:44-18:20/36 19:42	06:42 17:29-18:08/39 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	05:44 06:06-06:33/27 20:18	06:14 17:41-18:20/39 19:40	06:43 17:30-18:06/36 18:50	07:14 18:04	06:50 16:33	07:15 16:33
25	05:45 06:07-06:34/27 20:17	06:15 17:39-18:21/42 19:39	06:44 17:32-18:04/32 18:49	07:15 17:02	06:51 16:32	07:15 16:34
26	05:46 06:08-06:35/27 20:16	06:16 17:38-18:22/44 19:37	06:45 17:35-18:01/26 18:47	07:16 17:01	06:52 16:32	07:16 16:34
27	05:47 06:09-06:35/26 20:15	06:17 17:36-18:23/47 19:36	06:46 17:39-17:56/17 18:45	07:17 17:00	06:53 16:31	07:16 16:35
28	05:48 06:10-06:36/26 20:14	06:17 17:35-18:24/49 19:34	06:47 18:44	07:19 16:58	06:54 16:31	07:16 16:36
29	05:49 06:11-06:36/25 20:13	06:18 17:34-18:25/51 19:33	06:48 18:42	07:20 16:57	06:55 16:30	07:17 16:36
30	05:50 06:12-06:37/25 20:12	06:19 17:33-18:25/52 19:31	06:49 18:40	07:21 16:56	06:56 16:30	07:17 16:37
31	05:51 06:13-06:37/24 20:11	06:20 17:32-18:25/53 19:30		07:22 16:54		07:17 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	662	993	1344	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS08 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 15:42-15:58/16	07:05 15:54-16:28/34	06:30 06:40	05:56 05:28	05:28 05:28	05:28 05:28	05:52 06:21	06:50 06:23	15:39-15:57/18	06:57 15:26-15:49/23		
2	16:39 17:12	17:15 17:45	19:18 19:49	20:18 20:28	20:10 19:28	18:39 16:53	06:24 15:37-16:00/23	06:58 15:26-15:49/23				
3	07:17 15:42-15:58/16	07:04 15:55-16:28/33	06:28 06:39	05:54 05:27	05:29 05:52	06:22 06:51	06:24 15:37-16:00/23	06:58 15:26-15:49/23				
4	16:40 17:14	17:14 17:46	19:19 19:50	20:18 20:28	20:09 19:26	18:37 16:52	06:25 15:35-16:01/26	06:59 15:27-15:49/22				
5	07:18 15:42-15:59/17	07:03 15:56-16:29/33	06:27 06:37	05:53 05:27	05:29 05:53	06:23 06:52	06:25 15:35-16:01/26	06:59 15:27-15:49/22				
6	16:41 17:15	17:15 17:48	19:20 19:51	20:19 20:28	20:08 19:25	18:35 16:50	06:27 15:33-16:02/29	07:00 15:28-15:48/20				
7	07:18 15:42-16:00/18	07:02 15:58-16:30/32	06:25 06:35	05:52 05:26	05:30 05:54	06:24 06:53	06:27 15:33-16:02/29	07:00 15:28-15:48/20				
8	16:41 17:16	17:16 17:49	19:21 19:52	20:20 20:28	20:07 19:23	18:34 16:50	06:28 15:32-16:02/30	07:01 15:28-15:48/20				
9	07:18 15:43-16:01/18	07:01 16:00-16:31/31	06:24 06:34	05:51 05:26	05:30 05:55	06:25 06:54	06:28 15:32-16:02/30	07:01 15:28-15:48/20				
10	16:42 17:17	17:17 17:50	19:22 19:53	20:20 20:28	20:06 19:22	18:32 16:48	06:29 15:29-16:01/32	07:02 15:29-15:48/19				
11	07:18 15:43-16:02/19	07:00 16:02-16:33/31	06:22 06:32	05:49 05:26	05:31 05:56	06:26 06:55	06:29 15:29-16:01/32	07:02 15:29-15:48/19				
12	16:43 17:18	17:18 17:51	19:23 19:54	20:21 20:27	20:05 19:20	18:31 16:47	06:30 15:29-16:01/32	07:03 15:30-15:48/18				
13	07:18 15:43-16:03/20	06:59 16:04-16:32/28	06:21 06:31	05:48 05:26	05:32 05:57	06:27 06:56	06:30 15:29-16:01/32	07:03 15:30-15:48/18				
14	16:44 17:20	17:20 17:52	19:24 19:55	20:22 20:27	20:03 19:18	18:29 16:46	06:31 15:27-15:59/32	07:04 15:30-15:48/18				
15	07:18 15:44-16:04/20	06:58 16:06-16:31/25	06:19 06:29	05:47 05:25	05:32 05:58	06:28 06:57	06:31 15:27-15:59/32	07:04 15:30-15:48/18				
16	16:45 17:21	17:21 17:53	19:25 19:56	20:22 20:27	20:02 19:17	18:27 16:45	06:32 15:26-15:59/33	07:05 15:31-15:48/17				
17	07:17 15:44-16:05/21	06:56 16:08-16:30/22	06:18 06:27	05:46 05:25	05:33 05:59	06:29 06:58	06:32 15:26-15:59/33	07:05 15:31-15:48/17				
18	16:46 17:22	17:22 17:54	19:26 19:57	20:23 20:27	20:01 19:15	18:26 16:44	06:33 15:25-15:59/34	07:06 15:32-15:49/17				
19	07:17 15:44-16:07/23	06:55 16:10-16:27/17	06:16 06:26	05:45 05:25	05:33 06:00	06:30 06:59	06:34 15:25-15:59/34	07:06 15:32-15:49/17				
20	16:47 17:23	17:23 17:55	19:27 19:58	20:23 20:26	20:01 19:13	18:24 16:43	06:35 15:25-16:01/36	07:06 15:33-15:49/16				
21	07:17 15:44-16:07/23	06:54 16:13-16:23/10	06:14 06:24	05:44 05:25	05:34 06:01	06:31 07:00	06:35 15:25-16:01/36	07:06 15:33-15:49/16				
22	16:48 17:24	17:24 17:56	19:28 19:59	20:24 20:26	19:58 19:12	18:23 16:42	06:36 15:24-16:00/36	07:07 14:49-14:58/9				
23	07:17 15:44-16:08/24	06:53 06:13	06:23 05:43	05:25 05:35	06:02 06:32	07:01 06:36	06:36 15:24-16:00/36	07:07 14:49-14:58/9				
24	16:49 17:26	17:26 17:57	19:29 20:00	20:24 20:25	19:57 19:10	18:21 16:41	06:37 15:23-15:59/36	07:08 14:48-15:01/13				
25	07:17 15:45-16:10/25	06:52 06:11	05:42 05:25	05:36 06:03	06:33 07:02	06:37 15:23-15:59/36	06:37 15:23-15:59/36	07:08 14:48-15:01/13				
26	16:50 17:27	17:27 17:58	19:30 20:01	20:25 20:25	19:56 19:09	18:20 16:40	06:38 15:22-15:58/36	07:09 14:47-15:03/16				
27	07:16 15:45-16:10/25	06:51 06:10	06:20 05:41	05:25 05:36	06:04 06:34	07:03 06:38	06:38 15:22-15:58/36	07:09 14:47-15:03/16				
28	16:51 17:28	17:28 18:00	19:32 20:02	20:25 20:24	19:55 19:07	18:18 16:40	06:39 15:23-15:58/35	07:09 14:47-15:05/18				
29	07:16 15:45-16:12/27	06:49 06:08	06:18 05:40	05:24 05:37	06:05 06:35	07:04 06:39	06:39 15:23-15:58/35	07:09 14:47-15:05/18				
30	16:52 17:29	17:29 18:01	19:33 20:03	20:26 20:24	19:53 19:05	18:16 16:39	06:40 15:22-15:57/35	07:10 14:46-15:05/19				
31	07:15 15:45-16:12/27	06:48 06:06	06:17 05:39	05:24 05:38	06:06 06:36	07:05 06:40	06:40 15:22-15:57/35	07:10 14:46-15:05/19				
32	16:54 17:30	17:30 18:02	19:34 20:04	20:26 20:23	19:52 19:04	18:15 16:38	06:42 15:22-15:56/34	07:11 14:46-15:07/21				
33	07:15 15:46-16:14/28	06:47 06:05	06:15 05:38	05:25 05:39	06:07 06:36	07:06 06:42	06:42 15:22-15:56/34	07:11 14:46-15:07/21				
34	16:55 17:32	17:32 18:03	19:35 20:05	20:26 20:23	19:50 19:02	18:13 16:37	06:43 15:22-15:55/33	07:12 14:47-15:08/21				
35	07:15 15:46-16:14/28	06:45 06:03	06:14 05:37	05:25 05:39	06:08 06:37	07:08 06:43	06:43 15:22-15:55/33	07:12 14:47-15:08/21				
36	16:56 17:33	17:33 18:04	19:36 20:06	20:27 20:22	19:49 19:00	18:12 16:36	06:44 15:23-15:55/32	07:12 14:46-15:08/22				
37	07:14 15:46-16:16/30	06:44 06:01	06:12 05:36	05:25 05:40	06:09 06:38	07:09 06:44	06:44 15:23-15:55/32	07:12 14:46-15:08/22				
38	16:57 17:34	17:34 18:05	19:37 20:07	20:27 20:21	19:48 18:59	18:11 16:36	06:45 15:22-15:54/32	07:13 14:47-15:09/22				
39	07:14 15:46-16:17/31	06:43 06:00	06:11 05:35	05:25 05:41	06:10 06:39	07:10 06:45	06:45 15:22-15:54/32	07:13 14:47-15:09/22				
40	16:58 17:35	17:35 18:06	19:38 20:08	20:27 20:21	19:46 18:57	18:09 16:35	06:46 15:22-15:54/32	07:13 14:47-15:09/22				
41	07:13 15:46-16:18/32	06:41 05:58	06:09 05:35	05:25 05:42	06:11 06:40	07:11 06:46	06:46 15:22-15:54/32	07:13 14:47-15:09/22				
42	16:59 17:36	17:36 18:07	19:39 20:08	20:28 20:20	19:45 18:55	18:08 16:34	06:47 15:22-15:53/31	07:14 14:48-15:10/22				
43	07:12 15:47-16:19/32	06:40 05:57	06:08 05:34	05:25 05:43	06:12 06:41	07:12 06:47	06:47 15:22-15:53/31	07:14 14:48-15:10/22				
44	17:00 17:37	17:37 18:08	19:40 20:09	20:28 20:19	19:43 18:54	18:06 16:34	06:48 15:22-15:52/30	07:14 14:48-15:10/22				
45	07:12 15:48-16:20/32	06:39 05:55	06:06 05:33	05:25 05:43	06:13 06:42	07:13 06:48	06:48 15:22-15:52/30	07:14 14:48-15:10/22				
46	17:02 17:39	17:39 18:09	19:41 20:10	20:28 20:18	19:42 18:52	18:05 16:33	06:50 15:23-15:51/28	07:15 14:49-15:11/22				
47	07:11 15:48-16:21/33	06:37 05:53	06:05 05:32	05:26 05:44	06:14 06:43	07:14 06:50	06:50 15:23-15:51/28	07:15 14:49-15:11/22				
48	17:03 17:40	17:40 18:10	19:42 20:11	20:28 20:18	19:40 18:50	18:03 16:33	06:51 15:24-15:52/28	07:15 14:49-15:11/22				
49	07:10 15:49-16:23/34	06:36 05:52	06:04 05:32	05:26 05:45	06:15 06:44	06:15 06:51	06:51 15:24-15:52/28	07:15 14:49-15:11/22				
50	17:04 17:41	17:41 18:11	19:43 20:12	20:28 20:17	19:39 18:49	17:02 16:32	06:52 15:24-15:51/27	07:16 14:50-15:11/21				
51	07:10 15:49-16:24/35	06:34 05:50	06:02 05:31	05:26 05:46	06:15 06:45	06:16 06:52	06:52 15:24-15:51/27	07:16 14:50-15:11/21				
52	17:05 17:42	17:42 18:12	19:44 20:13	20:28 20:16	19:37 18:47	17:01 16:32	06:53 15:24-15:51/27	07:16 14:50-15:11/21				
53	07:09 15:50-16:25/35	06:33 05:48	06:01 05:30	05:27 05:47	06:16 06:46	06:17 06:53	06:53 15:24-15:51/27	07:16 14:52-15:11/19				
54	17:06 17:43	17:43 18:13	19:45 20:14	20:28 20:15	19:36 18:45	16:59 16:31	06:54 15:25-15:50/25	07:16 14:53-15:11/18				
55	07:08 15:50-16:26/36	06:31 05:47	06:00 05:30	05:27 05:48	06:17 06:47	06:19 06:54	06:54 15:25-15:50/25	07:16 14:53-15:11/18				
56	17:07 17:44	17:44 18:14	19:46 20:14	20:28 20:14	19:34 18:44	16:58 16:31	06:55 15:25-15:50/25	07:17 14:54-15:10/16				
57	07:07 15:51-16:27/36	06:45 05:58	05:29 05:27	05:49 06:18	06:48 06:58	06:20 06:55	06:55 15:25-15:50/25	07:17 14:54-15:10/16				
58	17:09 17:46	17:46 18:15	19:47 20:15	20:28 20:13	19:33 18:42	16:57 16:30	06:56 15:25-15:49/24	07:17 14:55-15:09/14				
59	07:07 15:52-16:29/37	06:44 05:57	05:29 05:28	05:50 06:19	06:49 06:21	06:56 15:25-15:49/24	06:56 15:25-15:49/24	07:17 14:55-15:09/14				
60	17:10 17:47	17:47 18:16	19:48 20:16	20:28 20:12	19:31 18:40	16:56 16:30	06:57 15:24-15:56/14	07:17 14:57-15:08/11				
61	07:06 15:53-16:29/36	06:42 05:56	05:28 05:28	05:51 06:20	06:20 06:22	15:42-15:54/12	06:57 15:24-15:56/14	07:17 14:57-15:08/11				
62	17:11 17:48	17:48 18:17	19:49 20:17	20:28 20:11	19:30 18:39	16:54 16:38	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
63	07:06 15:53-16:29/36	06:42 05:56	05:28 05:28	05:51 06:20	06:20 06:22	15:42-15:54/12	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
64	17:11 17:48	17:48 18:17	19:49 20:17	20:28 20:11	19:30 18:39	16:54 16:38	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
65	07:06 15:53-16:29/36	06:42 05:56	05:28 05:28	05:51 06:20	06:20 06:22	15:42-15:54/12	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
66	17:11 17:48	17:48 18:17	19:49 20:17	20:28 20:11	19:30 18:39	16:54 16:38	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
67	07:06 15:53-16:29/36	06:42 05:56	05:28 05:28	05:51 06:20	06:20 06:22	15:42-15:54/12	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
68	17:11 17:48	17:48 18:17	19:49 20:17	20:28 20:11	19:30 18:39	16:54 16:38	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
69	07:06 15:53-16:29/36	06:42 05:56	05:28 05:28	05:51 06:20	06:20 06:22	15:42-15:54/12	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
70	17:11 17:48	17:48 18:17	19:49 20:17	20:28 20:11	19:30 18:39	16:54 16:38	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
71	07:06 15:53-16:29/36	06:42 05:56	05:28 05:28	05:51 06:20	06:20 06:22	15:42-15:54/12	06:58 15:24-15:57/15	07:18 14:57-15:08/11				
72	17:11 17:48	17:4										

SHADOW - Calendar per WTG

WTG: IS09 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December				
1	07:17	07:05	06:30	06:40	05:56	06:15-07:04/49	05:28	05:52	06:22-07:10/48	06:21	06:50	06:23	06:57			
	16:39	17:12	17:45	19:18	19:49		20:17	20:10	20:28	19:28	18:39	16:53	16:30			
2	07:17	07:04	06:28	06:39	05:54	06:13-07:03/50	05:27	05:29	06:21-07:11/50	06:22	06:51	06:24	06:58			
	16:40	17:14	17:46	19:19	19:50		20:18	20:09	20:28	19:26	18:37	16:52	16:29			
3	07:17	07:03	06:27	06:37	05:53	06:12-07:03/51	05:27	05:29	06:21-07:11/50	06:23	06:52	06:25	06:59			
	16:41	17:15	17:48	19:20	19:51		20:19	20:08	20:28	19:25	18:35	16:51	16:29			
4	07:18	07:02	06:25	06:35	05:52	06:11-07:03/52	05:26	05:30	06:21-07:12/51	06:24	06:53	06:26	07:00			
	16:41	17:16	17:49	19:21	19:52		20:20	20:07	20:28	19:23	18:34	16:50	16:29			
5	07:18	07:01	06:24	06:34	05:51	06:10-07:03/53	05:26	05:30	06:20-07:12/52	06:25	06:54	06:28	07:01			
	16:42	17:17	17:50	19:22	19:53		20:20	20:06	20:28	19:22	18:32	16:48	16:29			
6	07:18	07:00	06:22	06:32	05:49	06:10-07:03/53	05:26	05:31	06:20-07:12/52	06:26	06:55	06:29	07:02			
	16:43	17:18	17:51	19:23	19:54		20:21	20:04	20:30	19:20	18:30	16:47	16:29			
7	07:18	06:59	06:21	06:31	05:48	06:10-07:03/53	05:26	05:32	06:20-07:13/53	06:27	06:56	06:30	07:03			
	16:44	17:20	17:52	19:24	19:55		20:22	20:03	20:27	19:18	18:29	16:46	16:29			
8	07:17	06:58	06:19	06:29	05:47	06:11-07:02/51	05:25	05:32	06:20-07:13/53	06:28	06:57	06:31	07:04			
	16:45	17:21	17:53	19:25	19:56		20:22	20:02	20:27	19:17	18:27	16:45	16:29			
9	07:17	06:56	06:18	06:27	05:46	06:11-07:02/51	05:25	05:33	06:21-07:13/52	06:29	06:58	06:32	07:05			
	16:46	17:22	17:54	19:26	19:57		20:23	20:01	20:26	19:15	18:26	16:44	16:29			
10	07:17	06:55	06:16	06:26	05:45	06:11-07:01/50	05:25	05:33	06:20-07:13/51	06:30	06:59	06:33	07:05			
	16:47	17:23	17:55	19:27	19:58		20:23	20:00	20:26	19:13	18:24	16:43	16:29			
11	07:17	06:54	06:14	06:24	05:44	06:12-07:01/49	05:25	05:34	06:22-07:12/50	06:31	07:00	06:35	07:06			
	16:48	17:24	17:56	19:28	19:59		20:24	20:02	20:26	19:12	18:23	16:42	16:29			
12	07:17	06:53	06:13	06:23	06:41-06:45/4	05:43	06:12-07:00/48	05:25	05:35	06:23-07:12/49	06:32	07:01	06:36	07:07		
	16:49	17:26	17:57	19:29	20:00		20:24	20:05	20:25	19:10	18:21	16:41	16:29			
13	07:16	06:52	06:11	06:21	06:40-06:51/11	05:42	06:13-07:00/47	05:25	05:36	06:24-07:12/48	06:33	07:02	06:37	07:08		
	16:50	17:27	17:58	19:30	20:01		20:25	20:06	20:25	19:08	18:19	16:40	16:29			
14	07:16	06:50	06:10	06:20	06:38-06:53/15	05:41	06:13-06:59/46	05:25	05:36	06:25-07:12/47	06:34	07:03	06:38	07:09		
	16:51	17:28	18:00	19:31	20:02		20:25	20:04	20:24	19:07	18:18	16:40	16:29			
15	07:16	06:49	06:08	06:18	06:37-06:56/19	05:40	06:14-06:58/44	05:24	05:37	06:26-07:11/45	06:35	07:04	06:39	07:09		
	16:52	17:29	18:01	19:32	20:03		20:26	20:04	20:24	19:05	18:16	16:39	16:29			
16	07:15	06:48	06:06	06:17	06:35-06:57/22	05:39	06:14-06:57/43	05:25	05:38	06:27-07:11/44	06:35	07:05	06:40	07:10		
	16:54	17:30	18:02	19:34	20:04		20:26	20:03	20:23	19:04	18:15	16:38	16:30			
17	07:15	06:47	06:05	06:15	06:34-06:59/25	05:38	06:15-06:56/41	05:25	05:39	06:28-07:11/43	06:36	07:06	06:42	07:11		
	16:55	17:32	18:03	19:35	20:05		20:26	20:02	20:23	19:02	18:13	16:37	16:30			
18	07:15	06:45	06:03	06:14	06:32-07:00/28	05:37	06:16-06:55/39	05:25	05:39	06:34-06:57/23	06:37	07:08	06:43	07:11		
	16:56	17:33	18:04	19:36	20:06		20:27	20:02	20:22	19:49	19:00	18:12	16:36	16:30		
19	07:14	06:44	06:01	06:12	06:31-07:01/30	05:36	06:16-06:54/38	05:25	05:40	06:32-06:58/26	06:38	07:09	06:44	07:12		
	16:57	17:34	18:05	19:37	20:07		20:27	20:01	20:21	19:48	18:59	18:11	16:36	16:31		
20	07:14	06:43	06:00	06:11	06:29-07:01/32	05:35	06:18-06:54/36	05:25	05:41	06:31-07:00/29	06:10	06:31-07:09/38	06:39	07:10	06:45	07:13
	16:58	17:35	18:06	19:38	20:07		20:27	20:02	20:21	19:46	18:57	18:09	16:35	16:31		
21	07:13	06:41	05:58	06:09	06:28-07:02/34	05:35	06:19-06:53/34	05:25	05:42	06:31-07:01/30	06:11	06:32-07:08/36	06:40	07:11	06:46	07:13
	16:59	17:36	18:07	19:39	20:08		20:28	20:00	20:20	19:45	18:55	18:08	16:34	16:32		
22	07:12	06:40	05:57	06:08	06:26-07:02/36	05:34	06:20-06:52/32	05:25	05:43	06:30-07:03/33	06:12	06:33-07:07/34	06:41	07:12	06:47	07:14
	17:00	17:37	18:08	19:40	20:09		20:28	20:01	20:19	19:43	18:53	18:06	16:34	16:32		
23	07:12	06:39	05:55	06:06	06:25-07:03/38	05:33	06:21-06:51/30	05:25	05:43	06:29-07:04/35	06:13	06:34-07:06/32	06:42	07:13	06:48	07:14
	17:02	17:39	18:09	19:41	20:10		20:28	20:01	20:18	19:42	18:52	18:05	16:33	16:33		
24	07:11	06:37	05:53	06:05	06:24-07:04/40	05:32	06:22-06:50/28	05:26	05:44	06:27-07:04/37	06:14	06:34-07:04/30	06:43	07:14	06:49	07:15
	17:03	17:40	18:10	19:42	20:11		20:28	20:01	20:17	19:40	18:50	18:03	16:33	16:33		
25	07:10	06:36	05:52	06:04	06:22-07:03/41	05:32	06:23-06:48/25	05:26	05:45	06:27-07:05/38	06:15	06:35-07:02/27	06:44	06:15	06:51	07:15
	17:04	17:41	18:11	19:43	20:12		20:28	20:01	20:17	19:39	18:49	17:02	16:32	16:34		
26	07:10	06:34	05:50	06:02	06:21-07:04/43	05:31	06:26-06:47/21	05:26	05:46	06:26-07:06/40	06:15	06:36-07:01/25	06:45	06:16	06:52	07:16
	17:05	17:42	18:12	19:44	20:13		20:28	20:01	20:16	19:37	18:47	17:01	16:32	16:34		
27	07:09	06:33	05:48	06:01	06:20-07:04/44	05:30	06:27-06:45/18	05:27	05:47	06:25-07:07/42	06:16	06:37-06:59/22	06:46	06:17	06:53	07:16
	17:06	17:43	18:13	19:45	20:14		20:28	20:01	20:15	19:36	18:45	16:59	16:31	16:35		
28	07:08	06:31	05:47	06:00	06:18-07:04/46	05:30	06:30-06:43/13	05:27	05:48	06:25-07:08/43	06:17	06:38-06:57/19	06:47	06:19	06:54	07:16
	17:07	17:44	18:14	19:46	20:14		20:28	20:01	20:14	19:34	18:44	16:58	16:31	16:36		
29	07:07		06:45	05:58	06:17-07:04/47	05:29	06:33-06:40/7	05:27	05:49	06:24-07:09/45	06:18	06:39-06:54/15	06:48	06:20	06:55	07:17
	17:09		19:15	19:47	20:15		20:28	20:01	20:13	19:33	18:42	16:57	16:30	16:36		
30	07:06		06:43	05:57	06:16-07:04/48	05:29		05:28	05:50	06:24-07:10/46	06:19	06:40-06:51/11	06:49	06:21	06:56	07:17
	17:10		19:16	19:48	20:16		20:28	20:01	20:12	19:31	18:40	16:56	16:30	16:37		
31	07:06		06:42		05:28			05:27	05:51	06:22-07:09/47	06:20	06:41-06:45/4	06:22	06:22	06:57	07:17
	17:11		19:17		20:17			20:11	20:11	19:30	18:40	16:54	16:31	16:38		
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290				
Sum of minutes with flicker	0	0	0	603	1152	10	560	1211	0	0	0	0				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS10 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:07-17:22/15	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:28	05:52 20:10	06:21 19:28	06:50 17:48-18:10/22	06:23 16:53	06:57 16:30
2	07:18 16:40	07:04 17:14	06:28 17:06-17:22/16	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 17:46-18:11/25	06:24 16:52	06:58 16:29
3	07:18 16:41	07:03 17:15	06:27 17:06-17:23/17	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 17:45-18:08/23	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:05-17:23/18	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 17:44-18:06/22	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:05-17:23/18	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 17:43-18:04/21	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:05-17:25/20	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:05	06:26 19:20	06:55 17:42-18:03/21	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:05-17:26/21	06:31 19:24	05:48 19:55	05:26 20:22	05:32 20:27	05:57 20:03	06:27 19:18	06:56 17:41-18:01/20	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:06-17:27/21	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 17:40-18:00/20	06:31 16:45	07:04 16:29
9	07:17 16:46	06:57 17:22	06:18 17:06-17:28/22	06:28 19:26	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 17:40-17:58/18	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:06-17:29/23	06:26 19:27	05:45 19:58	05:25 20:23	05:33 20:26	06:00 20:00	06:30 19:14	06:59 17:40-17:57/17	06:34 16:43	07:06 16:29
11	07:17 16:48	06:54 17:24	06:14 17:07-17:31/24	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 17:40-17:56/16	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:08-17:31/23	06:23 19:30	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 17:40-17:55/15	06:36 16:41	07:07 16:29
13	07:17 16:50	06:52 17:27	06:11 17:10-17:29/19	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 17:40-17:54/14	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 17:12-17:27/15	06:20 19:32	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:55	06:34 19:07	07:03 17:41-17:52/11	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 17:15-17:27/12	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 17:41-17:51/10	06:39 16:39	07:10 16:29
16	07:16 16:54	06:48 17:30	06:06 17:18-17:19/1	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 17:43-17:50/7	06:41 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:37 19:02	07:07 17:44-17:49/5	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 17:46-17:47/1	06:43 16:36	07:12 16:30
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:04	06:50 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	07:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	07:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	07:17 17:57-18:08/11	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 17:54-18:07/13	06:54 16:31	07:16 16:36
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30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	17:51-18:08/17	06:21 16:56	07:17 16:30
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30			06:22 16:54	07:17 16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	39	285	0	0	0	0	0	41	288	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS11 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (11)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	07:01 16:29
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13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:24 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	06:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:28	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	07:06 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS12 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)

Assumptions for shadow calculations

The calculated times are "worst case" given by the following assumptions:

- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

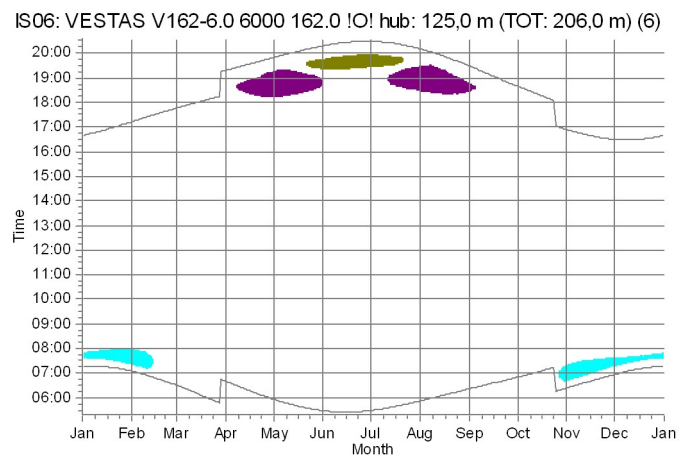
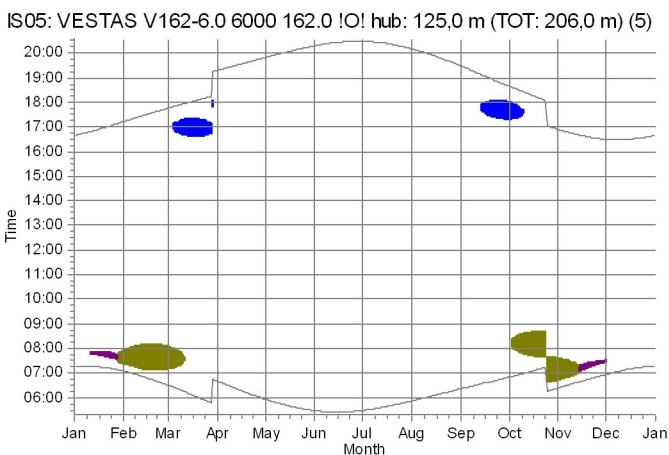
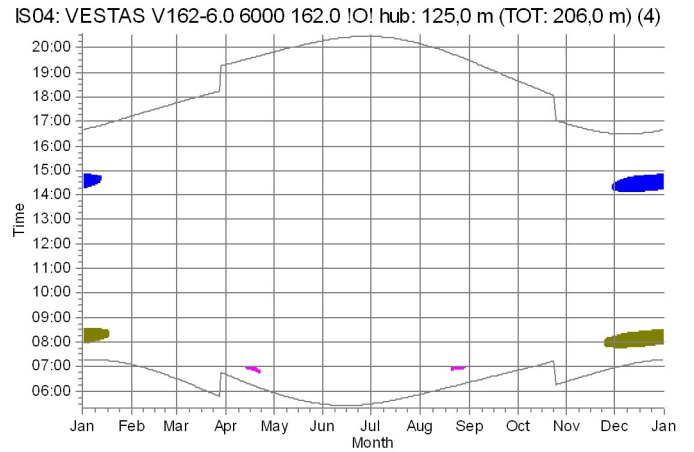
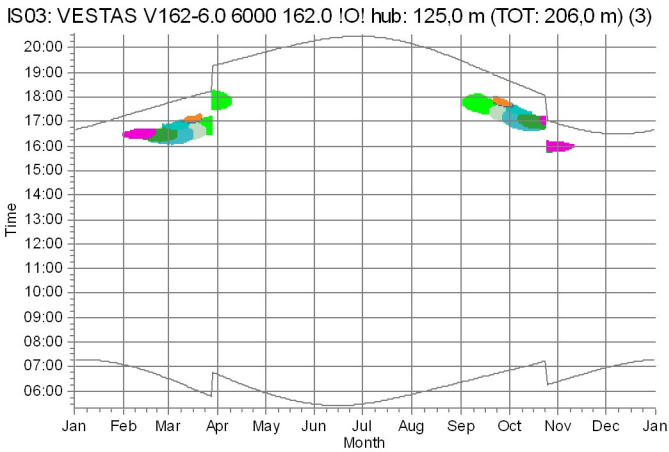
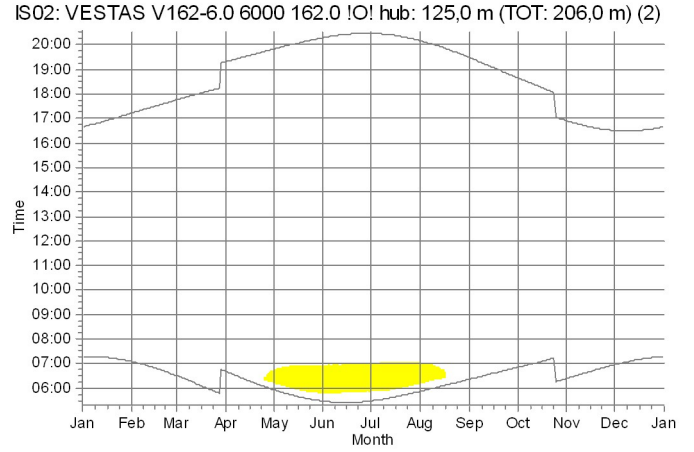
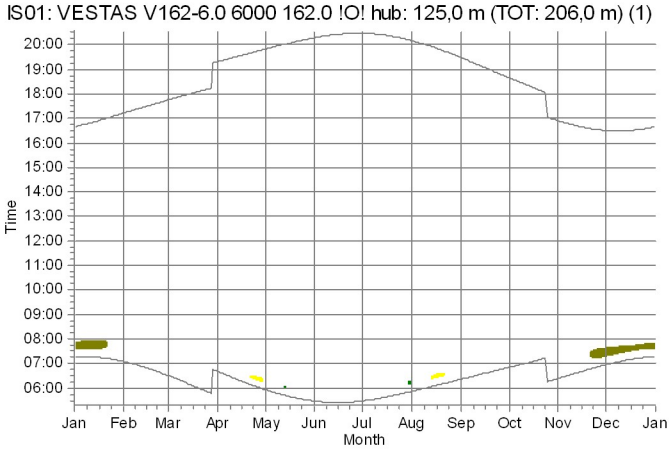
	January	February	March	April	May	June	July	August	September	October	November	December		
1	07:17	07:05	06:30	15:49-16:25/36	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	15:24-15:48/24	06:57
	16:39	17:12	17:45		19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53		16:30
2	07:17	07:04	06:28	15:50-16:23/33	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	15:27-15:47/20	06:58
	16:40	17:14	17:47		19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52		16:29
3	07:18	07:03	06:27	15:51-16:21/30	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	15:30-15:44/14	06:59
	16:41	17:15	17:48		19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51		16:29
4	07:18	07:02	06:25	15:53-16:20/27	06:35	05:52	05:27	05:30	05:54	06:24	06:53	06:27		07:00
	16:41	17:16	17:49		19:21	19:52	20:20	20:28	20:07	19:23	18:34	16:50		16:29
5	07:18	07:01	06:24	15:54-16:18/24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28		07:01
	16:42	17:17	17:50		19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49		16:29
6	07:18	07:00	06:22	15:57-16:16/19	06:32	05:50	05:26	05:31	05:56	06:26	06:55	16:40-16:45/5		07:02
	16:43	17:18	17:51		19:23	19:54	20:21	20:27	20:04	19:20	18:31	16:47		16:29
7	07:18	06:59	16:05-16:08/3		06:21	05:48	05:26	05:32	05:57	06:27	06:56	16:34-16:50/16		07:03
	16:44	17:20	17:52	16:00-16:12/12	19:24	19:55	20:22	20:27	20:03	19:18	18:29	16:46		16:29
8	07:17	06:58	15:59-16:14/15		06:19	05:47	05:25	05:32	05:58	06:28	06:57	16:31-16:52/21		07:04
	16:45	17:21	17:53		19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45		16:29
9	07:17	06:56	15:57-16:17/20		06:18	05:46	05:25	05:33	05:59	06:29	06:58	16:28-16:54/26		07:05
	16:46	17:22	17:54		19:26	19:57	20:23	20:26	20:01	19:15	18:26	16:44		16:29
10	07:17	06:55	15:55-16:20/25		06:16	05:45	05:25	05:34	06:00	06:30	06:59	16:26-16:55/29		07:05
	16:47	17:23	17:55		19:27	19:58	20:23	20:26	20:00	19:13	18:24	16:43		16:29
11	07:17	06:54	15:53-16:21/28		06:14	05:44	05:25	05:34	06:01	06:31	07:00	16:24-16:56/32		07:06
	16:48	17:24	17:56		19:28	19:59	20:24	20:26	19:58	19:12	18:23	16:42		16:29
12	07:17	06:53	15:51-16:22/31		06:13	05:43	05:25	05:35	06:02	06:32	07:01	16:23-16:57/34		07:07
	16:49	17:26	17:57		19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41		16:29
13	07:16	06:52	15:51-16:24/33		06:11	05:42	05:25	05:36	06:03	06:33	07:02	16:21-16:58/37		07:08
	16:50	17:27	17:58		19:30	20:01	20:25	20:25	19:56	19:09	18:20	16:40		16:29
14	07:16	06:51	15:50-16:25/35		06:10	05:41	05:25	05:36	06:04	06:34	07:03	16:20-16:58/38		07:09
	16:51	17:28	18:00		19:32	20:02	20:25	20:24	19:54	19:07	18:18	16:40		16:29
15	07:16	06:49	15:48-16:25/37		06:08	05:40	05:25	05:37	06:05	06:35	07:04	16:19-16:58/39		07:09
	16:52	17:29	18:01		19:33	20:03	20:26	20:24	19:53	19:05	18:16	16:39		16:30
16	07:15	06:48	15:48-16:26/38		06:06	05:39	05:25	05:38	06:06	06:36	07:05	16:19-16:59/40		07:10
	16:54	17:30	18:02		19:34	20:04	20:26	20:23	19:52	19:04	18:15	16:38		16:30
17	07:15	06:47	15:48-16:27/39		06:05	05:38	05:25	05:39	06:07	06:36	07:06	16:18-16:59/41		07:11
	16:55	17:32	18:03		19:35	20:05	20:26	20:23	19:50	19:02	18:14	16:37		16:30
18	07:15	06:45	15:47-16:27/40		06:03	05:37	05:25	05:39	06:08	06:37	07:08	16:18-16:59/41		07:11
	16:56	17:33	18:04		19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36		16:30
19	07:14	06:44	15:47-16:28/41		06:02	05:36	05:25	05:40	06:09	06:38	07:09	16:17-16:59/42		07:12
	16:57	17:34	18:05		19:37	20:07	20:27	20:21	19:48	18:59	18:11	16:36		16:31
20	07:14	06:43	15:47-16:28/41		06:00	05:35	05:25	05:41	06:10	06:39	07:10	16:17-16:59/42		07:13
	16:58	17:35	18:06		19:38	20:07	20:27	20:21	19:46	18:57	18:09	16:35		16:31
21	07:13	06:41	15:46-16:28/42		05:58	05:35	05:25	05:42	06:11	06:40	07:11	16:17-16:58/41		07:13
	16:59	17:36	18:07		19:39	20:08	20:28	20:20	19:45	18:55	18:08	16:34		16:32
22	07:12	06:40	15:46-16:28/42		05:57	05:34	05:25	05:43	06:12	06:41	07:12	16:16-16:58/42		07:14
	17:00	17:37	18:08		19:40	20:09	20:28	20:19	19:43	18:54	18:06	16:34		16:32
23	07:12	06:39	15:46-16:27/41		05:55	05:33	05:26	05:44	06:13	06:42	07:13	16:17-16:58/41		07:14
	17:02	17:39	18:09		19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33		16:33
24	07:11	06:37	15:46-16:28/42		05:53	05:32	05:26	05:44	06:14	06:43	07:14	16:17-16:57/40		07:15
	17:03	17:40	18:10		19:42	20:11	20:28	20:17	19:40	18:50	18:04	16:33		16:33
25	07:10	06:36	15:46-16:27/41		05:52	05:32	05:26	05:45	06:15	06:44	07:15	15:18-15:57/39		07:15
	17:04	17:41	18:11		19:43	20:12	20:28	20:17	19:39	18:49	17:02	16:32		16:34
26	07:10	06:34	15:47-16:27/40		05:50	05:31	05:26	05:46	06:16	06:45	07:16	15:18-15:56/38		07:16
	17:05	17:42	18:12		19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32		16:34
27	07:09	06:33	15:48-16:26/38		05:48	05:30	05:27	05:47	06:16	06:46	07:17	15:18-15:55/37		07:16
	17:06	17:43	18:13		19:45	20:14	20:28	20:15	19:36	18:45	16:59	16:31		16:35
28	07:08	06:31	15:48-16:25/37		05:47	05:30	05:27	05:48	06:17	06:47	07:18	15:19-15:54/35		07:16
	17:08	17:44	18:14		19:46	20:14	20:28	20:14	19:34	18:44	16:58	16:31		16:36
29	07:07		06:45		05:58	05:29	05:28	05:49	06:18	06:48	07:19	15:21-15:53/32		07:17
	17:09		18:09		19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30		16:36
30	07:06		06:44		05:57	05:29	05:28	05:50	06:19	06:49	07:20	15:21-15:52/31		07:17
	17:10		18:16		19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30		16:37
31	07:06		06:42			05:28		05:51	06:20		07:21	15:23-15:50/27		07:17
	17:11		19:17			20:17		20:11	19:30		16:54	16:38		16:38
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290		
Sum of minutes with flicker	0	749	181	0	0	0	0	0	0	0	886	58	0	

Sum of minutes with flicker
















Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG, graphical

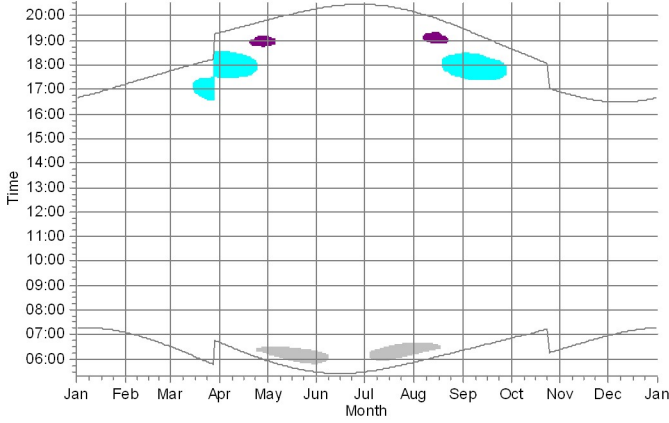


Shadow receptors

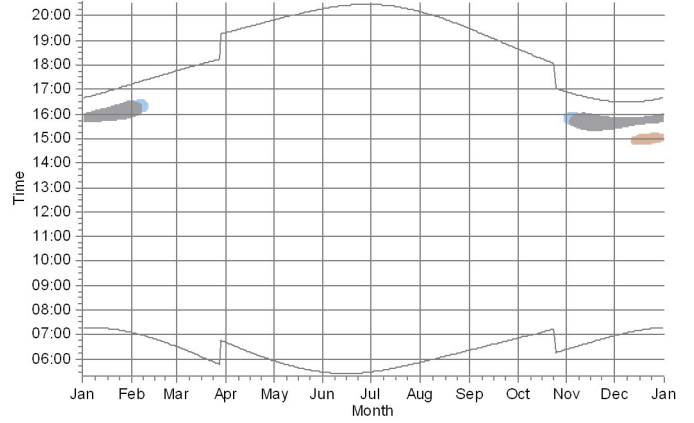
 R110: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (41)	 R193: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (47)	 R28: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (32)
 R116: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (42)	 R210: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (48)	 R36: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (33)
 R142: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (38)	 R223: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (50)	 R51: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (34)
 R160: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (44)	 R23: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (30)	 R52: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (39)
 R19: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (29)	 R25: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (31)	 R71: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (40)

SHADOW - Calendar per WTG, graphical

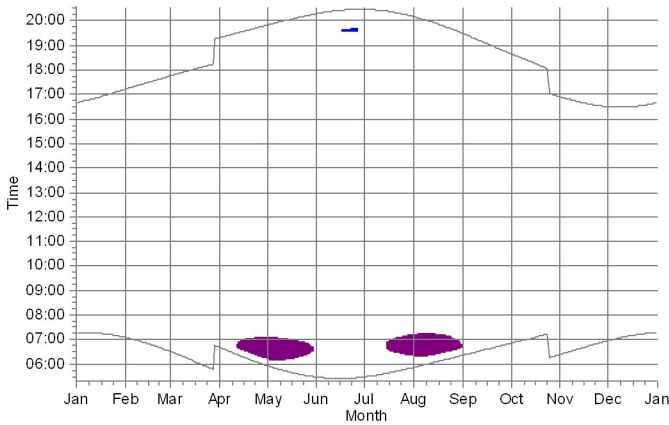
IS07: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)



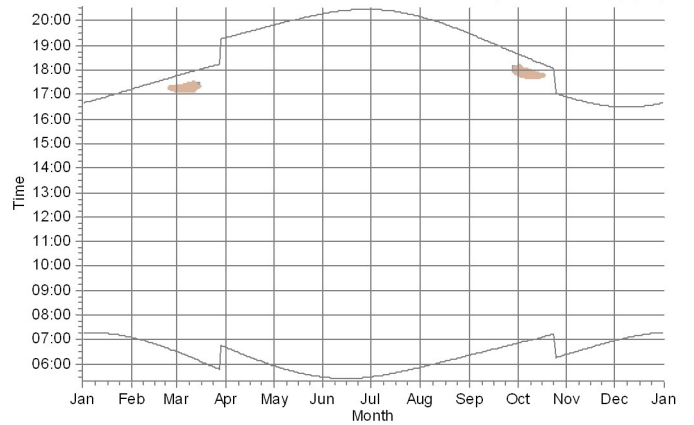
IS08: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)



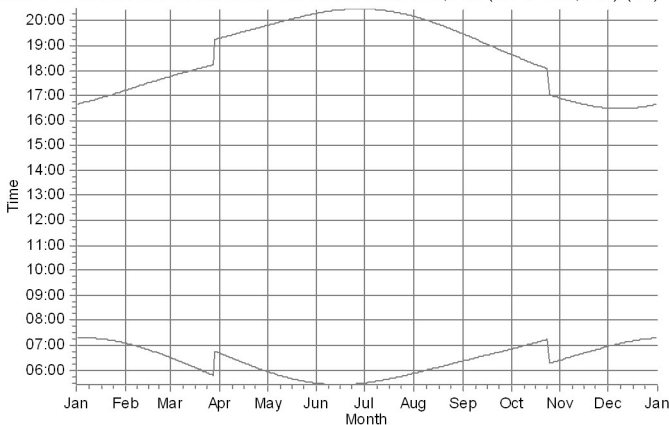
IS09: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)



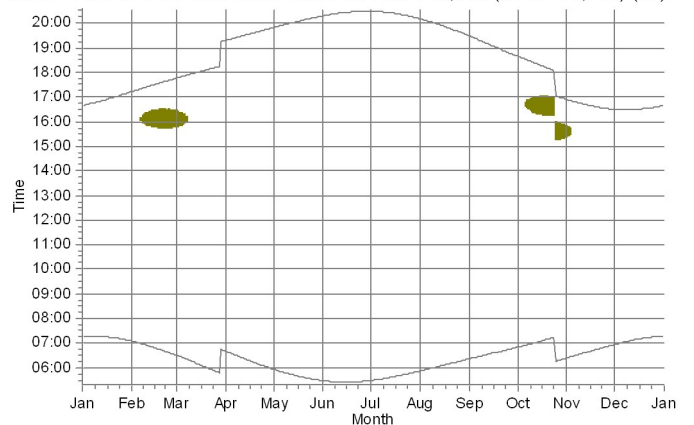
IS10: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)











IS11: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (11)



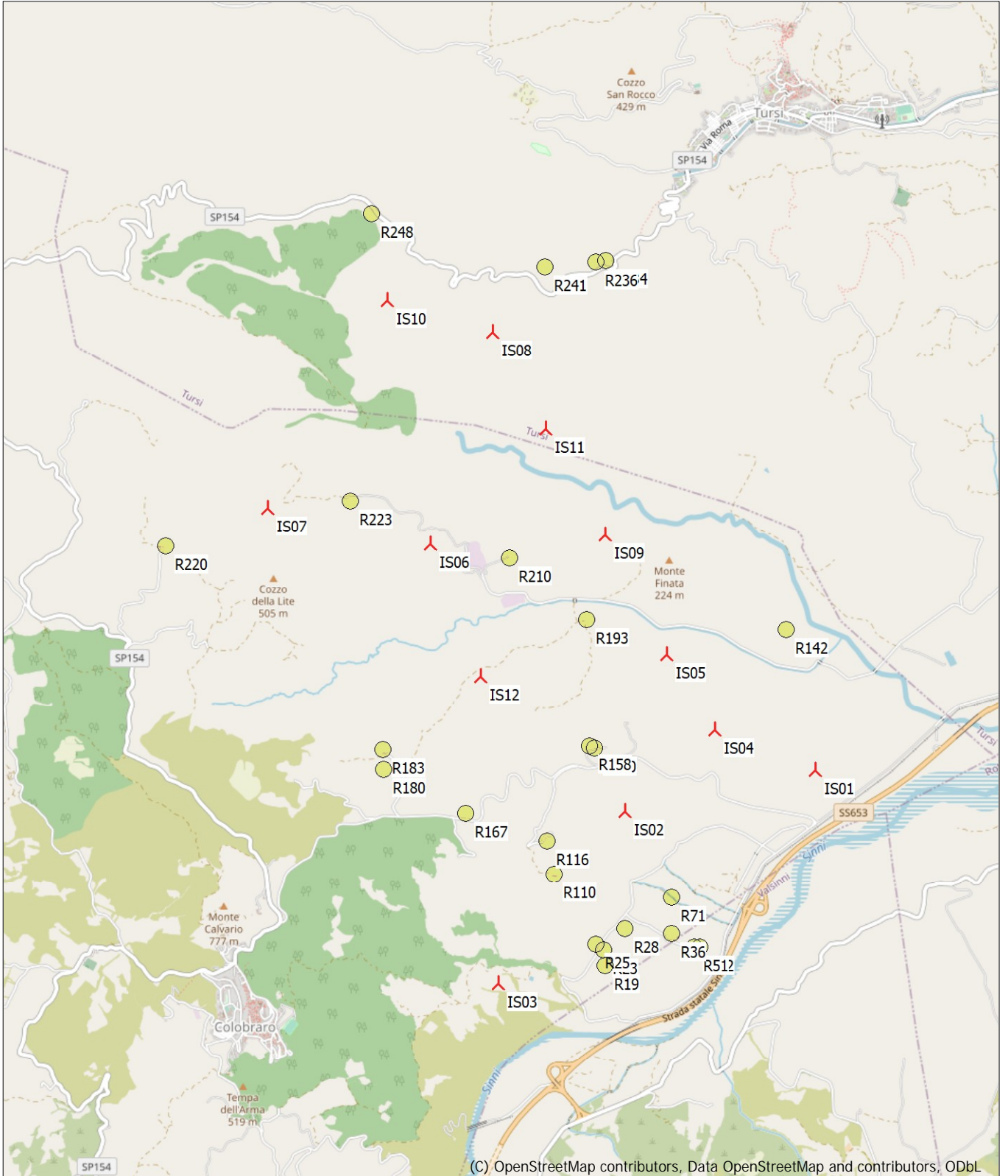
IS12: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)



Shadow receptors

 R142: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (38)	 R220: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (49)	 R236: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (52)
 R193: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (47)	 R223: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (50)	 R241: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (53)
 R210: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (48)	 R234: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (51)	

SHADOW - Map



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

0 500 1000 1500 2000 m

Map: EMD OpenStreetMap , Print scale 1:40.000, Map center Geo WGS84 East: 16,445713° E North: 40,214897° N

New WTG

Shadow receptor

Flicker map level: Elevation Grid Data Object: WF IS_EMDGrid_0.wpg (5)

SHADOW - Main Result

Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

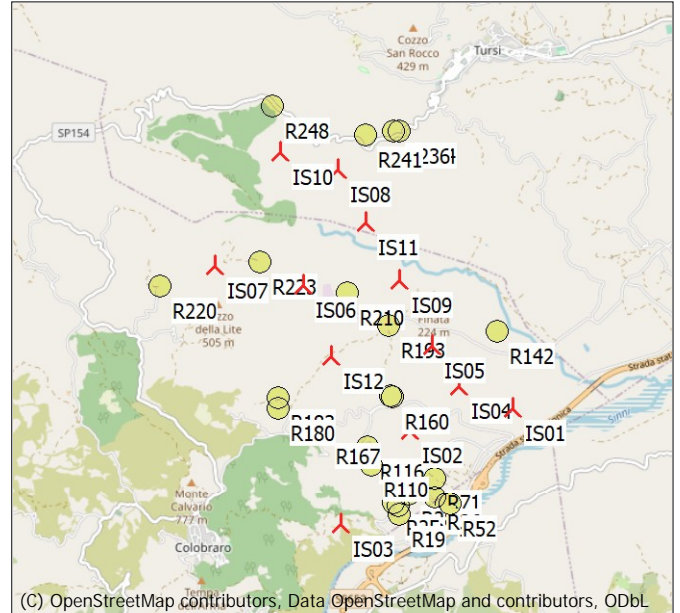
Minimum sun height over horizon for influence 3 °
Day step for calculation 1 days
Time step for calculation 1 minutes

Sunshine probability S (Average daily sunshine hours) []
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time
N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

Monthly aggregation of real case reduction
A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values.
A WTG will be visible if it is visible from any part of the receiver window.
The ZVI calculation is based on the following assumptions:
Height contours used: Elevation Grid Data Object: WF IS_EMDGrid_0.wpg (5)
Receptor grid resolution: 1,0 m
Topographic shadow included in calculation

All coordinates are in
Geo [deg]-WGS84



Scale 1:100.000
New WTG Shadow receptor

WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type			Shadow data				
					Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Calculation distance [m]	RPM [RPM]
			[m]									
IS01	16,473201° E	40,203815° N	196,4	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS02	16,457104° E	40,201167° N	228,8	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS03	16,446350° E	40,190039° N	200,1	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS04	16,464691° E	40,206396° N	223,5	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS05	16,460622° E	40,211307° N	174,9	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS06	16,440596° E	40,218440° N	221,1	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS07	16,426861° E	40,220760° N	358,2	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS08	16,445907° E	40,232138° N	306,2	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS09	16,455405° E	40,219030° N	210,2	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS10	16,436958° E	40,234174° N	322,4	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS11	16,450349° E	40,225866° N	178,3	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-
IS12	16,444896° E	40,209889° N	303,3	VESTAS V162-6.0 6000 16...	Yes	VESTAS	V162-6.0-6.000	6.000	162,0	125,0	2.044	-

Shadow receptor-Input

No.	Longitude	Latitude	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
R110	16,451090° E	40,197116° N	291,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R116	16,450477° E	40,199216° N	267,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R142	16,470757° E	40,212904° N	125,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R158	16,454070° E	40,205353° N	312,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R160	16,454513° E	40,205218° N	319,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R167	16,443602° E	40,201034° N	437,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R180	16,436657° E	40,203848° N	441,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R183	16,436630° E	40,205130° N	414,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R19	16,455408° E	40,191194° N	126,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R193	16,453863° E	40,213556° N	190,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R210	16,447311° E	40,217507° N	244,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R220	16,418232° E	40,218280° N	453,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R223	16,433853° E	40,221225° N	326,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R23	16,455299° E	40,192180° N	129,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R234	16,455475° E	40,236730° N	307,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R236	16,454628° E	40,236663° N	318,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R241	16,450320° E	40,236333° N	355,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R248	16,435683° E	40,239750° N	408,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0

To be continued on next page...

SHADOW - Main Result

...continued from previous page

No.	Longitude	Latitude	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
R25	16,454610° E	40,192567° N	146,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R28	16,457034° E	40,193601° N	126,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R36	16,461036° E	40,193231° N	116,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R51	16,462915° E	40,192390° N	112,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R52	16,463391° E	40,192385° N	113,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R71	16,461020° E	40,195584° N	120,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0

Calculation Results

Shadow receptor

Shadow, expected values

No.	Shadow hours per year [h/year]
R110	0:00
R116	27:54
R142	18:32
R158	0:00
R160	0:09
R167	0:00
R180	0:00
R183	0:00
R19	9:29
R193	56:22
R210	40:43
R220	8:41
R223	34:02
R23	9:33
R234	9:39
R236	17:30
R241	6:27
R248	0:00
R25	12:06
R28	7:21
R36	2:06
R51	1:18
R52	1:08
R71	3:54

Total amount of flickering on the shadow receptors caused by each WTG

No.	Name	Expected [h/year]
IS01	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)	5:21
IS02	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (2)	27:46
IS03	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)	28:18
IS04	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)	18:42
IS05	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)	35:19
IS06	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)	41:21
IS07	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)	31:13
IS08	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)	20:33
IS09	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)	17:13
IS10	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)	3:53
IS11	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (11)	0:00
IS12	VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)	11:53

Total times in Receptor wise and WTG wise tables can differ, as a WTG can lead to flicker at 2 or more receptors simultaneously and/or receptors may receive flicker from 2 or more WTGs simultaneously.

The calculation of the total expected values for a given receptor assumes a weighted average directional reduction for all WTGs contributing to shadow flicker within the same day. In the case where shadow flicker from different WTGs is not concurrent within the day, the total expected time at a given receptor may deviate marginally from the individual flicker time caused by each turbine separately.

SHADOW - Calendar

Shadow receptor: R110 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (41)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	06:02 (IS01) 06:03 (IS01)	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:30
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:03	06:49 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	06:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	06:16 17:01	06:52 16:32	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:18 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09	06:30 19:15	05:46 19:47	05:58 20:15	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:16 16:36
30	07:06 17:10	06:30 19:16	05:45 19:48	05:57 20:16	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11	06:30 19:17	05:45 19:48	05:57 20:16	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Total, worst case					1							
Sun reduction					0,51							
Oper. time red.					0,85							
Wind dir. red.					0,66							
Total reduction					0,29							
Total, real					0							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R116 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15 (IS02) 25 06:40 (IS02) 20:17 64 06:53 (IS02)
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	06:13 (IS02) 28 06:41 (IS02) 20:18 64 06:52 (IS02)
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12 (IS02) 30 06:42 (IS02) 20:19 65 06:53 (IS02)
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	06:11 (IS02) 33 06:44 (IS02) 20:20 64 06:53 (IS02)
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10 (IS02) 35 06:45 (IS02) 20:20 65 06:54 (IS02)
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	06:09 (IS02) 37 06:46 (IS02) 20:21 64 06:53 (IS02)
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:08 (IS02) 39 06:47 (IS02) 20:21 64 06:53 (IS02)
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	06:07 (IS02) 41 06:48 (IS02) 20:22 64 06:54 (IS02)
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	06:06 (IS02) 42 06:48 (IS02) 20:23 64 06:54 (IS02)
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	06:05 (IS02) 44 06:49 (IS02) 20:23 63 06:54 (IS02)
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	06:04 (IS02) 45 06:49 (IS02) 20:24 63 06:53 (IS02)
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	06:03 (IS02) 47 06:50 (IS02) 20:24 63 06:53 (IS02)
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	06:02 (IS02) 48 06:50 (IS02) 20:25 63 06:54 (IS02)
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	06:01 (IS02) 49 06:50 (IS02) 20:25 63 06:54 (IS02)
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	06:00 (IS02) 51 06:51 (IS02) 20:26 63 06:54 (IS02)
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:59 (IS02) 52 06:51 (IS02) 20:26 63 06:54 (IS02)
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:58 (IS02) 53 06:51 (IS02) 20:26 63 06:55 (IS02)
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:57 (IS02) 54 06:51 (IS02) 20:27 62 06:55 (IS02)
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:56 (IS02) 55 06:51 (IS02) 20:27 62 06:55 (IS02)
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:56 (IS02) 56 06:52 (IS02) 20:27 62 06:55 (IS02)
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:55 (IS02) 57 06:52 (IS02) 20:27 62 06:55 (IS02)
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:54 (IS02) 58 06:52 (IS02) 20:28 62 06:55 (IS02)
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:54 (IS02) 58 06:52 (IS02) 20:28 62 06:56 (IS02)
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:53 (IS02) 59 06:52 (IS02) 20:28 62 06:56 (IS02)
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:52 (IS02) 60 06:52 (IS02) 20:28 63 06:56 (IS02)
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:52 (IS02) 61 06:53 (IS02) 20:28 63 06:57 (IS02)
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:51 (IS02) 61 06:52 (IS02) 20:28 63 06:57 (IS02)
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:51 (IS02) 62 06:53 (IS02) 20:28 63 06:57 (IS02)
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:50 (IS02) 63 06:53 (IS02) 20:28 63 06:58 (IS02)
30	07:06 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:50 (IS02) 63 06:53 (IS02) 20:28 63 06:57 (IS02)
31	07:06 17:11		06:42 19:17		05:28 20:17	05:49 (IS02) 64 06:53 (IS02)
Potential sun hours	300	298	370	398	446	449
Total, worst case				82	1530	1894
Sun reduction				0,56	0,51	0,49
Oper. time red.				0,85	0,85	0,85
Wind dir. red.				0,66	0,66	0,66
Total reduction				0,31	0,29	0,28
Total, real				26	443	527

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R116 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December		
1	05:28	05:55 (IS02)	05:52	06:13 (IS02)	06:21	06:50	06:23	06:57
	20:28	63 06:58 (IS02)	20:10	46 06:59 (IS02)	19:28	18:39	16:53	16:30
2	05:29	05:55 (IS02)	05:53	06:14 (IS02)	06:22	06:51	06:24	06:58
	20:28	63 06:58 (IS02)	20:09	45 06:59 (IS02)	19:26	18:37	16:52	16:29
3	05:29	05:55 (IS02)	05:53	06:15 (IS02)	06:23	06:52	06:25	06:59
	20:28	64 06:59 (IS02)	20:08	43 06:58 (IS02)	19:25	18:35	16:51	16:29
4	05:30	05:55 (IS02)	05:54	06:16 (IS02)	06:24	06:53	06:26	07:00
	20:28	64 06:59 (IS02)	20:07	42 06:58 (IS02)	19:23	18:34	16:50	16:29
5	05:30	05:55 (IS02)	05:55	06:17 (IS02)	06:25	06:54	06:28	07:01
	20:28	64 06:59 (IS02)	20:06	40 06:57 (IS02)	19:22	18:32	16:49	16:29
6	05:31	05:55 (IS02)	05:56	06:18 (IS02)	06:26	06:55	06:29	07:02
	20:27	64 06:59 (IS02)	20:04	38 06:56 (IS02)	19:20	18:31	16:47	16:29
7	05:32	05:55 (IS02)	05:57	06:19 (IS02)	06:27	06:56	06:30	07:03
	20:27	65 07:00 (IS02)	20:03	36 06:55 (IS02)	19:18	18:29	16:46	16:29
8	05:32	05:55 (IS02)	05:58	06:20 (IS02)	06:28	06:57	06:31	07:04
	20:27	64 06:59 (IS02)	20:02	34 06:54 (IS02)	19:17	18:27	16:45	16:29
9	05:33	05:55 (IS02)	05:59	06:21 (IS02)	06:29	06:58	06:32	07:05
	20:26	65 07:00 (IS02)	20:01	32 06:53 (IS02)	19:15	18:26	16:44	16:29
10	05:34	05:56 (IS02)	06:00	06:22 (IS02)	06:30	06:59	06:33	07:05
	20:26	65 07:01 (IS02)	20:00	30 06:52 (IS02)	19:13	18:24	16:43	16:29
11	05:34	05:56 (IS02)	06:01	06:22 (IS02)	06:31	07:00	06:35	07:06
	20:26	64 07:00 (IS02)	19:58	27 06:49 (IS02)	19:12	18:23	16:42	16:29
12	05:35	05:57 (IS02)	06:02	06:23 (IS02)	06:32	07:01	06:36	07:07
	20:25	64 07:01 (IS02)	19:57	25 06:48 (IS02)	19:10	18:21	16:41	16:29
13	05:36	05:58 (IS02)	06:03	06:24 (IS02)	06:33	07:02	06:37	07:08
	20:25	63 07:01 (IS02)	19:56	22 06:46 (IS02)	19:09	18:20	16:40	16:29
14	05:36	05:59 (IS02)	06:04	06:25 (IS01)	06:34	07:03	06:38	07:09
	20:24	63 07:02 (IS02)	19:54	18 06:43 (IS02)	19:07	18:18	16:40	16:29
15	05:37	05:59 (IS02)	06:05	06:26 (IS01)	06:35	07:04	06:39	07:09
	20:24	62 07:01 (IS02)	19:53	15 06:41 (IS02)	19:05	18:16	16:39	16:30
16	05:38	06:00 (IS02)	06:06	06:27 (IS01)	06:36	07:05	06:40	07:10
	20:23	62 07:02 (IS02)	19:52	10 06:37 (IS02)	19:04	18:15	16:38	16:30
17	05:39	06:01 (IS02)	06:07	06:28 (IS01)	06:36	07:06	06:42	07:11
	20:23	61 07:02 (IS02)	19:50	4 06:32 (IS01)	19:02	18:13	16:37	16:30
18	05:39	06:02 (IS02)	06:08	06:29 (IS01)	06:37	07:08	06:43	07:11
	20:22	60 07:02 (IS02)	19:49	4 06:33 (IS01)	19:00	18:12	16:36	16:30
19	05:40	06:02 (IS02)	06:09	06:30 (IS01)	06:38	07:09	06:44	07:12
	20:21	60 07:02 (IS02)	19:48	3 06:33 (IS01)	18:59	18:11	16:36	16:31
20	05:41	06:03 (IS02)	06:10	06:31 (IS01)	06:39	07:10	06:45	07:13
	20:21	59 07:02 (IS02)	19:46	2 06:33 (IS01)	18:57	18:09	16:35	16:31
21	05:42	06:04 (IS02)	06:11	06:32 (IS01)	06:40	07:11	06:46	07:13
	20:20	58 07:02 (IS02)	19:45	1 06:33 (IS01)	18:55	18:08	16:34	16:32
22	05:43	06:05 (IS02)	06:12		06:41	07:12	06:47	07:14
	20:19	57 07:02 (IS02)	19:43		18:54	18:06	16:34	16:32
23	05:44	06:06 (IS02)	06:13		06:42	07:13	06:48	07:14
	20:18	56 07:02 (IS02)	19:42		18:52	18:05	16:33	16:33
24	05:44	06:06 (IS02)	06:14		06:43	07:14	06:49	07:15
	20:17	55 07:01 (IS02)	19:40		18:50	18:03	16:33	16:33
25	05:45	06:07 (IS02)	06:15		06:44	06:15	06:51	07:15
	20:17	55 07:02 (IS02)	19:39		18:49	17:02	16:32	16:34
26	05:46	06:08 (IS02)	06:16		06:45	06:16	06:52	07:15
	20:16	54 07:02 (IS02)	19:37		18:47	17:01	16:32	16:34
27	05:47	06:09 (IS02)	06:16		06:46	06:17	06:53	07:16
	20:15	52 07:01 (IS02)	19:36		18:45	16:59	16:31	16:35
28	05:48	06:10 (IS02)	06:17		06:47	06:18	06:54	07:16
	20:14	51 07:01 (IS02)	19:34		18:44	16:58	16:31	16:36
29	05:49	06:11 (IS02)	06:18		06:48	06:20	06:55	07:16
	20:13	50 07:01 (IS02)	19:33		18:42	16:57	16:30	16:36
30	05:50	06:12 (IS02)	06:19		06:49	06:21	06:56	07:17
	20:12	49 07:01 (IS02)	19:31		18:40	16:56	16:30	16:37
31	05:51	06:12 (IS02)	06:20			06:22		07:17
	20:11	48 07:00 (IS02)	19:30			16:54		16:38
Potential sun hours	456		426		375	346	300	291
Total, worst case	1844		517					
Sun reduction	0,50		0,54					
Oper. time red.	0,85		0,85					
Wind dir. red.	0,66		0,66					
Total reduction	0,28		0,30					
Total, real	522		157					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R142 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (38)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	
1	07:17	14:18 (IS04)	07:05	06:30	06:40	05:56	05:28
	16:39	31 14:49 (IS04)	17:12	17:45	19:18	19:49	20:17
2	07:17	14:19 (IS04)	07:04	06:28	06:39	05:54	05:27
	16:40	30 14:49 (IS04)	17:13	17:46	19:19	19:50	20:18
3	07:17	14:20 (IS04)	07:03	06:27	06:37	05:53	05:27
	16:40	29 14:49 (IS04)	17:15	17:48	19:20	19:51	20:19
4	07:17	14:21 (IS04)	07:02	06:25	16:56 (IS05)	06:35	05:52
	16:41	28 14:49 (IS04)	17:16	17:49	11 17:07 (IS05)	19:21	19:52
5	07:17	14:22 (IS04)	07:01	06:24	16:51 (IS05)	06:34	05:51
	16:42	27 14:49 (IS04)	17:17	17:50	17 17:08 (IS05)	19:22	19:53
6	07:17	14:23 (IS04)	07:00	06:22	16:49 (IS05)	06:32	05:49
	16:43	26 14:49 (IS04)	17:18	17:51	21 17:10 (IS05)	19:23	19:54
7	07:17	14:25 (IS04)	06:59	06:21	16:47 (IS05)	06:31	05:48
	16:44	23 14:48 (IS04)	17:20	17:52	24 17:11 (IS05)	19:24	19:55
8	07:17	14:26 (IS04)	06:57	06:19	16:46 (IS05)	06:29	05:47
	16:45	22 14:48 (IS04)	17:21	17:53	28 17:14 (IS05)	19:25	19:56
9	07:17	14:28 (IS04)	06:56	06:17	16:44 (IS05)	06:27	05:46
	16:46	19 14:47 (IS04)	17:22	17:54	32 17:16 (IS05)	19:26	19:57
10	07:17	14:29 (IS04)	06:55	06:16	16:42 (IS05)	06:26	05:45
	16:47	17 14:46 (IS04)	17:23	17:55	35 17:17 (IS05)	19:27	19:58
11	07:17	14:32 (IS04)	06:54	06:14	16:42 (IS05)	06:24	05:44
	16:48	13 14:45 (IS04)	17:24	17:56	37 17:19 (IS05)	19:28	19:59
12	07:17	14:36 (IS04)	06:53	06:13	16:41 (IS05)	06:23	05:43
	16:49	6 14:42 (IS04)	17:26	17:57	38 17:19 (IS05)	19:29	20:00
13	07:16		06:52	06:11	16:41 (IS05)	06:21	05:42
	16:50		17:27	17:58	39 17:20 (IS05)	19:30	20:01
14	07:16		06:50	06:09	16:40 (IS05)	06:20	05:41
	16:51		17:28	17:59	40 17:20 (IS05)	19:31	20:02
15	07:16		06:49	06:08	16:39 (IS05)	06:18	05:40
	16:52		17:29	18:01	41 17:20 (IS05)	19:32	20:03
16	07:15		06:48	06:06	16:39 (IS05)	06:17	05:39
	16:53		17:30	18:02	41 17:20 (IS05)	19:33	20:04
17	07:15		06:47	06:05	16:38 (IS05)	06:15	05:38
	16:55		17:32	18:03	42 17:20 (IS05)	19:34	20:05
18	07:14		06:45	06:03	16:38 (IS05)	06:14	05:37
	16:56		17:33	18:04	41 17:19 (IS05)	19:35	20:06
19	07:14		06:44	06:01	16:39 (IS05)	06:12	05:36
	16:57		17:34	18:05	40 17:19 (IS05)	19:37	20:06
20	07:13		06:43	06:00	16:38 (IS05)	06:11	05:35
	16:58		17:35	18:06	40 17:18 (IS05)	19:38	20:07
21	07:13		06:41	05:58	16:38 (IS05)	06:09	05:35
	16:59		17:36	18:07	39 17:17 (IS05)	19:39	20:08
22	07:12		06:40	05:57	16:39 (IS05)	06:08	05:34
	17:00		17:37	18:08	38 17:17 (IS05)	19:40	20:09
23	07:12		06:38	05:55	16:40 (IS05)	06:06	05:33
	17:01		17:38	18:09	35 17:15 (IS05)	19:41	20:10
24	07:11		06:37	05:53	16:41 (IS05)	06:05	05:32
	17:03		17:40	18:10	34 17:15 (IS05)	19:42	20:11
25	07:10		06:36	05:52	16:42 (IS05)	06:04	05:32
	17:04		17:41	18:11	31 17:13 (IS05)	19:43	20:12
26	07:10		06:34	05:50	16:42 (IS05)	06:02	05:31
	17:05		17:42	18:12	29 17:11 (IS05)	19:44	20:13
27	07:09		06:33	05:48	16:45 (IS05)	06:01	05:30
	17:06		17:43	18:13	24 17:09 (IS05)	19:45	20:13
28	07:08		06:31	05:47	16:46 (IS05)	05:59	05:30
	17:07		17:44	18:14	20 17:06 (IS05)	19:46	20:14
29	07:07			06:45	17:49 (IS05)	05:58	05:29
	17:09			19:15	13 18:02 (IS05)	19:47	20:15
30	07:06			06:43		05:57	05:29
	17:10			19:16		19:48	20:16
31	07:05			06:42		05:28	
	17:11			19:17		20:17	
Potential sun hours	300	298	370	398	446	450	
Total, worst case		271		830			10
Sun reduction		0,77		0,62			0,49
Oper. time red.		0,85		0,85			0,85
Wind dir. red.		0,65		0,65			0,63
Total reduction		0,43		0,35			0,27
Total, real		116		287			3

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R142 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (38)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December		
1	05:28 20:28	05:52 19:28	06:21 19:23	06:50 18:39	17:20 (IS05) 17:58 (IS05)	06:23 16:53	06:57 16:30	14:14 (IS04) 14:26 (IS04)
2	05:29 20:28	05:52 19:26	06:22 19:26	06:51 18:37	17:20 (IS05) 17:58 (IS05)	06:24 16:52	06:58 16:29	14:12 (IS04) 14:29 (IS04)
3	05:29 20:28	05:53 19:25	06:23 19:25	06:52 18:35	17:21 (IS05) 17:56 (IS05)	06:25 16:51	06:59 16:29	14:11 (IS04) 14:30 (IS04)
4	05:30 20:28	05:54 19:23	06:24 19:23	06:53 18:34	17:21 (IS05) 17:54 (IS05)	06:26 16:50	07:00 16:29	14:10 (IS04) 14:32 (IS04)
5	05:30 20:28	05:55 19:22	06:25 19:22	06:54 18:32	17:22 (IS05) 17:52 (IS05)	06:28 16:48	07:01 16:29	14:10 (IS04) 14:33 (IS04)
6	05:31 20:27	05:56 19:20	06:26 19:20	06:55 18:30	17:23 (IS05) 17:49 (IS05)	06:29 16:47	07:02 16:29	14:09 (IS04) 14:35 (IS04)
7	05:32 20:27	05:57 19:18	06:27 19:18	06:56 18:29	17:24 (IS05) 17:46 (IS05)	06:30 16:46	07:03 16:29	14:09 (IS04) 14:36 (IS04)
8	05:32 20:27	05:58 19:17	06:28 19:17	06:57 18:27	17:26 (IS05) 17:44 (IS05)	06:31 16:45	07:04 16:29	14:09 (IS04) 14:37 (IS04)
9	05:33 20:26	05:59 19:15	06:29 19:15	06:58 18:26	17:28 (IS05) 17:42 (IS05)	06:32 16:44	07:05 16:29	14:09 (IS04) 14:38 (IS04)
10	05:33 20:26	06:00 19:13	06:30 19:13	06:59 18:24	17:33 (IS05) 17:40 (IS05)	06:33 16:43	07:05 16:29	14:09 (IS04) 14:39 (IS04)
11	05:34 20:26	06:01 19:12	06:31 19:12	07:00 18:23	17:40 (IS05) 17:41 (IS05)	16:43 16:42	07:06 16:29	14:09 (IS04) 14:40 (IS04)
12	05:35 20:25	06:02 19:10	06:32 19:10	07:01 18:21	17:41 (IS05) 17:36 (IS05)	16:41 16:40	07:07 16:29	14:08 (IS04) 14:41 (IS04)
13	05:35 20:25	06:03 19:08	06:33 19:08	07:02 18:19	17:36 (IS05) 17:33 (IS05)	16:39 16:40	07:08 16:29	14:09 (IS04) 14:42 (IS04)
14	05:36 20:24	06:04 19:07	06:34 19:07	17:41 (IS05) 17:52 (IS05)	17:33 (IS05) 17:33 (IS05)	16:38 16:40	07:09 16:29	14:09 (IS04) 14:42 (IS04)
15	05:37 20:24	06:05 19:05	06:34 19:05	17:36 (IS05) 17:55 (IS05)	17:33 (IS05) 17:33 (IS05)	16:39 16:39	07:09 16:29	14:09 (IS04) 14:43 (IS04)
16	05:38 20:23	06:06 19:03	06:35 19:03	17:33 (IS05) 17:57 (IS05)	17:33 (IS05) 17:33 (IS05)	16:40 16:38	07:10 16:30	14:09 (IS04) 14:43 (IS04)
17	05:39 20:22	06:07 19:02	06:36 19:02	17:31 (IS05) 17:58 (IS05)	17:33 (IS05) 17:33 (IS05)	16:41 16:37	07:11 16:30	14:10 (IS04) 14:44 (IS04)
18	05:39 20:22	06:08 19:00	06:37 19:00	17:29 (IS05) 18:00 (IS05)	17:33 (IS05) 17:33 (IS05)	16:43 16:36	07:11 16:30	14:09 (IS04) 14:44 (IS04)
19	05:40 20:21	06:09 19:47	06:38 18:58	17:28 (IS05) 18:01 (IS05)	17:33 (IS05) 17:33 (IS05)	16:44 16:36	07:12 16:31	14:10 (IS04) 14:45 (IS04)
20	05:41 20:20	06:10 19:46	06:39 18:57	17:26 (IS05) 18:01 (IS05)	17:33 (IS05) 17:33 (IS05)	16:45 16:35	07:13 16:31	14:11 (IS04) 14:46 (IS04)
21	05:42 20:20	06:11 19:45	06:40 18:55	17:25 (IS05) 18:02 (IS05)	17:33 (IS05) 17:33 (IS05)	16:46 16:34	07:13 16:32	14:11 (IS04) 14:46 (IS04)
22	05:43 20:19	06:12 19:43	06:41 18:53	17:24 (IS05) 18:02 (IS05)	17:33 (IS05) 17:33 (IS05)	16:47 16:34	07:14 16:32	14:12 (IS04) 14:47 (IS04)
23	05:43 20:18	06:13 19:42	06:42 18:52	17:23 (IS05) 18:02 (IS05)	17:33 (IS05) 17:33 (IS05)	16:48 16:33	07:14 16:33	14:12 (IS04) 14:47 (IS04)
24	05:44 20:17	06:13 19:40	06:43 18:50	17:22 (IS05) 18:02 (IS05)	17:33 (IS05) 17:33 (IS05)	16:49 16:32	07:15 16:33	14:12 (IS04) 14:47 (IS04)
25	05:45 20:17	06:14 19:39	06:44 18:48	17:21 (IS05) 18:02 (IS05)	17:33 (IS05) 17:33 (IS05)	16:51 16:32	07:15 16:34	14:13 (IS04) 14:48 (IS04)
26	05:46 20:16	06:15 19:37	06:45 18:47	17:21 (IS05) 18:02 (IS05)	17:33 (IS05) 17:33 (IS05)	16:52 16:31	07:15 16:34	14:14 (IS04) 14:48 (IS04)
27	05:47 20:15	06:16 19:36	06:46 18:45	17:21 (IS05) 18:02 (IS05)	17:33 (IS05) 17:33 (IS05)	16:53 16:31	07:16 16:35	14:14 (IS04) 14:48 (IS04)
28	05:48 20:14	06:17 19:34	06:47 18:43	17:20 (IS05) 18:01 (IS05)	17:33 (IS05) 17:33 (IS05)	16:54 16:31	07:16 16:36	14:15 (IS04) 14:49 (IS04)
29	05:49 20:13	06:18 19:33	06:48 18:42	17:20 (IS05) 18:01 (IS05)	17:33 (IS05) 17:33 (IS05)	16:55 16:30	07:16 16:36	14:16 (IS04) 14:49 (IS04)
30	05:50 20:12	06:19 19:31	06:49 18:40	17:20 (IS05) 18:00 (IS05)	17:33 (IS05) 17:33 (IS05)	16:56 16:30	07:17 16:37	14:16 (IS04) 14:49 (IS04)
31	05:51 20:11	06:20 19:30		06:22 16:54		6 14:23 (IS04)	07:17 16:38	14:17 (IS04) 14:49 (IS04)
Potential sun hours	456	426	375	346	300	290		
Total, worst case			579	261	6	943		
Sun reduction			0,59	0,66	0,74	0,79		
Oper. time red.			0,85	0,85	0,85	0,85		
Wind dir. red.			0,65	0,65	0,65	0,65		
Total reduction			0,33	0,37	0,41	0,44		
Total, real			191	97	2	416		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R158 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (43)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
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11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
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14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:29
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28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 16:58	06:54 16:31	07:16 16:36
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31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: R160 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (44)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
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11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:07 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:52 (IS04) 18:55	06:40 18:08	07:11 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:53 (IS04) 18:53	06:41 18:06	07:12 16:34	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:54 (IS04) 18:52	06:42 18:05	07:13 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:53 (IS04) 18:50	06:43 18:03	07:14 16:33	07:15 16:33
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28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:57 (IS04) 18:44	06:47 16:58	06:54 16:31	07:16 16:36
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Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case				16				16				
Sun reduction				0,56				0,54				
Oper. time red.				0,85				0,85				
Wind dir. red.				0,66				0,66				
Total reduction				0,31				0,30				
Total, real				5				5				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R167 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (58)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:30
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22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:04	06:49 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	06:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	06:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	07:06 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: R180 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:30
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:54 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:42	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:31 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
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8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:28 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:14	06:59 18:24	06:33 16:43	07:06 16:29
11	07:17 16:48	06:54 17:25	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:41	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:53	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	06:39 16:39	07:09 16:30
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:37 19:02	07:06 18:14	06:42 16:37	07:11 16:30
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20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:36 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
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26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	06:52 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:17 19:36	06:46 18:45	06:17 17:00	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	07:06 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: R183 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (46)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:30
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4	07:18 16:42	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:31 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
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12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:41	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:53	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	06:39 16:39	07:09 16:30
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:37 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:36 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
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25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	06:51 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	06:52 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:17 19:36	06:46 18:45	06:17 17:00	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:36
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31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: R19 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (29)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	17:31 (IS03) 05:56 19:18	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:26 (IS03) 06:23	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	17:32 (IS03) 05:54 19:19	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	17:30 (IS03) 06:24	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	17:32 (IS03) 05:53 19:20	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	17:42 (IS03) 06:52	17:54 (IS03) 18:35	06:25 16:51
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	17:34 (IS03) 05:52 19:21	05:27 20:19	05:30 20:28	05:54 20:07	06:24 19:23	17:37 (IS03) 06:53	17:56 (IS03) 18:34	06:26 16:50
5	07:17 16:42	07:01 17:17	06:24 17:50	06:34 19:22	17:34 (IS03) 05:51 19:22	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	17:34 (IS03) 06:54	17:58 (IS03) 18:32	06:28 16:49
6	07:17 16:43	07:00 17:18	06:22 17:51	06:32 19:23	17:35 (IS03) 05:50 19:23	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	17:32 (IS03) 06:55	17:58 (IS03) 18:31	06:29 16:47
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	17:38 (IS03) 05:48 19:24	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	17:30 (IS03) 06:56	18:01 (IS03) 18:29	06:30 16:46
8	07:17 16:45	06:57 17:21	06:19 17:53	06:29 19:25	17:40 (IS03) 05:47 19:25	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	17:28 (IS03) 06:57	18:02 (IS03) 18:27	06:31 16:45
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	17:44 (IS03) 05:46 19:26	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	17:26 (IS03) 06:58	18:03 (IS03) 18:26	06:32 16:44
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	17:56 (IS03) 05:45 19:27	05:25 20:24	05:34 20:26	06:00 20:00	06:30 19:13	17:25 (IS03) 06:59	18:04 (IS03) 18:24	06:33 16:43
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	17:59 (IS03) 05:44 19:28	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	17:24 (IS03) 07:00	18:04 (IS03) 18:23	06:35 16:42
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	16:48 (IS03) 06:23 16:52 (IS03)	05:43 20:00	05:35 20:24	06:02 19:57	06:32 19:10	17:23 (IS03) 07:01	18:05 (IS03) 18:21	06:36 16:41
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	16:45 (IS03) 06:21 16:54 (IS03)	05:42 20:01	05:36 20:25	06:03 19:56	06:33 19:08	17:22 (IS03) 07:02	18:05 (IS03) 18:20	06:37 16:40
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	16:42 (IS03) 06:20 16:55 (IS03)	05:41 20:02	05:36 20:25	06:04 19:54	06:34 19:07	17:21 (IS03) 07:03	18:03 (IS03) 18:18	06:38 16:40
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	16:40 (IS03) 06:18 16:56 (IS03)	05:40 20:03	05:37 20:24	06:05 19:53	06:35 19:05	17:20 (IS03) 07:04	18:01 (IS03) 18:16	06:39 16:39
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:33	16:39 (IS03) 06:17 16:58 (IS03)	05:39 20:04	05:38 20:26	06:06 19:52	06:36 19:03	17:19 (IS03) 07:05	18:02 (IS03) 18:15	06:40 16:38
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:34	16:37 (IS03) 06:15 16:59 (IS03)	05:38 20:05	05:39 20:22	06:07 19:50	06:36 19:02	17:18 (IS03) 07:06	18:03 (IS03) 18:13	06:41 16:37
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:35	16:35 (IS03) 06:14 17:00 (IS03)	05:37 20:06	05:39 20:22	06:08 19:49	06:37 19:00	17:18 (IS03) 07:07	18:04 (IS03) 18:12	06:43 16:36
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:36	16:35 (IS03) 06:12 17:02 (IS03)	05:36 20:06	05:40 20:21	06:09 19:48	06:38 18:58	17:17 (IS03) 07:09	18:05 (IS03) 18:11	06:44 16:36
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:37	16:33 (IS03) 06:11 17:02 (IS03)	05:35 20:07	05:41 20:20	06:10 19:46	06:39 18:57	17:17 (IS03) 07:10	18:06 (IS03) 18:09	06:45 16:35
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:38	16:33 (IS03) 06:09 17:04 (IS03)	05:35 20:08	05:42 20:20	06:11 19:45	06:40 18:55	17:17 (IS03) 07:11	18:07 (IS03) 18:08	06:46 16:34
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:39	16:32 (IS03) 06:08 17:04 (IS03)	05:34 20:09	05:43 20:19	06:12 19:43	06:41 18:53	17:17 (IS03) 07:12	18:08 (IS03) 18:06	06:47 16:34
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:40	16:31 (IS03) 06:06 17:04 (IS03)	05:33 20:10	05:44 20:28	06:13 19:42	06:42 18:52	17:17 (IS03) 07:13	18:09 (IS03) 18:05	06:48 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:41	16:31 (IS03) 06:05 17:06 (IS03)	05:32 20:11	05:44 20:17	06:14 19:40	06:43 18:50	17:18 (IS03) 07:14	18:10 (IS03) 18:03	06:49 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:42	16:30 (IS03) 06:04 17:06 (IS03)	05:32 20:12	05:45 20:17	06:15 19:39	06:44 18:49	17:45 (IS03) 07:15	18:11 (IS03) 18:05	06:51 16:32
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:43	16:30 (IS03) 06:02 17:07 (IS03)	05:31 20:13	05:46 20:16	06:16 19:37	06:45 18:47	17:19 (IS03) 07:16	18:12 (IS03) 17:01	06:52 16:32
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:44	16:30 (IS03) 06:01 17:10 (IS03)	05:30 20:13	05:47 20:15	06:16 19:36	06:46 18:45	17:20 (IS03) 07:17	18:13 (IS03) 16:59	06:53 16:31
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:45	16:30 (IS03) 06:00 17:11 (IS03)	05:30 20:14	05:48 20:14	06:17 19:34	06:47 18:44	17:21 (IS03) 07:18	18:14 (IS03) 16:58	06:54 16:31
29	07:07 17:09	06:30 17:45	05:46 18:15	05:58 19:46	17:30 (IS03) 05:58 18:12 (IS03)	05:29 20:15	05:49 20:13	06:18 19:33	06:48 18:42	17:22 (IS03) 07:19	18:15 (IS03) 16:57	06:55 16:30
30	07:06 17:10	06:29 17:46	05:45 18:16	05:57 19:47	17:31 (IS03) 05:57 18:14 (IS03)	05:29 20:16	05:50 20:12	06:19 19:31	06:49 18:40	17:24 (IS03) 07:20	18:16 (IS03) 16:56	06:56 16:30
31	07:06 17:11	06:28 17:47	05:44 18:17	05:56 19:48	17:31 (IS03) 05:56 18:14 (IS03)	05:28 20:17	05:51 20:11	06:20 19:30	06:48 18:40	17:34 (IS03) 07:21	18:17 (IS03) 16:55	06:57 16:30
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Total, worst case			576	266					850	7		
Sun reduction			0,62	0,56					0,59	0,66		
Oper. time red.			0,85	0,85					0,85	0,85		
Wind dir. red.			0,66	0,66					0,66	0,66		
Total reduction			0,35	0,31					0,33	0,37		
Total, real			201	83					283	3		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Minutes with flicker	Last time (hh:mm) with flicker
			(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: R193 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (47)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January		February		March		April		May		June	
1	07:17	07:39 (IS01)	07:05	07:24 (IS05)	06:30	07:12 (IS05)	06:40	05:56			05:28	19:24 (IS06)
	16:39	41 08:30 (IS04)	17:12	31 07:55 (IS05)	17:45	88 16:25 (IS12)	19:18	19:49			20:17	19 19:43 (IS06)
2	07:17	07:39 (IS01)	07:04	07:23 (IS05)	06:28	07:13 (IS05)	06:39	05:54			05:27	19:23 (IS06)
	16:40	42 08:30 (IS04)	17:14	34 07:57 (IS05)	17:46	83 16:23 (IS12)	19:19	19:50			20:18	20 19:43 (IS06)
3	07:17	07:39 (IS01)	07:03	07:22 (IS05)	06:27	07:13 (IS05)	06:37	05:53			05:27	19:23 (IS06)
	16:41	41 08:30 (IS04)	17:15	36 07:58 (IS05)	17:48	78 16:21 (IS12)	19:20	19:51			20:19	21 19:44 (IS06)
4	07:18	07:39 (IS01)	07:02	07:21 (IS05)	06:25	07:14 (IS05)	06:35	05:52			05:26	19:24 (IS06)
	16:41	42 08:30 (IS04)	17:16	39 08:00 (IS05)	17:49	73 16:20 (IS12)	19:21	19:52			20:20	21 19:45 (IS06)
5	07:18	07:39 (IS01)	07:01	07:20 (IS05)	06:24	07:15 (IS05)	06:34	05:51			05:26	19:23 (IS06)
	16:42	42 08:31 (IS04)	17:17	41 08:01 (IS05)	17:50	67 16:18 (IS12)	19:22	19:53			20:20	22 19:45 (IS06)
6	07:18	07:39 (IS01)	07:00	07:19 (IS05)	06:22	07:19 (IS05)	06:32	05:49			05:26	19:23 (IS06)
	16:43	42 08:31 (IS04)	17:18	44 08:03 (IS05)	17:51	59 16:16 (IS12)	19:23	19:54			20:21	23 19:46 (IS06)
7	07:18	07:39 (IS01)	06:59	07:18 (IS05)	06:21	07:18 (IS05)	06:31	05:48			05:26	19:23 (IS06)
	16:44	42 08:31 (IS04)	17:20	49 16:08 (IS12)	17:52	48 16:12 (IS12)	19:24	19:55			20:21	24 19:47 (IS06)
8	07:17	07:39 (IS01)	06:58	07:17 (IS05)	06:19	07:20 (IS05)	06:29	05:47			05:25	19:24 (IS06)
	16:45	41 08:31 (IS04)	17:21	63 16:14 (IS12)	17:53	32 07:52 (IS05)	19:25	19:56			20:22	23 19:47 (IS06)
9	07:17	07:39 (IS01)	06:56	07:16 (IS05)	06:18	07:22 (IS05)	06:27	05:46			05:25	19:24 (IS06)
	16:46	41 08:31 (IS04)	17:22	70 16:17 (IS12)	17:54	27 07:49 (IS05)	19:26	19:57			20:23	24 19:48 (IS06)
10	07:17	07:38 (IS01)	06:55	07:15 (IS05)	06:16	07:25 (IS05)	06:26	05:45			05:25	19:24 (IS06)
	16:47	41 08:30 (IS04)	17:23	77 16:20 (IS12)	17:55	20 07:45 (IS05)	19:27	19:58			20:23	25 19:49 (IS06)
11	07:17	07:38 (IS01)	06:54	07:13 (IS05)	06:14	07:32 (IS05)	06:24	05:44			05:25	19:23 (IS06)
	16:48	41 08:31 (IS04)	17:24	82 16:21 (IS12)	17:56	7 07:39 (IS05)	19:28	19:59			20:24	25 19:48 (IS06)
12	07:17	07:38 (IS01)	06:53	07:12 (IS05)	06:13		06:23	05:43			05:25	19:23 (IS06)
	16:49	40 08:31 (IS04)	17:26	87 16:22 (IS12)	17:57		19:29	20:00			20:24	26 19:49 (IS06)
13	07:16	07:37 (IS01)	06:52	07:11 (IS05)	06:11		06:21	05:42			05:25	19:24 (IS06)
	16:50	38 08:29 (IS04)	17:27	90 16:24 (IS12)	17:58		19:30	20:01			20:25	25 19:49 (IS06)
14	07:16	07:37 (IS01)	06:50	07:11 (IS05)	06:10		06:20	05:41			05:25	19:24 (IS06)
	16:51	37 08:29 (IS04)	17:28	93 16:25 (IS12)	18:00		19:31	20:02			20:25	26 19:50 (IS06)
15	07:16	07:37 (IS01)	06:49	07:10 (IS05)	06:08		06:18	05:40			05:25	19:24 (IS06)
	16:52	35 08:29 (IS04)	17:29	96 16:25 (IS12)	18:01		19:32	20:03			20:26	26 19:50 (IS06)
16	07:15	07:37 (IS01)	06:48	07:10 (IS05)	06:06		06:17	05:39			05:25	19:24 (IS06)
	16:54	32 08:27 (IS04)	17:30	97 16:26 (IS12)	18:02		19:34	20:04			20:26	27 19:51 (IS06)
17	07:15	07:38 (IS01)	06:47	07:10 (IS05)	06:05		06:15	05:38			05:25	19:24 (IS06)
	16:55	27 08:26 (IS04)	17:32	99 16:27 (IS12)	18:03		19:35	20:05			20:26	27 19:51 (IS06)
18	07:15	07:39 (IS01)	06:45	07:09 (IS05)	06:03		06:14	05:37			05:25	19:25 (IS06)
	16:56	15 07:54 (IS01)	17:33	100 16:27 (IS12)	18:04		19:36	20:06			20:27	27 19:52 (IS06)
19	07:14	07:41 (IS01)	06:44	07:10 (IS05)	06:01		06:12	05:36			05:25	19:25 (IS06)
	16:57	13 07:54 (IS01)	17:34	100 16:28 (IS12)	18:05		19:37	20:07			20:27	27 19:52 (IS06)
20	07:13	07:42 (IS01)	06:43	07:10 (IS05)	06:00		06:11	05:35			05:25	19:25 (IS06)
	16:58	11 07:53 (IS01)	17:35	101 16:28 (IS12)	18:06		19:38	20:07			20:27	27 19:52 (IS06)
21	07:13	07:43 (IS01)	06:41	07:09 (IS05)	05:58		06:09	05:35			05:25	19:25 (IS06)
	16:59	8 07:51 (IS01)	17:36	102 16:28 (IS12)	18:07		19:39	20:08			20:27	27 19:52 (IS06)
22	07:12		06:40	07:10 (IS05)	05:57		06:08	05:34		19:33 (IS06)	05:25	19:25 (IS06)
	17:00		17:37	101 16:28 (IS12)	18:08		19:40	20:09	2	19:35 (IS06)	20:28	27 19:52 (IS06)
23	07:12		06:39	07:09 (IS05)	05:55		06:06	05:33		19:31 (IS06)	05:25	19:26 (IS06)
	17:02		17:39	100 16:27 (IS12)	18:09		19:41	20:10	6	19:37 (IS06)	20:28	27 19:53 (IS06)
24	07:11		06:37	07:10 (IS05)	05:53		06:05	05:32		19:29 (IS06)	05:26	19:26 (IS06)
	17:03		17:40	100 16:28 (IS12)	18:10		19:42	20:11	9	19:38 (IS06)	20:28	27 19:53 (IS06)
25	07:10		06:36	07:10 (IS05)	05:52		06:04	05:32		19:27 (IS06)	05:26	19:26 (IS06)
	17:04		17:41	98 16:27 (IS12)	18:11		19:43	20:12	11	19:38 (IS06)	20:28	27 19:53 (IS06)
26	07:10		06:34	07:10 (IS05)	05:50		06:02	05:31		19:27 (IS06)	05:26	19:27 (IS06)
	17:05		17:42	97 16:27 (IS12)	18:12		19:44	20:13	12	19:39 (IS06)	20:28	27 19:54 (IS06)
27	07:09		06:33	07:11 (IS05)	05:48		06:01	05:30		19:26 (IS06)	05:27	19:27 (IS06)
	17:06		17:43	93 16:26 (IS12)	18:13		19:45	20:14	14	19:40 (IS06)	20:28	26 19:53 (IS06)
28	07:08		06:31	07:11 (IS05)	05:47		06:00	05:30		19:26 (IS06)	05:27	19:27 (IS06)
	17:07	10 07:43 (IS05)	17:44	91 16:25 (IS12)	18:14		19:46	20:14	15	19:41 (IS06)	20:28	26 19:53 (IS06)
29	07:07		07:29 (IS05)		06:45		05:58	05:29		19:25 (IS06)	05:27	19:28 (IS06)
	17:09	18 07:47 (IS05)			19:15		19:47	20:15	16	19:41 (IS06)	20:28	26 19:54 (IS06)
30	07:06		07:26 (IS05)		06:44		05:57	05:29		19:25 (IS06)	05:28	19:28 (IS06)
	17:10	24 07:50 (IS05)			19:16		19:48	20:16	17	19:42 (IS06)	20:28	25 19:53 (IS06)
31	07:06		07:25 (IS05)		06:42			05:28		19:24 (IS06)		
	17:11	28 07:53 (IS05)			19:17			20:17	18	19:42 (IS06)		
Potential sun hours	300		298		370		398		446		450	
Total, worst case	792		2211		582		120				750	
Sun reduction	0,77		0,69		0,62		0,51				0,49	
Oper. time red.	0,85		0,85		0,85		0,85				0,85	
Wind dir. red.	0,61		0,65		0,65		0,64				0,64	
Total reduction	0,40		0,38		0,34		0,28				0,27	
Total, real	314		846		199		33				201	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R193 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (47)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28	19:28 (IS06)	05:52	06:21	06:50	06:23
	20:28	19:54 (IS06)	20:10	19:28	18:39	16:53
2	05:29	19:28 (IS06)	05:53	06:22	06:51	06:24
	20:28	19:53 (IS06)	20:09	19:26	18:37	16:52
3	05:29	19:29 (IS06)	05:53	06:23	06:52	08:06 (IS05)
	20:28	19:53 (IS06)	20:08	19:25	18:35	15
4	05:30	19:29 (IS06)	05:54	06:24	06:53	08:01 (IS05)
	20:28	19:53 (IS06)	20:07	19:23	18:34	24
5	05:30	19:30 (IS06)	05:55	06:25	06:54	08:25 (IS05)
	20:28	19:53 (IS06)	20:06	19:22	18:32	30
6	05:31	19:29 (IS06)	05:56	06:26	06:55	08:28 (IS05)
	20:27	19:52 (IS06)	20:04	19:20	18:31	39
7	05:32	19:30 (IS06)	05:57	06:27	06:56	07:53 (IS05)
	20:27	19:52 (IS06)	20:03	19:18	18:29	54
8	05:32	19:30 (IS06)	05:58	06:28	06:57	07:51 (IS05)
	20:27	19:51 (IS06)	20:02	19:17	18:27	63
9	05:33	19:31 (IS06)	05:59	06:29	06:58	16:52 (IS12)
	20:26	19:51 (IS06)	20:01	19:15	18:26	70
10	05:33	19:31 (IS06)	06:00	06:30	06:59	07:48 (IS05)
	20:26	19:51 (IS06)	20:00	19:13	18:24	76
11	05:34	19:31 (IS06)	06:01	06:31	07:00	16:55 (IS12)
	20:26	19:50 (IS06)	19:58	19:12	18:23	81
12	05:35	19:32 (IS06)	06:02	06:32	07:01	07:46 (IS05)
	20:25	19:50 (IS06)	19:57	19:10	18:21	85
13	05:36	19:33 (IS06)	06:03	06:33	07:02	16:57 (IS12)
	20:25	19:50 (IS06)	19:56	19:08	18:19	90
14	05:36	19:33 (IS06)	06:04	06:34	07:03	07:43 (IS05)
	20:24	19:49 (IS06)	19:54	19:07	18:18	93
15	05:37	19:34 (IS06)	06:05	06:35	07:04	16:58 (IS12)
	20:24	19:49 (IS06)	19:53	19:05	18:16	94
16	05:38	19:35 (IS06)	06:06	06:36	07:05	07:43 (IS05)
	20:23	19:49 (IS06)	19:52	19:04	18:15	96
17	05:39	19:36 (IS06)	06:07	06:36	07:06	16:59 (IS12)
	20:23	19:49 (IS06)	19:50	19:02	18:13	98
18	05:39	19:36 (IS06)	06:08	06:37	07:08	07:42 (IS05)
	20:22	19:48 (IS06)	19:49	19:00	18:12	100
19	05:40	19:38 (IS06)	06:09	06:38	07:09	07:41 (IS05)
	20:21	19:48 (IS06)	19:48	18:59	18:11	101
20	05:41	19:39 (IS06)	06:10	06:39	07:10	16:59 (IS12)
	20:21	19:47 (IS06)	19:46	18:57	18:09	101
21	05:42	19:42 (IS06)	06:11	06:40	07:11	07:40 (IS05)
	20:20	19:46 (IS06)	19:45	18:55	18:08	100
22	05:43		06:12	06:41	07:12	16:58 (IS12)
	20:19		19:43	18:54	18:06	101
23	05:43		06:13	06:42	07:13	07:40 (IS05)
	20:18		19:42	18:52	18:05	101
24	05:44		06:14	06:43	07:14	16:58 (IS12)
	20:17		19:40	18:50	18:03	100
25	05:45		06:15	06:44	07:15	07:40 (IS05)
	20:17		19:39	18:49	17:02	98
26	05:46		06:15	06:45	07:16	06:40 (IS05)
	20:16		19:37	18:47	17:01	97
27	05:47		06:16	06:46	07:17	15:56 (IS12)
	20:15		19:36	18:45	16:59	95
28	05:48		06:17	06:47	07:18	06:40 (IS05)
	20:14		19:34	18:44	16:58	93
29	05:49		06:18	06:48	07:19	15:54 (IS12)
	20:13		19:33	18:42	16:57	89
30	05:50		06:19	06:49	07:20	06:41 (IS05)
	20:12		19:31	18:40	16:56	86
31	05:51		06:20	06:50	07:21	16:55 (IS12)
	20:11		19:30	18:39	16:54	80
Potential sun hours	456	426	375	346	300	290
Total, worst case		374		2350		810
Sun reduction		0,50		0,66		0,74
Oper. time red.		0,85		0,85		0,85
Wind dir. red.		0,64		0,65		0,63
Total reduction		0,27		0,37		0,40
Total, real		102		860		322
						505

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R210 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (48)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June			
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15 (IS09) 19:13 (IS06)	05:28 20:17		
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	06:13 (IS09) 19:13 (IS06)	05:27 20:18		
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12 (IS09) 19:14 (IS06)	05:27 20:19		
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	06:11 (IS09) 19:16 (IS06)	05:27 20:20		
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10 (IS09) 19:17 (IS06)	05:26 20:20		
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	06:10 (IS09) 19:18 (IS06)	05:26 20:21		
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:10 (IS09) 19:18 (IS06)	05:26 20:22		
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	18:36 (IS06) 18:41 (IS06)	05:47 19:56	06:11 (IS09) 19:17 (IS06)	05:25 20:22	
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	18:34 (IS06) 18:43 (IS06)	05:46 19:57	06:11 (IS09) 19:17 (IS06)	05:25 20:23	
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	18:31 (IS06) 18:43 (IS06)	05:45 19:58	06:11 (IS09) 19:16 (IS06)	05:25 20:23	
11	07:17 16:48	07:48 (IS05) 07:49 (IS05)	06:54 17:24	06:14 17:56	06:24 19:28	18:29 (IS06) 18:45 (IS06)	05:44 19:59	06:12 (IS09) 19:16 (IS06)	05:25 20:24
12	07:17 16:49	07:47 (IS05) 07:49 (IS05)	06:53 17:26	06:13 17:57	06:23 19:29	06:41 (IS09) 18:46 (IS06)	05:43 20:00	06:12 (IS09) 19:15 (IS06)	05:25 20:24
13	07:16 16:50	07:47 (IS05) 07:50 (IS05)	06:52 17:27	06:11 17:58	06:21 19:30	06:40 (IS09) 18:48 (IS06)	05:42 20:01	06:13 (IS09) 19:14 (IS06)	05:25 20:25
14	07:16 16:51	07:46 (IS05) 07:50 (IS05)	06:51 17:28	06:10 18:00	06:20 19:31	06:38 (IS09) 18:49 (IS06)	05:41 20:02	06:13 (IS09) 19:14 (IS06)	05:25 20:25
15	07:16 16:52	07:46 (IS05) 07:50 (IS05)	06:49 17:29	06:08 18:01	06:18 19:33	06:37 (IS09) 18:51 (IS06)	05:40 20:03	06:14 (IS09) 19:13 (IS06)	05:25 20:26
16	07:15 16:54	07:45 (IS05) 07:50 (IS05)	06:48 17:30	06:06 18:02	06:17 19:34	06:35 (IS09) 18:52 (IS06)	05:39 20:04	06:14 (IS09) 19:12 (IS06)	05:25 20:26
17	07:15 16:55	07:44 (IS05) 07:51 (IS05)	06:47 17:32	06:05 18:03	06:15 19:35	06:34 (IS09) 18:55 (IS06)	05:38 20:05	06:15 (IS09) 19:11 (IS06)	05:25 20:26
18	07:15 16:56	07:43 (IS05) 07:50 (IS05)	06:45 17:33	06:03 18:04	06:14 19:36	06:32 (IS09) 18:55 (IS06)	05:37 20:06	06:16 (IS09) 19:10 (IS06)	05:25 20:27
19	07:14 16:57	07:43 (IS05) 07:51 (IS05)	06:44 17:34	06:01 18:05	06:12 19:37	06:31 (IS09) 18:56 (IS06)	05:36 20:07	06:16 (IS09) 19:09 (IS06)	05:25 20:27
20	07:14 16:58	07:42 (IS05) 07:50 (IS05)	06:43 17:35	06:00 18:06	06:11 19:38	06:29 (IS09) 18:56 (IS06)	05:35 20:07	06:18 (IS09) 19:09 (IS06)	05:25 20:27
21	07:13 16:59	07:41 (IS05) 07:50 (IS05)	06:41 17:36	05:58 18:07	06:09 19:39	06:28 (IS09) 18:57 (IS06)	05:35 20:08	06:19 (IS09) 19:08 (IS06)	05:25 20:28
22	07:12 17:00	07:40 (IS05) 07:50 (IS05)	06:40 17:37	05:57 18:08	06:08 19:40	06:26 (IS09) 18:58 (IS06)	05:34 20:09	06:20 (IS09) 19:06 (IS06)	05:25 20:28
23	07:12 17:02	07:39 (IS05) 07:49 (IS05)	06:39 17:39	05:55 18:09	06:06 19:41	06:25 (IS09) 19:01 (IS06)	05:33 20:10	06:21 (IS09) 19:06 (IS06)	05:26 20:28
24	07:11 17:03	07:38 (IS05) 07:48 (IS05)	06:37 17:40	05:53 18:10	06:05 19:42	06:24 (IS09) 19:04 (IS06)	05:32 20:11	06:22 (IS09) 19:05 (IS06)	05:26 20:28
25	07:10 17:04	07:38 (IS05) 07:48 (IS05)	06:36 17:41	05:52 18:11	06:04 19:43	06:22 (IS09) 19:05 (IS06)	05:32 20:12	06:23 (IS09) 19:03 (IS06)	05:26 20:28
26	07:10 17:05	07:37 (IS05) 07:47 (IS05)	06:34 17:42	05:50 18:12	06:02 19:44	06:21 (IS09) 19:08 (IS06)	05:31 20:13	06:26 (IS09) 19:03 (IS06)	05:26 20:28
27	07:09 17:06	07:35 (IS05) 07:45 (IS05)	06:33 17:43	05:48 18:13	06:01 19:45	06:20 (IS09) 19:10 (IS06)	05:30 20:14	06:27 (IS09) 19:01 (IS06)	05:27 20:28
28	07:08 17:08	07:37 (IS05) 07:41 (IS05)	06:31 17:44	05:47 18:14	06:00 19:46	06:18 (IS09) 19:10 (IS06)	05:30 20:14	06:30 (IS09) 19:00 (IS06)	05:27 20:28
29	07:07 17:09		06:45 19:15	05:58 19:47	06:17 (IS09) 19:11 (IS06)	05:29 20:15	06:33 (IS09) 18:58 (IS06)	05:27 20:28	
30	07:06 17:10		06:44 19:16	05:57 19:48	06:16 (IS09) 19:12 (IS06)	05:29 20:16	18:41 (IS06) 18:56 (IS06)	05:28 20:28	
31	07:06 17:11		06:42 19:17			05:28 20:17	18:44 (IS06) 18:53 (IS06)		
Potential sun hours	300	298	370	398	446		9	450	
Total, worst case	122			1410		2560			
Sun reduction	0,77			0,56		0,51			
Oper. time red.	0,85			0,85		0,85			
Wind dir. red.	0,62			0,65		0,65			
Total reduction	0,41			0,31		0,29			
Total, real	50			438		732			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R210 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (48)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:22 (IS09) 19:25 (IS06)	06:21 19:28	18:28 (IS06) 18:39	06:57 16:30
2	05:29 20:28	05:53 20:09	06:21 (IS09) 19:25 (IS06)	06:22 19:26	18:30 (IS06) 18:37	06:58 16:29
3	05:29 20:28	05:53 20:08	06:21 (IS09) 19:26 (IS06)	06:23 19:25	18:32 (IS06) 18:35	06:59 16:29
4	05:30 20:28	05:54 20:07	06:21 (IS09) 19:27 (IS06)	06:24 19:23	18:33 (IS06) 18:34	07:00 16:29
5	05:30 20:28	05:55 20:06	06:20 (IS09) 19:27 (IS06)	06:25 19:22	18:38 (IS06) 18:34	07:01 16:29
6	05:31 20:27	05:56 20:04	06:20 (IS09) 19:27 (IS06)	06:26 19:20	18:35 18:31	07:02 16:29
7	05:32 20:27	05:57 20:03	06:20 (IS09) 19:28 (IS06)	06:27 19:18	18:32 18:29	07:03 16:29
8	05:32 20:27	05:58 20:02	06:20 (IS09) 19:26 (IS06)	06:28 19:17	18:27 18:27	07:04 16:29
9	05:33 20:26	05:59 20:01	06:21 (IS09) 19:25 (IS06)	06:29 19:15	18:26 18:26	07:05 16:29
10	05:34 20:26	06:00 20:00	06:22 (IS09) 19:24 (IS06)	06:30 19:13	18:26 18:24	07:06 16:29
11	05:34 20:26	06:01 19:58	06:22 (IS09) 19:22 (IS06)	06:31 19:12	18:26 18:23	07:06 16:29
12	05:35 20:25	18:55 (IS06) 18:58 (IS06)	06:02 19:57	06:32 (IS09) 19:10	18:23 18:21	07:07 16:29
13	05:36 20:25	18:51 (IS06) 19:03 (IS06)	06:03 19:56	06:33 (IS09) 19:09	18:21 18:20	07:08 16:29
14	05:36 20:24	18:47 (IS06) 19:05 (IS06)	06:04 19:54	06:34 (IS09) 19:07	18:20 18:18	07:09 16:29
15	05:37 20:24	06:40 (IS09) 19:07 (IS06)	06:05 19:53	06:35 (IS09) 19:05	18:18 18:16	07:10 (IS05) 16:29
16	05:38 20:23	06:37 (IS09) 19:09 (IS06)	06:06 19:52	06:36 (IS09) 19:04	18:16 18:15	07:11 (IS05) 16:30
17	05:39 20:23	06:36 (IS09) 19:11 (IS06)	06:07 19:50	06:36 (IS09) 19:02	18:15 18:13	07:12 (IS05) 16:30
18	05:39 20:22	06:34 (IS09) 19:12 (IS06)	06:08 19:49	06:37 (IS09) 19:00	18:13 18:12	07:13 (IS05) 16:30
19	05:40 20:21	06:32 (IS09) 19:13 (IS06)	06:09 19:48	06:38 (IS09) 18:59	18:12 18:11	07:14 (IS05) 16:31
20	05:41 20:21	06:31 (IS09) 19:15 (IS06)	06:10 19:46	06:39 (IS09) 18:57	18:11 18:09	07:15 (IS05) 16:31
21	05:42 20:20	06:31 (IS09) 19:16 (IS06)	06:11 19:45	06:40 (IS09) 18:55	18:10 18:08	07:16 (IS05) 16:32
22	05:43 20:19	06:30 (IS09) 19:18 (IS06)	06:12 19:43	06:41 (IS09) 18:54	18:09 18:06	07:17 (IS05) 16:32
23	05:44 20:18	06:29 (IS09) 19:19 (IS06)	06:13 19:42	06:42 (IS09) 18:52	18:08 18:05	07:18 (IS05) 16:33
24	05:44 20:17	06:27 (IS09) 19:19 (IS06)	06:14 19:40	06:43 (IS09) 18:50	18:07 18:03	07:19 (IS05) 16:33
25	05:45 20:17	06:27 (IS09) 19:20 (IS06)	06:15 19:39	06:44 (IS09) 18:49	18:06 17:02	07:20 (IS05) 16:34
26	05:46 20:16	06:26 (IS09) 19:21 (IS06)	06:15 19:37	06:45 (IS09) 18:47	18:05 17:01	07:21 (IS05) 16:34
27	05:47 20:15	06:25 (IS09) 19:22 (IS06)	06:16 19:36	06:46 (IS09) 18:45	18:04 16:59	07:22 (IS05) 16:35
28	05:48 20:14	06:25 (IS09) 19:23 (IS06)	06:17 19:34	06:47 (IS09) 18:44	18:03 16:58	07:23 (IS05) 16:36
29	05:49 20:13	06:24 (IS09) 19:24 (IS06)	06:18 19:33	06:48 (IS09) 18:42	18:02 16:57	07:24 (IS05) 16:36
30	05:50 20:12	06:24 (IS09) 19:24 (IS06)	06:19 19:31	06:49 (IS09) 18:40	18:01 16:56	07:25 (IS05) 16:37
31	05:51 20:11	06:22 (IS09) 19:24 (IS06)	06:20 19:30	06:41 (IS09) 18:46	18:00 16:54	07:26 (IS05) 16:38
Potential sun hours	456	426	375	346	300	290
Total, worst case	1282	2680	42	123	1	
Sun reduction	0,50	0,54	0,59	0,74	0,79	
Oper. time red.	0,85	0,85	0,85	0,85	0,85	
Wind dir. red.	0,65	0,65	0,66	0,62	0,62	
Total reduction	0,28	0,30	0,33	0,39	0,42	
Total, real	359	802	14	48	0	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R220 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (49)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15 (IS07) 20:18
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	06:14 (IS07) 20:18
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12 (IS07) 20:19
4	07:18 16:42	07:02 17:16	06:25 17:49	06:36 19:21	05:52 19:52	06:11 (IS07) 20:20
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10 (IS07) 20:20
6	07:18 16:43	07:00 17:19	06:22 17:51	06:32 19:23	05:50 19:54	06:09 (IS07) 20:21
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:08 (IS07) 20:22
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	06:07 (IS07) 20:22
9	07:17 16:46	06:57 17:22	06:18 17:54	06:28 19:27	05:46 19:57	06:06 (IS07) 20:23
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:28	05:45 19:58	06:05 (IS07) 20:23
11	07:17 16:48	06:54 17:25	06:14 17:56	06:24 19:29	05:44 19:59	06:04 (IS07) 20:24
12	07:17 16:49	06:53 17:26	06:13 17:58	06:23 19:30	05:43 20:00	06:03 (IS07) 20:24
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	06:02 (IS07) 20:25
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	06:01 (IS07) 20:25
15	07:16 16:53	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	06:00 (IS07) 20:26
16	07:16 16:54	06:48 17:31	06:06 18:02	06:17 19:34	05:39 20:04	05:59 (IS07) 20:26
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:58 (IS07) 20:27
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:57 (IS07) 20:27
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:57 (IS07) 20:27
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:36 20:08	05:56 (IS07) 20:27
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:09	05:55 (IS07) 20:28
22	07:13 17:00	06:40 17:38	05:57 18:08	06:08 19:40	05:34 20:09	05:54 (IS07) 20:28
23	07:12 17:02	06:39 17:39	05:55 18:09	06:07 19:41	05:33 20:10	05:54 (IS07) 20:28
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:53 (IS07) 20:28
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	06:22 (IS07) 06:23 (IS07)	05:52 (IS07) 20:12
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	06:21 (IS07) 06:24 (IS07)	05:52 (IS07) 20:13
27	07:09 17:06	06:33 17:43	05:49 18:13	06:01 19:45	06:20 (IS07) 06:25 (IS07)	05:51 (IS07) 20:14
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	06:19 (IS07) 06:26 (IS07)	05:51 (IS07) 20:15
29	07:07 17:09		06:45 19:15	05:58 19:47	06:17 (IS07) 06:25 (IS07)	05:50 (IS07) 20:15
30	07:07 17:10		06:44 19:16	05:57 19:48	06:16 (IS07) 06:26 (IS07)	05:50 (IS07) 20:16
31	07:06 17:11		06:42 19:17		05:28 20:17	05:49 (IS07) 20:17
Potential sun hours	300	298	370	398	446	450
Total, worst case				34	732	135
Sun reduction				0,56	0,51	0,49
Oper. time red.				0,85	0,85	0,85
Wind dir. red.				0,66	0,66	0,66
Total reduction				0,31	0,29	0,28
Total, real				11	212	38

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R220 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (49)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December					
1	05:28	05:52	06:13 (IS07)	06:21	06:50	06:23	06:57				
	20:28	20:10	23 06:36 (IS07)	19:28	18:39	16:53	16:30				
2	05:29	05:53	06:14 (IS07)	06:22	06:51	06:24	06:58				
	20:28	20:09	22 06:36 (IS07)	19:27	18:37	16:52	16:30				
3	05:29	05:54	06:15 (IS07)	06:23	06:52	06:25	06:59				
	20:28	20:08	22 06:37 (IS07)	19:25	18:35	16:51	16:29				
4	05:30	05:55	06:16 (IS07)	06:24	06:53	06:27	07:00				
	20:28	20:07	21 06:37 (IS07)	19:23	18:34	16:50	16:29				
5	05:31	06:06 (IS07)	05:55	06:17 (IS07)	06:25	06:54	06:28	07:01			
	20:28	8 06:14 (IS07)	20:06	20 06:37 (IS07)	19:22	18:32	16:49	16:29			
6	05:31	06:03 (IS07)	05:56	06:18 (IS07)	06:26	06:55	06:29	07:02			
	20:28	13 06:16 (IS07)	20:05	19 06:37 (IS07)	19:20	18:31	16:48	16:29			
7	05:32	06:02 (IS07)	05:57	06:19 (IS07)	06:27	06:56	06:30	07:03			
	20:27	16 06:18 (IS07)	20:03	18 06:37 (IS07)	19:19	18:29	16:46	16:29			
8	05:32	06:02 (IS07)	05:58	06:20 (IS07)	06:28	06:57	06:31	07:04			
	20:27	18 06:20 (IS07)	20:02	17 06:37 (IS07)	19:17	18:27	16:45	16:29			
9	05:33	06:00 (IS07)	05:59	06:21 (IS07)	06:29	06:58	06:32	07:05			
	20:27	20 06:20 (IS07)	20:01	15 06:36 (IS07)	19:15	18:26	16:44	16:29			
10	05:34	06:00 (IS07)	06:00	06:22 (IS07)	06:30	06:59	06:34	07:06			
	20:26	22 06:22 (IS07)	20:00	14 06:36 (IS07)	19:14	18:24	16:43	16:29			
11	05:34	05:58 (IS07)	06:01	06:23 (IS07)	06:31	07:00	06:35	07:06			
	20:26	25 06:23 (IS07)	19:58	13 06:36 (IS07)	19:12	18:23	16:42	16:29			
12	05:35	05:58 (IS07)	06:02	06:24 (IS07)	06:32	07:01	06:36	07:07			
	20:25	26 06:24 (IS07)	19:57	11 06:35 (IS07)	19:10	18:21	16:41	16:29			
13	05:36	05:58 (IS07)	06:03	06:24 (IS07)	06:33	07:02	06:37	07:08			
	20:25	27 06:25 (IS07)	19:56	10 06:34 (IS07)	19:09	18:20	16:41	16:29			
14	05:36	05:59 (IS07)	06:04	06:25 (IS07)	06:34	07:03	06:38	07:09			
	20:24	28 06:27 (IS07)	19:55	8 06:33 (IS07)	19:07	18:18	16:40	16:29			
15	05:37	05:59 (IS07)	06:05	06:26 (IS07)	06:35	07:04	06:39	07:10			
	20:24	28 06:27 (IS07)	19:53	6 06:32 (IS07)	19:05	18:17	16:39	16:30			
16	05:38	06:00 (IS07)	06:06	06:27 (IS07)	06:36	07:06	06:41	07:10			
	20:23	28 06:28 (IS07)	19:52	4 06:31 (IS07)	19:04	18:15	16:38	16:30			
17	05:39	06:01 (IS07)	06:07	06:28 (IS07)	06:37	07:07	06:42	07:11			
	20:23	28 06:29 (IS07)	19:51	2 06:30 (IS07)	19:02	18:14	16:37	16:30			
18	05:39	06:02 (IS07)	06:08		06:38	07:08	06:43	07:12			
	20:22	28 06:30 (IS07)	19:49		19:00	18:12	16:36	16:30			
19	05:40	06:02 (IS07)	06:09		06:39	07:09	06:44	07:12			
	20:21	28 06:30 (IS07)	19:48		18:59	18:11	16:36	16:31			
20	05:41	06:03 (IS07)	06:10		06:39	07:10	06:45	07:13			
	20:21	28 06:31 (IS07)	19:46		18:57	18:09	16:35	16:31			
21	05:42	06:04 (IS07)	06:11		06:40	07:11	06:46	07:13			
	20:20	28 06:32 (IS07)	19:45		18:55	18:08	16:34	16:32			
22	05:43	06:05 (IS07)	06:12		06:41	07:12	06:47	07:14			
	20:19	28 06:33 (IS07)	19:43		18:54	18:06	16:34	16:32			
23	05:44	06:06 (IS07)	06:13		06:42	07:13	06:49	07:14			
	20:18	28 06:34 (IS07)	19:42		18:52	18:05	16:33	16:33			
24	05:44	06:06 (IS07)	06:14		06:43	07:14	06:50	07:15			
	20:18	27 06:33 (IS07)	19:40		18:50	18:04	16:33	16:33			
25	05:45	06:07 (IS07)	06:15		06:44	06:15	06:51	07:15			
	20:17	27 06:34 (IS07)	19:39		18:49	17:02	16:32	16:34			
26	05:46	06:08 (IS07)	06:16		06:45	06:16	06:52	07:16			
	20:16	27 06:35 (IS07)	19:37		18:47	17:01	16:32	16:34			
27	05:47	06:09 (IS07)	06:17		06:46	06:18	06:53	07:16			
	20:15	26 06:35 (IS07)	19:36		18:45	17:00	16:31	16:35			
28	05:48	06:10 (IS07)	06:18		06:47	06:19	06:54	07:16			
	20:14	26 06:36 (IS07)	19:34		18:44	16:58	16:31	16:36			
29	05:49	06:11 (IS07)	06:18		06:48	06:20	06:55	07:17			
	20:13	25 06:36 (IS07)	19:33		18:42	16:57	16:30	16:36			
30	05:50	06:12 (IS07)	06:19		06:49	06:21	06:56	07:17			
	20:12	25 06:37 (IS07)	19:31		18:40	16:56	16:30	16:37			
31	05:51	06:13 (IS07)	06:20			06:22		07:17			
	20:11	24 06:37 (IS07)	19:30			16:54		16:38			
Potential sun hours	456		426		375		346		300		290
Total, worst case		662		245							
Sun reduction		0,50		0,54							
Oper. time red.		0,85		0,85							
Wind dir. red.		0,66		0,66							
Total reduction		0,28		0,30							
Total, real		187		74							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R223 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (50)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17	07:39 (IS06)	07:05	07:25 (IS06)	06:30	06:40
	16:39	7 07:46 (IS06)	17:12	31 07:56 (IS06)	17:45	19:18
2	07:17	07:39 (IS06)	07:04	07:24 (IS06)	06:28	06:39
	16:40	8 07:47 (IS06)	17:14	32 07:56 (IS06)	17:47	19:19
3	07:18	07:40 (IS06)	07:03	07:22 (IS06)	06:27	06:37
	16:41	8 07:48 (IS06)	17:15	32 07:54 (IS06)	17:48	19:20
4	07:18	07:39 (IS06)	07:02	07:21 (IS06)	06:25	06:35
	16:41	9 07:48 (IS06)	17:16	33 07:54 (IS06)	17:49	19:21
5	07:18	07:39 (IS06)	07:01	07:20 (IS06)	06:24	06:34
	16:42	10 07:49 (IS06)	17:17	33 07:53 (IS06)	17:50	19:22
6	07:18	07:39 (IS06)	07:00	07:19 (IS06)	06:22	06:32
	16:43	10 07:49 (IS06)	17:18	33 07:52 (IS06)	17:51	19:23
7	07:18	07:39 (IS06)	06:59	07:18 (IS06)	06:21	06:31
	16:44	11 07:50 (IS06)	17:20	33 07:51 (IS06)	17:52	19:24
8	07:18	07:39 (IS06)	06:58	07:17 (IS06)	06:19	06:29
	16:45	12 07:51 (IS06)	17:21	33 07:50 (IS06)	17:53	19:25
9	07:17	07:39 (IS06)	06:57	07:16 (IS06)	06:18	06:28
	16:46	13 07:52 (IS06)	17:22	33 07:49 (IS06)	17:54	19:26
10	07:17	07:39 (IS06)	06:55	07:15 (IS06)	06:16	06:26
	16:47	13 07:52 (IS06)	17:23	32 07:47 (IS06)	17:55	19:27
11	07:17	07:38 (IS06)	06:54	07:13 (IS06)	06:14	06:24
	16:48	14 07:52 (IS06)	17:25	31 07:44 (IS06)	17:56	19:28
12	07:17	07:38 (IS06)	06:53	07:16 (IS06)	06:13	06:23
	16:49	15 07:53 (IS06)	17:26	26 07:42 (IS06)	17:57	19:30
13	07:17	07:38 (IS06)	06:52	07:20 (IS06)	06:11	06:21
	16:50	16 07:54 (IS06)	17:27	19 07:39 (IS06)	17:59	19:31
14	07:16	07:37 (IS06)	06:51	07:26 (IS06)	06:10	06:20
	16:51	17 07:54 (IS06)	17:28	7 07:33 (IS06)	18:00	19:32
15	07:16	07:37 (IS06)	06:49		06:08	06:18
	16:52	18 07:55 (IS06)	17:29		18:01	19:33
16	07:15	07:36 (IS06)	06:48		06:06	06:17
	16:54	18 07:54 (IS06)	17:30	13 16:59 (IS07)	18:02	19:34
17	07:15	07:36 (IS06)	06:47		06:05	06:15
	16:55	19 07:55 (IS06)	17:32	18:03	23 17:17 (IS07)	19:35
18	07:15	07:35 (IS06)	06:45		06:03	06:14
	16:56	20 07:55 (IS06)	17:33	18:04	29 17:20 (IS07)	19:36
19	07:14	07:35 (IS06)	06:44		06:02	06:12
	16:57	21 07:56 (IS06)	17:34	18:05	34 17:22 (IS07)	19:37
20	07:14	07:34 (IS06)	06:43		06:00	06:11
	16:58	22 07:56 (IS06)	17:35	18:06	39 17:24 (IS07)	19:38
21	07:13	07:33 (IS06)	06:41		05:58	06:09
	16:59	23 07:56 (IS06)	17:36	18:07	40 17:24 (IS07)	19:39
22	07:12	07:33 (IS06)	06:40		05:57	06:08
	17:00	24 07:57 (IS06)	17:37	18:08	43 17:24 (IS07)	19:40
23	07:12	07:32 (IS06)	06:39		05:55	06:06
	17:02	25 07:57 (IS06)	17:39	18:09	45 17:24 (IS07)	19:41
24	07:11	07:31 (IS06)	06:37		05:53	06:05
	17:03	26 07:57 (IS06)	17:40	18:10	46 17:25 (IS07)	19:42
25	07:10	07:31 (IS06)	06:36		05:52	06:04
	17:04	26 07:57 (IS06)	17:41	18:11	48 17:25 (IS07)	19:43
26	07:10	07:30 (IS06)	06:34		05:50	06:02
	17:05	27 07:57 (IS06)	17:42	18:12	50 17:26 (IS07)	19:44
27	07:09	07:29 (IS06)	06:33		05:48	06:01
	17:06	28 07:57 (IS06)	17:43	18:13	52 17:27 (IS07)	19:45
28	07:08	07:28 (IS06)	06:31		05:47	06:00
	17:08	29 07:57 (IS06)	17:44	18:14	53 17:27 (IS07)	19:46
29	07:07	07:27 (IS06)			06:45	07:33 (IS07)
	17:09	29 07:56 (IS06)			19:15	18:27 (IS07)
30	07:07	07:26 (IS06)			06:44	17:33 (IS07)
	17:10	30 07:56 (IS06)			19:16	18:29 (IS07)
31	07:06	07:25 (IS06)			06:42	17:32 (IS07)
	17:11	31 07:56 (IS06)			19:17	18:29 (IS07)
Potential sun hours	300	298	370	398	446	450
Total, worst case	579	408	682	1151		
Sun reduction	0,77	0,69	0,62	0,56		
Oper. time red.	0,85	0,85	0,85	0,85		
Wind dir. red.	0,63	0,63	0,66	0,66		
Total reduction	0,41	0,37	0,35	0,32		
Total, real	238	152	240	364		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R223 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (50)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	17:31 (IS07) 18:26 (IS07)	06:50 18:39	06:23 16:53
2	05:29 20:28	05:53 20:09	06:22 19:26	17:30 (IS07) 18:26 (IS07)	06:51 18:37	06:24 16:52
3	05:29 20:28	05:53 20:08	06:23 19:25	17:29 (IS07) 18:26 (IS07)	06:52 18:35	06:25 16:51
4	05:30 20:28	05:54 20:07	06:24 19:23	17:28 (IS07) 18:26 (IS07)	06:53 18:34	06:27 16:50
5	05:30 20:28	05:55 20:06	06:25 19:22	17:26 (IS07) 18:25 (IS07)	06:54 18:32	06:28 16:49
6	05:31 20:27	05:56 20:05	06:26 19:20	17:26 (IS07) 18:25 (IS07)	06:55 18:31	06:29 16:47
7	05:32 20:27	05:57 20:03	06:27 19:18	17:25 (IS07) 18:25 (IS07)	06:56 18:29	06:30 16:46
8	05:32 20:27	05:58 20:02	06:28 19:17	17:25 (IS07) 18:25 (IS07)	06:57 18:27	06:31 16:45
9	05:33 20:27	05:59 20:01	06:29 19:15	17:25 (IS07) 18:24 (IS07)	06:58 18:26	06:32 16:44
10	05:34 20:26	06:00 20:00	06:30 19:14	17:24 (IS07) 18:24 (IS07)	06:59 18:24	06:34 16:43
11	05:34 20:26	06:01 19:58	06:31 19:12	17:24 (IS07) 18:23 (IS07)	07:00 18:23	06:35 16:42
12	05:35 20:25	06:02 19:57	06:32 19:10	17:24 (IS07) 18:22 (IS07)	07:01 18:21	06:36 16:41
13	05:36 20:25	06:03 19:56	06:33 19:09	17:24 (IS07) 18:20 (IS07)	07:02 18:20	06:37 16:41
14	05:36 20:24	06:04 19:55	06:34 19:07	17:24 (IS07) 18:18 (IS07)	07:03 18:18	06:38 16:40
15	05:37 20:24	06:05 19:53	06:35 19:05	17:24 (IS07) 18:17 (IS07)	07:04 18:17	06:39 16:39
16	05:38 20:23	06:06 19:52	06:36 19:04	17:24 (IS07) 18:15 (IS07)	07:05 18:15	06:40 16:38
17	05:39 20:23	06:07 19:50	06:37 19:02	17:24 (IS07) 18:14 (IS07)	07:07 18:14	06:42 16:37
18	05:39 20:22	06:08 19:49	06:37 19:00	17:24 (IS07) 18:12 (IS07)	07:08 18:12	06:43 16:36
19	05:40 20:21	06:09 19:48	06:38 18:11 (IS07)	17:25 (IS07) 18:12 (IS07)	07:09 18:11	06:44 16:36
20	05:41 20:21	06:10 19:46	06:39 18:14 (IS07)	17:25 (IS07) 18:09 (IS07)	07:10 18:09	06:45 16:35
21	05:42 20:20	06:11 19:45	06:40 18:16 (IS07)	17:26 (IS07) 18:08 (IS07)	07:11 18:08	06:46 16:34
22	05:43 20:19	06:12 19:43	06:41 18:18 (IS07)	17:27 (IS07) 18:06 (IS07)	07:12 18:06	06:47 16:34
23	05:44 20:18	06:13 19:42	06:42 18:20 (IS07)	17:29 (IS07) 18:05 (IS07)	07:13 18:05	06:48 16:33
24	05:44 20:18	06:14 19:40	06:43 18:21 (IS07)	17:30 (IS07) 18:04 (IS07)	07:14 18:04	06:50 16:33
25	05:45 20:17	06:15 19:39	06:44 18:21 (IS07)	17:32 (IS07) 17:02 (IS07)	06:15 17:02	06:51 16:32
26	05:46 20:16	06:16 19:37	06:45 18:22 (IS07)	17:35 (IS07) 17:01 (IS07)	06:16 17:01	06:52 16:32
27	05:47 20:15	06:17 19:36	06:46 18:23 (IS07)	17:39 (IS07) 17:00 (IS07)	06:17 17:00	06:53 16:31
28	05:48 20:14	06:18 19:34	06:47 18:24 (IS07)	06:19 18:44	06:53 (IS06) 07:05 (IS06)	06:54 16:31
29	05:49 20:13	06:18 19:33	06:48 18:25 (IS07)	06:20 18:42	06:48 (IS06) 07:10 (IS06)	06:55 16:30
30	05:50 20:12	06:19 19:31	06:49 18:25 (IS07)	06:21 18:40	06:45 (IS06) 07:12 (IS06)	06:56 16:30
31	05:51 20:11	06:20 19:30	06:50 18:25 (IS07)	06:22 16:54	06:43 (IS06) 07:14 (IS06)	06:57 16:30
Potential sun hours	456	426	375	346	300	290
Total, worst case		512	1344		789	217
Sun reduction		0,54	0,59		0,74	0,79
Oper. time red.		0,85	0,85		0,85	0,85
Wind dir. red.		0,66	0,66		0,63	0,63
Total reduction		0,31	0,34		0,40	0,42
Total, real		156	452		314	92

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R23 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (30)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time
N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	16:22 (ISO3) 19:18	06:40 19:49	05:56 19:50	05:28 19:50	05:28 19:28	06:21 19:28	06:50 18:39	16:55 (ISO3) 17:34 (ISO3)	06:23 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	16:21 (ISO3) 19:19	06:39 19:50	05:54 19:50	05:27 19:28	05:27 19:28	06:22 19:26	06:51 18:37	16:55 (ISO3) 17:32 (ISO3)	06:24 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	16:20 (ISO3) 19:20	06:37 19:51	05:53 19:51	05:27 19:28	05:27 19:28	06:23 19:25	06:52 18:35	16:54 (ISO3) 17:31 (ISO3)	06:25 16:51
4	07:17 16:41	07:02 17:16	06:25 17:49	16:19 (ISO3) 19:21	06:35 19:52	05:52 19:52	05:27 19:28	05:27 19:28	06:24 19:23	06:53 18:34	16:54 (ISO3) 17:29 (ISO3)	06:26 16:50
5	07:17 16:42	07:01 17:17	06:24 17:50	16:18 (ISO3) 19:22	06:34 19:53	05:51 19:53	05:26 19:28	05:26 19:28	06:25 19:22	06:55 18:32	16:54 (ISO3) 17:27 (ISO3)	06:28 16:49
6	07:17 16:43	07:00 17:18	06:22 17:51	16:18 (ISO3) 19:23	06:32 19:54	05:50 19:54	05:26 19:27	05:26 19:27	06:26 19:20	06:56 18:31	16:53 (ISO3) 17:25 (ISO3)	06:29 16:47
7	07:17 16:44	06:59 17:20	06:21 17:52	16:17 (ISO3) 19:24	06:31 19:55	05:48 19:55	05:26 19:27	05:26 19:27	06:27 19:18	06:56 18:29	16:53 (ISO3) 17:23 (ISO3)	06:30 16:46
8	07:17 16:45	06:57 17:21	06:19 17:53	16:17 (ISO3) 19:25	06:29 19:56	05:47 19:56	05:25 19:27	05:25 19:27	06:28 19:17	06:57 18:27	16:53 (ISO3) 17:21 (ISO3)	06:31 16:45
9	07:17 16:46	06:56 17:22	06:17 17:54	16:16 (ISO3) 19:26	06:27 19:57	05:46 19:57	05:25 19:26	05:25 19:26	06:29 19:15	06:58 18:26	16:54 (ISO3) 17:20 (ISO3)	06:32 16:44
10	07:17 16:47	06:55 17:23	06:16 17:55	16:16 (ISO3) 19:27	06:26 19:58	05:45 19:58	05:25 19:26	05:25 19:26	06:30 19:13	06:59 18:24	16:54 (ISO3) 17:18 (ISO3)	06:33 16:43
11	07:17 16:48	06:54 17:24	06:14 17:56	16:16 (ISO3) 19:28	06:24 19:59	05:44 19:59	05:25 19:26	05:25 19:26	06:31 19:12	07:00 18:23	16:55 (ISO3) 17:17 (ISO3)	06:35 16:42
12	07:17 16:49	06:53 17:26	06:13 17:57	16:16 (ISO3) 19:29	06:23 19:59	05:43 19:59	05:25 19:26	05:25 19:26	06:32 19:10	07:01 18:21	16:55 (ISO3) 17:16 (ISO3)	06:36 16:41
13	07:16 16:50	06:52 17:27	06:11 17:58	16:16 (ISO3) 19:30	06:21 19:30	05:42 19:30	05:25 19:25	05:25 19:25	06:33 19:08	07:02 18:20	16:56 (ISO3) 17:15 (ISO3)	06:37 16:40
14	07:16 16:51	06:50 17:28	06:10 18:00	16:16 (ISO3) 19:31	06:20 19:31	05:41 19:31	05:25 19:24	05:25 19:24	06:34 19:07	07:03 18:18	16:57 (ISO3) 17:14 (ISO3)	06:38 16:40
15	07:16 16:52	06:49 17:29	06:08 18:01	16:16 (ISO3) 19:32	06:18 19:32	05:40 19:32	05:25 19:24	05:25 19:24	06:35 19:05	07:04 18:16	16:59 (ISO3) 17:14 (ISO3)	06:39 16:30
16	07:15 16:54	06:48 17:30	06:06 18:02	16:17 (ISO3) 19:33	06:17 19:33	05:39 19:33	05:25 19:23	05:25 19:23	06:36 19:03	07:05 18:15	17:02 (ISO3) 17:15 (ISO3)	06:40 16:38
17	07:15 16:55	06:47 17:32	06:05 18:03	16:17 (ISO3) 19:35	06:15 19:35	05:38 19:35	05:25 19:22	05:25 19:22	06:36 19:02	07:06 18:13	17:05 (ISO3) 17:14 (ISO3)	06:41 16:37
18	07:14 16:56	06:45 17:33	06:03 18:04	16:18 (ISO3) 19:36	06:14 19:36	05:37 19:36	05:25 19:22	05:25 19:22	06:37 19:00	07:07 18:12	17:15 (ISO3) 17:14 (ISO3)	06:43 16:36
19	07:14 16:57	06:44 17:34	06:01 18:05	16:19 (ISO3) 19:37	06:12 19:37	05:36 19:37	05:25 19:21	05:25 19:21	06:38 18:58	07:09 18:11	17:17 (ISO3) 17:27 (ISO3)	06:44 16:36
20	07:13 16:58	06:43 17:35	06:00 18:06	16:20 (ISO3) 19:38	06:11 19:38	05:35 19:38	05:25 19:20	05:25 19:20	06:39 18:57	07:10 19:09	17:12 (ISO3) 17:31 (ISO3)	06:45 16:35
21	07:13 16:59	06:41 17:36	05:58 18:07	16:22 (ISO3) 19:39	06:09 19:39	05:35 19:39	05:25 19:20	05:25 19:20	06:40 18:55	07:11 18:08	17:09 (ISO3) 17:34 (ISO3)	06:46 16:34
22	07:12 17:00	06:40 17:37	05:57 18:08	16:23 (ISO3) 19:40	06:08 19:40	05:34 19:40	05:25 19:19	05:25 19:19	06:41 18:53	07:12 18:06	17:07 (ISO3) 17:35 (ISO3)	06:47 16:34
23	07:12 17:02	06:38 17:39	05:55 18:09	16:25 (ISO3) 19:41	06:06 19:41	05:33 19:41	05:26 19:28	05:26 19:28	06:42 18:52	07:13 18:05	17:05 (ISO3) 17:36 (ISO3)	06:48 16:33
24	07:11 17:03	06:37 17:40	16:36 (ISO3) 18:10	16:29 (ISO3) 19:42	06:05 19:42	05:32 19:42	05:26 19:17	05:26 19:17	06:43 18:50	07:14 18:03	17:03 (ISO3) 17:37 (ISO3)	06:49 16:33
25	07:10 17:04	06:36 17:41	7 16:43 (ISO3) 18:11	16:42 (ISO3) 19:43	06:04 19:43	05:32 19:43	05:26 19:16	05:26 19:16	06:44 18:49	07:15 18:02	17:01 (ISO3) 17:38 (ISO3)	06:51 16:32
26	07:10 17:05	06:34 17:42	11 16:42 (ISO3) 18:12	16:28 (ISO3) 19:44	06:02 19:44	05:31 19:44	05:26 19:16	05:26 19:16	06:45 18:47	07:16 18:01	17:00 (ISO3) 17:39 (ISO3)	06:52 16:32
27	07:09 17:06	06:33 17:43	14 16:42 (ISO3) 18:13	16:27 (ISO3) 19:45	06:01 19:45	05:30 19:45	05:27 19:16	05:27 19:16	06:46 18:45	07:17 18:00	16:59 (ISO3) 17:39 (ISO3)	06:53 16:31
28	07:08 17:08	06:31 17:44	15 16:42 (ISO3) 18:14	16:24 (ISO3) 19:46	06:01 19:46	05:30 19:46	05:27 19:16	05:27 19:16	06:47 18:44	07:18 18:00	16:58 (ISO3) 17:39 (ISO3)	06:54 16:31
29	07:07 17:09	06:30 17:45	18 16:42 (ISO3) 18:15	16:23 (ISO3) 19:47	06:00 19:47	05:29 19:47	05:28 19:16	05:28 19:16	06:48 18:42	07:19 18:00	16:57 (ISO3) 17:38 (ISO3)	06:55 16:30
30	07:06 17:10	06:29 17:46	16:44 (ISO3) 18:16	16:22 (ISO3) 19:48	05:57 19:48	05:29 19:48	05:28 19:16	05:28 19:16	06:49 18:40	07:20 18:00	16:56 (ISO3) 17:36 (ISO3)	06:56 16:30
31	07:06 17:11	06:28 17:47	16:43 (ISO3) 18:17	16:21 (ISO3) 19:49	05:56 19:49	05:28 19:49	05:27 19:16	05:27 19:16	06:50 18:30	07:21 18:00	16:55 (ISO3) 17:35 (ISO3)	06:57 16:30
Potential sun hours	300	298	300	300	300	300	300	300	300	300	300	300
Total, worst case		65	747		446	449	456	426	375	346	437	291
Sun reduction		0.69	0.62						0.59		0.66	
Oper. time red.		0.85	0.85						0.85		0.85	
Wind dir. red.		0.65	0.65						0.65		0.65	
Total reduction		0.39	0.35						0.33		0.37	
Total, real		25	259						127		162	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker (WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker (WTG causing flicker last time)
	Minutes with flicker	

SHADOW - Calendar

Shadow receptor: R234 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (51)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 16:39	07:05 17:12	15:58 (IS08) 16:26 (IS08)	06:30 17:45	06:40 19:18	05:56 20:17
2	07:17 16:40	07:04 17:13	15:58 (IS08) 16:27 (IS08)	06:28 17:46	06:39 19:19	05:54 20:18
3	07:18 16:40	07:03 17:15	15:59 (IS08) 16:29 (IS08)	06:27 17:48	06:37 19:20	05:53 20:19
4	07:18 16:41	07:02 17:16	16:00 (IS08) 16:30 (IS08)	06:25 17:49	06:35 19:21	05:52 20:20
5	07:18 16:42	07:01 17:17	16:01 (IS08) 16:31 (IS08)	06:24 17:50	06:34 19:22	05:51 20:20
6	07:18 16:43	15:56 (IS08) 17:18	07:00 16:33 (IS08)	16:02 (IS08) 17:51	06:32 19:23	05:49 20:21
7	07:18 16:44	15:56 (IS08) 17:20	06:59 16:04 (IS08)	16:01 (IS08) 17:52	06:31 19:24	05:48 20:22
8	07:17 16:45	15:56 (IS08) 17:21	06:58 16:06 (IS08)	16:19 17:53	06:29 19:25	05:47 20:22
9	07:17 16:46	15:56 (IS08) 17:22	06:56 16:10 (IS08)	16:08 (IS08) 17:54	06:27 19:26	05:46 20:23
10	07:17 16:47	15:56 (IS08) 17:23	06:55 16:10 (IS08)	16:10 (IS08) 17:55	06:26 19:27	05:45 20:23
11	07:17 16:48	15:55 (IS08) 17:24	06:54 16:13 (IS08)	16:14 17:56	06:24 19:28	05:44 20:24
12	07:17 16:49	15:55 (IS08) 17:26	06:53 17:26	06:13 17:57	17:12 (IS10) 19:29	05:43 20:24
13	07:16 16:50	15:55 (IS08) 17:27	06:52 17:27	06:11 17:58	17:13 (IS10) 19:30	05:42 20:25
14	07:16 16:51	15:55 (IS08) 17:28	06:51 17:28	06:10 17:59	17:14 (IS10) 19:31	05:41 20:25
15	07:16 16:52	15:55 (IS08) 17:29	06:49 18:01	06:08 18:01	17:15 (IS10) 19:33	05:40 20:26
16	07:15 16:53	15:54 (IS08) 17:30	06:48 17:30	06:06 18:02	17:18 (IS10) 19:34	05:39 20:26
17	07:15 16:55	15:55 (IS08) 17:32	06:47 18:03	06:05 18:03	17:19 (IS10) 19:35	05:38 20:26
18	07:15 16:56	15:54 (IS08) 17:33	06:45 18:04	06:03 18:04	06:14 19:36	05:37 20:27
19	07:14 16:57	15:55 (IS08) 17:34	06:44 18:05	06:01 18:05	06:12 19:37	05:36 20:27
20	07:14 16:58	15:55 (IS08) 17:35	06:43 18:06	06:00 18:06	06:11 19:38	05:35 20:27
21	07:13 16:59	15:54 (IS08) 17:36	06:41 18:07	05:58 18:07	06:09 19:39	05:35 20:28
22	07:12 17:00	15:55 (IS08) 17:37	06:40 18:08	05:57 18:08	06:08 19:40	05:34 20:28
23	07:12 17:01	15:55 (IS08) 17:39	06:39 18:09	05:55 18:09	06:06 19:41	05:33 20:28
24	07:11 17:03	15:55 (IS08) 17:40	06:37 18:10	05:53 18:10	06:05 19:42	05:32 20:28
25	07:10 17:04	15:56 (IS08) 17:41	06:36 18:11	05:52 18:11	06:04 19:43	05:32 20:28
26	07:10 17:05	15:56 (IS08) 17:42	06:34 18:12	05:50 18:12	06:02 19:44	05:31 20:28
27	07:09 17:06	15:56 (IS08) 17:43	06:33 18:13	05:48 18:13	06:01 19:45	05:30 20:28
28	07:08 17:07	15:56 (IS08) 17:44	06:31 18:14	05:47 18:14	05:59 19:46	05:29 20:28
29	07:07 17:09	15:56 (IS08) 17:44	06:31 18:14	05:47 18:14	05:59 19:46	05:29 20:28
30	07:06 17:10	15:57 (IS08) 17:45	06:30 18:15	05:46 18:15	05:58 19:47	05:29 20:28
31	07:06 17:11	15:57 (IS08) 17:45	06:30 18:15	05:46 18:15	05:58 19:47	05:29 20:28
Potential sun hours	300	298	370	398	446	450
Total, worst case	408	280	8			
Sun reduction	0,77	0,69	0,62			
Oper. time red.	0,85	0,85	0,85			
Wind dir. red.	0,66	0,66	0,66			
Total reduction	0,43	0,39	0,35			
Total, real	176	109	3			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R234 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (51)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December	
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:52 (IS10) 17:53 (IS10)	06:23 15:39 (IS08)	06:57 15:37 (IS08)
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	06:24 16:52	15:37 (IS08) 16:00 (IS08)	06:58 16:29
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	15:35 (IS08) 16:01 (IS08)	06:59 16:29
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	15:33 (IS08) 16:02 (IS08)	07:00 16:29
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	15:32 (IS08) 16:02 (IS08)	07:01 16:29
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	06:29 16:47	15:31 (IS08) 16:01 (IS08)	07:02 16:29
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	15:31 (IS08) 16:01 (IS08)	07:03 16:29
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	15:30 (IS08) 15:59 (IS08)	07:04 16:29
9	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	15:29 (IS08) 15:58 (IS08)	07:05 16:29
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	15:29 (IS08) 15:57 (IS08)	07:06 16:29
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	15:29 (IS08) 15:57 (IS08)	07:06 16:29
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	15:29 (IS08) 15:56 (IS08)	07:07 16:29
13	05:35 20:25	06:03 19:56	06:33 19:09	07:02 18:19	06:37 16:40	15:28 (IS08) 15:55 (IS08)	07:08 16:29
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	15:28 (IS08) 15:54 (IS08)	07:09 16:29
15	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	15:29 (IS08) 15:54 (IS08)	07:09 16:29
16	05:38 20:23	06:06 19:52	06:35 19:04	07:05 18:15	06:40 16:38	15:29 (IS08) 15:53 (IS08)	07:10 16:30
17	05:38 20:23	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	15:29 (IS08) 15:52 (IS08)	07:11 16:30
18	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	15:29 (IS08) 15:51 (IS08)	07:11 16:30
19	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:10	06:44 16:36	15:30 (IS08) 15:51 (IS08)	07:12 16:31
20	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	15:30 (IS08) 15:50 (IS08)	07:13 16:31
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	15:30 (IS08) 15:49 (IS08)	07:13 16:32
22	05:43 20:19	06:12 19:43	06:41 18:53	07:12 18:06	06:47 16:34	15:31 (IS08) 15:48 (IS08)	07:14 16:32
23	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	15:31 (IS08) 15:48 (IS08)	07:14 16:33
24	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:32	15:31 (IS08) 15:47 (IS08)	07:15 16:33
25	05:45 20:17	06:14 19:39	06:44 18:49	06:15 17:02	06:51 16:32	15:33 (IS08) 15:47 (IS08)	07:15 16:34
26	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	06:52 16:31	15:33 (IS08) 15:47 (IS08)	07:16 16:34
27	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	15:34 (IS08) 15:46 (IS08)	07:16 16:35
28	05:48 20:14	06:17 19:34	06:47 18:44	17:57 (IS10) 17:59 (IS10)	06:19 16:58	15:35 (IS08) 15:46 (IS08)	07:16 16:36
29	05:49 20:13	06:18 19:33	06:48 18:42	17:55 (IS10) 17:57 (IS10)	06:20 16:57	15:36 (IS08) 15:45 (IS08)	07:17 16:36
30	05:50 20:12	06:19 19:31	06:49 18:40	17:53 (IS10) 17:55 (IS10)	06:21 16:56	15:36 (IS08) 15:45 (IS08)	07:17 16:37
31	05:51 20:11	06:20 19:30		06:22 16:54	15:42 (IS08) 15:54 (IS08)		07:17 16:38
Potential sun hours	457	426	375	346	300	290	
Total, worst case			6	13	653		28
Sun reduction			0,59	0,66	0,74		0,79
Oper. time red.			0,85	0,85	0,85		0,85
Wind dir. red.			0,66	0,66	0,66		0,66
Total reduction			0,33	0,37	0,42		0,44
Total, real			2	5	272		12

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R236 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (52)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 16:39	15:42 (IS08) 15:58 (IS08)	07:05 17:12	15:54 (IS08) 16:28 (IS08)	06:30 17:45	
2	07:17 16:40	15:42 (IS08) 15:58 (IS08)	07:04 17:13	15:55 (IS08) 16:28 (IS08)	06:28 17:46	06:40 19:18
3	07:18 16:40	15:42 (IS08) 15:59 (IS08)	07:03 17:15	15:56 (IS08) 16:27 (IS08)	06:27 17:48	05:56 19:19
4	07:18 16:41	15:42 (IS08) 16:00 (IS08)	07:02 17:16	15:58 (IS08) 16:25 (IS08)	06:25 17:49	05:54 19:21
5	07:18 16:42	15:43 (IS08) 16:01 (IS08)	07:01 17:17	16:00 (IS08) 16:24 (IS08)	06:24 17:50	17:13 (IS10) 19:22
6	07:18 16:43	15:43 (IS08) 16:02 (IS08)	07:00 17:18	16:02 (IS08) 16:22 (IS08)	06:22 17:51	17:12 (IS10) 19:23
7	07:18 16:44	15:43 (IS08) 16:03 (IS08)	06:59 17:20	16:05 (IS08) 16:19 (IS08)	06:21 17:52	17:11 (IS10) 19:24
8	07:17 16:45	15:44 (IS08) 16:04 (IS08)	06:58 17:21	06:19 17:53	17:12 (IS10) 19:25	06:29 19:56
9	07:17 16:46	15:44 (IS08) 16:05 (IS08)	06:56 17:22	06:18 17:54	17:11 (IS10) 19:26	06:27 19:57
10	07:17 16:47	15:44 (IS08) 16:07 (IS08)	06:55 17:23	06:16 17:55	17:11 (IS10) 19:27	06:26 19:58
11	07:17 16:48	15:44 (IS08) 16:07 (IS08)	06:54 17:24	06:14 17:56	17:12 (IS10) 19:28	06:24 19:59
12	07:17 16:49	15:44 (IS08) 16:08 (IS08)	06:53 17:26	06:13 17:57	17:12 (IS10) 19:29	06:23 20:00
13	07:16 16:50	15:45 (IS08) 16:10 (IS08)	06:52 17:27	06:11 17:58	17:13 (IS10) 19:30	06:21 20:01
14	07:16 16:51	15:45 (IS08) 16:10 (IS08)	06:51 17:28	06:10 18:00	17:14 (IS10) 19:31	06:20 20:02
15	07:16 16:52	15:45 (IS08) 16:12 (IS08)	06:49 17:29	06:08 18:01	17:15 (IS10) 19:33	06:18 20:03
16	07:15 16:53	15:45 (IS08) 16:12 (IS08)	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04
17	07:15 16:55	15:46 (IS08) 16:14 (IS08)	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05
18	07:15 16:56	15:46 (IS08) 16:14 (IS08)	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06
19	07:14 16:57	15:46 (IS08) 16:16 (IS08)	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07
20	07:14 16:58	15:46 (IS08) 16:17 (IS08)	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08
21	07:13 16:59	15:46 (IS08) 16:18 (IS08)	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08
22	07:12 17:00	15:47 (IS08) 16:19 (IS08)	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09
23	07:12 17:01	15:48 (IS08) 16:20 (IS08)	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10
24	07:11 17:03	15:48 (IS08) 16:21 (IS08)	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11
25	07:10 17:04	15:49 (IS08) 16:23 (IS08)	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12
26	07:10 17:05	15:49 (IS08) 16:24 (IS08)	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13
27	07:09 17:06	15:50 (IS08) 16:25 (IS08)	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14
28	07:08 17:07	15:50 (IS08) 16:26 (IS08)	06:31 17:44	05:47 18:14	05:59 19:46	05:30 20:14
29	07:07 17:09	15:51 (IS08) 16:27 (IS08)		06:45 19:15	05:58 19:47	05:29 20:15
30	07:06 17:10	15:52 (IS08) 16:29 (IS08)		06:43 19:16	05:57 19:48	05:29 20:16
31	07:06 17:11	15:53 (IS08) 16:29 (IS08)		06:42 19:17		05:28 20:17
Potential sun hours	300	298	370	398	446	450
Total, worst case	834	183	98			
Sun reduction	0,77	0,69	0,62			
Oper. time red.	0,85	0,85	0,85			
Wind dir. red.	0,66	0,66	0,66			
Total reduction	0,43	0,39	0,35			
Total, real	358	71	34			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R236 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (52)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December		
1	05:28 20:28	05:52 19:28	06:21 19:23	06:50 18:39	17:52 (IS10) 18:04 (IS10)	06:23 16:53	06:57 16:30	15:26 (IS08) 15:49 (IS08)
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	17:50 (IS10) 18:02 (IS10)	06:24 16:52	06:58 16:29	15:26 (IS08) 15:49 (IS08)
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:50 (IS10) 18:00 (IS10)	06:25 16:51	06:59 16:29	15:27 (IS08) 15:49 (IS08)
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	17:49 (IS10) 17:58 (IS10)	06:27 16:50	07:00 16:29	15:28 (IS08) 15:48 (IS08)
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	17:48 (IS10) 17:56 (IS10)	06:28 16:48	07:01 16:29	15:28 (IS08) 15:48 (IS08)
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	17:48 (IS10) 17:54 (IS10)	06:29 16:47	07:02 16:29	15:29 (IS08) 15:48 (IS08)
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	17:48 (IS10) 17:52 (IS10)	06:30 16:46	07:03 16:29	15:30 (IS08) 15:48 (IS08)
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	17:48 (IS10) 17:51 (IS10)	06:31 16:45	07:04 16:29	15:30 (IS08) 15:48 (IS08)
9	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	17:48 (IS10) 17:49 (IS10)	06:32 16:44	07:05 16:29	15:31 (IS08) 15:48 (IS08)
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	17:49 (IS10)	06:33 16:43	07:06 16:29	15:32 (IS08) 15:49 (IS08)
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23		06:35 16:42	07:06 16:29	15:33 (IS08) 15:49 (IS08)
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21		06:36 16:41	07:07 16:29	15:33 (IS08) 15:48 (IS08)
13	05:35 20:25	06:03 19:56	06:33 19:09	07:02 18:19		06:37 16:40	07:08 16:29	15:34 (IS08) 15:49 (IS08)
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18		06:38 16:40	07:09 16:29	15:35 (IS08) 15:49 (IS08)
15	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16		06:39 16:39	07:09 16:29	15:35 (IS08) 15:49 (IS08)
16	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15		06:40 16:38	07:10 16:30	15:35 (IS08) 15:49 (IS08)
17	05:38 20:23	06:07 19:50	06:36 19:02	07:06 18:13		06:42 16:37	07:11 16:30	15:36 (IS08) 15:50 (IS08)
18	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12		06:43 16:36	07:12 16:30	15:37 (IS08) 15:50 (IS08)
19	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:10		06:44 16:36	07:12 16:31	15:37 (IS08) 15:50 (IS08)
20	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09		06:45 16:35	07:13 16:31	15:38 (IS08) 15:51 (IS08)
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08		06:46 16:34	07:13 16:32	15:38 (IS08) 15:51 (IS08)
22	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06		06:47 16:34	07:14 16:32	15:39 (IS08) 15:52 (IS08)
23	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05		06:48 16:33	07:14 16:33	15:39 (IS08) 15:52 (IS08)
24	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03		06:50 16:32	07:15 16:33	15:40 (IS08) 15:53 (IS08)
25	05:45 20:17	06:14 19:39	06:44 18:49	06:15 17:02		06:51 16:32	07:15 16:34	15:40 (IS08) 15:53 (IS08)
26	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01		06:52 16:31	07:16 16:34	15:40 (IS08) 15:54 (IS08)
27	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59		06:53 16:31	07:16 16:35	15:41 (IS08) 15:55 (IS08)
28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 18:08 (IS10)	17:58 (IS10)	06:54 16:31	07:16 16:36	15:41 (IS08) 15:55 (IS08)
29	05:49 20:13	06:18 19:33	06:48 18:42	06:20 18:07 (IS10)	17:55 (IS10)	06:55 16:30	07:17 16:36	15:42 (IS08) 15:56 (IS08)
30	05:50 20:12	06:19 19:31	06:49 18:40	06:21 18:06 (IS10)	17:53 (IS10)	06:56 16:30	07:17 16:37	15:42 (IS08) 15:56 (IS08)
31	05:51 20:11	06:20 19:30		06:22 16:54			07:17 16:38	15:42 (IS08) 15:57 (IS08)
Potential sun hours	457	426	375	346	300	290		
Total, worst case			35	65	810	488		
Sun reduction			0,59	0,66	0,74	0,79		
Oper. time red.			0,85	0,85	0,85	0,85		
Wind dir. red.			0,66	0,66	0,66	0,66		
Total reduction			0,33	0,37	0,41	0,44		
Total, real			12	24	336	216		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R241 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (53)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 16:39	07:05 17:12	06:30 17:45	17:07 (IS10) 17:22 (IS10)	06:40 19:18	05:56 20:18
2	07:17 16:40	07:04 17:14	06:28 17:46	17:06 (IS10) 17:22 (IS10)	06:39 19:19	05:54 20:18
3	07:18 16:41	07:03 17:15	06:27 17:48	17:06 (IS10) 17:23 (IS10)	06:37 19:20	05:53 20:19
4	07:18 16:41	07:02 17:16	06:25 17:49	17:05 (IS10) 17:23 (IS10)	06:35 19:21	05:52 20:20
5	07:18 16:42	07:01 17:17	06:24 17:50	17:05 (IS10) 17:23 (IS10)	06:34 19:22	05:51 20:20
6	07:18 16:43	07:00 17:18	06:22 17:51	17:05 (IS10) 17:25 (IS10)	06:32 19:23	05:49 20:21
7	07:18 16:44	06:59 17:20	06:21 17:52	17:05 (IS10) 17:26 (IS10)	06:31 19:24	05:48 20:22
8	07:17 16:45	06:58 17:21	06:19 17:53	17:06 (IS10) 17:27 (IS10)	06:29 19:25	05:47 20:22
9	07:17 16:46	06:56 17:22	06:18 17:54	17:06 (IS10) 17:28 (IS10)	06:27 19:26	05:46 20:23
10	07:17 16:47	06:55 17:23	06:16 17:55	17:06 (IS10) 17:29 (IS10)	06:26 19:27	05:45 20:23
11	07:17 16:48	06:54 17:24	06:14 17:56	17:07 (IS10) 17:31 (IS10)	06:24 19:28	05:44 20:24
12	07:17 16:49	06:53 17:26	06:13 17:57	17:08 (IS10) 17:31 (IS10)	06:23 19:29	05:43 20:24
13	07:17 16:50	06:52 17:27	06:11 17:58	17:10 (IS10) 17:29 (IS10)	06:21 19:30	05:42 20:25
14	07:16 16:51	06:51 17:28	06:10 18:00	17:12 (IS10) 17:26 (IS10)	06:20 19:32	05:41 20:25
15	07:16 16:52	06:49 17:29	06:08 18:01	17:17 (IS10) 17:20 (IS10)	06:18 19:33	05:40 20:26
16	07:15 16:53	06:48 17:30	06:06 18:02		06:17 19:34	05:39 20:26
17	07:15 16:55	06:47 17:32	06:05 18:03		06:15 19:35	05:38 20:26
18	07:15 16:56	06:45 17:33	06:03 18:04		06:14 19:36	05:37 20:27
19	07:14 16:57	06:44 17:34	06:01 18:05		06:12 19:37	05:36 20:27
20	07:14 16:58	06:43 17:35	06:00 18:06		06:11 19:38	05:35 20:27
21	07:13 16:59	06:41 17:36	05:58 18:07		06:09 19:39	05:35 20:28
22	07:12 17:00	06:40 17:37	05:57 18:08		06:08 19:40	05:34 20:28
23	07:12 17:01	06:39 17:39	05:55 18:09		06:06 19:41	05:33 20:28
24	07:11 17:03	06:37 17:40	17:14 (IS10) 17:16 (IS10)	05:53 18:10	06:05 19:42	05:32 20:28
25	07:10 17:04	06:36 17:41	17:12 (IS10) 17:18 (IS10)	05:52 18:11	06:04 19:43	05:32 20:28
26	07:10 17:05	06:34 17:42	17:10 (IS10) 17:18 (IS10)	05:50 18:12	06:02 19:44	05:31 20:28
27	07:09 17:06	06:33 17:43	17:09 (IS10) 17:20 (IS10)	05:48 18:13	06:01 19:45	05:30 20:28
28	07:08 17:07	06:31 17:44	17:08 (IS10) 17:20 (IS10)	05:47 18:14	06:00 19:46	05:30 20:28
29	07:07 17:09			06:45 19:15	05:58 19:47	05:29 20:28
30	07:06 17:10			06:44 19:16	05:57 19:48	05:29 20:28
31	07:06 17:11			06:42 19:17		05:28 20:17
Potential sun hours	300	298	370	398	446	450
Total, worst case		39	274			
Sun reduction		0,69	0,62			
Oper. time red.		0,85	0,85			
Wind dir. red.		0,65	0,65			
Total reduction		0,39	0,35			
Total, real		15	95			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R241 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (53)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December		
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:48 (IS10) 18:10 (IS10)	06:23 16:53	06:57 16:30	
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	17:46 (IS10) 18:11 (IS10)	06:24 16:52	06:58 16:29	
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:45 (IS10) 18:08 (IS10)	06:25 16:51	06:59 16:29	
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	17:44 (IS10) 18:06 (IS10)	06:27 16:50	07:00 16:29	
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	17:43 (IS10) 18:04 (IS10)	06:28 16:48	07:01 16:29	
6	05:31 20:27	05:56 20:05	06:26 19:20	06:55 18:31	17:42 (IS10) 18:03 (IS10)	06:29 16:47	07:02 16:29	
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	17:41 (IS10) 18:01 (IS10)	06:30 16:46	07:03 16:29	
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	17:40 (IS10) 18:00 (IS10)	06:31 16:45	07:04 16:29	
9	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	17:40 (IS10) 17:58 (IS10)	06:32 16:44	07:05 16:29	
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	17:40 (IS10) 17:57 (IS10)	06:34 16:43	07:06 16:29	
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	17:40 (IS10) 17:56 (IS10)	06:35 16:42	07:06 16:29	
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	17:40 (IS10) 17:55 (IS10)	06:36 16:41	07:07 16:29	14:49 (IS08) 14:58 (IS08)
13	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:19	17:40 (IS10) 17:54 (IS10)	06:37 16:40	07:08 16:29	14:48 (IS08) 15:01 (IS08)
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	17:41 (IS10) 17:52 (IS10)	06:38 16:40	07:09 16:29	14:47 (IS08) 15:03 (IS08)
15	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	17:41 (IS10) 17:51 (IS10)	06:39 16:39	07:09 16:29	14:47 (IS08) 15:05 (IS08)
16	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	17:43 (IS10) 17:50 (IS10)	06:40 16:38	07:10 16:30	14:46 (IS08) 15:05 (IS08)
17	05:39 20:23	06:07 19:50	06:36 19:02	07:06 18:13	17:44 (IS10) 17:49 (IS10)	06:42 16:37	07:11 16:30	14:46 (IS08) 15:07 (IS08)
18	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	17:46 (IS10) 17:47 (IS10)	06:43 16:36	07:12 16:30	14:47 (IS08) 15:08 (IS08)
19	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	07:09 18:11	06:44 16:36	07:12 16:31	14:46 (IS08) 15:08 (IS08)
20	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	07:10 18:09	06:45 16:35	07:13 16:31	14:47 (IS08) 15:09 (IS08)
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	07:11 18:08	06:46 16:34	07:13 16:32	14:47 (IS08) 15:09 (IS08)
22	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	07:12 18:06	06:47 16:34	07:14 16:32	14:48 (IS08) 15:10 (IS08)
23	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	07:13 18:05	06:48 16:33	07:14 16:33	14:48 (IS08) 15:10 (IS08)
24	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	07:14 18:03	06:50 16:33	07:15 16:33	14:49 (IS08) 15:11 (IS08)
25	05:45 20:17	06:14 19:39	06:44 18:49	06:15 17:02	06:15 17:02	06:51 16:32	07:15 16:34	14:49 (IS08) 15:11 (IS08)
26	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	06:16 17:01	06:52 16:32	07:16 16:34	14:50 (IS08) 15:11 (IS08)
27	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:17 16:59	06:53 16:31	07:16 16:35	14:52 (IS08) 15:11 (IS08)
28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:19 16:58	06:54 16:31	07:16 16:36	14:53 (IS08) 15:11 (IS08)
29	05:49 20:13	06:18 19:33	06:48 18:42	17:54 (IS10) 18:05 (IS10)	06:20 16:57	06:55 16:30	07:17 16:36	14:54 (IS08) 15:10 (IS08)
30	05:50 20:12	06:19 19:31	06:49 18:40	17:51 (IS10) 18:08 (IS10)	06:21 16:56	06:56 16:30	07:17 16:37	14:55 (IS08) 15:09 (IS08)
31	05:51 20:11	06:20 19:30		06:22 16:54	06:22 16:54		07:17 16:38	14:57 (IS08) 15:08 (IS08)
Potential sun hours	457	426	375	346	300	290		
Total, worst case			28	288			370	
Sun reduction			0,59	0,66			0,79	
Oper. time red.			0,85	0,85			0,85	
Wind dir. red.			0,65	0,65			0,65	
Total reduction			0,33	0,37			0,44	
Total, real			9	106			162	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R248 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (54)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:27	06:51 18:37	06:24 16:52	06:58 16:29
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:28	05:56 20:05	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:22	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:57 17:22	06:18 17:54	06:28 19:26	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:33 20:26	06:00 20:00	06:30 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:29	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:30	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:55	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	06:39 16:39	07:10 16:29
16	07:16 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:41 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:27	05:39 20:23	06:07 19:50	06:37 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:09	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:49 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:33	07:15 16:33
25	07:11 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	07:15 18:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	07:16 18:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	07:17 18:00	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 18:00	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:28	05:49 20:13	06:18 19:33	06:48 18:42	07:19 18:00	06:55 16:30	07:17 16:36
30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 18:00	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: R25 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (31)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40	7,40

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
807	387	301	422	457	333	302	421	1.645	786	483	1.129	7.473

		January	February	March	April	May	June	July	August	September	October	November	December												
1	07:17	07:05		06:30	16:05 (IS03)	06:40	05:56	05:28	05:52	06:21	06:50	16:51 (IS03)	06:23	06:57											
	16:39	17:12		17:45	16:41 (IS03)	19:18	19:49	20:17	20:28	19:28	18:39	17:24 (IS03)	16:53	16:30											
	07:17	07:04		06:28	16:06 (IS03)	06:39	05:54	05:27	05:29	05:53	06:22	06:51	16:49 (IS03)	06:24	06:58										
	2	16:40	17:14		17:46	16:43 (IS03)	19:19	19:50	20:18	20:28	20:09	19:26	18:37	17:25 (IS03)	16:52	16:29									
		07:17	07:03		06:27	16:05 (IS03)	06:37	05:53	05:27	05:29	05:53	06:23	06:52	16:48 (IS03)	06:25	06:59									
		16:41	17:15		17:48	16:43 (IS03)	19:20	19:51	20:19	20:28	20:08	19:25	18:35	17:26 (IS03)	16:51	16:29									
		3	07:17	07:02		06:25	16:06 (IS03)	06:35	05:52	05:27	05:30	05:54	06:24	06:53	16:46 (IS03)	06:26	07:00								
			16:41	17:16		17:49	16:45 (IS03)	19:21	19:52	20:19	20:28	20:07	19:23	18:34	17:26 (IS03)	16:50	16:29								
			07:18	07:01		06:24	16:06 (IS03)	06:34	05:51	05:26	05:30	05:55	06:25	06:54	16:45 (IS03)	06:28	07:01								
			4	16:42	17:17		17:50	16:46 (IS03)	19:22	19:53	20:20	20:28	20:06	19:22	18:32	17:27 (IS03)	16:49	16:29							
				07:17	07:00		06:22	16:07 (IS03)	06:32	05:50	05:26	05:31	05:56	06:26	06:55	16:44 (IS03)	06:29	07:02							
				16:43	17:18		17:51	16:48 (IS03)	19:23	19:54	20:21	20:27	20:04	19:20	18:31	17:26 (IS03)	16:47	16:29							
				5	07:17	06:59		06:21	16:07 (IS03)	06:31	05:48	05:26	05:32	05:57	06:27	06:56	16:43 (IS03)	06:30	07:03						
					16:44	17:20		17:52	16:49 (IS03)	19:24	19:55	20:21	20:27	20:03	19:18	18:29	17:24 (IS03)	16:46	16:29						
					07:17	06:58		06:19	16:08 (IS03)	06:29	05:47	05:25	05:32	05:58	06:28	06:57	16:42 (IS03)	06:31	07:04						
					6	16:45	17:21		17:53	16:51 (IS03)	19:25	19:56	20:22	20:27	20:02	19:17	18:27	17:22 (IS03)	16:45	16:29					
						07:17	06:56		06:17	16:08 (IS03)	06:27	05:46	05:25	05:33	05:59	06:29	06:58	16:41 (IS03)	06:32	07:05					
						16:46	17:22		17:54	16:49 (IS03)	19:26	19:57	20:23	20:26	20:01	19:15	18:26	17:20 (IS03)	16:44	16:29					
						7	07:17	06:55		06:16	16:08 (IS03)	06:26	05:45	05:25	05:34	06:00	06:30	06:59	16:40 (IS03)	06:33	07:05				
							16:47	17:23		17:55	16:48 (IS03)	19:27	19:58	20:23	20:26	20:00	19:13	18:24	17:19 (IS03)	16:43	16:29				
							07:17	06:54		06:14	16:10 (IS03)	06:24	05:44	05:25	05:34	06:01	06:31	07:00	16:40 (IS03)	06:35	07:06				
							8	16:48	17:24		17:56	16:47 (IS03)	19:28	19:59	20:24	20:26	19:58	19:12	18:23	17:17 (IS03)	16:42	16:29			
								07:17	06:53		06:13	16:11 (IS03)	06:23	05:43	05:25	05:35	06:02	06:32	07:01	16:39 (IS03)	06:36	07:07			
								16:49	17:26		17:57	16:45 (IS03)	19:29	20:00	20:24	20:25	19:57	19:10	18:21	17:15 (IS03)	16:41	16:29			
								9	07:16	06:52	16:30 (IS03)	06:11	16:13 (IS03)	06:21	05:42	05:25	05:36	06:03	06:33	07:02	16:39 (IS03)	06:37	07:08		
									16:50	17:27	2	16:32 (IS03)	17:58	19:30	20:01	20:25	20:25	19:56	19:08	18:20	17:14 (IS03)	16:40	16:29		
									07:16	06:50		06:10	16:14 (IS03)	06:20	05:41	05:25	05:36	06:04	06:34	07:03	16:38 (IS03)	06:38	07:09		
									10	16:51	17:28	15	16:38 (IS03)	18:00	19:31	20:02	20:25	20:24	19:54	19:07	18:18	17:13 (IS03)	16:40	16:29	
										07:16	06:49		06:08	16:19 (IS03)	06:18	05:40	05:25	05:37	06:05	06:35	07:04	16:38 (IS03)	06:39	07:09	
										16:52	17:29	19	16:38 (IS03)	18:01	19:32	20:03	20:26	20:24	19:53	19:05	18:16	17:12 (IS03)	16:39	16:30	
										11	07:15	06:48		06:06	16:17 (IS03)	06:16	05:39	05:25	05:38	06:06	06:36	07:05	16:39 (IS03)	06:40	07:10
											16:54	17:30	21	16:38 (IS03)	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	17:12 (IS03)	16:38	16:30
07:15											06:47		06:05	16:16 (IS03)	06:05	05:38	05:25	05:39	06:07	06:36	07:06	16:39 (IS03)	06:41	07:11	
12											16:55	17:32	23	16:39 (IS03)	18:03	19:35	20:05	20:26	20:22	19:50	19:02	18:13	17:11 (IS03)	16:37	16:30
											07:14	06:45		06:03	16:13 (IS03)	06:03	05:37	05:25	05:39	06:08	06:37	07:07	16:39 (IS03)	06:43	07:11
	16:56										17:33	25	16:38 (IS03)	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	17:11 (IS03)	16:36	16:30	
	13										07:14	06:44		06:01	16:12 (IS03)	06:01	05:36	05:25	05:40	06:09	06:38	07:09	16:40 (IS03)	06:44	07:12
											16:57	17:34	27	16:39 (IS03)	18:05	19:37	20:06	20:27	20:21	19:48	18:58	18:11	17:10 (IS03)	16:36	16:31
		07:13									06:43		06:00	16:11 (IS03)	06:00	05:35	05:25	05:41	06:10	06:39	07:10	16:40 (IS03)	06:45	07:13	
		14									16:58	17:35	29	16:40 (IS03)	18:06	19:38	20:07	20:27	20:20	19:46	18:57	18:09	17:10 (IS03)	16:35	16:31
											07:13	06:41		06:00	16:10 (IS03)	06:00	05:35	05:25	05:42	06:11	06:40	07:11	16:41 (IS03)	06:46	07:13
			16:59								17:36	29	16:39 (IS03)	18:07	19:39	20:08	20:27	20:20	19:45	18:55	18:08	17:10 (IS03)	16:34	16:32	
			15								07:12	06:40		06:00	16:09 (IS03)	06:00	05:34	05:25	05:43	06:12	06:41	07:12	16:41 (IS03)	06:47	07:14
											17:00	17:37	31	16:40 (IS03)	18:08	19:40	20:09	20:28	20:19	19:43	18:53	18:06	17:09 (IS03)	16:34	16:32
				07:12							06:38		06:00	16:08 (IS03)	06:00	05:33	05:26	05:44	06:13	06:42	07:13	16:42 (IS03)	06:48	07:14	
				16							17:02	17:39	31	16:39 (IS03)	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	17:09 (IS03)	16:33	16:33
											07:11	06:37		06:00	16:08 (IS03)	06:00	05:32	05:26	05:44	06:14	06:43	07:14	16:44 (IS03)	06:49	07:15
					17:03						17:40	31	16:39 (IS03)	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	17:09 (IS03)	16:33	16:33	
					17						07:10	06:36		06:00	16:07 (IS03)	06:00	05:32	05:26	05:45	06:15	06:44	07:15	16:46 (IS03)	06:51	07:15
											17:04	17:41	32	16:39 (IS03)	18:11	19:43	20:12	20:28	20:17	19:39	18:49	18:02	17:02 (IS03)	16:32	16:34
						07:10					06:34		06:00	16:07 (IS03)	06:00	05:31	05:26	05:46	06:16	06:45	07:16	16:47 (IS03)	06:52	07:15	
						18					17:05	17:42	33	16:40 (IS03)	18:12	19:44	20:13	20:28	20:16	19:37	18:47	18:01	17:01 (IS03)	16:32	16:34
											07:09	06:33		06:00	16:07 (IS03)	06:00	05:30	05:27	05:47	06:16	06:46	07:17	16:50 (IS03)	06:53	07:16
							17:06				17:43	34	16:41 (IS03)	18:13	19:45	20:13	20:28	20:15	19:36	18:45	18:00	17:14 (IS03)	16:59	18	
							19				07:08	06:31		06:00	16:06 (IS03)	06:00	05:30	05:27	05:48	06:17	06:47	07:18	16:59 (IS03)	06:54	07:16
											17:08	17:44	35	16:41 (IS03)	18:14	19:46	20:14	20:28	20:14	19:34	18:44	18:00	17:18 (IS03)	16:58	13
								07:07					06:45	16:05 (IS03)	06:11	05:38	05:29	05:49	06:18	06:48	07:19	16:56 (IS03)	06:50	07:16	
								20			17:09			06:44	16:06 (IS03)	06:11	05:39	05:30	05:50	06:19	06:49	07:20	16:57 (IS03)	06:51	07:17
											07:06			06:44	16:06 (IS03)	06:11	05:39	05:30	05:50	06:19	06:49	07:20	16:57 (IS03)	06:51	07:17
									17:10				06:45	16:07 (IS03)	06:12	05:40	05:31	05:51	06:20	06:50	07:21	16:58 (IS03)	06:52	07:18	
									21		07:06			06:42	16:06 (IS03)	06:10	05:38	05:30	05:51	06:20	06:50	07:21	16:58 (IS03)	06:52	07:18
											17:11			06:42	16:06 (IS03)	06:10	05:38	05:30	05:51	06:20	06:50	07:21	16:58 (IS03)	06:52	07:18
										07:06			06:42	16:06 (IS03)	06:10	05:38	05:30	05:51	06:20	06:50	07:21	16:58 (IS03)	06:52	07:18	
										22	17:11			06:42	16:06 (IS03)	06:10</									

SHADOW - Calendar

Shadow receptor: R28 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (32)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December		
1	07:17	07:05	06:30	16:15 (IS03)	06:40	05:56	05:28	05:52	06:21	06:50	06:23	15:56 (IS03)	06:57	
	16:39	17:12	17:45	29 16:44 (IS03)	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30	
2	07:17	07:04	06:28	16:16 (IS03)	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	06:58	
	16:40	17:14	17:46	29 16:45 (IS03)	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29	
3	07:17	07:03	06:27	16:17 (IS03)	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59	
	16:41	17:15	17:48	26 16:43 (IS03)	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29	
4	07:17	07:02	06:25	16:19 (IS03)	06:35	05:52	05:27	05:30	05:54	06:24	06:53	06:26	07:00	
	16:41	17:16	17:49	23 16:42 (IS03)	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29	
5	07:17	07:01	06:24	16:20 (IS03)	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01	
	16:42	17:17	17:50	19 16:39 (IS03)	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:49	16:29	
6	07:17	07:00	06:22	16:24 (IS03)	06:32	05:50	05:26	05:31	05:56	06:26	06:55	06:29	07:02	
	16:43	17:18	17:51	13 16:37 (IS03)	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29	
7	07:17	06:59	06:21	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03	07:03	
	16:44	17:20	17:52	19:24	19:55	20:21	20:27	20:02	19:18	18:29	8 17:10 (IS03)	16:46	16:29	
8	07:17	06:57	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	16:57 (IS03)	06:31	07:04	
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27	17 17:14 (IS03)	16:45	16:29	
9	07:17	06:56	06:17	06:27	05:46	05:25	05:33	05:59	06:29	06:58	16:55 (IS03)	06:32	07:05	
	16:46	17:22	17:54	19:26	19:57	20:23	20:26	20:01	19:15	18:26	21 17:16 (IS03)	16:44	16:29	
10	07:17	06:55	16:27 (IS03)	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	16:52 (IS03)	06:33	07:05
	16:47	17:23	8 16:35 (IS03)	17:55	19:27	19:58	20:23	20:26	20:00	19:13	18:24	25 17:17 (IS03)	16:43	16:29
11	07:17	06:54	16:22 (IS03)	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	16:50 (IS03)	06:35	07:06
	16:48	17:24	13 16:35 (IS03)	17:56	19:28	19:59	20:24	20:26	19:58	19:12	18:23	28 17:18 (IS03)	16:42	16:29
12	07:17	06:53	16:21 (IS03)	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	16:49 (IS03)	06:36	07:07
	16:49	17:26	16 16:37 (IS03)	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21	29 17:18 (IS03)	16:41	16:29
13	07:16	06:52	16:19 (IS03)	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	16:48 (IS03)	06:37	07:08
	16:50	17:27	19 16:38 (IS03)	17:58	19:30	20:01	20:25	20:25	19:56	19:08	18:20	29 17:17 (IS03)	16:40	16:29
14	07:16	06:50	16:18 (IS03)	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	16:46 (IS03)	06:38	07:09
	16:51	17:28	20 16:38 (IS03)	18:00	19:31	20:02	20:25	20:24	19:54	19:07	18:18	29 17:15 (IS03)	16:40	16:29
15	07:16	06:49	16:16 (IS03)	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:04	16:45 (IS03)	06:39	07:09
	16:52	17:29	22 16:38 (IS03)	18:01	19:32	20:03	20:26	20:24	19:53	19:05	18:16	28 17:13 (IS03)	16:39	16:30
16	07:15	06:48	16:16 (IS03)	06:06	06:17	05:39	05:25	05:38	06:06	06:35	07:05	16:46 (IS03)	06:40	07:10
	16:54	17:30	22 16:38 (IS03)	18:02	19:33	20:04	20:26	20:23	19:52	19:03	18:15	27 17:13 (IS03)	16:38	16:30
17	07:15	06:47	16:15 (IS03)	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	16:45 (IS03)	06:41	07:11
	16:55	17:32	24 16:39 (IS03)	18:03	19:34	20:05	20:26	20:22	19:50	19:02	18:13	27 17:12 (IS03)	16:37	16:30
18	07:14	06:45	16:14 (IS03)	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:07	16:44 (IS03)	06:43	07:11
	16:56	17:33	25 16:39 (IS03)	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12	27 17:11 (IS03)	16:36	16:30
19	07:14	06:44	16:14 (IS03)	06:01	06:12	05:36	05:25	05:40	06:09	06:38	07:09	16:44 (IS03)	06:44	07:12
	16:57	17:34	25 16:39 (IS03)	18:05	19:37	20:06	20:27	20:21	19:48	18:58	18:11	26 17:10 (IS03)	16:36	16:31
20	07:13	06:43	16:14 (IS03)	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	16:44 (IS03)	06:45	07:13
	16:58	17:35	25 16:39 (IS03)	18:06	19:38	20:07	20:27	20:20	19:46	18:57	18:09	26 17:10 (IS03)	16:35	16:31
21	07:13	06:41	16:13 (IS03)	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	16:43 (IS03)	06:46	07:13
	16:59	17:36	26 16:39 (IS03)	18:07	19:39	20:08	20:27	20:20	19:45	18:55	18:08	26 17:09 (IS03)	16:34	07:13
22	07:12	06:40	16:13 (IS03)	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	16:43 (IS03)	06:47	07:14
	17:00	17:37	26 16:39 (IS03)	18:08	19:40	20:09	20:28	20:19	19:43	18:53	18:06	26 17:09 (IS03)	16:34	16:32
23	07:12	06:38	16:12 (IS03)	05:55	06:06	05:33	05:26	05:44	06:13	06:42	07:13	16:43 (IS03)	06:48	07:14
	17:02	17:39	27 16:39 (IS03)	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05	26 17:09 (IS03)	16:33	16:33
24	07:11	06:37	16:13 (IS03)	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	16:45 (IS03)	06:49	07:15
	17:03	17:40	27 16:40 (IS03)	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:03	24 17:09 (IS03)	16:33	16:33
25	07:10	06:36	16:13 (IS03)	05:52	06:04	05:32	05:26	05:45	06:15	06:44	07:15	16:45 (IS03)	06:51	07:15
	17:04	17:41	27 16:40 (IS03)	18:11	19:43	20:12	20:28	20:17	19:39	18:48	17:02	24 16:09 (IS03)	16:32	16:34
26	07:10	06:34	16:13 (IS03)	05:50	06:02	05:31	05:26	05:46	06:15	06:45	07:16	16:45 (IS03)	06:52	07:15
	17:05	17:42	28 16:41 (IS03)	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01	23 16:08 (IS03)	16:32	16:34
27	07:09	06:33	16:13 (IS03)	05:48	06:01	05:30	05:27	05:47	06:16	06:46	07:17	16:46 (IS03)	06:53	07:16
	17:06	17:43	28 16:41 (IS03)	18:13	19:45	20:13	20:28	20:15	19:36	18:45	16:59	21 16:07 (IS03)	16:31	16:35
28	07:08	06:31	16:14 (IS03)	05:47	06:00	05:30	05:27	05:48	06:17	06:47	07:18	16:47 (IS03)	06:54	07:16
	17:08	17:44	29 16:43 (IS03)	18:14	19:46	20:14	20:28	20:14	19:34	18:44	16:58	20 16:07 (IS03)	16:31	16:36
29	07:07		06:45		05:58	05:29	05:28	05:49	06:18	06:48	07:19	16:48 (IS03)	06:55	07:16
	17:09		19:15		19:47	20:15	20:28	20:13	19:33	18:42	16:57	18 16:07 (IS03)	16:30	16:36
30	07:06		06:44		05:57	05:29	05:28	05:50	06:19	06:49	07:20	16:51 (IS03)	06:56	07:17
	17:10		19:16		19:48	20:16	20:28	20:12	19:31	18:40	16:56	15 16:06 (IS03)	16:30	16:37
31	07:05		06:42			05:28		05:51	06:20		06:22	15:53 (IS03)		07:17
	17:11		19:17			20:17		20:11	19:30		16:54	12 16:05 (IS03)		16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291		
Total, worst case		437	139							582	8			
Sun reduction		0,69	0,62							0,66	0,74			
Oper. time red.		0,85	0,85							0,85	0,85			
Wind dir. red.		0,66	0,66							0,66	0,66			
Total reduction		0,39	0,35							0,37	0,42			
Total, real		171	49							218	3			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R36 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (33)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 17:45 (IS03)	05:56 19:18	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:26 (IS03) 17:43 (IS03)	06:23 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 16:51 (IS03)	05:54 19:19	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	17:24 (IS03) 17:41 (IS03)	06:24 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 16:51 (IS03)	05:53 19:20	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:23 (IS03) 17:39 (IS03)	06:25 16:51
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 16:53 (IS03)	05:52 19:21	05:27 20:19	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	17:21 (IS03) 17:38 (IS03)	06:26 16:50
5	07:17 16:42	07:01 17:17	06:24 17:50	06:34 16:54 (IS03)	05:51 19:22	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	17:20 (IS03) 17:36 (IS03)	06:28 16:49
6	07:17 16:43	07:00 17:18	06:22 17:51	06:32 16:56 (IS03)	05:50 19:23	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	17:19 (IS03) 17:34 (IS03)	06:29 16:47
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 16:57 (IS03)	05:48 19:24	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	17:19 (IS03) 17:32 (IS03)	06:30 16:46
8	07:17 16:45	06:57 17:21	06:19 17:53	06:29 16:59 (IS03)	05:47 19:25	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	17:18 (IS03) 17:30 (IS03)	06:31 16:45
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 16:59 (IS03)	05:46 19:26	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	17:18 (IS03) 17:29 (IS03)	06:32 16:44
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 16:44 (IS03)	05:45 19:27	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	17:18 (IS03) 17:27 (IS03)	06:33 16:43
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 16:45 (IS03)	05:44 19:28	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	17:18 (IS03) 17:25 (IS03)	06:35 16:42
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 16:46 (IS03)	05:43 19:29	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	17:18 (IS03) 17:24 (IS03)	06:36 16:41
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 16:49 (IS03)	05:42 19:30	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:19	17:18 (IS03) 17:23 (IS03)	06:37 16:40
14	07:16 16:51	06:50 17:28	06:10 17:59	06:20 16:52 (IS03)	05:41 19:31	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	17:19 (IS03) 17:22 (IS03)	06:38 16:40
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:25	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	17:20 (IS03) 17:22 (IS03)	06:39 16:39
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:33	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:35 19:03	07:05 18:15	17:18 (IS03) 17:22 (IS03)	06:40 16:38
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:34	05:38 20:05	05:25 20:26	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:13	17:18 (IS03) 17:22 (IS03)	06:41 16:37
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:07 18:12	17:18 (IS03) 17:22 (IS03)	06:43 16:36
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:06	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:58	07:09 18:11	17:18 (IS03) 17:22 (IS03)	06:44 16:36
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:20	06:10 19:46	06:39 18:57	07:10 18:09	17:18 (IS03) 17:22 (IS03)	06:45 16:35
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	17:18 (IS03) 17:22 (IS03)	06:46 16:34
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:53	07:12 18:06	17:18 (IS03) 17:22 (IS03)	06:47 16:34
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	17:18 (IS03) 17:22 (IS03)	06:48 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:03	17:18 (IS03) 17:22 (IS03)	06:49 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:48	07:15 18:06	17:18 (IS03) 17:22 (IS03)	06:51 16:32
26	07:10 17:05	06:34 17:42	16:49 (IS03) 18:12	05:50 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	07:16 18:07	17:18 (IS03) 17:22 (IS03)	06:52 16:32
27	07:09 17:06	06:33 17:43	16:49 (IS03) 18:13	05:48 19:45	05:30 20:13	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	07:17 18:06	17:18 (IS03) 17:22 (IS03)	06:53 16:31
28	07:08 17:08	06:31 17:44	16:46 (IS03) 18:14	05:47 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 18:05	17:18 (IS03) 17:22 (IS03)	06:54 16:31
29	07:07 17:09	06:30 17:44	16:50 (IS03) 18:14	05:46 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	07:19 18:04	17:18 (IS03) 17:22 (IS03)	06:55 16:30
30	07:06 17:10	06:29 17:46	16:47 (IS03) 18:13	05:45 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 18:03	17:18 (IS03) 17:22 (IS03)	06:56 16:30
31	07:05 17:11	06:28 17:47	16:46 (IS03) 18:13	05:44 19:47	05:28 20:17	05:28 20:28	05:51 20:11	06:20 19:31	12 17:41 (IS03)	06:22 16:54	17:18 (IS03) 17:22 (IS03)	06:57 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Total, worst case		7	170						12	166		
Sun reduction		0,69	0,62						0,59	0,66		
Oper. time red.		0,85	0,85						0,85	0,85		
Wind dir. red.		0,65	0,65						0,65	0,65		
Total reduction		0,39	0,35						0,33	0,37		
Total, real		3	59						4	61		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker (WTG causing flicker first time)	Last time (hh:mm) with flicker (WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R51 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (34)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December	
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:38 (IS03) 7 17:45 (IS03)	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	17:38 (IS03) 5 17:43 (IS03)	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	17:39 (IS03) 2 17:41 (IS03)	06:25 16:51	06:59 16:29
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:19	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34		06:26 16:50	07:00 16:29
5	07:17 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:27	05:55 20:06	06:25 19:22	06:54 18:32		06:28 16:48	07:01 16:29
6	07:17 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30		06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29		06:30 16:46	07:03 16:29
8	07:17 16:45	06:57 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27		06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26		06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	17:00 (IS03) 17:01 (IS03)	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13		06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	17:00 (IS03) 17:04 (IS03)	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12		06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	16:59 (IS03) 17:05 (IS03)	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10		06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	16:59 (IS03) 17:06 (IS03)	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08		06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 17:59	16:58 (IS03) 17:07 (IS03)	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07		06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	16:58 (IS03) 17:08 (IS03)	06:18 19:32	05:40 20:03	05:25 20:25	05:37 20:24	06:05 19:53	06:35 19:05		06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	16:58 (IS03) 17:10 (IS03)	06:17 19:33	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:35 19:03		06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	16:58 (IS03) 17:10 (IS03)	06:15 19:34	05:38 20:05	05:25 20:26	05:39 20:22	06:07 19:50	06:36 19:02		06:41 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	16:58 (IS03) 17:10 (IS03)	06:14 19:35	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00		06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	16:58 (IS03) 17:12 (IS03)	06:12 19:37	05:36 20:06	05:25 20:27	05:40 20:21	06:09 19:47	06:38 18:58		06:44 16:35	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	17:01 (IS03) 17:13 (IS03)	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:20	06:10 19:46	06:39 18:57		06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	17:02 (IS03) 17:14 (IS03)	06:09 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55		06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	17:06 (IS03) 17:12 (IS03)	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:53	17:48 (IS03) 12 18:00 (IS03)	07:12 18:06	07:14 16:34
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:26 20:18	05:44 19:42	06:13 18:52	06:42 18:53	17:45 (IS03) 13 17:58 (IS03)	07:13 18:05	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:26 20:17	05:44 19:40	06:14 18:50	06:43 18:50	17:44 (IS03) 12 17:56 (IS03)	07:14 18:03	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:26 20:17	06:15 19:39	06:44 18:48	06:44 18:48	17:42 (IS03) 12 17:54 (IS03)	06:15 17:02	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:26 20:16	06:15 19:37	06:45 18:47	06:45 18:47	17:41 (IS03) 12 17:53 (IS03)	06:16 17:01	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	05:27 20:28	05:27 20:15	06:16 19:36	06:46 18:45	06:46 18:45	17:40 (IS03) 12 17:52 (IS03)	06:17 16:59	07:16 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:27 20:14	06:17 19:34	06:47 18:44	06:47 18:44	17:39 (IS03) 11 17:50 (IS03)	06:18 16:58	07:16 16:36
29	07:07 17:09	06:30 17:45	05:46 18:15	05:58 19:47	05:29 20:15	05:28 20:28	05:28 20:13	06:18 19:33	06:48 18:42	06:48 18:42	17:39 (IS03) 9 17:48 (IS03)	06:20 16:57	07:16 16:36
30	07:06 17:10	06:29 17:46	05:45 18:16	05:57 19:48	05:29 20:16	05:28 20:28	05:28 20:12	06:19 19:31	06:49 18:40	06:49 18:40	17:38 (IS03) 8 17:46 (IS03)	06:21 16:56	07:17 16:37
31	07:05 17:11	06:28 17:47	05:44 18:17	05:56 19:49	05:28 20:17	05:28 20:28	05:28 20:11	06:20 19:30	06:50 18:40	06:50 18:40		06:22 16:54	07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346		300	291
Total, worst case			115						101	14			
Sun reduction			0,62						0,59	0,66			
Oper. time red.			0,85						0,85	0,85			
Wind dir. red.			0,66						0,66	0,66			
Total reduction			0,35						0,33	0,37			
Total, real			40						34	5			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: R52 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (39)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December	
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	17:40 (IS03) 5 17:45 (IS03)	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:27 20:28	05:53 20:09	06:22 19:26	06:51 18:37	17:40 (IS03) 4 17:44 (IS03)	06:24 16:52	06:58 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:27 20:28	05:53 20:08	06:23 19:25	06:52 18:35		06:25 16:51	06:59 16:29
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:19	05:27 20:28	05:54 20:07	06:24 19:23	06:53 18:34		06:26 16:50	07:00 16:29
5	07:17 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:26 20:27	05:55 20:06	06:25 19:22	06:54 18:32		06:28 16:48	07:01 16:29
6	07:17 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:26 20:27	05:56 20:04	06:26 19:20	06:55 18:30		06:29 16:47	07:02 16:29
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:26 20:27	05:57 20:03	06:27 19:18	06:56 18:29		06:30 16:46	07:03 16:29
8	07:17 16:45	06:57 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:25 20:27	05:58 20:02	06:28 19:17	06:57 18:27		06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:25 20:26	05:59 20:01	06:29 19:15	06:58 18:26		06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:25 20:26	06:00 20:00	06:30 19:13	06:59 18:24		06:33 16:43	07:05 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	17:02 (IS03) 06:24	17:04 (IS03) 19:28	05:44 19:59	05:25 20:24	06:01 20:26	06:31 19:12	07:00 18:23		06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	17:01 (IS03) 06:23	17:05 (IS03) 19:29	05:43 20:00	05:25 20:24	06:02 20:25	06:32 19:10	07:01 18:21		06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	17:01 (IS03) 06:21	17:07 (IS03) 19:30	05:42 20:01	05:25 20:25	06:03 19:56	06:33 19:08	07:02 18:19		06:37 16:40	07:08 16:29
14	07:16 16:51	06:50 17:28	06:10 17:59	17:00 (IS03) 06:20	17:08 (IS03) 19:31	05:41 20:02	05:25 20:25	06:04 19:54	06:34 19:07	07:03 18:18		06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	17:00 (IS03) 06:18	17:09 (IS03) 19:32	05:40 20:03	05:25 20:24	06:05 19:53	06:35 19:05	07:04 18:16		06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	17:00 (IS03) 06:17	17:09 (IS03) 19:32	05:39 20:04	05:25 20:23	06:06 19:52	06:35 19:03	07:05 18:15		06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	17:00 (IS03) 06:15	17:11 (IS03) 19:34	05:38 20:05	05:25 20:22	06:07 19:50	06:36 19:02	07:06 18:13		06:41 16:37	07:11 16:30
18	07:14 16:56	06:45 17:33	06:03 18:04	17:00 (IS03) 06:14	17:11 (IS03) 19:35	05:37 20:06	05:25 20:22	06:08 19:49	06:37 19:00	07:07 18:12		06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	17:00 (IS03) 06:12	17:12 (IS03) 19:36	05:36 20:06	05:25 20:22	06:09 19:47	06:38 18:58	07:09 18:11		06:44 16:35	07:12 16:31
20	07:13 16:58	06:43 17:35	06:00 18:06	17:00 (IS03) 06:11	17:13 (IS03) 19:37	05:35 20:06	05:25 20:21	06:10 19:47	06:39 18:58	07:10 18:11		06:45 16:34	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	17:04 (IS03) 06:09	17:14 (IS03) 19:38	05:35 20:07	05:25 20:20	06:11 19:46	06:40 18:57	07:11 18:09		06:46 16:33	07:13 16:31
22	07:12 17:00	06:40 17:37	05:57 18:08	17:15 (IS03) 06:08	17:08 (IS03) 19:40	05:34 20:09	05:25 20:20	06:12 19:45	06:41 18:55	07:12 18:08	17:50 (IS03)	06:47 16:32	07:14 16:32
23	07:12 17:02	06:38 17:39	05:55 18:09	17:13 (IS03) 06:06	17:13 (IS03) 19:40	05:33 20:09	05:26 20:20	06:13 19:43	06:42 18:53	07:13 18:06	18:00 (IS03)	06:48 16:34	07:14 16:34
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:41	05:32 20:11	05:26 20:20	05:26 20:18	06:14 19:42	06:43 18:52	07:14 18:05	17:45 (IS03)	06:49 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:42	05:32 20:11	05:26 20:20	05:26 20:17	06:15 19:39	06:44 18:48	07:15 18:06	17:44 (IS03)	06:50 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:20	05:26 20:16	06:15 19:37	06:45 18:47	07:16 18:05	17:43 (IS03)	06:52 16:32	07:15 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	05:27 20:20	05:27 20:15	06:16 19:36	06:46 18:45	07:17 18:04	17:42 (IS03)	06:53 16:31	07:16 16:35
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:20	05:27 20:14	06:17 19:34	06:47 18:44	07:18 18:03	17:41 (IS03)	06:54 16:31	07:16 16:36
29	07:07 17:09	06:30 17:45	05:46 18:15	05:58 19:47	05:29 20:15	05:28 20:20	05:49 20:13	06:18 19:33	06:48 18:42	07:19 18:02	17:41 (IS03)	06:55 16:30	07:16 16:36
30	07:06 17:10	06:30 17:46	05:45 18:16	05:57 19:48	05:29 20:16	05:28 20:20	05:50 20:12	06:19 19:31	06:49 18:40	07:20 18:01	17:40 (IS03)	06:56 16:30	07:17 16:37
31	07:05 17:11	06:30 17:47	05:44 18:17	06:00 19:49	05:28 20:17	05:28 20:20	05:51 20:11	06:20 19:30	06:50 18:40	07:21 18:00	17:47 (IS03)	06:57 16:30	07:17 16:38
Potential sun hours	300	298	370	398	446	449	456	426	375	346		300	291
Total, worst case			100						91	9			
Sun reduction			0,62						0,59	0,66			
Oper. time red.			0,85						0,85	0,85			
Wind dir. red.			0,66						0,66	0,66			
Total reduction			0,35						0,33	0,37			
Total, real			35						30	3			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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SHADOW - Calendar

Shadow receptor: R71 - Shadow Receptor: 1,0 × 1,0 Azimuth: 0,0° Slope: 90,0° (40)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

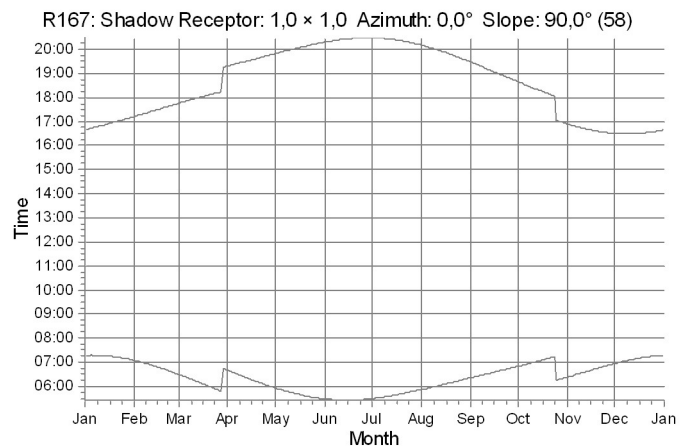
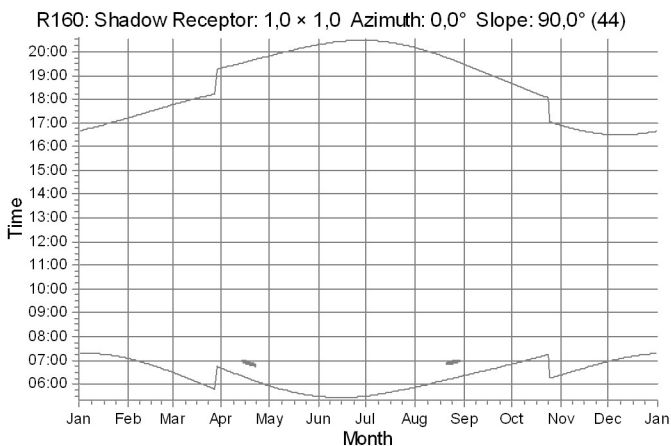
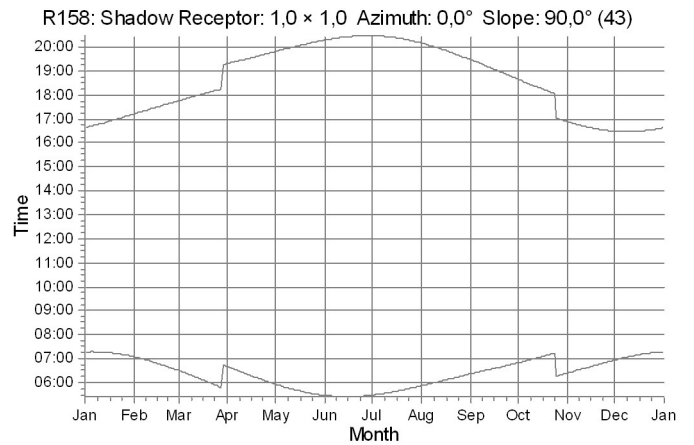
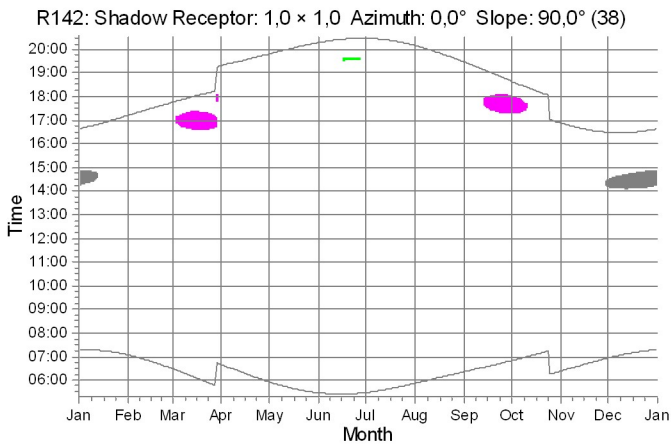
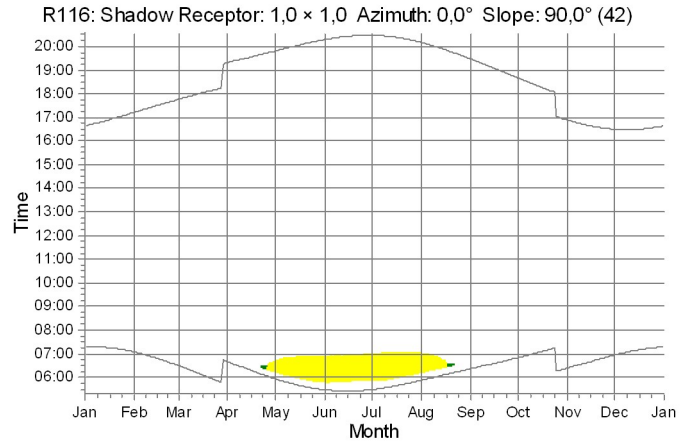
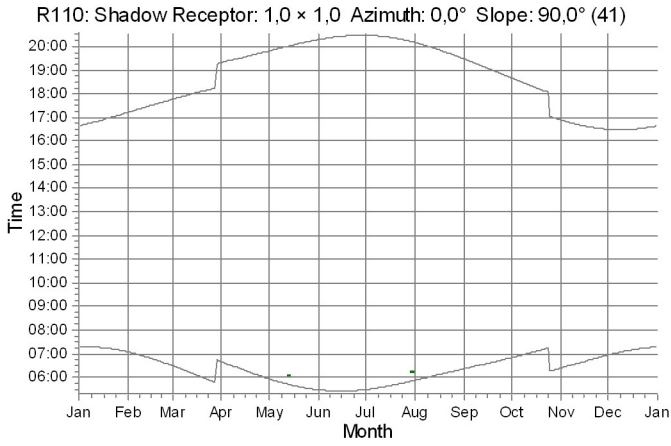
N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December		
1	07:17 16:39	07:05 17:12	16:27 (IS03) 16:29 (IS03)	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	15:48 (IS03) 16:07 (IS03)	06:57 16:30
2	07:17 16:40	07:04 17:14	16:24 (IS03) 16:30 (IS03)	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	06:24 16:52	15:48 (IS03) 16:06 (IS03)	06:58 16:29
3	07:17 16:41	07:03 17:15	16:23 (IS03) 16:31 (IS03)	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	15:49 (IS03) 16:07 (IS03)	06:59 16:29
4	07:17 16:41	07:02 17:16	16:22 (IS03) 16:32 (IS03)	06:25 17:49	06:35 19:21	05:52 19:52	05:27 20:19	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	15:50 (IS03) 16:06 (IS03)	07:00 16:29
5	07:17 16:42	07:01 17:17	16:21 (IS03) 16:33 (IS03)	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	15:50 (IS03) 16:04 (IS03)	07:01 16:29
6	07:17 16:43	07:00 17:18	16:20 (IS03) 16:35 (IS03)	06:22 17:51	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	06:29 16:47	15:51 (IS03) 16:03 (IS03)	07:02 16:29
7	07:17 16:44	06:59 17:20	16:20 (IS03) 16:36 (IS03)	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:21	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	15:53 (IS03) 16:03 (IS03)	07:03 16:29
8	07:17 16:45	06:57 17:21	16:19 (IS03) 16:37 (IS03)	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	15:54 (IS03) 16:02 (IS03)	07:04 16:29
9	07:17 16:46	06:56 17:22	16:19 (IS03) 16:38 (IS03)	06:17 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	15:55 (IS03) 16:01 (IS03)	07:05 16:29
10	07:17 16:47	06:55 17:23	16:19 (IS03) 16:38 (IS03)	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	15:58 (IS03) 16:00 (IS03)	07:05 16:29
11	07:17 16:48	06:54 17:24	16:20 (IS03) 16:37 (IS03)	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	16:00 (IS03) 16:03 (IS03)	07:06 16:29
12	07:17 16:49	06:53 17:26	16:19 (IS03) 16:38 (IS03)	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	16:03 (IS03) 16:04 (IS03)	07:07 16:29
13	07:17 16:50	06:52 17:27	16:19 (IS03) 16:39 (IS03)	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:19	06:37 16:40	16:04 (IS03) 16:05 (IS03)	07:08 16:29
14	07:17 16:51	06:50 17:28	16:20 (IS03) 16:39 (IS03)	06:10 17:59	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	16:05 (IS03) 16:06 (IS03)	07:09 16:29
15	07:17 16:52	06:49 17:29	16:20 (IS03) 16:38 (IS03)	06:08 18:01	06:18 19:32	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:40	16:07 (IS03) 16:08 (IS03)	07:10 16:29
16	07:17 16:54	06:48 17:30	16:21 (IS03) 16:39 (IS03)	06:06 18:02	06:17 19:33	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:35 19:03	07:05 18:15	06:40 16:38	16:09 (IS03) 16:10 (IS03)	07:11 16:30
17	07:17 16:55	06:47 17:32	16:22 (IS03) 16:39 (IS03)	06:05 18:03	06:15 19:34	05:38 20:05	05:25 20:26	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:13	06:41 16:37	16:11 (IS03) 16:12 (IS03)	07:11 16:30
18	07:17 16:56	06:45 17:33	16:23 (IS03) 16:39 (IS03)	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:07 18:12	06:43 16:36	16:13 (IS03) 16:14 (IS03)	07:11 16:30
19	07:17 16:57	06:44 17:34	16:25 (IS03) 16:40 (IS03)	06:01 18:05	06:12 19:37	05:36 20:06	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:58	07:09 18:11	06:44 16:36	16:15 (IS03) 16:16 (IS03)	07:12 16:31
20	07:17 16:58	06:43 17:35	16:28 (IS03) 16:38 (IS03)	06:00 18:06	06:11 19:38	05:35 20:07	05:25 20:27	05:41 20:20	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	16:17 (IS03) 16:18 (IS03)	07:13 16:31
21	07:17 16:59	06:41 17:36	16:30 (IS03) 16:39 (IS03)	06:00 18:07	06:10 19:39	05:35 20:08	05:25 20:27	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	16:19 (IS03) 16:20 (IS03)	07:13 16:32
22	07:17 17:00	06:40 17:37	16:31 (IS03) 16:40 (IS03)	06:00 18:08	06:09 19:40	05:35 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:53	07:12 18:06	06:47 16:34	16:21 (IS03) 16:22 (IS03)	07:14 16:32
23	07:17 17:02	06:38 17:39	16:32 (IS03) 16:40 (IS03)	06:00 18:09	06:06 19:41	05:33 20:10	05:26 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	16:23 (IS03) 16:24 (IS03)	07:14 16:33
24	07:17 17:03	06:37 17:40	16:33 (IS03) 16:41 (IS03)	06:00 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:03	06:49 16:33	16:25 (IS03) 16:26 (IS03)	07:15 16:33
25	07:17 17:04	06:36 17:41	16:34 (IS03) 16:42 (IS03)	06:00 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:48	07:15 18:02	06:51 16:34	16:27 (IS03) 16:28 (IS03)	07:15 16:34
26	07:17 17:05	06:34 17:42	16:35 (IS03) 16:43 (IS03)	06:00 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	07:16 18:01	06:52 16:34	16:29 (IS03) 16:30 (IS03)	07:15 16:34
27	07:17 17:06	06:33 17:43	16:36 (IS03) 16:44 (IS03)	06:00 18:13	06:01 19:45	05:30 20:13	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	07:17 18:00	06:53 16:35	16:31 (IS03) 16:32 (IS03)	07:16 16:35
28	07:17 17:08	06:31 17:44	16:37 (IS03) 16:45 (IS03)	06:00 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	07:18 18:00	06:54 16:36	16:33 (IS03) 16:34 (IS03)	07:16 16:36
29	07:17 17:09	06:30 17:45	16:38 (IS03) 16:46 (IS03)	06:00 18:15	06:00 19:47	05:29 20:15	05:28 20:28	05:49 20:13	06:18 19:33	06:48 18:42	07:19 18:00	06:55 16:37	16:35 (IS03) 16:36 (IS03)	07:16 16:36
30	07:17 17:10	06:29 17:46	16:39 (IS03) 16:47 (IS03)	06:00 18:16	06:00 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	07:20 18:00	06:56 16:38	16:37 (IS03) 16:38 (IS03)	07:17 16:37
31	07:17 17:11	06:28 17:47	16:40 (IS03) 16:48 (IS03)	06:00 18:17	06:00 19:49	05:28 20:17	05:28 20:28	05:51 20:11	06:20 19:30	06:50 18:40	07:21 18:00	06:57 16:39	16:39 (IS03) 16:40 (IS03)	07:17 16:38
Potential sun hours	300	298	295	370	398	446	449	456	426	375	346	300	291	291
Total, worst case			295								179		123	
Sun reduction			0,69								0,66		0,74	
Oper. time red.			0,85								0,85		0,85	
Wind dir. red.			0,66								0,66		0,66	
Total reduction			0,39								0,37		0,42	
Total, real			116								67		51	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	Minutes with flicker		

SHADOW - Calendar, graphical

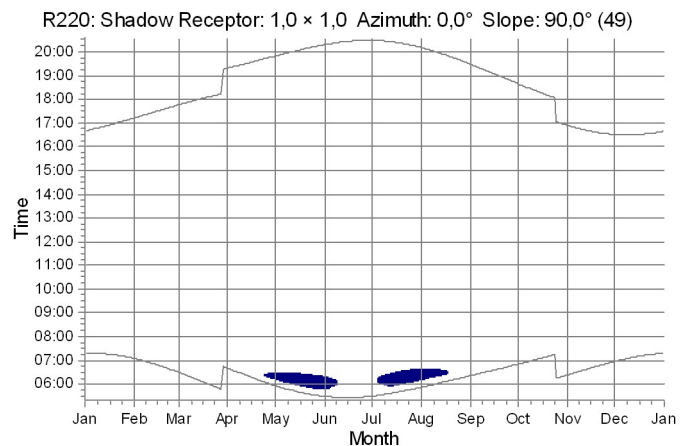
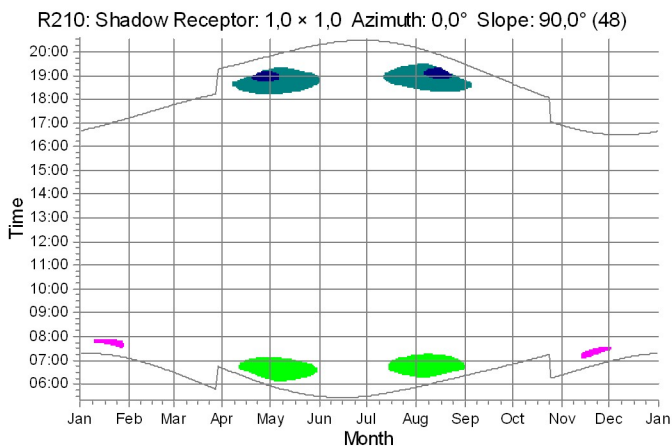
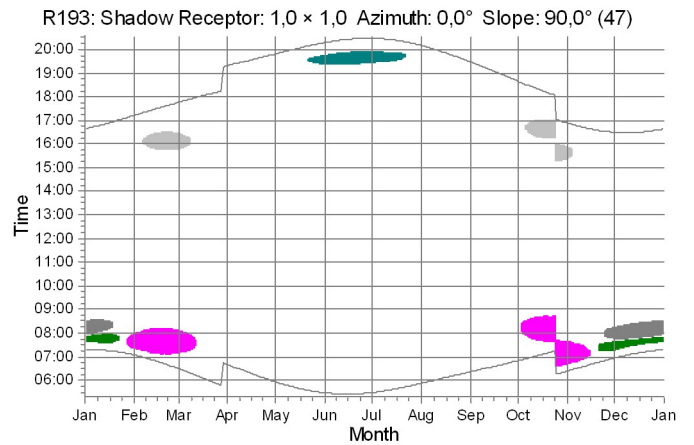
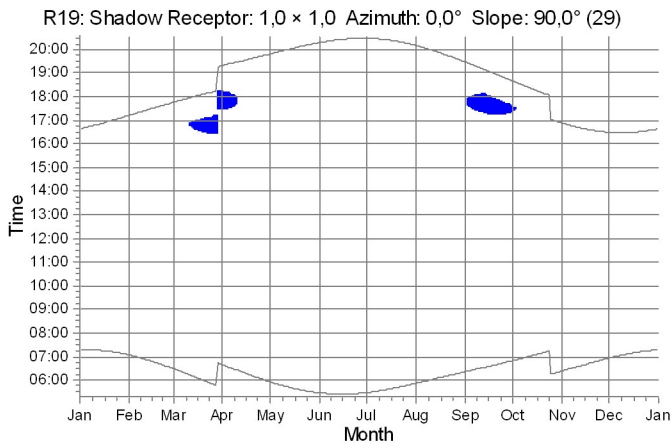
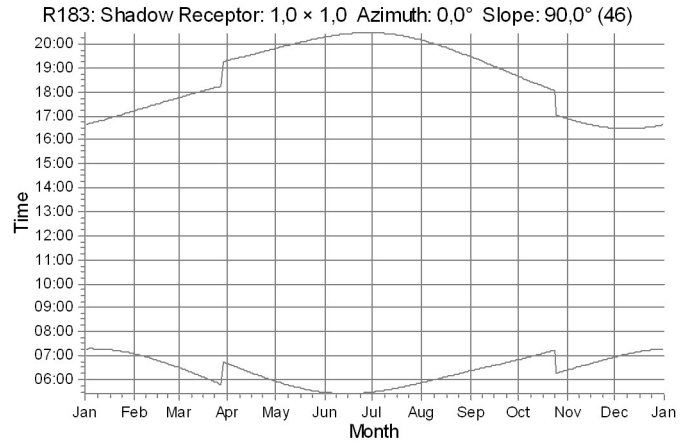
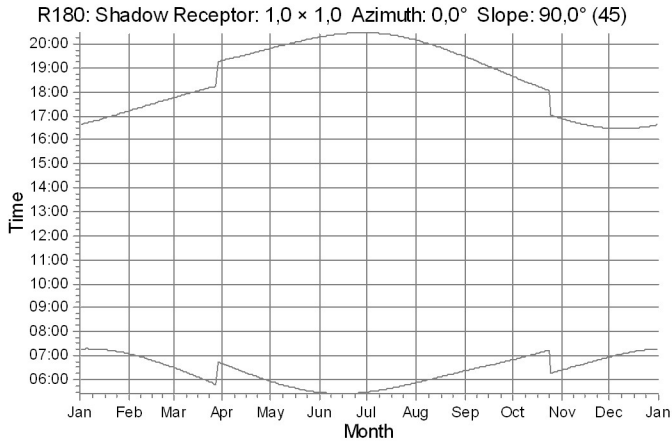


WTGs





- IS01: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)
- IS02: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (2)
- IS04: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)





- IS05: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)
- IS09: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)

SHADOW - Calendar, graphical

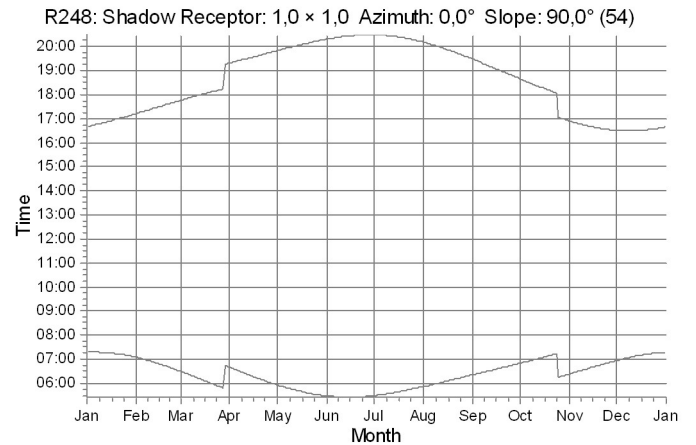
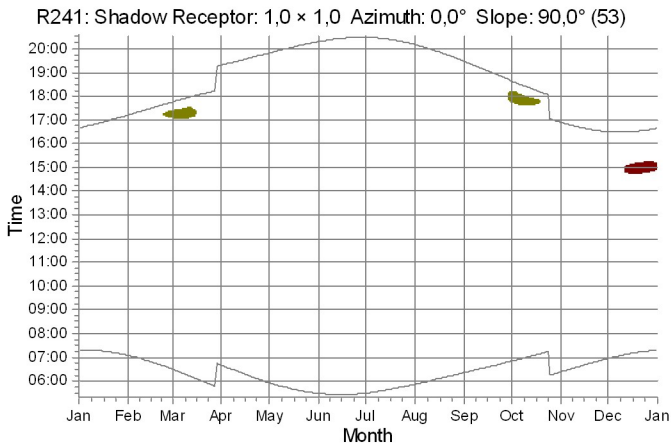
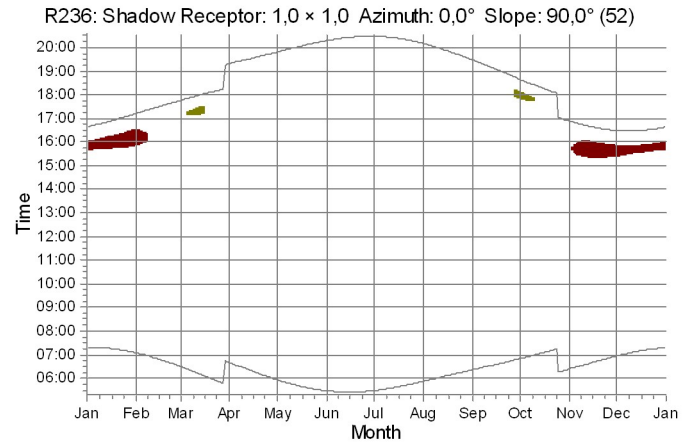
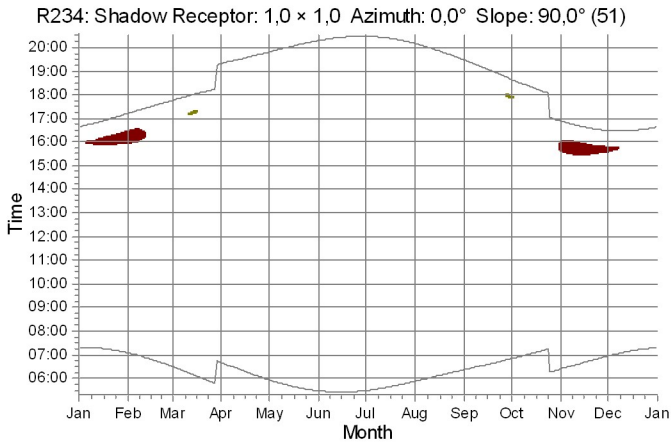
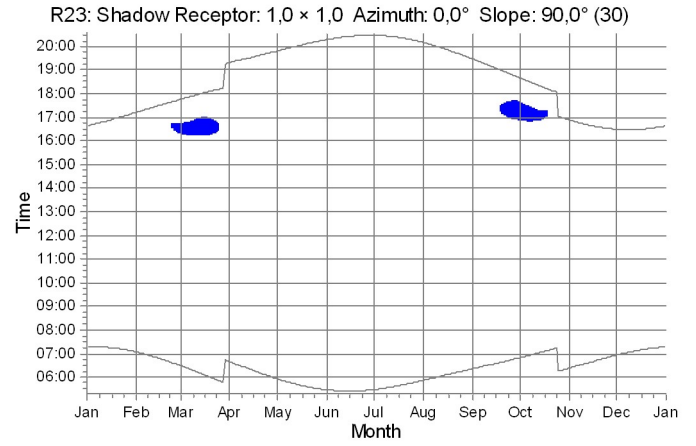
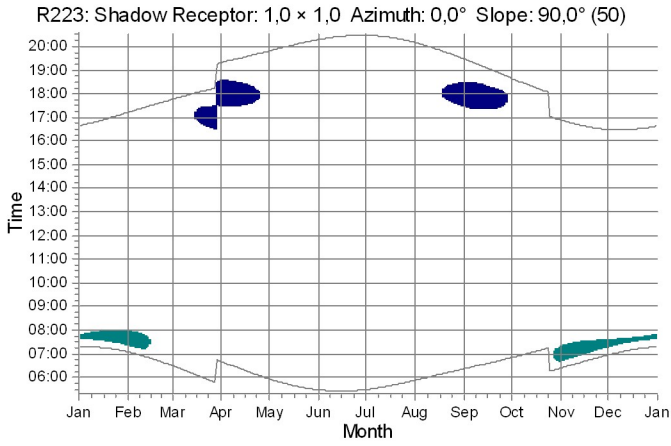


WTGs

	IS01: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)
	IS03: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)
	IS04: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)
	IS05: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)

	IS06: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)
	IS07: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)
	IS09: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)
	IS12: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)

SHADOW - Calendar, graphical

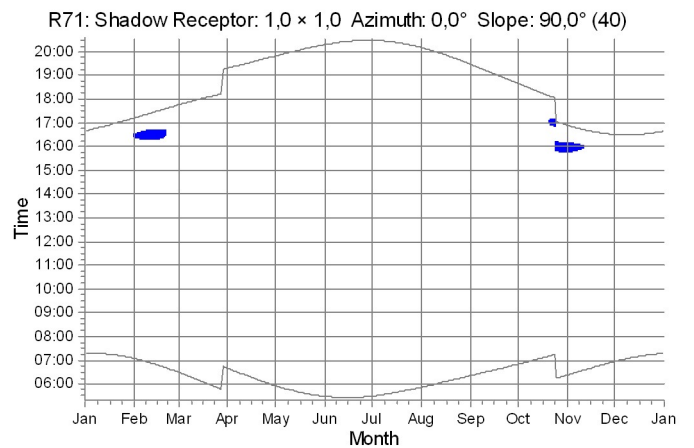
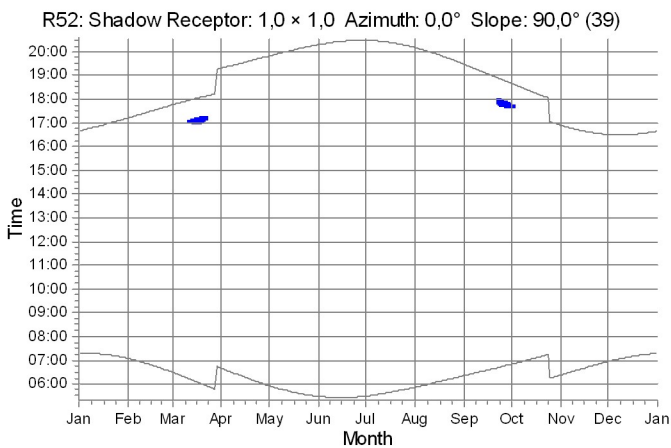
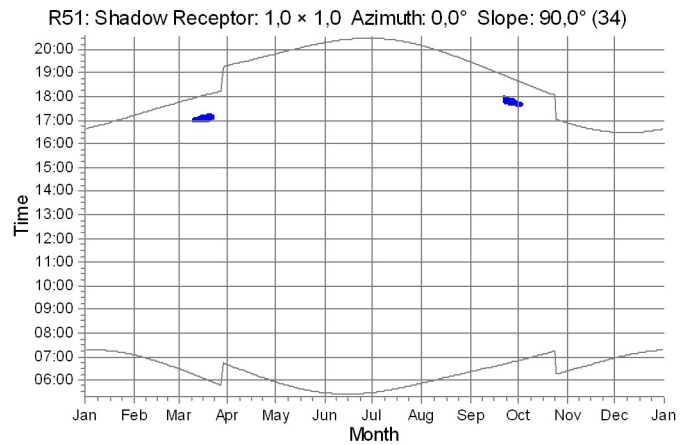
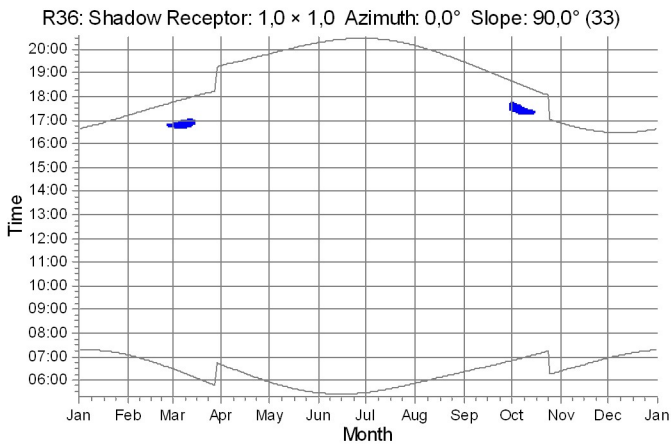
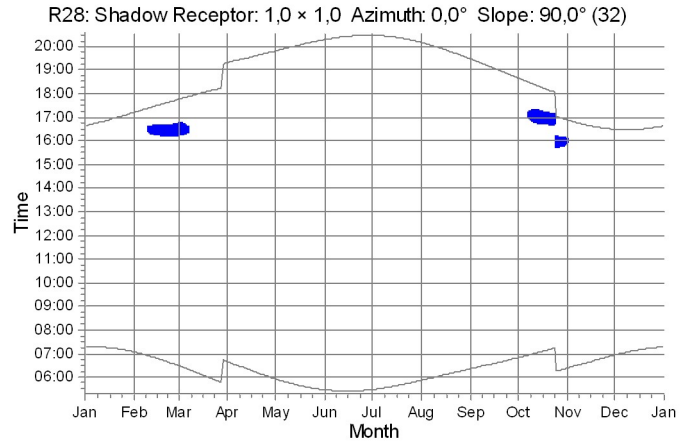
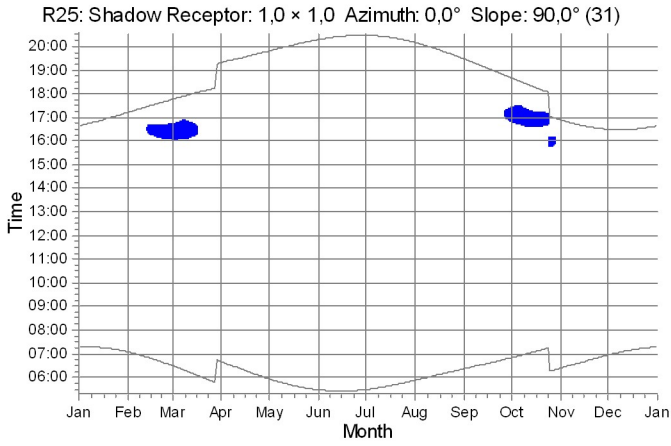


WTGs


- IS03: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)
- IS06: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)
- IS07: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)

- IS08: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)
- IS10: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)

SHADOW - Calendar, graphical



WTGs

 IS03: VESTAS V162-6.0 6000 162.0 !0! hub: 125,0 m (TOT: 206,0 m) (3)

SHADOW - Calendar per WTG

WTG: IS01 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 07:39-07:49/10 16:39	07:05 06:30 17:12 17:45	06:40	06:40	05:56	05:28
2	07:17 07:39-07:50/11 16:40	07:04 06:28 17:13 17:46	06:39	06:39	05:54	05:27
3	07:17 07:39-07:50/11 16:41	07:03 06:27 17:15 17:48	06:37	06:37	05:53	05:27
4	07:17 07:39-07:51/12 16:41	07:02 06:25 17:16 17:49	06:35	06:35	05:52	05:26
5	07:17 07:39-07:51/12 16:42	07:01 06:24 17:17 17:50	06:34	06:34	05:51	05:26
6	07:17 07:39-07:52/13 16:43	07:00 06:22 17:18 17:51	06:32	06:32	05:49	05:26
7	07:17 07:39-07:53/14 16:44	06:59 06:21 17:20 17:52	06:31	06:31	05:48	05:26
8	07:17 07:39-07:53/14 16:45	06:57 06:19 17:21 17:53	06:29	06:29	05:47	05:25
9	07:17 07:39-07:54/15 16:46	06:56 06:17 17:22 17:54	06:27	06:27	05:46	05:25
10	07:17 07:38-07:54/16 16:47	06:55 06:16 17:23 17:55	06:26	06:26	05:45	05:25
11	07:17 07:38-07:54/16 16:48	06:54 06:14 17:24 17:56	06:24	06:24	05:44	05:25
12	07:17 07:38-07:55/17 16:49	06:53 06:13 17:26 17:57	06:23	06:23	05:43	05:25
13	07:16 07:37-07:54/17 16:50	06:52 06:11 17:27 17:58	06:21	06:21	05:42	05:25
14	07:16 07:37-07:55/18 16:51	06:50 06:09 17:28 17:59	06:20	06:20	05:41	05:24
15	07:16 07:37-07:55/18 16:52	06:49 06:08 17:29 18:00	06:18	06:18	05:40	05:24
16	07:15 07:37-07:55/18 16:53	06:48 06:06 17:30 18:02	06:17	06:17	05:39	05:24
17	07:15 07:38-07:55/17 16:55	06:47 06:05 17:32 18:03	06:15	06:15	05:38	05:25
18	07:14 07:39-07:54/15 16:56	06:45 06:03 17:33 18:04	06:14	06:14	05:37	05:25
19	07:14 07:41-07:54/13 16:57	06:44 06:01 17:34 18:05	06:12	06:12	05:36	05:25
20	07:13 07:42-07:53/11 16:58	06:43 06:00 17:35 18:06	06:11	06:11	05:35	05:25
21	07:13 07:43-07:51/8 16:59	06:41 05:58 17:36 18:07	06:09	06:09	05:35	05:25
22	07:12 17:00	06:40 05:56 17:37 18:08	06:08	06:08 06:26-06:27/1	05:34	05:25
23	07:12 17:01	06:38 05:55 17:38 18:09	06:06	06:06 06:25-06:27/2	05:33	05:25
24	07:11 17:03	06:37 05:53 17:40 18:10	06:05	06:05 06:24-06:27/3	05:32	05:26
25	07:10 17:04	06:36 05:52 17:41 18:11	06:04	06:04 06:22-06:26/4	05:32	05:26
26	07:10 17:05	06:34 05:50 17:42 18:12	06:02	06:02 06:21-06:25/4	05:31	05:26
27	07:09 17:06	06:33 05:48 17:43 18:13	06:01	06:01 06:20-06:24/4	05:30	05:27
28	07:08 17:07	06:31 05:47 17:44 18:14	05:59	05:59 06:18-06:22/4	05:30	05:27
29	07:07 17:09	06:30 05:45 17:45 18:15	05:58	05:58 06:17-06:20/3	05:29	05:27
30	07:06 17:10	06:29 05:43 17:46 18:16	05:57	05:57	05:29	05:28
31	07:05 17:11	06:28 05:42 17:47 18:17	05:56	05:56	05:28	05:28
Potential sun hours	300	298	370	398	446	449
Sum of minutes with flicker	296	0	0	25	1	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS01 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (1)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 07:20-07:36/16 16:30
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 07:21-07:37/16 16:29
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 07:22-07:37/15 16:29
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:26 16:50	07:00 07:23-07:37/14 16:29
5	05:30 20:27	05:55 20:05	06:25 19:22	06:54 18:32	06:28 16:48	07:01 07:24-07:38/14 16:29
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:30	06:29 16:47	07:02 07:25-07:38/13 16:29
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 07:26-07:38/12 16:29
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 07:27-07:39/12 16:29
9	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:04 07:28-07:39/11 16:29
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:05 07:29-07:40/11 16:29
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 07:30-07:40/10 16:29
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 07:30-07:40/10 16:29
13	05:36 20:25	06:03 19:56	06:33 19:08	07:02 18:19	06:37 16:40	07:08 07:31-07:40/9 16:29
14	05:36 20:24	06:04 06:25-06:28/3 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 07:32-07:41/9 16:29
15	05:37 20:24	06:05 06:26-06:30/4 19:53	06:34 19:05	07:04 18:16	06:39 16:39	07:09 07:33-07:41/8 16:29
16	05:38 20:23	06:06 06:27-06:31/4 19:52	06:35 19:03	07:05 18:15	06:40 16:38	07:10 07:33-07:41/8 16:30
17	05:39 20:22	06:07 06:28-06:32/4 19:50	06:36 19:02	07:06 18:13	06:41 16:37	07:11 07:34-07:42/8 16:30
18	05:39 20:22	06:08 06:29-06:33/4 19:49	06:37 19:00	07:07 18:12	06:43 16:36	07:11 07:35-07:42/7 16:30
19	05:40 20:21	06:09 06:30-06:33/3 19:47	06:38 18:58	07:08 18:10	06:44 16:36	07:12 07:35-07:42/7 16:31
20	05:41 20:20	06:10 06:31-06:33/2 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 07:36-07:43/7 16:31
21	05:42 20:20	06:11 06:32-06:33/1 19:45	06:40 18:55	07:11 18:08	06:46 07:19-07:27/8 16:34	07:13 07:36-07:43/7 16:32
22	05:43 20:19	06:12 19:43	06:41 18:53	07:12 18:06	06:47 07:18-07:29/11 16:34	07:14 07:37-07:44/7 16:32
23	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 07:17-07:30/13 16:33	07:14 07:37-07:44/7 16:33
24	05:44 20:17	06:13 19:40	06:43 18:50	07:14 18:03	06:49 07:16-07:31/15 16:32	07:15 07:37-07:44/7 16:33
25	05:45 20:17	06:14 19:39	06:44 18:48	07:15 17:02	06:50 07:16-07:33/17 16:32	07:15 07:38-07:45/7 16:34
26	05:46 20:16	06:15 19:37	06:45 18:47	07:16 17:01	06:52 07:16-07:34/18 16:32	07:15 07:38-07:46/8 16:34
27	05:47 20:15	06:16 19:36	06:46 18:45	07:17 16:59	06:53 07:16-07:34/18 16:31	07:16 07:38-07:46/8 16:35
28	05:48 20:14	06:17 19:34	06:47 18:43	07:18 16:58	06:54 07:17-07:35/18 16:31	07:16 07:39-07:47/8 16:36
29	05:49 20:13	06:18 19:33	06:48 18:42	07:19 16:57	06:55 07:18-07:35/17 16:30	07:16 07:39-07:48/9 16:36
30	05:50 06:12-06:13/1 20:12	06:19 19:31	06:49 18:40	07:20 16:56	06:56 07:19-07:36/17 16:30	07:17 07:39-07:48/9 16:37
31	05:51 06:12-06:13/1 20:11	06:20 19:29		07:21 16:54		07:17 07:39-07:48/9 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	2	25	0	0	152	303

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS02 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (2)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15-06:40/25 20:17	05:49-06:53/64 20:28	05:55-06:58/63 20:10	05:52 20:20	06:13-06:59/46 19:28	06:50 18:39	06:23 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	06:13-06:41/28 20:18	05:48-06:52/64 20:28	05:55-06:58/63 20:09	05:53 20:08	06:14-06:59/45 19:26	06:51 18:37	06:24 16:52
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12-06:42/30 20:19	05:48-06:53/65 20:27	05:55-06:59/64 20:28	05:53 20:08	06:15-06:58/43 19:25	06:52 18:35	06:25 16:51
4	07:17 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	06:11-06:44/33 20:20	05:49-06:53/64 20:28	05:55-06:59/64 20:28	05:54 20:07	06:16-06:58/42 19:23	06:53 18:34	06:26 16:50
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10-06:45/35 20:20	05:49-06:54/65 20:28	05:55-06:59/64 20:28	05:55 20:06	06:17-06:57/40 19:22	06:54 18:32	06:28 16:49
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:50 19:54	06:09-06:46/37 20:21	05:49-06:53/64 20:27	05:55-06:59/64 20:27	05:56 20:04	06:18-06:56/38 19:20	06:55 18:30	06:29 16:47
7	07:17 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:08-06:47/39 20:21	05:49-06:53/64 20:27	05:55-07:00/65 20:03	05:57 20:03	06:19-06:55/36 19:18	06:56 18:29	06:30 16:46
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	06:07-06:48/41 20:22	05:50-06:54/64 20:27	05:55-06:59/64 20:27	05:58 20:02	06:20-06:54/34 19:17	06:57 18:27	06:31 16:45
9	07:17 16:46	06:56 17:22	06:17 17:54	06:27 19:26	05:46 19:57	06:06-06:48/42 20:23	05:50-06:54/64 20:26	05:55-07:00/65 20:01	05:59 20:01	06:21-06:53/32 19:15	06:58 18:26	06:32 16:44
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	06:05-06:49/44 20:23	05:51-06:54/63 20:26	05:56-07:01/65 20:00	06:00 19:31	06:22-06:52/30 18:24	06:59 18:24	06:33 16:43
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	06:04-06:49/45 20:24	05:50-06:53/63 20:26	05:56-07:00/64 19:58	06:01 19:12	06:22-06:49/27 18:23	07:00 18:23	06:35 16:42
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	06:03-06:50/47 20:24	05:50-06:53/63 20:25	05:57-07:01/64 19:57	06:02 19:10	06:23-06:48/25 18:21	07:01 18:21	06:36 16:41
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	06:02-06:50/48 20:25	05:51-06:54/63 20:25	05:58-07:01/63 20:25	06:03 19:56	06:24-06:46/22 19:08	07:02 18:19	06:37 16:40
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	06:01-06:50/49 20:25	05:51-06:54/63 20:24	05:59-07:02/63 19:54	06:04 19:07	06:25-06:43/18 18:18	07:03 18:18	06:38 16:40
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	06:00-06:51/51 20:26	05:51-06:54/63 20:24	05:59-07:01/62 20:24	06:05 19:53	06:26-06:41/15 18:16	07:04 18:16	06:39 16:39
16	07:15 16:53	06:48 17:30	06:06 18:02	06:17 19:33	05:39 20:04	05:59-06:51/52 20:26	05:51-06:54/63 20:23	06:00-07:02/62 19:52	06:06 19:03	06:27-06:37/10 18:15	07:05 18:15	06:40 16:38
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:58-06:51/53 20:26	05:52-06:55/63 20:22	06:01-07:02/61 19:50	06:07 19:02	06:27-06:37/10 18:13	07:06 18:13	06:42 16:37
18	07:14 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:57-06:51/54 20:27	05:53-06:55/62 20:22	06:02-07:02/60 19:49	06:08 19:00	06:27-06:37/10 18:12	07:07 18:12	06:43 16:36
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:06	05:56-06:51/55 20:27	05:53-06:55/62 20:21	06:02-07:02/60 19:48	06:09 18:58	06:27-06:37/10 18:11	07:09 18:11	06:44 16:36
20	07:13 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	05:56-06:52/56 20:27	05:53-06:55/62 20:20	06:03-07:02/59 19:46	06:10 18:57	06:27-06:37/10 18:09	07:10 18:09	06:45 16:35
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:55-06:52/57 20:27	05:53-06:55/62 20:20	06:04-07:02/58 19:45	06:11 18:55	06:27-06:37/10 18:08	07:11 18:08	06:46 16:34
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:54-06:52/58 20:28	05:53-06:55/62 20:19	06:05-07:02/57 19:43	06:12 18:53	06:27-06:37/10 18:06	07:12 18:06	06:47 16:34
23	07:12 17:02	06:38 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:54-06:52/58 20:28	05:54-06:56/62 20:18	06:06-07:02/56 19:42	06:13 18:52	06:27-06:37/10 18:05	07:13 18:05	06:48 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:53-06:52/59 20:28	05:54-06:56/62 20:17	06:06-07:01/55 19:40	06:14 18:50	06:27-06:37/10 18:03	07:14 18:03	06:49 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:52-06:52/60 20:28	05:53-06:56/63 20:17	06:07-07:02/55 19:39	06:15 18:48	06:27-06:37/10 18:02	07:15 18:02	06:51 16:32
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	06:21-06:24/3 20:28	05:54-06:57/63 20:16	06:08-07:02/54 19:37	06:15 18:47	06:27-06:37/10 17:01	07:16 18:01	06:52 16:32
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:13	06:20-06:31/11 20:28	05:54-06:57/63 20:15	06:09-07:01/52 19:36	06:16 18:45	06:27-06:37/10 16:59	07:17 18:01	06:53 16:31
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	06:18-06:34/16 20:28	05:54-06:57/63 20:14	06:10-07:01/51 19:34	06:17 18:44	06:27-06:37/10 16:58	07:18 18:01	06:54 16:31
29	07:07 17:09	06:30 17:45	05:46 18:15	06:00 19:47	05:29 20:15	06:17-06:36/19 20:28	05:55-06:58/63 20:13	06:11-07:01/50 19:33	06:18 18:42	06:27-06:37/10 16:57	07:19 18:01	06:55 16:30
30	07:06 17:10	06:29 17:46	05:45 18:16	06:00 19:48	05:29 20:16	06:16-06:38/22 20:28	05:54-06:57/63 20:12	06:12-07:01/49 19:31	06:19 18:40	06:27-06:37/10 16:56	07:20 18:01	06:56 16:30
31	07:06 17:11	06:28 17:47	05:44 18:17	06:00 19:49	05:28 20:17	06:17-06:38/23 20:28	05:55-06:58/64 20:11	06:12-07:00/48 19:30	06:20 19:30	06:27-06:37/10 16:55	07:21 18:01	06:57 16:30
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	291
Sum of minutes with flicker	0	0	0	71	1530	1894	1844	503	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS03 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 16:39	07:05 16:27-16:29/2 17:12	06:30 16:45-16:50/5 17:45 16:05-16:44/39	06:40 17:31-18:11/40 19:18	05:56 19:49	05:28 20:17
2	07:17 16:40	07:04 16:24-16:30/6 17:14	06:28 16:06-16:51/45 17:47	06:39 17:32-18:11/39 19:19	05:54 19:50	05:27 20:18
3	07:17 16:41	07:03 16:23-16:31/8 17:15	06:27 16:05-16:51/46 17:48	06:37 17:32-18:09/37 19:20	05:53 19:51	05:27 20:19
4	07:18 16:42	07:02 16:22-16:32/10 17:16	06:25 16:06-16:53/47 17:49	06:35 17:34-18:08/34 19:21	05:52 19:52	05:27 20:20
5	07:18 16:42	07:01 16:21-16:33/12 17:17	06:24 16:06-16:54/48 17:50	06:34 17:34-18:06/32 19:22	05:51 19:53	05:26 20:20
6	07:18 16:43	07:00 16:20-16:35/15 17:18	06:22 16:07-16:56/49 17:51	06:32 17:35-18:04/29 19:23	05:50 19:54	05:26 20:21
7	07:17 16:44	06:59 16:20-16:36/16 17:20	06:21 16:07-16:57/50 17:52	06:31 17:38-18:02/24 19:24	05:48 19:55	05:26 20:21
8	07:17 16:45	06:58 16:19-16:37/18 17:21	06:19 16:08-16:59/51 17:53	06:29 17:40-17:59/19 19:25	05:47 19:56	05:25 20:22
9	07:17 16:46	06:56 16:19-16:38/19 17:22	06:18 16:08-16:59/51 17:54	06:28 17:44-17:56/12 19:26	05:46 19:57	05:25 20:23
10	07:17 16:47	06:55 16:19-16:38/19 17:23	06:16 16:08-17:01/53 17:55	06:26 19:27	05:45 19:58	05:25 20:23
11	07:17 16:48	06:54 16:19-16:37/18 17:25	06:14 16:10-17:04/54 17:56	06:24 19:28	05:44 19:59	05:25 20:24
12	07:17 16:49	06:53 16:19-16:38/19 17:26	06:13 16:11-17:05/54 17:57	06:23 19:29	05:43 20:00	05:25 20:24
13	07:16 16:50	06:52 16:19-16:39/20 17:27	06:11 16:13-17:07/54 17:58	06:21 19:30	05:42 20:01	05:25 20:25
14	07:16 16:51	06:50 16:18-16:39/21 17:28	06:10 16:14-17:08/54 18:00	06:20 19:31	05:41 20:02	05:25 20:25
15	07:16 16:53	06:49 16:16-16:38/22 17:29	06:08 16:58-17:09/11 18:01 16:16-16:57/41	06:18 19:32	05:40 20:03	05:25 20:26
16	07:15 16:54	06:48 16:16-16:39/23 17:30	06:06 16:17-17:10/53 18:02	06:17 19:34	05:39 20:04	05:25 20:26
17	07:15 16:55	06:47 16:15-16:39/24 17:32	06:05 16:17-17:11/54 18:03	06:15 19:35	05:38 20:05	05:25 20:26
18	07:14 16:56	06:45 16:13-16:39/26 17:33	06:03 16:18-17:11/53 18:04	06:14 19:36	05:37 20:06	05:25 20:27
19	07:14 16:57	06:44 16:12-16:40/28 17:34	06:01 16:19-17:13/54 18:05	06:12 19:37	05:36 20:07	05:25 20:27
20	07:13 16:58	06:43 16:11-16:40/29 17:35	06:00 16:20-17:14/54 18:06	06:11 19:38	05:36 20:07	05:25 20:27
21	07:13 16:59	06:41 16:10-16:39/29 17:36	05:58 16:22-17:15/53 18:07	06:09 19:39	05:35 20:08	05:25 20:27
22	07:12 17:00	06:40 16:09-16:40/31 17:37	05:57 17:06-17:13/7 18:08 16:23-17:04/41	06:08 19:40	05:34 20:09	05:25 20:28
23	07:12 17:02	06:39 16:08-16:39/31 17:39	05:55 16:25-17:04/39 18:09	06:06 19:41	05:33 20:10	05:26 20:28
24	07:11 17:03	06:37 16:08-16:43/35 17:40	05:53 16:29-17:06/37 18:10	06:05 19:42	05:32 20:11	05:26 20:28
25	07:10 17:04	06:36 16:07-16:42/35 17:41	05:52 16:30-17:06/36 18:11	06:04 19:43	05:32 20:12	05:26 20:28
26	07:10 17:05	06:34 16:49-16:50/1 17:42 16:07-16:42/35	05:50 16:30-17:07/37 18:12	06:02 19:44	05:31 20:13	05:26 20:28
27	07:09 17:06	06:33 16:47-16:49/2 17:43 16:07-16:42/35	05:48 16:30-17:10/40 18:13	06:01 19:45	05:30 20:13	05:27 20:28
28	07:08 17:08	06:31 16:46-16:50/4 17:44 16:06-16:43/37	05:47 16:30-17:11/41 18:14	06:00 19:46	05:30 20:14	05:27 20:28
29	07:07 17:09		06:45 17:30-18:12/42 19:15	05:58 19:47	05:29 20:15	05:28 20:28
30	07:06 17:10		06:44 17:31-18:14/43 19:16	05:57 19:48	05:29 20:16	05:28 20:28
31	07:06 17:11		06:42 17:31-18:13/42 19:17		05:28 20:17	
Potential sun hours	300	298	370	398	446	449
Sum of minutes with flicker	0	630	1478	266	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm) Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
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SHADOW - Calendar per WTG

WTG: IS03 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (3)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	16:51-17:45/54 16:53	06:23 15:48-16:07/19 16:30
2	05:29 20:28	05:53 20:09	06:22 19:26	06:51 18:37	16:49-17:44/55 16:52	06:58 16:30
3	05:29 20:28	05:54 20:08	06:23 19:25	06:52 18:35	16:48-17:41/53 16:51	06:59 16:29
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	16:46-17:38/52 16:50	07:00 16:29
5	05:31 20:28	05:55 20:06	06:25 19:22	06:54 18:32	16:45-17:36/51 16:49	07:01 16:29
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	16:44-17:34/50 16:47	07:02 16:29
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	16:43-17:32/49 16:46	07:03 16:29
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	16:42-17:30/48 16:45	07:04 16:29
9	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	16:41-17:29/48 16:44	07:05 16:29
10	05:34 20:26	06:00 20:00	06:30 19:13	06:59 18:24	16:40-17:27/47 16:43	07:05 16:29
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	16:40-17:25/45 16:42	07:06 16:29
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	16:39-17:24/45 16:41	07:07 16:29
13	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	17:18-17:23/5 16:39-17:17/38	07:08 16:41 16:29
14	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	17:19-17:22/3 16:38-17:15/37	07:09 16:40 16:29
15	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:17	17:20-17:22/2 16:38-17:14/36	07:09 16:39 16:30
16	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	16:39-17:15/36 16:38	07:10 16:30
17	05:39 20:22	06:07 19:50	06:36 19:02	07:06 18:14	16:39-17:14/35 16:37	07:11 16:30
18	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	16:39-17:11/32 16:36	07:11 16:30
19	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	16:40-17:10/30 16:36	07:12 16:31
20	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	16:40-17:10/30 16:35	07:13 16:31
21	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	16:41-17:10/29 16:34	07:13 16:32
22	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	16:41-17:09/28 16:34	07:14 16:32
23	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	16:42-17:09/27 16:33	07:14 16:33
24	05:44 20:17	06:14 19:40	06:43 18:50	07:14 18:04	16:44-17:09/25 16:33	07:15 16:33
25	05:45 20:17	06:15 19:39	06:44 18:49	06:15 17:02	15:45-16:09/24 16:32	07:15 16:34
26	05:46 20:16	06:16 19:37	06:45 18:47	06:16 17:01	15:45-16:08/23 16:32	07:15 16:34
27	05:47 20:15	06:16 19:36	06:46 18:45	06:17 17:00	15:46-16:08/22 16:31	07:16 16:35
28	05:48 20:14	06:17 19:34	06:47 18:44	06:18 16:58	15:47-16:08/21 16:31	07:16 16:36
29	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	15:49-16:08/19 16:30	07:16 16:36
30	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	15:49-16:08/19 16:30	07:17 16:37
31	05:51 20:11	06:20 19:30		06:22 16:54	15:48-16:07/19 16:30	07:17 16:38
Potential sun hours	456	426	375	346	300	291
Sum of minutes with flicker	0	0	1143	1137	123	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS04 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (4)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 07:59-08:30/31	07:05 06:30	06:40	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	06:57 07:48-08:13/25
	16:39 14:18-14:49/31	17:12 17:45	19:18	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53	16:30 14:14-14:26/12
2	07:17 07:59-08:30/31	07:04 06:28	06:39	06:39	05:54	05:27	05:29	05:52	06:22	06:51	06:24	06:58 07:48-08:13/25
	16:40 14:19-14:49/30	17:14 17:46	19:19	19:19	19:50	20:18	20:28	20:09	19:26	18:37	16:52	16:29 14:12-14:29/17
3	07:17 08:00-08:30/30	07:03 06:27	06:37	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	06:59 07:48-08:14/26
	16:41 14:20-14:49/29	17:15 17:48	19:20	19:20	19:51	20:19	20:28	20:08	19:25	18:35	16:51	16:29 14:11-14:30/19
4	07:17 08:00-08:30/30	07:02 06:25	06:35	06:35	05:52	05:26	05:30	05:54	06:24	06:53	06:26	07:00 07:48-08:15/27
	16:41 14:21-14:49/28	17:16 17:49	19:21	19:21	19:52	20:19	20:28	20:07	19:23	18:34	16:50	16:29 14:10-14:32/22
5	07:18 08:01-08:31/30	07:01 06:24	06:34	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28	07:01 07:48-08:16/28
	16:42 14:22-14:49/27	17:17 17:50	19:22	19:22	19:53	20:20	20:28	20:06	19:22	18:32	16:48	16:29 14:10-14:33/23
6	07:17 08:02-08:31/29	07:00 06:22	06:32	06:32	05:49	05:26	05:31	05:56	06:26	06:55	06:29	07:02 07:48-08:17/29
	16:43 14:23-14:49/26	17:18 17:51	19:23	19:23	19:54	20:21	20:27	20:04	19:20	18:30	16:47	16:29 14:09-14:35/26
7	07:17 08:03-08:31/28	06:59 06:21	06:31	06:31	05:48	05:26	05:32	05:57	06:27	06:56	06:30	07:03 07:48-08:18/30
	16:44 14:25-14:48/23	17:20 17:52	19:24	19:24	19:55	20:21	20:27	20:03	19:18	18:29	16:46	16:29 14:09-14:36/27
8	07:17 08:04-08:31/27	06:57 06:19	06:29	06:29	05:47	05:25	05:32	05:58	06:28	06:57	06:31	07:04 07:48-08:18/30
	16:45 14:26-14:48/22	17:21 17:53	19:25	19:25	19:56	20:22	20:27	20:02	19:17	18:27	16:45	16:29 14:09-14:37/28
9	07:17 08:05-08:31/26	06:56 06:17	06:27	06:27	05:46	05:25	05:33	05:59	06:29	06:58	06:32	07:05 07:49-08:19/30
	16:46 14:28-14:47/19	17:22 17:54	19:26	19:26	19:57	20:23	20:26	20:01	19:15	18:26	16:44	16:29 14:09-14:38/29
10	07:17 08:05-08:30/25	06:55 06:16	06:26	06:26	05:45	05:25	05:33	06:00	06:30	06:59	06:33	07:05 07:49-08:20/31
	16:47 14:29-14:46/17	17:23 17:55	19:27	19:27	19:58	20:23	20:26	20:00	19:13	18:24	16:43	16:29 14:09-14:39/30
11	07:17 08:06-08:31/25	06:54 06:14	06:24	06:24	05:44	05:25	05:34	06:01	06:31	07:00	06:35	07:06 07:50-08:21/31
	16:48 14:32-14:45/13	17:24 17:56	19:28	19:28	19:59	20:24	20:26	19:58	19:12	18:23	16:42	16:29 14:09-14:40/31
12	07:17 08:08-08:31/23	06:53 06:13	06:23	06:23	05:43	05:25	05:35	06:02	06:32	07:01	06:36	07:07 07:49-08:20/31
	16:49 14:36-14:42/6	17:26 17:57	19:29	19:29	20:00	20:24	20:25	19:57	19:10	18:21	16:41	16:29 14:08-14:40/32
13	07:16 08:08-08:29/21	06:52 06:11	06:21	06:21	05:42	05:25	05:36	06:03	06:33	07:02	06:37	07:08 07:50-08:21/31
	16:50	17:27 17:58	19:30	19:30	20:01	20:25	20:25	19:56	19:08	18:19	16:40	16:29 14:09-14:41/32
14	07:16 08:10-08:29/19	06:50 06:10	06:20	06:57-06:58/1	05:41	05:25	05:36	06:04	06:34	07:03	06:38	07:09 07:50-08:22/32
	16:51	17:28 17:59	19:31	19:31	20:02	20:25	20:24	19:54	19:07	18:18	16:40	16:29 14:09-14:42/33
15	07:16 08:12-08:29/17	06:49 06:08	06:18	06:56-06:57/1	05:40	05:24	05:37	06:05	06:35	07:04	06:39	07:09 07:51-08:23/32
	16:52	17:29 18:01	19:32	19:32	20:03	20:26	20:24	19:53	19:05	18:16	16:39	16:29 14:09-14:43/34
16	07:15 08:13-08:27/14	06:48 06:06	06:17	06:54-06:56/2	05:39	05:25	05:38	06:06	06:35	07:05	06:40	07:10 07:51-08:23/32
	16:54	17:30 18:02	19:33	19:33	20:04	20:26	20:23	19:52	19:03	18:15	16:38	16:30 14:09-14:43/34
17	07:15 08:16-08:26/10	06:47 06:05	06:15	06:53-06:55/2	05:38	05:25	05:39	06:07	06:36	07:06	06:41	07:11 07:51-08:24/33
	16:55	17:32 18:03	19:34	19:34	20:05	20:26	20:22	19:50	19:02	18:13	16:37	16:30 14:10-14:44/34
18	07:14	06:45 06:03	06:14	06:51-06:54/3	05:37	05:25	05:39	06:08	06:37	07:07	06:43	07:11 07:52-08:24/32
	16:56	17:33 18:04	19:36	19:36	20:06	20:27	20:22	19:49	19:00	18:12	16:36	16:30 14:09-14:44/35
19	07:14	06:44 06:01	06:12	06:50-06:53/3	05:36	05:25	05:40	06:09	06:38	07:09	06:44	07:12 07:52-08:24/32
	16:57	17:34 18:05	19:37	19:37	20:06	20:27	20:21	19:48	18:58	18:10	16:36	16:31 14:10-14:45/35
20	07:13	06:43 06:00	06:11	06:49-06:51/2	05:35	05:25	05:41	06:10	06:39	07:10	06:45	07:13 07:53-08:25/32
	16:58	17:35 18:06	19:38	19:38	20:07	20:27	20:20	19:46	18:57	18:09	16:35	16:31 14:11-14:46/35
21	07:13	06:41 05:58	06:09	06:48-06:49/1	05:35	05:25	05:42	06:11	06:52-06:53/1	07:11	06:46	07:13 07:53-08:25/32
	16:59	17:36 18:07	19:39	19:39	20:08	20:27	20:20	19:45	18:55	18:08	16:34	16:32 14:11-14:46/35
22	07:12	06:40 05:57	06:08	06:46-06:47/1	05:34	05:25	05:43	06:12	06:53-06:54/1	07:12	06:47	07:14 07:54-08:26/32
	17:00	17:37 18:08	19:40	19:40	20:09	20:28	20:19	19:43	18:53	18:06	16:34	16:32 14:12-14:47/35
23	07:12	06:38 05:55	06:06	06:54-06:56/2	05:33	05:25	05:43	06:13	06:54-06:56/2	07:13	06:48	07:14 07:54-08:26/32
	17:02	17:39 18:09	19:41	19:41	20:10	20:28	20:18	19:42	18:52	18:05	16:33	16:33 14:12-14:47/35
24	07:11	06:37 05:53	06:05	06:52-06:53/3	05:32	05:26	05:44	06:14	06:53-06:56/3	07:14	06:49	07:15 07:54-08:26/32
	17:03	17:40 18:10	19:42	19:42	20:11	20:28	20:17	19:40	18:50	18:03	16:33	16:33 14:12-14:47/35
25	07:10	06:36 05:52	06:04	06:51-06:52/3	05:32	05:26	05:45	06:14	06:54-06:57/3	07:15	06:49	07:15 07:55-08-27/32
	17:04	17:41 18:11	19:43	19:43	20:12	20:28	20:17	19:39	18:48	17:02	16:32	16:34 14:13-14:48/35
26	07:10	06:34 05:50	06:02	06:50-06:51/3	05:31	05:26	05:46	06:15	06:55-06-57/2	07:16	06:49	07:15 07:55-08-27/32
	17:05	17:42 18:12	19:44	19:44	20:13	20:28	20:16	19:37	18:47	17:01	16:32	16:34 14:14-14:48/34
27	07:09	06:33 05:48	06:01	06:49-06-51/3	05:30	05:27	05:47	06:16	06:56-06-58/2	07:17	06:49	07:16 07:56-08-28/32
	17:06	17:43 18:13	19:45	19:45	20:13	20:28	20:15	19:36	18:45	16:59	16:31	16:35 14:14-14:48/34
28	07:08	06:31 05:47	06:00	06:48-06-50/3	05:30	05:27	05:48	06:17	06:57-06-58/1	07:18	06:49	07:16 07:57-08-29/32
	17:07	17:44 18:14	19:46	19:46	20:14	20:28	20:14	19:34	18:43	16:58	16:31	16:36 14:15-14:49/34
29	07:07	06:45 05:58	06:03	06:47-06-49/3	05:29	05:27	05:49	06:18	06:58-06-59/1	07:19	06:49	07:16 07:57-08-29/32
	17:09	17:46 18:16	19:47	19:47	20:15	20:28	20:13	19:33	18:42	16:57	16:30	16:36 14:16-14:49/33
30	07:06	06:43 05:57	06:04	06:46-06-48/3	05:29	05:28	05:50	06:19	06:49	06:21	06:56	07:17 07:58-08-29/31
	17:10	17:47 18:17	19:48	19:48	20:16	20:28	20:12	19:31	18:40	16:56	16:30	16:37 14:16-14:49/33
31	07:05	06:42 05:56	06:05	06:45-06-47/3	05:28	05:28	05:51	06:20	06:50	06:22	06:57	07:17 07:58-08-29/31
	17:11	17:48 18:18	19:49	19:49	20:17	20:28	20:11	19:30	18:49	16:54	16:30	16:38 14:17-14:49/32
Potential sun hours	300	298	370	398	446	449	456	426	375	346	300	290
Sum of minutes with flicker	687	0	0	16	0	0	0	16	0	0	110	1892

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS05 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 16:39	07:05 07:24-07:55/31 17:12	06:30 07:12-08:04/52 17:45	06:40 19:18	05:56 19:49	05:28 20:17
2	07:17 16:40	07:04 07:23-07:57/34 17:14	06:28 07:13-08:03/50 17:46	06:39 19:19	05:54 19:50	05:27 20:18
3	07:17 16:41	07:03 07:22-07:58/36 17:15	06:27 07:13-08:01/48 17:48	06:37 19:20	05:53 19:51	05:27 20:19
4	07:18 16:41	07:02 07:21-08:00/39 17:16	06:25 07:14-08:00/46 17:49	06:35 19:21	05:52 19:52	05:26 20:20
5	07:18 16:42	07:01 07:20-08:01/41 17:17	06:24 07:15-07:58/43 17:50	06:34 19:22	05:51 19:53	05:26 20:20
6	07:18 16:43	07:00 07:19-08:03/44 17:18	06:22 07:17-07:57/40 17:51	06:32 19:23	05:49 19:54	05:26 20:21
7	07:17 16:44	06:59 07:18-08:04/46 17:20	06:21 07:18-07:54/36 17:52	06:31 19:24	05:48 19:55	05:26 20:21
8	07:17 16:45	06:58 07:17-08:05/48 17:21	06:19 07:20-07:52/32 17:53	06:29 19:25	05:47 19:56	05:25 20:22
9	07:17 16:46	06:56 07:16-08:06/50 17:22	06:17 07:22-07:49/27 17:54	06:27 19:26	05:46 19:57	05:25 20:23
10	07:17 16:47	06:55 07:15-08:07/52 17:23	06:16 07:25-07:45/20 17:55	06:26 19:27	05:45 19:58	05:25 20:23
11	07:17 07:48-07:49/1 16:48	06:54 07:13-08:07/54 17:24	06:14 07:32-07:39/7 17:56	06:24 19:28	05:44 19:59	05:25 20:24
12	07:17 07:47-07:49/2 16:49	06:53 07:12-08:08/56 17:26	06:13 16:41-17:19/38 17:57	06:23 19:29	05:43 20:00	05:25 20:24
13	07:16 07:47-07:50/3 16:50	06:52 07:11-08:08/57 17:27	06:11 16:41-17:20/39 17:58	06:21 19:30	05:42 20:01	05:25 20:25
14	07:16 07:46-07:50/4 16:51	06:50 07:11-08:09/58 17:28	06:10 16:40-17:20/40 17:59	06:20 19:31	05:41 20:02	05:25 20:25
15	07:16 07:46-07:50/4 16:52	06:49 07:10-08:09/59 17:29	06:08 16:39-17:20/41 18:01	06:18 19:32	05:40 20:03	05:24 20:26
16	07:15 07:45-07:50/5 16:54	06:48 07:10-08:09/59 17:30	06:06 16:39-17:20/41 18:02	06:17 19:33	05:39 20:04	05:25 20:26
17	07:15 07:44-07:51/7 16:55	06:47 07:10-08:10/60 17:32	06:05 16:38-17:20/42 18:03	06:15 19:35	05:38 20:05	05:25 20:26
18	07:14 07:43-07:50/7 16:56	06:45 07:09-08:09/60 17:33	06:03 16:38-17:19/41 18:04	06:14 19:36	05:37 20:06	05:25 20:27
19	07:14 07:43-07:51/8 16:57	06:44 07:10-08:09/59 17:34	06:01 16:39-17:19/40 18:05	06:12 19:37	05:36 20:07	05:25 20:27
20	07:13 07:42-07:50/8 16:58	06:43 07:10-08:10/60 17:35	06:00 16:38-17:18/40 18:06	06:11 19:38	05:35 20:07	05:25 20:27
21	07:13 07:41-07:50/9 16:59	06:41 07:09-08:09/60 17:36	05:58 16:38-17:17/39 18:07	06:09 19:39	05:35 20:08	05:25 20:27
22	07:12 07:40-07:50/10 17:00	06:40 07:10-08:09/59 17:37	05:57 16:39-17:17/38 18:08	06:08 19:40	05:34 20:09	05:25 20:28
23	07:12 07:39-07:49/10 17:02	06:38 07:09-08:08/59 17:39	05:55 16:40-17:15/35 18:09	06:06 19:41	05:33 20:10	05:25 20:28
24	07:11 07:38-07:48/10 17:03	06:37 07:10-08:08/58 17:40	05:53 16:41-17:15/34 18:10	06:05 19:42	05:32 20:11	05:26 20:28
25	07:10 07:38-07:48/10 17:04	06:36 07:10-08:07/57 17:41	05:52 16:42-17:13/31 18:11	06:04 19:43	05:32 20:12	05:26 20:28
26	07:10 07:37-07:47/10 17:05	06:34 07:10-08:07/57 17:42	05:50 16:42-17:11/29 18:12	06:02 19:44	05:31 20:13	05:26 20:28
27	07:09 07:35-07:45/10 17:06	06:33 07:11-08:06/55 17:43	05:48 16:45-17:09/24 18:13	06:01 19:45	05:30 20:13	05:27 20:28
28	07:08 07:33-07:43/10 17:07	06:31 07:11-08:05/54 17:44	05:47 16:46-17:06/20 18:14	06:00 19:46	05:30 20:14	05:27 20:28
29	07:07 07:29-07:47/18 17:09		06:45 17:49-18:02/13 19:15	05:58 19:47	05:29 20:15	05:27 20:28
30	07:06 07:26-07:50/24 17:10		06:43 19:16	05:57 19:48	05:29 20:16	05:28 20:28
31	07:06 07:25-07:53/28 17:11		06:42 19:17		05:28 20:17	
Potential sun hours	300	298	370	398	446	450
Sum of minutes with flicker	198	1462	1231	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS05 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (5)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28 20:28	05:52 20:10	06:21 19:28	06:50 17:20-17:58/38 18:39	06:23 06:44-07:35/51 16:53	06:57 07:30-07:31/1 16:30
2	05:29 20:28	05:52 20:09	06:22 19:26	06:51 17:20-17:58/38 18:37	06:24 06:46-07:36/50 16:52	06:58 16:29
3	05:29 20:28	05:53 20:08	06:23 19:25	06:52 08:06-08:21/15 18:35 17:21-17:56/35	06:25 06:47-07:35/48 16:51	06:59 16:29
4	05:30 20:28	05:54 20:07	06:24 19:23	06:53 08:01-08:25/24 18:34 17:21-17:54/33	06:26 06:48-07:33/45 16:50	07:00 16:29
5	05:30 20:28	05:55 20:06	06:25 19:22	06:54 07:58-08:28/30 18:32 17:22-17:52/30	06:28 06:49-07:32/43 16:48	07:01 16:29
6	05:31 20:27	05:56 20:04	06:26 19:20	06:55 07:56-08:30/34 18:30 17:23-17:49/26	06:29 06:50-07:31/41 16:47	07:02 16:29
7	05:32 20:27	05:57 20:03	06:27 19:18	06:56 07:53-08:31/38 18:29 17:24-17:46/22	06:30 06:52-07:31/39 16:46	07:03 16:29
8	05:32 20:27	05:58 20:02	06:28 19:17	06:57 07:51-08:33/42 18:27 17:26-17:44/18	06:31 06:53-07:29/36 16:45	07:04 16:29
9	05:33 20:26	05:59 20:01	06:29 19:15	06:58 07:50-08:34/44 18:26 17:28-17:42/14	06:32 06:54-07:27/33 16:44	07:05 16:29
10	05:33 20:26	06:00 20:00	06:30 19:13	06:59 07:48-08:35/47 18:24 17:33-17:40/7	06:33 06:55-07:26/31 16:43	07:05 16:29
11	05:34 20:26	06:01 19:58	06:31 19:12	07:00 07:47-08:36/49 18:23	06:35 06:57-07:25/28 16:42	07:06 16:29
12	05:35 20:25	06:02 19:57	06:32 19:10	07:01 07:46-08:37/51 18:21	06:36 06:58-07:22/24 16:41	07:07 16:29
13	05:36 20:25	06:03 19:56	06:33 19:08	07:02 07:44-08:37/53 18:19	06:37 07:01-07:19/18 16:40	07:08 16:29
14	05:36 20:24	06:04 19:54	06:34 17:41-17:52/11 19:07	07:03 07:43-08:38/55 18:18	06:38 07:05-07:14/9 16:40	07:09 16:29
15	05:37 20:24	06:05 19:53	06:35 17:36-17:55/19 19:05	07:04 07:43-08:38/55 18:16	06:39 07:08-07:18/10 16:39	07:09 16:29
16	05:38 20:23	06:06 19:52	06:35 17:33-17:57/24 19:03	07:05 07:43-08:39/56 18:15	06:40 07:10-07:20/10 16:38	07:10 16:30
17	05:39 20:22	06:07 19:50	06:36 17:31-17:58/27 19:02	07:06 07:42-08:39/57 18:13	06:42 07:11-07:21/10 16:37	07:11 16:30
18	05:39 20:22	06:08 19:49	06:37 17:29-18:00/31 19:00	07:07 07:41-08:40/59 18:12	06:43 07:12-07:22/10 16:36	07:11 16:30
19	05:40 20:21	06:09 19:48	06:38 17:28-18:01/33 18:58	07:09 07:41-08:40/59 18:10	06:44 07:14-07:24/10 16:36	07:12 16:31
20	05:41 20:21	06:10 19:46	06:39 17:26-18:01/35 18:57	07:10 07:40-08:39/59 18:09	06:45 07:15-07:25/10 16:35	07:13 16:31
21	05:42 20:20	06:11 19:45	06:40 17:25-18:02/37 18:55	07:11 07:40-08:39/59 18:08	06:46 07:17-07:26/9 16:34	07:13 16:32
22	05:43 20:19	06:12 19:43	06:41 17:24-18:02/38 18:53	07:12 07:40-08:39/59 18:06	06:47 07:18-07:26/8 16:34	07:14 16:32
23	05:43 20:18	06:13 19:42	06:42 17:23-18:02/39 18:52	07:13 07:40-08:40/60 18:05	06:48 07:19-07:27/8 16:33	07:14 16:33
24	05:44 20:17	06:14 19:40	06:43 17:22-18:02/40 18:50	07:14 07:40-08:40/60 18:03	06:49 07:20-07:27/7 16:33	07:15 16:33
25	05:45 20:17	06:14 19:39	06:44 17:21-18:02/41 18:48	06:15 06:40-07:39/59 17:02	06:51 07:22-07:29/7 16:32	07:15 16:34
26	05:46 20:16	06:15 19:37	06:45 17:21-18:02/41 18:47	06:16 06:40-07:39/59 17:01	06:52 07:23-07:29/6 16:32	07:15 16:34
27	05:47 20:15	06:16 19:36	06:46 17:21-18:02/41 18:45	06:17 06:40-07:38/58 16:59	06:53 07:25-07:29/4 16:31	07:16 16:35
28	05:48 20:14	06:17 19:34	06:47 17:20-18:01/41 18:44	06:18 06:40-07:38/58 16:58	06:54 07:26-07:30/4 16:31	07:16 16:36
29	05:49 20:13	06:18 19:33	06:48 17:20-18:01/41 18:42	06:20 06:41-07:38/57 16:57	06:55 07:27-07:30/3 16:30	07:16 16:36
30	05:50 20:12	06:19 19:31	06:49 17:20-18:00/40 18:40	06:21 06:42-07:37/55 16:56	06:56 07:28-07:30/2 16:30	07:17 16:37
31	05:51 20:11	06:20 19:30		06:22 06:43-07:36/53 16:54		07:17 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	0	0	579	1725	614	1

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS06 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June
1	07:17 07:39-07:46/7 16:39	07:05 07:25-07:56/31 17:12	06:30 17:45	06:40 19:18	05:56 18:15-19:13/58 19:49	05:28 19:24-19:43/19 20:18
2	07:17 07:39-07:47/8 16:40	07:04 07:24-07:56/32 17:14	06:28 17:47	06:39 19:19	05:54 18:15-19:13/58 19:50	05:27 19:23-19:43/20 20:18
3	07:18 07:40-07:48/8 16:41	07:03 07:22-07:54/32 17:15	06:27 17:48	06:37 19:20	05:53 18:15-19:14/59 19:51	05:27 19:23-19:44/21 20:19
4	07:18 07:39-07:48/9 16:41	07:02 07:21-07:54/33 17:16	06:25 17:49	06:35 19:21	05:52 18:15-19:16/61 19:52	05:27 19:24-19:45/21 20:20
5	07:18 07:39-07:49/10 16:42	07:01 07:20-07:53/33 17:17	06:24 17:50	06:34 19:22	05:51 18:16-19:17/61 19:53	05:26 19:23-19:45/22 20:20
6	07:18 07:39-07:49/10 16:43	07:00 07:19-07:52/33 17:18	06:22 17:51	06:32 19:23	05:50 18:16-19:18/62 19:54	05:26 19:23-19:46/23 20:21
7	07:18 07:39-07:50/11 16:44	06:59 07:18-07:51/33 17:20	06:21 17:52	06:31 19:24	05:48 18:17-19:18/61 19:55	05:26 19:23-19:47/24 20:22
8	07:17 07:39-07:51/12 16:45	06:58 07:17-07:50/33 17:21	06:19 17:53	06:29 18:36-18:41/5 19:25	05:47 18:17-19:17/60 19:56	05:25 19:24-19:47/23 20:22
9	07:17 07:39-07:52/13 16:46	06:56 07:16-07:49/33 17:22	06:18 17:54	06:28 18:34-18:43/9 19:26	05:46 18:18-19:17/59 19:57	05:25 19:24-19:48/24 20:23
10	07:17 07:39-07:52/13 16:47	06:55 07:15-07:47/32 17:23	06:16 17:55	06:26 18:31-18:43/12 19:27	05:45 18:18-19:16/58 19:58	05:25 19:24-19:49/25 20:23
11	07:17 07:38-07:52/14 16:48	06:54 07:13-07:44/31 17:24	06:14 17:56	06:24 18:29-18:45/16 19:28	05:44 18:19-19:16/57 19:59	05:25 19:23-19:48/25 20:24
12	07:17 07:38-07:53/15 16:49	06:53 07:16-07:42/26 17:26	06:13 17:57	06:23 18:27-18:46/19 19:29	05:43 18:20-19:15/55 20:00	05:25 19:23-19:49/26 20:24
13	07:16 07:38-07:54/16 16:50	06:52 07:20-07:39/19 17:27	06:11 17:59	06:21 18:26-18:48/22 19:31	05:42 18:20-19:14/54 20:01	05:25 19:24-19:49/25 20:25
14	07:16 07:37-07:54/17 16:51	06:51 07:26-07:33/7 17:28	06:10 18:00	06:20 18:24-18:49/25 19:32	05:41 18:21-19:14/53 20:02	05:25 19:24-19:50/26 20:25
15	07:16 07:37-07:55/18 16:52	06:49 17:29	06:08 18:01	06:18 18:23-18:51/28 19:33	05:40 18:21-19:13/52 20:03	05:25 19:24-19:50/26 20:26
16	07:15 07:36-07:54/18 16:54	06:48 17:30	06:06 18:02	06:17 18:22-18:52/30 19:34	05:39 18:22-19:12/50 20:04	05:25 19:24-19:51/27 20:26
17	07:15 07:36-07:55/19 16:55	06:47 17:32	06:05 18:03	06:15 18:21-18:55/34 19:35	05:38 18:23-19:11/48 20:05	05:25 19:24-19:51/27 20:26
18	07:15 07:35-07:55/20 16:56	06:45 17:33	06:03 18:04	06:14 18:20-18:55/35 19:36	05:37 18:23-19:10/47 20:06	05:25 19:25-19:52/27 20:27
19	07:14 07:35-07:56/21 16:57	06:44 17:34	06:02 18:05	06:12 18:19-18:56/37 19:37	05:36 18:24-19:09/45 20:07	05:25 19:25-19:52/27 20:27
20	07:14 07:34-07:56/22 16:58	06:43 17:35	06:00 18:06	06:11 18:18-18:56/38 19:38	05:35 18:26-19:09/43 20:08	05:25 19:25-19:52/27 20:27
21	07:13 07:33-07:56/23 16:59	06:41 17:36	05:58 18:07	06:09 18:18-18:57/39 19:39	05:35 18:27-19:08/41 20:08	05:25 19:25-19:52/27 20:28
22	07:12 07:33-07:57/24 17:00	06:40 17:37	05:57 18:08	06:08 18:17-18:58/41 19:40	05:34 18:28-19:06/38 19:33-19:35/2 20:09	05:25 19:25-19:52/27 20:28
23	07:12 07:32-07:57/25 17:02	06:39 17:39	05:55 18:09	06:06 18:16-19:01/45 19:41	05:33 18:29-19:06/37 20:10 19:31-19:37/6 20:28	05:26 19:26-19:53/27 20:28
24	07:11 07:31-07:57/26 17:03	06:37 17:40	05:53 18:10	06:05 18:16-19:04/48 19:42	05:32 18:30-19:05/35 20:11 19:29-19:38/9 20:28	05:26 19:26-19:53/27 20:28
25	07:10 07:31-07:57/26 17:04	06:36 17:41	05:52 18:11	06:04 18:15-19:05/50 19:43	05:32 18:31-19:03/32 20:12 19:27-19:38/11 20:28	05:26 19:26-19:53/27 20:28
26	07:10 07:30-07:57/27 17:05	06:34 17:42	05:50 18:12	06:02 18:16-19:08/52 19:44	05:31 18:33-19:03/30 20:13 19:27-19:39/12 20:28	05:26 19:27-19:54/27 20:28
27	07:09 07:29-07:57/28 17:06	06:33 17:43	05:48 18:13	06:01 18:16-19:10/54 19:45	05:30 18:34-19:01/27 20:14 19:26-19:40/14 20:28	05:27 19:27-19:53/26 20:28
28	07:08 07:28-07:57/29 17:08	06:31 17:44	05:47 18:14	06:00 18:15-19:10/55 19:46	05:30 18:37-19:00/23 20:14 19:26-19:41/15 20:28	05:27 19:27-19:53/26 20:28
29	07:07 07:27-07:56/29 17:09		06:45 19:15	05:58 18:15-19:11/56 19:47	05:29 18:38-18:58/20 20:15 19:25-19:41/16 20:28	05:28 19:28-19:54/26 20:28
30	07:06 07:26-07:56/30 17:10		06:44 19:16	05:57 18:15-19:12/57 19:48	05:29 18:41-18:56/15 20:16 19:25-19:42/17 20:28	05:28 19:28-19:53/25 20:28
31	07:06 07:25-07:56/31 17:11		06:42 19:17		05:28 18:44-18:53/9 20:17 19:24-19:42/18 446	
Potential sun hours	300	298	370	398	446	450
Sum of minutes with flicker	579	408	0	807	1528	750

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS06 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (6)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28 19:28-19:54/26 20:28	05:52 18:29-19:25/56 20:10	06:21 18:28-18:44/16 19:28	06:50 18:39	06:23 06:44-07:16/32 16:53	06:57 07:20-07:34/14 16:30
2	05:29 19:28-19:53/25 20:28	05:53 18:28-19:25/57 20:09	06:22 18:30-18:42/12 19:26	06:51 18:37	06:24 06:46-07:19/33 16:52	06:58 07:21-07:34/13 16:29
3	05:29 19:29-19:53/24 20:28	05:53 18:28-19:26/58 20:08	06:23 18:32-18:41/9 19:25	06:52 18:35	06:25 06:47-07:20/33 16:51	06:59 07:22-07:35/13 16:29
4	05:30 19:29-19:53/24 20:28	05:54 18:27-19:27/60 20:07	06:24 18:33-18:38/5 19:23	06:53 18:34	06:27 06:48-07:21/33 16:50	07:00 07:23-07:35/12 16:29
5	05:30 19:30-19:53/23 20:28	05:55 18:27-19:27/60 20:06	06:25 19:22	06:54 18:32	06:28 06:49-07:22/33 16:49	07:01 07:24-07:35/11 16:29
6	05:31 19:29-19:52/23 20:27	05:56 18:26-19:27/61 20:05	06:26 19:20	06:55 18:31	06:29 06:51-07:24/33 16:47	07:02 07:25-07:35/10 16:29
7	05:32 19:30-19:52/22 20:27	05:57 18:26-19:28/62 20:03	06:27 19:18	06:56 18:29	06:30 06:52-07:24/32 16:46	07:03 07:26-07:36/10 16:29
8	05:32 19:30-19:51/21 20:27	05:58 18:25-19:26/61 20:02	06:28 19:17	06:57 18:27	06:31 06:53-07:25/32 16:45	07:04 07:27-07:36/9 16:29
9	05:33 19:31-19:51/20 20:27	05:59 18:25-19:25/60 20:01	06:29 19:15	06:58 18:26	06:32 06:54-07:26/32 16:44	07:05 07:28-07:36/8 16:29
10	05:34 19:31-19:51/20 20:26	06:00 18:25-19:24/59 20:00	06:30 19:14	06:59 18:24	06:34 06:56-07:27/31 16:43	07:06 07:29-07:37/8 16:29
11	05:34 19:31-19:50/19 20:26	06:01 18:23-19:22/59 19:58	06:31 19:12	07:00 18:23	06:35 06:57-07:28/31 16:42	07:06 07:30-07:37/7 16:29
12	05:35 18:55-18:58/3 20:25	06:02 18:23-19:20/57 19:57	06:32 19:10	07:01 18:21	06:36 06:58-07:28/30 16:41	07:07 07:30-07:37/7 16:29
13	05:36 18:51-19:03/12 20:25	06:03 18:23-19:19/56 19:56	06:33 19:09	07:02 18:20	06:37 06:59-07:28/29 16:40	07:08 07:31-07:37/6 16:29
14	05:36 18:47-19:05/18 20:24	06:04 18:23-19:18/55 19:55	06:34 19:07	07:03 18:18	06:38 07:00-07:29/29 16:40	07:09 07:32-07:38/6 16:29
15	05:37 18:46-19:07/21 20:24	06:05 18:22-19:18/56 19:53	06:35 19:05	07:04 18:17	06:39 07:02-07:30/28 16:39	07:09 07:33-07:38/5 16:29
16	05:38 18:45-19:09/24 20:23	06:06 18:22-19:16/54 19:52	06:36 19:04	07:05 18:15	06:40 07:03-07:30/27 16:38	07:10 07:33-07:38/5 16:30
17	05:39 18:43-19:11/28 20:23	06:07 18:22-19:14/52 19:50	06:37 19:02	07:06 18:14	06:42 07:04-07:30/26 16:37	07:11 07:34-07:39/5 16:30
18	05:39 18:41-19:12/31 20:22	06:08 18:22-19:12/50 19:49	06:37 19:00	07:08 18:12	06:43 07:05-07:31/26 16:36	07:12 07:35-07:40/5 16:30
19	05:40 18:40-19:13/33 20:21	06:09 18:22-19:09/47 19:48	06:38 18:59	07:09 18:11	06:44 07:07-07:32/25 16:36	07:12 07:35-07:39/4 16:31
20	05:41 18:39-19:15/36 20:21	06:10 18:22-19:07/45 19:46	06:39 18:57	07:10 18:09	06:45 07:08-07:32/24 16:35	07:13 07:36-07:40/4 16:31
21	05:42 18:39-19:16/37 20:20	06:11 18:22-19:04/42 19:45	06:40 18:55	07:11 18:08	06:46 07:09-07:32/23 16:34	07:13 07:36-07:40/4 16:32
22	05:43 18:38-19:18/40 20:19	06:12 18:23-19:02/39 19:43	06:41 18:54	07:12 18:06	06:47 07:10-07:32/22 16:34	07:14 07:37-07:41/4 16:32
23	05:44 18:37-19:19/42 20:18	06:13 18:23-19:00/37 19:42	06:42 18:52	07:13 18:05	06:48 07:11-07:32/21 16:33	07:14 07:37-07:41/4 16:33
24	05:44 18:35-19:19/44 20:18	06:14 18:22-18:58/36 19:40	06:43 18:50	07:14 18:04	06:50 07:13-07:33/20 16:33	07:15 07:38-07:42/4 16:33
25	05:45 18:34-19:20/46 20:17	06:15 18:23-18:58/35 19:39	06:44 18:49	07:15 17:02	06:51 07:14-07:33/19 16:32	07:15 07:38-07:43/5 16:34
26	05:46 18:34-19:21/47 20:16	06:16 18:23-18:56/33 19:37	06:45 18:47	07:16 17:01	06:52 07:15-07:34/19 16:32	07:16 07:38-07:43/5 16:34
27	05:47 18:33-19:22/49 20:15	06:16 18:24-18:54/30 19:36	06:46 18:45	07:17 16:59	06:53 07:16-07:34/18 16:31	07:16 07:39-07:44/5 16:35
28	05:48 18:32-19:23/51 20:14	06:17 18:24-18:51/27 19:34	06:47 18:44	06:19 06:53-07:05/12 16:58	06:54 07:17-07:34/17 16:31	07:16 07:39-07:44/5 16:36
29	05:49 18:32-19:24/52 20:13	06:18 18:25-18:49/24 19:33	06:48 18:42	06:20 06:48-07:10/22 16:57	06:55 07:18-07:34/16 16:30	07:17 07:39-07:45/6 16:36
30	05:50 18:31-19:24/53 20:12	06:19 18:26-18:48/22 19:31	06:49 18:40	06:21 06:45-07:12/27 16:56	06:56 07:19-07:34/15 16:30	07:17 07:39-07:45/6 16:37
31	05:51 18:29-19:24/55 20:11	06:20 18:27-18:46/19 19:30	06:22 16:54	06:43-07:14/31 16:54	06:57 07:20-07:35/14 16:30	07:17 07:39-07:46/7 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	1096	1469	42	92	789	217

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm) Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
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SHADOW - Calendar per WTG

WTG: IS07 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	17:32-18:31/59 19:19	05:56 18:49-19:07/18	06:15-06:27/12 20:18
2	07:18 16:40	07:04 17:14	06:28 17:47	06:39 19:19	17:31-18:31/60 19:19	05:54 18:48-19:06/18	06:14-06:27/13 20:18
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	17:30-18:30/60 19:20	05:53 18:50-19:05/15	06:12-06:26/14 20:19
4	07:18 16:42	07:02 17:16	06:25 17:49	06:36 19:21	17:31-18:31/60 19:21	05:52 18:51-19:03/12	06:11-06:27/16 20:20
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	17:30-18:30/60 19:22	05:51 18:53-19:01/8	06:10-06:27/17 20:20
6	07:18 16:43	07:00 17:19	06:22 17:51	06:32 19:23	17:31-18:30/59 19:23	05:50 19:54	06:09-06:27/18 20:21
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	17:30-18:29/59 19:24	05:48 19:55	06:08-06:27/19 20:22
8	07:18 16:45	06:58 17:21	06:19 17:53	06:29 19:25	17:30-18:28/58 19:25	05:47 19:56	06:07-06:27/20 20:22
9	07:17 16:46	06:57 17:22	06:18 17:54	06:28 19:26	17:31-18:28/57 19:26	05:46 19:57	06:06-06:27/21 20:23
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	17:31-18:27/56 19:27	05:45 19:58	06:05-06:27/22 20:23
11	07:17 16:48	06:54 17:25	06:14 17:56	06:24 19:29	17:32-18:27/55 19:29	05:44 19:59	06:04-06:27/23 20:24
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:30	17:32-18:25/53 19:30	05:43 20:00	06:03-06:27/24 20:24
13	07:17 16:50	06:52 17:27	06:11 17:59	06:21 19:31	17:33-18:25/52 19:31	05:42 20:01	06:02-06:26/24 20:25
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:32	17:33-18:24/51 19:32	05:41 20:02	06:01-06:26/25 20:25
15	07:16 16:53	06:49 17:29	06:08 18:01	06:18 19:33	17:34-18:23/49 19:33	05:40 20:03	06:00-06:25/25 20:26
16	07:16 16:54	06:48 17:31	06:06 18:02	06:17 19:34	17:34-18:21/47 19:34	05:39 20:04	05:59-06:25/26 20:26
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	17:36-18:20/44 19:35	05:38 20:05	05:58-06:24/26 20:26
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	17:36-18:18/42 19:36	05:37 20:06	05:57-06:24/27 20:27
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	17:38-18:17/39 19:37	05:36 20:07	05:57-06:24/27 20:27
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	17:39-18:15/36 19:38	05:36 20:08	05:56-06:23/27 20:27
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	17:41-18:13/32 19:39	05:35 20:08	05:55-06:23/28 20:28
22	07:12 17:00	06:40 17:38	05:57 18:08	06:08 19:40	17:44-18:11/27 19:40	05:34 20:09	05:54-06:22/28 20:28
23	07:12 17:02	06:39 17:39	05:55 18:09	06:07 19:41	17:46-18:08/22 19:41	05:33 20:10	05:54-06:22/28 20:28
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	17:50-18:04/14 19:42	05:32 20:11	05:53-06:21/28 20:28
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	06:22-06:23/1 19:43	05:32 20:12	05:52-06:20/28 20:28
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	06:21-06:24/3 19:44	05:31 20:13	05:52-06:20/28 20:28
27	07:09 17:06	06:33 17:43	05:49 18:13	06:01 19:45	06:20-06:25/5 19:45	05:30 20:14	05:51-06:19/28 20:28
28	07:08 17:08	06:31 17:44	05:47 18:14	06:00 19:46	06:19-06:26/7 19:46	05:30 20:14	05:51-06:19/28 20:28
29	07:07 17:09		06:45 19:15	05:58 19:47	06:17-06:25/8 19:47	05:29 20:15	05:50-06:18/28 20:28
30	07:07 17:10		06:44 19:16	05:57 19:48	06:16-06:26/10 19:48	05:29 20:16	05:50-06:17/27 20:28
31	07:06 17:11		06:42 19:17		17:32-18:29/57 19:17	05:28 20:17	05:49-06:16/27 20:28
Potential sun hours	300	298	370	398	446	450	
Sum of minutes with flicker	0	0	682	1344	803	135	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm) Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
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SHADOW - Calendar per WTG

WTG: IS07 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	July	August	September	October	November	December
1	05:28 20:28	05:52 06:13-06:36/23 20:10	06:21 17:31-18:26/55 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	05:29 20:28	05:53 06:14-06:36/22 20:09	06:22 17:30-18:26/56 19:27	06:51 18:37	06:24 16:52	06:58 16:30
3	05:29 20:28	05:54 06:15-06:37/22 20:08	06:23 17:29-18:26/57 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	05:30 20:28	05:54 06:16-06:37/21 20:07	06:24 17:28-18:26/58 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	05:30 06:06-06:14/8 20:28	05:55 06:17-06:37/20 20:06	06:25 17:26-18:25/59 19:22	06:54 18:32	06:28 16:49	07:01 16:29
6	05:31 06:03-06:16/13 20:27	05:56 06:18-06:37/19 20:05	06:26 17:26-18:25/59 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	05:32 06:02-06:18/16 20:27	05:57 06:19-06:37/18 20:03 19:06-19:08/2	06:27 17:25-18:25/60 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	05:32 06:02-06:20/18 20:27	05:58 06:20-06:37/17 20:02 19:02-19:12/10	06:28 17:25-18:25/60 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	05:33 06:00-06:20/20 20:27	05:59 06:21-06:36/15 20:01 19:00-19:14/14	06:29 17:25-18:24/59 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	05:34 06:00-06:22/22 20:26	06:00 06:22-06:36/14 20:00 18:59-19:15/16	06:30 17:24-18:24/60 19:14	06:59 18:24	06:34 16:43	07:06 16:29
11	05:34 05:58-06:23/25 20:26	06:01 06:23-06:36/13 19:58 18:57-19:15/18	06:31 17:24-18:24/60 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	05:35 05:58-06:24/26 20:25	06:02 06:24-06:35/11 19:57 18:56-19:15/19	06:32 17:24-18:22/58 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	05:36 05:58-06:25/27 20:25	06:03 06:24-06:34/10 19:56 18:55-19:16/21	06:33 17:24-18:20/56 19:09	07:02 18:20	06:37 16:41	07:08 16:29
14	05:36 05:59-06:27/28 20:24	06:04 06:25-06:33/8 19:55 18:55-19:16/21	06:34 17:24-18:18/54 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	05:37 05:59-06:27/28 20:24	06:05 06:26-06:32/6 19:53 18:55-19:16/21	06:35 17:24-18:17/53 19:05	07:04 18:17	06:39 16:39	07:10 16:30
16	05:38 06:00-06:28/28 20:23	06:06 06:27-06:31/4 19:52 18:55-19:16/21	06:36 17:24-18:16/52 19:04	07:05 18:15	06:41 16:38	07:10 16:30
17	05:39 06:01-06:29/28 20:23	06:07 06:28-06:30/2 19:50 18:55-19:14/19	06:37 17:24-18:14/50 19:02	07:07 18:14	06:42 16:37	07:11 16:30
18	05:39 06:02-06:30/28 20:22	06:08 18:55-19:12/17 19:49	06:38 17:24-18:13/49 19:00	07:08 18:12	06:43 16:36	07:12 16:30
19	05:40 06:02-06:30/28 20:21	06:09 17:55-18:11/16 19:48 18:55-19:09/14	06:38 17:25-18:12/47 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	05:41 06:03-06:31/28 20:21	06:10 17:51-18:14/23 19:46 18:56-19:07/11	06:39 17:25-18:11/46 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	05:42 06:04-06:32/28 20:20	06:11 17:48-18:16/28 19:45 18:56-19:04/8	06:40 17:26-18:10/44 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	05:43 06:05-06:33/28 20:19	06:12 17:46-18:18/32 19:43 18:58-19:02/4	06:41 17:27-18:09/42 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	05:44 06:06-06:34/28 20:18	06:13 17:44-18:20/36 19:42	06:42 17:29-18:08/39 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	05:44 06:06-06:33/27 20:18	06:14 17:41-18:20/39 19:40	06:43 17:30-18:06/36 18:50	07:14 18:04	06:50 16:33	07:15 16:33
25	05:45 06:07-06:34/27 20:17	06:15 17:39-18:21/42 19:39	06:44 17:32-18:04/32 18:49	06:15 17:02	06:51 16:32	07:15 16:34
26	05:46 06:08-06:35/27 20:16	06:16 17:38-18:22/44 19:37	06:45 17:35-18:01/26 18:47	06:16 17:01	06:52 16:32	07:16 16:34
27	05:47 06:09-06:35/26 20:15	06:17 17:36-18:23/47 19:36	06:46 17:39-17:56/17 18:45	06:17 17:00	06:53 16:31	07:16 16:35
28	05:48 06:10-06:36/26 20:14	06:17 17:35-18:24/49 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:36
29	05:49 06:11-06:36/25 20:13	06:18 17:34-18:25/51 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	05:50 06:12-06:37/25 20:12	06:19 17:33-18:25/52 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	05:51 20:11	06:13-06:37/24 19:30	06:20 17:32-18:25/53	06:22 16:54	06:57 16:30	07:17 16:38
Potential sun hours	456	426	375	346	300	290
Sum of minutes with flicker	662	993	1344	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS08 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 15:42-15:58/16 16:39	07:05 15:54-16:28/34 17:12	06:30 17:45 19:18	06:40 17:45 19:18	05:56 19:49 20:18	05:28 20:18 20:28	05:28 20:10 19:28	05:52 20:21 19:28	06:21 16:50 18:39	06:50 15:39-15:57/18 16:53	06:57 15:26-15:49/23 16:30	06:57 15:26-15:49/23 16:30
2	07:18 15:42-15:58/16 16:40	07:04 15:55-16:28/33 17:14	06:28 17:46 19:19	06:39 17:46 19:19	05:54 19:50 20:18	05:27 20:18 20:28	05:29 20:09 19:26	05:52 20:21 19:26	06:22 16:51 18:37	06:51 15:37-16:00/23 16:52	06:58 15:26-15:49/23 16:29	06:58 15:26-15:49/23 16:29
3	07:18 15:42-15:59/17 16:41	07:03 15:56-16:29/33 17:15	06:27 17:48 19:20	06:37 17:48 19:20	05:53 19:51 20:19	05:27 20:19 20:28	05:29 20:08 19:25	05:53 20:23 19:25	06:23 16:51 18:35	06:52 15:35-16:01/26 16:51	06:59 15:27-15:49/22 16:29	06:59 15:27-15:49/22 16:29
4	07:18 15:42-16:00/18 16:41	07:02 15:58-16:30/32 17:16	06:25 17:49 19:21	06:35 17:49 19:21	05:52 19:52 20:20	05:26 20:20 20:28	05:30 20:07 19:23	05:54 20:24 19:23	06:24 16:50 18:34	06:53 15:33-16:02/29 16:50	06:59 15:28-15:48/20 16:29	06:59 15:28-15:48/20 16:29
5	07:18 15:43-16:01/18 16:42	07:01 16:00-16:31/31 17:17	06:24 17:50 19:22	06:34 17:50 19:22	05:51 19:53 20:20	05:26 20:20 20:28	05:30 20:05 19:22	05:55 20:26 19:22	06:25 16:48 18:32	06:54 15:32-16:02/30 16:48	07:01 15:28-15:48/20 16:29	07:01 15:28-15:48/20 16:29
6	07:18 15:43-16:02/19 16:43	07:00 16:02-16:33/31 17:18	06:22 17:51 19:23	06:32 17:51 19:23	05:49 19:54 20:21	05:26 20:21 20:27	05:31 20:05 19:20	05:56 20:27 19:20	06:26 16:47 18:31	06:55 15:29-16:01/32 16:47	07:02 15:29-15:48/19 16:29	07:02 15:29-15:48/19 16:29
7	07:18 15:43-16:03/20 16:44	06:59 16:04-16:32/28 17:20	06:21 17:52 19:24	06:31 17:52 19:24	05:48 19:55 20:22	05:26 20:22 20:27	05:32 20:03 19:18	05:57 20:27 18:29	06:27 16:46 18:29	06:56 15:29-16:01/32 16:46	07:03 15:30-15:48/18 16:29	07:03 15:30-15:48/18 16:29
8	07:18 15:44-16:04/20 16:45	06:58 16:06-16:31/25 17:21	06:19 17:53 19:25	06:29 17:53 19:25	05:47 19:56 20:22	05:25 20:22 20:27	05:32 20:02 19:17	05:58 20:27 18:27	06:28 16:45 18:27	06:57 15:27-15:59/32 16:45	07:04 15:30-15:48/17 16:29	07:04 15:30-15:48/17 16:29
9	07:17 15:44-16:05/21 16:46	06:56 16:08-16:30/22 17:22	06:18 17:54 19:26	06:27 17:54 19:26	05:46 19:57 20:23	05:25 20:23 20:27	05:33 20:01 19:15	05:59 20:27 18:26	06:29 16:44 18:26	06:58 15:26-15:59/33 16:44	07:05 15:31-15:48/17 16:29	07:05 15:31-15:48/17 16:29
10	07:17 15:44-16:07/23 16:47	06:55 16:10-16:27/17 17:23	06:16 17:55 19:27	06:26 17:55 19:27	05:45 19:58 20:23	05:25 20:23 20:26	05:33 20:00 19:13	06:00 20:24 18:24	06:30 16:43 18:24	06:59 15:25-15:59/34 16:43	07:06 15:32-15:49/17 16:29	07:06 15:32-15:49/17 16:29
11	07:17 15:44-16:07/23 16:48	06:54 16:13-16:23/10 17:24	06:14 17:56 19:28	06:24 17:56 19:28	05:44 19:59 20:24	05:25 20:24 20:26	05:34 19:58 19:12	06:01 20:27 18:23	06:31 16:42 18:23	06:57 15:25-16:01/36 16:42	07:06 15:33-15:49/16 16:29	07:06 15:33-15:49/16 16:29
12	07:17 15:44-16:08/24 16:49	06:53 17:26 17:57	06:13 19:29 20:00	06:23 19:29 20:00	05:43 20:00 20:24	05:25 20:24 20:25	05:35 19:57 19:10	06:02 20:27 18:21	06:32 16:41 18:21	06:56 15:24-16:00/36 16:41	07:07 14:49-14:58/9 16:29	07:07 14:49-14:58/9 16:29
13	07:17 15:45-16:10/25 16:50	06:52 17:27 17:58	06:11 19:30 20:01	06:21 19:30 20:01	05:42 20:01 20:25	05:25 20:25 20:25	05:36 19:09 18:20	06:03 20:27 18:20	06:33 16:40 18:20	06:55 15:23-15:59/36 16:40	07:08 14:48-15:01/13 16:29	07:08 14:48-15:01/13 16:29
14	07:16 15:45-16:10/25 16:51	06:51 17:28 18:00	06:10 19:32 20:02	06:20 19:32 20:02	05:41 20:02 20:25	05:25 20:24 20:25	05:36 19:07 18:18	06:04 20:27 18:18	06:34 16:40 18:18	06:54 15:22-15:58/36 16:40	07:09 14:47-15:03/16 16:29	07:09 14:47-15:03/16 16:29
15	07:16 15:45-16:12/27 16:52	06:49 17:29 18:01	06:08 19:33 20:03	06:18 19:33 20:03	05:40 20:03 20:26	05:24 20:24 20:24	05:37 19:05 18:16	06:05 20:24 19:05	06:35 16:40 18:16	07:04 15:23-15:58/35 16:39	07:10 15:35-15:49/14 16:29	07:10 15:35-15:49/14 16:29
16	07:15 15:45-16:12/27 16:54	06:48 17:30 18:02	06:06 19:34 20:04	06:17 19:34 20:04	05:39 20:04 20:26	05:24 20:26 20:23	05:38 19:52 19:04	06:06 20:23 19:04	06:36 16:38 18:15	07:05 15:22-15:57/35 16:38	07:10 14:46-15:05/19 16:29	07:10 14:46-15:05/19 16:29
17	07:15 15:46-16:14/28 16:55	06:47 17:32 18:03	06:05 19:35 20:05	06:15 19:35 20:05	05:38 20:05 20:26	05:25 20:23 20:23	05:39 19:50 19:02	06:07 20:23 19:02	06:36 16:37 18:13	07:06 15:22-15:56/34 16:37	07:11 14:46-15:07/21 16:30	07:11 14:46-15:07/21 16:30
18	07:15 15:46-16:14/28 16:56	06:45 17:33 18:04	06:03 19:36 20:06	06:14 19:36 20:06	05:37 20:06 20:27	05:25 20:22 20:22	05:39 19:49 19:00	06:08 20:22 19:00	06:37 16:36 18:12	07:08 15:23-15:55/33 16:36	07:12 14:47-15:08/21 16:30	07:12 14:47-15:08/21 16:30
19	07:14 15:46-16:16/30 16:57	06:44 17:34 18:05	06:01 19:37 20:07	06:12 19:37 20:07	05:36 20:07 20:27	05:25 20:21 20:21	06:09 19:48 18:59	06:38 20:21 18:59	07:09 16:44 18:11	07:09 15:23-15:55/32 16:36	07:12 14:46-15:08/22 16:31	07:12 14:46-15:08/22 16:31
20	07:14 15:46-16:17/31 16:58	06:43 17:35 18:06	06:00 19:38 20:08	06:11 19:38 20:08	05:35 20:08 20:27	05:25 20:21 20:21	06:10 19:46 18:57	06:39 20:21 18:57	07:10 16:45 18:09	07:10 15:22-15:54/32 16:35	07:13 14:47-15:09/22 16:31	07:13 14:47-15:09/22 16:31
21	07:13 15:46-16:18/32 16:59	06:41 17:36 18:07	05:58 19:39 20:08	06:09 19:39 20:08	05:35 20:08 20:28	05:25 20:20 20:20	06:11 19:45 18:55	06:40 20:20 18:55	07:11 16:46 18:08	07:11 15:22-15:54/32 16:34	07:13 14:47-15:09/22 16:30	07:13 14:47-15:09/22 16:30
22	07:12 15:47-16:19/32 17:00	06:40 17:37 18:08	05:57 19:40 20:09	06:08 19:40 20:09	05:34 20:09 20:28	05:25 20:19 19:43	06:12 19:43 18:54	06:41 20:20 18:54	07:12 16:47 18:06	07:12 15:22-15:53/31 16:34	07:14 14:48-15:10/22 16:30	07:14 14:48-15:10/22 16:30
23	07:12 15:48-16:20/32 16:52	06:39 17:39 18:09	05:55 19:41 20:10	06:06 19:41 20:10	05:33 20:08 20:28	05:25 20:18 19:42	06:13 18:52 18:05	06:42 20:21 18:05	07:13 16:33 18:05	07:13 15:22-15:52/30 16:33	07:14 14:48-15:10/22 16:30	07:14 14:48-15:10/22 16:30
24	07:11 15:48-16:21/33 17:01	06:37 17:40 18:10	05:53 19:42 20:11	06:05 19:42 20:11	05:32 20:08 20:28	05:26 20:18 19:40	06:14 18:50 18:03	06:44 20:20 18:03	07:14 16:33 18:03	07:14 15:23-15:51/28 16:33	07:15 14:49-15:11/22 16:30	07:15 14:49-15:11/22 16:30
25	07:10 15:48-16:23/34 17:03	06:36 17:40 18:10	05:52 19:42 20:11	06:04 19:42 20:11	05:32 20:06 20:26	05:26 20:18 19:40	06:15 18:50 18:03	06:44 20:20 18:03	07:15 16:33 18:03	07:15 15:24-15:52/28 16:33	07:16 14:50-15:11/21 16:30	07:16 14:50-15:11/21 16:30
26	07:10 15:49-16:24/35 17:04	06:34 17:41 18:11	05:50 19:43 20:12	06:02 19:43 20:12	05:31 20:08 20:28	05:26 20:17 19:39	06:15 18:49 17:02	06:45 20:20 17:02	07:16 16:34 18:06	07:16 15:24-15:51/27 16:32	07:16 14:50-15:11/21 16:30	07:16 14:50-15:11/21 16:30
27	07:09 15:50-16:25/35 17:05	06:33 17:42 18:12	05:48 19:44 20:13	06:01 19:44 20:13	05:30 20:08 20:28	05:27 20:16 19:37	06:16 18:47 17:01	06:46 20:20 17:01	07:17 16:34 18:07	07:17 15:24-15:51/27 16:32	07:16 14:50-15:11/21 16:30	07:16 14:50-15:11/21 16:30
28	07:08 15:50-16:26/36 17:06	06:31 17:43 18:13	05:47 19:45 20:14	06:00 19:45 20:14	05:30 20:08 20:28	05:27 20:15 19:36	06:17 18:45 16:59	06:47 20:20 16:59	07:18 16:31 18:07	07:18 15:25-15:50/25 16:31	07:16 14:51-15:55/14 16:30	07:16 14:51-15:55/14 16:30
29	07:07 15:51-16:27/36 17:09	06:31 17:44 18:14	05:47 19:46 20:14	06:00 19:46 20:14	05:30 20:08 20:28	05:27 20:14 19:34	06:17 18:44 16:58	06:47 20:20 16:58	07:19 16:31 18:07	07:19 15:25-15:50/25 16:31	07:16 14:51-15:55/14 16:30	07:16 14:51-15:55/14 16:30
30	07:07 15:52-16:29/37 17:10	06:30 17:45 18:15	05:46 19:47 20:15	06:00 19:47 20:15	05:29 20:08 20:28	05:28 20:13 19:33	06:19 18:42 16:57	06:48 20:20 16:57	07:20 16:30 18:07	07:20 15:25-15:49/24 16:30	07:17 14:55-15:09/14 16:30	07:17 14:55-15:09/14 16:30
31	07:06 15:53-16:29/36 17:11	06:31 17:46 18:16	05:47 19:48 20:16	06:01 19:48 20:16	05:28 20:08 20:28	05:28 20:12 19:31	06:20 18:40 16:56	06:22 20:20 16:56	07:21 15:42-15:54/12 16:54	07:21 15:25-15:49/24 16:30	07:17 14:57-15:08/11 16:30	07:17 14:57-15:08/11 16:30
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	834	296	0	0	0	0	0	0	0	12	911	858

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS09 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	06:15-07:04/49 20:17	05:28 20:17	05:52 20:10	06:22-07:10/48 19:28	06:21 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	06:12-07:03/50 20:18	05:27 20:18	05:52 20:09	06:21-07:11/50 19:26	06:22 18:37	06:51 16:52	06:24 16:29
3	07:17 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	06:12-07:03/51 20:19	05:27 20:19	05:53 20:08	06:21-07:11/50 19:25	06:23 18:35	06:52 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	06:11-07:03/52 20:20	05:26 20:20	05:54 20:07	06:21-07:12/51 19:23	06:24 18:34	06:53 16:50	06:26 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	06:10-07:03/53 20:20	05:26 20:20	05:55 20:06	06:20-07:12/52 19:22	06:25 18:32	06:54 16:48	06:28 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:49 19:54	06:10-07:03/53 20:21	05:26 20:21	05:56 20:04	06:20-07:12/52 19:20	06:26 18:30	06:55 16:47	06:29 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	06:10-07:03/53 20:22	05:26 20:22	05:57 20:03	06:20-07:13/53 19:18	06:27 18:29	06:56 16:46	06:30 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	06:11-07:02/51 20:22	05:25 20:22	05:58 20:02	06:20-07:13/53 19:17	06:28 18:27	06:57 16:45	06:31 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	06:11-07:02/51 20:23	05:25 20:23	05:59 20:01	06:21-07:13/52 19:15	06:29 18:26	06:58 16:44	06:32 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	06:11-07:01/50 20:23	05:33 20:23	06:00 20:00	06:22-07:13/51 19:13	06:30 18:24	06:59 16:43	06:33 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	06:12-07:01/49 20:24	05:33 20:24	06:01 19:58	06:22-07:12/50 19:12	06:31 18:23	07:00 16:42	06:35 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	06:12-07:00/48 20:24	05:35 20:25	06:02 19:57	06:23-07:12/49 19:10	06:32 18:21	07:01 16:41	06:36 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	06:40-06:51/11 20:25	05:36 20:25	06:03 19:56	06:24-07:12/48 19:08	06:33 18:19	07:02 16:40	06:37 16:29
14	07:16 16:51	06:50 17:28	06:10 18:00	06:20 19:31	05:41 20:02	06:38-06:53/15 20:25	05:36 20:25	06:04 19:54	06:25-07:12/47 19:07	06:34 18:18	07:03 16:40	06:38 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:32	05:40 20:03	06:37-06:56/19 20:26	05:37 20:26	06:05 19:53	06:26-07:11/45 19:05	06:35 18:16	07:04 16:39	06:39 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	06:35-06:57/22 20:26	05:35 20:26	06:06 19:52	06:27-07:11/44 19:04	06:35 18:15	07:05 16:38	06:40 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	06:34-06:59/25 20:26	05:35 20:26	06:07 19:50	06:28-07:11/43 19:02	06:36 18:13	07:06 16:37	06:42 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	06:32-07:00/28 20:27	05:34 20:27	06:08 19:49	06:29-07:10/41 19:00	06:37 18:12	07:08 16:36	06:43 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	06:31-07:01/30 20:27	05:33 20:27	06:09 19:48	06:30-07:09/39 18:59	06:38 18:11	07:09 16:36	06:44 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:07	06:29-07:01/32 20:27	05:32 20:27	06:10 19:46	06:31-07:09/38 18:57	06:39 18:09	07:10 16:35	06:45 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	06:28-07:02/34 20:28	05:31 20:28	06:11 19:45	06:32-07:08/36 18:55	06:40 18:08	07:11 16:34	06:46 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	06:26-07:02/36 20:28	05:29 20:28	06:12 19:43	06:33-07:07/34 18:53	06:41 18:06	07:12 16:34	06:47 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	06:25-07:03/38 20:28	05:28 20:28	06:13 19:42	06:34-07:06/32 18:52	06:42 18:05	07:13 16:33	06:48 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	06:24-07:04/40 20:28	05:26 20:28	06:14 19:40	06:34-07:04/30 18:50	06:43 18:03	07:14 16:33	06:49 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	06:22-06:50/28 20:28	05:26 20:28	06:15 19:39	06:35-07:02/27 18:49	06:44 17:02	06:15 16:32	06:51 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	06:21-07:04/43 20:28	05:26 20:28	06:16 19:37	06:36-07:01/25 18:47	06:45 17:01	06:52 16:32	06:52 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	06:20-07:04/44 20:28	05:27 20:28	06:16 19:36	06:37-06:59/22 18:47	06:46 16:59	06:17 16:31	06:53 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	06:18-07:04/46 20:28	05:27 20:28	06:17 19:34	06:38-06:57/19 18:44	06:47 16:58	06:19 16:31	06:54 16:36
29	07:07 17:09	06:45 17:47	05:58 18:15	06:17 19:47	05:29 20:15	06:17-07:04/47 20:28	05:27 20:28	06:18 19:33	06:39-06:54/15 18:42	06:48 16:57	06:20 16:30	06:55 16:36
30	07:06 17:10	06:43 17:48	05:57 18:16	06:16 19:48	05:29 20:16	06:16-07:04/48 20:28	05:28 20:28	06:19 19:31	06:40-06:51/11 18:40	06:49 16:56	06:21 16:30	06:56 16:37
31	07:06 17:11	06:42 17:49	05:56 18:17	06:15 19:49	05:28 20:17	06:15-07:03/49 20:28	05:27 20:28	06:20 19:30	06:41-06:45/4 18:39	06:50 16:54	06:22 16:30	06:57 16:38
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290
Sum of minutes with flicker	0	0	0	603	1152	10	560	1211	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS10 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:07-17:22/15	06:40 19:18	05:56 19:49	05:28 20:18	05:28 20:28	05:52 20:10	06:21 19:28	06:50 17:48-18:10/22	06:23 19:28	06:57 16:30
2	07:18 16:40	07:04 17:14	06:28 17:06-17:22/16	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:53 20:09	06:22 19:26	06:51 17:46-18:11/25	06:24 18:37	06:58 16:52
3	07:18 16:41	07:03 17:15	06:27 17:06-17:23/17	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 17:45-18:08/23	06:25 18:35	06:59 16:51
4	07:18 16:41	07:02 17:16	06:25 17:05-17:23/18	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 17:44-18:06/22	06:27 18:34	07:00 16:50
5	07:18 16:42	07:01 17:17	06:24 17:05-17:23/18	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 17:43-18:04/21	06:28 18:32	07:01 16:49
6	07:18 16:43	07:00 17:18	06:22 17:05-17:25/20	06:32 19:23	05:50 19:54	05:26 20:21	05:31 20:27	05:56 20:05	06:26 19:20	06:55 17:42-18:03/21	06:29 18:31	07:02 16:47
7	07:18 16:44	06:59 17:20	06:21 17:05-17:26/21	06:31 19:24	05:48 19:55	05:26 20:22	05:32 20:27	05:57 20:03	06:27 19:18	06:56 17:41-18:01/20	06:30 18:29	07:03 16:46
8	07:18 16:45	06:58 17:21	06:19 17:06-17:27/21	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 17:40-18:00/20	06:31 18:27	07:04 16:45
9	07:17 16:46	06:57 17:22	06:18 17:06-17:28/22	06:28 19:26	05:46 19:57	05:25 20:23	05:33 20:27	05:59 20:01	06:29 19:15	06:58 17:40-17:58/18	06:32 18:26	07:05 16:44
10	07:17 16:47	06:55 17:23	06:16 17:06-17:29/23	06:26 19:27	05:45 19:58	05:25 20:23	05:33 20:26	06:00 20:00	06:30 19:14	06:59 17:40-17:57/17	06:34 18:24	07:06 16:43
11	07:17 16:48	06:54 17:24	06:14 17:07-17:31/24	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 17:40-17:56/16	06:35 18:23	07:06 16:42
12	07:17 16:49	06:53 17:26	06:13 17:08-17:31/23	06:23 19:30	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 17:40-17:55/15	06:36 18:21	07:07 16:41
13	07:17 16:50	06:52 17:27	06:11 17:10-17:29/19	06:21 19:31	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 17:40-17:54/14	06:37 18:20	07:08 16:40
14	07:16 16:51	06:51 17:28	06:10 17:12-17:27/15	06:20 19:32	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:55	06:34 19:07	07:03 17:41-17:52/11	06:38 18:18	07:09 16:40
15	07:16 16:52	06:49 17:29	06:08 17:15-17:27/12	06:18 19:33	05:40 20:03	05:25 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 17:41-17:51/10	06:39 18:17	07:10 16:39
16	07:16 16:54	06:48 17:30	06:06 17:18-17:19/1	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 17:43-17:50/7	06:41 18:15	07:10 16:38
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:37 19:02	07:07 17:44-17:49/5	06:42 18:14	07:11 16:37
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 17:46-17:47/1	06:43 18:12	07:12 16:36
19	07:14 16:57	06:44 17:34	06:02 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 18:09	07:12 16:36
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 18:09	07:13 16:35
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 18:08	07:13 16:34
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 18:06	07:14 16:34
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:44 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 18:05	07:14 16:33
24	07:11 17:03	06:37 17:14-17:16/2	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:04	06:50 18:04	07:15 16:33
25	07:10 17:04	06:36 17:12-17:18/6	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	06:15 17:02	06:51 18:02	07:15 16:32
26	07:10 17:05	06:34 17:10-17:18/8	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:16 19:37	06:45 18:47	06:16 17:01	06:52 18:01	07:16 16:32
27	07:09 17:06	06:33 17:09-17:20/11	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	06:17 17:01	06:53 18:01	07:16 16:31
28	07:08 17:08	06:31 17:08-17:20/12	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:17 17:57-18:08/11	06:19 18:04	07:16 16:31
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:28	05:49 20:13	06:18 19:33	06:48 18:42	06:18 17:54-18:07/13	06:20 18:04	07:17 16:30
30	07:07 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:19 17:51-18:08/17	06:21 18:04	07:17 16:30
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	457	426	375	346	300	290
Sum of minutes with flicker	0	39	285	0	0	0	0	0	41	288	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS11 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:17 16:39	07:05 17:12	06:30 17:45	06:40 19:18	05:56 19:49	05:28 20:17	05:28 20:28	05:52 20:10	06:21 19:28	06:50 18:39	06:23 16:53	06:57 16:30
2	07:17 16:40	07:04 17:14	06:28 17:46	06:39 19:19	05:54 19:50	05:27 20:18	05:29 20:28	05:52 20:09	06:22 19:26	06:51 18:37	06:24 16:52	06:58 16:29
3	07:18 16:41	07:03 17:15	06:27 17:48	06:37 19:20	05:53 19:51	05:27 20:19	05:29 20:28	05:53 20:08	06:23 19:25	06:52 18:35	06:25 16:51	06:59 16:29
4	07:18 16:41	07:02 17:16	06:25 17:49	06:35 19:21	05:52 19:52	05:26 20:20	05:30 20:28	05:54 20:07	06:24 19:23	06:53 18:34	06:27 16:50	07:00 16:29
5	07:18 16:42	07:01 17:17	06:24 17:50	06:34 19:22	05:51 19:53	05:26 20:20	05:30 20:28	05:55 20:06	06:25 19:22	06:54 18:32	06:28 16:48	07:01 16:29
6	07:18 16:43	07:00 17:18	06:22 17:51	06:32 19:23	05:49 19:54	05:26 20:21	05:31 20:27	05:56 20:04	06:26 19:20	06:55 18:31	06:29 16:47	07:02 16:29
7	07:18 16:44	06:59 17:20	06:21 17:52	06:31 19:24	05:48 19:55	05:26 20:22	05:32 20:27	05:57 20:03	06:27 19:18	06:56 18:29	06:30 16:46	07:03 16:29
8	07:17 16:45	06:58 17:21	06:19 17:53	06:29 19:25	05:47 19:56	05:25 20:22	05:32 20:27	05:58 20:02	06:28 19:17	06:57 18:27	06:31 16:45	07:04 16:29
9	07:17 16:46	06:56 17:22	06:18 17:54	06:27 19:26	05:46 19:57	05:25 20:23	05:33 20:26	05:59 20:01	06:29 19:15	06:58 18:26	06:32 16:44	07:05 16:29
10	07:17 16:47	06:55 17:23	06:16 17:55	06:26 19:27	05:45 19:58	05:25 20:23	05:33 20:26	06:00 20:00	06:30 19:13	06:59 18:24	06:33 16:43	07:06 16:29
11	07:17 16:48	06:54 17:24	06:14 17:56	06:24 19:28	05:44 19:59	05:25 20:24	05:34 20:26	06:01 19:58	06:31 19:12	07:00 18:23	06:35 16:42	07:06 16:29
12	07:17 16:49	06:53 17:26	06:13 17:57	06:23 19:29	05:43 20:00	05:25 20:24	05:35 20:25	06:02 19:57	06:32 19:10	07:01 18:21	06:36 16:41	07:07 16:29
13	07:16 16:50	06:52 17:27	06:11 17:58	06:21 19:30	05:42 20:01	05:25 20:25	05:36 20:25	06:03 19:56	06:33 19:09	07:02 18:20	06:37 16:40	07:08 16:29
14	07:16 16:51	06:51 17:28	06:10 18:00	06:20 19:31	05:41 20:02	05:25 20:25	05:36 20:24	06:04 19:54	06:34 19:07	07:03 18:18	06:38 16:40	07:09 16:29
15	07:16 16:52	06:49 17:29	06:08 18:01	06:18 19:33	05:40 20:03	05:24 20:26	05:37 20:24	06:05 19:53	06:35 19:05	07:04 18:16	06:39 16:39	07:09 16:29
16	07:15 16:54	06:48 17:30	06:06 18:02	06:17 19:34	05:39 20:04	05:25 20:26	05:38 20:23	06:06 19:52	06:36 19:04	07:05 18:15	06:40 16:38	07:10 16:30
17	07:15 16:55	06:47 17:32	06:05 18:03	06:15 19:35	05:38 20:05	05:25 20:26	05:39 20:23	06:07 19:50	06:36 19:02	07:06 18:13	06:42 16:37	07:11 16:30
18	07:15 16:56	06:45 17:33	06:03 18:04	06:14 19:36	05:37 20:06	05:25 20:27	05:39 20:22	06:08 19:49	06:37 19:00	07:08 18:12	06:43 16:36	07:11 16:30
19	07:14 16:57	06:44 17:34	06:01 18:05	06:12 19:37	05:36 20:07	05:25 20:27	05:40 20:21	06:09 19:48	06:38 18:59	07:09 18:11	06:44 16:36	07:12 16:31
20	07:14 16:58	06:43 17:35	06:00 18:06	06:11 19:38	05:35 20:08	05:25 20:27	05:41 20:21	06:10 19:46	06:39 18:57	07:10 18:09	06:45 16:35	07:13 16:31
21	07:13 16:59	06:41 17:36	05:58 18:07	06:09 19:39	05:35 20:08	05:25 20:28	05:42 20:20	06:11 19:45	06:40 18:55	07:11 18:08	06:46 16:34	07:13 16:32
22	07:12 17:00	06:40 17:37	05:57 18:08	06:08 19:40	05:34 20:09	05:25 20:28	05:43 20:19	06:12 19:43	06:41 18:54	07:12 18:06	06:47 16:34	07:14 16:32
23	07:12 17:02	06:39 17:39	05:55 18:09	06:06 19:41	05:33 20:10	05:25 20:28	05:43 20:18	06:13 19:42	06:42 18:52	07:13 18:05	06:48 16:33	07:14 16:33
24	07:11 17:03	06:37 17:40	05:53 18:10	06:05 19:42	05:32 20:11	05:26 20:28	05:44 20:18	06:14 19:40	06:43 18:50	07:14 18:03	06:50 16:33	07:15 16:33
25	07:10 17:04	06:36 17:41	05:52 18:11	06:04 19:43	05:32 20:12	05:26 20:28	05:45 20:17	06:15 19:39	06:44 18:49	06:15 17:02	06:51 16:32	07:15 16:34
26	07:10 17:05	06:34 17:42	05:50 18:12	06:02 19:44	05:31 20:13	05:26 20:28	05:46 20:16	06:15 19:37	06:45 18:47	06:16 17:01	06:52 16:32	07:16 16:34
27	07:09 17:06	06:33 17:43	05:48 18:13	06:01 19:45	05:30 20:14	05:27 20:28	05:47 20:15	06:16 19:36	06:46 18:45	06:17 16:59	06:53 16:31	07:16 16:35
28	07:08 17:07	06:31 17:44	05:47 18:14	06:00 19:46	05:30 20:14	05:27 20:28	05:48 20:14	06:17 19:34	06:47 18:44	06:19 16:58	06:54 16:31	07:16 16:36
29	07:07 17:09		06:45 19:15	05:58 19:47	05:29 20:15	05:27 20:28	05:49 20:13	06:18 19:33	06:48 18:42	06:20 16:57	06:55 16:30	07:17 16:36
30	07:06 17:10		06:44 19:16	05:57 19:48	05:29 20:16	05:28 20:28	05:50 20:12	06:19 19:31	06:49 18:40	06:21 16:56	06:56 16:30	07:17 16:37
31	07:06 17:11		06:42 19:17		05:28 20:17		05:51 20:11	06:20 19:30		06:22 16:54		07:17 16:38
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG

WTG: IS12 - VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40 7,40

Operational time

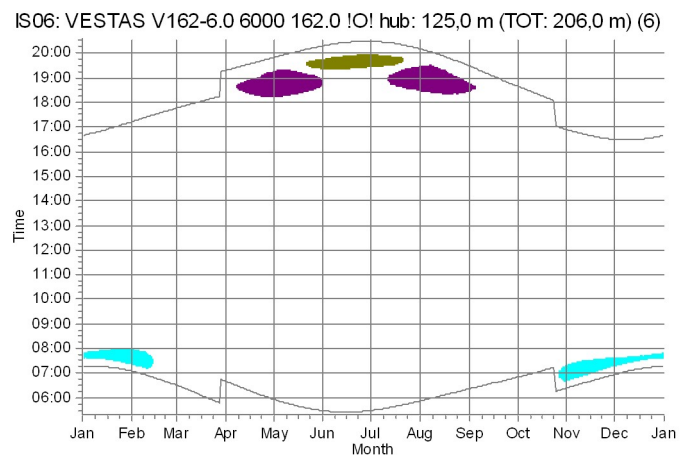
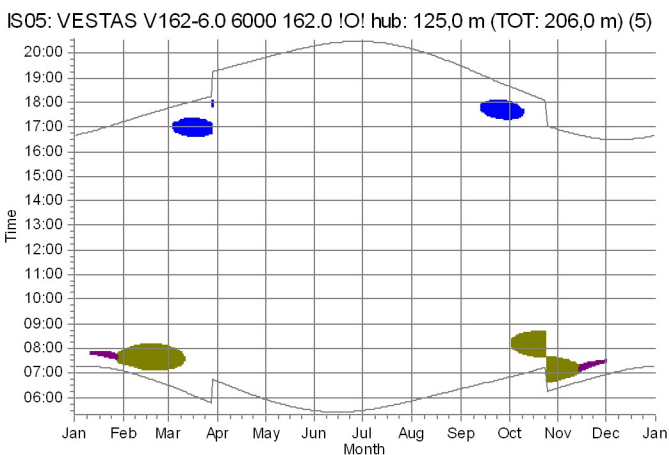
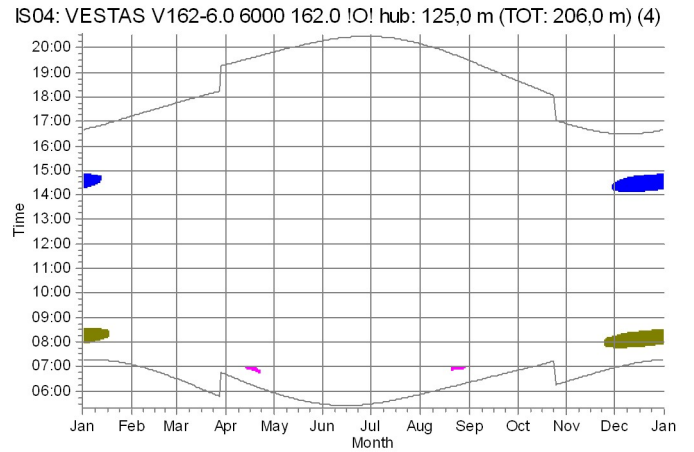
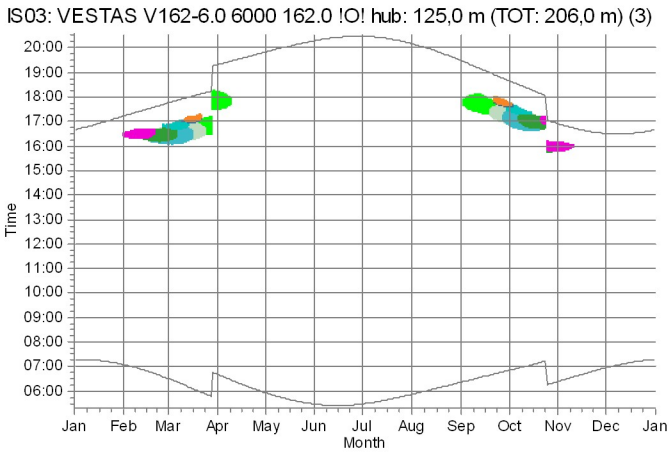
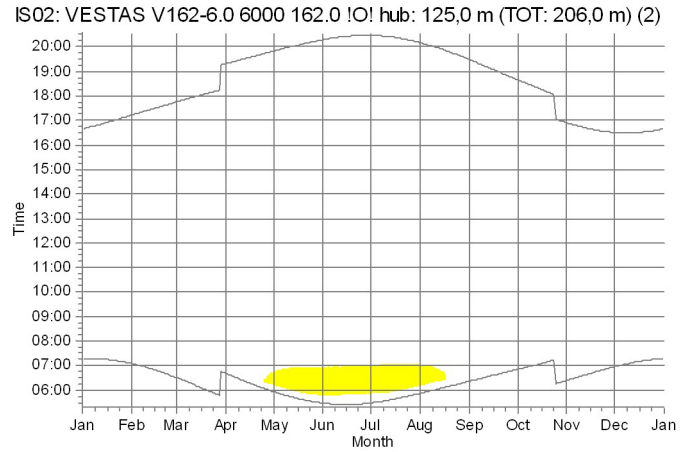
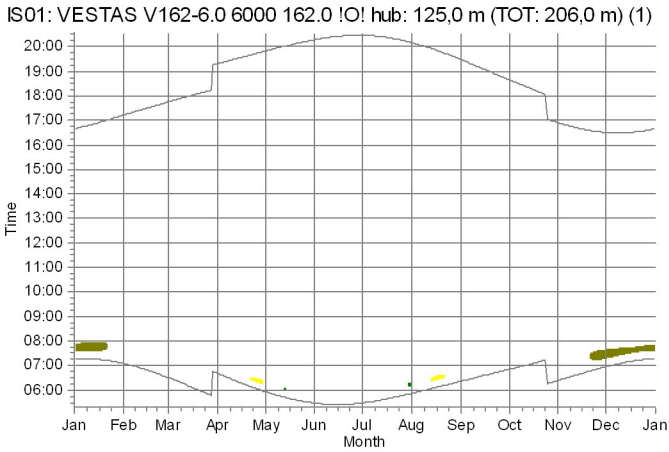
N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
807 387 301 422 457 333 302 421 1.645 786 483 1.129 7.473

	January	February	March	April	May	June	July	August	September	October	November	December			
1	07:17	07:05	06:30	15:49-16:25/36	06:40	05:56	05:28	05:28	05:52	06:21	06:50	06:23	15:24-15:48/24	06:57	
	16:39	17:12	17:45	19:18	19:18	19:49	20:17	20:28	20:10	19:28	18:39	16:53		16:30	
2	07:17	07:04	06:28	15:50-16:23/33	06:39	05:54	05:27	05:29	05:53	06:22	06:51	06:24	15:27-15:47/20	06:58	
	16:40	17:14	17:47	19:19	19:50	20:18	20:28	20:09	19:26	18:37		16:52		16:29	
3	07:18	07:03	06:27	15:51-16:21/30	06:37	05:53	05:27	05:29	05:53	06:23	06:52	06:25	15:30-15:44/14	06:59	
	16:41	17:15	17:48	19:20	19:51	20:19	20:28	20:08	19:25	18:35		16:51		16:29	
4	07:18	07:02	06:25	15:53-16:20/27	06:35	05:52	05:27	05:30	05:54	06:24	06:53	06:27		07:00	
	16:41	17:16	17:49	19:21	19:52	20:20	20:28	20:07	19:23	18:34		16:50		16:29	
5	07:18	07:01	06:24	15:54-16:18/24	06:34	05:51	05:26	05:30	05:55	06:25	06:54	06:28		07:01	
	16:42	17:17	17:50	19:22	19:53	20:20	20:28	20:06	19:22	18:32		16:49		16:29	
6	07:18	07:00	06:22	15:57-16:16/19	06:32	05:50	05:26	05:31	05:56	06:26	06:55	16:40-16:45/5	06:29	07:02	
	16:43	17:18	17:51	19:23	19:54	20:21	20:27	20:04	19:20	18:31		16:47		16:29	
7	07:18	06:59	16:05-16:08/3	06:21	16:00-16:12/12	06:31	05:48	05:26	05:32	05:57	06:27	06:56	16:34-16:50/16	06:30	07:03
	16:44	17:20	17:52	19:24	19:55	20:22	20:27	20:03	19:18	18:29		16:46		16:29	
8	07:17	06:58	15:59-16:14/15	06:19	06:29	05:47	05:25	05:32	05:58	06:28	06:57	16:31-16:52/21	06:31	07:04	
	16:45	17:21	17:53	19:25	19:56	20:22	20:27	20:02	19:17	18:27		16:45		16:29	
9	07:17	06:56	15:57-16:17/20	06:18	06:28	05:46	05:25	05:33	05:59	06:29	06:58	16:28-16:54/26	06:32	07:05	
	16:46	17:22	17:54	19:26	19:57	20:23	20:26	20:01	19:15	18:26		16:44		16:29	
10	07:17	06:55	15:55-16:20/25	06:16	06:26	05:45	05:25	05:34	06:00	06:30	06:59	16:26-16:55/29	06:33	07:05	
	16:47	17:23	17:55	19:27	19:58	20:23	20:26	20:00	19:13	18:24		16:43		16:29	
11	07:17	06:54	15:53-16:21/28	06:14	06:24	05:44	05:25	05:34	06:01	06:31	07:00	16:24-16:56/32	06:35	07:06	
	16:48	17:24	17:56	19:28	19:59	20:24	20:26	19:58	19:12	18:23		16:42		16:29	
12	07:17	06:53	15:51-16:22/31	06:13	06:23	05:43	05:25	05:35	06:02	06:32	07:01	16:23-16:57/34	06:36	07:07	
	16:49	17:26	17:57	19:29	20:00	20:24	20:25	19:57	19:10	18:21		16:41		16:29	
13	07:16	06:52	15:51-16:24/33	06:11	06:21	05:42	05:25	05:36	06:03	06:33	07:02	16:21-16:58/37	06:37	07:08	
	16:50	17:27	17:58	19:30	20:01	20:25	20:25	19:56	19:09	18:20		16:40		16:29	
14	07:16	06:51	15:50-16:25/35	06:10	06:20	05:41	05:25	05:36	06:04	06:34	07:03	16:20-16:58/38	06:38	07:09	
	16:51	17:28	18:00	19:32	20:02	20:25	20:24	19:54	19:07	18:18		16:40		16:29	
15	07:16	06:49	15:48-16:25/37	06:08	06:18	05:40	05:25	05:37	06:05	06:35	07:04	16:19-16:58/39	06:39	07:09	
	16:52	17:29	18:01	19:33	20:03	20:26	20:24	19:53	19:05	18:16		16:39		16:30	
16	07:15	06:48	15:48-16:26/38	06:06	06:17	05:39	05:25	05:38	06:06	06:36	07:05	16:19-16:59/40	06:40	07:10	
	16:54	17:30	18:02	19:34	20:04	20:26	20:23	19:52	19:04	18:15		16:38		16:30	
17	07:15	06:47	15:48-16:27/39	06:05	06:15	05:38	05:25	05:39	06:07	06:36	07:06	16:18-16:59/41	06:42	07:11	
	16:55	17:32	18:03	19:35	20:05	20:26	20:23	19:50	19:02	18:14		16:37		16:30	
18	07:15	06:45	15:47-16:27/40	06:03	06:14	05:37	05:25	05:39	06:08	06:37	07:08	16:18-16:59/41	06:43	07:11	
	16:56	17:33	18:04	19:36	20:06	20:27	20:22	19:49	19:00	18:12		16:36		16:30	
19	07:14	06:44	15:47-16:28/41	06:02	06:12	05:36	05:25	05:40	06:09	06:38	07:09	16:17-16:59/42	06:44	07:12	
	16:57	17:34	18:05	19:37	20:07	20:27	20:21	19:48	18:59	18:11		16:36		16:31	
20	07:14	06:43	15:47-16:28/41	06:00	06:11	05:35	05:25	05:41	06:10	06:39	07:10	16:17-16:59/42	06:45	07:13	
	16:58	17:35	18:06	19:38	20:07	20:27	20:21	19:46	18:57	18:09		16:35		16:31	
21	07:13	06:41	15:46-16:28/42	05:58	06:09	05:35	05:25	05:42	06:11	06:40	07:11	16:17-16:58/41	06:46	07:13	
	16:59	17:36	18:07	19:39	20:08	20:28	20:20	19:45	18:55	18:08		16:34		16:32	
22	07:12	06:40	15:46-16:28/42	05:57	06:08	05:34	05:25	05:43	06:12	06:41	07:12	16:16-16:58/42	06:47	07:14	
	17:00	17:37	18:08	19:40	20:09	20:28	20:19	19:43	18:54	18:06		16:34		16:32	
23	07:12	06:39	15:46-16:27/41	05:55	06:06	05:33	05:26	05:44	06:13	06:42	07:13	16:17-16:58/41	06:48	07:14	
	17:02	17:39	18:09	19:41	20:10	20:28	20:18	19:42	18:52	18:05		16:33		16:33	
24	07:11	06:37	15:46-16:28/42	05:53	06:05	05:32	05:26	05:44	06:14	06:43	07:14	16:17-16:57/40	06:50	07:15	
	17:03	17:40	18:10	19:42	20:11	20:28	20:17	19:40	18:50	18:04		16:33		16:33	
25	07:10	06:36	15:46-16:27/41	05:52	06:04	05:32	05:26	05:45	06:15	06:44	07:15	15:18-15:57/39	06:51	07:15	
	17:04	17:41	18:11	19:43	20:12	20:28	20:17	19:39	18:49	17:02		16:32		16:34	
26	07:10	06:34	15:47-16:27/40	05:50	06:02	05:31	05:26	05:46	06:16	06:45	07:16	15:18-15:56/38	06:52	07:16	
	17:05	17:42	18:12	19:44	20:13	20:28	20:16	19:37	18:47	17:01		16:32		16:34	
27	07:09	06:33	15:48-16:26/38	05:48	06:01	05:30	05:27	05:47	06:16	06:46	07:17	15:18-15:55/37	06:53	07:16	
	17:06	17:43	18:13	19:45	20:14	20:28	20:15	19:36	18:45	16:59		16:31		16:35	
28	07:08	06:31	15:48-16:25/37	05:47	06:00	05:30	05:27	05:48	06:17	06:47	07:19	15:19-15:54/35	06:54	07:16	
	17:08	17:44	18:14	19:46	20:14	20:28	20:14	19:34	18:44	16:58		16:31		16:36	
29	07:07		06:45	05:58	05:29	05:28	05:49	06:18	06:48	06:20	15:21-15:53/32	06:55		07:17	
	17:09		19:15	19:47	20:15	20:28	20:13	19:33	18:42	16:57		16:30		16:36	
30	07:06		06:44	05:57	05:29	05:28	05:50	06:19	06:49	06:21	15:21-15:52/31	06:56		07:17	
	17:10		19:16	19:48	20:16	20:28	20:12	19:31	18:40	16:56		16:30		16:37	
31	07:06		06:42		05:28		05:51	06:20		06:22	15:23-15:50/27			07:17	
	17:11		19:17		20:17		20:11	19:30		16:54				16:38	
Potential sun hours	300	298	370	398	446	450	456	426	375	346	300	290		0	
Sum of minutes with flicker	0	749	181	0	0	0	0	0	0	886	58	0		0	
















Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

SHADOW - Calendar per WTG, graphical

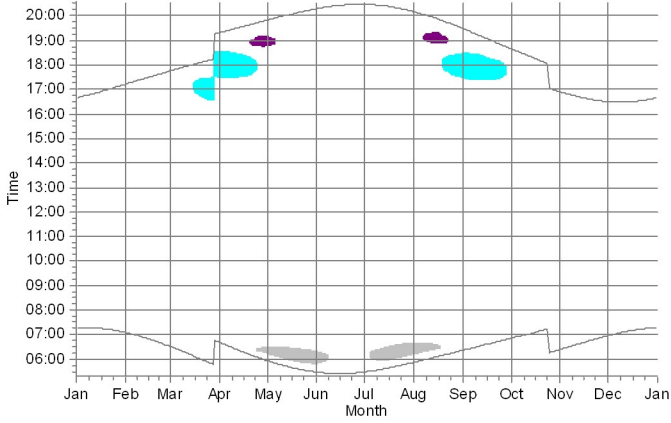


Shadow receptors

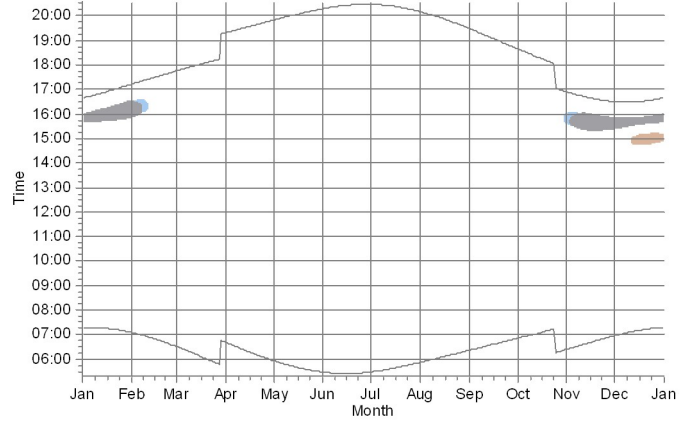
 R110: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (41)	 R193: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (47)	 R28: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (32)
 R116: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (42)	 R210: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (48)	 R36: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (33)
 R142: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (38)	 R223: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (50)	 R51: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (34)
 R160: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (44)	 R23: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (30)	 R52: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (39)
 R19: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (29)	 R25: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (31)	 R71: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (40)

SHADOW - Calendar per WTG, graphical

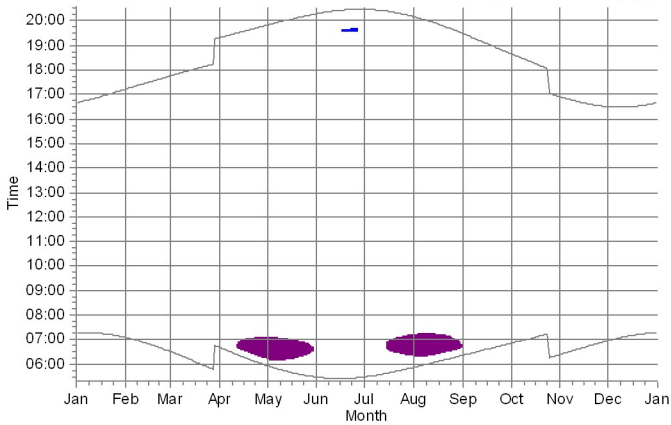
IS07: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (7)



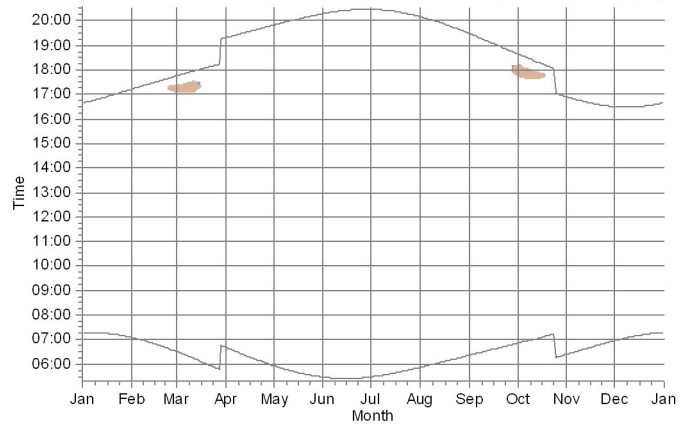
IS08: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (8)



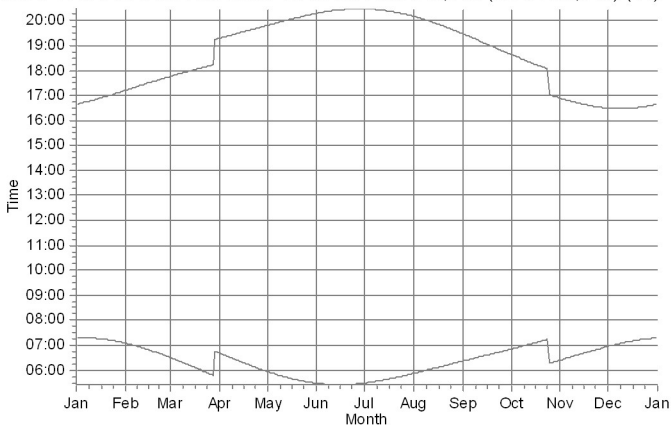
IS09: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (9)



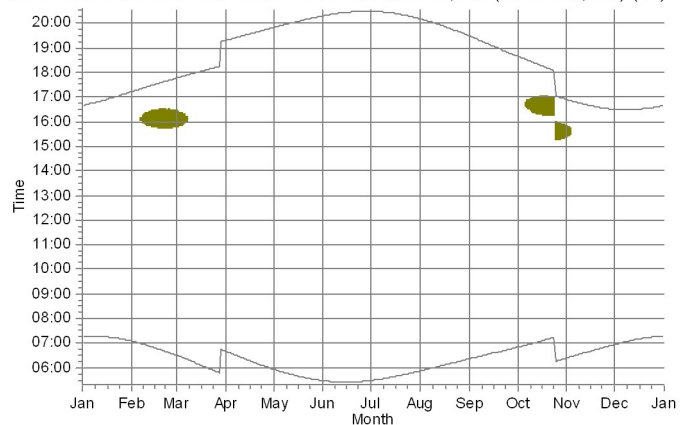
IS10: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (10)











IS11: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (11)



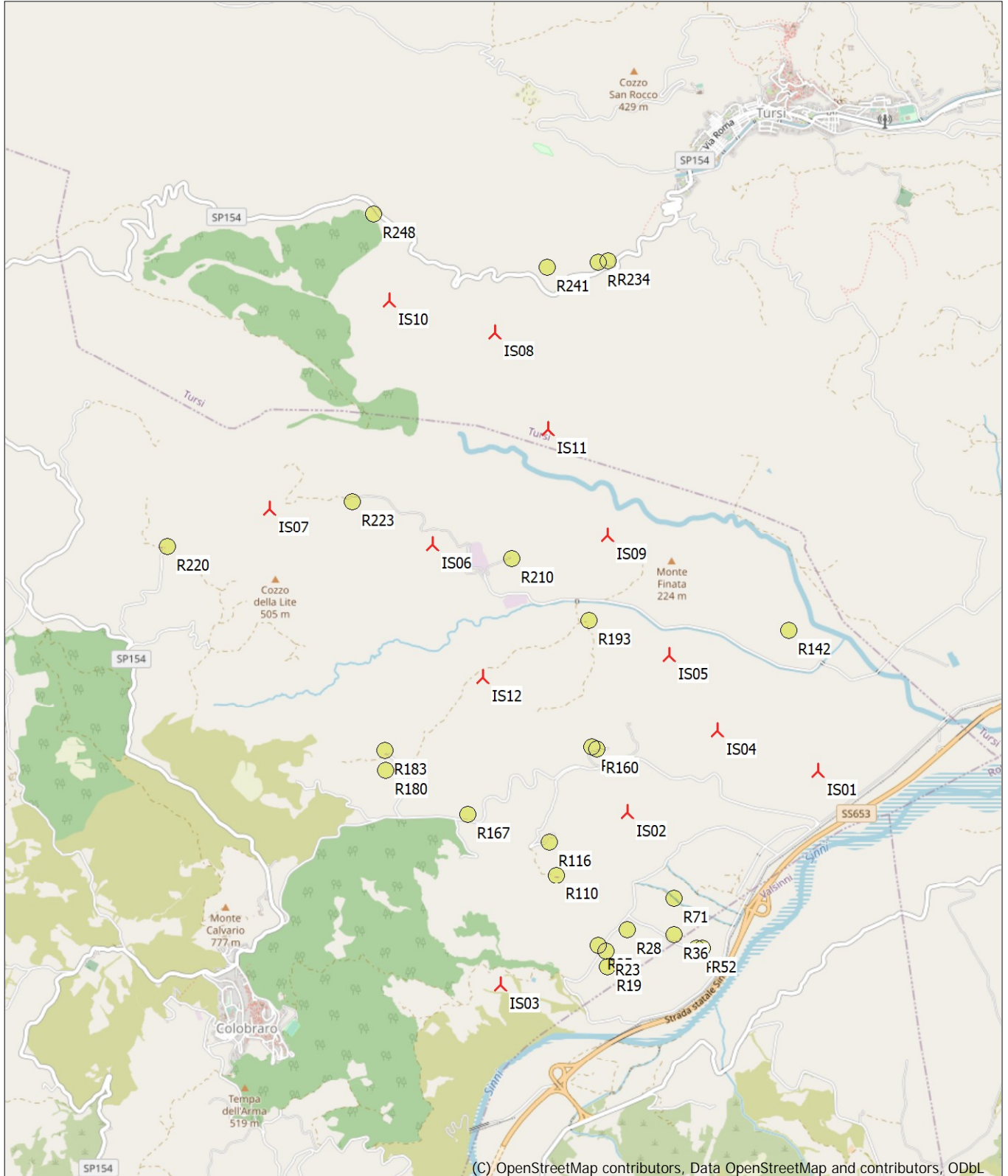
IS12: VESTAS V162-6.0 6000 162.0 !O! hub: 125,0 m (TOT: 206,0 m) (12)



Shadow receptors

 R142: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (38)	 R220: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (49)	 R236: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (52)
 R193: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (47)	 R223: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (50)	 R241: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (53)
 R210: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (48)	 R234: Shadow Receptor: 1,0 x 1,0 Azimuth: 0,0° Slope: 90,0° (51)	

SHADOW - Map



0 500 1000 1500 2000 m

Map: EMD OpenStreetMap , Print scale 1:40.000, Map center Geo WGS84 East: 16,445713° E North: 40,214897° N

New WTG

Shadow receptor

Flicker map level: Elevation Grid Data Object: WF IS_EMDGrid_0.wpg (5)