

**Comuni di : SAN GIORGIO LA MOLARA, MOLINARA,  
SAN MARCO DEI CAVOTI, BASELICE E FOIANO DI VAL FORTORE**

Provincia di : BENEVENTO

Regione : CAMPANIA

PROPONENTE

**IVPC**



IVPC S.r.l.

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OPERA

**PROGETTO PER IL RIFACIMENTO E POTENZIAMENTO  
DI UN PARCO EOLICO**

OGGETTO

TITOLO ELABORATO :

RELAZIONE SHADOW FLICKERING

DATA : Dicembre 2021

N°/CODICE ELABORATO :

**R 04.8**

SCALA :

Folder :

Tipologia : Relazione

Lingua : ITALIANO

TECNICI

TIMBRO E FIRMA



00	Dicembre 2021		IVPC Eolica	IVPC Eolica	IVPC
N° REVISIONE	DATA	OGGETTO DELLA REVISIONE	ELABORAZIONE	VERIFICA	APPROVAZIONE

## 1. PREMESSA

Il presente elaborato ha lo scopo di valutare in maniera tecnica l'eventuale impatto generato dall'evoluzione dell'ombra derivante dalla futura installazione di un impianto di produzione di energia da fonte eolica nei comuni di Baselice, Foiano di Val Fortore, San Marco dei Cavoti, Molinara e San Giorgio La Molara, tutti in provincia di Benevento in Regione Campania ed è costituito da n. 24 aerogeneratori da 6.1 MW per una potenza complessiva di 146,40 MW e aventi un'altezza al mozzo pari a 101 metri ed un diametro del rotore pari a 158 metri.

In particolare questa iniziativa è riferita al progetto di rifacimento e potenziamento di un impianto eolico esistente composto da n. 97 aerogeneratori tripala con torre tralicciata, di cui n. 23 modello Vestas V42 e n. 74 modello Vestas V44, tutte di potenza nominale pari a 0,60 MW, per una potenza complessiva di 58,20 MW. L'impianto è collegato tramite cavidotti interrati alla Sottostazione elettrica di trasformazione 150/30 kv esistente di Foiano di Val Fortore (BN).

A seguito di tutti gli studi effettuati sull'area in esame (analisi orografiche, anemologiche e della rete elettrica) e in base all'ipotesi di rendimento economico, si ritiene che per l'impianto in oggetto possano essere convenientemente utilizzati aerogeneratori di grossa taglia. Tutte le turbine scelte da IVPC sono sempre certificate a livello internazionale, generalmente dalla Germanischer Lloyd, DNV o da altro organismo equivalente. Questa certificazione è essenziale per garantire la bancabilità del progetto e la sicurezza al paese che le turbine produrranno l'energia annunciata (poiché la curva di potenza,  $P = f(v_{\text{vento}})$ , è certificata).

La turbina utilizzata per lo studio progettuale è caratterizzata da una potenza nominale unitaria pari a 6.1 MW, ed un'altezza massima punta pala di 180 mt. Il modello di turbina scelto è il più performante sul mercato per il sito eolico in esame, tuttavia IVPC si riserva nel futuro di avere la possibilità di optare su altri modelli con caratteristiche simili. Un eventuale cambiamento sarà fatto solo se ritenuto in grado di migliorare le considerazioni fatte ad oggi.

Per lo studio dello Shadow Flicker è stata presa in considerazione una GE 158 che ha le medesime caratteristiche dimensionali dell'aerogeneratore di progetto avente un'altezza al mozzo pari a 101 metri ed un diametro del rotore pari a 158 metri.

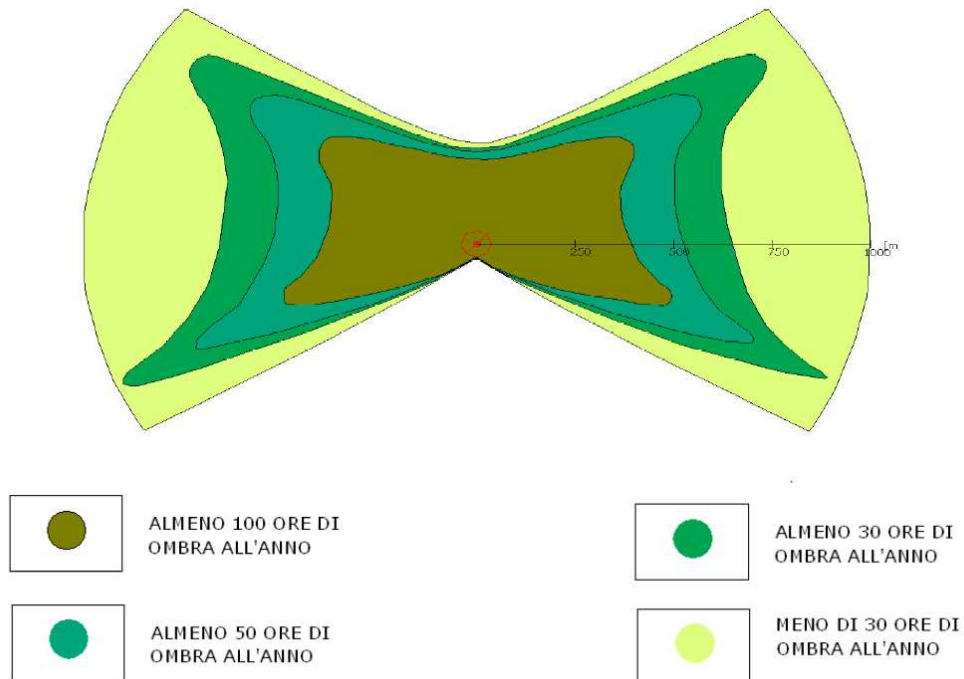
Lo Shadow-Flickering è l'espressione comunemente impiegata in ambito specialistico per descrivere l'effetto stroboscopico delle ombre proiettate dalle pale rotanti degli aerogeneratori eolici quando sussistono le condizioni meteorologiche opportune; infatti la possibilità e la durata di tali effetti dipendono da una serie di condizioni ambientali, tra cui : la posizione del sole, l'ora del giorno, il giorno dell'anno, le condizioni atmosferiche ambientali e la posizione della turbina eolica rispetto ad un recettore sensibile. La valutazione tecnica è eseguita con l'ausilio di un software di simulazione specifico per la progettazione degli impianti eolici WIND PRO®, costituito da un insieme di moduli di elaborazione orientati alla simulazione di una serie di aspetti che caratterizzano le diverse fasi progettuali. Il modulo SHADOW è quello specifico per la valutazione dell'evoluzione dell'ombra e del flickering. In tale report è riportata:

- *La descrizione del caso studio con le posizioni delle turbine e loro caratteristiche tecniche*
- *Una breve descrizione tecnica del fenomeno di shadow flickering*
- *La descrizione dei recettori soggetti al fenomeno per i quali è stata richiesta questa analisi*
- *Sintesi della metodologia di analisi seguita per lo studio*
- *Sintesi dei risultati ottenuti, con allegati grafici ed analitici di dettaglio che descrivono il fenomeno su ognuno dei recettori e da parte di ognuna delle turbine per tutto l'anno solare.*

## 2. STUDIO DELL'EVOLUZIONE DELL'OMBRA GIORNALIERA GENERATA DAGLI AEROGENERATORI

Le turbine eoliche, come altre strutture fortemente sviluppate in altezza, proiettano un'ombra sulle aree adiacenti in presenza della luce solare diretta. Per chi vive in tali zone prossime all'insediamento eolico può essere molto fastidioso il cosiddetto fenomeno del "flicker" che consiste in un effetto di lampeggiamento che si verifica quando le pale del rotore in movimento "tagliano" la luce solare in maniera intermittente. Una progettazione attenta a questa problematica permette di evitare questo spiacevole fenomeno semplicemente prevedendo il luogo di incidenza dell'ombra e disponendo le turbine in maniera tale che l'ombra sulle zone sensibili non superi un certo numero di ore all'anno. Il grafico in figura i riporta l'evoluzione annuale dell'ombra di una turbina considerando il caso peggiore di pale sempre in rotazione intorno al mozzo, e orientate sempre ortogonalmente al sole durante la sua evoluzione giornaliera.

Come è evidente dal grafico e dalla legenda le ore annue di ombra sono sempre minori con l'aumentare della distanza dal pilone secondo una particolare geometria dettata dalla posizione geografica; da osservare che l'ombra arriva a proiettarsi anche sino ad una distanza di 1 km, anche se solo per pochi minuti all'anno.



*Figura 2: Evoluzione annuale tipo dell'ombra di una pala*

Considerati i pochi precedenti esistenti (Germania) e le ipotesi così penalizzanti con cui è stata calcolato tale grafico si è ritenuto opportuno effettuare una sovrapposizione sull'impianto della parte più interna del grafico ovvero dell'area **che supera le 100 ore all'anno di ombra dei punti di installazione, intendendo questo come limite da non superarsi.**

In Italia, così come nella maggior parte dei paesi Europei ed extraeuropei non esiste una normativa specifica in relativa al disturbo generato dal fenomeno di Shadow – Flickering. Esistono delle regolamentazioni locali ma quasi mai comprendono limiti numerici specifici, quanto piuttosto delle raccomandazioni tese a sottolineare che il fenomeno non sia “unreasonable” o “significant”.

### 3. INDIVIDUAZIONE DEI RECETTORI ED IPOTESI DI CALCOLO

L'analisi di shadow-flickering di cui al presente studio è stata elaborata per specifici 19 recettori che circondano l'impianto; tuttavia alcune strutture inserite nel modello di simulazione potrebbero essere ruderi non abitati e sostanzialmente privi di caratteristiche minime di abitabilità o agibilità.

NOME	E	N
A	491734	4578251
B	493799	4578584
C	493906	4578271
D	493775	4578294
E	493824	4578133
F	493363	4578017
G	496649	4575498
H	494856	4571786
I	496609	4571009
J	498548	4571918
K	493292	4576267
L	493749	4576449
M	493784	4576412
N	493621	4577477
O	494633	4576820
P	494684	4576628
Q	494826	4576607
R	496659	4575537
S	496996	4575344

*Tab. 1 – Coordinate ricettori UTM-WGS84*

Lo studio, i cui risultati in dettaglio sono riportati di seguito, è stato condotto con uno specifico software (WindPRO).

Nello studio ci si è posti nella condizione più sfavorevole possibile, in quanto si è considerato che:

- il sole risplende per tutta la giornata dall'alba al tramonto (cioè si è sempre in assenza di copertura nuvolosa);
- il piano di rotazione delle pale è sempre perpendicolare alla linea che passa per il sole e per l'aerogeneratore (l'aerogeneratore "insegue" il sole);
- l'aerogeneratore è sempre operativo.

Allo stesso tempo, si è trascurata la presenza degli alberi e di altri ostacoli che bordano le strade "intercettando" l'ombra degli aerogeneratori riducendo il fastidio del flickering.

Ciò significa che i risultati ai quali si perverrà sono ampiamente cautelativi.

In base alla metodologia descritta nei paragrafi precedenti, sono stati utilizzati i seguenti dati di input per impostare il modello di simulazione per la valutazione del fenomeno di Shadow-Flickering degli aerogeneratori di progetto:

- a) **Il DTM o Modello del terreno digitale** per caratterizzare l'orografia è stato estrapolato dal grid disponibile in download dal SIT della Regione Puglia, georeferenziato, sovrapposto, confrontato e adeguato con le curve di livello presenti sulla cartografia ufficiale CTR 1:5.000 con uno step di 5 m. Il modello digitale ottenuto copre un'area sufficiente ad inglobare l'area del parco eolico di progetto e trova un buon riscontro con l'andamento orografico verificato in sito.
- b) **Posizioni geografiche di recettori con dettaglio dimensionale delle aree più esposte.** Sono i ricettori individuati dallo studio acustico e classificati secondo la loro abitabilità e destinazione d'uso. Per tutti i ricettori si è ritenuto opportuno usare l'ipotesi di cautela della modalità "green house mode". Questa scelta è stata operata poiché in talune circostanze anche lo spazio antistante le strutture può essere considerato o adibito a luogo di riposo e relax. La scelta di una singola finestra o di una facciata in alcune condizioni potrebbe risultare riduttiva allo scopo di una vera valutazione d'impatto.
- c) **Posizioni geografiche delle turbine eoliche e loro caratteristiche dimensionali**  
Gli aerogeneratori di progetto con le loro caratteristiche dimensionali e tecnologiche
- d) **Nessun ostacolo naturale o artificiale è stato modellato.**

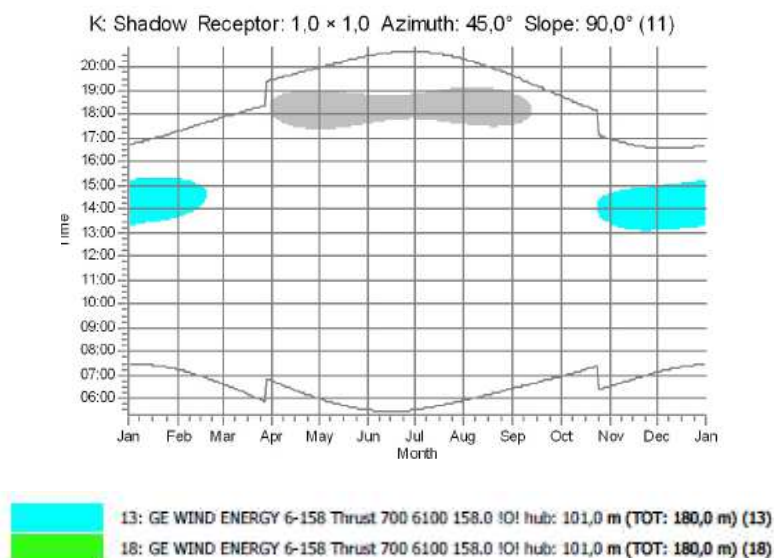
#### 4. I RISULTATI DEL CALCOLO DELL'EVOLUZIONE DELL'OMBRA

Nella procedura "Worst case" il fenomeno di shadow/flickering viene calcolato non tenendo conto delle condizioni di soleggiamento del sito e del vento, dati che allo stato dell'arte per il sito in questione non sono disponibili. Invece se avessimo di dati di cui sopra potremmo calcolare il fenomeno di shadow/flickering con la metodologia ("real case"), che secondo altri casi simili comporterebbe la riduzione del fenomeno ad 1/3 dei valori, il quale seppur più realistico, è comunque sovrastimato poiché non tiene conto della presenza di nubi e di vegetazione ad alto fusto. Dalle simulazioni effettuate, si evince che gli aerogeneratori di progetto generano maggiormente il fenomeno di shadow/flickering sui recettori "A, B, C, D, K, L ed M" individuati nell'analisi che, nelle ipotesi di "Worst case", subiscono il fenomeno per un periodo che supera le 100

ore/anno, per tutti gli altri rimanenti recettori considerati invece, l'effetto calcolato è più modesto e/o comunque meno rilevante fino a divenire irrilevante e in alcuni casi nullo.

**Con le considerazioni di cui sopra, ovvero prevedendo la riduzione ad 1/3 si avranno valori sicuramente più ridotti e nessun recettore supera le 100 ore/anno, ad eccezione del recettore "K" che le supera di poco.**

E' stato elaborato un calendario dell'ombra riportato in appendice (rif. Appendice Calendar), che riporta in maniera grafica giorno per giorno, per tutto l'anno, la durata giornaliera del fenomeno, l'orario di inizio e di fine del fenomeno, nelle condizioni di caso reale. Dalla lettura del "Calendar" si legge che il fenomeno dell'ombreggiamento, si esplica sui recettori con intensità maggiore nel periodo compreso tra Gennaio/Marzo, Novembre/Dicembre nelle prime ore del pomeriggio e Aprile/Settembre nelle tarde ore pomeridiane. Nella figura che segue è riportato a titolo di esempio il grafico "calendar" di un recettore: le macchie individuano i momenti di shadow, la posizione nel grafico individua tempo e durata del fenomeno, il colore della macchia individua la turbina che causa il fenomeno.



L'allegato 2 riporta il dettaglio analitico di quanto espresso dal grafico precedente con gli specifici orari di inizio e di fine del fenomeno. A seguire è altresì riportata la sintesi grafica annuale (come mostra l'immagine precedente) dell'apporto di ombreggiamento a carico di ogni recettore ed il/gli aerogeneratore/i responsabile/i del fenomeno.

E' stata inoltre elaborata una mappa (report Map, Allegato 3) in cui vengono riportate, con diverse gradazioni di colore, le zone soggette ad una determinata durata del fenomeno dell'ombreggiamento oltre all'estensione areale nella quale il fenomeno risulta significativo.

Il fenomeno dell'ombreggiamento interessa marginalmente tratti di strade comunali e/o private per un numero di ore all'anno del tutto irrilevanti e cioè pari ad un massimo di 30 ore/anno, ma solo in alcuni tratti. Preme tuttavia evidenziare che nelle simulazioni non si è tenuto conto della possibile presenza di vegetazione capace di offrire un effetto "barriera" ai recettori e/o alle strade limitrofe. Inoltre, la percezione dell'impianto dalla strada risulterebbe essere "in movimento" e quindi legata alla breve permanenza delle automobili in

transito, per cui il fastidio indotto sarebbe temporalmente limitato. A questo si aggiunge che le simulazioni sono state effettuate assumendo le “condizioni peggiori”, sovrastimando pertanto l’effetto di flickering.

## 5. CONCLUSIONI E RACCOMANDAZIONI

In conclusione, si può affermare che i risultati ottenuti dalle elaborazioni evidenziano, pur considerando le condizioni più sfavorevoli, che le turbine di progetto generano effetti di shadow flickering **i cui impatti risultano essere nulli per molte strutture, e piuttosto modesti (o non particolarmente problematici) per altre.**

In ogni caso è comunque da rimarcare l’effetto di sovrastima dovuto al grado di cautela utilizzato per la simulazione che non tiene in conto di tutte le possibili fonti di attenuazione dell’effetto cui ogni recettore è (o può essere) soggetto quali presenza di alberi, ostacoli, siepi e quant’altro possa attenuare il fenomeno dell’evoluzione giornaliera dell’ombra.

## 6. ELENCO ALLEGATI

Di seguito vengono riportati i risultati dello Shadow Flicker elaborati con il software *WindPro*

1. Main result: quadro sintetico dei risultati di calcolo;
2. Calendar: analisi giornaliera dell’effetto “flickering” ricevuto da ogni recettore;
3. Calendar, graphical: grafico dell’analisi giornaliera dell’effetto “flickering” ricevuto da ogni recettore;
4. Calendar per WTG: analisi giornaliera dell’effetto “flickering” indotto da ogni aerogeneratore sui recettori;
5. Map: mappa delle aree soggette ad ombreggiamento.

## SHADOW - Main Result

### Assumptions for shadow calculations

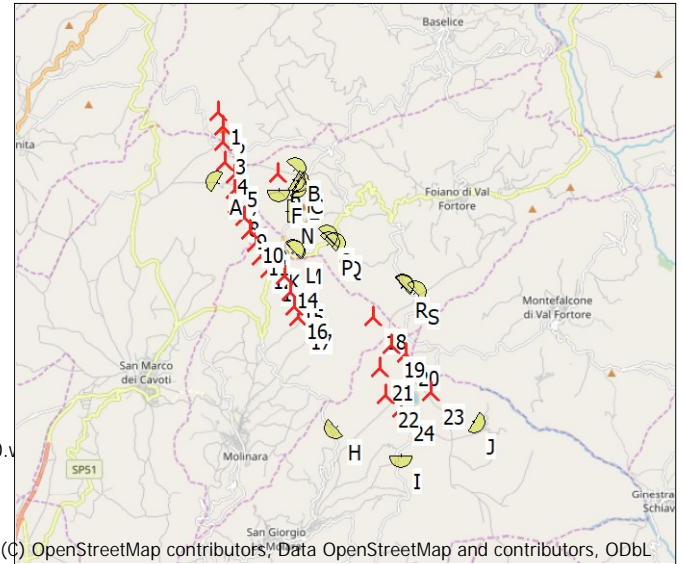
Maximum distance for influence  
Calculate only when more than 20 % of sun is covered by the blade  
Please look in WTG table

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: IVPC\_Fortore\_EMDGrid\_0...  
Obstacles used in calculation  
Eye height for map: 1,5 m  
Grid resolution: 1,0 m

All coordinates are in  
UTM (north)-WGS84 Zone: 33

### WTGs



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL  
Scale 1:200.000  
New WTG Shadow receptor

	Easting	Northing	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.					Calculation distance [m]	RPM [RPM]
			[m]									
1	491.766	4.580.110	926,4	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
2	491.926	4.579.718	950,9	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
3	491.927	4.579.318	940,1	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
4	491.934	4.578.782	924,9	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
5	492.203	4.578.440	983,6	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
6	493.355	4.578.462	936,0	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
7	492.190	4.578.060	1.000,0	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
8	492.268	4.577.667	985,9	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
9	492.448	4.577.329	961,5	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
10	492.600	4.576.998	915,8	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
11	492.767	4.576.656	914,4	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
12	492.894	4.576.294	922,0	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
13	493.102	4.575.964	907,9	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
14	493.503	4.575.787	905,4	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
15	493.686	4.575.365	913,4	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
16	493.780	4.574.980	932,2	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
17	493.889	4.574.693	933,0	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
18	495.886	4.574.691	941,4	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
19	496.370	4.573.960	900,8	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
20	496.720	4.573.710	887,3	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
21	496.050	4.573.350	889,9	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
22	496.189	4.572.643	902,0	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
23	497.390	4.572.721	875,4	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0
24	496.629	4.572.298	863,0	GE WIND ENERGY 6-...	Yes	GE WIND ENERGY	6-158 Thrust 700-6.100	6.100	158,0	101,0	1.820	0,0

### Shadow receptor-Input

No.	Easting	Northing	Z	Width	Height	Elevation	Degrees from	Slope of	Direction mode	Eye height
			[m]	[m]	[m]	a.g.l. [m]	south cw [°]	window [°]		(ZVI) a.g.l. [m]
A	491.734	4.578.251	903,1	1,0	1,0	1,0	-60,0	90,0	Fixed direction	2,0
B	493.799	4.578.584	883,4	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
C	493.906	4.578.271	889,3	1,0	1,0	1,0	120,0	90,0	Fixed direction	2,0
D	493.775	4.578.294	896,8	1,0	1,0	1,0	120,0	90,0	Fixed direction	2,0
E	493.824	4.578.133	904,8	1,0	1,0	1,0	120,0	90,0	Fixed direction	2,0
F	493.363	4.578.017	919,3	1,0	1,0	1,0	180,0	90,0	Fixed direction	2,0
G	496.649	4.575.498	778,5	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
H	494.856	4.571.786	792,8	1,0	1,0	1,0	-130,0	90,0	Fixed direction	2,0
I	496.609	4.571.009	817,0	1,0	1,0	1,0	180,0	90,0	Fixed direction	2,0

To be continued on next page...



## SHADOW - Main Result

...continued from previous page

No.	Easting	Northing	Z	Width	Height	Elevation	Degrees from	Slope of	Direction mode	Eye height
			[m]	[m]	[m]	a.g.l.	south cw	window		(ZVI) a.g.l.
						[m]	[°]	[°]		[m]
J	498.548	4.571.918	853,1	1,0	1,0	1,0	120,0	90,0	Fixed direction	2,0
K	493.292	4.576.267	886,0	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
L	493.749	4.576.449	851,1	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
M	493.784	4.576.412	851,6	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
N	493.621	4.577.477	892,9	1,0	1,0	1,0	90,0	90,0	Fixed direction	2,0
O	494.633	4.576.820	814,6	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
P	494.684	4.576.628	784,8	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
Q	494.826	4.576.607	767,3	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
R	496.659	4.575.537	772,0	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0
S	496.996	4.575.344	792,4	1,0	1,0	1,0	45,0	90,0	Fixed direction	2,0

## Calculation Results

Shadow receptor

Shadow, worst case

No.	Shadow hours	Shadow days	Max shadow
	per year	per year	hours per day
	[h/year]	[days/year]	[h/day]
A	173:06	223	1:07
B	118:44	153	1:37
C	129:06	233	1:05
D	139:03	244	1:18
E	40:06	135	0:24
F	59:26	134	0:35
G	37:27	74	0:35
H	0:00	0	0:00
I	0:00	0	0:00
J	0:00	0	0:00
K	362:36	280	1:46
L	147:34	282	0:47
M	123:51	247	0:46
N	80:38	226	0:33
O	21:50	74	0:23
P	27:38	86	0:26
Q	12:55	41	0:25
R	33:30	68	0:34
S	16:08	43	0:29

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

No.	Name	Worst case
		[h/year]
1	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (1)	0:00
2	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (2)	0:00
3	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (3)	0:00
4	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (4)	11:03
5	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (5)	104:58
6	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (6)	191:55
7	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (7)	141:03
8	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (8)	100:58
9	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (9)	55:28
10	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (10)	48:13
11	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (11)	39:52
12	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (12)	222:20
13	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (13)	269:19
14	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (14)	39:18
15	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (15)	0:00
16	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (16)	0:00
17	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (17)	0:00
18	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (18)	55:58
19	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (19)	0:00
20	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (20)	0:00
21	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (21)	0:00
22	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (22)	0:00
23	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (23)	0:00
24	GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (24)	0:00

Project:  
IVPC\_Fortore

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Calculated:  
20/12/2021 15:25/3.4.405

## SHADOW - Main Result

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: A - Shadow Receptor: 1,0 × 1,0 Azimuth: -60,0° Slope: 90,0° (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	07:27 16:42	08:36 (8) 09:25 (8)	07:13 17:16	06:37 17:51	07:54 (7) 08:40 (7)	06:46 19:25	08:43 (7) 09:26 (7)	06:00 19:57	05:30 20:27	06:42 (5) 07:23 (5)	
2	07:27 16:42	08:37 (8) 09:25 (8)	07:12 17:17	06:35 17:52	07:53 (7) 08:42 (7)	06:44 19:26	08:45 (7) 09:24 (7)	05:58 19:58	05:30 20:28	06:42 (5) 07:25 (5)	
3	07:27 16:43	08:37 (8) 09:25 (8)	07:11 17:19	06:34 17:53	07:51 (7) 08:43 (7)	06:42 19:27	08:46 (7) 09:22 (7)	05:57 19:59	05:29 20:29	06:41 (5) 07:25 (5)	
4	07:27 16:44	08:38 (8) 09:26 (8)	07:10 17:20	06:32 17:54	07:49 (7) 08:44 (7)	06:41 19:28	08:47 (7) 09:18 (7)	05:56 20:01	05:29 20:29	06:40 (5) 07:26 (5)	
5	07:27 16:45	08:38 (8) 09:26 (8)	07:09 17:21	06:31 17:55	07:48 (7) 08:45 (7)	06:39 19:29	08:50 (7) 09:16 (7)	05:54 20:02	05:29 20:30	06:40 (5) 07:27 (5)	
6	07:27 16:46	08:38 (8) 09:26 (8)	07:08 17:22	06:29 17:56	07:46 (7) 08:45 (7)	06:37 19:30	08:54 (7) 09:11 (7)	05:53 20:03	05:28 20:31	06:39 (5) 07:27 (5)	
7	07:27 16:47	08:38 (8) 09:26 (8)	07:07 17:24	06:28 17:58	07:45 (7) 08:45 (7)	06:36 19:32		05:52 20:04	05:28 20:31	06:39 (5) 07:28 (5)	
8	07:27 16:48	08:39 (8) 09:27 (8)	07:06 17:25	06:26 17:59	07:45 (7) 08:46 (7)	06:34 19:33		05:51 20:05	05:28 20:32	06:39 (5) 07:29 (5)	
9	07:27 16:49	08:40 (8) 09:27 (8)	07:05 17:26	06:24 18:00	07:43 (7) 08:46 (7)	06:33 19:34		05:50 20:06	05:28 20:33	06:39 (5) 07:30 (5)	
10	07:27 16:50	08:41 (8) 09:28 (8)	07:04 17:27	06:23 18:01	07:43 (7) 08:47 (7)	06:31 19:35		05:48 20:07	05:27 20:33	06:38 (5) 07:30 (5)	
11	07:26 16:51	08:40 (8) 09:27 (8)	07:02 17:29	06:21 18:02	07:42 (7) 08:47 (7)	06:29 19:36		05:47 20:08	05:27 20:34	06:38 (5) 07:30 (5)	
12	07:26 16:52	08:41 (8) 09:28 (8)	07:01 17:30	06:19 18:03	07:41 (7) 08:47 (7)	06:28 19:37		05:46 20:09	05:27 20:34	06:38 (5) 07:31 (5)	
13	07:26 16:53	08:41 (8) 09:27 (8)	07:00 17:31	06:18 18:04	07:41 (7) 08:47 (7)	06:26 19:38		05:45 20:10	05:27 20:35	06:38 (5) 07:31 (5)	
14	07:26 16:54	08:42 (8) 09:28 (8)	06:59 17:32	06:16 18:05	07:40 (7) 08:47 (7)	06:25 19:39		05:44 20:11	05:27 20:35	06:38 (5) 07:32 (5)	
15	07:25 16:55	08:43 (8) 09:28 (8)	06:57 17:34	06:14 18:07	07:39 (7) 08:46 (7)	06:23 19:40		05:43 20:12	05:27 20:36	06:38 (5) 07:32 (5)	
16	07:25 16:57	08:44 (8) 09:28 (8)	06:56 17:35	06:13 18:08	07:39 (7) 08:45 (7)	06:21 19:41		05:42 20:13	05:27 20:36	06:38 (5) 07:32 (5)	
17	07:24 16:58	08:45 (8) 09:28 (8)	06:55 17:36	06:11 18:09	07:39 (7) 08:46 (7)	06:20 19:42		05:41 20:14	05:27 20:36	06:38 (5) 07:33 (5)	
18	07:24 16:59	08:45 (8) 09:28 (8)	06:53 17:37	06:09 18:10	07:39 (7) 08:45 (7)	06:18 19:43		05:40 20:15	05:27 20:37	06:38 (5) 07:33 (5)	
19	07:23 17:00	08:46 (8) 09:27 (8)	06:52 17:39	06:08 18:11	07:38 (7) 08:44 (7)	06:17 19:44		05:39 20:16	05:27 20:37	06:39 (5) 07:34 (5)	
20	07:23 17:01	08:47 (8) 09:27 (8)	06:50 17:40	06:06 18:12	07:39 (7) 08:44 (7)	06:15 19:46		05:39 20:17	05:27 20:37	06:39 (5) 07:34 (5)	
21	07:22 17:02	08:48 (8) 09:27 (8)	06:49 17:41	06:04 18:13	07:38 (7) 08:42 (7)	06:14 19:47		05:38 20:18	05:27 20:38	06:39 (5) 07:34 (5)	
22	07:21 17:04	08:48 (8) 09:26 (8)	06:48 17:42	06:03 18:14	07:38 (7) 08:41 (7)	06:12 19:48		05:37 20:19	05:28 20:38	06:39 (5) 07:34 (5)	
23	07:21 17:05	08:50 (8) 09:26 (8)	06:46 17:43	06:01 18:15	07:39 (7) 08:41 (7)	06:11 19:49		05:36 20:20	05:28 20:38	06:39 (5) 07:34 (5)	
24	07:20 17:06	08:51 (8) 09:25 (8)	06:45 17:45	05:59 18:16	07:38 (7) 08:39 (7)	06:09 19:50		05:35 20:21	05:28 20:38	06:40 (5) 07:35 (5)	
25	07:19 17:07	08:52 (8) 09:24 (8)	06:43 17:46	05:58 18:18	07:38 (7) 08:38 (7)	06:08 19:51		05:35 20:21	9 07:06 (5) 06:53 (5)	05:28 20:38	06:40 (5) 07:35 (5)
26	07:19 17:09	08:53 (8) 09:23 (8)	06:42 17:47	05:56 18:19	07:38 (7) 08:36 (7)	06:06 19:52		05:34 20:22	18 07:11 (5) 06:50 (5)	05:29 20:38	06:40 (5) 07:35 (5)
27	07:18 17:10	08:55 (8) 09:21 (8)	06:40 17:48	05:54 18:20	07:40 (7) 08:36 (7)	06:05 19:53		05:33 20:23	24 07:14 (5) 06:48 (5)	05:29 20:38	06:41 (5) 07:35 (5)
28	07:17 17:11	08:57 (8) 09:19 (8)	06:39 17:49	05:53 18:21	07:40 (7) 08:34 (7)	06:04 19:54		05:33 20:24	27 07:15 (5) 06:47 (5)	05:29 20:38	06:41 (5) 07:35 (5)
29	07:16 17:12	08:59 (8) 09:17 (8)		06:51 19:22	08:40 (7) 09:32 (7)	06:02 19:55		05:32 20:25	31 07:18 (5) 06:45 (5)	05:30 20:38	06:42 (5) 07:35 (5)
30	07:15 17:14	09:04 (8) 09:14 (8)		06:49 19:23	08:42 (7) 09:31 (7)	06:01 19:56		05:31 20:26	34 07:19 (5) 06:44 (5)	05:30 20:38	06:42 (5) 07:35 (5)
31	07:14 17:15			06:47 19:24	08:42 (7) 09:28 (7)			05:31 20:26	37 07:21 (5) 07:22 (5)	05:30 20:38	06:42 (5) 07:35 (5)
Potential sun hours	297	297	369	399	449	453					
Total, worst case	1206	171	1852	192	219	1555					

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: A - Shadow Receptor: 1,0 × 1,0 Azimuth: -60,0° Slope: 90,0° (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	05:31	06:43 (5)	05:55	06:26	06:57	08:20 (7)	06:31	07:06	08:22 (8)		
	20:38	52 07:35 (5)	20:19	19:35	18:44	66 09:26 (7)	16:57	16:33	47 09:09 (8)		
2	05:31	06:43 (5)	05:56	06:27	06:58	08:20 (7)	06:32	07:08	08:23 (8)		
	20:38	52 07:35 (5)	20:18	19:34	18:43	66 09:26 (7)	16:56	16:32	47 09:10 (8)		
3	05:32	06:44 (5)	05:57	06:28	06:59	08:21 (7)	06:34	07:09	08:23 (8)		
	20:38	51 07:35 (5)	20:17	19:32	18:41	64 09:25 (7)	16:55	16:32	47 09:10 (8)		
4	05:32	06:44 (5)	05:58	06:29	07:00	08:21 (7)	06:35	07:10	08:23 (8)		
	20:38	50 07:34 (5)	20:16	19:31	18:39	63 09:24 (7)	16:54	16:32	48 09:11 (8)		
5	05:33	06:45 (5)	05:59	06:30	07:01	08:21 (7)	06:36	07:11	08:23 (8)		
	20:38	50 07:35 (5)	20:14	19:29	18:38	62 09:23 (7)	16:53	16:32	48 09:11 (8)		
6	05:33	06:45 (5)	06:00	06:31	08:50 (7)	07:02	08:21 (7)	06:37	07:12	08:24 (8)	
	20:37	49 07:34 (5)	20:13	19:27	17 09:07 (7)	18:36	61 09:22 (7)	16:51	16:32	48 09:12 (8)	
7	05:34	06:46 (5)	06:01	06:32	08:46 (7)	07:03	08:22 (7)	06:38	07:12	08:24 (8)	
	20:37	48 07:34 (5)	20:12	19:26	24 09:10 (7)	18:34	59 09:21 (7)	16:50	16:31	48 09:12 (8)	
8	05:35	06:46 (5)	06:02	06:33	08:43 (7)	07:04	08:22 (7)	06:40	07:13	08:25 (8)	
	20:37	47 07:33 (5)	20:11	19:24	30 09:13 (7)	18:33	58 09:20 (7)	16:49	16:31	48 09:13 (8)	
9	05:35	06:48 (5)	06:03	06:34	08:40 (7)	07:05	08:23 (7)	06:41	07:14	08:25 (8)	
	20:36	44 07:32 (5)	20:09	19:22	35 09:15 (7)	18:31	56 09:19 (7)	16:48	16:31	49 09:14 (8)	
10	05:36	06:49 (5)	06:04	06:35	08:38 (7)	07:06	08:24 (7)	06:42	07:15	08:26 (8)	
	20:36	43 07:32 (5)	20:08	19:20	39 09:17 (7)	18:30	53 09:17 (7)	16:47	16:31	48 09:14 (8)	
11	05:37	06:50 (5)	06:05	06:36	08:36 (7)	07:07	08:26 (7)	06:43	07:16	08:26 (8)	
	20:35	42 07:32 (5)	20:07	19:19	43 09:19 (7)	18:28	51 09:17 (7)	16:46	16:31	49 09:15 (8)	
12	05:37	06:51 (5)	06:06	06:37	08:34 (7)	07:08	08:27 (7)	06:44	08:35 (8)	07:17	08:27 (8)
	20:35	39 07:30 (5)	20:06	19:17	46 09:20 (7)	18:26	48 09:15 (7)	16:45	10 08:45 (8)	16:32	48 09:15 (8)
13	05:38	06:52 (5)	06:07	06:38	08:33 (7)	07:09	08:28 (7)	06:46	08:31 (8)	07:18	08:26 (8)
	20:34	38 07:30 (5)	20:04	19:15	49 09:22 (7)	18:25	45 09:13 (7)	16:44	18 08:49 (8)	16:32	49 09:15 (8)
14	05:39	06:54 (5)	06:08	06:39	08:31 (7)	07:11	08:29 (7)	06:47	08:30 (8)	07:18	08:27 (8)
	20:34	35 07:29 (5)	20:03	19:14	52 09:23 (7)	18:23	42 09:11 (7)	16:43	22 08:52 (8)	16:32	49 09:16 (8)
15	05:40	06:54 (5)	06:09	06:40	08:30 (7)	07:12	08:31 (7)	06:48	08:28 (8)	07:19	08:28 (8)
	20:33	33 07:27 (5)	20:01	19:12	54 09:24 (7)	18:22	37 09:08 (7)	16:42	26 08:54 (8)	16:32	48 09:16 (8)
16	05:41	06:56 (5)	06:10	06:41	08:29 (7)	07:13	08:33 (7)	06:49	08:33 (8)	07:20	08:29 (8)
	20:33	30 07:26 (5)	20:00	19:10	56 09:25 (7)	18:20	33 09:06 (7)	16:41	30 08:56 (8)	16:32	48 09:17 (8)
17	05:41	06:59 (5)	06:11	06:42	08:28 (7)	07:14	08:36 (7)	06:51	08:26 (8)	07:21	08:28 (8)
	20:32	25 07:24 (5)	19:59	19:08	57 09:25 (7)	18:18	26 09:02 (7)	16:41	32 08:58 (8)	16:33	49 09:17 (8)
18	05:42	07:01 (5)	06:12	06:43	08:27 (7)	07:15	08:41 (7)	06:52	08:25 (8)	07:21	08:29 (8)
	20:31	21 07:22 (5)	19:57	19:07	59 09:26 (7)	18:17	17 08:58 (7)	16:40	34 08:59 (8)	16:33	49 09:18 (8)
19	05:43	07:05 (5)	06:13	06:44	08:26 (7)	07:16	06:53	08:24 (8)	07:22	08:29 (8)	
	20:31	14 07:19 (5)	19:56	19:05	61 09:27 (7)	18:15	16:39	36 09:00 (8)	16:33	49 09:18 (8)	
20	05:44		06:14	06:45	08:25 (7)	07:17	06:54	08:23 (8)	07:22	08:30 (8)	
	20:30		19:54	19:03	62 09:27 (7)	18:14	16:38	38 09:01 (8)	16:34	49 09:19 (8)	
21	05:45		06:15	06:46	08:24 (7)	07:18	06:55	08:24 (8)	07:23	08:31 (8)	
	20:29		19:53	19:02	63 09:27 (7)	18:12	16:38	39 09:03 (8)	16:34	49 09:20 (8)	
22	05:46		06:16	06:47	08:24 (7)	07:20	06:56	08:23 (8)	07:24	08:31 (8)	
	20:28		19:51	19:00	64 09:28 (7)	18:11	16:37	40 09:03 (8)	16:35	49 09:20 (8)	
23	05:46		06:17	06:48	08:23 (7)	07:21	06:58	08:23 (8)	07:24	08:31 (8)	
	20:28		19:50	18:58	65 09:28 (7)	18:10	16:36	41 09:04 (8)	16:35	49 09:20 (8)	
24	05:47		06:18	06:49	08:22 (7)	07:22	06:59	08:22 (8)	07:25	08:32 (8)	
	20:27		19:48	18:56	66 09:28 (7)	18:08	16:36	43 09:05 (8)	16:36	49 09:21 (8)	
25	05:48		06:19	06:50	08:22 (7)	06:23	07:00	08:22 (8)	07:25	08:32 (8)	
	20:26		19:47	18:55	66 09:28 (7)	17:07	16:35	43 09:05 (8)	16:36	49 09:21 (8)	
26	05:49		06:20	06:51	08:22 (7)	06:24	07:01	08:23 (8)	07:25	08:33 (8)	
	20:25		19:45	18:53	66 09:28 (7)	17:05	16:35	44 09:07 (8)	16:37	49 09:22 (8)	
27	05:50		06:21	06:52	08:21 (7)	06:25	07:02	08:22 (8)	07:26	08:34 (8)	
	20:24		19:43	18:51	67 09:28 (7)	17:04	16:34	45 09:07 (8)	16:38	48 09:22 (8)	
28	05:51		06:22	06:53	08:21 (7)	06:26	07:03	08:22 (8)	07:26	08:34 (8)	
	20:23		19:42	18:50	67 09:28 (7)	17:03	16:34	46 09:08 (8)	16:38	48 09:22 (8)	
29	05:52		06:23	06:54	08:21 (7)	06:28	07:04	08:22 (8)	07:26	08:34 (8)	
	20:22		19:40	18:48	66 09:27 (7)	17:01	16:33	46 09:08 (8)	16:39	49 09:23 (8)	
30	05:53		06:24	06:56	08:21 (7)	06:29	07:05	08:22 (8)	07:27	08:34 (8)	
	20:21		19:39	18:46	66 09:27 (7)	17:00	16:33	47 09:09 (8)	16:40	49 09:23 (8)	
31	05:54		06:25		06:30				07:27	08:36 (8)	
	20:20		19:37		16:59				16:41	48 09:24 (8)	
Potential sun hours	460		429	375	345	297	680	1501			
Total, worst case	763			1340	907						

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: B - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (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				
1	07:27 16:41	07:13 17:16	16:17 (8) 06:37	17:50 50	16:23 (6) 06:46	17:13 (7) 19:25	66	16:58 (6) 18:04 (6)	05:59 19:57	05:30 20:27
2	07:27 16:42	07:12 17:17	16:18 (8) 06:35	17:52 52	16:19 (6) 06:44	17:11 (7) 19:26	65	16:59 (6) 18:04 (6)	05:58 19:58	05:30 20:28
3	07:27 16:43	07:11 17:19	16:19 (8) 06:34	17:53 54	16:17 (6) 06:42	17:11 (7) 19:27	63	16:59 (6) 18:02 (6)	05:57 19:59	05:29 20:29
4	07:27 16:44	07:10 17:20	16:20 (8) 06:32	17:54 55	16:14 (6) 06:41	17:11 (7) 19:28	61	17:00 (6) 18:01 (6)	05:56 20:00	05:29 20:29
5	07:27 16:45	07:09 17:21	16:22 (8) 06:31	17:55 54	16:13 (6) 06:39	17:11 (7) 19:29	59	17:01 (6) 18:00 (6)	05:54 20:02	05:29 20:30
6	07:27 16:46	07:08 17:22	16:25 (8) 06:29	17:56 53	16:10 (6) 06:37	17:11 (7) 19:30	57	17:02 (6) 17:59 (6)	05:53 20:03	05:28 20:31
7	07:27 16:47	07:07 17:24	06:27 17:57	56	16:08 (6) 06:36	17:11 (7) 19:31	54	17:03 (6) 17:57 (6)	05:52 20:04	05:28 20:31
8	07:27 16:48	07:06 17:25	06:26 17:59	59	16:07 (6) 06:34	17:11 (7) 19:33	52	17:04 (6) 17:56 (6)	05:51 20:05	05:28 20:32
9	07:27 16:49	07:05 17:26	06:24 18:00	61	16:05 (6) 06:32	17:11 (7) 19:34	49	17:05 (6) 17:54 (6)	05:50 20:06	05:27 20:33
10	07:27 16:50	07:03 17:27	06:23 18:01	63	16:04 (6) 06:31	17:11 (7) 19:35	46	17:06 (6) 17:52 (6)	05:48 20:07	05:27 20:33
11	07:26 16:51	07:02 17:29	06:21 18:02	65	16:03 (6) 06:29	17:11 (7) 19:36	41	17:09 (6) 17:50 (6)	05:47 20:08	05:27 20:34
12	07:26 16:52	07:01 17:30	06:19 18:03	66	16:02 (6) 06:28	17:11 (7) 19:37	38	17:10 (6) 17:48 (6)	05:46 20:09	05:27 20:34
13	07:26 16:53	07:00 17:31	06:18 18:04	68	16:01 (6) 06:26	17:11 (7) 19:38	33	17:13 (6) 17:46 (6)	05:45 20:10	05:27 20:35
14	07:25 16:54	06:58 17:32	06:16 18:05	70	16:00 (6) 06:24	17:11 (7) 19:39	27	17:15 (6) 17:42 (6)	05:44 20:11	05:27 20:35
15	07:25 16:55	06:57 17:34	06:14 18:06	71	15:59 (6) 06:23	17:11 (7) 19:40	19	17:20 (6) 17:39 (6)	05:43 20:12	05:27 20:36
16	07:25 16:56	06:56 17:35	06:13 18:08	81	15:58 (6) 06:21	17:11 (7) 19:41	4	17:27 (6) 17:31 (6)	05:42 05:41	05:27 05:27
17	07:24 16:58	06:54 17:36	06:11 18:09	86	15:58 (6) 06:20	17:11 (7) 19:42		20:14	05:41	05:27
18	07:24 16:59	16:23 (8) 17:37	06:53 18:10	89	15:58 (6) 06:18	17:11 (7) 19:43		05:40 20:15	05:27 20:37	
19	07:23 17:00	16:20 (8) 17:38	06:52 18:11	93	15:57 (6) 06:17	17:11 (7) 19:44		05:39 20:16	05:27 20:37	
20	07:23 17:01	16:19 (8) 17:40	06:50 17:00 (7) 18:12	95	15:57 (6) 06:15	17:11 (7) 19:45		05:38 20:17	05:27 20:37	
21	07:22 17:02	16:18 (8) 17:41	06:49 17:10 (7) 18:13	95	15:57 (6) 06:14	17:11 (7) 19:47		05:38 20:18	05:27 20:37	
22	07:21 17:04	16:17 (8) 17:42	06:47 16:55 (7) 18:14	96	15:56 (6) 06:12	17:11 (7) 19:48		05:37 20:19	05:28 20:38	
23	07:21 17:05	16:16 (8) 17:43	06:46 16:54 (7) 18:15	96	15:56 (6) 06:11	17:11 (7) 19:49		05:36 20:20	05:28 20:38	
24	07:20 17:06	16:15 (8) 17:44	06:45 16:53 (7) 18:16	95	15:56 (6) 06:09	17:11 (7) 19:50		05:35 20:21	05:28 20:38	
25	07:19 17:07	16:16 (8) 17:45	06:43 16:52 (7) 18:17	94	15:56 (6) 06:08	17:11 (7) 19:51		05:34 20:22	05:28 20:38	
26	07:19 17:08	16:16 (8) 17:46	06:42 16:53 (7) 18:18	92	15:56 (6) 06:06	17:11 (7) 19:52		05:34 20:23	05:29 20:38	
27	07:18 17:10	16:16 (8) 17:47	06:40 16:52 (7) 18:19	89	15:57 (6) 06:05	17:11 (7) 19:53		05:33 20:24	05:29 20:38	
28	07:17 17:11	16:16 (8) 17:48	06:38 16:28 (6) 18:20	86	15:56 (6) 06:04	17:11 (7) 19:54		05:32 20:25	05:29 20:38	
29	07:16 17:12	16:17 (8) 17:49	06:37 17:14 (7) 18:21	86	15:56 (6) 06:02	17:11 (7) 19:55		05:32 20:26	05:29 20:38	
30	07:15 17:13	16:16 (8) 17:50	06:36 17:15 (7) 18:22	80	15:56 (6) 06:01	17:11 (7) 19:56		05:31 20:27	05:30 20:39	
31	07:14 17:15	16:17 (8) 17:51	06:35 17:16 (7) 18:23	67	15:56 (6) 06:00	17:11 (7) 19:57		05:31 20:28	05:30 20:39	
Potential sun hours	297	297	369	399	449	453				
Total, worst case	233	270	2300	734	449	453				

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: B - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (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

	July	August	September	October	November	December	
1	05:31 20:38	05:55 20:19	06:26 19:35	17:08 (6) 17:49 (6)	06:56 18:44	16:41 (6) 16:57	06:31 16:33
2	05:31 20:38	05:56 20:18	06:27 19:34	17:05 (6) 17:51 (6)	06:58 18:43	16:42 (6) 16:56	06:32 16:32
3	05:32 20:38	05:57 20:17	06:28 19:32	17:03 (6) 17:52 (6)	06:59 18:41	16:42 (6) 16:55	06:34 16:32
4	05:32 20:38	05:58 20:16	06:29 19:30	17:01 (6) 17:53 (6)	07:00 18:39	16:43 (6) 17:44 (6)	06:35 16:54
5	05:33 20:37	05:59 20:14	06:30 19:29	17:00 (6) 17:54 (6)	07:01 18:38	16:43 (6) 17:43 (6)	06:36 16:52
6	05:33 20:37	06:00 20:13	06:31 19:27	16:58 (6) 17:55 (6)	07:02 18:36	16:44 (6) 17:41 (6)	06:37 16:51
7	05:34 20:37	06:01 20:12	06:32 19:25	16:56 (6) 16:58 (6)	07:03 18:34	16:45 (6) 17:39 (6)	06:38 16:50
8	05:35 20:37	06:02 20:11	06:33 19:24	16:55 (6) 17:56 (6)	07:04 18:33	16:46 (6) 17:39 (7)	06:40 16:49
9	05:35 20:36	06:03 20:09	06:34 19:22	16:54 (6) 17:56 (6)	07:05 18:31	16:48 (6) 17:42 (7)	06:41 16:48
10	05:36 20:36	06:04 20:08	06:35 19:20	16:52 (6) 17:57 (6)	07:06 18:29	16:49 (6) 17:44 (7)	06:42 16:47
11	05:37 20:35	06:05 20:07	06:36 19:19	16:51 (6) 17:57 (6)	07:07 18:28	16:51 (6) 17:45 (7)	06:43 16:46
12	05:37 20:35	06:06 20:05	06:37 19:17	16:50 (6) 17:57 (6)	07:08 18:26	16:55 (6) 17:46 (7)	06:44 16:45
13	05:38 20:34	06:07 20:04	06:38 19:15	16:49 (6) 17:57 (6)	07:09 18:25	16:58 (6) 17:46 (7)	06:46 16:44
14	05:39 20:34	06:08 20:03	06:39 19:14	16:48 (6) 18:25 (5)	07:10 18:23	17:03 (6) 17:46 (7)	06:47 16:43
15	05:40 20:33	06:09 20:01	06:40 19:12	16:46 (6) 18:27 (5)	07:12 18:21	17:24 (7) 17:46 (7)	06:48 16:42
16	05:40 20:33	06:10 20:00	06:41 19:10	16:45 (6) 18:28 (5)	07:13 18:20	17:24 (7) 17:45 (7)	06:49 16:41
17	05:41 20:32	06:11 19:59	06:42 19:08	16:44 (6) 18:29 (5)	07:14 18:18	17:24 (7) 17:45 (7)	06:50 16:40
18	05:42 20:31	06:12 19:57	06:43 19:07	16:43 (6) 18:29 (5)	07:15 18:17	17:25 (7) 17:45 (7)	06:52 16:40
19	05:43 20:31	06:13 19:56	06:44 19:05	16:43 (6) 18:29 (5)	07:16 18:15	17:26 (7) 17:44 (7)	06:53 16:39
20	05:44 20:30	06:14 19:54	06:45 19:03	16:42 (6) 18:29 (5)	07:17 18:14	17:26 (7) 17:42 (7)	06:54 16:38
21	05:45 20:29	06:15 19:53	06:46 19:01	16:41 (6) 18:29 (5)	07:18 18:12	17:28 (7) 17:40 (7)	06:55 16:37
22	05:45 20:28	06:16 19:51	06:47 19:00	16:41 (6) 18:28 (5)	07:19 18:11	17:30 (7) 17:37 (7)	06:56 16:37
23	05:46 20:28	06:17 19:50	06:48 18:58	16:41 (6) 18:27 (5)	07:21 18:09	06:57 16:36	15:57 (8) 16:06 (8)
24	05:47 20:27	06:18 19:48	06:49 18:56	16:40 (6) 18:26 (5)	07:22 18:08	06:59 16:36	16:00 (8) 16:03 (8)
25	05:48 20:26	06:19 19:47	06:50 18:55	16:40 (6) 18:25 (5)	06:23 17:07	07:00 16:35	07:25 16:36
26	05:49 20:25	06:20 19:45	06:51 18:53	16:40 (6) 18:23 (5)	06:24 17:05	07:01 16:35	07:25 16:37
27	05:50 20:24	06:21 19:43	06:52 17:27 (6) 17:34 (6)	16:40 (6) 18:21 (5)	06:25 17:04	07:02 16:34	07:26 16:37
28	05:51 20:23	06:22 19:42	06:53 17:40 (6) 18:49 (6)	16:41 (6) 18:17 (5) 17:02	06:26 17:02	07:03 16:34	07:26 16:38
29	05:52 20:22	06:23 19:40	06:54 17:16 (6) 17:44 (6)	16:41 (6) 18:48 17:50 (6)	06:28 17:01	07:04 16:33	07:26 16:39
30	05:53 20:21	06:24 19:39	06:55 17:13 (6) 17:46 (6)	16:41 (6) 18:46 17:49 (6)	06:29 17:00	07:05 16:33	07:26 16:40
31	05:54 20:20	06:25 19:37	06:56 17:10 (6) 17:48 (6)		06:30 16:59		07:27 16:40
Potential sun hours	460	429	375	345	297	287	
Total, worst case		126	2222	914	325		

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: C - Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (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	07:27 16:41	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	18:32 (6) 64 19:36 (6)
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	18:32 (6) 64 19:36 (6)
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:29	18:32 (6) 65 19:37 (6)
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 19:06 (6)	18:33 (6) 64 19:37 (6)
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 19:03 (5)	05:29 20:02	18:32 (6) 19 19:12 (6)
6	07:27 16:46	16:13 (9) 17:22	07:08 17:56	06:29 17:56	05:53 19:05 (5)	05:28 20:03	18:33 (6) 26 19:16 (6)
7	07:27 16:47	16:12 (9) 17:24	07:07 17:57	06:27 17:57	05:52 19:06 (5)	05:28 20:04	18:33 (6) 30 19:18 (6)
8	07:27 16:48	16:11 (9) 17:25	07:06 17:59	06:26 17:59	05:51 19:07 (5)	05:28 20:05	18:33 (6) 34 19:20 (6)
9	07:27 16:49	16:11 (9) 17:26	07:05 17:59	06:24 18:00	05:50 19:07 (5)	05:27 20:06	18:34 (6) 38 19:21 (6)
10	07:27 16:50	16:10 (9) 17:27	07:03 18:01	06:23 18:01	05:48 19:07 (5)	05:27 20:07	18:33 (6) 41 19:23 (6)
11	07:26 16:51	16:10 (9) 17:29	07:02 18:02	06:21 18:02	05:47 19:07 (5)	05:27 20:08	18:33 (6) 44 19:24 (6)
12	07:26 16:52	16:10 (9) 17:30	07:01 18:03	06:19 18:03	05:46 19:07 (5)	05:27 20:09	18:34 (6) 46 19:25 (6)
13	07:26 16:53	16:09 (9) 17:31	07:00 18:04	06:18 18:04	05:45 19:07 (5)	05:27 20:10	18:34 (6) 48 19:26 (6)
14	07:25 16:54	16:09 (9) 17:32	06:58 18:05	06:16 18:05	05:44 19:06 (5)	05:27 20:11	18:34 (6) 50 19:27 (6)
15	07:25 16:55	16:09 (9) 17:34	8 16:56 (8) 18:06	06:14 18:06	05:43 19:05 (5)	05:27 20:12	18:34 (6) 52 19:28 (6)
16	07:25 16:57	16:09 (9) 17:35	16:52 (8) 18:08	06:13 18:08	05:42 19:04 (5)	05:27 20:13	18:35 (6) 52 19:28 (6)
17	07:24 16:58	16:09 (9) 17:36	16:51 (8) 18:09	06:11 18:09	05:41 19:01 (5)	05:27 20:14	18:35 (6) 54 19:30 (6)
18	07:24 16:59	16:10 (9) 17:37	16:50 (8) 18:10	06:09 18:10	05:40 19:00 (5)	05:27 20:15	18:35 (6) 56 19:31 (6)
19	07:23 17:00	16:09 (9) 17:38	16:50 (8) 18:11	06:08 18:11	05:39 19:00 (5)	05:27 20:16	18:36 (6) 57 19:31 (6)
20	07:23 17:01	16:10 (9) 17:40	16:50 (8) 18:12	06:06 18:12	05:38 19:00 (5)	05:27 20:17	18:36 (6) 57 19:31 (6)
21	07:22 17:02	16:10 (9) 17:41	16:49 (8) 18:13	06:04 18:13	05:38 19:00 (5)	05:27 20:18	18:36 (6) 59 19:32 (6)
22	07:21 17:04	16:10 (9) 17:42	16:50 (8) 18:14	06:03 18:14	05:37 19:00 (5)	05:28 20:19	18:36 (6) 59 19:33 (6)
23	07:21 17:05	16:10 (9) 17:43	16:50 (8) 18:15	06:01 18:15	05:36 19:00 (5)	05:28 20:20	18:36 (6) 60 19:33 (6)
24	07:20 17:06	16:12 (9) 17:45	16:51 (8) 18:16	06:09 18:16	05:35 19:00 (5)	05:28 20:21	18:37 (6) 60 19:33 (6)
25	07:19 17:07	16:33 (9) 17:46	17:09 (8) 18:17	13 17:34 (7) 19:50	06:08 19:51	05:28 20:22	18:37 (6) 61 19:34 (6)
26	07:18 17:08	16:13 (9) 17:47	16:53 (8) 18:18	05:56 18:18	06:06 19:52	05:29 20:23	18:37 (6) 62 19:34 (6)
27	07:18 17:10	16:14 (9) 17:48	16:54 (8) 18:20	05:54 18:20	06:05 19:53	05:29 20:24	18:37 (6) 62 19:34 (6)
28	07:17 17:11	16:15 (9) 17:49	06:38 18:21	05:52 18:21	06:04 19:54	05:29 20:25	18:37 (6) 63 19:35 (6)
29	07:16 17:12	16:16 (9) 18:30 (9)	06:38 19:22	05:51 19:22	06:02 19:55	05:30 20:26	18:38 (6) 63 19:35 (6)
30	07:15 17:13	16:18 (9) 16:28 (9)	06:49 19:23	06:01 19:23	06:01 19:56	05:30 20:27	18:38 (6) 64 19:36 (6)
31	07:14 17:15	16:21 (9) 16:26 (9)	06:47 19:24	06:00 19:24	06:00 19:56	05:31 20:28	18:38 (6) 64 19:36 (6)
Potential sun hours	297	297	369	399	449	453	1946
Total, worst case	435	234	216	243	1388		

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: C - Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (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	05:31	18:37 (6)	05:55	18:50 (6)	06:26	18:45 (5)	06:56	18:07 (7)	06:31	07:06	15:52 (9)			
	20:38	65 19:42 (6)	20:19	45 19:35 (6)	19:35	21 19:06 (5)	18:44	6 18:13 (7)	16:57	16:33	15 16:07 (9)			
2	05:31	18:38 (6)	05:56	18:52 (6)	06:27	18:45 (5)	06:58		06:32	07:07	15:53 (9)			
	20:38	65 19:43 (6)	20:18	42 19:34 (6)	19:34	21 19:06 (5)	18:43		16:56	16:32	14 16:07 (9)			
3	05:32	18:38 (6)	05:57	18:53 (6)	06:28	18:45 (5)	06:59		06:34	07:08	15:54 (9)			
	20:38	65 19:43 (6)	20:17	40 19:33 (6)	19:32	20 19:05 (5)	18:41		16:55	16:32	12 16:06 (9)			
4	05:32	18:39 (6)	05:58	18:54 (6)	06:29	18:45 (5)	07:00		06:35	07:09	15:55 (9)			
	20:38	64 19:43 (6)	20:16	37 19:31 (6)	19:30	19 19:04 (5)	18:39		16:54	16:32	11 16:06 (9)			
5	05:33	18:39 (6)	05:59	18:56 (6)	06:30	18:46 (5)	07:01		06:36	07:10	15:57 (9)			
	20:37	65 19:44 (6)	20:14	33 19:29 (6)	19:29	17 19:03 (5)	18:38		16:52	16:32	8 16:05 (9)			
6	05:33	18:39 (6)	06:00	18:58 (6)	06:31	18:47 (5)	07:02		06:37	07:11	15:59 (9)			
	20:37	64 19:43 (6)	20:13	29 19:27 (6)	19:27	14 19:01 (5)	18:36		16:51	16:31	5 16:04 (9)			
7	05:34	18:39 (6)	06:01	19:01 (6)	06:32	18:49 (5)	07:03		06:38	07:12				
	20:37	65 19:44 (6)	20:12	23 19:24 (6)	19:25	9 18:58 (5)	18:34		16:50	16:31				
8	05:35	18:39 (6)	06:02	19:05 (6)	06:33		07:04		06:40	07:13				
	20:37	64 19:43 (6)	20:11	16 19:21 (6)	19:24		18:33		16:49	16:31				
9	05:35	18:40 (6)	06:03		06:34		07:05		06:41	07:14				
	20:36	64 19:44 (6)	20:09		19:22		18:31		16:48	16:31				
10	05:36	18:40 (6)	06:04		06:35		07:06		06:42	07:15				
	20:36	64 19:44 (6)	20:08		19:20		18:29		16:47	16:31				
11	05:37	18:40 (6)	06:05		06:36		07:07		06:43	15:52 (9)	07:16			
	20:35	64 19:44 (6)	20:07		19:19		18:28		16:46	6 15:58 (9)	16:31			
12	05:37	18:40 (6)	06:06		06:37		07:08		06:44	15:49 (9)	07:17			
	20:35	64 19:44 (6)	20:05		19:17		18:26		16:45	12 16:01 (9)	16:31			
13	05:38	18:41 (6)	06:07		06:38		07:09		06:46	15:48 (9)	07:18			
	20:34	63 19:44 (6)	20:04		19:15		18:25		16:44	14 16:02 (9)	16:32			
14	05:39	18:41 (6)	06:08		06:39		07:10		17:30 (8)	06:47	15:47 (9)	07:18		
	20:34	63 19:44 (6)	20:03		19:14		18:23		4 17:34 (8)	16:43	17 16:04 (9)	16:32		
15	05:40	18:41 (6)	06:09		06:40		07:12		17:26 (8)	06:48	15:46 (9)	07:19		
	20:33	63 19:44 (6)	20:01		19:12		18:21		11 17:37 (8)	16:42	19 16:05 (9)	16:32		
16	05:40	18:41 (6)	06:10		06:41		07:13		17:24 (8)	06:49	15:46 (9)	07:20		
	20:33	63 19:44 (6)	20:00		19:10		18:20		15 17:39 (8)	16:41	19 16:05 (9)	16:32		
17	05:41	18:42 (6)	06:11		06:42		07:14		17:22 (8)	06:50	15:45 (9)	07:20		
	20:32	62 19:44 (6)	19:59		19:08		18:18		18 17:40 (8)	16:40	21 16:06 (9)	16:33		
18	05:42	18:42 (6)	06:12		06:43		07:15		17:22 (8)	06:52	15:46 (9)	07:21		
	20:31	62 19:44 (6)	19:57		19:07		4 18:16 (7)		19 17:41 (8)	16:40	21 16:07 (9)	16:33		
19	05:43	18:43 (6)	06:13		06:44		18:08 (7)		07:16	17:21 (8)	06:53	15:45 (9)	07:22	
	20:31	61 19:44 (6)	19:56		19:05		12 18:20 (7)		18:15	20 17:41 (8)	16:39	22 16:07 (9)	16:33	
20	05:44	18:42 (6)	06:14		06:45		18:06 (7)		07:17	17:20 (8)	06:54	15:45 (9)	07:22	
	20:30	61 19:43 (6)	19:54		19:03		15 18:21 (7)		18:14	21 17:41 (8)	16:38	22 16:07 (9)	16:34	
21	05:45	18:43 (6)	06:15		06:46		18:04 (7)		07:18	17:20 (8)	06:55	15:45 (9)	07:23	
	20:29	60 19:43 (6)	19:53		19:01		18 18:22 (7)		18:12	21 17:41 (8)	16:37	22 16:07 (9)	16:34	
22	05:46	18:43 (6)	06:16		06:47		18:03 (7)		07:19	17:19 (8)	06:56	15:46 (9)	07:23	
	20:28	59 19:42 (6)	19:51		19:00		19 18:22 (7)		18:11	21 17:40 (8)	16:37	22 16:08 (9)	16:35	
23	05:46	18:44 (6)	06:17		06:48		18:02 (7)		07:21	17:20 (8)	06:57	15:46 (9)	07:24	
	20:28	58 19:42 (6)	19:50		18:58		21 18:23 (7)		18:09	21 17:41 (8)	16:36	22 16:08 (9)	16:35	
24	05:47	18:45 (6)	06:18		06:49		18:02 (7)		07:22	17:21 (8)	06:59	15:47 (9)	07:24	
	20:27	57 19:42 (6)	19:48		18:56		20 18:22 (7)		18:08	19 17:40 (8)	16:36	21 16:08 (9)	16:36	
25	05:48	18:45 (6)	06:19		18:52 (5)		06:50		18:01 (7)	06:23	16:21 (8)	07:00	15:47 (9)	07:25
	20:26	56 19:41 (6)	19:47		11 19:03 (5)		18:55		21 18:22 (7)	17:07	18 16:39 (8)	16:35	21 16:08 (9)	16:36
26	05:49	18:46 (6)	06:20		18:50 (5)		06:51		18:01 (7)	06:24	16:22 (8)	07:01	15:47 (9)	07:25
	20:25	55 19:41 (6)	19:45		14 19:04 (5)		18:53		20 18:21 (7)	17:05	15 16:37 (8)	16:35	21 16:08 (9)	16:37
27	05:50	18:46 (6)	06:21		18:49 (5)		06:52		18:01 (7)	06:25	16:24 (8)	07:02	15:49 (9)	07:26
	20:24	53 19:39 (6)	19:43		17 19:06 (5)		18:51		20 18:21 (7)	17:04	12 16:36 (8)	16:34	20 16:09 (9)	16:37
28	05:51	18:46 (6)	06:22		18:47 (5)		06:53		18:02 (7)	06:26	16:26 (8)	07:03	15:50 (9)	07:26
	20:23	53 19:39 (6)	19:42		19 19:06 (5)		18:49		18 18:20 (7)	17:02	7 16:33 (8)	16:34	18 16:08 (9)	16:38
29	05:52	18:47 (6)	06:23		18:46 (5)		06:54		18:03 (7)	06:28	07:04	15:50 (9)	07:26	
	20:22	51 19:38 (6)	19:40		21 19:07 (5)		18:48		16 18:19 (7)	17:01	16:33	18 16:08 (9)	16:39	
30	05:53	18:48 (6)	06:24		18:46 (5)		06:55		18:05 (7)	06:29	07:05	15:51 (9)	07:26	
	20:21	49 19:37 (6)	19:39		21 19:07 (5)		18:46		12 18:17 (7)	17:00	16:33	17 16:08 (9)	16:40	
31	05:54	18:49 (6)	06:25		18:45 (5)		06:56		06:30				07:27	
	20:20	47 19:36 (6)	19:37		22 19:07 (5)				16:59				16:40	
Potential sun hours	460		429		375		345		297		287			
Total, worst case	1869		390		337		248		375		65			

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: D - Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (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						
1	07:27	15:53 (9)	07:13	06:37	06:46	05:59	05:30	18:26 (6)				
	16:41	22 16:15 (9)	17:16	17:50	19:25	19:57	20:27	70 19:36 (6)				
2	07:27	15:53 (9)	07:12	06:35	06:44	05:58	05:30	18:25 (6)				
	16:42	22 16:15 (9)	17:17	17:52	19:26	19:58	20:28	71 19:36 (6)				
3	07:27	15:53 (9)	07:11	06:34	06:42	05:57	05:29	18:25 (6)				
	16:43	23 16:16 (9)	17:19	17:53	19:27	19:59	20:29	72 19:37 (6)				
4	07:27	15:54 (9)	07:10	06:32	06:41	05:56	05:29	18:25 (6)				
	16:44	23 16:17 (9)	17:20	17:54	19:28	7 19:00 (5)	20:00	20:29	73 19:38 (6)			
5	07:27	15:53 (9)	07:09	06:31	06:39	05:54	05:29	18:24 (6)				
	16:45	23 16:16 (9)	17:21	17:55	19:29	14 19:04 (5)	20:02	20:30	74 19:38 (6)			
6	07:27	15:53 (9)	07:08	06:29	06:37	05:53	05:28	18:25 (6)				
	16:46	24 16:17 (9)	17:22	17:56	19:30	17 19:05 (5)	20:03	20:31	73 19:38 (6)			
7	07:27	15:54 (9)	07:07	06:27	06:36	05:52	05:28	18:25 (6)				
	16:47	23 16:17 (9)	17:24	17:57	19:31	19 19:05 (5)	20:04	20:31	74 19:39 (6)			
8	07:27	15:54 (9)	07:06	06:26	06:34	05:51	05:28	18:25 (6)				
	16:48	24 16:18 (9)	17:25	17:59	19:33	21 19:06 (5)	20:05	20:32	75 19:40 (6)			
9	07:27	15:55 (9)	07:05	06:24	06:32	05:50	05:27	18:25 (6)				
	16:49	24 16:19 (9)	17:26	10 16:57 (8)	18:00	19:34	22 19:06 (5)	20:06	20:33	75 19:40 (6)		
10	07:27	15:55 (9)	07:03	06:23	06:31	05:48	05:27	18:24 (6)				
	16:50	24 16:19 (9)	17:27	14 17:00 (8)	18:01	9 17:31 (7)	19:35	23 19:06 (5)	20:07	20:33	76 19:40 (6)	
11	07:26	15:56 (9)	07:02	06:21	06:29	05:47	18:52 (6)	05:27	18:24 (6)			
	16:51	23 16:19 (9)	17:29	16 17:01 (8)	18:02	14 17:34 (7)	19:36	23 19:06 (5)	20:08	14 19:06 (6)	20:34	76 19:40 (6)
12	07:26	15:56 (9)	07:01	06:19	06:28	05:46	05:27	18:25 (6)				
	16:52	24 16:20 (9)	17:30	19 17:03 (8)	18:03	17 17:35 (7)	19:37	23 19:06 (5)	20:09	24 19:11 (6)	20:34	76 19:41 (6)
13	07:26	15:56 (9)	07:00	06:18	06:26	05:45	05:27	18:25 (6)				
	16:53	24 16:20 (9)	17:31	21 17:03 (8)	18:04	19 17:35 (7)	19:38	23 19:06 (5)	20:10	30 19:14 (6)	20:35	76 19:41 (6)
14	07:25	15:57 (9)	06:58	06:16	06:24	05:44	05:27	18:25 (6)				
	16:54	23 16:20 (9)	17:32	22 17:04 (8)	18:05	21 17:37 (7)	19:39	22 19:05 (5)	20:11	36 19:17 (6)	20:35	77 19:42 (6)
15	07:25	15:57 (9)	06:57	06:14	06:23	05:43	05:27	18:25 (6)				
	16:55	23 16:20 (9)	17:34	22 17:04 (8)	18:06	22 17:36 (7)	19:40	20 19:04 (5)	20:12	40 19:19 (6)	20:36	77 19:42 (6)
16	07:25	15:58 (9)	06:56	06:13	06:21	05:42	05:27	18:25 (6)				
	16:57	22 16:20 (9)	17:35	23 17:04 (8)	18:08	22 17:36 (7)	19:41	19 19:03 (5)	20:13	43 19:20 (6)	20:36	77 19:42 (6)
17	07:24	15:59 (9)	06:54	06:11	06:20	05:41	05:27	18:25 (6)				
	16:58	21 16:20 (9)	17:36	22 17:04 (8)	18:09	23 17:37 (7)	19:42	16 19:01 (5)	20:14	47 19:23 (6)	20:36	77 19:42 (6)
18	07:24	16:00 (9)	06:53	06:09	06:18	05:40	05:27	18:25 (6)				
	16:59	20 16:20 (9)	17:37	22 17:03 (8)	18:10	22 17:35 (7)	19:43	12 18:59 (5)	20:15	49 19:24 (6)	20:37	77 19:42 (6)
19	07:23	16:01 (9)	06:52	06:08	06:17	05:39	05:27	18:26 (6)				
	17:00	19 16:20 (9)	17:38	21 17:03 (8)	18:11	21 17:35 (7)	19:44	5 18:55 (5)	20:16	51 19:25 (6)	20:37	78 19:44 (6)
20	07:23	16:02 (9)	06:50	06:06	06:15	05:38	05:27	18:26 (6)				
	17:01	18 16:20 (9)	17:40	20 17:03 (8)	18:12	19 17:34 (7)	19:45	20:17	54 19:26 (6)	20:37	78 19:44 (6)	
21	07:22	16:03 (9)	06:49	06:04	06:14	05:38	05:27	18:26 (6)				
	17:02	16 16:19 (9)	17:41	19 17:02 (8)	18:13	18 17:33 (7)	19:47	20:18	56 19:27 (6)	20:37	78 19:44 (6)	
22	07:21	16:05 (9)	06:47	06:03	06:12	05:37	05:28	18:26 (6)				
	17:04	13 16:18 (9)	17:42	16 17:01 (8)	18:14	15 17:31 (7)	19:48	20:19	58 19:29 (6)	20:38	78 19:44 (6)	
23	07:21	16:06 (9)	06:46	06:01	06:11	05:36	05:28	18:26 (6)				
	17:05	10 16:16 (9)	17:43	12 16:58 (8)	18:15	10 17:28 (7)	19:49	20:20	60 19:30 (6)	20:38	78 19:44 (6)	
24	07:20	06:44	06:59	06:09	06:19	05:35	05:28	18:27 (6)				
	17:06	17:45	4 16:55 (8)	18:16	19:50	20:20	61 19:30 (6)	20:38	78 19:45 (6)			
25	07:19	06:43	05:57	06:08	06:18	05:34	05:28	18:27 (6)				
	17:07	17:46	18:17	19:51	20:21	63 19:32 (6)	20:38	77 19:44 (6)				
26	07:19	06:42	05:56	06:06	06:16	05:34	05:29	18:27 (6)				
	17:08	17:47	18:18	19:52	20:22	64 19:32 (6)	20:38	77 19:44 (6)				
27	07:18	06:40	05:54	06:05	06:15	05:33	05:29	18:28 (6)				
	17:10	17:48	18:20	19:53	20:23	65 19:32 (6)	20:38	77 19:45 (6)				
28	07:17	06:38	05:52	06:04	06:14	05:32	05:29	18:28 (6)				
	17:11	17:49	18:21	19:54	20:24	67 19:34 (6)	20:38	77 19:45 (6)				
29	07:16	06:51	06:02	06:13	06:23	05:32	05:30	18:29 (6)				
	17:12	19:22	19:55	20:25	68 19:34 (6)	20:38	76 19:45 (6)					
30	07:15	06:49	06:01	06:14	06:24	05:31	05:30	18:29 (6)				
	17:13	19:23	19:56	20:26	69 19:35 (6)	20:38	76 19:45 (6)					
31	07:14	06:47	06:03	06:15	06:25	05:31	05:30	18:25 (6)				
	17:15	19:24	19:57	20:27	70 19:35 (6)	20:38	76 19:45 (6)					
Potential sun hours	297	297	369	399	449	453						
Total, worst case	488	283	252	286	1089	2274						

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: D - Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (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

	July		August		September		October		November		December	
1	05:31	18:29 (6)	05:55	18:59 (6)	06:26	18:42 (5)	06:56	17:57 (7)	06:31	16:16 (8)	07:06	15:38 (9)
	20:38	76 19:45 (6)	20:19	21 19:20 (6)	19:35	23 19:05 (5)	18:44	18 18:15 (7)	16:57	13 16:29 (8)	16:33	23 16:01 (9)
2	05:31	18:29 (6)	05:56	19:06 (6)	06:27	18:42 (5)	06:58	17:58 (7)	06:32	16:18 (8)	07:07	15:38 (9)
	20:38	76 19:45 (6)	20:18	7 19:13 (6)	19:34	23 19:04 (5)	18:43	15 18:13 (7)	16:56	9 16:27 (8)	16:32	24 16:02 (9)
3	05:32	18:29 (6)	05:57		06:28	18:42 (5)	06:59	17:59 (7)	06:34		07:08	15:38 (9)
	20:38	76 19:45 (6)	20:17		19:32	22 19:04 (5)	18:41	12 18:11 (7)	16:55		16:32	24 16:02 (9)
4	05:32	18:30 (6)	05:58		06:29	18:42 (5)	07:00	18:04 (7)	06:35		07:09	15:39 (9)
	20:38	75 19:45 (6)	20:16		19:30	21 19:03 (5)	18:39	1 18:05 (7)	16:54		16:32	23 16:02 (9)
5	05:33	18:31 (6)	05:59		06:30	18:43 (5)	07:01		06:36		07:10	15:39 (9)
	20:37	74 19:45 (6)	20:14		19:29	19 19:02 (5)	18:38		16:52		16:32	24 16:03 (9)
6	05:33	18:31 (6)	06:00		06:31	18:44 (5)	07:02		06:37		07:11	15:39 (9)
	20:37	74 19:45 (6)	20:13		19:27	17 19:01 (5)	18:36		16:51		16:31	24 16:03 (9)
7	05:34	18:31 (6)	06:01		06:32	18:45 (5)	07:03		06:38		07:12	15:40 (9)
	20:37	74 19:45 (6)	20:12		19:25	14 18:59 (5)	18:34		16:50		16:31	23 16:03 (9)
8	05:35	18:31 (6)	06:02		06:33	18:47 (5)	07:04		06:40		07:13	15:41 (9)
	20:37	73 19:44 (6)	20:11		19:24	9 18:56 (5)	18:33		16:49		16:31	23 16:04 (9)
9	05:35	18:32 (6)	06:03		06:34		07:05		06:41		07:14	15:41 (9)
	20:36	72 19:44 (6)	20:09		19:22		18:31		16:48		16:31	23 16:04 (9)
10	05:36	18:33 (6)	06:04		06:35		07:06		06:42		07:15	15:42 (9)
	20:36	72 19:45 (6)	20:08		19:20		18:29		16:47		16:31	22 16:04 (9)
11	05:37	18:33 (6)	06:05		06:36		07:07		06:43		07:16	15:43 (9)
	20:35	71 19:44 (6)	20:07		19:19		18:28		16:46		16:31	22 16:05 (9)
12	05:37	18:34 (6)	06:06		06:37		07:08		06:44		07:17	15:43 (9)
	20:35	70 19:44 (6)	20:05		19:17		18:26		16:45		16:31	22 16:05 (9)
13	05:38	18:34 (6)	06:07		06:38		07:09		06:46		07:18	15:43 (9)
	20:34	70 19:44 (6)	20:04		19:15		18:25		16:44		16:32	22 16:05 (9)
14	05:39	18:35 (6)	06:08		06:39		07:10		06:47		07:18	15:44 (9)
	20:34	69 19:44 (6)	20:03		19:14		18:23		16:43		16:32	21 16:05 (9)
15	05:40	18:35 (6)	06:09		06:40		07:12		06:48		07:19	15:45 (9)
	20:33	67 19:42 (6)	20:01		19:12		18:21		16:42		16:32	21 16:06 (9)
16	05:40	18:36 (6)	06:10		06:41		07:13		06:49		07:20	15:46 (9)
	20:33	66 19:42 (6)	20:00		19:10		18:20		16:41		16:32	21 16:07 (9)
17	05:41	18:37 (6)	06:11		06:42		07:14		06:50		07:20	15:46 (9)
	20:32	65 19:42 (6)	19:59		19:08		18:18		16:40		16:33	20 16:06 (9)
18	05:42	18:38 (6)	06:12		06:43		07:15	8 17:20 (8)	06:52	15:46 (9)	07:21	15:47 (9)
	20:31	63 19:41 (6)	19:57		19:07		18:17	8 17:28 (8)	16:40	1 15:47 (9)	16:33	20 16:07 (9)
19	05:43	18:39 (6)	06:13		06:44		07:16	17:17 (8)	06:53	15:41 (9)	07:22	15:47 (9)
	20:31	62 19:41 (6)	19:56		19:05		18:15	13 17:30 (8)	16:39	10 15:51 (9)	16:33	20 16:07 (9)
20	05:44	18:39 (6)	06:14		06:45	8 18:05 (7)	07:17	17:15 (8)	06:54	15:40 (9)	07:22	15:48 (9)
	20:30	61 19:40 (6)	19:54		19:03	8 18:13 (7)	18:14	17 17:32 (8)	16:38	13 15:53 (9)	16:34	20 16:08 (9)
21	05:45	18:40 (6)	06:15		06:46	18:02 (7)	07:18	17:14 (8)	06:55	15:38 (9)	07:23	15:48 (9)
	20:29	59 19:39 (6)	19:53		19:01	13 18:15 (7)	18:12	19 17:33 (8)	16:37	16 15:54 (9)	16:34	20 16:08 (9)
22	05:46	18:41 (6)	06:16		06:47	18:00 (7)	07:19	17:13 (8)	06:56	15:38 (9)	07:23	15:49 (9)
	20:28	57 19:38 (6)	19:51		19:00	17 18:17 (7)	18:11	20 17:33 (8)	16:37	18 15:56 (9)	16:35	20 16:09 (9)
23	05:46	18:42 (6)	06:17		06:48	17:58 (7)	07:21	17:13 (8)	06:57	15:38 (9)	07:24	15:49 (9)
	20:28	55 19:37 (6)	19:50		18:58	20 18:18 (7)	18:09	21 17:34 (8)	16:36	19 15:57 (9)	16:35	20 16:09 (9)
24	05:47	18:43 (6)	06:18	6 18:53 (5)	06:49	17:57 (7)	07:22	17:12 (8)	06:59	15:37 (9)	07:24	15:50 (9)
	20:27	53 19:36 (6)	19:48	6 18:59 (5)	18:56	21 18:18 (7)	18:08	22 17:34 (8)	16:36	20 15:57 (9)	16:36	20 16:10 (9)
25	05:48	18:45 (6)	06:19	18:50 (5)	06:50	17:56 (7)	06:23	16:11 (8)	07:00	15:37 (9)	07:25	15:50 (9)
	20:26	50 19:35 (6)	19:47	12 19:02 (5)	18:55	22 18:18 (7)	17:07	23 16:34 (8)	16:35	21 15:58 (9)	16:36	20 16:10 (9)
26	05:49	18:46 (6)	06:20	18:48 (5)	06:51	17:56 (7)	06:24	16:11 (8)	07:01	15:36 (9)	07:25	15:50 (9)
	20:25	48 19:34 (6)	19:45	16 19:04 (5)	18:53	22 18:18 (7)	17:05	23 16:34 (8)	16:35	22 15:58 (9)	16:37	20 16:10 (9)
27	05:50	18:47 (6)	06:21	18:46 (5)	06:52	17:55 (7)	06:25	16:12 (8)	07:02	15:37 (9)	07:26	15:51 (9)
	20:24	45 19:32 (6)	19:43	19 19:05 (5)	18:51	23 18:18 (7)	17:04	22 16:34 (8)	16:34	23 16:00 (9)	16:37	21 16:12 (9)
28	05:51	18:49 (6)	06:22	18:45 (5)	06:53	17:56 (7)	06:26	16:12 (8)	07:03	15:37 (9)	07:26	15:51 (9)
	20:23	41 19:30 (6)	19:42	20 19:05 (5)	18:49	22 18:18 (7)	17:02	21 16:33 (8)	16:34	23 16:00 (9)	16:38	21 16:12 (9)
29	05:52	18:51 (6)	06:23	18:44 (5)	06:54	17:56 (7)	06:28	16:12 (8)	07:04	15:37 (9)	07:26	15:51 (9)
	20:22	37 19:28 (6)	19:40	22 19:06 (5)	18:48	21 18:17 (7)	17:01	20 16:32 (8)	16:33	24 16:01 (9)	16:39	21 16:12 (9)
30	05:53	18:53 (6)	06:24	18:43 (5)	06:55	17:56 (7)	06:29	16:13 (8)	07:05	15:37 (9)	07:26	15:51 (9)
	20:21	33 19:26 (6)	19:39	23 19:06 (5)	18:46	20 18:16 (7)	17:00	18 16:31 (8)	16:33	24 16:01 (9)	16:40	22 16:13 (9)
31	05:54	18:56 (6)	06:25	18:43 (5)			06:30		16:15 (8)		07:27	15:51 (9)
	20:20	27 19:23 (6)	19:37	23 19:06 (5)			16:59	16 16:31 (8)			16:40	22 16:13 (9)
Potential sun hours	460		429		375		345		297		287	
Total, worst case	1911		169		357		309		256		669	

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: E - Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (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	07:27 16:41	07:13 17:16	16:21 (9) 16:42 (9)	06:37 17:50	16:58 (8) 17:20 (8)	18:29 (7) 19:57
2	07:27 16:42	07:12 17:17	16:21 (9) 16:42 (9)	06:35 17:52	16:58 (8) 17:19 (8)	18:32 (7) 19:58
3	07:27 16:43	07:11 17:19	16:23 (9) 16:41 (9)	06:34 17:53	16:59 (8) 17:19 (8)	18:43 (7) 19:59
4	07:27 16:44	07:10 17:20	16:24 (9) 16:41 (9)	06:32 17:54	16:59 (8) 17:17 (8)	19:00 20:00
5	07:27 16:45	07:09 17:21	16:26 (9) 16:39 (9)	06:31 17:55	17:01 (8) 17:16 (8)	19:01 20:02
6	07:27 16:46	07:08 17:22	16:28 (9) 16:37 (9)	06:29 17:56	17:03 (8) 17:13 (8)	19:02 19:30
7	07:27 16:47	07:07 17:24		06:27 17:57	17:04 (8) 17:14 (8)	19:03 19:31
8	07:27 16:48	07:06 17:25		06:26 17:59	17:05 (8) 17:15 (8)	19:04 19:33
9	07:27 16:49	07:05 17:26		06:24 18:00	17:06 (8) 17:16 (8)	19:05 19:34
10	07:27 16:50	07:03 17:27		06:23 18:01	17:07 (8) 17:17 (8)	19:06 19:35
11	07:26 16:51	07:02 17:29		06:21 18:02	17:08 (8) 17:18 (8)	19:07 19:36
12	07:26 16:52	07:01 17:30		06:19 18:03	17:09 (8) 17:19 (8)	19:08 19:37
13	07:26 16:53	07:00 17:31		06:18 18:04	17:10 (8) 17:20 (8)	19:09 19:38
14	07:25 16:54	06:58 17:32		06:16 18:05	17:21 (8) 17:31 (8)	19:10 19:39
15	07:25 16:55	06:57 17:34		06:14 18:06	17:22 (8) 17:32 (8)	19:11 19:40
16	07:25 16:57	16:24 (9) 16:31 (9)	06:56 17:35	06:13 18:08	17:33 (8) 17:43 (8)	19:12 19:41
17	07:24 16:58	16:22 (9) 16:32 (9)	06:54 17:36	06:11 18:09	17:44 (8) 17:54 (8)	19:13 19:42
18	07:24 16:59	16:21 (9) 16:34 (9)	06:53 17:37	06:09 18:10	17:55 (8) 18:05 (8)	19:14 19:43
19	07:23 17:00	16:20 (9) 16:35 (9)	06:52 17:38	06:08 18:11	18:06 (8) 18:16 (8)	19:15 19:44
20	07:23 17:01	16:20 (9) 16:36 (9)	06:50 17:40	06:06 18:12	17:39 (7) 17:43 (7)	18:57 (5) 19:15 (5)
21	07:22 17:02	16:20 (9) 16:37 (9)	06:49 17:41	17:04 (8) 17:15 (8)	06:04 18:13	18:58 (5) 19:20 (5)
22	07:21 17:04	16:19 (9) 16:38 (9)	06:47 17:42	17:03 (8) 17:18 (8)	06:03 18:14	18:59 (5) 19:21 (5)
23	07:21 17:05	16:19 (9) 16:39 (9)	06:46 17:43	17:01 (8) 17:19 (8)	06:01 18:15	18:57 (5) 19:22 (5)
24	07:20 17:06	16:19 (9) 16:42 (9)	06:44 17:45	17:00 (8) 17:20 (8)	05:59 18:16	18:57 (5) 19:23 (5)
25	07:19 17:07	16:19 (9) 16:42 (9)	06:43 17:46	16:59 (8) 17:20 (8)	05:57 18:17	18:57 (5) 19:24 (5)
26	07:19 17:08	16:19 (9) 16:42 (9)	06:42 17:47	16:59 (8) 17:21 (8)	05:56 18:18	18:57 (5) 19:25 (5)
27	07:18 17:10	16:19 (9) 16:43 (9)	06:40 17:48	16:58 (8) 17:20 (8)	05:54 18:20	18:58 (5) 19:26 (5)
28	07:17 17:11	16:19 (9) 16:43 (9)	06:38 17:49	16:58 (8) 17:21 (8)	05:52 18:21	18:58 (5) 19:27 (5)
29	07:16 17:12	16:19 (9) 16:43 (9)		06:51 19:22	18:22 (8) 18:48 (7)	19:28 (5) 20:25 (5)
30	07:15 17:13	16:19 (9) 16:43 (9)		06:49 19:23	18:28 (7) 18:48 (7)	19:31 (5) 20:26 (5)
31	07:14 17:15	16:20 (9) 16:43 (9)		06:47 19:24	18:28 (7) 18:46 (7)	20:27 (5) 20:26 (5)
Potential sun hours	297	297	369	399	449	453
Total, worst case	305	251	324	315	449	453

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: E - Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (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	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:43	06:32 16:56	07:07 16:32
3	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:34 16:55	07:08 16:32
4	05:32 20:38	05:58 20:16	06:29 19:30	07:00 18:39	06:35 16:54	07:09 16:32
5	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	15:58 (9) 16:07 (9) 16:32
6	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51	9 15:55 (9) 16:09 (9) 16:31
7	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	6 17:41 (8) 16:50	17 15:55 (9) 16:12 (9) 16:31
8	05:35 20:37	06:02 20:11	06:33 19:24	07:04 18:33	13 17:37 (8) 17:50 (8)	19 16:12 (9) 16:49 15:53 (9) 16:31
9	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	16 17:35 (8) 17:51 (8)	16:48 21 16:13 (9) 16:31
10	05:36 20:36	06:04 20:08	06:35 19:20	18:25 (7) 07:06 18:29	19 17:33 (8) 17:52 (8)	22 16:47 16:15 (9) 16:31
11	05:37 20:35	06:05 20:07	06:36 19:19	18:23 (7) 07:07 18:28	20 17:32 (8) 17:52 (8)	23 16:46 16:15 (9) 16:31
12	05:37 20:35	06:06 20:05	06:37 19:17	18:21 (7) 07:08 18:26	22 17:32 (8) 17:54 (8)	24 16:45 16:15 (9) 16:31
13	05:38 20:34	06:07 20:04	7 19:12 (5) 19:19 (5)	20 06:38 19:15	23 18:19 (7) 18:25	24 06:46 16:44 15:51 (9) 16:32
14	05:39 20:34	06:08 20:03	12 19:09 (5) 19:21 (5)	21 06:39 19:14	22 18:18 (7) 18:23	24 06:47 16:43 15:52 (9) 16:32
15	05:40 20:33	06:09 20:01	16 19:07 (5) 19:23 (5)	21 06:40 19:12	23 18:17 (7) 18:21	24 06:48 16:42 16:16 (9) 16:32
16	05:40 20:33	06:10 20:00	18 19:05 (5) 19:23 (5)	22 06:41 19:10	22 18:16 (7) 18:20	22 17:30 (8) 16:41 15:52 (9) 16:32
17	05:41 20:32	06:11 19:59	19 19:04 (5) 19:23 (5)	22 06:42 19:08	20 18:16 (7) 18:18	23 17:31 (8) 16:40 15:52 (9) 16:33
18	05:42 20:31	06:12 19:57	21 19:03 (5) 19:24 (5)	21 06:43 19:07	19 18:16 (7) 18:17	23 17:32 (8) 16:40 15:53 (9) 16:33
19	05:43 20:31	06:13 19:56	22 19:02 (5) 19:24 (5)	20 06:44 19:05	17 18:16 (7) 18:15	20 17:33 (8) 16:39 15:54 (9) 16:33
20	05:44 20:30	06:14 19:54	22 19:02 (5) 19:24 (5)	19 06:45 19:03	14 18:16 (7) 18:14	19 17:34 (8) 16:38 15:55 (9) 16:34
21	05:45 20:29	06:15 19:53	22 19:02 (5) 19:24 (5)	17 06:46 19:01	9 18:17 (7) 18:12	17 17:36 (8) 16:37 15:56 (9) 16:34
22	05:46 20:28	06:16 19:51	23 19:01 (5) 19:24 (5)	14 06:47 19:00	14 18:18 (7) 18:11	16 16:37 16:12 (9) 16:35
23	05:46 20:28	06:17 19:50	22 19:01 (5) 19:23 (5)	7 06:48 18:58	18:21 (7) 18:09	15 07:21 16:12 (9) 16:35
24	05:47 20:27	06:18 19:48	21 19:02 (5) 19:23 (5)	7 06:49 18:56	07:22 18:08	13 16:36 16:11 (9) 16:36
25	05:48 20:26	06:19 19:47	20 19:02 (5) 19:22 (5)	18:55 06:50	06:23 17:07	10 07:00 16:10 (9) 16:36
26	05:49 20:25	06:20 19:45	17 19:03 (5) 19:20 (5)	06:51 18:53	06:24 17:05	7 07:01 16:02 (9) 16:37
27	05:50 20:24	06:21 19:43	15 19:04 (5) 19:19 (5)	06:52 18:51	06:25 17:04	07:02 16:34 16:37
28	05:51 20:23	06:22 19:42	12 19:05 (5) 19:17 (5)	06:53 18:49	06:26 17:02	07:03 16:34 16:38
29	05:52 20:22	06:23 19:40	4 19:09 (5) 19:13 (5)	06:54 18:48	06:28 17:01	07:04 16:33 16:39
30	05:53 20:21	06:24 19:39	06:55 18:46	06:29 17:00	07:05 16:33	07:26 16:40
31	05:54 20:20	06:25 19:37		06:30 16:59		07:27 16:40
Potential sun hours	460	428	375	345	297	287
Total, worst case		293	246	265	407	

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: F - Shadow Receptor: 1,0 × 1,0 Azimuth: -180,0° Slope: 90,0° (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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	18:43 (7) 18:54 (7)	06:00 19:57	05:30 20:27	19:15 (5) 20:02 (4)	
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	18:42 (7) 18:55 (7)	05:58 19:58	05:30 20:28	19:15 (5) 20:02 (4)	
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	18:39 (7) 18:56 (7)	05:57 19:59	05:29 20:29	19:16 (5) 20:03 (4)	
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	18:37 (7) 18:56 (7)	05:56 20:00	05:29 20:29	19:17 (5) 20:04 (4)	
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	18:35 (7) 18:57 (7)	05:54 20:02	05:29 20:30	19:17 (5) 20:04 (4)	
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	18:33 (7) 18:57 (7)	05:53 20:03	19:22 (5) 19:32 (5)	05:28 20:31	19:18 (5) 20:05 (4)
7	07:27 16:47	07:07 17:24	06:27 17:57	06:36 19:31	18:30 (7) 18:56 (7)	05:52 20:04	19:19 (5) 19:35 (5)	05:28 20:31	19:19 (5) 20:06 (4)
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:33	18:29 (7) 18:57 (7)	05:51 20:05	19:18 (5) 19:37 (5)	05:28 20:32	19:20 (5) 20:07 (4)
9	07:27 16:49	07:05 17:26	06:24 18:00	06:32 19:34	18:27 (7) 18:56 (7)	05:50 20:06	19:15 (5) 19:37 (5)	05:28 20:33	19:21 (5) 20:08 (4)
10	07:27 16:50	07:03 17:27	06:23 18:01	06:31 19:35	18:25 (7) 18:55 (7)	05:48 20:07	19:14 (5) 19:38 (5)	05:27 20:33	19:21 (5) 20:07 (4)
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	18:26 (7) 18:55 (7)	05:47 20:08	19:14 (5) 19:39 (5)	05:27 20:34	19:22 (5) 20:08 (4)
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	18:26 (7) 18:54 (7)	05:46 20:09	19:13 (5) 19:40 (5)	05:27 20:34	19:22 (5) 20:08 (4)
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	18:27 (7) 18:54 (7)	05:45 20:10	19:12 (5) 19:40 (5)	05:27 20:35	19:23 (5) 20:09 (4)
14	07:25 16:54	06:58 17:32	06:16 18:05	06:24 19:39	18:27 (7) 18:52 (7)	05:44 20:11	19:12 (5) 19:41 (5)	05:27 20:35	19:24 (5) 20:09 (4)
15	07:25 16:55	06:57 17:34	06:14 18:06	06:23 19:40	18:28 (7) 18:51 (7)	05:43 20:12	19:11 (5) 19:41 (5)	05:27 20:36	19:25 (5) 20:10 (4)
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	18:29 (7) 18:49 (7)	05:42 20:13	19:11 (5) 19:41 (5)	05:27 20:36	19:25 (5) 20:10 (4)
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	18:31 (7) 18:48 (7)	05:41 20:14	19:12 (5) 19:42 (5)	05:27 20:36	19:26 (5) 20:10 (4)
18	07:24 16:59	06:53 17:37	06:09 18:10	06:18 19:43	18:33 (7) 18:44 (7)	05:40 20:15	19:11 (5) 19:42 (5)	05:27 20:37	19:26 (5) 20:11 (4)
19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	18:48 (7) 19:44	05:39 20:16	19:11 (5) 19:42 (5)	05:27 20:37	19:27 (5) 20:12 (4)
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:45	19:44 19:45	05:38 20:17	19:11 (5) 19:42 (5)	05:27 20:37	19:28 (5) 20:12 (4)
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:47	19:45 19:47	05:38 20:18	19:11 (5) 19:42 (5)	05:27 20:37	19:28 (5) 20:12 (4)
22	07:21 17:04	06:47 17:42	06:03 18:14	06:12 19:48	19:47 19:48	05:37 20:19	19:12 (5) 19:43 (5)	05:28 20:38	19:28 (5) 20:12 (4)
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	19:48 19:49	05:36 20:20	19:12 (5) 19:42 (5)	05:28 20:38	19:27 (5) 20:12 (4)
24	07:20 17:06	06:45 17:45	05:59 18:16	06:09 19:50	19:49 19:50	05:35 20:20	19:12 (5) 19:42 (5)	05:28 20:38	19:28 (5) 20:13 (4)
25	07:19 17:07	06:43 17:46	05:58 18:17	06:08 19:51	19:50 19:51	05:34 20:21	19:13 (5) 19:42 (5)	05:28 20:38	19:28 (5) 20:12 (4)
26	07:19 17:08	06:42 17:47	05:56 18:19	06:06 19:52	19:51 19:52	05:34 20:22	19:13 (5) 19:58 (4)	05:29 20:38	19:27 (5) 20:12 (4)
27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	19:52 19:53	05:33 20:23	19:13 (5) 19:58 (4)	05:29 20:38	19:28 (5) 20:13 (4)
28	07:17 17:11	06:38 17:49	05:52 18:21	06:04 19:54	19:53 19:54	05:33 20:24	19:14 (5) 19:59 (4)	05:29 20:38	19:27 (5) 20:13 (4)
29	07:16 17:12		06:51 19:22	06:02 19:55	19:54 19:55	05:32 20:25	19:14 (5) 20:00 (4)	05:30 20:38	19:27 (5) 20:13 (4)
30	07:15 17:13		06:49 19:23	18:48 (7) 18:50 (7)	06:01 19:56	05:31 20:26	19:14 (5) 20:01 (4)	05:30 20:38	19:27 (5) 20:13 (4)
31	07:14 17:15		06:47 19:24	18:45 (7) 18:52 (7)		05:31 20:26	19:14 (5) 20:01 (4)		
Potential sun hours	297	297	369	399	449	453			
Total, worst case			9	399	735	883			

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: F - Shadow Receptor: 1,0 × 1,0 Azimuth: -180,0° Slope: 90,0° (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	05:31		19:26 (5)	05:55		19:24 (5)	06:26	18:25 (7)	06:56	06:31	07:06	
	20:38	30	20:12 (4)	20:19	26	19:50 (5)	19:35	18:54 (7)	18:44	16:57	16:33	
2	05:31		19:26 (5)	05:56		19:24 (5)	06:27	18:24 (7)	06:58	06:32	07:07	
	20:38	30	20:12 (4)	20:18	25	19:49 (5)	19:34	18:54 (7)	18:43	16:56	16:32	
3	05:32		19:25 (5)	05:57		19:25 (5)	06:28	18:25 (7)	06:59	06:34	07:08	
	20:38	33	20:12 (4)	20:17	23	19:48 (5)	19:32	18:54 (7)	18:41	16:55	16:32	
4	05:32		19:25 (5)	05:58		19:26 (5)	06:29	18:26 (7)	07:00	06:35	07:09	
	20:38	33	20:12 (4)	20:16	21	19:47 (5)	19:30	18:54 (7)	18:39	16:54	16:32	
5	05:33		19:26 (5)	05:59		19:28 (5)	06:30	18:27 (7)	07:01	06:36	07:10	
	20:37	32	20:12 (4)	20:14	18	19:46 (5)	19:29	18:53 (7)	18:38	16:52	16:32	
6	05:33		19:25 (5)	06:00		19:30 (5)	06:31	18:29 (7)	07:02	06:37	07:11	
	20:37	34	20:12 (4)	20:13	14	19:44 (5)	19:27	18:53 (7)	18:36	16:51	16:31	
7	05:34		19:25 (5)	06:01		19:33 (5)	06:32	18:30 (7)	07:03	06:38	07:12	
	20:37	34	20:12 (4)	20:12	8	19:41 (5)	19:25	18:52 (7)	18:34	16:50	16:31	
8	05:35		19:24 (5)	06:02			06:33	18:32 (7)	07:04	06:40	07:13	
	20:37	34	20:11 (4)	20:11			19:24	18:51 (7)	18:33	16:49	16:31	
9	05:35		19:24 (5)	06:03			06:34	18:33 (7)	07:05	06:41	07:14	
	20:36	34	20:11 (4)	20:09			19:22	18:50 (7)	18:31	16:48	16:31	
10	05:36		19:24 (5)	06:04			06:35	18:35 (7)	07:06	06:42	07:15	
	20:36	35	20:11 (4)	20:08			19:20	18:49 (7)	18:29	16:47	16:31	
11	05:37		19:23 (5)	06:05			06:36	18:36 (7)	07:07	06:43	07:16	
	20:35	35	20:10 (4)	20:07			19:19	18:47 (7)	18:28	16:46	16:31	
12	05:37		19:23 (5)	06:06			06:37	18:37 (7)	07:08	06:44	07:17	
	20:35	35	20:10 (4)	20:05			19:17	18:45 (7)	18:26	16:45	16:31	
13	05:38		19:23 (5)	06:07			06:38	18:39 (7)	07:09	06:46	07:18	
	20:34	34	20:09 (4)	20:04			19:15	18:42 (7)	18:25	16:44	16:32	
14	05:39		19:23 (5)	06:08			06:39		07:10	06:47	07:18	
	20:34	34	20:09 (4)	20:03			19:14		18:23	16:43	16:32	
15	05:40		19:22 (5)	06:09			06:40		07:12	06:48	07:19	
	20:33	34	20:08 (4)	20:01			19:12		18:21	16:42	16:32	
16	05:40		19:22 (5)	06:10			06:41		07:13	06:49	07:20	
	20:33	34	20:08 (4)	20:00			19:10		18:20	16:41	16:32	
17	05:41		19:22 (5)	06:11			06:42		07:14	06:50	07:20	
	20:32	32	20:07 (4)	19:59			19:08		18:18	16:41	16:33	
18	05:42		19:22 (5)	06:12			06:43		07:15	06:52	07:21	
	20:31	32	20:07 (4)	19:57			19:07		18:17	16:40	16:33	
19	05:43		19:22 (5)	06:13			06:44		07:16	06:53	07:22	
	20:31	30	19:52 (5)	19:56			19:05		18:15	16:39	16:33	
20	05:44		19:21 (5)	06:14			06:45		07:17	06:54	07:22	
	20:30	31	19:52 (5)	19:54			19:03		18:14	16:38	16:34	
21	05:45		19:21 (5)	06:15			06:46		07:18	06:55	07:23	
	20:29	31	19:52 (5)	19:53			19:01		18:12	16:38	16:34	
22	05:46		19:21 (5)	06:16			06:47		07:19	06:56	07:23	
	20:28	31	19:52 (5)	19:51			19:00		18:11	16:37	16:35	
23	05:46		19:22 (5)	06:17			06:48		07:21	06:57	07:24	
	20:28	30	19:52 (5)	19:50			18:58		18:09	16:36	16:35	
24	05:47		19:22 (5)	06:18			06:49		07:22	06:59	07:24	
	20:27	31	19:53 (5)	19:48			18:56		18:08	16:36	16:36	
25	05:48		19:22 (5)	06:19			18:35 (7)	06:50	06:23	07:00	07:25	
	20:26	31	19:53 (5)	19:47	12		18:47 (7)	18:55	17:07	16:35	16:36	
26	05:49		19:22 (5)	06:20			18:33 (7)	06:51	06:24	07:01	07:25	
	20:25	31	19:53 (5)	19:45	17		18:50 (7)	18:53	17:05	16:35	16:37	
27	05:50		19:21 (5)	06:21			18:31 (7)	06:52	06:25	07:02	07:26	
	20:24	31	19:52 (5)	19:43	20		18:51 (7)	18:51	17:04	16:34	16:38	
28	05:51		19:22 (5)	06:22			18:29 (7)	06:53	06:26	07:03	07:26	
	20:23	30	19:52 (5)	19:42	23		18:52 (7)	18:49	17:02	16:34	16:38	
29	05:52		19:22 (5)	06:23			18:28 (7)	06:54	06:28	07:04	07:26	
	20:22	29	19:51 (5)	19:40	25		18:53 (7)	18:48	17:01	16:33	16:39	
30	05:53		19:23 (5)	06:24			18:26 (7)	06:55	06:29	07:05	07:26	
	20:21	28	19:51 (5)	19:39	28		18:54 (7)	18:46	17:00	16:33	16:40	
31	05:54		19:23 (5)	06:25			18:25 (7)		06:30		07:27	
	20:20	28	19:51 (5)	19:37	29		18:54 (7)		16:59		16:40	
Potential sun hours	460			428		375		345		297	287	
Total, worst case		991		289		260						

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: G - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (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	July	August	September	October	November	December	
1	07:27 16:41	14:50 (18) 15:24 (18)	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:32
2	07:27 16:42	14:51 (18) 15:25 (18)	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	14:51 (18) 15:25 (18)	07:11 17:18	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	14:51 (18) 15:26 (18)	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:37	05:58 20:15	06:29 19:30	06:59 18:39	06:35 16:53	07:09 16:32
5	07:27 16:45	14:52 (18) 15:26 (18)	07:09 17:21	06:30 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
6	07:27 16:46	14:52 (18) 15:27 (18)	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:02	05:28 20:30	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51	07:11 16:31
7	07:27 16:47	14:53 (18) 15:27 (18)	07:07 17:23	06:27 17:57	06:36 19:31	05:52 20:03	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	14:54 (18) 15:28 (18)	07:06 17:25	06:26 17:58	06:34 19:32	05:51 20:04	05:28 20:32	05:35 20:36	06:02 20:10	06:33 19:24	07:04 18:33	06:39 16:49	07:13 16:31
9	07:27 16:49	14:54 (18) 15:28 (18)	07:04 17:26	06:24 18:00	06:32 19:33	05:49 20:06	05:27 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:26 16:50	14:54 (18) 15:28 (18)	07:03 17:27	06:22 18:01	06:31 19:35	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	07:26 16:51	14:55 (18) 15:29 (18)	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:33	05:37 20:35	06:05 20:07	06:36 19:18	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	14:56 (18) 15:30 (18)	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:17 16:31
13	07:26 16:53	14:56 (18) 15:30 (18)	07:00 17:31	06:17 18:04	06:26 19:38	05:45 20:10	05:27 20:34	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:24	06:45 16:44	07:17 16:32
14	07:25 16:54	14:57 (18) 15:30 (18)	06:58 17:32	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	14:57 (18) 15:29 (18)	06:57 17:33	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42	07:19 16:32
16	07:24 16:56	14:58 (18) 15:30 (18)	06:56 17:35	06:13 18:07	06:21 19:41	05:42 20:13	05:27 20:36	05:40 20:32	06:10 20:00	06:41 19:10	07:12 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	14:58 (18) 15:30 (18)	06:54 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:40	07:20 16:32
18	07:23 16:59	15:00 (18) 15:30 (18)	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:36	05:42 20:31	06:12 19:57	06:43 19:06	07:15 18:17	06:51 16:40	07:21 16:33
19	07:23 17:00	15:00 (18) 15:30 (18)	06:52 17:38	06:07 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:30	06:13 19:55	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	07:22 17:01	15:01 (18) 15:29 (18)	06:50 17:40	06:06 18:12	06:15 19:45	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	15:03 (18) 15:29 (18)	06:49 17:41	06:04 18:13	06:14 19:46	05:37 20:17	05:27 20:37	05:45 20:29	06:15 19:52	06:46 19:01	07:18 18:12	06:55 16:37	07:23 16:34
22	07:21 17:04	15:03 (18) 15:28 (18)	06:47 17:42	06:02 18:14	06:12 19:47	05:37 20:18	05:27 20:37	05:45 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:21 17:05	15:05 (18) 15:28 (18)	06:46 17:43	06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
24	07:20 17:06	15:07 (18) 15:27 (18)	06:44 17:44	05:59 18:16	06:09 19:50	05:35 20:20	05:28 20:38	05:47 20:27	06:18 19:48	06:49 18:56	07:22 18:08	06:58 16:36	07:24 16:36
25	07:19 17:07	15:09 (18) 15:26 (18)	06:43 17:46	05:57 18:17	06:08 19:51	05:34 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:54	07:23 17:06	07:00 16:35	07:25 16:36
26	07:18 17:08	15:11 (18) 15:24 (18)	06:41 17:47	05:56 18:18	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	07:24 17:05	07:01 16:34	07:25 16:37
27	07:18 17:10	15:15 (18) 15:21 (18)	06:40 17:48	05:54 18:19	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	07:25 17:04	07:02 16:34	07:25 16:37
28	07:17 17:11	15:18 (18) 15:22 (18)	06:38 17:49	05:52 18:21	06:03 19:54	05:32 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	07:26 17:02	07:03 16:34	07:26 16:38
29	07:16 17:12	15:21 (18) 15:25 (18)	06:36 17:50	05:50 18:22	06:01 19:55	05:31 20:25	05:29 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:27 17:01	07:04 16:33	07:26 16:39
30	07:15 17:13	15:24 (18) 15:28 (18)	06:34 17:51	05:49 18:23	06:00 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:38	06:55 18:46	07:28 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15	15:26 (18) 15:29 (18)	06:32 17:52	05:47 18:24	06:00 19:57	05:31 20:26	05:30 20:38	05:54 20:20	06:25 19:37	06:56 18:45	07:29 17:00	07:06 16:33	07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287	414
Total, worst case	791										414		1042

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: H - Shadow Receptor: 1,0 × 1,0 Azimuth: -130,0° Slope: 90,0° (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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	06:00 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 18:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:30 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:59 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:37	05:58 20:15	06:29 19:30	07:00 18:39	06:35 16:54	07:09 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
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Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: I - Shadow Receptor: 1,0 × 1,0 Azimuth: -180,0° Slope: 90,0° (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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 18:35	06:56 18:44	06:31 16:57	07:06 16:33
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Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: J - Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (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	07:26 16:41	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 18:35	06:56 18:44	06:31 16:57	07:06 16:32
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28	07:17 17:11	06:38 17:49	05:52 18:20	06:03 19:54	05:32 20:23	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	06:26 17:02	07:03 16:34	07:25 16:38
29	07:16 17:12		06:51 19:21	06:02 19:55	05:32 20:24	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	06:27 17:01	07:04 16:33	07:26 16:39
30	07:15 17:13		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:38	06:55 18:46	06:28 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:58		07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: K - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (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					
1	07:27	13:23 (13)	07:13	13:44 (13)	06:37	06:46	18:06 (12)	06:00	17:27 (12)	05:30	17:42 (12)					
	16:42	105	15:08 (13)	17:16	86	15:10 (13)	17:51	19:25	19	18:25 (12)	19:57	87	18:54 (12)	20:27	63	18:45 (12)
2	07:27	13:24 (13)	07:12	13:46 (13)	06:35	06:44	18:01 (12)	05:58	17:27 (12)	05:30	17:43 (12)					
	16:42	104	15:08 (13)	17:17	84	15:10 (13)	17:52	19:26	30	18:31 (12)	19:58	87	18:54 (12)	20:28	62	18:45 (12)
3	07:27	13:24 (13)	07:11	13:47 (13)	06:34	06:42	17:57 (12)	05:57	17:27 (12)	05:29	17:43 (12)					
	16:43	105	15:09 (13)	17:19	82	15:09 (13)	17:53	19:27	37	18:34 (12)	19:59	86	18:53 (12)	20:29	61	18:44 (12)
4	07:27	13:24 (13)	07:10	13:49 (13)	06:32	06:41	17:53 (12)	05:56	17:27 (12)	05:29	17:44 (12)					
	16:44	104	15:08 (13)	17:20	79	15:08 (13)	17:54	19:28	44	18:37 (12)	20:00	86	18:53 (12)	20:29	60	18:44 (12)
5	07:27	13:24 (13)	07:09	13:50 (13)	06:31	06:39	17:51 (12)	05:54	17:27 (12)	05:29	17:45 (12)					
	16:45	105	15:09 (13)	17:21	78	15:08 (13)	17:55	19:29	49	18:40 (12)	20:02	86	18:53 (12)	20:30	59	18:44 (12)
6	07:27	13:25 (13)	07:08	13:52 (13)	06:29	06:37	17:48 (12)	05:53	17:28 (12)	05:28	17:45 (12)					
	16:46	104	15:09 (13)	17:22	75	15:07 (13)	17:56	19:30	53	18:41 (12)	20:03	85	18:53 (12)	20:31	58	18:43 (12)
7	07:27	13:25 (13)	07:07	13:54 (13)	06:27	06:36	17:45 (12)	05:52	17:28 (12)	05:28	17:46 (12)					
	16:47	105	15:10 (13)	17:24	72	15:06 (13)	17:57	19:31	58	18:43 (12)	20:04	85	18:53 (12)	20:31	57	18:43 (12)
8	07:27	13:26 (13)	07:06	13:56 (13)	06:26	06:34	17:44 (12)	05:51	17:28 (12)	05:28	17:46 (12)					
	16:48	104	15:10 (13)	17:25	69	15:05 (13)	17:59	19:33	61	18:45 (12)	20:05	85	18:53 (12)	20:32	57	18:43 (12)
9	07:27	13:27 (13)	07:05	13:57 (13)	06:24	06:33	17:42 (12)	05:50	17:28 (12)	05:28	17:47 (12)					
	16:49	104	15:11 (13)	17:26	66	15:03 (13)	18:00	19:34	64	18:46 (12)	20:06	84	18:52 (12)	20:32	56	18:43 (12)
10	07:27	13:27 (13)	07:03	14:00 (13)	06:23	06:31	17:40 (12)	05:48	17:28 (12)	05:27	17:47 (12)					
	16:50	104	15:11 (13)	17:27	62	15:02 (13)	18:01	19:35	66	18:46 (12)	20:07	84	18:52 (12)	20:33	55	18:42 (12)
11	07:26	13:28 (13)	07:02	14:02 (13)	06:21	06:29	17:39 (12)	05:47	17:29 (12)	05:27	17:48 (12)					
	16:51	103	15:11 (13)	17:29	59	15:01 (13)	18:02	19:36	69	18:48 (12)	20:08	82	18:51 (12)	20:34	54	18:42 (12)
12	07:26	13:29 (13)	07:01	14:05 (13)	06:19	06:28	17:37 (12)	05:46	17:29 (12)	05:27	17:48 (12)					
	16:52	103	15:12 (13)	17:30	54	14:59 (13)	18:03	19:37	71	18:48 (12)	20:09	82	18:51 (12)	20:34	54	18:42 (12)
13	07:26	13:29 (13)	07:00	14:07 (13)	06:18	06:26	17:36 (12)	05:45	17:30 (12)	05:27	17:49 (12)					
	16:53	103	15:12 (13)	17:31	49	14:56 (13)	18:04	19:38	74	18:50 (12)	20:10	81	18:51 (12)	20:35	53	18:42 (12)
14	07:25	13:30 (13)	06:58	14:11 (13)	06:16	06:24	17:35 (12)	05:44	17:30 (12)	05:27	17:49 (12)					
	16:54	102	15:12 (13)	17:32	43	14:54 (13)	18:05	19:39	75	18:50 (12)	20:11	80	18:50 (12)	20:35	53	18:42 (12)
15	07:25	13:30 (13)	06:57	14:15 (13)	06:14	06:23	17:34 (12)	05:43	17:30 (12)	05:27	17:50 (12)					
	16:55	102	15:12 (13)	17:34	37	14:52 (13)	18:06	19:40	77	18:51 (12)	20:12	80	18:50 (12)	20:35	52	18:42 (12)
16	07:25	13:31 (13)	06:56	14:19 (13)	06:13	06:21	17:33 (12)	05:42	17:32 (12)	05:27	17:50 (12)					
	16:57	102	15:13 (13)	17:35	28	14:47 (13)	18:08	19:41	78	18:51 (12)	20:13	79	18:51 (12)	20:36	52	18:42 (12)
17	07:24	13:31 (13)	06:54	14:27 (13)	06:11	06:20	17:32 (12)	05:41	17:32 (12)	05:27	17:51 (12)					
	16:58	101	15:12 (13)	17:36	14	14:41 (13)	18:09	19:42	80	18:52 (12)	20:14	78	18:50 (12)	20:36	51	18:42 (12)
18	07:24	13:32 (13)	06:53	14:29 (13)	06:09	06:18	17:31 (12)	05:40	17:33 (12)	05:27	17:51 (12)					
	16:59	101	15:13 (13)	17:37	18:10	19:43	81	18:52 (12)	20:15	77	18:50 (12)	20:37	51	18:42 (12)		
19	07:23	13:32 (13)	06:52	14:31 (13)	06:08	06:17	17:31 (12)	05:39	17:33 (12)	05:27	17:52 (12)					
	17:00	101	15:13 (13)	17:39	18:11	19:44	82	18:53 (12)	20:16	76	18:49 (12)	20:37	51	18:43 (12)		
20	07:23	13:34 (13)	06:50	14:33 (13)	06:06	06:15	17:30 (12)	05:38	17:33 (12)	05:27	17:52 (12)					
	17:01	100	15:14 (13)	17:40	18:12	19:45	83	18:53 (12)	20:17	76	18:49 (12)	20:37	51	18:43 (12)		
21	07:22	13:34 (13)	06:49	14:35 (13)	06:04	06:14	17:30 (12)	05:38	17:34 (12)	05:27	17:52 (12)					
	17:02	99	15:13 (13)	17:41	18:13	19:47	84	18:54 (12)	20:18	74	18:48 (12)	20:37	51	18:43 (12)		
22	07:21	13:35 (13)	06:47	14:37 (13)	06:03	06:12	17:29 (12)	05:37	17:35 (12)	05:28	17:52 (12)					
	17:04	98	15:13 (13)	17:42	18:14	19:48	84	18:53 (12)	20:19	73	18:48 (12)	20:38	51	18:43 (12)		
23	07:21	13:35 (13)	06:46	14:39 (13)	06:01	06:11	17:29 (12)	05:36	17:36 (12)	05:28	17:52 (12)					
	17:05	98	15:13 (13)	17:43	18:15	19:49	85	18:54 (12)	20:19	72	18:48 (12)	20:38	51	18:43 (12)		
24	07:20	13:37 (13)	06:45	14:41 (13)	05:59	06:09	17:28 (12)	05:35	17:36 (12)	05:28	17:53 (12)					
	17:06	96	15:13 (13)	17:45	18:16	19:50	85	18:53 (12)	20:20	71	18:47 (12)	20:38	51	18:44 (12)		
25	07:19	13:37 (13)	06:43	14:43 (13)	05:58	06:08	17:28 (12)	05:35	17:37 (12)	05:28	17:53 (12)					
	17:07	96	15:13 (13)	17:46	18:17	19:51	86	18:54 (12)	20:21	70	18:47 (12)	20:38	51	18:44 (12)		
26	07:18	13:38 (13)	06:42	14:45 (13)	05:56	06:06	17:28 (12)	05:34	17:37 (12)	05:29	17:52 (12)					
	17:09	95	15:13 (13)	17:47	18:19	19:52	86	18:54 (12)	20:22	70	18:47 (12)	20:38	52	18:44 (12)		
27	07:18	13:39 (13)	06:40	14:47 (13)	05:54	06:05	17:27 (12)	05:33	17:38 (12)	05:29	17:53 (12)					
	17:10	93	15:12 (13)	17:48	18:20	19:53	87	18:54 (12)	20:23	68	18:46 (12)	20:38	52	18:45 (12)		
28	07:17	13:40 (13)	06:38	14:49 (13)	05:52	06:04	17:27 (12)	05:33	17:39 (12)	05:29	17:53 (12)					
	17:11	92	15:12 (13)	17:49	18:21	19:54	87	18:54 (12)	20:24	67	18:46 (12)	20:38	52	18:45 (12)		
29	07:16	13:41 (13)	06:37	14:51 (13)	05:51	06:02	17:26 (12)	05:32	17:39 (12)	05:30	17:53 (12)					
	17:12	91	15:12 (13)	17:50	18:22	19:55	87	18:53 (12)	20:25	66	18:45 (12)	20:38	53	18:46 (12)		
30	07:15	13:42 (13)	06:36	14:53 (13)	05:49	06:01	17:27 (12)	05:31	17:40 (12)	05:30	17:53 (12)					
	17:14	89	15:11 (13)	17:51	18:23	19:56	87	18:54 (12)	20:26	65	18:45 (12)	20:38	53	18:46 (12)		
31	07:14	13:43 (13)	06:35	14:55 (13)	05:47	06:00	17:28 (12)	05:30	17:41 (12)	05:30	17:53 (12)					
	17:15	88	15:11 (13)	17:52	18:24	19:57	87	18:54 (12)	20:27	63	18:44 (12)	20:38	53	18:46 (12)		
Potential sun hours	297		297		369	399		449		453						
Total, worst case	3097		1037			2109		2405		1627						

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: K - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (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

	July		August		September		October		November		December	
1	05:31	17:53 (12)	05:55	17:40 (12)	06:26	17:38 (12)	06:56	06:31	13:29 (13)	07:06	13:10 (13)	
2	05:31	17:52 (12)	05:56	17:39 (12)	06:27	17:39 (12)	06:58	16:57	63 14:32 (13)	16:33	103 14:53 (13)	
3	05:32	17:53 (12)	05:57	17:39 (12)	06:28	17:40 (12)	06:59	06:32	13:27 (13)	07:07	13:10 (13)	
4	05:32	17:52 (12)	05:58	17:38 (12)	06:29	17:41 (12)	07:00	16:56	66 14:33 (13)	16:32	104 14:54 (13)	
5	05:33	17:51 (12)	06:00	17:37 (12)	06:31	17:42 (12)	07:01	06:34	13:24 (13)	07:08	13:10 (13)	
6	05:34	17:49 (12)	06:01	17:37 (12)	06:32	17:42 (12)	07:02	16:55	70 14:34 (13)	16:32	104 14:54 (13)	
7	05:35	17:50 (12)	06:02	17:37 (12)	06:33	17:43 (12)	07:03	06:35	13:23 (13)	07:09	13:10 (13)	
8	05:35	17:50 (12)	06:02	17:37 (12)	06:33	17:43 (12)	07:04	16:54	73 14:36 (13)	16:32	105 14:55 (13)	
9	05:35	17:50 (12)	06:03	17:37 (12)	06:34	17:44 (12)	07:05	06:36	13:22 (13)	07:10	13:11 (13)	
10	05:36	17:50 (12)	06:04	17:36 (12)	06:35	17:45 (12)	07:06	16:52	75 14:37 (13)	16:32	104 14:55 (13)	
11	05:37	17:49 (12)	06:05	17:36 (12)	06:36	17:46 (12)	07:07	06:37	13:20 (13)	07:11	13:11 (13)	
12	05:37	17:49 (12)	06:06	17:36 (12)	06:37	17:47 (12)	07:08	16:51	78 14:38 (13)	16:32	104 14:55 (13)	
13	05:38	17:49 (12)	06:07	17:35 (12)	06:38	17:48 (12)	07:09	06:38	13:19 (13)	07:12	13:11 (13)	
14	05:39	17:48 (12)	06:08	17:35 (12)	06:39	17:49 (12)	07:10	16:50	80 14:39 (13)	16:31	105 14:56 (13)	
15	05:40	17:48 (12)	06:09	17:35 (12)	06:40	17:50 (12)	07:11	06:40	13:18 (13)	07:13	13:12 (13)	
16	05:41	17:47 (12)	06:10	17:35 (12)	06:41	17:51 (12)	07:12	16:49	82 14:40 (13)	16:31	104 14:56 (13)	
17	05:41	17:47 (12)	06:11	17:35 (12)	06:42	17:52 (12)	07:13	06:41	13:16 (13)	07:14	13:12 (13)	
18	05:42	17:47 (12)	06:12	17:34 (12)	06:43	17:53 (12)	07:14	16:48	85 14:41 (13)	16:31	105 14:57 (13)	
19	05:43	17:47 (12)	06:13	17:33 (12)	06:44	17:54 (12)	07:15	06:42	13:15 (13)	07:15	13:13 (13)	
20	05:44	17:45 (12)	06:14	17:33 (12)	06:45	17:55 (12)	07:16	16:47	86 14:41 (13)	16:31	105 14:58 (13)	
21	05:45	17:45 (12)	06:15	17:33 (12)	06:46	17:56 (12)	07:17	06:43	13:14 (13)	07:16	13:13 (13)	
22	05:46	17:45 (12)	06:16	17:33 (12)	06:47	17:57 (12)	07:18	16:46	88 14:43 (13)	16:31	105 14:58 (13)	
23	05:46	17:44 (12)	06:17	17:32 (12)	06:48	17:58 (12)	07:19	06:44	13:14 (13)	07:17	13:14 (13)	
24	05:47	17:44 (12)	06:18	17:32 (12)	06:49	17:59 (12)	07:20	16:45	89 14:43 (13)	16:32	105 14:59 (13)	
25	05:48	17:43 (12)	06:19	17:31 (12)	06:50	18:00 (12)	07:21	06:46	13:13 (13)	07:18	13:13 (13)	
26	05:49	17:43 (12)	06:20	17:31 (12)	06:51	18:01 (12)	07:22	16:44	91 14:44 (13)	16:32	105 14:58 (13)	
27	05:50	17:43 (12)	06:21	17:31 (12)	06:52	18:02 (12)	07:23	06:47	13:13 (13)	07:18	13:14 (13)	
28	05:51	17:41 (12)	06:22	17:31 (12)	06:53	18:03 (12)	07:24	16:43	92 14:45 (13)	16:32	105 14:59 (13)	
29	05:52	17:41 (12)	06:23	17:31 (12)	06:54	18:04 (12)	07:25	06:48	13:12 (13)	07:19	13:15 (13)	
30	05:53	17:40 (12)	06:24	17:31 (12)	06:55	18:05 (12)	07:26	16:42	93 14:45 (13)	16:32	105 15:00 (13)	
31	05:54	17:40 (12)	06:25	17:31 (12)	06:56	18:06 (12)	07:27	06:49	13:11 (13)	07:20	13:15 (13)	
Potential sun hours	460	428	375	345	296	278	287	297	2708	3249		
Total, worst case	2094	2581	553	345	296	2708	3249					

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: L - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (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
1	07:27 16:42	15:32 (13) 15:59 (13)	07:13 17:16	15:34 (13) 16:19 (13)	06:37 17:50	06:46 19:25
2	07:27 16:42	15:33 (13) 16:01 (13)	07:12 17:17	15:35 (13) 16:18 (13)	06:35 17:52	06:44 19:26
3	07:27 16:43	15:33 (13) 16:02 (13)	07:11 17:19	15:35 (13) 16:18 (13)	06:34 17:53	06:42 19:27
4	07:27 16:44	15:32 (13) 16:02 (13)	07:10 17:20	15:36 (13) 16:18 (13)	06:32 17:54	06:41 19:28
5	07:27 16:45	15:32 (13) 16:03 (13)	07:09 17:21	15:37 (13) 16:18 (13)	06:31 17:55	06:39 19:29
6	07:27 16:46	15:32 (13) 16:04 (13)	07:08 17:22	15:38 (13) 16:17 (13)	06:29 17:56	06:37 19:30
7	07:27 16:47	15:32 (13) 16:06 (13)	07:07 17:24	15:40 (13) 16:16 (13)	06:27 17:57	06:36 19:31
8	07:27 16:48	15:32 (13) 16:07 (13)	07:06 17:25	15:41 (13) 16:16 (13)	06:26 17:59	06:34 19:33
9	07:27 16:49	15:32 (13) 16:08 (13)	07:05 17:26	15:42 (13) 16:14 (13)	06:24 18:00	06:32 19:34
10	07:27 16:50	15:31 (13) 16:08 (13)	07:03 17:27	15:43 (13) 16:13 (13)	06:23 18:01	06:31 19:35
11	07:26 16:51	15:31 (13) 16:09 (13)	07:02 17:29	15:46 (13) 16:11 (13)	06:21 18:02	06:29 19:36
12	07:26 16:52	15:32 (13) 16:10 (13)	07:01 17:30	15:48 (13) 16:09 (13)	06:19 18:03	06:28 19:37
13	07:26 16:53	15:31 (13) 16:11 (13)	07:00 17:31	15:51 (13) 16:06 (13)	06:18 18:04	06:26 19:38
14	07:25 16:54	15:31 (13) 16:12 (13)	06:58 17:32	16:01 18:05	06:16 18:06	06:24 19:39
15	07:25 16:55	15:31 (13) 16:12 (13)	06:57 17:34	16:04 18:06	06:14 18:06	06:23 19:40
16	07:25 16:57	15:31 (13) 16:13 (13)	06:56 17:35	16:03 18:08	06:13 18:08	06:21 19:41
17	07:24 16:58	15:31 (13) 16:14 (13)	06:54 17:36	16:01 18:09	06:11 18:09	06:20 19:42
18	07:24 16:59	15:31 (13) 16:15 (13)	06:53 17:37	16:09 18:10	06:09 18:10	06:18 19:43
19	07:23 17:00	15:31 (13) 16:15 (13)	06:52 17:39	16:08 18:11	06:08 18:11	06:17 19:44
20	07:23 17:01	15:32 (13) 16:16 (13)	06:50 17:40	16:06 18:12	06:06 18:12	06:15 19:45
21	07:22 17:02	15:31 (13) 16:17 (13)	06:49 17:41	16:04 18:13	06:04 18:13	06:14 19:46
22	07:21 17:04	15:31 (13) 16:17 (13)	06:47 17:42	16:03 18:14	06:03 18:14	06:12 19:48
23	07:21 17:05	15:31 (13) 16:17 (13)	06:46 17:43	16:01 18:15	06:01 18:15	06:11 19:49
24	07:20 17:06	15:32 (13) 16:18 (13)	06:44 17:45	16:09 18:16	06:09 18:16	06:09 19:50
25	07:19 17:07	15:32 (13) 16:18 (13)	06:43 17:46	16:08 18:17	06:08 18:17	06:08 19:51
26	07:18 17:09	15:32 (13) 16:19 (13)	06:41 17:47	16:06 18:18	06:06 18:18	06:06 19:52
27	07:18 17:10	15:32 (13) 16:19 (13)	06:40 17:48	16:05 18:20	06:05 18:20	06:05 19:53
28	07:17 17:11	15:32 (13) 16:19 (13)	06:38 17:49	16:04 18:21	06:04 18:21	06:04 19:54
29	07:16 17:12	15:33 (13) 16:19 (13)	06:37 17:49	16:03 18:22	06:03 18:22	06:03 19:55
30	07:15 17:14	15:33 (13) 16:19 (13)	06:36 17:49	16:02 18:23	06:02 18:23	06:02 19:56
31	07:14 17:15	15:34 (13) 16:19 (13)	06:35 17:49	16:01 18:24	06:01 18:24	06:01 19:56
Potential sun hours	297	297	369	399	449	453
Total, worst case	1242	447	822	401	660	890

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: L - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (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

	July		August		September		October		November		December						
1	05:31	19:35 (10)	05:55	18:57 (11)	06:26		06:56	17:32 (12)	06:31	15:13 (13)	07:06	15:13 (13)					
	20:38	30	20:05 (10)	20:19	26	19:23 (11)	19:35	18:44	34	18:06 (12)	16:57	30	15:43 (13)	16:33	38	15:51 (13)	
2	05:31	19:35 (10)	05:56	18:56 (11)	06:27		06:58	17:33 (12)	06:32	15:11 (13)	07:07	15:14 (13)					
	20:38	30	20:05 (10)	20:18	28	19:24 (11)	19:34	18:43	32	18:05 (12)	16:56	33	15:44 (13)	16:32	37	15:51 (13)	
3	05:32	19:35 (10)	05:57	18:55 (11)	06:28		06:59	17:34 (12)	06:34	15:10 (13)	07:08	15:15 (13)					
	20:38	30	20:05 (10)	20:17	30	19:25 (11)	19:32	18:41	29	18:03 (12)	16:55	35	15:45 (13)	16:32	36	15:51 (13)	
4	05:32	19:36 (10)	05:58	18:54 (11)	06:29		07:00	17:35 (12)	06:35	15:09 (13)	07:09	15:16 (13)					
	20:38	30	20:06 (10)	20:15	31	19:25 (11)	19:30	18:39	26	18:01 (12)	16:54	37	15:46 (13)	16:32	35	15:51 (13)	
5	05:33	19:37 (10)	05:59	18:53 (11)	06:30		07:01	17:37 (12)	06:36	15:08 (13)	07:10	15:17 (13)					
	20:37	29	20:06 (10)	20:14	33	19:26 (11)	19:29	18:38	21	17:58 (12)	16:52	39	15:47 (13)	16:32	34	15:51 (13)	
6	05:33	19:36 (10)	06:00	18:53 (11)	06:31		07:02	17:40 (12)	06:37	15:07 (13)	07:11	15:18 (13)					
	20:37	29	20:05 (10)	20:13	33	19:26 (11)	19:27	18:36	15	17:55 (12)	16:51	40	15:47 (13)	16:32	32	15:50 (13)	
7	05:34	19:37 (10)	06:01	18:52 (11)	06:32		07:03	17:41 (12)	06:38	15:07 (13)	07:12	15:19 (13)					
	20:37	29	20:06 (10)	20:12	35	19:27 (11)	19:25	18:34		16:50	42	15:49 (13)	16:31	31	15:50 (13)		
8	05:35	19:37 (10)	06:02	18:52 (11)	06:33		07:04	17:42 (12)	06:40	15:06 (13)	07:13	15:20 (13)					
	20:36	28	20:05 (10)	20:11	35	19:27 (11)	19:24	18:33		16:49	43	15:49 (13)	16:31	30	15:50 (13)		
9	05:35	19:38 (10)	06:03	18:51 (11)	06:34		07:05	17:43 (12)	06:41	15:06 (13)	07:14	15:21 (13)					
	20:36	27	20:05 (10)	20:09	36	19:27 (11)	19:22	18:31		16:48	43	15:49 (13)	16:31	29	15:50 (13)		
10	05:36	19:38 (10)	06:04	18:51 (11)	06:35		07:06	17:44 (12)	06:42	15:05 (13)	07:15	15:22 (13)					
	20:36	28	20:06 (10)	20:08	36	19:27 (11)	19:20	18:29		16:47	45	15:50 (13)	16:31	28	15:50 (13)		
11	05:37	19:38 (10)	06:05	18:51 (11)	06:36		17:52 (12)	07:07	06:43	15:05 (13)	07:16	15:23 (13)					
	20:35	27	20:05 (10)	20:07	36	19:27 (11)	19:19	18:28	11	18:03 (12)	18:28	16:46	46	15:51 (13)	16:31	27	15:50 (13)
12	05:37	19:39 (10)	06:06	18:51 (11)	06:37		17:48 (12)	07:08	06:44	15:05 (13)	07:17	15:24 (13)					
	20:35	26	20:05 (10)	20:05	36	19:27 (11)	19:17	18:26	18	18:06 (12)	18:26	16:45	46	15:51 (13)	16:32	27	15:51 (13)
13	05:38	19:40 (10)	06:07	18:50 (11)	06:38		17:45 (12)	07:09	06:46	15:05 (13)	07:18	15:24 (13)					
	20:34	25	20:05 (10)	20:04	37	19:27 (11)	19:15	18:25	23	18:08 (12)	18:25	16:44	46	15:51 (13)	16:32	26	15:50 (13)
14	05:39	19:41 (10)	06:08	18:50 (11)	06:39		17:43 (12)	07:10	06:47	15:05 (13)	07:18	15:25 (13)					
	20:34	24	20:05 (10)	20:03	37	19:27 (11)	19:14	18:23	27	18:10 (12)	18:23	16:43	47	15:52 (13)	16:32	25	15:50 (13)
15	05:40	19:41 (10)	06:09	18:50 (11)	06:40		17:40 (12)	07:12	06:48	15:05 (13)	07:19	15:26 (13)					
	20:33	23	20:04 (10)	20:01	37	19:27 (11)	19:12	18:21	30	18:10 (12)	18:21	16:42	47	15:52 (13)	16:32	24	15:50 (13)
16	05:41	19:42 (10)	06:10	18:51 (11)	06:41		17:38 (12)	07:13	06:49	15:05 (13)	07:20	15:27 (13)					
	20:33	21	20:03 (10)	20:00	35	19:26 (11)	19:10	18:20	33	18:11 (12)	18:20	16:41	47	15:52 (13)	16:32	23	15:50 (13)
17	05:41	19:43 (10)	06:11	18:50 (11)	06:42		17:37 (12)	07:14	06:50	15:05 (13)	07:20	15:28 (13)					
	20:32	20	20:03 (10)	19:58	34	19:24 (11)	19:08	18:18	34	18:11 (12)	18:18	16:41	46	15:51 (13)	16:33	22	15:50 (13)
18	05:42	19:44 (10)	06:12	18:50 (11)	06:43		17:35 (12)	07:15	06:52	15:06 (13)	07:21	15:29 (13)					
	20:31	18	20:02 (10)	19:57	34	19:24 (11)	19:07	18:17	37	18:12 (12)	18:17	16:40	46	15:52 (13)	16:33	22	15:51 (13)
19	05:43	19:45 (10)	06:13	18:51 (11)	06:44		17:34 (12)	07:16	06:53	15:06 (13)	07:22	15:29 (13)					
	20:31	16	20:01 (10)	19:56	32	19:23 (11)	19:05	18:15	38	18:12 (12)	18:15	16:39	46	15:52 (13)	16:33	22	15:51 (13)
20	05:44	19:46 (10)	06:14	18:51 (11)	06:45		17:33 (12)	07:17	06:54	15:06 (13)	07:22	15:30 (13)					
	20:30	13	19:59 (10)	19:54	31	19:22 (11)	19:03	18:14	39	18:12 (12)	18:14	16:38	46	15:52 (13)	16:34	21	15:51 (13)
21	05:45	19:49 (10)	06:15	18:52 (11)	06:46		17:32 (12)	07:18	06:55	15:06 (13)	07:23	15:30 (13)					
	20:29	8	19:57 (10)	19:53	29	19:21 (11)	19:01	18:12	40	18:12 (12)	18:12	16:38	46	15:52 (13)	16:34	21	15:51 (13)
22	05:46		06:16	18:53 (11)	06:47		17:32 (12)	07:19	06:56	15:08 (13)	07:23	15:31 (13)					
	20:28		19:51	26	19:19 (11)	19:00	40	18:12 (12)	18:11	16:37	44	15:52 (13)	16:35	21	15:52 (13)		
23	05:46		06:17	18:54 (11)	06:48		17:31 (12)	07:21	06:57	15:08 (13)	07:24	15:31 (13)					
	20:28		19:50	23	19:17 (11)	18:58	41	18:12 (12)	18:09	16:36	44	15:52 (13)	16:35	21	15:52 (13)		
24	05:47		06:18	18:56 (11)	06:49		17:31 (12)	07:22	06:59	15:08 (13)	07:24	15:32 (13)					
	20:27		19:48	19	19:15 (11)	18:56	41	18:12 (12)	18:08	16:36	44	15:52 (13)	16:36	21	15:53 (13)		
25	05:48		06:19	18:59 (11)	06:50		17:30 (12)	06:23	07:00	15:09 (13)	07:25	15:32 (13)					
	20:26		19:47	13	19:12 (11)	18:55	41	18:11 (12)	17:07	16:35	43	15:52 (13)	16:36	22	15:54 (13)		
26	05:49		06:20	18:51 (11)	06:51		17:30 (12)	06:24	07:01	15:09 (13)	07:25	15:32 (13)					
	20:25		19:45	18:53	40	18:10 (12)	17:05	16:35	43	15:52 (13)	16:37	22	15:54 (13)				
27	05:50		06:21	18:52 (11)	06:52		17:30 (12)	06:25	07:02	15:11 (13)	07:26	15:33 (13)					
	20:24	10	19:16 (11)	19:43	18:51	40	18:10 (12)	17:04	16:34	41	15:52 (13)	16:38	23	15:56 (13)			
28	05:51		06:22	17:31 (12)	06:26		17:31 (12)	06:26	07:03	15:11 (13)	07:26	15:32 (13)					
	20:23	15	19:17 (11)	19:42	18:49	39	18:10 (12)	17:02	6	15:31 (13)	16:34	41	15:52 (13)	16:38	24	15:56 (13)	
29	05:52		06:23	18:54 (11)	06:54		17:31 (12)	06:28	07:04	15:12 (13)	07:26	15:32 (13)					
	20:22	19	19:19 (11)	19:40	18:48	38	18:09 (12)	17:01	16	15:36 (13)	16:33	40	15:52 (13)	16:39	25	15:57 (13)	
30	05:53		06:24	18:59 (11)	06:55		17:32 (12)	06:29	07:05	15:13 (13)	07:26	15:32 (13)					
	20:21	22	19:21 (11)	19:39	18:46	36	18:08 (12)	17:00	22	15:39 (13)	16:33	39	15:52 (13)	16:40	26	15:58 (13)	
31	05:54		06:25					06:30		15:15 (13)		07:27	15:32 (13)				
	20:20	24	19:22 (11)	19:37				16:59	26	15:41 (13)		16:40	26	15:58 (13)			
Potential sun hours	460		428		375		345		297		287		821				
Total, worst case	601		782		686		227		1275		821						

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: M - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (13)  
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	07:27 16:42	07:13 17:16	15:45 (13) 16:30 (13)	06:37 17:50	06:46 19:25	17:57 (12) 18:28 (12)
2	07:27 16:42	07:12 17:17	45 15:45 (13) 46 16:31 (13)	06:35 17:52	06:44 19:26	31 18:28 (12) 17:59 (12)
3	07:27 16:43	07:11 17:19	46 15:45 (13) 46 16:31 (13)	06:34 17:53	06:42 19:27	24 18:24 (12) 18:00 (12)
4	07:27 16:44	07:10 17:20	45 15:46 (13) 45 16:31 (13)	06:32 17:54	06:41 19:28	19 18:02 (12) 18:21 (12)
5	07:27 16:45	07:09 17:21	45 15:46 (13) 45 16:31 (13)	06:31 17:55	06:39 19:29	14 18:05 (12) 18:19 (12)
6	07:27 16:46	07:08 17:22	44 15:47 (13) 44 16:31 (13)	06:29 17:56	06:37 19:30	20:03 20:03
7	07:27 16:47	07:07 17:24	44 15:47 (13) 44 16:31 (13)	06:27 17:57	06:36 19:31	35 19:23 (11) 20:04
8	07:27 16:48	07:06 17:25	43 15:48 (13) 43 16:31 (13)	06:26 17:59	06:34 19:33	35 19:23 (11) 20:05
9	07:27 16:49	07:05 17:26	43 15:47 (13) 43 16:30 (13)	06:24 18:00	06:32 19:34	34 19:22 (11) 33 19:21 (11)
10	07:27 16:50	07:03 17:27	42 15:48 (13) 42 16:30 (13)	06:23 18:01	06:31 19:35	33 18:48 (11) 20:07
11	07:26 16:51	4 16:00 (13) 07:02 17:29	41 15:49 (13) 41 16:30 (13)	06:21 18:02	06:29 19:36	31 18:49 (11) 19:20 (11)
12	07:26 16:52	12 16:09 (13) 07:01 17:30	39 15:50 (13) 39 16:29 (13)	06:19 18:03	06:28 19:37	31 18:49 (11) 19:20 (11)
13	07:26 16:53	17 16:11 (13) 07:00 17:31	37 15:51 (13) 37 16:28 (13)	06:18 18:04	06:26 19:38	29 19:19 (11) 20:10
14	07:25 16:54	20 16:13 (13) 06:58 17:32	35 15:52 (13) 35 16:27 (13)	06:16 18:05	06:24 19:39	27 18:51 (11) 20:11
15	07:25 16:55	22 16:14 (13) 06:57 17:34	32 15:54 (13) 32 16:26 (13)	06:14 18:06	06:23 19:40	27 18:52 (11) 25 19:17 (11)
16	07:25 16:57	26 16:18 (13) 06:54 17:35	29 15:55 (13) 29 16:24 (13)	06:13 18:08	06:21 19:41	25 19:17 (11) 23 19:17 (11)
17	07:24 16:58	28 16:18 (13) 06:53 17:36	26 15:57 (13) 26 16:23 (13)	06:11 18:09	06:20 19:42	21 18:55 (11) 21 19:16 (11)
18	07:24 16:59	30 16:20 (13) 06:52 17:37	21 15:59 (13) 21 16:20 (13)	06:09 18:10	06:18 19:43	18 18:56 (11) 18 19:14 (11)
19	07:23 17:00	31 16:20 (13) 06:50 17:39	15 16:02 (13) 15 16:17 (13)	06:08 18:11	06:17 19:44	15 18:58 (11) 15 19:13 (11)
20	07:23 17:01	33 16:22 (13) 06:49 17:40	18 16:06 (13) 18 18:12	06:06 18:12	06:15 19:45	10 19:10 (11) 20:17
21	07:22 17:02	35 16:23 (13) 06:47 17:41	19 16:04 (13) 19 18:13	06:04 18:13	06:14 19:46	12 19:02 (11) 12 19:14 (11)
22	07:21 17:04	37 16:24 (13) 06:46 17:42	20 16:03 (13) 20 18:14	06:03 18:14	06:12 19:48	18 18:58 (11) 18 19:16 (11)
23	07:21 17:05	38 16:25 (13) 06:44 17:43	21 16:01 (13) 21 18:15	06:01 18:15	06:11 19:49	22 18:56 (11) 22 19:18 (11)
24	07:20 17:06	39 16:26 (13) 06:43 17:45	22 16:00 (13) 22 18:16	05:59 18:16	06:09 19:50	25 18:54 (11) 25 19:19 (11)
25	07:19 17:07	41 16:27 (13) 06:41 17:46	23 16:00 (13) 23 18:17	05:57 18:17	06:08 19:51	27 18:53 (11) 27 19:20 (11)
26	07:18 17:09	42 16:28 (13) 06:40 17:47	24 16:00 (13) 24 18:18	05:56 18:18	06:06 19:52	6 18:51 (11) 6 19:21 (11)
27	07:18 17:10	42 16:28 (13) 06:38 17:48	25 16:00 (13) 25 18:20	05:54 18:20	06:05 19:53	11 18:50 (11) 11 19:22 (11)
28	07:17 17:11	44 16:29 (13) 06:38 17:49	26 16:00 (13) 26 18:21	05:52 18:21	06:04 19:54	15 18:50 (11) 15 19:23 (11)
29	07:16 17:12	44 16:29 (13) 06:37 17:49	27 16:00 (13) 27 18:22	05:51 18:22	06:02 19:55	16 18:49 (11) 16 19:24 (11)
30	07:15 17:14	45 16:30 (13) 06:36 17:50	28 16:00 (13) 28 18:23	05:50 18:23	06:01 19:56	19 18:48 (11) 19 19:25 (11)
31	07:14 17:15	45 16:30 (13) 06:35 17:51	29 16:00 (13) 29 18:24	05:49 18:24	06:00 19:57	20 18:48 (11) 20 19:26 (11)
Potential sun hours	297	297	369	399	449	453
Total, worst case	675	718	670	382	687	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: M - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (13)

### 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	05:31	19:39 (10)	05:55	19:00 (11)	06:26		06:56	17:50 (12)	06:31	15:18 (13)	07:06	15:41 (13)				
	20:38	28	20:07 (10)	20:19	31	19:31 (11)	19:35	18:44	15	18:05 (12)	16:57	42	16:00 (13)	16:33	6	15:47 (13)
2	05:31	19:40 (10)	05:56	18:59 (11)	06:27		06:58		06:32		07:07					
	20:38	28	20:08 (10)	20:18	32	19:31 (11)	19:34	18:43		16:56	43	16:00 (13)	16:32			
3	05:32	19:40 (10)	05:57	18:59 (11)	06:28		06:59		06:34		07:08					
	20:38	27	20:07 (10)	20:17	33	19:32 (11)	19:32	18:41		16:55	44	16:00 (13)	16:32			
4	05:32	19:40 (10)	05:58	18:58 (11)	06:29		07:00		06:35		07:09					
	20:38	28	20:08 (10)	20:15	34	19:32 (11)	19:30	18:39		16:54	44	16:01 (13)	16:32			
5	05:33	19:41 (10)	05:59	18:58 (11)	06:30		07:01		06:36		07:10					
	20:37	27	20:08 (10)	20:14	34	19:32 (11)	19:29	18:38		16:52	45	16:01 (13)	16:32			
6	05:33	19:41 (10)	06:00	18:58 (11)	06:31		07:02		06:37		07:11					
	20:37	26	20:07 (10)	20:13	34	19:32 (11)	19:27	18:36		16:51	45	16:01 (13)	16:32			
7	05:34	19:42 (10)	06:01	18:57 (11)	06:32		18:00 (12)	07:03		06:38		15:17 (13)	07:12			
	20:37	26	20:08 (10)	20:12	36	19:33 (11)	19:25	14	18:14 (12)	18:34		16:50	45	16:02 (13)	16:31	
8	05:35	19:42 (10)	06:02	18:57 (11)	06:33		17:57 (12)	07:04		06:40		15:16 (13)	07:13			
	20:36	25	20:07 (10)	20:11	36	19:33 (11)	19:24	19	18:16 (12)	18:33		16:49	46	16:02 (13)	16:31	
9	05:35	19:42 (10)	06:03	18:57 (11)	06:34		17:54 (12)	07:05		06:41		15:16 (13)	07:14			
	20:36	25	20:07 (10)	20:09	36	19:33 (11)	19:22	24	18:18 (12)	18:31		16:48	46	16:02 (13)	16:31	
10	05:36	19:43 (10)	06:04	18:57 (11)	06:35		17:52 (12)	07:06		06:42		15:16 (13)	07:15			
	20:36	24	20:07 (10)	20:08	35	19:32 (11)	19:20	27	18:19 (12)	18:29		16:47	45	16:01 (13)	16:31	
11	05:37	19:43 (10)	06:05	18:57 (11)	06:36		17:50 (12)	07:07		06:43		15:17 (13)	07:16			
	20:35	23	20:06 (10)	20:07	35	19:32 (11)	19:19	31	18:21 (12)	18:28		16:46	45	16:02 (13)	16:31	
12	05:37	19:44 (10)	06:06	18:57 (11)	06:37		17:49 (12)	07:08		06:44		15:17 (13)	07:17			
	20:35	22	20:06 (10)	20:05	35	19:32 (11)	19:17	32	18:21 (12)	18:26		16:45	44	16:01 (13)	16:32	
13	05:38	19:45 (10)	06:07	18:57 (11)	06:38		17:47 (12)	07:09		06:46		15:17 (13)	07:18			
	20:34	21	20:06 (10)	20:04	34	19:31 (11)	19:15	35	18:22 (12)	18:25		16:44	44	16:01 (13)	16:32	
14	05:39	19:46 (10)	06:08	18:57 (11)	06:39		17:46 (12)	07:10		06:47		15:18 (13)	07:18			
	20:34	20	20:06 (10)	20:03	34	19:31 (11)	19:14	36	18:22 (12)	18:23		16:43	44	16:02 (13)	16:32	
15	05:40	19:47 (10)	06:09	18:58 (11)	06:40		17:44 (12)	07:12		06:48		15:19 (13)	07:19			
	20:33	17	20:04 (10)	20:01	32	19:30 (11)	19:12	37	18:21 (12)	18:21		16:42	42	16:01 (13)	16:32	
16	05:41	19:48 (10)	06:10	18:58 (11)	06:41		17:43 (12)	07:13		06:49		15:19 (13)	07:20			
	20:33	15	20:03 (10)	20:00	31	19:29 (11)	19:10	39	18:22 (12)	18:20		16:41	41	16:00 (13)	16:32	
17	05:41	19:50 (10)	06:11	18:58 (11)	06:42		17:43 (12)	07:14		06:50		15:19 (13)	07:20			
	20:32	12	20:02 (10)	19:58	29	19:27 (11)	19:08	39	18:22 (12)	18:18		16:41	41	16:00 (13)	16:33	
18	05:42	19:52 (10)	06:12	18:59 (11)	06:43		17:42 (12)	07:15		06:52		15:21 (13)	07:21			
	20:31	9	20:01 (10)	19:57	27	19:26 (11)	19:07	39	18:21 (12)	18:17		16:40	39	16:00 (13)	16:33	
19	05:43		06:13	19:00 (11)	06:44		17:41 (12)	07:16		06:53		15:22 (13)	07:22			
	20:31		19:56	19:24 (11)	19:05	40	18:21 (12)	18:15		16:39	38	16:00 (13)	16:33			
20	05:44		06:14	19:01 (11)	06:45		17:41 (12)	07:17		06:54		15:22 (13)	07:22			
	20:30		19:54	19:23 (11)	19:03	40	18:21 (12)	18:14		16:38	37	15:59 (13)	16:34			
21	05:45		06:15	19:03 (11)	06:46		17:41 (12)	07:18		06:55		15:23 (13)	07:23			
	20:29		19:53	19:20 (11)	19:01	39	18:20 (12)	18:12		16:38	35	15:58 (13)	16:34			
22	05:46		06:16	19:06 (11)	06:47		17:41 (12)	07:19		16:36 (13)	06:56		15:25 (13)	07:23		
	20:28		19:51	19:17 (11)	19:00	38	18:19 (12)	18:11	8	16:44 (13)	16:37	33	15:58 (13)	16:35		
23	05:46		06:17		06:48		17:41 (12)	07:21		16:32 (13)	06:57		15:26 (13)	07:24		
	20:28	7	19:19 (11)	19:50	18:58	38	18:19 (12)	18:09	17	16:49 (13)	16:36	31	15:57 (13)	16:35		
24	05:47		06:18	19:09 (11)	06:49		17:41 (12)	07:22		16:29 (13)	06:59		15:27 (13)	07:24		
	20:27	13	19:22 (11)	19:48	18:56	37	18:18 (12)	18:08	22	16:51 (13)	16:36	30	15:57 (13)	16:36		
25	05:48		06:19	19:07 (11)	06:50		17:41 (12)	06:23		15:26 (13)	07:00		15:28 (13)	07:25		
	20:26	17	19:24 (11)	19:47	18:55	36	18:17 (12)	17:07	27	15:53 (13)	16:35	28	15:56 (13)	16:36		
26	05:49		06:20	19:06 (11)	06:51		17:42 (12)	06:24		15:24 (13)	07:01		15:29 (13)	07:25		
	20:25	20	19:26 (11)	19:45	18:53	33	18:15 (12)	17:05	30	15:54 (13)	16:35	26	15:55 (13)	16:37		
27	05:50		06:21	19:05 (11)	06:52		17:42 (12)	06:25		15:22 (13)	07:02		15:32 (13)	07:26		
	20:24	22	19:27 (11)	19:43	18:51	32	18:14 (12)	17:04	33	15:55 (13)	16:34	23	15:55 (13)	16:38		
28	05:51		06:22	19:03 (11)	06:53		17:43 (12)	06:26		15:22 (13)	07:03		15:33 (13)	07:26		
	20:23	24	19:27 (11)	19:42	18:49	29	18:12 (12)	17:02	35	15:57 (13)	16:34	20	15:53 (13)	16:38		
29	05:52		06:23	19:02 (11)	06:54		17:46 (12)	06:28		15:20 (13)	07:04		15:35 (13)	07:26		
	20:22	26	19:28 (11)	19:40	18:48	25	18:11 (12)	17:01	38	15:58 (13)	16:33	17	15:52 (13)	16:39		
30	05:53		06:24	19:01 (11)	06:55		17:47 (12)	06:29		15:19 (13)	07:05		15:37 (13)	07:26		
	20:21	28	19:29 (11)	19:39	18:46	21	18:08 (12)	17:00	39	15:58 (13)	16:33	13	15:50 (13)	16:40		
31	05:54		06:25	19:00 (11)				06:30		15:19 (13)				07:27		
	20:20	30	19:30 (11)	19:37				16:59	41	16:00 (13)				16:40		
Potential sun hours	460		428		375		345		305	297		1116		287		6
Total, worst case	590		672		780		805		805	1116		1116		887		6

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: N - Shadow Receptor: 1,0 × 1,0 Azimuth: 90,0° Slope: 90,0° (14)

### 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	07:27 15:36 (11)	07:13 16:33 (10)	06:37 06:46		06:00	05:30 19:21 (7)
	16:42 2 15:38 (11)	17:16 19 16:52 (10)	17:50 19:25		19:57	20:27 25 19:46 (7)
2	07:27 07:12	16:33 (10) 06:35	06:44		05:58	05:30 19:21 (7)
	16:42 17:17	20 16:53 (10) 17:52	19:26		19:58	20:28 25 19:46 (7)
3	07:27 07:11	16:32 (10) 06:34	06:42		05:57	05:29 19:22 (7)
	16:43 17:19	22 16:54 (10) 17:53	19:27		19:59	20:29 24 19:46 (7)
4	07:27 07:10	16:31 (10) 06:32	06:41		05:56	05:29 19:22 (7)
	16:44 17:20	25 16:56 (10) 17:54	19:28		20:00	20:29 24 19:46 (7)
5	07:27 07:09	16:31 (10) 06:31	06:39		05:54	05:29 19:22 (7)
	16:45 17:21	26 16:57 (10) 17:55	19:29		20:02	20:30 24 19:46 (7)
6	07:27 07:08	16:31 (10) 06:29	06:37		05:53	05:28 19:23 (7)
	16:46 17:22	28 16:59 (10) 17:56	19:30		20:03	20:31 23 19:46 (7)
7	07:27 07:07	16:31 (10) 06:27	06:36		05:52	05:28 19:23 (7)
	16:47 17:24	29 17:00 (10) 17:57	19:31		20:04	20:31 23 19:46 (7)
8	07:27 07:06	16:31 (10) 06:26	06:34		05:51	05:28 19:24 (7)
	16:48 17:25	31 17:02 (10) 17:59	19:33		20:05	20:32 22 19:46 (7)
9	07:27 07:05	16:30 (10) 06:24	06:32		05:50	05:28 19:24 (7)
	16:49 17:26	33 17:03 (10) 18:00	19:34		20:06	20:33 23 19:47 (7)
10	07:27 07:03	16:30 (10) 06:23	06:31		05:48	05:27 19:24 (7)
	16:50 17:27	33 17:03 (10) 18:01	19:35		20:07	20:33 22 19:46 (7)
11	07:26 07:02	16:30 (10) 06:21	17:23 (9) 06:29	18:52 (8)	05:47	05:27 19:24 (7)
	16:51 17:29	33 17:03 (10) 18:02	8 17:31 (9) 19:36	12 19:04 (8) 20:08		20:34 22 19:46 (7)
12	07:26 07:01	16:31 (10) 06:19	17:19 (9) 06:28	17 18:49 (8) 05:46		05:27 19:25 (7)
	16:52 17:30	33 17:04 (10) 18:03	16 17:35 (9) 19:37	17 19:06 (8) 20:09		20:34 21 19:46 (7)
13	07:26 07:00	16:30 (10) 06:18	17:16 (9) 06:26	18:48 (8) 05:45		05:27 19:25 (7)
	16:53 17:31	33 17:03 (10) 18:04	20 17:36 (9) 19:38	19 19:07 (8) 20:10		20:35 21 19:46 (7)
14	07:25 06:58	16:31 (10) 06:16	17:15 (9) 06:24	18:46 (8) 05:44		05:27 19:26 (7)
	16:54 17:32	32 17:03 (10) 18:05	23 17:38 (9) 19:39	22 19:08 (8) 20:11		20:35 20 19:46 (7)
15	07:25 06:57	16:32 (10) 06:14	17:13 (9) 06:23	18:45 (8) 05:43	19:27 (7)	05:27 19:26 (7)
	16:55 17:34	30 17:02 (10) 18:06	26 17:39 (9) 19:40	24 19:09 (8) 20:12	9 19:36 (7) 20:36	20 19:46 (7)
16	07:25 06:56	16:32 (10) 06:13	17:12 (9) 06:21	18:44 (8) 05:42		19:25 (7) 05:27 19:26 (7)
	16:57 17:35	29 17:01 (10) 18:08	27 17:39 (9) 19:41	25 19:09 (8) 20:13	13 19:38 (7) 20:36	20 19:46 (7)
17	07:24 06:54	16:33 (10) 06:11	17:12 (9) 06:20	18:44 (8) 05:41		19:25 (7) 05:27 19:27 (7)
	16:58 17:36	27 17:00 (10) 18:09	28 17:40 (9) 19:42	26 19:10 (8) 20:14	16 19:41 (7) 20:36	19 19:46 (7)
18	07:24 06:53	16:34 (10) 06:09	17:10 (9) 06:18	18:43 (8) 05:40		19:24 (7) 05:27 19:27 (7)
	16:59 17:37	25 16:59 (10) 18:10	30 17:40 (9) 19:43	26 19:09 (8) 20:15	17 19:41 (7) 20:37	19 19:46 (7)
19	07:23 06:52	16:36 (10) 06:08	17:10 (9) 06:17	18:43 (8) 05:39		19:23 (7) 05:27 19:28 (7)
	17:00 17:39	22 16:58 (10) 18:11	30 17:40 (9) 19:44	27 19:10 (8) 20:16	19 19:42 (7) 20:37	19 19:47 (7)
20	07:23 06:50	16:38 (10) 06:06	17:10 (9) 06:15	18:42 (8) 05:38		19:22 (7) 05:27 19:28 (7)
	17:01 17:40	18 16:56 (10) 18:12	30 17:40 (9) 19:45	27 19:09 (8) 20:17	21 19:43 (7) 20:37	19 19:47 (7)
21	07:22 06:49	16:40 (10) 06:04	17:09 (9) 06:14	18:43 (8) 05:38		19:21 (7) 05:27 19:28 (7)
	17:02 17:41	13 16:53 (10) 18:13	31 17:40 (9) 19:47	26 19:09 (8) 20:18	22 19:43 (7) 20:37	19 19:47 (7)
22	07:21 06:47		06:03 17:09 (9) 06:12	18:42 (8) 05:37		19:21 (7) 05:28 19:28 (7)
	17:04 17:42		30 17:39 (9) 19:48	26 19:08 (8) 20:19	23 19:44 (7) 20:38	19 19:47 (7)
23	07:21 06:46		06:01 17:09 (9) 06:11	18:43 (8) 05:36		19:21 (7) 05:28 19:28 (7)
	17:05 17:43		29 17:38 (9) 19:49	25 19:08 (8) 20:20	23 19:44 (7) 20:38	19 19:47 (7)
24	07:20 06:44		05:59 17:10 (9) 06:09	18:43 (8) 05:35		19:20 (7) 05:28 19:29 (7)
	17:06 17:45		28 17:38 (9) 19:50	23 19:06 (8) 20:20	24 19:44 (7) 20:38	19 19:48 (7)
25	07:19 06:43		05:57 17:10 (9) 06:08	18:44 (8) 05:34		19:21 (7) 05:28 19:29 (7)
	17:07 17:46		26 17:36 (9) 19:51	22 19:06 (8) 20:21	24 19:45 (7) 20:38	19 19:48 (7)
26	07:18 06:42		05:56 17:10 (9) 06:06	18:44 (8) 05:34		19:21 (7) 05:29 19:28 (7)
	17:08 17:47		25 17:35 (9) 19:52	20 19:04 (8) 20:22	24 19:45 (7) 20:38	20 19:48 (7)
27	07:18 06:40		05:54 17:12 (9) 06:05	18:46 (8) 05:33		19:20 (7) 05:29 19:29 (7)
	17:10 17:48		22 17:34 (9) 19:53	16 19:02 (8) 20:23	25 19:45 (7) 20:38	20 19:49 (7)
28	07:17 16:41 (10)	06:38 05:52	17:13 (9) 06:04	18:48 (8) 05:33		19:21 (7) 05:29 19:29 (7)
	17:11 16:46 (10)	17:49 18:21	18 17:31 (9) 19:54	13 19:01 (8) 20:24	25 19:46 (7) 20:38	20 19:49 (7)
29	07:16 16:38 (10)		06:51 18:15 (9) 06:02	18:51 (8) 05:32		19:20 (7) 05:30 19:30 (7)
	17:12 10 16:48 (10)		19:22 13 18:28 (9) 19:55	5 18:56 (8) 20:25	25 19:45 (7) 20:38	20 19:50 (7)
30	07:15 16:36 (10)		06:49 18:21 (9) 06:01		05:31 19:21 (7) 05:30	19:29 (7)
	17:13 13 16:49 (10)		19:23 2 18:23 (9) 19:56		20:26 25 19:46 (7) 20:38	21 19:50 (7)
31	07:14 16:35 (10)		06:47 19:24		05:31 19:21 (7)	
	17:15 15 16:50 (10)				20:26 25 19:46 (7)	
Potential sun hours	297	297	369	399	449	453
Total, worst case	45	561	462	401	360	631

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: N - Shadow Receptor: 1,0 × 1,0 Azimuth: 90,0° Slope: 90,0° (14)

### 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	05:31		19:29 (7)	05:55		06:26	18:51 (8)	06:56	17:58 (9)	06:31	16:00 (10)	07:06	
	20:38	21	19:50 (7)	20:19		19:35	12 19:03 (8)	18:44	17 18:15 (9)	16:57	33 16:33 (10)	16:33	
2	05:31		19:29 (7)	05:56		06:27		06:58		06:32		07:07	
	20:38	22	19:51 (7)	20:18		19:34		18:43	12 18:12 (9)	16:56	32 16:32 (10)	16:32	
3	05:32		19:29 (7)	05:57		06:28		06:59		06:34		07:08	
	20:38	22	19:51 (7)	20:17		19:32		18:41		16:55	32 16:31 (10)	16:32	
4	05:32		19:29 (7)	05:58		06:29		07:00		06:35		07:09	
	20:38	22	19:51 (7)	20:15		19:30		18:39		16:54	30 16:30 (10)	16:32	
5	05:33		19:30 (7)	05:59		06:30		07:01		06:36		07:10	
	20:37	22	19:52 (7)	20:14		19:29		18:38		16:52	28 16:29 (10)	16:32	
6	05:33		19:29 (7)	06:00		06:31		07:02		06:37		07:11	
	20:37	23	19:52 (7)	20:13		19:27		18:36		16:51	26 16:27 (10)	16:31	
7	05:34		19:29 (7)	06:01		06:32		07:03		06:38		07:12	
	20:37	24	19:53 (7)	20:12		19:25		18:34		16:50	25 16:27 (10)	16:31	
8	05:35		19:29 (7)	06:02		06:33		07:04		06:40		07:13	
	20:37	24	19:53 (7)	20:11		19:24		18:33		16:49	22 16:25 (10)	16:31	
9	05:35		19:29 (7)	06:03		06:34		07:05		06:41		07:14	
	20:36	24	19:53 (7)	20:09		19:22		18:31		16:48	20 16:24 (10)	16:31	
10	05:36		19:29 (7)	06:04		06:35		07:06		06:42		07:15	
	20:36	25	19:54 (7)	20:08		19:20		18:29		16:47	18 16:22 (10)	16:31	
11	05:37		19:29 (7)	06:05		06:36		07:07		06:43		07:16	
	20:35	24	19:53 (7)	20:07		19:19		18:28		16:46	15 16:22 (10)	16:31	
12	05:37		19:29 (7)	06:06		06:37		07:08		06:44		07:17	
	20:35	25	19:54 (7)	20:05		19:17		18:26		16:45	13 16:21 (10)	16:32	
13	05:38		19:29 (7)	06:07		06:38		07:09		06:46		07:18	
	20:34	25	19:54 (7)	20:04		19:15		18:25		16:44	9 16:19 (10)	16:32	
14	05:39		19:30 (7)	06:08	8 18:58 (8)	06:39		07:10		06:47		07:18	
	20:34	25	19:55 (7)	20:03	8 19:06 (8)	19:14	12 18:19 (9)	18:23		16:43	5 16:19 (10)	16:32	
15	05:40		19:29 (7)	06:09	14 18:55 (8)	06:40		07:12		06:48		07:19	
	20:33	25	19:54 (7)	20:01	14 19:09 (8)	19:12	17 18:21 (9)	18:21		16:42		16:32	
16	05:40		19:29 (7)	06:10	17 18:52 (8)	06:41		07:13		06:49		07:20	
	20:33	25	19:54 (7)	20:00	17 19:09 (8)	19:10	21 18:22 (9)	18:20		16:41		16:32	
17	05:41		19:30 (7)	06:11	20 18:51 (8)	06:42		07:14		06:50		07:20	
	20:32	25	19:55 (7)	19:59	20 19:11 (8)	19:08	24 18:23 (9)	18:18		16:41		16:33	
18	05:42		19:30 (7)	06:12	22 18:49 (8)	06:43		07:15		06:52		07:21	
	20:31	25	19:55 (7)	19:57	22 19:11 (8)	19:07	26 18:23 (9)	18:17		16:40		16:33	
19	05:43		19:31 (7)	06:13	24 18:48 (8)	06:44		07:16		06:53		07:22	
	20:31	24	19:55 (7)	19:56	24 19:12 (8)	19:05	28 18:24 (9)	18:15		16:39		16:33	
20	05:44		19:30 (7)	06:14	26 18:48 (8)	06:45		07:17		06:54		07:22	
	20:30	24	19:54 (7)	19:54	24 19:12 (8)	19:03	29 18:24 (9)	18:14	6 17:20 (10)	16:38		16:32	
21	05:45		19:31 (7)	06:15	26 18:47 (8)	06:46		07:18		06:55		07:23	
	20:29	23	19:54 (7)	19:53	26 19:13 (8)	19:01	30 18:24 (9)	18:12	14 17:24 (10)	16:38		16:34	
22	05:46		19:31 (7)	06:16	27 18:46 (8)	06:47		07:19		06:56		07:23	
	20:28	23	19:54 (7)	19:51	27 19:13 (8)	19:00	30 18:24 (9)	18:11	19 17:26 (10)	16:37		16:35	
23	05:46		19:32 (7)	06:17	28 18:46 (8)	06:48		07:20		06:57		07:24	
	20:28	21	19:53 (7)	19:50	27 19:13 (8)	18:58	31 18:24 (9)	18:09	23 17:29 (10)	16:36		16:35	
24	05:47		19:33 (7)	06:18	29 18:46 (8)	06:49		07:21		06:59		07:24	
	20:27	20	19:53 (7)	19:48	26 19:12 (8)	18:56	30 18:23 (9)	18:08	26 17:30 (10)	16:36		16:36	
25	05:48		19:34 (7)	06:19	28 18:46 (8)	06:50		07:22		07:00		07:25	
	20:26	18	19:52 (7)	19:47	26 19:12 (8)	18:55	30 18:23 (9)	17:07	27 16:30 (10)	16:35		16:36	
26	05:49		19:35 (7)	06:20	29 18:46 (8)	06:51		07:23		07:01		07:25	
	20:25	17	19:52 (7)	19:45	26 19:12 (8)	18:53	29 18:22 (9)	17:05	29 16:31 (10)	16:35		16:37	
27	05:50		19:35 (7)	06:21	30 18:46 (8)	06:52		07:24		07:02		07:26	
	20:24	15	19:50 (7)	19:43	25 19:11 (8)	18:51	28 18:21 (9)	17:04	30 16:32 (10)	16:34		16:38	
28	05:51		19:37 (7)	06:22	27 18:46 (8)	06:53		07:25		07:03		07:26	
	20:23	11	19:48 (7)	19:42	24 19:10 (8)	18:49	27 18:21 (9)	17:02	31 16:32 (10)	16:34		16:38	
29	05:52		19:39 (7)	06:23	28 18:47 (8)	06:54		07:26		07:04		07:26	
	20:22	7	19:46 (7)	19:40	22 19:09 (8)	18:48	24 18:19 (9)	17:01	32 16:32 (10)	16:33		16:39	
30	05:53			06:24	29 18:48 (8)	06:55		07:27		07:05		07:26	
	20:21			19:39	19 19:07 (8)	18:46	21 18:17 (9)	17:00	32 16:32 (10)	16:33		16:40	
31	05:54			06:25	27 18:49 (8)			06:30		16:00 (10)		07:27	
	20:20			19:37	17 19:06 (8)			16:59	33 16:33 (10)		16:40	8 15:40 (11)	
Potential sun hours	460			428		375		345		297		287	
Total, worst case		631			394		449		331		308		265

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: O - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (15)  
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	07:27 16:41	15:28 (14) 15:47 (14)	07:13 17:16	16:22 (13) 16:44 (13)	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57
2	07:27 16:42	15:29 (14) 15:47 (14)	07:12 17:17	16:22 (13) 16:44 (13)	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56
3	07:27 16:43	15:30 (14) 15:47 (14)	07:11 17:18	16:23 (13) 16:44 (13)	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:29	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:33 16:55
4	07:27 16:44	15:31 (14) 15:47 (14)	07:10 17:20	16:23 (13) 16:44 (13)	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:38	05:58 20:15	06:29 19:30	07:00 18:39	06:35 16:54
5	07:27 16:45	15:32 (14) 15:47 (14)	07:09 17:21	16:24 (13) 16:44 (13)	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52
6	07:27 16:46	15:33 (14) 15:47 (14)	07:08 17:22	16:25 (13) 16:44 (13)	06:29 17:56	06:37 19:30	05:53 20:03	05:28 20:31	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51
7	07:27 16:47	15:34 (14) 15:47 (14)	07:07 17:24	16:26 (13) 16:42 (13)	06:27 17:57	06:36 19:31	05:52 20:04	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:50
8	07:27 16:48	15:36 (14) 15:46 (14)	07:06 17:25	16:28 (13) 16:41 (13)	06:26 17:59	06:34 19:32	05:51 20:05	05:28 20:32	05:35 20:36	06:02 20:11	06:33 19:24	07:04 18:33	06:39 16:49
9	07:27 16:49	15:39 (14) 15:45 (14)	07:05 17:26	16:29 (13) 16:39 (13)	06:24 18:00	06:32 19:34	05:50 20:06	05:27 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:48
10	07:27 16:50	15:41 (14) 17:26	07:03 17:27	16:30 (13) 18:01	06:23 19:35	06:31 19:35	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:47
11	07:26 16:51	15:42 (14) 17:29	07:02 17:29	16:31 (13) 18:02	06:21 19:36	06:29 19:36	05:47 20:08	05:27 20:34	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:46
12	07:26 16:52	15:43 (14) 17:30	07:01 17:30	16:32 (13) 18:03	06:20 19:37	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45
13	07:26 16:53	15:44 (14) 17:31	07:00 17:31	16:33 (13) 18:04	06:19 19:38	06:26 19:38	05:45 20:10	05:27 20:35	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:44
14	07:25 16:54	15:45 (14) 17:32	06:58 17:32	16:34 (13) 18:05	06:18 19:39	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23	06:47 16:43
15	07:25 16:55	15:46 (14) 17:34	06:57 17:34	16:35 (13) 18:06	06:17 19:40	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42
16	07:25 16:57	15:47 (14) 17:35	06:56 17:35	16:36 (13) 18:08	06:16 19:41	06:21 19:41	05:42 20:13	05:27 20:36	05:40 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41
17	07:24 16:58	15:48 (14) 17:36	06:54 17:36	16:37 (13) 18:09	06:15 19:42	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:40
18	07:24 16:59	15:49 (14) 17:37	06:53 17:37	16:38 (13) 18:10	06:14 19:43	06:18 19:43	05:40 20:15	05:27 20:37	05:42 20:31	06:12 19:57	06:43 19:07	07:15 18:17	06:52 16:40
19	07:23 17:00	15:50 (14) 17:38	06:52 17:38	16:39 (13) 18:11	06:13 19:44	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:31	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:39
20	07:23 17:01	15:51 (14) 17:40	06:50 17:40	16:40 (13) 18:12	06:12 19:45	06:15 19:45	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38
21	07:22 17:02	15:52 (14) 17:41	06:49 17:41	16:41 (13) 18:13	06:11 19:46	06:14 19:46	05:38 20:18	05:27 20:37	05:45 20:29	06:15 19:53	06:46 19:01	07:18 18:12	06:55 16:37
22	07:21 17:04	15:53 (14) 17:42	06:47 17:42	16:42 (13) 18:14	06:10 19:48	06:12 19:48	05:37 20:19	05:28 20:38	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37
23	07:21 17:05	15:54 (14) 17:43	06:46 17:43	16:43 (13) 18:15	06:09 19:49	06:11 19:49	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:50	06:48 18:58	07:21 18:09	06:57 16:36
24	07:20 17:06	15:55 (14) 17:45	06:44 17:45	16:44 (13) 18:16	06:08 19:50	06:09 19:50	05:35 20:20	05:28 20:38	05:47 20:27	06:18 19:48	06:49 18:56	07:22 18:08	06:59 16:36
25	07:19 17:07	15:56 (14) 17:46	06:43 17:46	16:45 (13) 18:17	06:07 19:51	06:08 19:51	05:34 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:55	07:23 17:07	07:00 16:35
26	07:18 17:08	15:57 (14) 17:47	06:41 17:47	16:46 (13) 18:18	06:06 19:52	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	07:24 17:05	07:01 16:35
27	07:18 17:10	15:58 (14) 17:48	06:40 17:48	16:47 (13) 18:19	06:05 19:53	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	07:25 17:04	07:02 16:34
28	07:17 17:11	15:59 (14) 17:49	06:38 17:49	16:48 (13) 18:20	06:04 19:54	06:04 19:54	05:32 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	07:26 17:02	07:03 16:34
29	07:16 17:12	16:00 (14) 17:50	06:37 17:50	16:49 (13) 18:21	06:03 19:55	06:02 19:55	05:31 20:25	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:27 17:01	07:04 16:33
30	07:15 17:13	16:01 (14) 17:51	06:36 17:51	16:50 (13) 18:22	06:02 19:56	06:01 19:56	05:30 20:26	05:30 20:38	05:53 20:21	06:24 19:39	06:55 18:46	07:28 17:00	07:05 16:33
31	07:14 17:15	16:02 (14) 17:52	06:35 17:52	16:51 (13) 18:23	06:01 19:57	06:00 19:57	05:29 20:27	05:30 20:38	05:54 20:20	06:25 19:37	06:56 18:45	07:29 17:00	07:06 16:33
Potential sun hours	297	297	297	369	399	449	453	460	428	375	345	297	287
Total, worst case	277	163	369	399	449	453	460	428	375	345	297	287	559

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: P - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (16)  
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	07:27 16:41	07:13 17:16	15:58 (14)	06:37 17:50	06:46 19:25	05:59 20:27
2	07:27 16:42	07:12 17:17	16:00 (14)	06:35 17:52	06:44 19:26	05:58 20:28
3	07:27 16:43	07:11 17:18	16:03 (14)	06:34 17:53	06:42 19:27	05:57 20:29
4	07:27 16:44	07:10 17:20		06:32 17:54	06:41 19:28	05:56 20:00
5	07:27 16:45	07:09 17:21		06:31 17:55	06:39 19:29	05:54 20:01
6	07:27 16:46	07:08 17:22		06:29 17:56	06:37 19:30	05:53 20:03
7	07:27 16:47	15:56 (14) 16:03 (14)	07:07 17:24	06:27 17:57	06:36 19:31	05:52 20:04
8	07:27 16:48	15:55 (14) 16:05 (14)	07:06 17:25	06:26 17:59	06:34 19:32	05:51 20:05
9	07:27 16:49	15:54 (14) 16:07 (14)	07:05 17:26	06:24 18:00	06:32 19:34	05:50 20:06
10	07:26 16:50	15:53 (14) 16:08 (14)	07:03 17:27	16:48 (13) 16:51 (13)	06:23 18:01	05:48 19:35
11	07:26 16:51	15:53 (14) 16:09 (14)	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08
12	07:26 16:52	15:53 (14) 16:11 (14)	07:01 17:30	16:43 (13) 16:58 (13)	06:19 18:03	06:28 19:37
13	07:26 16:53	15:52 (14) 16:11 (14)	07:00 17:31	16:41 (13) 16:58 (13)	06:18 18:04	06:26 19:38
14	07:25 16:54	15:52 (14) 16:13 (14)	06:58 17:32	16:41 (13) 17:00 (13)	06:16 18:05	06:24 19:39
15	07:25 16:55	15:51 (14) 16:13 (14)	06:57 17:34	16:40 (13) 17:01 (13)	06:14 18:06	06:23 19:40
16	07:25 16:57	15:52 (14) 16:15 (14)	06:56 17:35	16:39 (13) 17:00 (13)	06:13 18:08	06:21 19:41
17	07:24 16:58	15:51 (14) 16:15 (14)	06:54 17:36	16:40 (13) 17:01 (13)	06:11 18:09	06:20 19:42
18	07:24 16:59	15:52 (14) 16:16 (14)	06:53 17:37	16:39 (13) 17:00 (13)	06:09 18:10	06:18 19:43
19	07:23 17:00	15:51 (14) 16:16 (14)	06:52 17:38	16:39 (13) 17:01 (13)	06:08 18:11	06:17 19:44
20	07:23 17:01	15:52 (14) 16:18 (14)	06:50 17:40	16:40 (13) 17:01 (13)	06:06 18:12	06:15 19:45
21	07:22 17:02	15:52 (14) 16:18 (14)	06:49 17:41	16:40 (13) 16:59 (13)	06:04 18:13	06:14 19:46
22	07:21 17:04	15:52 (14) 16:18 (14)	06:47 17:42	16:42 (13) 16:59 (13)	06:03 18:14	06:12 19:48
23	07:21 17:05	15:52 (14) 16:18 (14)	06:46 17:43	16:42 (13) 16:57 (13)	06:01 18:15	06:11 19:49
24	07:20 17:06	15:53 (14) 16:19 (14)	06:44 17:45	16:45 (13) 16:55 (13)	05:59 18:16	06:09 19:50
25	07:19 17:07	15:53 (14) 16:19 (14)	06:43 17:46	05:57 18:17	06:08 19:51	05:34 20:01
26	07:18 17:08	15:53 (14) 16:19 (14)	06:41 17:47	05:56 18:18	06:06 19:52	05:34 20:02
27	07:18 17:10	15:54 (14) 16:19 (14)	06:40 17:48	05:54 18:20	06:05 19:53	05:33 20:03
28	07:17 17:11	15:54 (14) 16:18 (14)	06:38 17:49	05:52 18:21	06:04 19:54	05:32 20:04
29	07:16 17:12	15:55 (14) 16:18 (14)		06:51 19:22	06:02 19:55	05:32 20:05
30	07:15 17:13	15:56 (14) 16:17 (14)		06:49 19:23	06:01 19:56	05:31 20:06
31	07:14 17:15	15:57 (14) 16:17 (14)		06:47 19:24	05:31 20:06	20:06
Potential sun hours	297	297	369	399	449	453
Total, worst case	532	294				

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: P - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (16)

### 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	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44		06:31 16:57		07:06 16:33	15:35 (14) 15:51 (14)
2	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43		06:32 16:56		07:07 16:32	15:36 (14) 15:51 (14)
3	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41		06:33 16:55		07:08 16:32	15:37 (14) 15:50 (14)
4	05:32 20:38	05:58 20:15	06:29 19:30	07:00 18:39		06:35 16:54		07:09 16:32	15:39 (14) 15:49 (14)
5	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38		06:36 16:52		07:10 16:32	15:41 (14) 15:48 (14)
6	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36		06:37 16:51		07:11 16:31	
7	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34		06:38 16:50		07:12 16:31	
8	05:35 20:36	06:02 20:11	06:33 19:24	07:04 18:33		06:39 16:49	15:33 (14) 15:44 (14)	07:13 16:31	
9	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31		06:41 16:48	11 15	15:31 (14) 15:46 (14)	07:14 16:31
10	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29		06:42 16:47	15 18	15:29 (14) 15:47 (14)	07:15 16:31
11	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28		06:43 16:46	15:29 (14) 20	07:16 16:31	
12	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26		06:44 16:45	15:28 (14) 21	07:17 16:31	
13	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25		06:46 16:44	15:27 (14) 23	07:17 16:32	
14	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23		06:47 16:43	15:27 (14) 24	07:18 16:32	
15	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21		06:48 16:42	15:27 (14) 25	07:19 16:32	
16	05:40 20:33	06:10 20:00	06:41 19:10	07:13 18:20		06:49 16:41	15:26 (14) 26	07:20 16:32	
17	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	17:18 (13) 6	06:50 17:24 (13)	15:26 (14) 26	07:20 16:33	
18	05:42 20:31	06:12 19:57	06:43 19:07	07:15 18:17	17:14 (13) 13	06:52 17:27 (13)	15:27 (14) 26	07:21 16:33	
19	05:43 20:31	06:13 19:56	06:44 19:05	07:16 18:15	17:13 (13) 16	06:53 17:29 (13)	15:27 (14) 26	07:22 16:33	
20	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	17:12 (13) 18	06:54 17:30 (13)	15:27 (14) 26	07:22 16:34	
21	05:45 20:29	06:15 19:53	06:46 19:01	07:18 18:12	17:11 (13) 19	06:55 17:30 (13)	15:27 (14) 26	07:23 16:34	
22	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	17:10 (13) 20	06:56 17:30 (13)	15:28 (14) 26	07:23 16:35	
23	05:46 20:27	06:17 19:50	06:48 18:58	07:20 18:09	17:10 (13) 21	06:57 17:31 (13)	15:28 (14) 25	07:24 16:35	
24	05:47 20:27	06:18 19:48	06:49 18:56	07:22 18:08	17:10 (13) 21	06:59 17:31 (13)	15:29 (14) 24	07:24 16:36	
25	05:48 20:26	06:19 19:46	06:50 18:55	07:23 17:07	17:10 (13) 22	07:00 16:31 (13)	15:29 (14) 24	07:25 16:36	
26	05:49 20:25	06:20 19:45	06:51 18:53	07:24 17:05	16:09 (13) 21	07:01 16:30 (13)	15:30 (14) 23	07:25 16:37	
27	05:50 20:24	06:21 19:43	06:52 18:51	07:25 17:04	16:09 (13) 20	07:02 16:29 (13)	15:31 (14) 22	07:25 16:37	
28	05:51 20:23	06:22 19:42	06:53 18:49	07:26 17:02	16:11 (13) 18	07:03 16:29 (13)	15:32 (14) 21	07:26 16:38	
29	05:52 20:22	06:23 19:40	06:54 18:48	07:28 17:01	16:11 (13) 17	07:04 16:28 (13)	15:33 (14) 19	07:26 16:39	
30	05:53 20:21	06:24 19:39	06:55 18:46	07:29 17:00	16:12 (13) 14	07:05 16:26 (13)	15:34 (14) 18	07:26 16:40	
31	05:54 20:20	06:25 19:37	06:56 18:45	07:30 16:58	16:14 (13) 10	07:06 16:24 (13)	15:52 (14) 16:40	07:27 16:40	
Potential sun hours	460	428	375	345		297		287	
Total, worst case					256		515		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	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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## SHADOW - Calendar

Shadow receptor: Q - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (17)  
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	07:27 16:41	07:13 17:16	16:06 (14) 16:30 (14)	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 15:44 (14)	07:06 16:33
2	07:27 16:42	07:12 17:17	16:06 (14) 16:31 (14)	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 15:42 (14)	07:07 16:32
3	07:27 16:43	07:11 17:18	16:07 (14) 16:31 (14)	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:29	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:33 15:40 (14)	07:08 16:32
4	07:27 16:44	07:10 17:20	16:07 (14) 16:31 (14)	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:38	05:58 20:15	06:29 19:30	07:00 18:39	06:35 15:40 (14)	07:09 16:32
5	07:27 16:45	07:09 17:21	16:08 (14) 16:30 (14)	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:00 (14)	07:10 16:32
6	07:27 16:46	07:08 17:22	16:09 (14) 16:30 (14)	06:29 17:56	06:37 19:30	05:53 20:02	05:28 20:31	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:00 (14)	07:11 16:31
7	07:27 16:47	07:07 17:24	16:10 (14) 16:30 (14)	06:27 17:57	06:36 19:31	05:52 20:04	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	07:06 17:25	16:11 (14) 16:29 (14)	06:26 17:59	06:34 19:32	05:51 20:05	05:28 20:32	05:35 20:36	06:02 20:11	06:33 19:24	07:04 18:33	06:39 16:49	07:13 16:31
9	07:27 16:49	07:05 17:26	16:12 (14) 16:27 (14)	06:24 18:00	06:32 19:34	05:50 20:06	05:27 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:26 16:50	07:03 17:27	16:15 (14) 16:25 (14)	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29		06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:34	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30		06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:17 16:31
13	07:26 16:53	07:00 17:31		06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:44	07:17 16:32
14	07:25 16:54	06:58 17:32		06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:34		06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42	07:19 16:32
16	07:25 16:57	06:56 17:35		06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36	05:40 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:54 17:36		06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:40	07:20 16:33
18	07:24 16:59	06:53 17:37		06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:37	05:42 20:31	06:12 19:57	06:43 19:07	07:15 18:17	06:52 16:40	07:21 16:33
19	07:23 17:00	06:52 17:38		06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:31	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:54	07:22 16:33
20	07:23 17:01	06:50 17:40		06:06 18:12	06:15 19:45	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41		06:04 18:13	06:14 19:46	05:38 20:18	05:27 20:37	05:45 20:29	06:15 19:53	06:46 19:01	07:18 18:12	06:55 16:37	07:23 16:34
22	07:21 17:04	16:12 (14) 16:20 (14)	06:47 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:21 17:05	16:10 (14) 16:22 (14)	06:46 17:43	06:01 18:15	06:11 19:49	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:50	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
24	07:20 17:06	16:10 (14) 16:25 (14)	06:44 17:45	05:59 18:16	06:09 19:50	05:35 20:20	05:28 20:38	05:47 20:27	06:18 19:48	06:49 18:56	07:22 18:08	06:59 16:36	07:24 16:36
25	07:19 17:07	16:08 (14) 16:26 (14)	06:43 17:46	05:57 18:17	06:08 19:51	05:34 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:55	07:23 17:07	07:00 16:35	07:25 16:36
26	07:18 17:08	16:08 (14) 16:27 (14)	06:41 17:47	05:56 18:18	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	07:24 17:05	07:01 16:35	07:25 16:37
27	07:18 17:10	16:07 (14) 16:28 (14)	06:40 17:48	05:54 18:20	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	07:25 17:04	07:02 16:34	07:25 16:37
28	07:17 17:11	16:07 (14) 16:29 (14)	06:38 17:49	05:52 18:21	06:04 19:54	05:32 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	07:26 17:02	07:03 16:34	07:26 16:38
29	07:16 17:12	16:06 (14) 16:29 (14)		06:51 19:22	06:02 19:55	05:32 20:25	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:27 17:01	07:04 16:33	07:26 16:39
30	07:15 17:13	16:06 (14) 16:30 (14)		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:39	06:55 18:46	07:28 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15	16:06 (14) 16:30 (14)		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37	06:30 16:58	15:48 (14) 15:49 (14)	1 297	07:27 16:40
Potential sun hours	297	297		369	399	449	453	460	428	375	345	1	385
Total, worst case	186	203										1	287

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: R - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (18)

### 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	07:27 16:41 34	14:47 (18) 15:21 (18) 17:16	07:13 06:37 17:50	06:46 05:59 20:27	05:59 20:27 20:38	05:30 20:38 20:19	05:31 05:55 06:26	05:55 06:26 06:56	06:26 06:56 06:31	06:56 06:31 16:57	06:31 16:57 16:32	07:06 14:35 (18) 15:07 (18)
2	07:27 16:42 33	14:48 (18) 15:21 (18) 17:17	07:12 06:35 17:52	06:44 05:58 20:28	05:58 20:28 20:38	05:30 20:38 20:18	05:31 05:56 06:27	05:56 06:27 06:57	06:27 06:57 06:32	06:57 06:32 16:56	06:32 16:56 16:32	07:07 14:35 (18) 15:07 (18)
3	07:27 16:43 34	14:48 (18) 15:22 (18) 17:18	07:11 06:34 17:53	06:42 05:57 20:28	05:57 20:28 20:38	05:29 20:38 20:16	05:32 05:57 06:28	05:57 06:28 06:58	06:28 06:58 06:33	06:58 06:33 16:55	06:33 16:55 16:32	07:08 14:35 (18) 15:08 (18)
4	07:27 16:44 33	14:49 (18) 15:22 (18) 17:20	07:10 06:32 17:54	06:41 05:56 20:29	05:56 20:29 20:37	05:29 20:37 20:15	05:32 05:58 06:29	05:58 06:29 06:59	06:29 06:59 06:35	06:59 06:35 16:53	06:35 16:53 16:32	07:09 14:35 (18) 15:08 (18)
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6	07:27 16:46 33	14:50 (18) 15:23 (18) 17:22	07:08 06:29 17:56	06:37 05:53 20:30	05:53 20:30 20:37	05:28 20:37 20:13	05:33 06:00 06:31	06:00 06:31 19:27	06:31 19:27 18:36	06:31 18:36 16:51	06:31 16:51 16:32	07:11 14:36 (18) 15:09 (18)
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15	07:25 16:55 30	14:55 (18) 15:25 (18) 17:33	06:57 06:14 18:06	06:14 05:43 20:35	05:43 20:35 20:39	05:27 20:39 20:01	05:40 06:09 06:25	06:09 06:25 07:12	06:25 07:12 16:42	06:25 16:42 16:32	06:25 16:42 16:32	07:19 14:40 (18) 15:13 (18)
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18	07:23 16:59 26	14:59 (18) 15:25 (18) 17:37	06:53 06:09 18:10	06:09 05:40 20:36	05:40 20:36 20:39	05:27 20:39 20:01	05:42 06:12 06:26	06:12 06:26 07:15	06:26 07:15 16:40	06:26 16:40 16:33	06:26 16:40 16:33	07:21 14:42 (18) 15:15 (18)
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25	07:19 17:07 17	15:18 (18) 17:46 18:17	06:43 05:57 18:17	06:08 05:34 20:38	05:34 20:38 20:39	05:28 20:39 20:01	05:48 06:19 06:26	06:19 06:26 07:23	06:26 07:23 16:35	06:26 16:35 16:33	06:26 16:35 16:33	07:25 14:44 (18) 15:18 (18)
26	07:18 17:08 17	17:47 18:18 18:18	06:41 05:56 18:18	06:06 05:34 20:38	05:34 20:38 20:39	05:29 20:39 20:01	05:49 06:20 06:26	06:20 06:26 07:24	06:26 07:24 16:34	06:26 16:34 16:33	06:26 16:34 16:33	07:25 14:45 (18) 15:18 (18)
27	07:18 17:10 17	17:48 18:19 18:19	06:40 05:54 18:19	06:05 05:33 20:38	05:33 20:38 20:39	05:29 20:39 20:01	05:50 06:21 06:26	06:21 06:26 07:25	06:26 07:25 16:34	06:26 16:34 16:33	06:26 16:34 16:33	07:25 14:45 (18) 15:18 (18)
28	07:17 17:11 17	17:49 18:21 18:21	06:38 05:52 18:21	06:03 05:32 20:38	05:32 20:38 20:39	05:29 20:39 20:01	05:51 06:22 06:26	06:22 06:26 07:26	06:26 07:26 16:34	06:26 16:34 16:33	06:26 16:34 16:33	07:26 14:46 (18) 15:19 (18)
29	07:16 17:12 17	18:22 19:55 20:25	06:51 06:02 18:22	06:02 05:32 20:38	05:32 20:38 20:39	05:29 20:39 20:01	05:52 06:23 06:26	06:23 06:26 07:27	06:26 07:27 16:33	06:26 16:33 16:33	06:26 16:33 16:33	07:26 14:46 (18) 15:19 (18)
30	07:15 17:13 17	19:23 19:56 20:25	06:49 06:01 18:23	06:01 05:31 20:38	05:31 20:38 20:39	05:30 20:39 20:01	05:53 06:24 06:26	06:24 06:26 07:28	06:26 07:28 16:33	06:26 16:33 16:33	06:26 16:33 16:33	07:26 14:47 (18) 15:20 (18)
31	07:14 17:15 17	19:24 19:57 20:26	06:47 06:01 18:24	06:01 05:31 20:38	05:31 20:38 20:39	05:30 20:39 20:01	05:54 06:25 06:26	06:25 06:26 07:29	06:26 07:29 16:33	06:26 16:33 16:33	06:26 16:33 16:33	07:26 14:47 (18) 15:20 (18)
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
Total, worst case	672										307	1031

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: S - Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (19)  
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	07:27 16:41	07:13 17:16	16:07 (18) 16:25 (18)	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	
2	07:27 16:42	07:12 17:17	16:06 (18) 16:27 (18)	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	
3	07:27 16:43	07:11 17:18	16:05 (18) 16:28 (18)	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	
4	07:27 16:44	07:10 17:20	16:04 (18) 16:29 (18)	06:32 17:54	06:41 19:28	05:55 20:00	05:29 20:29	05:32 20:37	05:58 20:15	06:29 19:30	06:59 18:39	
5	07:27 16:45	07:09 17:21	16:04 (18) 16:30 (18)	06:30 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	
6	07:27 16:46	07:08 17:22	16:04 (18) 16:31 (18)	06:29 17:56	06:37 19:30	05:53 20:02	05:28 20:30	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	
7	07:27 16:47	07:07 17:23	16:04 (18) 16:31 (18)	06:27 17:57	06:36 19:31	05:52 20:03	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	
8	07:27 16:48	07:06 17:25	16:03 (18) 16:31 (18)	06:26 17:58	06:34 19:32	05:51 20:04	05:28 20:32	05:35 20:36	06:02 20:10	06:33 19:24	07:04 18:33	
9	07:27 16:49	07:04 17:26	16:03 (18) 16:31 (18)	06:24 18:00	06:32 19:33	05:49 20:06	05:27 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	
10	07:26 16:50	07:03 17:27	16:03 (18) 16:32 (18)	06:22 18:01	06:31 19:34	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29	
11	07:26 16:51	07:02 17:28	16:04 (18) 16:32 (18)	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:33	05:37 20:35	06:05 20:07	06:36 19:18	07:07 18:28	
12	07:26 16:52	07:01 17:30	16:03 (18) 16:31 (18)	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	
13	07:26 16:53	07:00 17:31	16:04 (18) 16:31 (18)	06:17 18:04	06:26 19:38	05:45 20:10	05:27 20:34	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:24	
14	07:25 16:54	06:58 17:32	16:05 (18) 16:31 (18)	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23	
15	07:25 16:55	06:57 17:33	16:05 (18) 16:29 (18)	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	
16	07:24 16:56	06:56 17:35	16:06 (18) 16:29 (18)	06:12 18:07	06:21 19:41	05:42 20:13	05:27 20:36	05:40 20:32	06:10 20:00	06:41 19:10	07:12 18:20	
17	07:24 16:58	06:54 17:36	16:08 (18) 16:28 (18)	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	
18	07:23 16:59	06:53 17:37	16:09 (18) 16:26 (18)	06:09 18:10	06:18 18:10	05:40 20:15	05:27 20:36	05:42 20:31	06:12 19:57	06:43 19:06	07:15 18:17	
19	07:23 17:00	06:51 17:38	16:12 (18) 16:24 (18)	06:07 18:11	06:17 18:11	05:39 20:16	05:27 20:37	05:43 20:30	06:13 19:55	06:44 19:05	07:16 18:15	
20	07:22 17:01	06:50 17:40		06:06 18:12	06:15 19:45	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	
21	07:22 17:02	06:49 17:41		06:04 18:13	06:14 19:46	05:37 20:17	05:27 20:37	05:45 20:29	06:15 19:52	06:46 19:01	07:18 18:12	
22	07:21 17:03	06:47 17:42		06:02 18:14	06:12 19:47	05:37 20:18	05:27 20:37	05:45 20:28	06:16 19:51	06:47 19:00	07:19 18:11	
23	07:20 17:05	06:46 17:43		06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	
24	07:20 17:06	06:44 17:44		05:59 18:16	06:09 19:50	05:35 20:20	05:28 20:38	05:47 20:26	06:18 19:48	06:49 18:56	07:22 18:08	
25	07:19 17:07	06:43 17:46		05:57 18:17	06:08 19:51	05:34 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:54	07:23 17:06	
26	07:18 17:08	06:41 17:47		05:56 18:18	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	07:24 17:05	
27	07:17 17:10	06:40 17:48		05:54 18:19	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	07:25 17:04	
28	07:17 17:11	06:38 17:49		05:52 18:20	06:03 19:54	05:32 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	07:26 17:02	
29	07:16 17:12			06:51 19:22	06:02 19:55	05:32 20:24	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:27 17:01	
30	07:15 17:13	16:11 (18) 16:21 (18)		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:38	06:55 18:46	07:29 17:00	
31	07:14 17:15	16:08 (18) 16:23 (18)		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37	06:30 16:58	07:30 16:01 (18)	
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
Total, worst case	25	457								214	272	

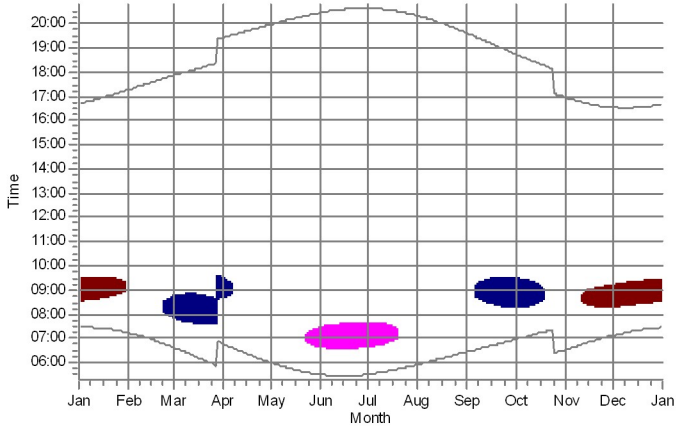
Table layout: For each day in each month the following matrix apply

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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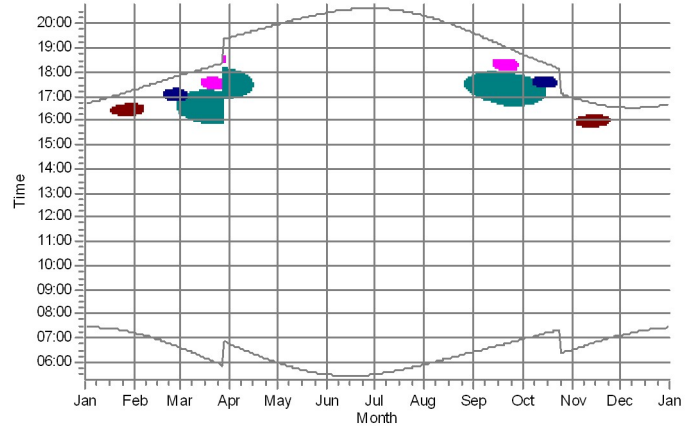


## SHADOW - Calendar, graphical

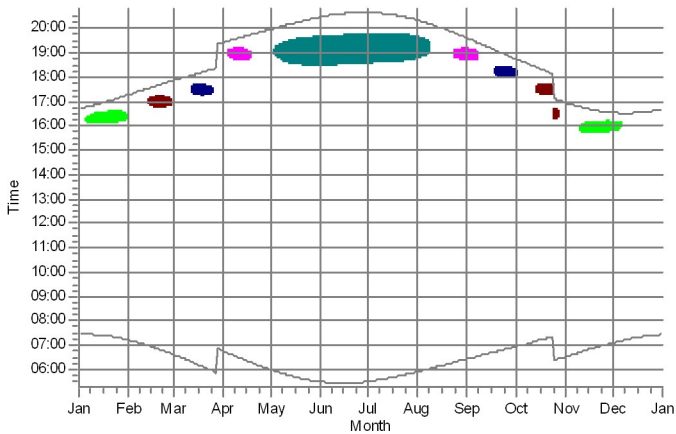
A: Shadow Receptor: 1,0 × 1,0 Azimuth: -60,0° Slope: 90,0° (1)



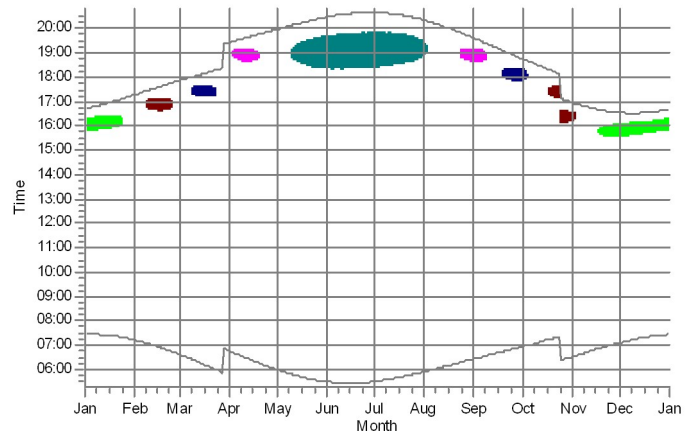
B: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (2)



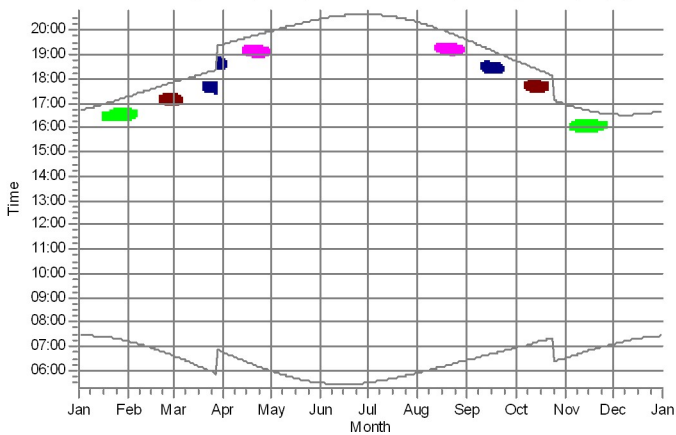
C: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (3)



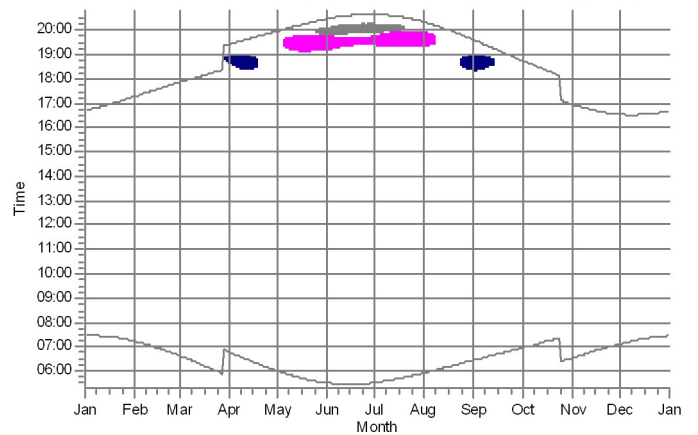
D: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (4)



E: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (5)



F: Shadow Receptor: 1,0 × 1,0 Azimuth: -180,0° Slope: 90,0° (6)



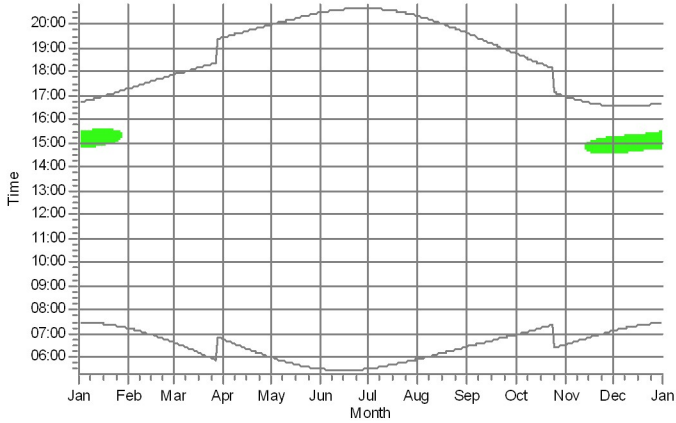
WTGs

- 4: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (4)
- 5: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (5)
- 6: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (6)

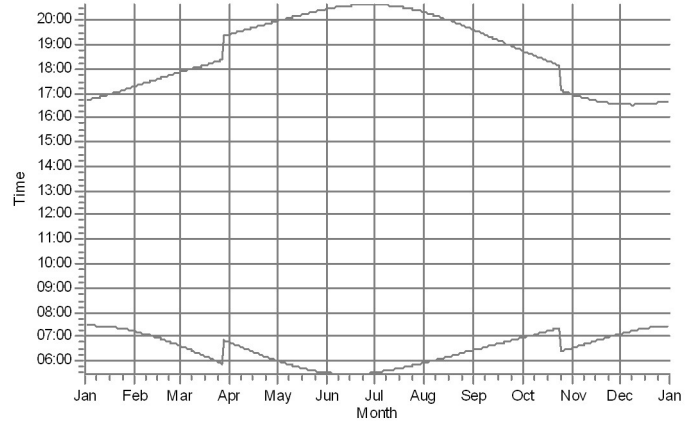
- 7: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (7)
- 8: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (8)
- 9: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (9)

## SHADOW - Calendar, graphical

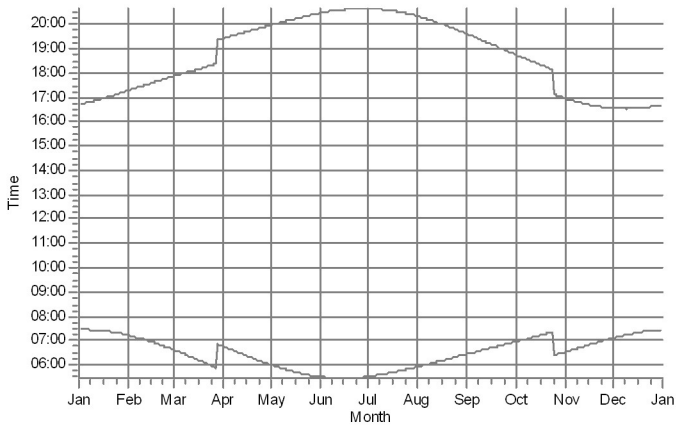
G: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (7)



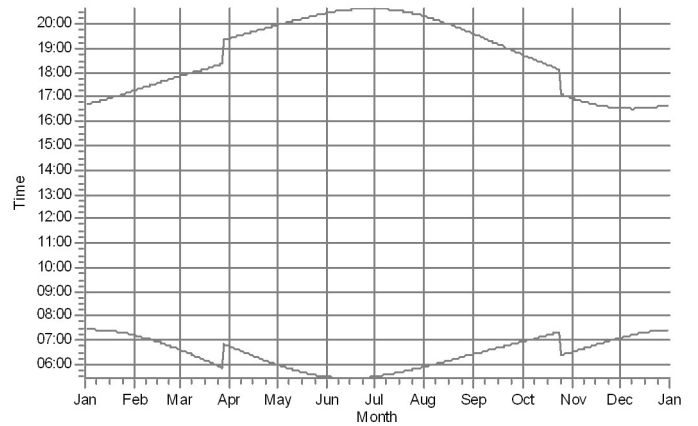
H: Shadow Receptor: 1,0 × 1,0 Azimuth: -130,0° Slope: 90,0° (8)



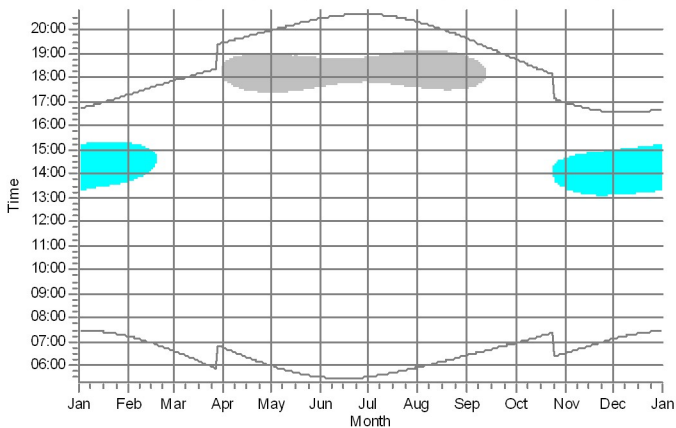
I: Shadow Receptor: 1,0 × 1,0 Azimuth: -180,0° Slope: 90,0° (9)



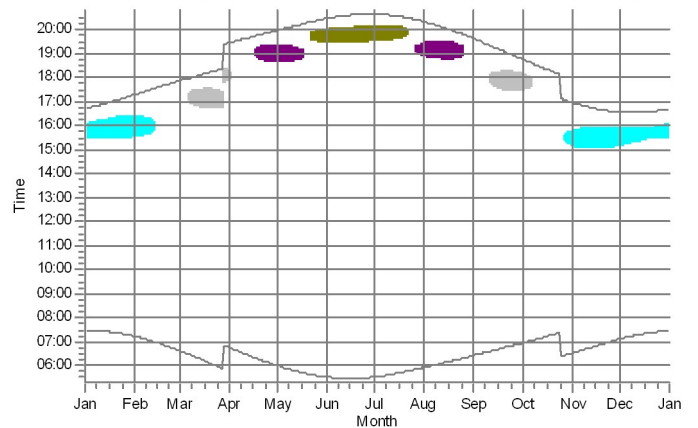
J: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (10)



K: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (11)



L: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (12)



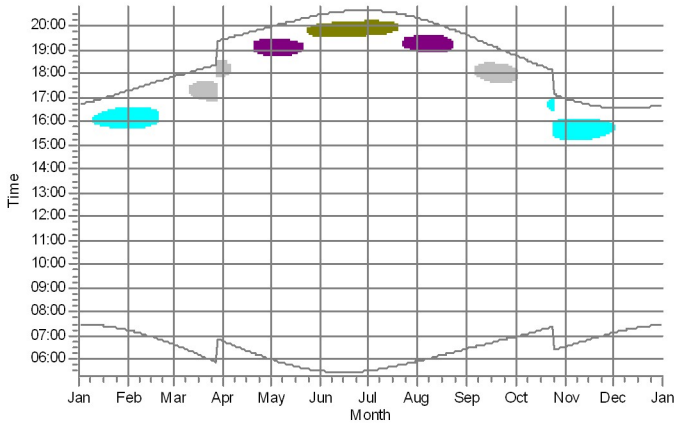
WTGs

- 10: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !OI! hub: 101,0 m (TOT: 180,0 m) (10)
- 11: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !OI! hub: 101,0 m (TOT: 180,0 m) (11)
- 12: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !OI! hub: 101,0 m (TOT: 180,0 m) (12)

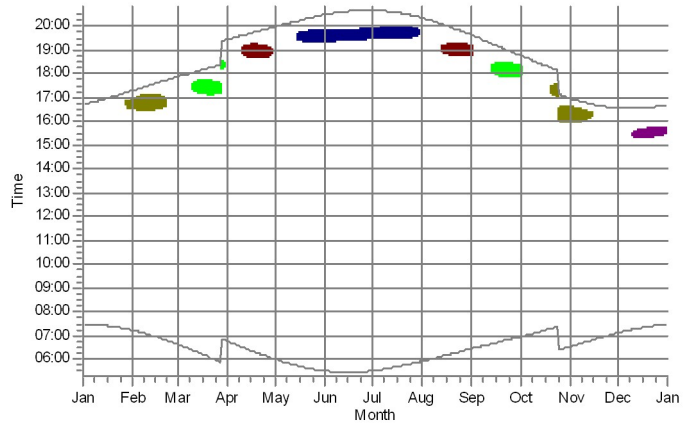
- 13: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !OI! hub: 101,0 m (TOT: 180,0 m) (13)
- 18: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !OI! hub: 101,0 m (TOT: 180,0 m) (18)

## SHADOW - Calendar, graphical

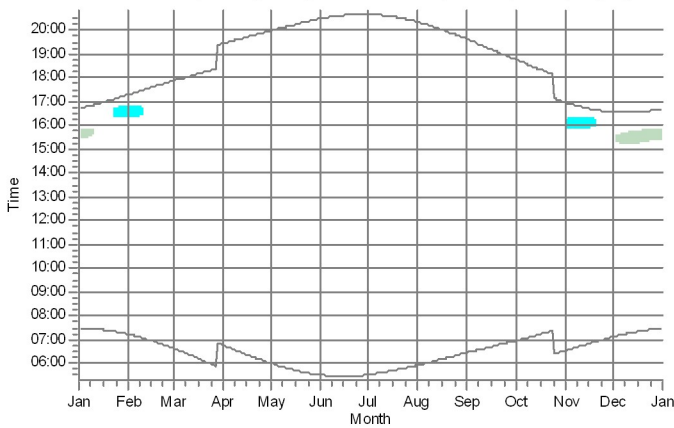
M: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (13)



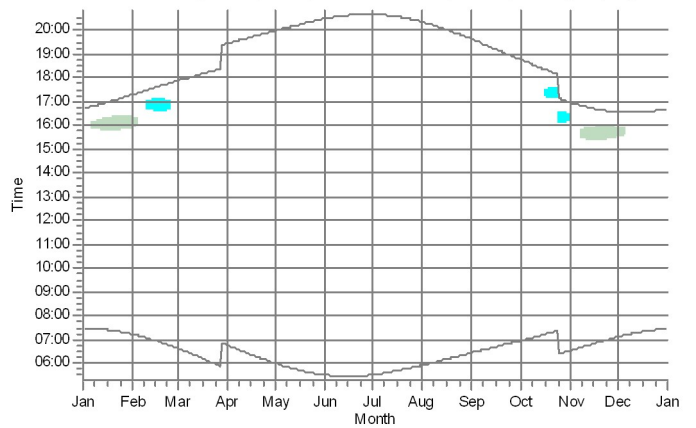
N: Shadow Receptor: 1,0 × 1,0 Azimuth: 90,0° Slope: 90,0° (14)



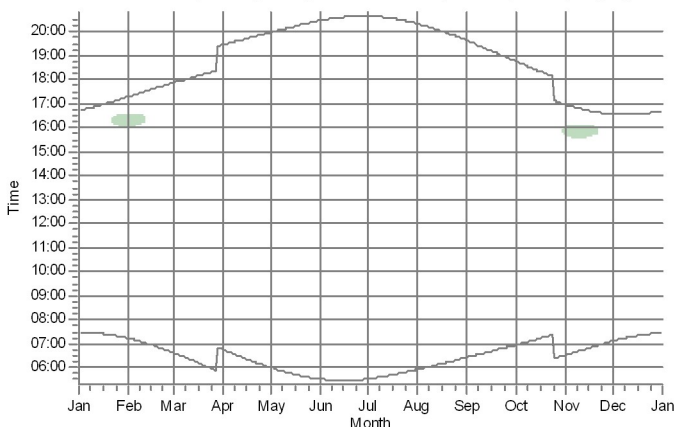
O: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (15)



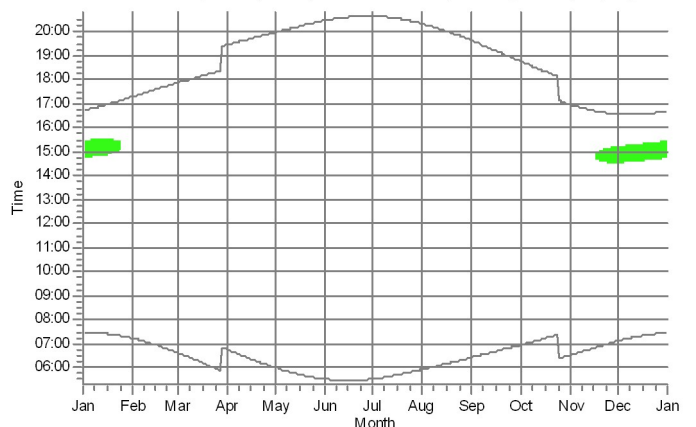
P: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (16)



Q: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (17)



R: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (18)

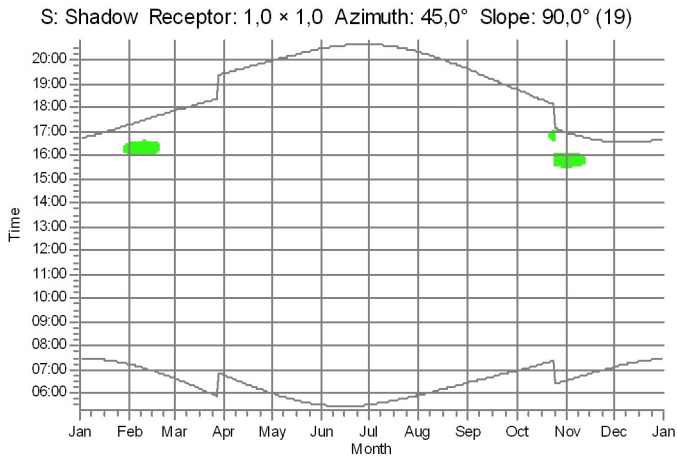


WTGs

- 7: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (7)
- 8: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (8)
- 9: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (9)
- 10: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (10)
- 11: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (11)

- 12: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (12)
- 13: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (13)
- 14: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (14)
- 18: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 IOI hub: 101,0 m (TOT: 180,0 m) (18)

## SHADOW - Calendar, graphical



WTGs

18: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 lO! hub: 101,0 m (TOT: 180,0 m) (18)

## SHADOW - Calendar per WTG

WTG: 1 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	July	August	September	October	November	December
1	07:27	07:13	06:37	06:46	06:00	05:30	05:31	05:55	06:26	06:57	06:31	07:07
	16:42	17:16	17:51	19:25	19:57	20:27	20:38	20:19	19:35	18:44	16:57	16:33
2	07:27	07:12	06:35	06:44	05:58	05:30	05:31	05:56	06:27	06:58	06:32	07:08
	16:42	17:17	17:52	19:26	19:58	20:28	20:38	20:18	19:34	18:43	16:56	16:32
3	07:27	07:11	06:34	06:42	05:57	05:29	05:29	05:32	05:57	06:28	06:59	07:09
	16:43	17:19	17:53	19:27	20:00	20:29	20:38	20:17	19:32	18:41	16:55	16:32
4	07:27	07:10	06:32	06:41	05:56	05:29	05:32	05:58	06:29	07:00	06:35	07:10
	16:44	17:20	17:54	19:28	20:01	20:29	20:38	20:16	19:31	18:39	16:54	16:32
5	07:27	07:09	06:31	06:39	05:54	05:29	05:33	05:59	06:30	07:01	06:36	07:11
	16:45	17:21	17:55	19:29	20:02	20:30	20:38	20:14	19:29	18:38	16:52	16:32
6	07:27	07:08	06:29	06:37	05:53	05:28	05:33	06:00	06:31	07:02	06:37	07:12
	16:46	17:22	17:56	19:30	20:03	20:31	20:37	20:13	19:27	18:36	16:51	16:32
7	07:27	07:07	06:28	06:36	05:52	05:28	05:34	06:01	06:32	07:03	06:38	07:13
	16:47	17:24	17:58	19:32	20:04	20:31	20:37	20:12	19:26	18:34	16:50	16:31
8	07:27	07:06	06:26	06:34	05:51	05:28	05:35	06:02	06:33	07:04	06:40	07:13
	16:48	17:25	17:59	19:33	20:05	20:32	20:37	20:11	19:24	18:33	16:49	16:31
9	07:27	07:05	06:24	06:33	05:50	05:28	05:35	06:03	06:34	07:05	06:41	07:14
	16:49	17:26	18:00	19:34	20:06	20:33	20:36	20:10	19:22	18:31	16:48	16:31
10	07:27	07:04	06:23	06:31	05:48	05:27	05:36	06:04	06:35	07:06	06:42	07:15
	16:50	17:27	18:01	19:35	20:07	20:33	20:36	20:08	19:20	18:30	16:47	16:31
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	16:51	17:29	18:02	19:36	20:08	20:34	20:35	20:07	19:19	18:28	16:46	16:31
12	07:26	07:01	06:19	06:28	05:46	05:27	05:37	06:06	06:37	07:08	06:45	07:17
	16:52	17:30	18:03	19:37	20:09	20:34	20:35	20:06	19:17	18:26	16:45	16:32
13	07:26	07:00	06:18	06:26	05:45	05:27	05:38	06:07	06:38	07:09	06:46	07:18
	16:53	17:31	18:04	19:38	20:10	20:35	20:35	20:04	19:15	18:25	16:44	16:32
14	07:26	06:59	06:16	06:25	05:44	05:27	05:39	06:08	06:39	07:11	06:47	07:18
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	16:55	17:34	18:07	19:40	20:12	20:36	20:33	20:01	19:12	18:22	16:42	16:32
16	07:25	06:56	06:13	06:21	05:42	05:27	05:41	06:10	06:41	07:13	06:49	07:20
	16:57	17:35	18:08	19:41	20:13	20:36	20:33	20:00	19:10	18:20	16:41	16:32
17	07:24	06:55	06:11	06:20	05:41	05:26	05:41	06:11	06:42	07:14	06:51	07:21
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	17:02	17:41	18:13	19:47	20:18	20:38	20:29	19:53	19:02	18:12	16:38	16:34
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	17:04	17:42	18:14	19:48	20:19	20:38	20:29	19:51	19:00	18:11	16:37	16:35
23	07:21	06:46	06:01	06:11	05:36	05:28	05:46	06:17	06:48	07:21	06:58	07:24
	17:05	17:43	18:15	19:49	20:20	20:38	20:28	19:50	18:58	18:09	16:36	16:35
24	07:20	06:45	05:59	06:09	05:35	05:28	05:47	06:18	06:49	07:22	06:59	07:25
	17:06	17:45	18:16	19:50	20:21	20:38	20:27	19:48	18:56	18:08	16:36	16:36
25	07:19	06:43	05:58	06:08	05:35	05:28	05:48	06:19	06:50	06:23	07:00	07:25
	17:07	17:46	18:18	19:51	20:21	20:38	20:26	19:47	18:55	17:07	16:35	16:36
26	07:19	06:42	05:56	06:06	05:34	05:29	05:49	06:20	06:51	06:24	07:01	07:25
	17:09	17:47	18:19	19:52	20:22	20:38	20:25	19:45	18:53	17:05	16:35	16:37
27	07:18	06:40	05:54	06:05	05:33	05:29	05:50	06:21	06:52	06:25	07:02	07:26
	17:10	17:48	18:20	19:53	20:23	20:38	20:24	19:44	18:51	17:04	16:34	16:38
28	07:17	06:39	05:53	06:04	05:33	05:29	05:51	06:22	06:53	06:27	07:03	07:26
	17:11	17:49	18:21	19:54	20:24	20:38	20:23	19:42	18:50	17:03	16:34	16:38
29	07:16		06:51	06:02	05:32	05:30	05:52	06:23	06:54	06:28	07:04	07:26
	17:12		19:22	19:55	20:25	20:38	20:22	19:40	18:48	17:01	16:33	16:39
30	07:15		06:49	06:01	05:31	05:30	05:53	06:24	06:56	06:29	07:05	07:27
	17:14		19:23	19:56	20:26	20:38	20:21	19:39	18:46	17:00	16:33	16:40
31	07:14		06:47		05:31		05:54	06:25		06:30		07:27
	17:15		19:24		20:26		20:20	19:37		16:59		16:40
Potential sun hours	296	297	369	399	449	453	460	429	375	345	297	287
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) 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: 2 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	07:27 16:42	07:13 17:16	06:37 17:51	06:46 19:25	06:00 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:57 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:43	06:32 16:56	07:08 16:32
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 20:00	05:29 20:29	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:34 16:55	07:09 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:01	05:29 20:29	05:32 20:38	05:58 20:16	06:29 19:31	07:00 18:39	06:35 16:54	07:10 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:02	05:29 20:30	05:33 20:38	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:11 16:32
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:03	05:28 20:31	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51	07:12 16:32
7	07:27 16:47	07:07 17:24	06:28 17:58	06:36 19:32	05:52 20:04	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:26	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:33	05:51 20:05	05:28 20:32	05:35 20:37	06:02 20:11	06:33 19:24	07:04 18:33	06:40 16:49	07:13 16:31
9	07:27 16:49	07:05 17:26	06:24 18:00	06:33 19:34	05:50 20:06	05:28 20:33	05:35 20:36	06:03 20:10	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:27 16:50	07:04 17:27	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:30	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:34	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:06	06:37 19:17	07:08 18:26	06:45 16:45	07:17 16:32
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35	05:38 20:35	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:44	07:18 16:32
14	07:26 16:54	06:59 17:32	06:16 18:05	06:25 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:14	07:11 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:34	06:14 18:07	06:23 19:40	05:43 20:12	05:27 20:36	05:40 20:33	06:09 20:01	06:40 19:12	07:12 18:22	06:48 16:42	07:19 16:32
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36	05:41 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:55 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:59	06:42 19:08	07:14 18:18	06:51 16:41	07:21 16:33
18	07:24 16:59	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:37	05:42 20:32	06:12 19:57	06:43 19:07	07:15 18:17	06:52 16:40	07:21 16:33
19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:31	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:46	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:47	05:38 20:18	05:27 20:38	05:45 20:29	06:15 19:53	06:46 19:02	07:18 18:12	06:55 16:38	07:23 16:34
22	07:22 17:04	06:48 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38	05:46 20:29	06:16 19:51	06:47 19:00	07:20 18:11	06:56 16:37	07:24 16:35
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	05:36 20:20	05:28 20:38	05:46 20:28	06:17 19:50	06:48 18:58	07:21 18:09	06:58 16:36	07:24 16:35
24	07:20 17:06	06:45 17:45	05:59 18:16	06:09 19:50	05:35 20:21	05:28 20:38	05:47 20:27	06:18 19:48	06:49 18:56	07:22 18:08	06:59 16:36	07:25 16:36
25	07:19 17:07	06:43 17:46	05:58 18:18	06:08 19:51	05:35 20:21	05:28 20:38	05:48 20:26	06:19 19:47	06:50 18:55	07:23 17:07	07:00 16:35	07:25 16:36
26	07:19 17:09	06:42 17:47	05:56 18:19	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	07:24 17:05	07:01 16:35	07:25 16:37
27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:44	06:52 18:51	07:25 17:04	07:02 16:34	07:26 16:38
28	07:17 17:11	06:39 17:49	05:53 18:21	06:04 19:54	05:33 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:50	07:26 17:03	07:03 16:34	07:26 16:38
29	07:16 17:12		06:51 19:22	06:02 19:55	05:32 20:25	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:27 17:01	07:04 16:33	07:26 16:39
30	07:15 17:14		06:49 19:23	06:01 19:56	05:31 20:26	05:30 20:38	05:53 20:21	06:24 19:39	06:56 18:46	07:28 17:00	07:05 16:33	07:27 16:40
31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:59		07:27 16:40
Potential sun hours	296	297	369	399	449	453	460	429	375	345	297	287
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: 3 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	July	August	September	October	November	December
1	07:27 16:42	07:13 17:16	06:37 17:51	06:46 19:25	06:00 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:57 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:43	06:32 16:56	07:08 16:32
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 20:00	05:29 20:29	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:34 16:55	07:09 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:01	05:29 20:29	05:32 20:38	05:58 20:16	06:29 19:31	07:00 18:39	06:35 16:54	07:10 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:02	05:29 20:30	05:33 20:38	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:11 16:32
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:03	05:28 20:31	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51	07:12 16:32
7	07:27 16:47	07:07 17:24	06:28 17:58	06:36 19:32	05:52 20:04	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:26	07:03 18:34	06:38 16:50	07:12 16:32
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:33	05:51 20:05	05:28 20:32	05:35 20:37	06:02 20:11	06:33 19:24	07:04 18:33	06:40 16:49	07:13 16:31
9	07:27 16:49	07:05 17:26	06:24 18:00	06:33 19:34	05:50 20:06	05:28 20:33	05:35 20:36	06:03 20:10	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:27 16:50	07:04 17:27	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:30	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:34	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:06	06:37 19:17	07:08 18:26	06:45 16:45	07:17 16:32
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35	05:38 20:35	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:44	07:18 16:32
14	07:26 16:54	06:59 17:32	06:16 18:05	06:25 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:14	07:11 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:34	06:14 18:07	06:23 19:40	05:43 20:12	05:27 20:36	05:40 20:33	06:09 20:01	06:40 19:12	07:12 18:22	06:48 16:42	07:19 16:32
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36	05:41 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:55 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:59	06:42 19:08	07:14 18:18	06:51 16:41	07:21 16:33
18	07:24 16:59	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:37	05:42 20:31	06:12 19:57	06:43 19:07	07:15 18:17	06:52 16:40	07:21 16:33
19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:31	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:46	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:47	05:38 20:18	05:27 20:38	05:45 20:29	06:15 19:53	06:46 19:02	07:18 18:12	06:55 16:38	07:23 16:34
22	07:21 17:04	06:48 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38	05:46 20:29	06:16 19:51	06:47 19:00	07:20 18:11	06:56 16:37	07:24 16:35
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	05:36 20:20	05:28 20:38	05:46 20:28	06:17 19:50	06:48 18:58	07:21 18:09	06:58 16:36	07:24 16:35
24	07:20 17:06	06:45 17:45	05:59 18:16	06:09 19:50	05:35 20:21	05:28 20:38	05:47 20:27	06:18 19:48	06:49 18:56	07:22 18:08	06:59 16:36	07:25 16:36
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31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:59		07:27 16:40
Potential sun hours	296	297	369	399	449	453	460	429	375	345	297	287
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: 4 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	07:27 16:42	07:13 17:16	06:37 17:51	06:46 19:25	06:00 19:57	05:30 20:27	19:53-20:02/9 20:38	05:31 20:19	19:57-20:12/15 05:56	06:26 19:35	06:57 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	19:52-20:02/10 20:38	05:31 20:18	19:58-20:12/14 05:57	06:27 19:34	06:58 18:43	06:32 16:56	07:08 16:32
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:29	19:52-20:03/11 20:38	05:32 20:17	19:57-20:12/15 05:58	06:28 19:32	06:59 18:41	06:34 16:55	07:09 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:01	05:29 20:29	19:53-20:04/11 20:38	05:32 20:16	19:58-20:12/14 05:59	06:29 19:31	07:00 18:39	06:35 16:54	07:10 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:02	05:29 20:30	19:52-20:04/12 20:38	05:33 20:14	19:59-20:12/13 05:59	06:30 19:29	07:01 18:38	06:36 16:52	07:11 16:32
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:03	05:28 20:31	19:52-20:05/13 20:37	05:33 20:13	19:58-20:12/14 06:00	06:31 19:27	07:02 18:36	06:37 16:51	07:12 16:32
7	07:27 16:47	07:07 17:24	06:28 17:58	06:36 19:32	05:52 20:04	05:28 20:31	19:53-20:06/13 20:37	05:34 20:12	19:59-20:12/13 06:01	06:32 19:26	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:33	05:51 20:05	05:28 20:32	19:53-20:07/14 20:37	05:35 20:11	20:00-20:11/11 06:02	06:33 19:24	07:04 18:33	06:40 16:49	07:13 16:31
9	07:27 16:49	07:05 17:26	06:24 18:00	06:33 19:34	05:50 20:06	05:28 20:33	19:53-20:08/15 20:36	05:35 20:10	20:00-20:11/11 06:03	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:27 16:50	07:04 17:27	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33	19:53-20:07/14 20:36	05:36 20:08	20:00-20:11/11 06:04	06:35 19:20	07:06 18:30	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:34	19:53-20:08/15 20:35	05:37 20:07	20:00-20:10/10 06:05	06:36 19:19	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	19:53-20:08/15 20:35	05:37 20:06	20:01-20:10/9 06:06	06:37 19:17	07:08 18:26	06:44 16:45	07:17 16:32
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35	19:53-20:09/16 20:34	05:38 20:04	20:01-20:09/8 06:07	06:38 19:15	07:09 18:25	06:46 16:44	07:18 16:32
14	07:26 16:54	06:59 17:32	06:16 18:05	06:25 19:39	05:44 20:11	05:27 20:35	19:54-20:09/15 20:34	05:39 20:03	20:02-20:09/7 06:08	06:39 19:14	07:11 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:34	06:14 18:07	06:23 19:40	05:43 20:12	05:27 20:36	19:54-20:10/16 20:33	05:40 20:01	20:02-20:08/6 06:09	06:40 19:12	07:12 18:22	06:48 16:42	07:19 16:32
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36	19:54-20:10/16 20:33	05:41 20:00	20:03-20:08/5 06:10	06:41 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:55 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	19:54-20:10/16 20:32	05:41 19:59	20:04-20:07/3 06:11	06:42 19:08	07:14 18:18	06:51 16:41	07:21 16:33
18	07:24 16:59	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:37	19:54-20:11/17 20:31	05:42 20:07	20:05-20:07/2 06:12	06:43 19:07	07:15 18:17	06:52 16:40	07:21 16:33
19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37	19:55-20:12/17 20:31	05:43 20:06	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:46	05:38 20:17	05:27 20:37	19:55-20:12/17 20:30	05:44 20:05	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:47	05:38 20:18	05:27 20:38	19:55-20:12/17 20:29	05:45 20:04	06:15 19:53	06:46 19:02	07:18 18:12	06:55 16:38	07:23 16:34
22	07:21 17:04	06:48 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38	19:55-20:12/17 20:28	05:46 20:03	06:16 19:51	06:47 19:00	07:20 18:11	06:56 16:37	07:24 16:35
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	05:36 20:20	05:28 20:38	19:55-20:12/17 20:28	05:46 20:02	06:17 19:50	06:48 18:58	07:21 18:10	06:58 16:36	07:24 16:35
24	07:20 17:06	06:45 17:45	05:59 18:16	06:09 19:50	05:35 20:21	05:28 20:38	19:56-20:13/17 20:27	05:47 20:01	06:18 19:48	06:49 18:56	07:22 18:08	06:59 16:36	07:25 16:36
25	07:19 17:07	06:43 17:46	05:58 18:18	06:08 19:51	05:35 20:21	05:28 20:38	19:56-20:12/16 20:26	05:48 20:00	06:19 19:47	06:50 18:55	06:23 17:07	07:00 16:35	07:25 16:36
26	07:19 17:09	06:42 17:47	05:56 18:19	06:06 19:52	05:34 20:22	05:29 20:38	19:56-20:12/16 20:25	05:49 20:00	06:20 19:45	06:51 18:53	06:24 17:05	07:01 16:35	07:25 16:37
27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	05:33 20:23	05:29 20:38	19:57-20:13/16 20:24	05:50 20:00	06:21 19:43	06:52 18:51	06:25 17:04	07:02 16:34	07:26 16:38
28	07:17 17:11	06:39 17:49	05:53 18:21	06:04 19:54	05:33 20:24	05:29 20:38	19:57-20:13/16 20:23	05:51 20:00	06:22 19:42	06:53 18:50	06:26 17:03	07:03 16:34	07:26 16:38
29	07:16 17:12	06:37 19:22	05:51 19:55	06:02 20:25	05:32 20:25	05:30 20:38	19:53-20:00/7 20:22	05:52 20:00	06:23 19:40	06:54 18:48	06:28 17:01	07:04 16:33	07:26 16:39
30	07:15 17:14	06:35 19:23	05:49 19:56	06:01 20:26	05:31 20:26	05:30 20:38	19:53-20:01/8 20:21	05:53 20:00	06:24 19:39	06:56 18:46	06:29 17:00	07:05 16:33	07:27 16:40
31	07:14 17:15	06:34 19:24	05:48 19:57	06:00 20:27	05:30 20:26	05:29 20:38	19:53-20:01/8 20:20	05:54 20:00	06:25 19:37	06:30 16:59	07:06 16:59	07:07 16:40	07:27 16:40
	Potential sun hours	296	297	369	399	449	453	460	429	375	345	297	287
	Sum of minutes with flicker	0	0	0	0	35	446	182	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: 5 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	07:27 16:42	07:13 17:16	06:37 17:51	06:46 19:25	06:00 19:57	05:30 19:15-19:41/26 20:27 06:42-07:23/41
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 19:15-19:40/25 20:28 06:42-07:25/43
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 19:16-19:40/24 20:29 06:41-07:25/44
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	18:53-19:00/7 05:56 20:01	05:29 19:17-19:40/23 20:29 06:40-07:26/46
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	18:50-19:04/14 05:54 20:02	05:29 19:17-19:39/22 20:30 06:40-07:27/47
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	18:48-19:05/17 05:53 20:03	19:22-19:32/10 05:28 19:18-19:39/21 20:31 06:39-07:27/48
7	07:27 16:47	07:07 17:24	06:28 17:57	06:36 19:32	18:46-19:06/20 05:52 20:04	19:19-19:35/16 05:28 19:19-19:39/20 20:31 06:39-07:28/49
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:33	18:45-19:07/22 05:51 20:05	19:18-19:37/19 05:28 19:20-19:39/19 20:32 06:39-07:29/50
9	07:27 16:49	07:05 17:26	06:24 18:00	06:33 19:34	18:44-19:07/23 05:50 20:06	19:15-19:37/22 05:28 19:21-19:39/18 20:33 06:39-07:30/51
10	07:27 16:50	07:04 17:27	06:23 18:01	06:31 19:35	18:43-19:07/24 05:48 20:07	19:14-19:38/24 05:27 19:21-19:37/16 20:33 06:38-07:30/52
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	18:43-19:07/24 05:47 20:08	19:14-19:39/25 05:27 19:22-19:37/15 20:34 06:38-07:30/52
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	18:43-19:07/24 05:46 20:09	19:13-19:40/27 05:27 19:22-19:37/15 20:34 06:38-07:31/53
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	18:43-19:07/24 05:45 20:10	19:12-19:40/28 05:27 19:23-19:37/14 20:35 06:38-07:31/53
14	07:26 16:54	06:59 17:32	06:16 18:05	06:25 19:39	19:07-19:12/5 05:44 20:11	19:12-19:41/29 05:27 19:24-19:37/13 20:35 06:38-07:32/54
15	07:25 16:55	06:57 17:34	06:14 18:07	06:23 19:40	18:44-19:16/32 05:43 20:12	19:11-19:41/30 05:27 19:25-19:36/11 20:36 06:38-07:32/54
16	07:25 16:57	06:56 17:35	06:13 18:08	17:29-17:38/9 06:21 19:41	18:44-19:17/33 05:42 20:13	19:11-19:41/30 05:27 19:25-19:36/11 20:36 06:38-07:32/54
17	07:24 16:58	06:55 17:36	06:11 18:09	17:27-17:41/14 06:20 19:42	18:45-19:18/33 05:41 20:14	19:12-19:42/30 05:27 19:26-19:36/10 20:36 06:38-07:33/55
18	07:24 16:59	06:53 17:37	06:09 18:10	17:25-17:42/17 06:18 19:43	18:47-19:19/32 05:40 20:15	19:11-19:42/31 05:27 19:26-19:36/10 20:37 06:38-07:33/55
19	07:23 17:00	06:52 17:39	06:08 18:11	17:23-17:43/20 06:17 19:44	18:58-19:19/21 05:39 20:16	19:11-19:42/31 05:27 19:27-19:36/9 20:37 06:39-07:34/55
20	07:23 17:01	06:50 17:40	06:06 18:12	17:23-17:44/21 06:15 19:46	18:57-19:19/22 05:38 20:17	19:11-19:42/31 05:27 19:28-19:36/8 20:37 06:39-07:34/55
21	07:22 17:02	06:49 17:41	06:04 18:13	17:22-17:44/22 06:14 19:47	18:58-19:20/22 05:38 20:18	19:11-19:42/31 05:27 19:28-19:36/8 20:38 06:39-07:34/55
22	07:21 17:04	06:48 17:42	06:03 18:14	17:21-17:43/22 06:12 19:48	18:57-19:19/22 05:37 20:19	19:12-19:43/31 05:28 19:28-19:36/8 20:38 06:39-07:34/55
23	07:21 17:05	06:46 17:43	06:01 18:15	17:20-17:43/23 06:11 19:49	18:57-19:19/22 05:36 20:20	19:12-19:42/30 05:28 19:27-19:36/9 20:38 06:39-07:34/55
24	07:20 17:06	06:45 17:45	05:59 18:16	17:21-17:43/22 06:09 19:50	18:57-19:18/21 05:35 20:21	19:12-19:42/30 05:28 19:28-19:38/10 20:38 06:40-07:35/55
25	07:19 17:07	06:43 17:46	05:58 18:17	17:21-17:42/21 06:08 19:51	18:57-19:18/21 05:35 20:21	19:13-19:42/29 05:28 19:28-19:38/10 20:38 06:40-07:35/55
26	07:19 17:09	06:42 17:47	05:56 18:19	17:21-17:41/20 06:06 19:52	18:57-19:16/19 05:34 20:22	19:13-19:42/29 05:29 19:27-19:38/11 20:38 06:40-07:35/55
27	07:18 17:10	06:40 17:48	05:54 18:20	17:22-17:40/18 06:05 19:53	18:58-19:16/18 05:33 20:23	19:13-19:41/28 05:29 19:28-19:39/11 20:38 06:41-07:35/54
28	07:17 17:11	06:39 17:49	05:52 18:21	17:23-17:38/15 06:04 19:54	19:00-19:15/15 05:33 20:24	19:14-19:42/28 05:29 19:27-19:39/12 20:38 06:41-07:35/54
29	07:16 17:12		06:51 19:22	18:25-18:35/10 06:02 19:55	19:01-19:12/11 05:32 20:25	19:14-19:41/27 05:30 19:27-19:41/14 20:38 06:42-07:35/53
30	07:15 17:14		06:49 19:23		19:04-19:09/5 06:01 19:56	19:14-19:41/27 05:30 19:27-19:41/14 20:38 06:42-07:35/53
31	07:14 17:15		06:47 19:24			19:14-19:41/27 05:31 19:27-19:41/14 20:26 06:43-07:22/39
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	0	0	254	581	919	1992

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: 5 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	05:31 19:26-19:41/15 20:38 06:43-07:35/52	05:55 19:24-19:50/26 20:19	06:26 18:42-19:06/24 19:35	06:57 18:44 16:57	06:31 16:57 16:33	07:06 16:33
2	05:31 19:26-19:42/16 20:38 06:43-07:35/52	05:56 19:24-19:49/25 20:18	06:27 18:42-19:06/24 19:34	06:58 18:43 16:56	06:32 16:56 16:32	07:07 16:32
3	05:32 19:25-19:43/18 20:38 06:44-07:35/51	05:57 19:25-19:48/23 20:17	06:28 18:42-19:05/23 19:32	06:59 18:41 16:55	06:34 16:55 16:32	07:09 16:32
4	05:32 19:25-19:44/19 20:38 06:44-07:34/50	05:58 19:26-19:47/21 20:16	06:29 18:42-19:04/22 19:31	07:00 18:39 16:54	06:35 16:54 16:32	07:10 16:32
5	05:33 19:26-19:45/19 20:38 06:45-07:35/50	05:59 19:28-19:46/18 20:14	06:30 18:43-19:03/20 19:29	07:01 18:38 16:52	06:36 16:52 16:32	07:11 16:32
6	05:33 19:25-19:45/20 20:37 06:45-07:34/49	06:00 19:30-19:44/14 20:13	06:31 18:44-19:01/17 19:27	07:02 18:36 16:51	06:37 16:51 16:32	07:11 16:32
7	05:34 19:25-19:46/21 20:37 06:46-07:34/48	06:01 19:33-19:41/8 20:12	06:32 18:45-18:59/14 19:25	07:03 18:34 16:50	06:38 16:50 16:31	07:12 16:31
8	05:35 19:24-19:46/22 20:37 06:46-07:33/47	06:02 20:11 06:03	06:33 18:47-18:56/9 19:24	07:04 18:33 16:49	06:40 16:49 16:31	07:13 16:31
9	05:35 19:24-19:47/23 20:36 06:48-07:32/44	06:03 20:09 06:04	06:34 19:22 06:35	07:05 18:31 16:48	06:41 16:48 16:31	07:14 16:31
10	05:36 19:24-19:48/24 20:36 06:49-07:32/43	06:04 20:08 06:05	06:35 19:20 06:36	07:06 18:30 16:47	06:42 16:47 16:31	07:15 16:31
11	05:37 19:23-19:48/25 20:35 06:50-07:32/42	06:05 20:07 06:06	06:36 19:19 06:37	07:07 18:28 16:46	06:43 16:46 16:31	07:16 16:31
12	05:37 19:23-19:49/26 20:35 06:51-07:30/39	06:06 20:06 06:07	06:37 19:17 06:38	07:08 18:26 16:45	06:44 16:45 16:32	07:17 16:32
13	05:38 19:23-19:49/26 20:34 06:52-07:30/38	06:07 19:12-19:19/7 20:04	06:38 19:15 06:39	07:09 18:25 16:44	06:46 16:44 16:32	07:18 16:32
14	05:39 19:23-19:50/27 20:34 06:54-07:29/35	06:08 19:09-19:21/12 20:03	06:39 18:17-18:25/8 19:14	07:10 18:23 16:43	06:47 16:43 16:32	07:18 16:32
15	05:40 19:22-19:50/28 20:33 06:54-07:27/33	06:09 19:07-19:23/16 20:01	06:40 18:13-18:27/14 19:12	07:12 18:22 16:42	06:48 16:42 16:32	07:19 16:32
16	05:41 19:22-19:51/29 20:33 06:56-07:26/30	06:10 19:05-19:23/18 20:00	06:41 18:11-18:28/17 19:10	07:13 18:20 16:41	06:49 16:41 16:32	07:20 16:32
17	05:41 19:22-19:51/29 20:32 06:59-07:24/25	06:11 19:04-19:23/19 19:59	06:42 18:09-18:29/20 19:08	07:14 18:18 16:41	06:50 16:41 16:33	07:21 16:33
18	05:42 19:22-19:52/30 20:31 07:01-07:22/21	06:12 19:03-19:24/21 19:57	06:43 18:08-18:29/21 19:07	07:15 18:17 16:40	06:52 16:40 16:33	07:21 16:33
19	05:43 19:22-19:52/30 20:31 07:05-07:19/14	06:13 19:02-19:24/22 19:56	06:44 18:07-18:29/22 19:05	07:16 18:15 16:39	06:53 16:39 16:33	07:22 16:33
20	05:44 19:21-19:52/31 20:30	06:14 19:02-19:24/22 19:54	06:45 18:07-18:29/22 19:03	07:17 18:14 16:38	06:54 16:38 16:34	07:22 16:34
21	05:45 19:21-19:52/31 20:29	06:15 19:02-19:24/22 19:53	06:46 18:06-18:29/23 19:02	07:18 18:12 16:38	06:55 16:38 16:34	07:23 16:34
22	05:46 19:21-19:52/31 20:28	06:16 19:01-19:24/23 19:51	06:47 18:06-18:28/22 19:00	07:19 18:11 16:37	06:56 16:37 16:35	07:24 16:35
23	05:46 19:22-19:52/30 20:28	06:17 19:01-19:23/22 19:50	06:48 18:06-18:27/21 18:58	07:21 18:09 16:36	06:58 16:36 16:35	07:24 16:35
24	05:47 19:22-19:53/31 20:27	06:18 19:02-19:23/21 19:48	06:49 18:06-18:26/20 18:56	07:22 18:08 16:36	06:59 16:36 16:36	07:24 16:36
25	05:48 19:22-19:53/31 20:26	06:19 18:50-19:22/32 19:47	06:50 18:07-18:25/18 18:55	06:23 17:07 16:35	07:00 16:35 16:36	07:25 16:36
26	05:49 19:22-19:53/31 20:25	06:20 18:48-19:20/32 19:45	06:51 18:08-18:23/15 18:53	06:24 17:05 16:35	07:01 16:35 16:37	07:25 16:37
27	05:50 19:21-19:52/31 20:24	06:21 18:46-19:19/33 19:43	06:52 18:09-18:21/12 18:51	06:25 17:04 16:34	07:02 16:34 16:38	07:26 16:38
28	05:51 19:22-19:52/30 20:23	06:22 18:45-19:17/32 19:42	06:53 18:15-18:17/2 18:50	06:26 17:03 16:34	07:03 16:34 16:38	07:26 16:38
29	05:52 19:22-19:51/29 20:22	06:23 19:09-19:13/4 19:40	06:54 18:44-19:07/23 18:48	06:28 17:01 16:33	07:04 16:33 16:39	07:26 16:39
30	05:53 19:23-19:51/28 20:21	06:24 18:43-19:07/24 19:39	06:56 18:43-19:07/24 18:46	06:29 17:00 16:33	07:05 16:33 16:40	07:27 16:40
31	05:54 19:23-19:51/28 20:20	06:25 18:43-19:07/24 19:37		06:30 16:59 16:30	07:07 16:59 16:40	07:27 16:40
Potential sun hours	460	429	375	345	297	287
Sum of minutes with flicker	1572	570	410	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: 6 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	07:27 16:41	07:13 17:16	06:37 16:23-16:52/29 17:50	06:46 16:58-18:04/66 19:25	05:59 19:57	05:30 18:26-19:36/70 20:27
2	07:27 16:42	07:12 17:17	06:35 16:19-16:55/36 17:52	06:44 16:59-18:04/65 19:26	05:58 19:58	05:30 18:25-19:36/71 20:28
3	07:27 16:43	07:11 17:19	06:34 16:17-16:58/41 17:53	06:42 16:59-18:02/63 19:27	05:57 19:59	05:29 18:25-19:37/72 20:29
4	07:27 16:44	07:10 17:20	06:32 16:14-16:59/45 17:54	06:41 17:00-18:01/61 19:28	05:56 18:59-19:06/7 20:00	05:29 18:25-19:38/73 20:29
5	07:27 16:45	07:09 17:21	06:31 16:13-17:02/49 17:55	06:39 17:01-18:00/59 19:29	05:54 18:53-19:12/19 20:02	05:29 18:24-19:38/74 20:30
6	07:27 16:46	07:08 17:22	06:29 16:10-17:03/53 17:56	06:37 17:02-17:59/57 19:30	05:53 18:50-19:16/26 20:03	05:28 18:25-19:38/73 20:31
7	07:27 16:47	07:07 17:24	06:27 16:08-17:04/56 17:57	06:36 17:03-17:57/54 19:31	05:52 18:48-19:18/30 20:04	05:28 18:25-19:39/74 20:31
8	07:27 16:48	07:06 17:25	06:26 16:07-17:06/59 17:59	06:34 17:04-17:56/52 19:33	05:51 18:46-19:20/34 20:05	05:28 18:25-19:40/75 20:32
9	07:27 16:49	07:05 17:26	06:24 16:05-17:06/61 18:00	06:32 17:05-17:54/49 19:34	05:50 18:43-19:21/38 20:06	05:28 18:25-19:40/75 20:33
10	07:27 16:50	07:03 17:27	06:23 16:04-17:07/63 18:01	06:31 17:06-17:52/46 19:35	05:48 18:42-19:23/41 20:07	05:27 18:24-19:40/76 20:33
11	07:26 16:51	07:02 17:29	06:21 16:03-17:08/65 18:02	06:29 17:09-17:50/41 19:36	05:47 18:40-19:24/44 20:08	05:27 18:24-19:40/76 20:34
12	07:26 16:52	07:01 17:30	06:19 16:02-17:08/66 18:03	06:28 17:10-17:48/38 19:37	05:46 18:39-19:25/46 20:09	05:27 18:25-19:41/76 20:34
13	07:26 16:53	07:00 17:31	06:18 16:01-17:09/68 18:04	06:26 17:13-17:46/33 19:38	05:45 18:38-19:26/48 20:10	05:27 18:25-19:41/76 20:35
14	07:25 16:54	06:58 17:32	06:16 16:00-17:10/70 18:05	06:24 17:15-17:42/27 19:39	05:44 18:37-19:27/50 20:11	05:27 18:25-19:42/77 20:35
15	07:25 16:55	06:57 17:34	06:14 15:59-17:10/71 18:06	06:23 17:20-17:39/19 19:40	05:43 18:36-19:28/52 20:12	05:27 18:25-19:42/77 20:36
16	07:25 16:57	06:56 17:35	06:13 15:58-17:10/72 18:08	06:21 17:27-17:31/4 19:41	05:42 18:36-19:28/52 20:13	05:27 18:25-19:42/77 20:36
17	07:24 16:58	06:54 17:36	06:11 15:58-17:10/72 18:09	06:20 19:42	05:41 18:36-19:30/54 20:14	05:27 18:25-19:42/77 20:36
18	07:24 16:59	06:53 17:37	06:09 15:58-17:10/72 18:10	06:18 19:43	05:40 18:35-19:31/56 20:15	05:27 18:25-19:42/77 20:37
19	07:23 17:00	06:52 17:39	06:08 15:57-17:10/73 18:11	06:17 19:44	05:39 18:34-19:31/57 20:16	05:27 18:26-19:44/78 20:37
20	07:23 17:01	06:50 17:40	06:06 15:57-17:11/74 18:12	06:15 19:45	05:38 18:32-19:31/59 20:17	05:27 18:26-19:44/78 20:37
21	07:22 17:02	06:49 17:41	06:04 15:57-17:10/73 18:13	06:14 19:47	05:38 18:31-19:32/61 20:18	05:27 18:26-19:44/78 20:37
22	07:21 17:04	06:47 17:42	06:03 15:56-17:10/74 18:14	06:12 19:48	05:37 18:31-19:33/62 20:19	05:28 18:26-19:44/78 20:38
23	07:21 17:05	06:46 17:43	06:01 15:56-17:09/73 18:15	06:11 19:49	05:36 18:30-19:33/63 20:20	05:28 18:26-19:44/78 20:38
24	07:20 17:06	06:45 17:45	05:59 15:56-17:09/73 18:16	06:09 19:50	05:35 18:29-19:33/64 20:20	05:28 18:27-19:45/78 20:38
25	07:19 17:07	06:43 17:46	05:58 15:56-17:09/73 18:17	06:08 19:51	05:34 18:29-19:34/65 20:21	05:28 18:27-19:44/77 20:38
26	07:19 17:08	06:42 17:47	05:56 15:56-17:08/72 18:19	06:06 19:52	05:34 18:28-19:34/66 20:22	05:29 18:27-19:44/77 20:38
27	07:18 17:10	06:40 17:48	05:54 15:57-17:08/71 18:20	06:05 19:53	05:33 18:27-19:34/67 20:23	05:29 18:28-19:45/77 20:38
28	07:17 17:11	06:38 16:28-16:48/20 17:49	05:52 15:56-17:07/71 18:21	06:04 19:54	05:32 18:27-19:35/68 20:24	05:29 18:28-19:45/77 20:38
29	07:16 17:12		06:51 16:56-18:06/70 19:22	06:02 19:55	05:32 18:26-19:35/69 20:25	05:30 18:29-19:45/76 20:38
30	07:15 17:13		06:49 16:57-18:06/69 19:23	06:01 19:56	05:31 18:26-19:36/70 20:26	05:30 18:29-19:45/76 20:38
31	07:14 17:15		06:47 16:58-18:05/67 19:24		05:31 18:25-19:36/71 20:26	
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	0	20	1981	734	1439	2274

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: 6 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	05:31 18:29-19:45/76 20:38	05:55 18:50-19:35/45 20:19	06:26 17:08-17:49/41 19:35	06:56 16:41-17:48/67 18:44	06:31 16:57	07:06 16:33
2	05:31 18:29-19:45/76 20:38	05:56 18:52-19:34/42 20:18	06:27 17:05-17:51/46 19:34	06:58 16:42-17:47/65 18:43	06:32 16:56	07:07 16:32
3	05:32 18:29-19:45/76 20:38	05:57 18:53-19:33/40 20:17	06:28 17:03-17:52/49 19:32	06:59 16:42-17:46/64 18:41	06:34 16:55	07:08 16:32
4	05:32 18:30-19:45/75 20:38	05:58 18:54-19:31/37 20:16	06:29 17:01-17:53/52 19:30	07:00 16:43-17:44/61 18:39	06:35 16:54	07:09 16:32
5	05:33 18:31-19:45/74 20:37	05:59 18:56-19:29/33 20:14	06:30 17:00-17:54/54 19:29	07:01 16:43-17:43/60 18:38	06:36 16:52	07:10 16:32
6	05:33 18:31-19:45/74 20:37	06:00 18:58-19:27/29 20:13	06:31 16:58-17:55/57 19:27	07:02 16:44-17:41/57 18:36	06:37 16:51	07:11 16:31
7	05:34 18:31-19:45/74 20:37	06:01 19:01-19:24/23 20:12	06:32 16:56-17:55/59 19:25	07:03 16:45-17:39/54 18:34	06:38 16:50	07:12 16:31
8	05:35 18:31-19:44/73 20:37	06:02 19:05-19:21/16 20:11	06:33 16:55-17:56/61 19:24	07:04 16:46-17:37/51 18:33	06:40 16:49	07:13 16:31
9	05:35 18:32-19:44/72 20:36	06:03 18:34-19:44/72 20:09	06:34 16:54-17:56/62 19:22	07:05 16:48-17:35/47 18:31	06:41 16:48	07:14 16:31
10	05:36 18:33-19:45/72 20:36	06:04 18:33-19:45/72 20:08	06:35 16:52-17:57/65 19:20	07:06 16:49-17:33/44 18:29	06:42 16:47	07:15 16:31
11	05:37 18:33-19:44/71 20:35	06:05 18:33-19:44/71 20:07	06:36 16:51-17:57/66 19:19	07:07 16:51-17:30/39 18:28	06:43 16:46	07:16 16:31
12	05:37 18:34-19:44/70 20:35	06:06 18:34-19:44/70 20:05	06:37 16:50-17:57/67 19:17	07:08 16:55-17:28/33 18:26	06:44 16:45	07:17 16:31
13	05:38 18:34-19:44/70 20:34	06:07 18:34-19:44/70 20:04	06:38 16:49-17:57/68 19:15	07:09 16:58-17:24/26 18:25	06:46 16:44	07:18 16:32
14	05:39 18:35-19:44/69 20:34	06:08 18:35-19:44/69 20:03	06:39 16:48-17:57/69 19:14	07:10 17:03-17:18/15 18:23	06:47 16:43	07:18 16:32
15	05:40 18:35-19:44/69 20:33	06:09 18:35-19:44/69 20:01	06:40 16:46-17:56/70 19:12	07:12 16:51-17:30/39 18:21	06:48 16:42	07:19 16:32
16	05:40 18:36-19:44/68 20:33	06:10 18:36-19:44/68 20:00	06:41 16:45-17:56/71 19:10	07:13 16:51-17:30/39 18:20	06:49 16:41	07:20 16:32
17	05:41 18:37-19:44/67 20:32	06:11 18:37-19:44/67 19:59	06:42 16:44-17:56/72 19:08	07:14 16:51-17:30/39 18:18	06:50 16:40	07:21 16:33
18	05:42 18:38-19:44/66 20:31	06:12 18:38-19:44/66 19:57	06:43 16:43-17:56/73 19:07	07:15 16:51-17:30/39 18:17	06:52 16:40	07:21 16:33
19	05:43 18:39-19:44/65 20:31	06:13 18:39-19:44/65 19:56	06:44 16:43-17:56/73 19:05	07:16 16:51-17:30/39 18:15	06:53 16:39	07:22 16:33
20	05:44 18:39-19:43/64 20:30	06:14 18:39-19:43/64 19:54	06:45 16:42-17:55/73 19:03	07:17 16:51-17:30/39 18:14	06:54 16:38	07:22 16:34
21	05:45 18:40-19:43/63 20:29	06:15 18:40-19:43/63 19:53	06:46 16:41-17:55/74 19:01	07:18 16:51-17:30/39 18:12	06:55 16:38	07:23 16:34
22	05:46 18:41-19:42/61 20:28	06:16 18:41-19:42/61 19:51	06:47 16:41-17:55/74 19:00	07:19 16:51-17:30/39 18:11	06:56 16:37	07:23 16:35
23	05:46 18:42-19:42/60 20:28	06:17 18:42-19:42/60 19:50	06:48 16:41-17:54/73 18:58	07:21 16:51-17:30/39 18:09	06:57 16:36	07:24 16:35
24	05:47 18:43-19:42/59 20:27	06:18 18:43-19:42/59 19:48	06:49 16:40-17:53/73 18:56	07:22 16:51-17:30/39 18:08	06:59 16:36	07:24 16:36
25	05:48 18:45-19:41/56 20:26	06:19 18:45-19:41/56 19:47	06:50 16:40-17:53/73 18:55	07:23 16:51-17:30/39 17:07	07:00 16:35	07:25 16:36
26	05:49 18:46-19:41/55 20:25	06:20 18:46-19:41/55 19:45	06:51 16:40-17:52/72 18:53	07:24 16:51-17:30/39 17:05	07:01 16:35	07:25 16:37
27	05:50 18:46-19:39/53 20:24	06:21 17:27-17:34/7 19:43	06:52 16:40-17:51/71 18:51	07:25 16:51-17:30/39 17:04	07:02 16:34	07:26 16:38
28	05:51 18:46-19:39/53 20:23	06:22 17:20-17:40/20 19:42	06:53 16:41-17:51/70 18:49	07:26 16:51-17:30/39 17:02	07:03 16:34	07:26 16:38
29	05:52 18:47-19:38/51 20:22	06:23 17:16-17:44/28 19:40	06:54 16:41-17:50/69 18:48	07:28 16:51-17:30/39 17:01	07:04 16:33	07:26 16:39
30	05:53 18:48-19:37/49 20:21	06:24 17:13-17:46/33 19:39	06:55 16:41-17:49/68 18:46	07:29 16:51-17:30/39 17:00	07:05 16:33	07:26 16:40
31	05:54 18:49-19:36/47 20:20	06:25 17:10-17:48/38 19:37		06:30 16:59		07:27 16:40
Potential sun hours	460	429	375	345	297	287
Sum of minutes with flicker	2028	391	1965	683	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: 7 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	07:27 16:42	07:13 17:16	06:37 16:52-17:13/21 17:51 07:54-08:40/46	06:46 18:29-18:54/25 19:25 08:43-09:26/43	06:00 19:57	05:30 19:21-19:46/25 20:27
2	07:27 16:42	07:12 17:17	06:35 16:52-17:11/19 17:52 07:53-08:42/49	06:44 18:32-18:55/23 19:26 08:45-09:24/39	05:58 19:58	05:30 19:21-19:46/25 20:28
3	07:27 16:43	07:11 17:19	06:34 16:54-17:11/17 17:53 07:51-08:43/52	06:42 18:39-18:56/17 19:27 08:46-09:22/36	05:57 19:59	05:29 19:22-19:46/24 20:29
4	07:27 16:44	07:10 17:20	06:32 16:55-17:09/14 17:54 07:49-08:44/55	06:41 18:37-18:56/19 19:28 08:47-09:18/31	05:56 20:01	05:29 19:22-19:46/24 20:29
5	07:27 16:45	07:09 17:21	06:31 16:58-17:07/9 17:55 07:48-08:45/57	06:39 18:35-18:57/22 19:29 08:50-09:16/26	05:54 20:02	05:29 19:22-19:46/24 20:30
6	07:27 16:46	07:08 17:22	06:29 07:46-08:45/59 17:56	06:37 18:33-18:57/24 19:30 08:54-09:11/17	05:53 20:03	05:28 19:23-19:46/23 20:31
7	07:27 16:47	07:07 17:24	06:28 07:45-08:45/60 17:57	06:36 18:30-18:56/26 19:32	05:52 20:04	05:28 19:23-19:46/23 20:31
8	07:27 16:48	07:06 17:25	06:26 07:45-08:46/61 17:59	06:34 18:29-18:57/28 19:33	05:51 20:05	05:28 19:24-19:46/22 20:32
9	07:27 16:49	07:05 17:26	06:24 07:43-08:46/63 18:00	06:33 18:27-18:56/29 19:34	05:50 20:06	05:28 19:24-19:47/23 20:33
10	07:27 16:50	07:04 17:27	06:23 17:22-17:31/9 18:01 07:43-08:47/64	06:31 18:25-18:55/30 19:35	05:48 20:07	05:27 19:24-19:46/22 20:33
11	07:26 16:51	07:02 17:29	06:21 17:20-17:34/14 18:02 07:42-08:47/65	06:29 18:26-18:55/29 19:36	05:47 20:08	05:27 19:24-19:46/22 20:34
12	07:26 16:52	07:01 17:30	06:19 17:18-17:35/17 18:03 07:41-08:47/66	06:28 18:26-18:54/28 19:37	05:46 20:09	05:27 19:25-19:46/21 20:34
13	07:26 16:53	07:00 17:31	06:18 17:16-17:35/19 18:04 07:41-08:47/66	06:26 18:27-18:54/27 19:38	05:45 20:10	05:27 19:25-19:46/21 20:35
14	07:26 16:54	06:58 17:32	06:16 17:16-17:38/22 18:05 07:40-08:47/67	06:25 18:27-18:52/25 19:39	05:44 20:11	05:27 19:26-19:46/20 20:35
15	07:25 16:55	06:57 17:34	06:14 17:14-17:39/25 18:07 07:39-08:46/67	06:23 18:28-18:51/23 19:40	05:43 19:27-19:36/9 20:12	05:27 19:26-19:46/20 20:36
16	07:25 16:57	06:56 17:35	06:13 17:14-17:39/25 18:08 07:39-08:45/66	06:21 18:29-18:49/20 19:41	05:42 19:25-19:38/13 20:13	05:27 19:26-19:46/20 20:36
17	07:24 16:58	06:55 17:36	06:11 17:14-17:40/26 18:09 07:39-08:46/67	06:20 18:31-18:48/17 19:42	05:41 19:25-19:41/16 20:14	05:27 19:27-19:46/19 20:36
18	07:24 16:59	06:53 17:37	06:09 17:14-17:40/26 18:10 07:39-08:45/66	06:18 18:33-18:44/11 19:43	05:40 19:24-19:41/17 20:15	05:27 19:27-19:46/19 20:37
19	07:23 17:00	06:52 17:39	06:08 17:14-17:39/25 18:11 07:38-08:44/66	06:17 19:44 19:44	05:39 19:23-19:42/19 20:16	05:27 19:28-19:47/19 20:37
20	07:23 17:01	06:50 17:00-17:08/8 17:40	06:06 17:15-17:43/28 18:12 07:39-08:44/65	06:15 19:46 19:46	05:38 19:22-19:43/21 20:17	05:27 19:28-19:47/19 20:37
21	07:22 17:02	06:49 16:57-17:10/13 17:41	06:04 17:15-17:47/32 18:13 07:38-08:42/64	06:14 19:47 19:47	05:38 19:21-19:43/22 20:18	05:27 19:28-19:47/19 20:38
22	07:21 17:04	06:47 16:55-17:12/17 17:42	06:03 17:16-17:48/32 18:14 07:38-08:41/63	06:12 19:48 19:48	05:37 19:21-19:44/23 20:19	05:28 19:28-19:47/19 20:38
23	07:21 17:05	06:46 16:54-17:12/18 17:43 08:15-08:20/5	06:01 17:18-17:49/31 18:15 07:39-08:41/62	06:11 19:49 19:49	05:36 19:21-19:44/23 20:20	05:28 19:28-19:47/19 20:38
24	07:20 17:06	06:45 16:53-17:13/20 17:45 08:08-08:29/21	05:59 17:21-17:50/29 18:16 07:38-08:39/61	06:09 19:50 19:50	05:35 19:20-19:44/24 20:20	05:28 19:29-19:48/19 20:38
25	07:19 17:07	06:43 16:52-17:13/21 17:46 08:03-08:32/29	05:58 17:24-17:50/26 18:17 07:38-08:38/60	06:08 19:51 19:51	05:35 19:21-19:45/24 20:21	05:28 19:29-19:48/19 20:38
26	07:19 17:09	06:42 16:53-17:14/21 17:47 08:01-08:35/34	05:56 17:28-17:49/21 18:19 07:38-08:36/58	06:06 19:52 19:52	05:34 19:21-19:45/24 20:22	05:29 19:28-19:48/20 20:38
27	07:18 17:10	06:40 16:52-17:13/21 17:48 07:58-08:37/39	05:54 17:28-17:50/22 18:20 07:40-08:36/56	06:05 19:53 19:53	05:33 19:20-19:45/25 20:23	05:29 19:29-19:49/20 20:38
28	07:17 17:11	06:39 16:53-17:14/21 17:49 07:56-08:39/43	05:53 17:27-17:49/22 18:21 07:40-08:34/54	06:04 19:54 19:54	05:33 19:21-19:46/25 20:24	05:29 19:29-19:49/20 20:38
29	07:16 17:12		06:51 18:27-18:48/21 19:22 08:40-09:32/52	06:02 19:55 19:55	05:32 19:20-19:45/25 20:25	05:30 19:30-19:50/20 20:38
30	07:15 17:14		06:49 18:28-18:50/22 19:23 08:42-09:31/49	06:01 19:56 19:56	05:31 19:21-19:46/25 20:26	05:30 19:29-19:50/21 20:38
31	07:14 17:15		06:47 18:28-18:52/24 19:24 08:42-09:28/46		05:31 19:21-19:46/25 20:26	
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	0	331	2450	615	360	631

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: 7 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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	05:31 19:29-19:50/21 20:38	05:55 20:19	06:26 18:25-18:54/29 19:35	06:57 17:57-18:15/18 18:44 08:20-09:26/66	06:31 16:57	07:06 16:33
2	05:31 19:29-19:51/22 20:38	05:56 20:18	06:27 18:24-18:54/30 19:34	06:58 17:58-18:13/15 18:43 08:20-09:26/66	06:32 16:56	07:07 16:32
3	05:32 19:29-19:51/22 20:38	05:57 20:17	06:28 18:25-18:54/29 19:32	06:59 17:59-18:11/12 18:41 08:21-09:25/64	06:34 16:55	07:09 16:32
4	05:32 19:29-19:51/22 20:38	05:58 20:16	06:29 18:26-18:54/28 19:31	07:00 18:04-18:05/1 18:39 08:21-09:24/63	06:35 16:54	07:10 16:32
5	05:33 19:30-19:52/22 20:37	05:59 20:14	06:30 18:27-18:53/26 19:29	07:01 08:21-09:23/62 18:38	06:36 16:52	07:11 16:32
6	05:33 19:29-19:52/23 20:37	06:00 20:13	06:31 18:29-18:53/24 19:27 08:50-09:07/17	07:02 08:21-09:22/61 18:36	06:37 16:51	07:11 16:32
7	05:34 19:29-19:53/24 20:37	06:01 20:12	06:32 18:30-18:52/22 19:25 08:46-09:10/24	07:03 08:22-09:21/59 18:34	06:38 16:50	07:12 16:31
8	05:35 19:29-19:53/24 20:37	06:02 20:11	06:33 18:32-18:51/19 19:24 08:43-09:13/30	07:04 17:35-17:39/4 18:33 08:22-09:20/58	06:40 16:49	07:13 16:31
9	05:35 19:29-19:53/24 20:36	06:03 20:09	06:34 18:33-18:50/17 19:22 08:40-09:15/35	07:05 17:31-17:42/11 18:31 08:23-09:19/56	06:41 16:48	07:14 16:31
10	05:36 19:29-19:54/25 20:36	06:04 20:08	06:35 18:25-18:49/24 19:20 08:38-09:17/39	07:06 17:28-17:44/16 18:30 08:24-09:17/53	06:42 16:47	07:15 16:31
11	05:37 19:29-19:53/24 20:35	06:05 20:07	06:36 18:23-18:47/24 19:19 08:36-09:19/43	07:07 17:27-17:45/18 18:28 08:26-09:17/51	06:43 16:46	07:16 16:31
12	05:37 19:29-19:54/25 20:35	06:06 20:06	06:37 18:21-18:45/24 19:17 08:34-09:20/46	07:08 17:27-17:46/19 18:26 08:27-09:15/48	06:44 16:45	07:17 16:32
13	05:38 19:29-19:54/25 20:34	06:07 20:04	06:38 18:19-18:42/23 19:15 08:33-09:22/49	07:09 17:26-17:46/20 18:25 08:28-09:13/45	06:46 16:44	07:18 16:32
14	05:39 19:30-19:55/25 20:34	06:08 20:03	06:39 18:18-18:39/21 19:14 08:31-09:23/52	07:10 17:25-17:46/21 18:23 08:29-09:11/42	06:47 16:43	07:18 16:32
15	05:40 19:29-19:54/25 20:33	06:09 20:01	06:40 18:17-18:38/21 19:12 08:30-09:24/54	07:12 17:24-17:46/22 18:22 08:31-09:08/37	06:48 16:42	07:19 16:32
16	05:41 19:29-19:54/25 20:33	06:10 20:00	06:41 18:16-18:38/22 19:10 08:29-09:25/56	07:13 17:24-17:45/21 18:20 08:33-09:06/33	06:49 16:41	07:20 16:32
17	05:41 19:30-19:55/25 20:32	06:11 19:59	06:42 18:16-18:38/22 19:08 08:28-09:25/57	07:14 17:24-17:45/21 18:18 08:36-09:02/26	06:50 16:41	07:21 16:33
18	05:42 19:30-19:55/25 20:31	06:12 19:57	06:43 18:12-18:37/25 19:07 08:27-09:26/59	07:15 17:25-17:45/20 18:17 08:41-08:58/17	06:52 16:40	07:21 16:33
19	05:43 19:31-19:55/24 20:31	06:13 19:56	06:44 18:08-18:36/28 19:05 08:26-09:27/61	07:16 17:26-17:44/18 18:15	06:53 16:39	07:22 16:33
20	05:44 19:30-19:54/24 20:30	06:14 19:54	06:45 18:05-18:35/30 19:03 08:25-09:27/62	07:17 17:26-17:42/16 18:14	06:54 16:38	07:22 16:34
21	05:45 19:31-19:54/23 20:29	06:15 19:53	06:46 18:02-18:34/32 19:02 08:24-09:27/63	07:18 17:28-17:40/12 18:12	06:55 16:38	07:23 16:34
22	05:46 19:31-19:54/23 20:28	06:16 19:51	06:47 18:00-18:32/32 19:00 08:24-09:28/64	07:19 17:30-17:37/7 18:11	06:56 16:37	07:24 16:35
23	05:46 19:32-19:53/21 20:28	06:17 19:50	06:48 17:58-18:28/30 18:58 08:23-09:28/65	07:21 18:09	06:58 16:36	07:24 16:35
24	05:47 19:33-19:53/20 20:27	06:18 19:48	06:49 17:57-18:22/25 18:56 08:22-09:28/66	07:22 18:08	06:59 16:36	07:24 16:36
25	05:48 19:34-19:52/18 20:26	06:19 19:47	06:50 17:56-18:22/26 18:55 08:22-09:28/66	06:23 17:07	07:00 16:35	07:25 16:36
26	05:49 19:35-19:52/17 20:25	06:20 19:45	06:51 17:56-18:21/25 18:53 08:22-09:28/66	06:24 17:05	07:01 16:35	07:25 16:37
27	05:50 19:35-19:50/15 20:24	06:21 19:43	06:52 17:55-18:21/26 18:51 08:21-09:28/67	06:25 17:04	07:02 16:34	07:26 16:38
28	05:51 19:37-19:48/11 20:23	06:22 19:42	06:53 17:56-18:20/24 18:50 08:21-09:28/67	06:26 17:03	07:03 16:34	07:26 16:38
29	05:52 19:39-19:46/7 20:22	06:23 19:40	06:54 17:56-18:19/23 18:48 08:21-09:27/66	06:28 17:01	07:04 16:33	07:26 16:39
30	05:53 20:21	06:24 19:39	06:56 17:56-18:17/21 18:46 08:21-09:27/66	06:29 17:00	07:05 16:33	07:27 16:40
31	05:54 20:20	06:25 19:37	18:25-18:54/29	06:30 16:59		07:27 16:40
Potential sun hours	460	428	375	345	297	287
Sum of minutes with flicker	631	154	2092	1199	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: 8 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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
1	07:27 08:36-09:25/49 16:42	07:13 16:17-16:37/20 17:16	06:37 16:58-17:20/22 17:51	06:46 16:58-17:19/21 17:25	06:00 19:57	05:30 20:27
2	07:27 08:37-09:25/48 16:42	07:12 16:18-16:37/19 17:17	06:35 16:58-17:19/21 17:52	06:44 16:58-17:19/21 19:26	05:58 19:58	05:30 20:28
3	07:27 08:37-09:25/48 16:43	07:11 16:19-16:36/17 17:19	06:34 16:59-17:19/20 17:53	06:42 16:59-17:19/20 19:27	05:57 19:59	05:29 20:29
4	07:27 08:38-09:26/48 16:44	07:10 16:20-16:35/15 17:20	06:32 16:59-17:17/18 17:54	06:41 16:59-17:17/18 19:28	05:56 20:01	05:29 20:29
5	07:27 08:38-09:26/48 16:45	07:09 16:22-16:34/12 17:21	06:31 17:01-17:16/15 17:55	06:39 17:01-17:16/15 19:29	05:54 20:02	05:29 20:30
6	07:27 08:38-09:26/48 16:46	07:08 16:25-16:32/7 17:22	06:29 17:03-17:13/10 17:56	06:37 17:03-17:13/10 19:30	05:53 20:03	05:28 20:31
7	07:27 08:38-09:26/48 16:47	07:07 17:24	06:28 17:57	06:36 19:32	05:52 20:04	05:28 20:31
8	07:27 08:39-09:27/48 16:48	07:06 17:25	06:26 17:59	06:34 19:33	05:51 20:05	05:28 20:32
9	07:27 08:40-09:27/47 16:49	07:05 16:47-16:57/10 17:26	06:24 18:00	06:33 19:34	05:50 20:06	05:28 20:33
10	07:27 08:41-09:28/47 16:50	07:03 16:46-17:00/14 17:27	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33
11	07:26 08:40-09:27/47 16:51	07:02 16:45-17:01/16 17:29	06:21 18:02	06:29 18:52-19:04/12 19:36	05:47 20:08	05:27 20:34
12	07:26 08:41-09:28/47 16:52	07:01 16:44-17:03/19 17:30	06:19 18:03	06:28 18:49-19:06/17 19:37	05:46 20:09	05:27 20:34
13	07:26 08:41-09:27/46 16:53	07:00 16:42-17:03/21 17:31	06:18 18:04	06:26 18:48-19:07/19 19:38	05:45 20:10	05:27 20:35
14	07:26 08:42-09:28/46 16:54	06:58 16:42-17:04/22 17:32	06:16 18:05	06:25 18:46-19:08/22 19:39	05:44 20:11	05:27 20:35
15	07:25 08:43-09:28/45 16:55	06:57 16:42-17:07/25 17:34	06:14 18:07	06:23 18:45-19:09/24 19:40	05:43 20:12	05:27 20:36
16	07:25 08:44-09:28/44 16:57	06:56 16:41-17:08/27 17:35	06:13 18:08	06:21 18:44-19:09/25 19:41	05:42 20:13	05:27 20:36
17	07:24 08:45-09:28/43 16:58	06:55 16:42-17:09/27 17:36	06:11 18:09	06:20 18:44-19:10/26 19:42	05:41 20:14	05:27 20:36
18	07:24 16:23-16:25/2 16:59 08:45-09:28/43	06:53 16:41-17:09/28 17:37	06:09 18:10	06:18 18:43-19:09/26 19:43	05:40 20:15	05:27 20:37
19	07:23 16:20-16:28/8 17:00 08:46-09:27/41	06:52 16:42-17:10/28 17:39	06:08 18:11	06:17 18:43-19:10/27 19:44	05:39 20:16	05:27 20:37
20	07:23 16:19-16:31/12 17:01 08:47-09:27/40	06:50 16:43-17:11/28 17:40	06:06 18:12	06:15 18:42-19:09/27 19:46	05:38 20:17	05:27 20:37
21	07:22 16:18-16:32/14 17:02 08:48-09:27/39	06:49 16:43-17:15/32 17:41	06:04 18:13	06:14 18:43-19:09/26 19:47	05:38 20:18	05:27 20:38
22	07:21 16:17-16:33/16 17:04 08:48-09:26/38	06:47 16:45-17:18/33 17:42	06:03 18:14	06:12 18:42-19:08/26 19:48	05:37 20:19	05:28 20:38
23	07:21 16:16-16:34/18 17:05 08:50-09:26/36	06:46 16:46-17:19/33 17:43	06:01 18:15	06:11 18:43-19:08/25 19:49	05:36 20:20	05:28 20:38
24	07:20 16:17-16:36/19 17:06 08:51-09:25/34	06:45 16:51-17:20/29 17:45	05:59 18:16	06:09 18:43-19:06/23 19:50	05:35 20:20	05:28 20:38
25	07:19 16:16-16:36/20 17:07 08:52-09:24/32	06:43 16:51-17:20/29 17:46	05:58 18:17	06:08 18:44-19:06/22 19:51	05:35 20:21	05:28 20:38
26	07:19 16:16-16:36/20 17:09 08:53-09:23/30	06:42 16:53-17:21/28 17:47	05:56 18:19	06:06 18:44-19:04/20 19:52	05:34 20:22	05:29 20:38
27	07:18 16:16-16:37/21 17:10 08:55-09:21/26	06:40 16:54-17:20/26 17:48	05:54 18:20	06:05 18:46-19:02/16 19:53	05:33 20:23	05:29 20:38
28	07:17 16:16-16:37/21 17:11 08:57-09:19/22	06:39 16:58-17:21/23 17:49	05:52 18:21	06:04 18:48-19:01/13 19:54	05:33 20:24	05:29 20:38
29	07:16 16:16-16:37/21 17:12 08:59-09:17/18		06:51 19:22	06:02 18:51-18:56/5 19:55	05:32 20:25	05:30 20:38
30	07:15 16:16-16:37/21 17:14 09:04-09:14/10		06:49 19:23	06:01 19:56	05:31 20:26	05:30 20:38
31	07:14 16:17-16:37/20 17:15		06:47 19:24		05:31 20:26	
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	1439	588	106	401	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: 8 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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

	July	August	September	October	November	December
1	05:31 20:38	05:55 20:19	06:26 18:51-19:03/12 19:35	06:57 18:44	06:31 16:16-16:29/13 16:57	07:06 08:22-09:09/47 16:33
2	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:43	06:32 16:18-16:27/9 16:56	07:07 08:23-09:10/47 16:32
3	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:34 16:55	07:08 08:23-09:10/47 16:32
4	05:32 20:38	05:58 20:16	06:29 19:30	07:00 18:39	06:35 16:54	07:10 08:23-09:11/48 16:32
5	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 15:54-16:02/8 16:52	07:10 08:23-09:11/48 16:32
6	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 15:52-16:04/12 16:51	07:11 08:24-09:12/48 16:32
7	05:34 20:37	06:01 20:12	06:32 19:25	07:03 17:41-17:47/6 18:34	06:38 15:51-16:06/15 16:50	07:12 08:24-09:12/48 16:31
8	05:35 20:37	06:02 20:11	06:33 19:24	07:04 17:37-17:50/13 18:33	06:40 15:50-16:07/17 16:49	07:13 08:25-09:13/48 16:31
9	05:35 20:36	06:03 20:09	06:34 19:22	07:05 17:35-17:51/16 18:31	06:41 15:49-16:08/19 16:48	07:14 08:25-09:14/49 16:31
10	05:36 20:36	06:04 20:08	06:35 19:20	07:06 17:33-17:52/19 18:30	06:42 15:48-16:08/20 16:47	07:15 08:26-09:14/48 16:31
11	05:37 20:35	06:05 20:07	06:36 19:19	07:07 17:32-17:52/20 18:28	06:43 15:49-16:09/20 16:46	07:16 08:26-09:15/49 16:31
12	05:37 20:35	06:06 20:06	06:37 19:17	07:08 17:32-17:54/22 18:26	06:44 15:48-16:09/21 16:45 08:35-08:45/10	07:17 08:27-09:15/48 16:32
13	05:38 20:34	06:07 20:04	06:38 19:15	07:09 17:31-17:54/23 18:25	06:46 15:48-16:09/21 16:44 08:31-08:49/18	07:18 08:26-09:15/49 16:32
14	05:39 20:34	06:08 18:58-19:06/8 20:03	06:39 19:14	07:10 17:30-17:53/23 18:23	06:47 15:49-16:10/21 16:43 08:30-08:52/22	07:18 08:27-09:16/49 16:32
15	05:40 20:33	06:09 18:55-19:09/14 20:01	06:40 19:12	07:12 17:26-17:53/27 18:22	06:48 15:49-16:10/21 16:42 08:28-08:54/26	07:19 08:28-09:16/48 16:32
16	05:41 20:33	06:10 18:52-19:09/17 20:00	06:41 19:10	07:13 17:24-17:52/28 18:20	06:49 15:49-16:09/20 16:41 08:26-08:56/30	07:20 08:29-09:17/48 16:32
17	05:41 20:32	06:11 18:51-19:11/20 19:59	06:42 19:08	07:14 17:22-17:51/29 18:18	06:50 15:49-16:09/20 16:41 08:26-08:58/32	07:21 08:28-09:17/49 16:33
18	05:42 20:31	06:12 18:49-19:11/22 19:57	06:43 19:07	07:15 17:20-17:51/31 18:17	06:52 15:51-16:09/18 16:40 08:25-08:59/34	07:21 08:29-09:18/49 16:33
19	05:43 20:31	06:13 18:48-19:12/24 19:56	06:44 19:05	07:16 17:17-17:50/33 18:15	06:53 15:51-16:09/18 16:39 08:24-09:00/36	07:22 08:29-09:18/49 16:33
20	05:44 20:30	06:14 18:48-19:12/24 19:54	06:45 19:03	07:17 17:15-17:48/33 18:14	06:54 15:52-16:08/16 16:38 08:23-09:01/38	07:22 08:30-09:19/49 16:34
21	05:45 20:29	06:15 18:47-19:13/26 19:53	06:46 19:02	07:18 17:14-17:45/31 18:12	06:55 15:53-16:07/14 16:38 08:24-09:03/39	07:23 08:31-09:20/49 16:34
22	05:46 20:28	06:16 18:46-19:13/27 19:51	06:47 19:00	07:19 17:13-17:40/27 18:11	06:56 15:55-16:07/12 16:37 08:23-09:03/40	07:24 08:31-09:20/49 16:35
23	05:46 20:28	06:17 18:46-19:13/27 19:50	06:48 18:58	07:21 17:13-17:41/28 18:09	06:58 15:57-16:06/9 16:36 08:23-09:04/41	07:24 08:31-09:20/49 16:35
24	05:47 20:27	06:18 18:46-19:12/26 19:48	06:49 18:56	07:22 17:12-17:40/28 18:08	06:59 16:00-16:03/3 16:36 08:22-09:05/43	07:24 08:32-09:21/49 16:36
25	05:48 20:26	06:19 18:46-19:12/26 19:47	06:50 18:55	06:23 16:11-16:39/28 17:07	07:00 08:22-09:05/43 16:35	07:25 08:32-09:21/49 16:36
26	05:49 20:25	06:20 18:46-19:12/26 19:45	06:51 18:53	06:24 16:11-16:37/26 17:05	07:01 08:23-09:07/44 16:35	07:25 08:33-09:22/49 16:37
27	05:50 20:24	06:21 18:46-19:11/25 19:43	06:52 18:51	06:25 16:12-16:36/24 17:04	07:02 08:22-09:07/45 16:34	07:26 08:34-09:22/48 16:38
28	05:51 20:23	06:22 18:46-19:10/24 19:42	06:53 18:50	06:26 16:12-16:33/21 17:03	07:03 08:22-09:08/46 16:34	07:26 08:34-09:22/48 16:38
29	05:52 20:22	06:23 18:47-19:09/22 19:40	06:54 18:48	06:28 16:12-16:32/20 17:01	07:04 08:22-09:08/46 16:33	07:26 08:34-09:23/49 16:39
30	05:53 20:21	06:24 18:48-19:07/19 19:39	06:56 18:46	06:29 16:13-16:31/18 17:00	07:05 08:22-09:09/47 16:33	07:26 08:34-09:23/49 16:40
31	05:54 20:20	06:25 18:49-19:06/17 19:37		06:30 16:15-16:31/16 16:59		07:27 08:36-09:24/48 16:41
Potential sun hours	460	428	375	345	297	287
Sum of minutes with flicker	0	394	12	590	1027	1501

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: 9 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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
1	07:27 15:53-16:15/22 16:42	07:13 16:21-16:42/21 17:16	06:37 17:51	06:46 19:25	06:00 19:57	05:30 20:27
2	07:27 15:53-16:15/22 16:42	07:12 16:21-16:42/21 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28
3	07:27 15:53-16:16/23 16:43	07:11 16:23-16:41/18 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:29
4	07:27 15:54-16:17/23 16:44	07:10 16:24-16:41/17 17:20	06:32 17:54	06:41 19:28	05:56 20:01	05:29 20:29
5	07:27 15:53-16:16/23 16:45	07:09 16:26-16:39/13 17:21	06:31 17:55	06:39 19:29	05:54 20:02	05:29 20:30
6	07:27 15:53-16:17/24 16:46	07:08 16:28-16:37/9 17:22	06:29 17:56	06:37 19:30	05:53 20:03	05:28 20:31
7	07:27 15:54-16:20/26 16:47	07:07 17:24	06:28 17:57	06:36 19:32	05:52 20:04	05:28 20:31
8	07:27 15:54-16:22/28 16:48	07:06 17:25	06:26 17:59	06:34 19:33	05:51 20:05	05:28 20:32
9	07:27 15:55-16:23/28 16:49	07:05 17:26	06:24 18:00	06:33 19:34	05:50 20:06	05:28 20:33
10	07:27 15:55-16:24/29 16:50	07:03 17:27	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33
11	07:26 15:56-16:25/29 16:51	07:02 17:29	06:21 17:23-17:31/8 18:02	06:29 19:36	05:47 20:08	05:27 20:34
12	07:26 15:56-16:27/31 16:52	07:01 17:30	06:19 17:19-17:35/16 18:03	06:28 19:37	05:46 20:09	05:27 20:34
13	07:26 15:56-16:27/31 16:53	07:00 17:31	06:18 17:16-17:36/20 18:04	06:26 19:38	05:45 20:10	05:27 20:35
14	07:25 15:57-16:28/31 16:54	06:58 17:32	06:16 17:15-17:38/23 18:05	06:25 19:39	05:44 20:11	05:27 20:35
15	07:25 15:57-16:29/32 16:55	06:57 17:34	06:14 17:13-17:39/26 18:07	06:23 19:40	05:43 20:12	05:27 20:36
16	07:25 15:58-16:31/33 16:57	06:56 17:35	06:13 17:12-17:39/27 18:08	06:21 19:41	05:42 20:13	05:27 20:36
17	07:24 15:59-16:32/33 16:58	06:54 17:36	06:11 17:12-17:40/28 18:09	06:20 19:42	05:41 20:14	05:27 20:36
18	07:24 16:00-16:34/34 16:59	06:53 17:37	06:09 17:10-17:40/30 18:10	06:18 19:43	05:40 20:15	05:27 20:37
19	07:23 16:01-16:35/34 17:00	06:52 17:39	06:08 17:10-17:40/30 18:11	06:17 19:44	05:39 20:16	05:27 20:37
20	07:23 16:02-16:36/34 17:01	06:50 17:40	06:06 17:10-17:40/30 18:12	06:15 19:45	05:38 20:17	05:27 20:37
21	07:22 16:03-16:37/34 17:02	06:49 17:41	06:04 17:09-17:40/31 18:13	06:14 19:47	05:38 20:18	05:27 20:37
22	07:21 16:05-16:38/33 17:04	06:47 17:42	06:03 17:09-17:39/30 18:14	06:12 19:48	05:37 20:19	05:28 20:38
23	07:21 16:06-16:39/33 17:05	06:46 17:43	06:01 17:09-17:38/29 18:15	06:11 19:49	05:36 20:20	05:28 20:38
24	07:20 16:12-16:42/30 17:06	06:45 17:45	05:59 17:10-17:38/28 18:16	06:09 19:50	05:35 20:20	05:28 20:38
25	07:19 16:12-16:42/30 17:07	06:43 17:46	05:58 17:10-17:36/26 18:17	06:08 19:51	05:35 20:21	05:28 20:38
26	07:19 16:13-16:42/29 17:09	06:42 17:47	05:56 17:10-17:35/25 18:19	06:06 19:52	05:34 20:22	05:29 20:38
27	07:18 16:14-16:43/29 17:10	06:40 17:48	05:54 17:12-17:34/22 18:20	06:05 19:53	05:33 20:23	05:29 20:38
28	07:17 16:15-16:43/28 17:11	06:39 17:49	05:52 17:13-17:31/18 18:21	06:04 19:54	05:33 20:24	05:29 20:38
29	07:16 16:16-16:43/27 17:12		06:51 18:15-18:28/13 19:22	06:02 19:55	05:32 20:25	05:30 20:38
30	07:15 16:18-16:43/25 17:14		06:49 18:21-18:23/2 19:23	06:01 19:56	05:31 20:26	05:30 20:38
31	07:14 16:20-16:43/23 17:15		06:47 19:24		05:31 20:26	
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	891	99	462	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: 9 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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

	July	August	September	October	November	December
1	05:31 20:38	05:55 20:19	06:26 19:35	06:57 17:58-18:15/17 18:44	06:31 16:57	07:06 15:38-16:07/29 16:33
2	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:00-18:12/12 18:43	06:32 16:56	07:07 15:38-16:07/29 16:32
3	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:34 16:55	07:08 15:38-16:06/28 16:32
4	05:32 20:38	05:58 20:16	06:29 19:30	07:00 18:39	06:35 16:54	07:09 15:39-16:06/27 16:32
5	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 15:58-16:07/9 16:52	07:10 15:39-16:05/26 16:32
6	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 15:55-16:09/14 16:51	07:11 15:39-16:04/25 16:32
7	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 15:55-16:12/17 16:50	07:12 15:40-16:03/23 16:31
8	05:35 20:37	06:02 20:11	06:33 19:24	07:04 18:33	06:40 15:53-16:12/19 16:49	07:13 15:41-16:04/23 16:31
9	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 15:52-16:13/21 16:48	07:14 15:41-16:04/23 16:31
10	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29	06:42 15:51-16:13/22 16:47	07:15 15:42-16:04/22 16:31
11	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 15:52-16:15/23 16:46	07:16 15:43-16:05/22 16:31
12	05:37 20:35	06:06 20:06	06:37 19:17	07:08 18:26	06:44 15:49-16:15/26 16:45	07:17 15:43-16:05/22 16:32
13	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:46 15:48-16:15/27 16:44	07:18 15:43-16:05/22 16:32
14	05:39 20:34	06:08 20:03	06:39 18:07-18:19/12 19:14	07:10 18:23	06:47 15:47-16:16/29 16:43	07:18 15:44-16:05/21 16:32
15	05:40 20:33	06:09 20:01	06:40 18:04-18:21/17 19:12	07:12 18:22	06:48 15:46-16:16/30 16:42	07:19 15:45-16:06/21 16:32
16	05:41 20:33	06:10 20:00	06:41 18:01-18:22/21 19:10	07:13 18:20	06:49 15:46-16:15/29 16:41	07:20 15:46-16:07/21 16:32
17	05:41 20:32	06:11 19:59	06:42 17:59-18:23/24 19:08	07:14 18:18	06:50 15:45-16:15/30 16:41	07:21 15:46-16:06/20 16:33
18	05:42 20:31	06:12 19:57	06:43 17:57-18:23/26 19:07	07:15 18:17	06:52 15:46-16:16/30 16:40	07:21 15:47-16:07/20 16:33
19	05:43 20:31	06:13 19:56	06:44 17:56-18:24/28 19:05	07:16 18:15	06:53 15:41-16:14/33 16:39	07:22 15:47-16:07/20 16:33
20	05:44 20:30	06:14 19:54	06:45 17:55-18:24/29 19:03	07:17 18:14	06:54 15:40-16:13/33 16:38	07:22 15:48-16:08/20 16:34
21	05:45 20:29	06:15 19:53	06:46 17:54-18:24/30 19:02	07:18 18:12	06:55 15:38-16:12/34 16:38	07:23 15:48-16:08/20 16:34
22	05:46 20:28	06:16 19:51	06:47 17:54-18:24/30 19:00	07:19 18:11	06:56 15:38-16:12/34 16:37	07:23 15:49-16:09/20 16:35
23	05:46 20:28	06:17 19:50	06:48 17:53-18:24/31 18:58	07:21 18:09	06:58 15:38-16:12/34 16:36	07:24 15:49-16:09/20 16:35
24	05:47 20:27	06:18 19:48	06:49 17:53-18:23/30 18:56	07:22 18:08	06:59 15:37-16:11/34 16:36	07:24 15:50-16:10/20 16:36
25	05:48 20:26	06:19 19:47	06:50 17:53-18:23/30 18:55	06:23 17:07	07:00 15:37-16:10/33 16:35	07:25 15:50-16:10/20 16:36
26	05:49 20:25	06:20 19:45	06:51 17:53-18:22/29 18:53	06:24 17:05	07:01 15:36-16:09/33 16:35	07:25 15:50-16:10/20 16:37
27	05:50 20:24	06:21 19:43	06:52 17:53-18:21/28 18:51	06:25 17:04	07:02 15:37-16:09/32 16:34	07:26 15:51-16:12/21 16:38
28	05:51 20:23	06:22 19:42	06:53 17:54-18:21/27 18:50	06:26 17:03	07:03 15:37-16:08/31 16:34	07:26 15:51-16:12/21 16:38
29	05:52 20:22	06:23 19:40	06:54 17:55-18:19/24 18:48	06:28 17:01	07:04 15:37-16:08/31 16:33	07:26 15:51-16:12/21 16:39
30	05:53 20:21	06:24 19:39	06:55 17:56-18:17/21 18:46	06:29 17:00	07:05 15:37-16:08/31 16:33	07:26 15:51-16:13/22 16:40
31	05:54 20:20	06:25 19:37		06:30 16:59		07:27 15:51-16:13/22 16:41
Potential sun hours	460	428	375	345	297	287
Sum of minutes with flicker	0	0	437	29	719	691

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: 10 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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
1	07:27 16:42	07:13 16:33-16:52/19 17:16	06:37 17:51	06:46 19:25	06:00 19:57	05:30 19:31-19:59/28 20:27
2	07:27 16:42	07:12 16:33-16:53/20 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 19:30-19:59/29 20:28
3	07:27 16:43	07:11 16:32-16:54/22 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 19:31-20:00/29 20:29
4	07:27 16:44	07:10 16:31-16:56/25 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 19:31-20:01/30 20:29
5	07:27 16:45	07:09 16:31-16:57/26 17:21	06:31 17:55	06:39 19:29	05:54 20:02	05:29 19:30-20:00/30 20:30
6	07:27 16:46	07:08 16:31-16:59/28 17:22	06:29 17:56	06:37 19:30	05:53 20:03	05:28 19:30-20:01/31 20:31
7	07:27 16:47	07:07 16:31-17:00/29 17:24	06:28 17:57	06:36 19:31	05:52 20:04	05:28 19:31-20:02/31 20:31
8	07:27 16:48	07:06 16:31-17:02/31 17:25	06:26 17:59	06:34 19:33	05:51 20:05	05:28 19:31-20:02/31 20:32
9	07:27 16:49	07:05 16:30-17:03/33 17:26	06:24 18:00	06:33 19:34	05:50 20:06	05:28 19:31-20:03/32 20:33
10	07:27 16:50	07:03 16:30-17:03/33 17:27	06:23 18:01	06:31 19:35	05:48 20:07	05:27 19:30-20:02/32 20:33
11	07:26 16:51	07:02 16:30-17:03/33 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 19:31-20:03/32 20:34
12	07:26 16:52	07:01 16:31-17:04/33 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 19:31-20:03/32 20:34
13	07:26 16:53	07:00 16:30-17:03/33 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 19:31-20:04/33 20:35
14	07:25 16:54	06:58 16:31-17:03/32 17:32	06:16 18:05	06:25 19:39	05:44 20:11	05:27 19:31-20:04/33 20:35
15	07:25 16:55	06:57 16:32-17:02/30 17:34	06:14 18:07	06:23 19:40	05:43 20:12	05:27 19:31-20:04/33 20:36
16	07:25 16:57	06:56 16:32-17:01/29 17:35	06:13 18:08	06:21 19:41	05:42 20:13	05:27 19:31-20:04/33 20:36
17	07:24 16:58	06:54 16:33-17:00/27 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 19:32-20:04/32 20:36
18	07:24 16:59	06:53 16:34-16:59/25 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 19:32-20:05/33 20:37
19	07:23 17:00	06:52 16:36-16:58/22 17:39	06:08 18:11	06:17 19:44	05:39 20:16	05:27 19:33-20:06/33 20:37
20	07:23 17:01	06:50 16:38-16:56/18 17:40	06:06 18:12	06:15 19:45	05:38 20:17	05:27 19:33-20:06/33 20:37
21	07:22 17:02	06:49 16:40-16:53/13 17:41	06:04 18:13	06:14 19:47	05:38 20:18	05:27 19:33-20:06/33 20:37
22	07:21 17:04	06:47 17:42	06:03 18:14	06:12 19:48	05:37 19:41-19:46/5 20:19	05:28 19:33-20:06/33 20:38
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	05:36 19:38-19:49/11 20:20	05:28 19:33-20:06/33 20:38
24	07:20 17:06	06:45 17:45	05:59 18:16	06:09 19:50	05:35 19:36-19:50/14 20:20	05:28 19:34-20:07/33 20:38
25	07:19 17:07	06:43 17:46	05:58 18:17	06:08 19:51	05:35 19:35-19:52/17 20:21	05:28 19:34-20:07/33 20:38
26	07:19 17:09	06:42 17:47	05:56 18:19	06:06 19:52	05:34 19:34-19:53/19 20:22	05:29 19:33-20:06/33 20:38
27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	05:33 19:33-19:54/21 20:23	05:29 19:34-20:07/33 20:38
28	07:17 17:11	16:41-16:46/5 17:49	05:52 18:21	06:04 19:54	05:33 19:33-19:55/22 20:24	05:29 19:34-20:07/33 20:38
29	07:16 17:12	16:38-16:48/10 17:12	06:51 19:22	06:02 19:55	05:32 19:32-19:56/24 20:25	05:30 19:35-20:08/33 20:38
30	07:15 17:14	16:36-16:49/13 17:14	06:49 19:23	06:01 19:56	05:31 19:32-19:57/25 20:26	05:30 19:35-20:07/32 20:38
31	07:14 17:15	16:35-16:50/15 17:15	06:47 19:24		05:31 19:31-19:58/27 20:26	
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	43	561	0	0	185	959

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: 10 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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

	July	August	September	October	November	December
1	05:31 19:35-20:07/32 20:38	05:55 20:19	06:26 19:35	06:57 18:44	06:31 16:00-16:33/33 16:57	07:06 16:33
2	05:31 19:35-20:08/33 20:38	05:56 20:18	06:27 19:34	06:58 18:43	06:32 16:00-16:32/32 16:56	07:07 16:32
3	05:32 19:35-20:07/32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:34 15:59-16:31/32 16:55	07:08 16:32
4	05:32 19:36-20:08/32 20:38	05:58 20:16	06:29 19:30	07:00 18:39	06:35 16:00-16:30/30 16:54	07:09 16:32
5	05:33 19:37-20:08/31 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:01-16:29/28 16:52	07:10 16:32
6	05:33 19:36-20:07/31 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:01-16:27/26 16:51	07:11 16:32
7	05:34 19:37-20:08/31 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:02-16:27/25 16:50	07:12 16:31
8	05:35 19:37-20:07/30 20:37	06:02 20:11	06:33 19:24	07:04 18:33	06:40 16:03-16:25/22 16:49	07:13 16:31
9	05:35 19:38-20:07/29 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:04-16:24/20 16:48	07:14 16:31
10	05:36 19:38-20:07/29 20:36	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:04-16:22/18 16:47	07:15 16:31
11	05:37 19:38-20:06/28 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:07-16:22/15 16:46	07:16 16:31
12	05:37 19:39-20:06/27 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:08-16:21/13 16:45	07:17 16:32
13	05:38 19:40-20:06/26 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:10-16:19/9 16:44	07:18 16:32
14	05:39 19:41-20:06/25 20:34	06:08 20:03	06:39 19:14	07:10 18:23	06:47 16:14-16:19/5 16:43	07:18 16:32
15	05:40 19:41-20:04/23 20:33	06:09 20:01	06:40 19:12	07:12 18:22	06:48 16:42 16:42	07:19 16:32
16	05:41 19:42-20:03/21 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41 16:41	07:20 16:32
17	05:41 19:43-20:03/20 20:32	06:11 19:59	06:42 19:08	07:14 18:18	06:50 16:41 16:41	07:21 16:33
18	05:42 19:44-20:02/18 20:31	06:12 19:57	06:43 19:07	07:15 18:17	06:52 16:40 16:40	07:21 16:33
19	05:43 19:45-20:01/16 20:31	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:39 16:39	07:22 16:33
20	05:44 19:46-19:59/13 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38 16:38	07:22 16:34
21	05:45 19:49-19:57/8 20:29	06:15 19:53	06:46 19:02	07:18 18:12	06:55 17:10-17:24/14 16:38	07:23 16:34
22	05:46 20:28 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 17:07-17:26/19 16:37	07:23 16:35
23	05:46 20:28 20:28	06:17 19:50	06:48 18:58	07:21 18:09	06:57 17:06-17:29/23 16:36	07:24 16:35
24	05:47 20:27 20:27	06:18 19:48	06:49 18:56	07:22 18:08	06:59 17:04-17:30/26 16:36	07:24 16:36
25	05:48 20:26 20:26	06:19 19:47	06:50 18:55	06:23 17:07	16:03-16:30/27 07:00	07:25 16:36
26	05:49 20:25 20:25	06:20 19:45	06:51 18:53	06:24 17:05	16:02-16:31/29 07:01	07:25 16:37
27	05:50 20:24 20:24	06:21 19:43	06:52 18:51	06:25 17:04	16:02-16:32/30 07:02	07:26 16:38
28	05:51 20:23 20:23	06:22 19:42	06:53 18:50	06:26 17:03	16:01-16:32/31 07:03	07:26 16:38
29	05:52 20:22 20:22	06:23 19:40	06:54 18:48	06:28 17:01	16:00-16:32/32 07:04	07:26 16:39
30	05:53 20:21 20:21	06:24 19:39	06:55 18:46	06:29 17:00	16:00-16:32/32 16:33	07:26 16:40
31	05:54 20:20 20:20	06:25 19:37		06:30 16:59	16:00-16:33/33 16:33	07:27 16:41
Potential sun hours	460	428	375	345	297	287
Sum of minutes with flicker	535	0	0	302	308	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: 11 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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
1	07:27 15:36-15:38/2 16:42	07:13 17:16	06:37 17:51	06:46 19:25	06:00 18:42-19:23/41 19:57	05:30 20:27
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 18:42-19:23/41 19:58	05:30 20:28
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 18:41-19:23/42 19:59	05:29 20:29
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 18:42-19:23/41 20:00	05:29 20:29
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 18:42-19:23/41 20:02	05:29 20:30
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 18:43-19:23/40 20:03	05:28 20:31
7	07:27 16:47	07:07 17:24	06:27 17:57	06:36 19:31	05:52 18:43-19:23/40 20:04	05:28 20:31
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:33	05:51 18:44-19:22/38 20:05	05:28 20:32
9	07:27 16:49	07:05 17:26	06:24 18:00	06:33 19:34	05:50 18:44-19:21/37 20:06	05:28 20:33
10	07:27 16:50	07:03 17:27	06:23 18:01	06:31 19:35	05:48 18:44-19:21/37 20:07	05:27 20:33
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 18:45-19:20/35 20:08	05:27 20:34
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 18:46-19:20/34 20:09	05:27 20:34
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 18:47-19:19/32 20:10	05:27 20:35
14	07:25 16:54	06:58 17:32	06:16 18:05	06:25 19:39	05:44 18:49-19:18/29 20:11	05:27 20:35
15	07:25 16:55	06:57 17:34	06:14 18:07	06:23 19:40	05:43 18:50-19:17/27 20:12	05:27 20:36
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	05:42 18:53-19:17/24 20:13	05:27 20:36
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	05:41 18:55-19:16/21 20:14	05:27 20:36
18	07:24 16:59	06:53 17:37	06:09 18:10	06:18 19:43	18:56-19:09/13 20:15	05:27 20:37
19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	18:53-19:13/20 20:16	05:27 20:37
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:45	18:50-19:14/24 20:17	05:27 20:37
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:47	18:49-19:15/26 20:18	05:27 20:37
22	07:21 17:04	06:47 17:42	06:03 18:14	06:12 19:48	18:47-19:16/29 20:19	05:28 20:38
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	18:46-19:18/32 20:20	05:28 20:38
24	07:20 17:06	06:45 17:45	05:59 18:16	06:09 19:50	18:45-19:19/34 20:20	05:28 20:38
25	07:19 17:07	06:43 17:46	05:58 18:17	06:08 19:51	18:44-19:20/36 20:21	05:28 20:38
26	07:19 17:09	06:42 17:47	05:56 18:19	06:06 19:52	18:43-19:21/38 20:22	05:29 20:38
27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	18:43-19:22/39 20:23	05:29 20:38
28	07:17 17:11	06:39 17:49	05:52 18:21	06:04 19:54	18:43-19:22/39 20:24	05:29 20:38
29	07:16 17:12		06:51 19:22	06:02 19:55	18:42-19:22/40 20:25	05:30 20:38
30	07:15 17:14		06:49 19:23	06:01 19:56	18:42-19:23/41 20:26	05:30 20:38
31	07:14 17:15		06:47 19:24		20:26	
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	2	0	0	411	643	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: 11 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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

	July	August	September	October	November	December
1	05:31 20:38	05:55 18:57-19:31/34 20:19	06:26 19:35	06:57 18:44	06:31 16:57	07:06 16:33
2	05:31 20:38	05:56 18:56-19:31/35 20:18	06:27 19:34	06:58 18:43	06:32 16:56	07:07 16:32
3	05:32 20:38	05:57 18:55-19:32/37 20:17	06:28 19:32	06:59 18:41	06:34 16:55	07:08 16:32
4	05:32 20:38	05:58 18:54-19:32/38 20:16	06:29 19:30	07:00 18:39	06:35 16:54	07:09 16:32
5	05:33 20:37	05:59 18:53-19:32/39 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
6	05:33 20:37	06:00 18:53-19:32/39 20:13	06:31 19:27	07:02 18:36	06:37 16:51	07:11 16:32
7	05:34 20:37	06:01 18:52-19:33/41 20:12	06:32 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	05:35 20:37	06:02 18:52-19:33/41 20:11	06:33 19:24	07:04 18:33	06:40 16:49	07:13 16:31
9	05:35 20:36	06:03 18:51-19:33/42 20:09	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	05:36 20:36	06:04 18:51-19:32/41 20:08	06:35 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	05:37 20:35	06:05 18:51-19:32/41 20:07	06:36 19:19	07:07 18:28	06:43 16:46	07:16 15:26-15:28/2 16:31
12	05:37 20:35	06:06 18:51-19:32/41 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:17 15:24-15:31/7 16:32
13	05:38 20:34	06:07 18:50-19:31/41 20:04	06:38 19:15	07:09 18:25	06:46 16:44	07:18 15:23-15:32/9 16:32
14	05:39 20:34	06:08 18:50-19:31/41 20:03	06:39 19:14	07:10 18:23	06:47 16:43	07:18 15:22-15:34/12 16:32
15	05:40 20:33	06:09 18:50-19:30/40 20:01	06:40 19:12	07:12 18:22	06:48 16:42	07:19 15:23-15:35/12 16:32
16	05:41 20:33	06:10 18:51-19:29/38 20:00	06:41 19:10	07:13 18:20	06:49 16:41	07:20 15:23-15:36/13 16:32
17	05:41 20:32	06:11 18:50-19:27/37 19:59	06:42 19:08	07:14 18:18	06:50 16:41	07:20 15:22-15:36/14 16:33
18	05:42 20:31	06:12 18:50-19:26/36 19:57	06:43 19:07	07:15 18:17	06:52 16:40	07:21 15:23-15:38/15 16:33
19	05:43 20:31	06:13 18:51-19:24/33 19:56	06:44 19:05	07:16 18:15	06:53 16:39	07:22 15:22-15:38/16 16:33
20	05:44 20:30	06:14 18:51-19:23/32 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 15:23-15:39/16 16:34
21	05:45 20:29	06:15 18:52-19:21/29 19:53	06:46 19:02	07:18 18:12	06:55 16:38	07:23 15:23-15:39/16 16:34
22	05:46 20:28	06:16 18:53-19:19/26 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 15:24-15:40/16 16:35
23	05:46 19:12-19:19/7 20:28	06:17 18:54-19:17/23 19:50	06:48 18:58	07:21 18:09	06:57 16:36	07:24 15:24-15:40/16 16:35
24	05:47 19:09-19:22/13 20:27	06:18 18:56-19:15/19 19:48	06:49 18:56	07:22 18:08	06:59 16:36	07:24 15:25-15:41/16 16:36
25	05:48 19:07-19:24/17 20:26	06:19 18:59-19:12/13 19:47	06:50 18:55	06:23 17:07	07:00 16:35	07:25 15:26-15:41/15 16:36
26	05:49 19:06-19:26/20 20:25	06:20 19:45	06:51 18:53	06:24 17:05	07:01 16:35	07:25 15:26-15:40/14 16:37
27	05:50 19:05-19:27/22 20:24	06:21 19:43	06:52 18:51	06:25 17:04	07:02 16:34	07:26 15:28-15:41/13 16:38
28	05:51 19:02-19:27/25 20:23	06:22 19:42	06:53 18:50	06:26 17:03	07:03 16:34	07:26 15:28-15:41/13 16:38
29	05:52 19:00-19:28/28 20:22	06:23 19:40	06:54 18:48	06:28 17:01	07:04 16:33	07:26 15:29-15:41/12 16:39
30	05:53 18:59-19:29/30 20:21	06:24 19:39	06:55 18:46	06:29 17:00	07:05 16:33	07:26 15:30-15:40/10 16:40
31	05:54 18:58-19:30/32 20:20	06:25 19:37	 	06:30 16:59	 	07:27 15:32-15:40/8 16:41
Potential sun hours	460	428	375	345	297	287
Sum of minutes with flicker	194	877	0	0	0	265

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: 12 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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			
1	07:27 16:42	07:13 17:16	06:37 17:51	06:46 19:25	17:57-18:28/31 19:25	06:00 19:57	17:27-18:54/87 20:27	05:30 20:27	17:42-18:45/63
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	17:59-18:31/32 19:26	05:58 19:58	17:27-18:54/87 20:28	05:30 20:28	17:43-18:45/62
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	17:57-18:34/37 19:27	05:57 19:59	17:27-18:53/86 20:29	05:29 20:29	17:43-18:44/61
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	17:53-18:37/44 19:28	05:56 20:00	17:27-18:53/86 20:29	05:29 20:29	17:44-18:44/60
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	17:51-18:40/49 19:29	05:54 20:02	17:27-18:53/86 20:30	05:29 20:30	17:45-18:44/59
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	17:48-18:41/53 19:30	05:53 20:03	17:28-18:53/85 20:31	05:28 20:31	17:45-18:43/58
7	07:27 16:47	07:07 17:24	06:27 17:57	06:36 19:31	17:45-18:43/58 19:31	05:52 20:04	17:28-18:53/85 20:32	05:28 20:32	17:46-18:43/57
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:33	17:44-18:45/61 19:33	05:51 20:05	17:28-18:53/85 20:33	05:28 20:33	17:46-18:43/57
9	07:27 16:49	07:05 17:26	06:24 18:00	06:33 19:34	17:42-18:46/64 19:34	05:50 20:06	17:28-18:52/84 20:34	05:28 20:34	17:47-18:43/56
10	07:27 16:50	07:03 17:27	06:23 18:01	06:31 19:35	17:40-18:46/66 19:35	05:48 20:07	17:28-18:52/84 20:35	05:27 20:35	17:47-18:42/55
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	17:39-18:48/69 19:36	05:47 20:08	17:29-18:51/82 20:36	05:27 20:36	17:48-18:42/54
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	17:37-18:48/71 19:37	05:46 20:09	17:29-18:51/82 20:37	05:27 20:37	17:48-18:42/54
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	17:36-18:50/74 19:38	05:45 20:10	17:30-18:51/81 20:38	05:27 20:38	17:49-18:42/53
14	07:25 16:54	06:58 17:32	06:16 18:05	06:25 19:39	17:35-18:50/75 19:39	05:44 20:11	17:30-18:50/80 20:39	05:27 20:39	17:49-18:42/53
15	07:25 16:55	06:57 17:34	06:14 18:06	06:23 19:40	17:34-18:51/77 19:40	05:43 20:12	17:30-18:50/80 20:40	05:27 20:40	17:50-18:42/52
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	17:33-18:51/78 19:41	05:42 20:13	17:32-18:51/79 20:41	05:27 20:41	17:50-18:42/52
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	17:32-18:52/80 19:42	05:41 20:14	17:32-18:50/78 20:42	05:27 20:42	17:51-18:42/51
18	07:24 16:59	06:53 17:37	06:09 18:10	06:18 19:43	17:31-18:52/81 19:43	05:40 20:15	17:33-18:50/77 20:43	05:27 20:43	17:51-18:42/51
19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	17:31-18:53/82 19:44	05:39 20:16	17:33-18:49/76 20:44	05:27 20:44	17:52-18:43/51
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:45	17:30-18:53/83 19:45	05:38 20:17	17:33-18:49/76 20:45	05:27 20:45	17:52-18:43/51
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:47	17:30-18:54/84 19:47	05:38 20:18	17:34-18:48/74 20:46	05:27 20:46	17:52-18:43/51
22	07:21 17:04	06:47 17:42	06:03 18:14	06:12 19:48	17:29-18:53/84 19:48	05:37 20:19	17:35-18:48/73 20:47	05:28 20:47	17:52-18:43/51
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	17:29-18:54/85 19:49	05:36 20:20	17:36-18:48/72 20:48	05:28 20:48	17:52-18:43/51
24	07:20 17:06	06:45 17:45	05:59 18:16	06:09 19:50	17:28-18:53/85 19:50	05:35 20:20	17:36-18:47/71 20:49	05:28 20:49	17:53-18:44/51
25	07:19 17:07	06:43 17:46	05:58 18:17	06:08 19:51	17:28-18:54/86 19:51	05:35 20:21	17:37-18:47/70 20:50	05:28 20:50	17:53-18:44/51
26	07:19 17:09	06:42 17:47	05:56 18:19	06:06 19:52	17:28-18:54/86 19:52	05:34 20:22	17:37-18:47/70 20:51	05:29 20:51	17:52-18:44/52
27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	17:27-18:54/87 19:53	05:33 20:23	17:38-18:46/68 20:52	05:29 20:52	17:53-18:45/52
28	07:17 17:11	06:38 17:49	05:52 18:21	06:04 19:54	17:27-18:54/87 19:54	05:33 20:24	17:39-18:46/67 20:53	05:29 20:53	17:53-18:45/52
29	07:16 17:12		06:51 19:22	06:02 19:55	17:26-18:53/87 19:55	05:32 20:25	17:39-18:45/66 20:54	05:30 20:54	17:53-18:46/53
30	07:15 17:14		06:49 19:23	06:01 19:56	17:27-18:54/87 19:56	05:31 20:26	17:40-18:45/65 20:55	05:30 20:55	17:53-18:46/53
31	07:14 17:15		06:47 19:24			05:31 20:26	17:41-18:44/63 20:56		
Potential sun hours	297	297	369	399	449	453			
Sum of minutes with flicker	0	0	964	2123	2405	1627			

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: 12 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 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

	July	August	September	October	November	December
1	05:31 17:53-18:47/54 20:38	05:55 17:40-19:02/82 20:19	06:26 17:38-18:47/69 19:35	06:57 17:32-18:06/34 18:44	06:31 16:57	07:06 16:33
2	05:31 17:52-18:47/55 20:38	05:56 17:39-19:02/83 20:18	06:27 17:39-18:45/66 19:34	06:58 17:33-18:05/32 18:43	06:32 16:56	07:07 16:32
3	05:32 17:53-18:48/55 20:38	05:57 17:39-19:02/83 20:17	06:28 17:40-18:44/64 19:32	06:59 17:34-18:03/29 18:41	06:34 16:55	07:08 16:32
4	05:32 17:52-18:48/56 20:38	05:58 17:38-19:02/84 20:16	06:29 17:41-18:42/61 19:30	07:00 17:35-18:01/26 18:39	06:35 16:54	07:09 16:32
5	05:33 17:52-18:49/57 20:37	05:59 17:38-19:03/85 20:14	06:30 17:42-18:40/58 19:29	07:01 17:37-17:58/21 18:38	06:36 16:52	07:10 16:32
6	05:33 17:51-18:49/58 20:37	06:00 17:38-19:03/85 20:13	06:31 17:44-18:37/53 19:27	07:02 17:40-17:55/15 18:36	06:37 16:51	07:11 16:32
7	05:34 17:51-18:50/59 20:37	06:01 17:37-19:03/86 20:12	06:32 17:46-18:35/49 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	05:35 17:50-18:50/60 20:37	06:02 17:37-19:03/86 20:11	06:33 17:48-18:32/44 19:24	07:04 18:33	06:40 16:49	07:13 16:31
9	05:35 17:50-18:51/61 20:36	06:03 17:37-19:03/86 20:09	06:34 17:51-18:29/38 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	05:36 17:50-18:52/62 20:36	06:04 17:36-19:03/87 20:08	06:35 17:52-18:25/33 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	05:37 17:49-18:52/63 20:35	06:05 17:36-19:03/87 20:07	06:36 17:50-18:21/31 19:19	07:07 18:28	06:43 16:46	07:16 16:31
12	05:37 17:49-18:52/63 20:35	06:06 17:36-19:03/87 20:05	06:37 17:48-18:21/33 19:17	07:08 18:26	06:44 16:45	07:17 16:32
13	05:38 17:49-18:53/64 20:34	06:07 17:35-19:02/87 20:04	06:38 17:45-18:22/37 19:15	07:09 18:25	06:46 16:44	07:18 16:32
14	05:39 17:49-18:54/65 20:34	06:08 17:35-19:02/87 20:03	06:39 17:43-18:22/39 19:14	07:10 18:23	06:47 16:43	07:18 16:32
15	05:40 17:48-18:54/66 20:33	06:09 17:35-19:02/87 20:01	06:40 17:40-18:21/41 19:12	07:12 18:22	06:48 16:42	07:19 16:32
16	05:41 17:47-18:55/68 20:33	06:10 17:35-19:01/86 20:00	06:41 17:38-18:22/44 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	05:41 17:47-18:56/69 20:32	06:11 17:35-19:01/86 19:59	06:42 17:37-18:22/45 19:08	07:14 18:18	06:50 16:41	07:20 16:33
18	05:42 17:47-18:56/69 20:31	06:12 17:34-19:00/86 19:57	06:43 17:35-18:21/46 19:07	07:15 18:17	06:52 16:40	07:21 16:33
19	05:43 17:47-18:57/70 20:31	06:13 17:33-18:59/86 19:56	06:44 17:34-18:21/47 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	05:44 17:45-18:57/72 20:30	06:14 17:33-18:59/86 19:54	06:45 17:33-18:21/48 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	05:45 17:45-18:57/72 20:29	06:15 17:33-18:58/85 19:53	06:46 17:32-18:20/48 19:02	07:18 18:12	06:55 16:38	07:23 16:34
22	05:46 17:45-18:58/73 20:28	06:16 17:34-18:57/83 19:51	06:47 17:32-18:19/47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	05:46 17:44-18:59/75 20:28	06:17 17:34-18:57/83 19:50	06:48 17:31-18:19/48 18:58	07:21 18:09	06:57 16:36	07:24 16:35
24	05:47 17:44-18:59/75 20:27	06:18 17:34-18:56/82 19:48	06:49 17:31-18:18/47 18:56	07:22 18:08	06:59 16:36	07:24 16:36
25	05:48 17:43-19:00/77 20:26	06:19 17:34-18:55/81 19:47	06:50 17:30-18:17/47 18:55	06:23 17:07	07:00 16:35	07:25 16:36
26	05:49 17:43-19:00/77 20:25	06:20 17:34-18:54/80 19:45	06:51 17:30-18:15/45 18:53	06:24 17:05	07:01 16:35	07:25 16:37
27	05:50 17:43-19:01/78 20:24	06:21 17:35-18:53/78 19:43	06:52 17:30-18:14/44 18:51	06:25 17:04	07:02 16:34	07:26 16:38
28	05:51 17:41-19:00/79 20:23	06:22 17:35-18:52/77 19:42	06:53 17:31-18:12/41 18:50	06:26 17:03	07:03 16:34	07:26 16:38
29	05:52 17:41-19:01/80 20:22	06:23 17:36-18:51/75 19:40	06:54 17:31-18:11/40 18:48	06:28 17:01	07:04 16:33	07:26 16:39
30	05:53 17:40-19:01/81 20:21	06:24 17:36-18:50/74 19:39	06:55 17:32-18:08/36 18:46	06:29 17:00	07:05 16:33	07:26 16:40
31	05:54 17:40-19:01/81 20:20	06:25 17:37-18:48/71 19:37		06:30 16:59		07:27 16:41
Potential sun hours	460	428	375	345	297	287
Sum of minutes with flicker	2094	2581	1389	157	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: 13 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (13)

### 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	07:27 15:32-15:59/27 16:42 13:23-15:08/105	07:13 15:34-16:44/70 17:16 13:44-15:10/86	06:37 17:51	06:46 19:25	06:00 19:57	05:30 20:27
2	07:27 15:33-16:01/28 16:42 13:24-15:08/104	07:12 15:35-16:44/69 17:17 13:46-15:10/84	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28
3	07:27 15:33-16:02/29 16:43 13:24-15:09/105	07:11 15:35-16:44/69 17:19 13:47-15:09/82	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:29
4	07:27 15:32-16:02/30 16:44 13:24-15:08/104	07:10 15:36-16:44/68 17:20 13:49-15:08/79	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29
5	07:27 15:32-16:03/31 16:45 13:24-15:09/105	07:09 15:37-16:44/67 17:21 13:50-15:08/78	06:31 17:55	06:39 19:29	05:54 20:02	05:29 20:30
6	07:27 15:32-16:04/32 16:46 13:25-15:09/104	07:08 15:38-16:43/65 17:22 13:52-15:07/75	06:29 17:56	06:37 19:30	05:53 20:03	05:28 20:31
7	07:27 15:32-16:06/34 16:47 13:25-15:10/105	07:07 15:40-16:42/62 17:24 13:54-15:06/72	06:27 17:57	06:36 19:31	05:52 20:04	05:28 20:31
8	07:27 15:32-16:07/35 16:48 13:26-15:10/104	07:06 15:41-16:41/60 17:25 13:56-15:05/69	06:26 17:59	06:34 19:33	05:51 20:05	05:28 20:32
9	07:27 15:32-16:08/36 16:49 13:27-15:11/104	07:05 15:42-16:39/57 17:26 13:57-15:03/66	06:24 18:00	06:33 19:34	05:50 20:06	05:28 20:32
10	07:27 15:31-16:08/37 16:50 13:27-15:11/104	07:03 16:48-16:51/3 14:00-15:02/62 17:27 15:43-16:30/47	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33
11	07:26 15:31-16:09/38 16:51 13:28-15:11/103	07:02 16:45-16:56/11 14:02-15:01/59 17:29 15:46-16:30/44	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:34
12	07:26 15:32-16:10/38 16:52 13:29-15:12/103	07:01 16:43-16:58/15 14:05-14:59/54 17:30 15:48-16:29/41	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34
13	07:26 15:31-16:11/40 16:53 13:29-15:12/103	07:00 16:41-16:58/17 14:07-14:56/49 17:31 15:51-16:28/37	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35
14	07:25 15:31-16:13/42 16:54 13:30-15:12/102	06:58 16:41-17:00/19 14:11-14:54/43 17:32 15:52-16:27/35	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35
15	07:25 15:31-16:14/43 16:55 13:30-15:12/102	06:57 16:40-17:01/21 14:15-14:52/37 17:34 15:54-16:26/32	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35
16	07:25 15:31-16:17/46 16:57 13:31-15:13/102	06:56 16:39-17:00/21 14:19-14:47/28 17:35 15:55-16:24/29	06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36
17	07:24 15:31-16:18/47 16:58 13:31-15:12/101	06:54 16:40-17:01/21 14:27-14:41/14 17:36 15:57-16:23/26	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36
18	07:24 15:31-16:20/49 16:59 13:32-15:13/101	06:53 16:39-17:00/21 17:37 15:59-16:20/21	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:37
19	07:23 15:31-16:20/49 17:00 13:32-15:13/101	06:52 16:39-17:01/22 17:39 16:02-16:17/15	06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37
20	07:23 15:32-16:22/50 17:01 13:34-15:14/100	06:50 16:40-17:01/21 17:40	06:06 18:12	06:15 19:45	05:38 20:17	05:27 20:37
21	07:22 15:31-16:23/52 17:02 13:34-15:13/99	06:49 16:40-16:59/19 17:41	06:04 18:13	06:14 19:47	05:38 20:18	05:27 20:37
22	07:21 15:31-16:24/53 17:04 13:35-15:13/98	06:47 16:42-16:59/17 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38
23	07:21 16:27-16:34/7 13:35-15:13/98 17:05 15:31-16:25/54	06:46 16:42-16:57/15 17:43	06:01 18:15	06:11 19:49	05:36 20:19	05:28 20:38
24	07:20 15:32-16:38/66 17:06 13:37-15:13/96	06:45 16:45-16:55/10 17:45	05:59 18:16	06:09 19:50	05:35 20:20	05:28 20:38
25	07:19 15:32-16:39/67 17:07 13:37-15:13/96	06:43 17:46	05:58 18:17	06:08 19:51	05:35 20:21	05:28 20:38
26	07:18 15:32-16:40/68 17:09 13:38-15:13/95	06:42 17:47	05:56 18:19	06:06 19:52	05:34 20:22	05:29 20:38
27	07:18 15:32-16:41/69 17:10 13:39-15:12/93	06:40 17:48	05:54 18:20	06:05 19:53	05:33 20:23	05:29 20:38
28	07:17 15:32-16:42/70 17:11 13:40-15:12/92	06:38 17:49	05:52 18:21	06:04 19:54	05:33 20:24	05:29 20:38
29	07:16 15:33-16:43/70 17:12 13:41-15:12/91		06:51 19:22	06:02 19:55	05:32 20:25	05:30 20:38
30	07:15 15:33-16:43/70 17:14 13:42-15:11/89		06:49 19:23	06:01 19:56	05:31 20:26	05:30 20:38
31	07:14 15:34-16:43/69 17:15 13:43-15:11/88		06:47 19:24		05:31 20:26	
Potential sun hours	297	297	369	399	449	453
Sum of minutes with flicker	4573	2204	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: 13 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (13)

### 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	05:31 20:38	05:55 20:19	06:26 19:35	06:57 18:44		06:31 15:13-16:00/47 16:57 13:29-14:32/63		07:06 15:13-15:51/38 16:33 13:10-14:53/103
2	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:43		06:32 15:11-16:09/58 16:56 13:27-14:33/66		07:07 15:14-15:51/37 16:32 13:10-14:54/104
3	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41		06:34 15:10-16:10/60 16:55 13:24-14:34/70		07:08 15:15-15:51/36 16:32 13:10-14:54/104
4	05:32 20:38	05:58 20:15	06:29 19:30	07:00 18:39		06:35 15:09-16:12/63 16:54 13:23-14:36/73		07:09 15:16-15:51/35 16:32 13:10-14:55/105
5	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38		06:36 15:08-16:13/65 16:52 13:22-14:37/75		07:10 15:17-15:51/34 16:32 13:11-14:55/104
6	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36		06:37 15:07-16:14/67 16:51 13:20-14:38/78		07:11 15:18-15:50/32 16:32 13:11-14:55/104
7	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34		06:38 15:07-16:14/67 16:50 13:19-14:39/80		07:12 15:19-15:50/31 16:31 13:11-14:56/105
8	05:35 20:37	06:02 20:11	06:33 19:24	07:04 18:33		06:40 15:06-16:15/69 16:49 13:18-14:40/82		07:13 15:20-15:50/30 16:31 13:12-14:56/104
9	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31		06:41 15:06-16:15/69 16:48 13:16-14:41/85		07:14 15:21-15:50/29 16:31 13:12-14:57/105
10	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29		06:42 15:05-16:15/70 16:47 13:15-14:41/86		07:15 15:22-15:50/28 16:31 13:13-14:58/105
11	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28		06:43 15:05-16:15/70 16:46 13:15-14:43/88		07:16 15:23-15:50/27 16:31 13:13-14:58/105
12	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26		06:44 15:05-16:15/70 16:45 13:14-14:43/89		07:17 15:24-15:51/27 16:32 13:14-14:59/105
13	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25		06:46 15:05-16:14/69 16:44 13:13-14:44/91		07:18 15:24-15:50/26 16:32 13:13-14:58/105
14	05:39 20:34	06:08 20:03	06:39 19:14	07:10 18:23		06:47 15:05-16:15/70 16:43 13:13-14:45/92		07:18 15:25-15:50/25 16:32 13:14-14:59/105
15	05:40 20:33	06:09 20:01	06:40 19:12	07:12 18:22		06:48 15:05-16:14/69 16:42 13:12-14:45/93		07:19 15:26-15:50/24 16:32 13:15-15:00/105
16	05:41 20:33	06:10 20:00	06:41 19:10	07:13 18:20		06:49 15:05-16:13/68 16:41 13:11-14:46/95		07:20 15:27-15:50/23 16:32 13:15-15:00/105
17	05:41 20:32	06:11 19:59	06:42 19:08	07:14 17:18-17:24/6 18:18		06:50 15:05-16:12/67 16:41 13:10-14:46/96		07:20 15:28-15:50/22 16:33 13:15-15:00/105
18	05:42 20:31	06:12 19:57	06:43 19:07	07:15 17:14-17:27/13 18:17		06:52 15:06-16:12/66 16:40 13:11-14:47/96		07:21 15:29-15:51/22 16:33 13:16-15:01/105
19	05:43 20:31	06:13 19:56	06:44 19:05	07:16 17:13-17:29/16 18:15		06:53 16:02-16:09/7 13:10-14:48/98 16:39 15:06-16:00/54		07:22 15:29-15:51/22 16:33 13:16-15:01/105
20	05:44 20:30	06:14 19:54	06:45 19:03	07:17 17:12-17:30/18 18:14		06:54 15:06-15:59/53 16:38 13:10-14:48/98		07:22 15:30-15:51/21 16:34 13:17-15:02/105
21	05:45 20:29	06:15 19:53	06:46 19:01	07:18 17:11-17:30/19 18:12		06:55 15:06-15:58/52 16:38 13:09-14:48/99		07:23 15:30-15:51/21 16:34 13:17-15:02/105
22	05:46 20:28	06:16 19:51	06:47 19:00	07:19 17:10-17:30/20 18:11 16:36-16:44/8		06:56 15:08-15:58/50 16:37 13:10-14:50/100		07:23 15:31-15:52/21 16:35 13:18-15:03/105
23	05:46 20:28	06:17 19:50	06:48 18:58	07:21 17:10-17:31/21 18:09 16:32-16:49/17		06:57 15:08-15:57/49 16:36 13:09-14:50/101		07:24 15:31-15:52/21 16:35 13:18-15:03/105
24	05:47 20:27	06:18 19:48	06:49 18:56	07:22 17:10-17:31/21 18:08 16:29-16:51/22		06:59 15:08-15:57/49 16:36 13:09-14:50/101		07:24 15:32-15:53/21 16:36 13:19-15:04/105
25	05:48 20:26	06:19 19:47	06:50 18:55	08:23 16:09-16:31/22 13:54-14:13/19 17:07 15:26-15:53/27		07:00 15:09-15:56/47 16:35 13:09-14:50/101		07:25 15:32-15:54/22 16:36 13:19-15:04/105
26	05:49 20:25	06:20 19:45	06:51 18:53	06:24 16:09-16:30/21 13:48-14:18/30 17:05 15:24-15:54/30		07:01 15:09-15:55/46 16:35 13:09-14:51/102		07:25 15:32-15:54/22 16:37 13:19-15:04/105
27	05:50 20:24	06:21 19:43	06:52 18:51	06:25 16:09-16:29/20 13:43-14:21/38 17:04 15:22-15:55/33		07:02 15:11-15:55/44 16:34 13:10-14:52/102		07:26 15:33-15:56/23 16:38 13:20-15:06/106
28	05:51 20:23	06:22 19:42	06:53 18:49	06:26 16:11-16:29/18 13:40-14:25/45 17:03 15:22-15:57/35		07:03 15:11-15:53/42 16:34 13:10-14:52/102		07:26 15:32-15:56/24 16:38 13:21-15:06/105
29	05:52 20:22	06:23 19:40	06:54 18:48	06:28 16:11-16:28/17 13:37-14:27/50 17:01 15:20-15:58/38		07:04 15:12-15:52/40 16:33 13:10-14:53/103		07:26 15:32-15:57/25 16:39 13:21-15:06/105
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31	05:54 20:20	06:25 19:37		06:30 16:14-16:24/10 13:32-14:31/59 16:59 15:15-16:00/45				07:27 15:32-15:58/26 16:41 13:22-15:07/105
Potential sun hours	460	428	375	345		297		287
Sum of minutes with flicker	0	0	0	848		4464		4070

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: 14 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (14)

### 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	07:27 15:28-15:47/19	07:13 15:58-16:30/32	06:37 06:46	06:00 05:30	05:31 05:55	06:26 06:56	06:31 06:56	06:26 06:56	06:31 06:56	06:26 06:56	06:31 15:44-15:55/11	07:06 15:35-15:51/16
	16:42	17:16	17:16	17:50	19:25 19:57	20:27 20:38	20:19 19:35	18:44 16:57	16:57	16:57	16:57	16:33
2	07:27 15:29-15:47/18	07:12 16:00-16:31/31	06:35 06:44	05:58 05:30	05:31 05:56	06:27 06:58	06:32 06:57	06:27 06:58	06:32 06:57	06:27 06:58	06:32 15:42-15:57/15	07:07 15:36-15:51/15
	16:42	17:17	17:17	17:52	19:26 19:58	20:28 20:38	20:18 19:34	18:43 16:56	16:56	16:56	16:56	16:32
3	07:27 15:30-15:47/17	07:11 16:03-16:31/28	06:34 06:42	05:57 05:29	05:32 05:57	06:28 06:59	06:33 06:58	06:28 06:59	06:33 06:58	06:28 06:59	06:34 15:40-15:58/18	07:08 15:37-15:50/13
	16:43	17:19	17:19	17:53	19:27 19:59	20:29 20:38	20:17 19:32	18:41 16:55	16:55	16:55	16:55	16:32
4	07:27 15:31-15:47/16	07:10 16:07-16:31/24	06:32 06:41	05:56 05:29	05:32 05:58	06:29 07:00	06:34 06:59	06:29 07:00	06:34 06:59	06:29 07:00	06:35 15:40-15:59/19	07:09 15:39-15:49/10
	16:44	17:20	17:20	17:54	19:28 20:00	20:29 20:38	20:15 19:30	18:39 16:54	16:54	16:54	16:54	16:32
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	16:45	17:21	17:21	17:55	19:29 20:01	20:30 20:37	20:14 19:29	18:38 16:52	16:52	16:52	16:52	16:32
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	16:46	17:22	17:22	17:56	19:30 20:03	20:31 20:37	20:13 19:27	18:36 16:51	16:51	16:51	16:51	16:32
7	07:27 15:56-16:03/7	07:07 16:10-16:30/20	06:27 06:36	05:52 05:28	05:34 06:01	06:32 07:03	06:38 06:33	07:03 06:38	06:38 06:33	07:03 06:38	06:38 15:37-16:00/23	07:12 15:19-15:34/15
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	17:04	17:42	17:42	18:14	19:48 20:19	20:38 20:28	19:51 19:00	18:11 16:37	16:37	16:37	16:37	16:35
23	07:21 15:52-16:22/30	06:46 06:01	06:11 05:36	05:28 05:46	06:17 06:48	07:21 06:57	06:57 06:51	07:21 06:57	06:57 06:51	07:21 06:57	06:57 15:28-15:53/25	07:24 15:22-15:45/23
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	17:10	17:48	17:48	18:20	19:53 20:23	20:38 20:24	19:43 18:51	17:04 16:34	16:34	16:34	16:34	16:38
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	17:11	17:49	17:49	18:21	19:54 20:24	20:38 20:23	19:42 18:49	17:03 16:34	16:34	16:34	16:34	16:38
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	17:14	17:52	17:52	18:24	19:56 20:25	20:38 20:21	19:39 18:46	17:00 16:40	16:40	16:40	16:40	16:40
31	07:14 15:57-16:30/33	06:47 06:04	05:31 05:31	05:54 06:25	06:56 06:30	07:01 06:51	06:51 06:45	07:01 06:51				

## SHADOW - Calendar per WTG

WTG: 15 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (15)

### 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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	06:00 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
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11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:34	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:17 16:32
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:44	07:17 16:32
14	07:25 16:54	06:58 17:32	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:14	07:10 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:34	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42	07:19 16:32
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36	05:41 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:41	07:20 16:33
18	07:24 16:59	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:37	05:42 20:31	06:12 19:57	06:43 19:07	07:15 18:17	06:52 16:40	07:21 16:33
19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:31	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:45	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:46	05:38 20:18	05:27 20:37	05:45 20:29	06:15 19:53	06:46 19:01	07:18 18:12	06:55 16:38	07:23 16:34
22	07:21 17:04	06:47 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	05:36 20:19	05:28 20:38	05:46 20:28	06:17 19:50	06:48 18:58	07:21 18:09	06:57 16:36	07:24 16:35
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25	07:19 17:07	06:43 17:46	05:58 18:17	06:08 19:51	05:35 20:21	05:28 20:38	05:48 20:26	06:19 19:47	06:50 18:55	06:23 17:07	07:00 16:35	07:25 16:36
26	07:18 17:09	06:41 17:47	05:56 18:18	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	06:24 17:05	07:01 16:35	07:25 16:37
27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	06:25 17:04	07:02 16:34	07:26 16:38
28	07:17 17:11	06:38 17:49	05:52 18:21	06:04 19:54	05:33 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	06:26 17:02	07:03 16:34	07:26 16:38
29	07:16 17:12		06:51 19:22	06:02 19:55	05:32 20:25	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	06:28 17:01	07:04 16:33	07:26 16:39
30	07:15 17:14		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:39	06:55 18:46	06:29 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:59		07:27 16:41
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 16 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (16)

### 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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	06:00 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:29	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:38	05:58 20:15	06:29 19:30	07:00 18:39	06:35 16:54	07:09 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:03	05:28 20:31	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51	07:11 16:32
7	07:27 16:47	07:07 17:24	06:27 17:57	06:36 19:31	05:52 20:04	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	07:06 17:25	06:26 17:59	06:34 19:32	05:51 20:05	05:28 20:32	05:35 20:36	06:02 20:11	06:33 19:24	07:04 18:33	06:40 16:49	07:13 16:31
9	07:27 16:49	07:05 17:26	06:24 18:00	06:32 19:34	05:50 20:06	05:28 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:26 16:50	07:03 17:27	06:23 18:01	06:31 19:35	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:34	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:17 16:32
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:44	07:17 16:32
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15	07:25 16:55	06:57 17:34	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42	07:19 16:32
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36	05:41 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:41	07:20 16:33
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19	07:23 17:00	06:52 17:39	06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:31	06:13 19:56	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	07:23 17:01	06:50 17:40	06:06 18:12	06:15 19:45	05:38 20:17	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:46	05:38 20:18	05:27 20:37	05:45 20:29	06:15 19:53	06:46 19:01	07:18 18:12	06:55 16:38	07:23 16:34
22	07:21 17:04	06:47 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:21 17:05	06:46 17:43	06:01 18:15	06:11 19:49	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:50	06:48 18:58	07:21 18:09	06:57 16:36	07:24 16:35
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25	07:19 17:07	06:43 17:46	05:57 18:17	06:08 19:51	05:35 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:55	07:23 17:07	07:00 16:35	07:25 16:36
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27	07:18 17:10	06:40 17:48	05:54 18:20	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	07:25 17:04	07:02 16:34	07:25 16:38
28	07:17 17:11	06:38 17:49	05:52 18:21	06:04 19:54	05:33 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	07:26 17:03	07:03 16:34	07:26 16:38
29	07:16 17:12		06:51 19:22	06:02 19:55	05:32 20:25	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:27 17:01	07:04 16:33	07:26 16:39
30	07:15 17:14		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:39	06:55 18:46	07:28 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:59		07:27 16:41
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 17 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (17)

### 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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	06:00 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:58 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:17	06:28 19:32	06:59 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:38	05:58 20:15	06:29 19:30	07:00 18:39	06:35 16:54	07:09 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
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13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:35	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:46 16:44	07:17 16:32
14	07:25 16:54	06:58 17:32	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:34	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42	07:19 16:32
16	07:25 16:57	06:56 17:35	06:13 18:08	06:21 19:41	05:42 20:13	05:27 20:36	05:41 20:33	06:10 20:00	06:41 19:10	07:13 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:41	07:20 16:33
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21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:46	05:38 20:18	05:27 20:37	05:45 20:29	06:15 19:53	06:46 19:01	07:18 18:12	06:55 16:38	07:23 16:34
22	07:21 17:04	06:47 17:42	06:03 18:14	06:12 19:48	05:37 20:19	05:28 20:38	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
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25	07:19 17:07	06:43 17:46	05:57 18:17	06:08 19:51	05:35 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:55	06:23 17:07	07:00 16:35	07:25 16:36
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31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:59		07:27 16:41
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 18 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (18)

### 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	07:27 14:47-15:24/37	07:13 16:07-16:25/18	06:37 06:46	05:59 05:30	05:31 05:55	06:26 06:56	06:31 06:57	06:26 06:56	06:31 15:33-16:01/28	07:06 14:35-15:11/36		
2	07:27 14:48-15:25/37	07:12 16:06-16:27/21	06:35 06:44	05:58 05:30	05:31 05:56	06:27 06:57	06:27 06:57	06:27 06:57	06:32 15:33-16:01/28	07:07 14:35-15:11/36		
3	07:27 14:48-15:25/37	07:11 16:05-16:28/23	06:34 06:42	05:57 05:29	05:32 05:57	06:28 06:58	06:28 06:58	06:28 06:58	06:33 15:33-16:01/28	07:08 14:35-15:12/37		
4	07:27 14:49-15:26/37	07:10 16:04-16:29/25	06:32 06:41	05:56 05:29	05:32 05:58	06:29 07:00	06:29 07:00	06:29 07:00	06:35 15:33-16:00/27	07:09 14:35-15:12/37		
5	07:27 14:49-15:26/37	07:09 16:04-16:30/26	06:31 06:39	05:54 05:29	05:33 05:59	06:30 07:01	06:30 07:01	06:30 07:01	06:36 15:34-16:00/26	07:10 14:36-15:12/36		
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8	07:27 14:51-15:28/37	07:06 16:03-16:31/28	06:26 06:34	05:51 05:28	05:35 06:02	06:33 07:04	06:33 07:04	06:33 07:04	06:39 15:36-15:59/23	07:13 14:37-15:14/37		
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Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
Sum of minutes with flicker	854	457	0	0	0	0	0	0	0	214	696	1137

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: 19 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (19)

### 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	07:27 16:41	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:18	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:37	05:58 20:15	06:29 19:30	06:59 18:39	06:35 16:54	07:09 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:02	05:28 20:30	05:33 20:37	06:00 20:13	06:00 19:27	06:31 18:36	06:37 16:51	07:11 16:31
7	07:27 16:47	07:07 17:24	06:27 17:57	06:36 19:31	05:52 20:03	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	07:06 17:25	06:26 17:58	06:34 19:32	05:51 20:04	05:28 20:32	05:35 20:36	06:02 20:10	06:33 19:24	07:04 18:33	06:39 16:49	07:13 16:31
9	07:27 16:49	07:04 17:26	06:24 18:00	06:32 19:33	05:50 20:06	05:27 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
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11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:33	05:37 20:35	06:05 20:07	06:36 19:18	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:17 16:31
13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:34	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:45 16:44	07:17 16:32
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17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:40	07:20 16:33
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19	07:23 17:00	06:52 17:38	06:07 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:30	06:13 19:11	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
20	07:22 17:01	06:50 17:40	06:06 18:12	06:15 19:45	05:38 20:16	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:46	05:38 20:17	05:27 20:37	05:45 20:29	06:15 19:52	06:46 19:01	07:18 18:12	06:55 16:37	07:23 16:34
22	07:21 17:04	06:47 17:42	06:02 18:14	06:12 19:47	05:37 20:18	05:28 20:37	05:45 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:20 17:05	06:46 17:43	06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
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27	07:17 17:10	06:40 17:48	05:54 18:19	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	06:25 17:04	07:02 16:34	07:25 16:37
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31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:58		07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 20 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (20)

### 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	07:27 16:41	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:18	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	06:33 16:55	07:08 16:32
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13	07:26 16:53	07:00 17:31	06:17 18:04	06:26 19:38	05:45 20:10	05:27 20:34	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:45 16:44	07:17 16:32
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19	07:23 17:00	06:51 17:38	06:07 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:30	06:13 19:11	06:44 19:05	07:16 18:15	06:53 16:39	07:21 16:33
20	07:22 17:01	06:50 17:40	06:06 18:12	06:15 19:45	05:38 20:16	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:46	05:38 20:17	05:27 20:37	05:45 20:29	06:15 19:52	06:46 19:01	07:18 18:12	06:55 16:37	07:23 16:34
22	07:21 17:04	06:47 17:42	06:02 18:14	06:12 19:47	05:37 20:18	05:28 20:37	05:45 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:20 17:05	06:46 17:43	06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
24	07:20 17:06	06:44 17:44	05:59 18:16	06:09 19:50	05:35 20:20	05:28 20:38	05:47 20:26	06:18 19:48	06:49 18:56	07:22 18:08	06:58 16:36	07:24 16:36
25	07:19 17:07	06:43 17:46	05:57 18:17	06:08 19:51	05:34 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:54	07:23 17:06	07:00 16:35	07:25 16:36
26	07:18 17:08	06:41 17:47	05:56 18:18	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	07:24 17:05	07:01 16:35	07:25 16:37
27	07:17 17:10	06:40 17:48	05:54 18:19	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	07:25 17:04	07:02 16:34	07:25 16:37
28	07:17 17:11	06:38 17:49	05:52 18:21	06:03 19:54	05:32 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	07:26 17:02	07:03 16:34	07:26 16:38
29	07:16 17:12		06:51 19:22	06:02 19:55	05:32 20:24	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:27 17:01	07:04 16:33	07:26 16:39
30	07:15 17:13		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:38	06:55 18:46	07:28 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:58		07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 21 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (21)

### 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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:18	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:37	05:58 20:15	06:29 19:30	07:00 18:39	06:35 16:54	07:09 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:02	05:28 20:30	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51	07:11 16:31
7	07:27 16:47	07:07 17:24	06:27 17:57	06:36 19:31	05:52 20:03	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	07:06 17:25	06:26 17:58	06:34 19:32	05:51 20:04	05:28 20:32	05:35 20:36	06:02 20:10	06:33 19:24	07:04 18:33	06:39 16:49	07:13 16:31
9	07:27 16:49	07:04 17:26	06:24 18:00	06:32 19:33	05:50 20:06	05:28 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:26 16:50	07:03 17:27	06:22 18:01	06:31 19:35	05:48 20:07	05:27 20:33	05:36 20:36	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:33	05:37 20:35	06:05 20:07	06:36 19:19	07:07 18:28	06:43 16:46	07:16 16:31
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13	07:26 16:53	07:00 17:31	06:18 18:04	06:26 19:38	05:45 20:10	05:27 20:34	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:45 16:44	07:17 16:32
14	07:25 16:54	06:58 17:32	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23	06:47 16:43	07:18 16:32
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16	07:24 16:57	06:56 17:35	06:13 18:07	06:21 19:41	05:42 20:13	05:27 20:36	05:40 20:32	06:10 20:00	06:41 19:10	07:12 18:20	06:49 16:41	07:20 16:32
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:40	07:20 16:33
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19	07:23 17:00	06:52 17:38	06:08 18:11	06:17 19:44	05:39 20:16	05:27 20:37	05:43 20:30	06:13 19:11	06:44 19:05	07:16 18:15	06:53 16:39	07:22 16:33
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22	07:21 17:04	06:47 17:42	06:02 18:14	06:12 19:47	05:37 20:18	05:28 20:37	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:20 17:05	06:46 17:43	06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
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28	07:17 17:11	06:38 17:49	05:52 18:21	06:04 19:54	05:33 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	06:26 17:02	07:03 16:34	07:26 16:38
29	07:16 17:12		06:51 19:22	06:02 19:55	05:32 20:24	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	06:27 17:01	07:04 16:33	07:26 16:39
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31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:58		07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 22 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (22)

### 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	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:19	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:37	05:58 20:15	06:29 19:30	06:59 18:39	06:35 16:54	07:09 16:32
5	07:27 16:45	07:09 17:21	06:31 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
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18	07:23 16:59	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:36	05:42 20:31	06:12 19:57	06:43 19:07	07:15 18:17	06:51 16:40	07:21 16:33
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23	07:20 17:05	06:46 17:43	06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
24	07:20 17:06	06:44 17:44	05:59 18:16	06:09 19:50	05:35 20:20	05:28 20:38	05:47 20:26	06:18 19:48	06:49 18:56	07:22 18:08	06:58 16:36	07:24 16:36
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28	07:17 17:11	06:38 17:49	05:52 18:21	06:04 19:54	05:33 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	06:26 17:02	07:03 16:34	07:26 16:38
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31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:58		07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 23 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (23)

### 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	07:27 16:41	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:17	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:18	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	06:33 16:55	07:08 16:32
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10	07:26 16:50	07:03 17:27	06:22 18:01	06:31 19:34	05:48 20:06	05:27 20:33	05:36 20:35	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:33	05:37 20:35	06:05 20:07	06:36 19:18	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:16 16:31
13	07:25 16:53	06:59 17:31	06:17 18:04	06:26 19:38	05:45 20:10	05:27 20:34	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:24	06:45 16:44	07:17 16:32
14	07:25 16:54	06:58 17:32	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:02	06:39 19:13	07:10 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:33	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42	07:19 16:32
16	07:24 16:56	06:56 17:35	06:12 18:07	06:21 19:41	05:42 20:13	05:27 20:36	05:40 20:32	06:10 20:00	06:41 19:10	07:12 18:20	06:49 16:41	07:19 16:32
17	07:24 16:58	06:54 17:36	06:11 18:08	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:40	07:20 16:33
18	07:23 16:59	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:14	05:27 20:36	05:42 20:31	06:12 19:57	06:43 19:06	07:15 18:17	06:51 16:40	07:21 16:33
19	07:23 17:00	06:51 17:38	06:07 18:11	06:17 19:44	05:39 20:15	05:27 20:37	05:43 20:30	06:13 19:11	06:44 19:05	07:16 18:15	06:52 16:39	07:21 16:33
20	07:22 17:01	06:50 17:40	06:06 18:12	06:15 19:45	05:38 20:16	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:46	05:38 20:17	05:27 20:37	05:45 20:29	06:15 19:52	06:46 19:01	07:18 18:12	06:55 16:37	07:23 16:34
22	07:21 17:04	06:47 17:42	06:02 18:14	06:12 19:47	05:37 20:18	05:28 20:37	05:45 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:20 17:05	06:46 17:43	06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
24	07:20 17:06	06:44 17:44	05:59 18:16	06:09 19:49	05:35 20:20	05:28 20:38	05:47 20:26	06:18 19:48	06:49 18:56	07:21 18:08	06:58 16:36	07:24 16:36
25	07:19 17:07	06:43 17:46	05:57 18:17	06:08 19:51	05:34 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:54	07:22 18:06	06:59 16:35	07:25 16:36
26	07:18 17:08	06:41 17:47	05:56 18:18	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	07:23 17:05	07:01 16:35	07:25 16:37
27	07:17 17:10	06:40 17:48	05:54 18:19	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	07:24 17:04	07:02 16:34	07:25 16:37
28	07:17 17:11	06:38 17:49	05:52 18:20	06:03 19:54	05:32 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	07:25 17:02	07:03 16:34	07:26 16:38
29	07:16 17:12		06:51 19:22	06:02 19:55	05:32 20:24	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	07:26 17:01	07:04 16:33	07:26 16:39
30	07:15 17:13		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:38	06:55 18:46	07:27 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:58		07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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: 24 - GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT: 180,0 m) (24)

### 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

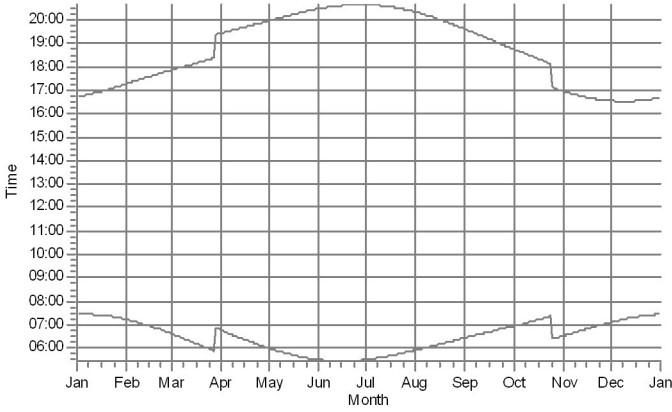
	January	February	March	April	May	June	July	August	September	October	November	December
1	07:27 16:42	07:13 17:16	06:37 17:50	06:46 19:25	05:59 19:57	05:30 20:27	05:31 20:38	05:55 20:19	06:26 19:35	06:56 18:44	06:31 16:57	07:06 16:33
2	07:27 16:42	07:12 17:17	06:35 17:52	06:44 19:26	05:58 19:58	05:30 20:28	05:31 20:38	05:56 20:18	06:27 19:34	06:57 18:43	06:32 16:56	07:07 16:32
3	07:27 16:43	07:11 17:18	06:34 17:53	06:42 19:27	05:57 19:59	05:29 20:28	05:32 20:38	05:57 20:16	06:28 19:32	06:58 18:41	06:33 16:55	07:08 16:32
4	07:27 16:44	07:10 17:20	06:32 17:54	06:41 19:28	05:56 20:00	05:29 20:29	05:32 20:37	05:58 20:15	06:29 19:30	06:59 18:39	06:34 16:54	07:09 16:32
5	07:27 16:45	07:09 17:21	06:30 17:55	06:39 19:29	05:54 20:01	05:29 20:30	05:33 20:37	05:59 20:14	06:30 19:29	07:01 18:38	06:36 16:52	07:10 16:32
6	07:27 16:46	07:08 17:22	06:29 17:56	06:37 19:30	05:53 20:02	05:28 20:30	05:33 20:37	06:00 20:13	06:31 19:27	07:02 18:36	06:37 16:51	07:11 16:31
7	07:27 16:47	07:07 17:24	06:27 17:57	06:36 19:31	05:52 20:03	05:28 20:31	05:34 20:37	06:01 20:12	06:32 19:25	07:03 18:34	06:38 16:50	07:12 16:31
8	07:27 16:48	07:06 17:25	06:26 17:58	06:34 19:32	05:51 20:04	05:28 20:32	05:35 20:36	06:02 20:10	06:33 19:24	07:04 18:33	06:39 16:49	07:13 16:31
9	07:26 16:49	07:04 17:26	06:24 18:00	06:32 19:33	05:50 20:05	05:28 20:32	05:35 20:36	06:03 20:09	06:34 19:22	07:05 18:31	06:41 16:48	07:14 16:31
10	07:26 16:50	07:03 17:27	06:22 18:01	06:31 19:34	05:48 20:06	05:27 20:33	05:36 20:35	06:04 20:08	06:35 19:20	07:06 18:29	06:42 16:47	07:15 16:31
11	07:26 16:51	07:02 17:29	06:21 18:02	06:29 19:36	05:47 20:08	05:27 20:33	05:37 20:35	06:05 20:07	06:36 19:18	07:07 18:28	06:43 16:46	07:16 16:31
12	07:26 16:52	07:01 17:30	06:19 18:03	06:28 19:37	05:46 20:09	05:27 20:34	05:37 20:35	06:06 20:05	06:37 19:17	07:08 18:26	06:44 16:45	07:16 16:32
13	07:25 16:53	06:59 17:31	06:17 18:04	06:26 19:38	05:45 20:10	05:27 20:34	05:38 20:34	06:07 20:04	06:38 19:15	07:09 18:25	06:45 16:44	07:17 16:32
14	07:25 16:54	06:58 17:32	06:16 18:05	06:24 19:39	05:44 20:11	05:27 20:35	05:39 20:34	06:08 20:03	06:39 19:13	07:10 18:23	06:47 16:43	07:18 16:32
15	07:25 16:55	06:57 17:34	06:14 18:06	06:23 19:40	05:43 20:12	05:27 20:35	05:40 20:33	06:09 20:01	06:40 19:12	07:11 18:21	06:48 16:42	07:19 16:32
16	07:24 16:57	06:56 17:35	06:13 18:07	06:21 19:41	05:42 20:13	05:27 20:36	05:40 20:32	06:10 20:00	06:41 19:10	07:12 18:20	06:49 16:41	07:19 16:32
17	07:24 16:58	06:54 17:36	06:11 18:09	06:20 19:42	05:41 20:14	05:27 20:36	05:41 20:32	06:11 19:58	06:42 19:08	07:14 18:18	06:50 16:40	07:20 16:33
18	07:23 16:59	06:53 17:37	06:09 18:10	06:18 19:43	05:40 20:15	05:27 20:36	05:42 20:31	06:12 19:57	06:43 19:06	07:15 18:17	06:51 16:40	07:21 16:33
19	07:23 17:00	06:51 17:38	06:07 18:11	06:17 19:44	05:39 20:15	05:27 20:37	05:43 20:30	06:13 19:11	06:44 19:05	07:16 18:15	06:53 16:39	07:21 16:33
20	07:22 17:01	06:50 17:40	06:06 18:12	06:15 19:45	05:38 20:16	05:27 20:37	05:44 20:30	06:14 19:54	06:45 19:03	07:17 18:14	06:54 16:38	07:22 16:34
21	07:22 17:02	06:49 17:41	06:04 18:13	06:14 19:46	05:38 20:17	05:27 20:37	05:45 20:29	06:15 19:52	06:46 19:01	07:18 18:12	06:55 16:38	07:23 16:34
22	07:21 17:04	06:47 17:42	06:02 18:14	06:12 19:47	05:37 20:18	05:28 20:37	05:46 20:28	06:16 19:51	06:47 19:00	07:19 18:11	06:56 16:37	07:23 16:35
23	07:20 17:05	06:46 17:43	06:01 18:15	06:11 19:48	05:36 20:19	05:28 20:38	05:46 20:27	06:17 19:49	06:48 18:58	07:20 18:09	06:57 16:36	07:24 16:35
24	07:20 17:06	06:44 17:44	05:59 18:16	06:09 19:50	05:35 20:20	05:28 20:38	05:47 20:26	06:18 19:48	06:49 18:56	07:22 18:08	06:58 16:36	07:24 16:36
25	07:19 17:07	06:43 17:46	05:57 18:17	06:08 19:51	05:34 20:21	05:28 20:38	05:48 20:26	06:19 19:46	06:50 18:54	06:23 17:07	06:59 16:35	07:25 16:36
26	07:18 17:08	06:41 17:47	05:56 18:18	06:06 19:52	05:34 20:22	05:29 20:38	05:49 20:25	06:20 19:45	06:51 18:53	06:24 17:05	07:01 16:35	07:25 16:37
27	07:17 17:10	06:40 17:48	05:54 18:19	06:05 19:53	05:33 20:23	05:29 20:38	05:50 20:24	06:21 19:43	06:52 18:51	06:25 17:04	07:02 16:34	07:25 16:38
28	07:17 17:11	06:38 17:49	05:52 18:21	06:04 19:54	05:33 20:24	05:29 20:38	05:51 20:23	06:22 19:42	06:53 18:49	06:26 17:02	07:03 16:34	07:26 16:38
29	07:16 17:12		06:51 19:22	06:02 19:55	05:32 20:24	05:30 20:38	05:52 20:22	06:23 19:40	06:54 18:48	06:27 17:01	07:04 16:33	07:26 16:39
30	07:15 17:13		06:49 19:23	06:01 19:56	05:31 20:25	05:30 20:38	05:53 20:21	06:24 19:38	06:55 18:46	06:29 17:00	07:05 16:33	07:26 16:40
31	07:14 17:15		06:47 19:24		05:31 20:26		05:54 20:20	06:25 19:37		06:30 16:58		07:26 16:40
Potential sun hours	297	297	369	399	449	453	460	428	375	345	297	287
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

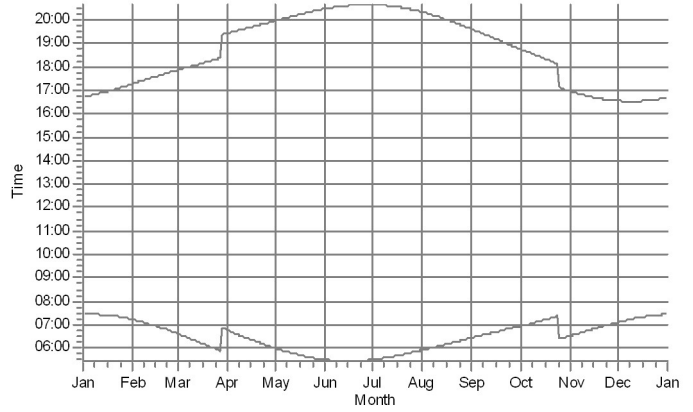
Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

## SHADOW - Calendar per WTG, graphical

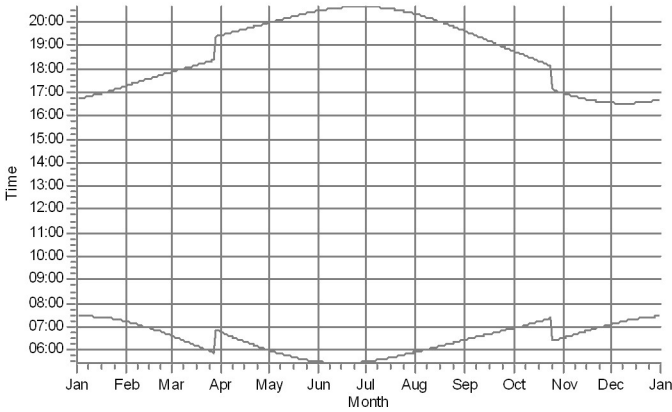
1: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



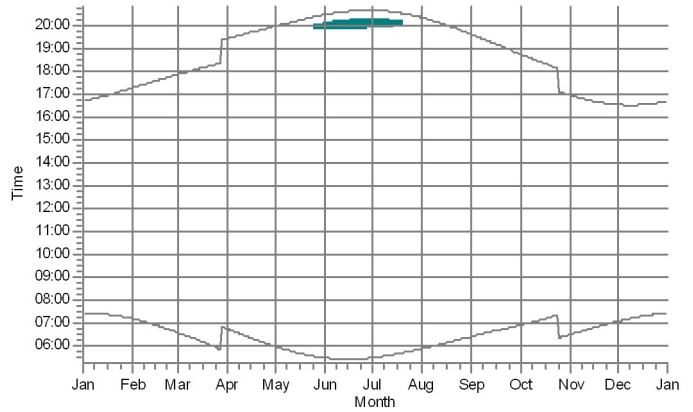
2: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



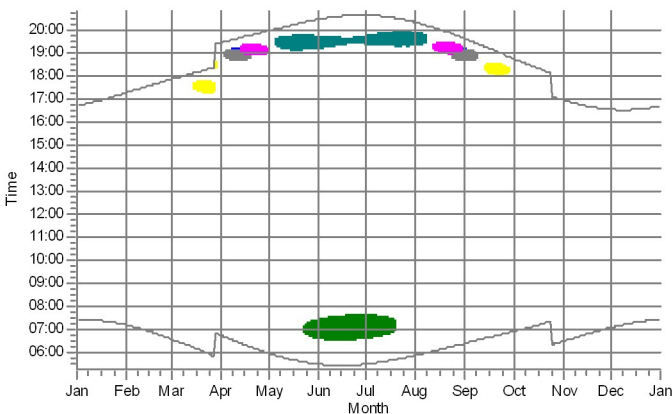
3: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



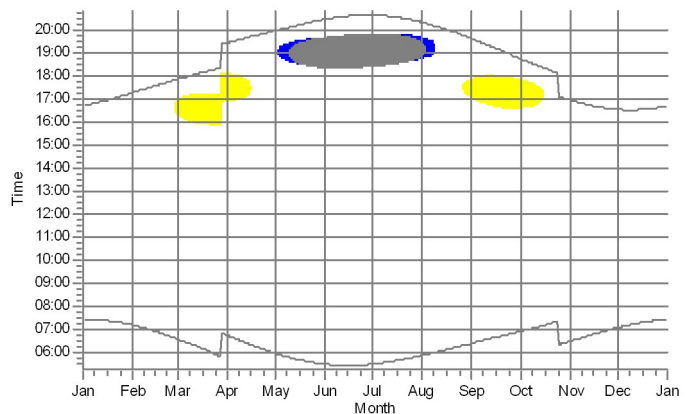
4: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



5: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



6: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



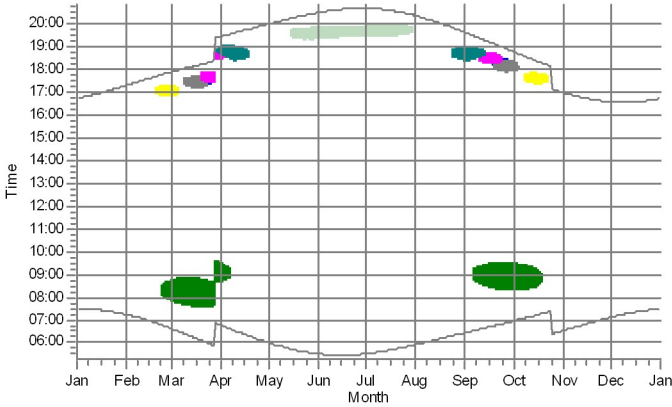
### Shadow receptors

- A: Shadow Receptor: 1,0 × 1,0 Azimuth: -60,0° Slope: 90,0° (1)
- B: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (2)
- C: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (3)

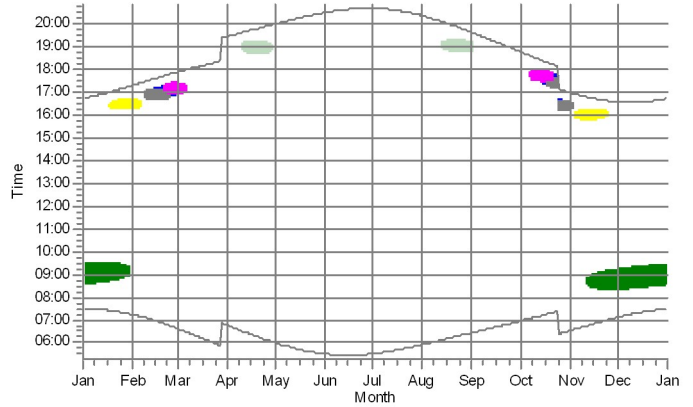
- D: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (4)
- E: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (5)
- F: Shadow Receptor: 1,0 × 1,0 Azimuth: -180,0° Slope: 90,0° (6)

## SHADOW - Calendar per WTG, graphical

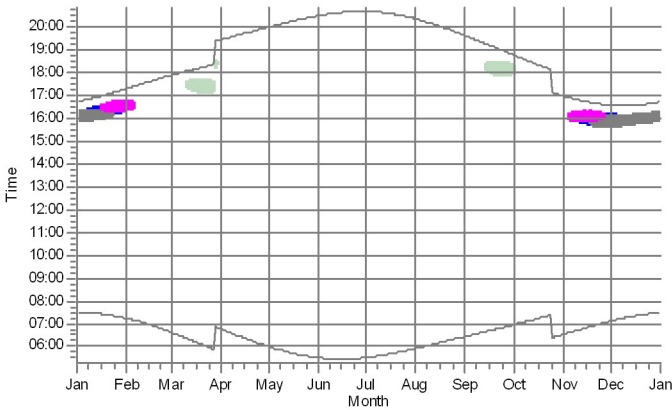
7: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



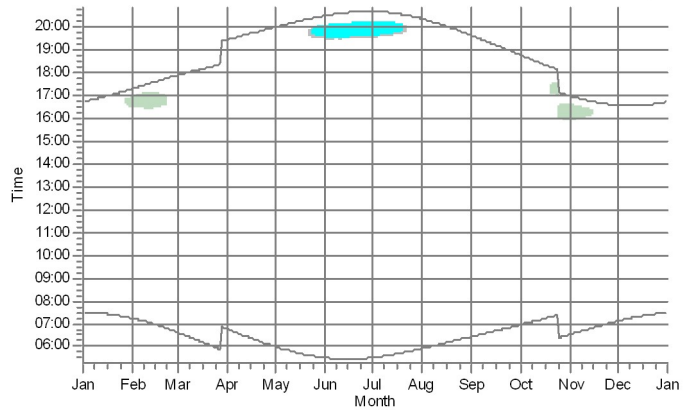
8: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



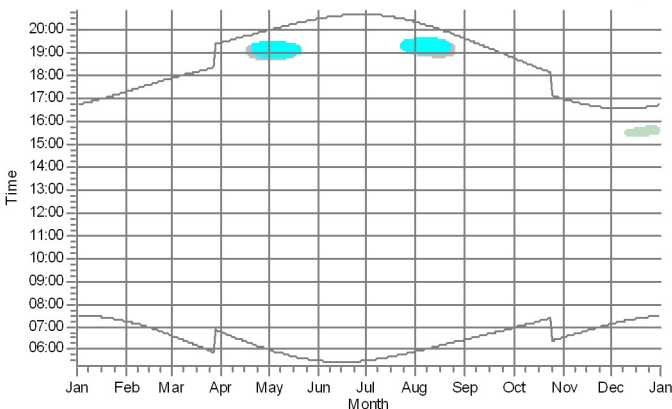
9: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



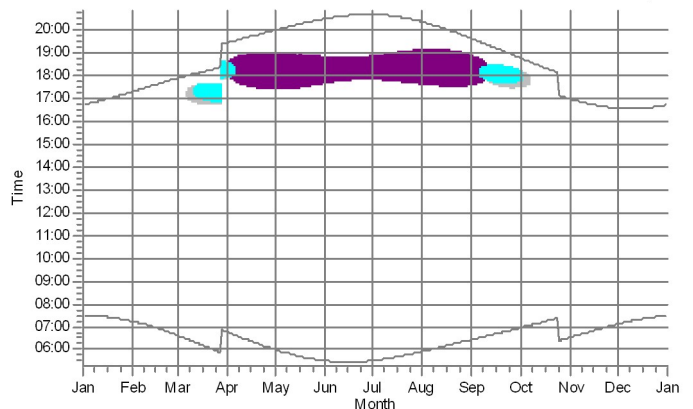
10: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



11: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



12: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TOT:



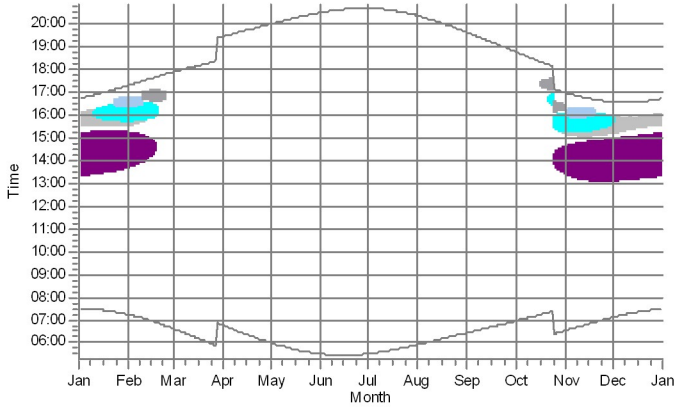
Shadow receptors

- A: Shadow Receptor: 1,0 × 1,0 Azimuth: -60,0° Slope: 90,0° (1)
- B: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (2)
- C: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (3)
- D: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (4)
- E: Shadow Receptor: 1,0 × 1,0 Azimuth: 120,0° Slope: 90,0° (5)

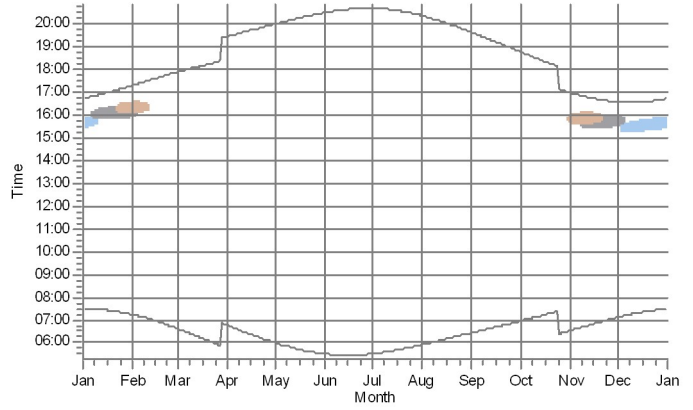
- F: Shadow Receptor: 1,0 × 1,0 Azimuth: -180,0° Slope: 90,0° (6)
- K: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (11)
- L: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (12)
- M: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (13)
- N: Shadow Receptor: 1,0 × 1,0 Azimuth: 90,0° Slope: 90,0° (14)

## SHADOW - Calendar per WTG, graphical

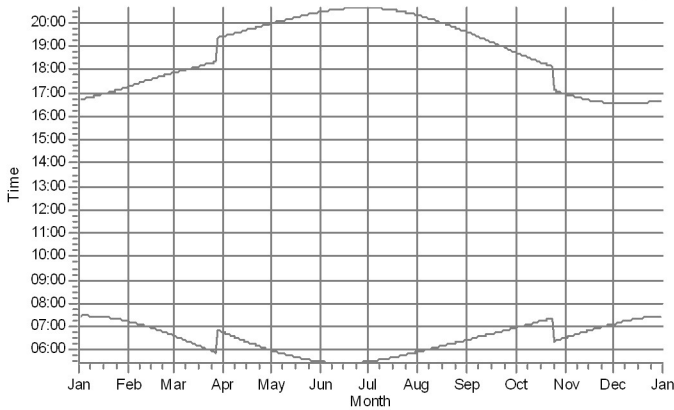
13: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



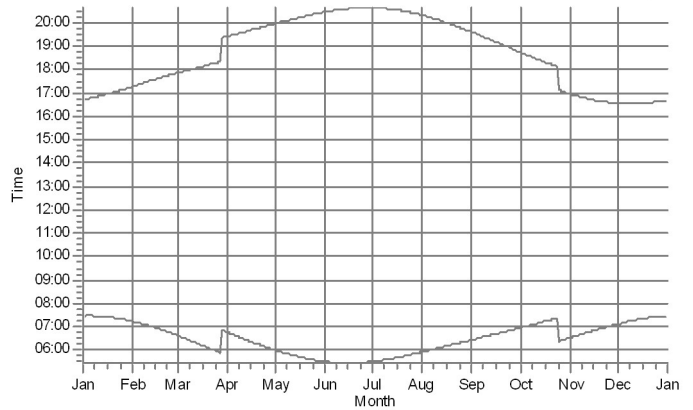
14: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



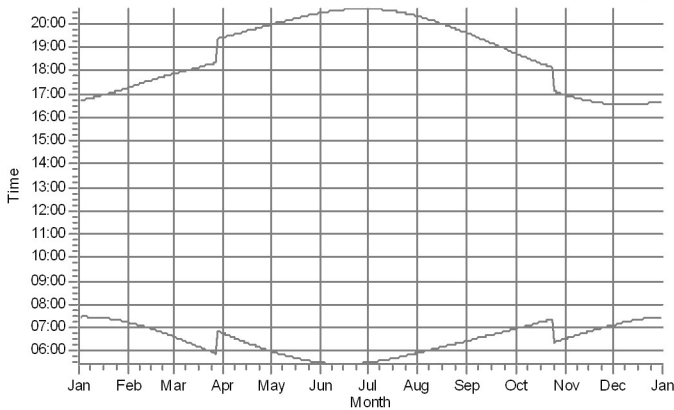
15: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



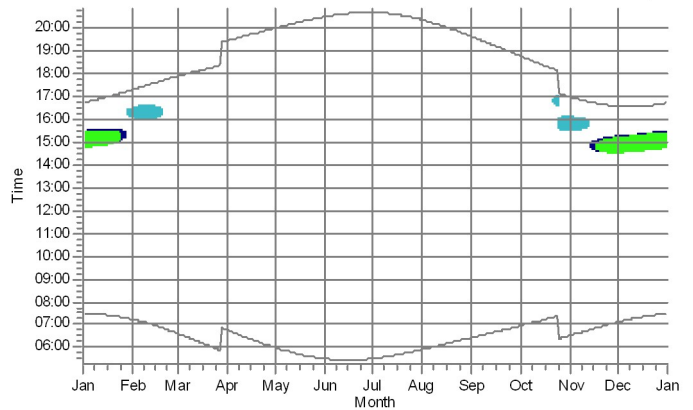
16: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



17: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



18: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



Shadow receptors

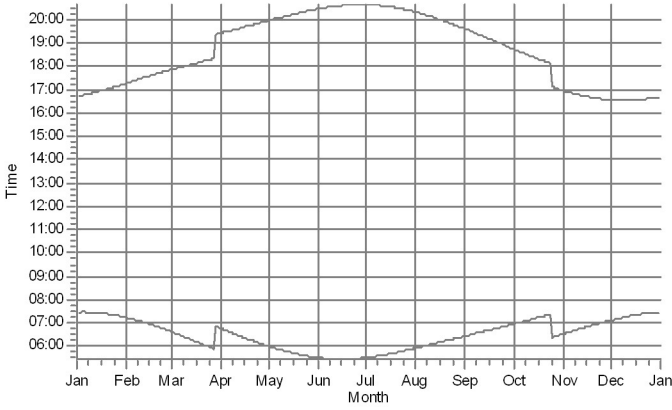
- G: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (7)
- K: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (11)
- L: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (12)
- M: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (13)
- O: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (15)

- P: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (16)
- Q: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (17)
- R: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (18)
- S: Shadow Receptor: 1,0 × 1,0 Azimuth: 45,0° Slope: 90,0° (19)

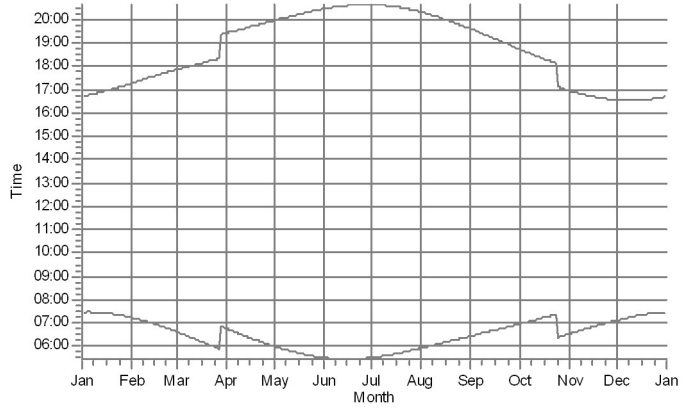


## SHADOW - Calendar per WTG, graphical

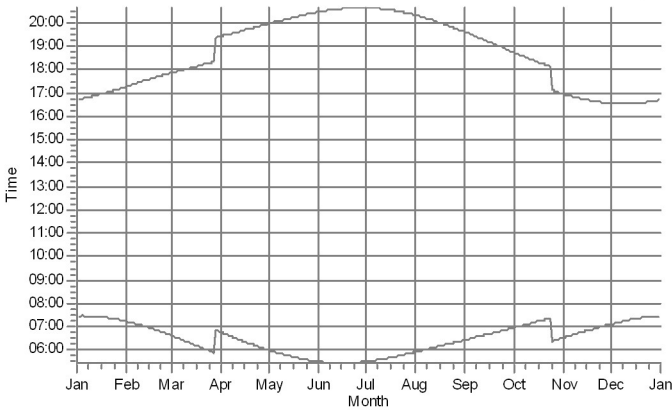
19: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



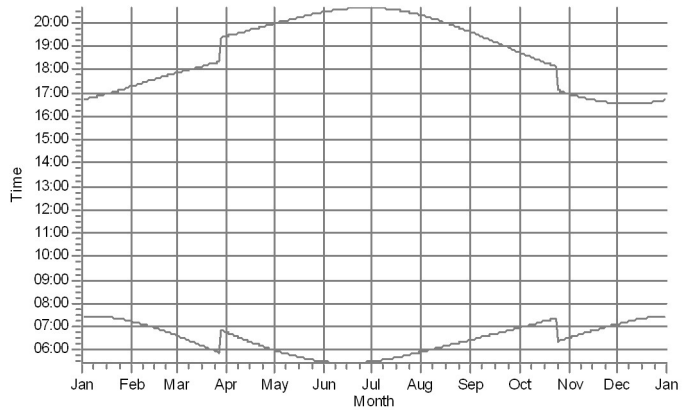
20: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



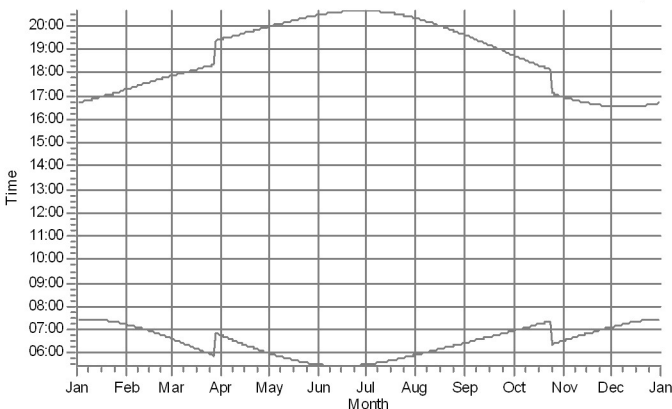
21: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



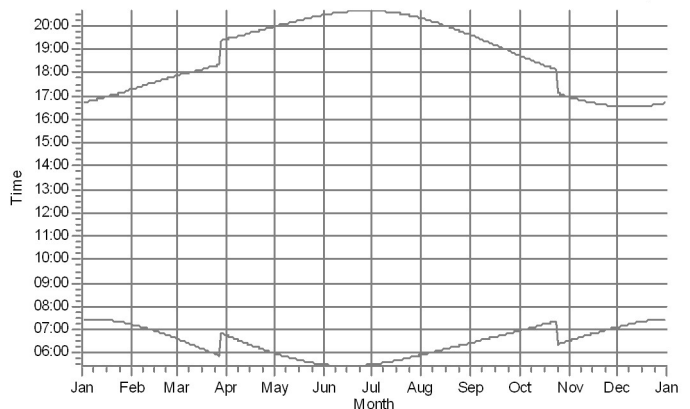
22: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



23: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1

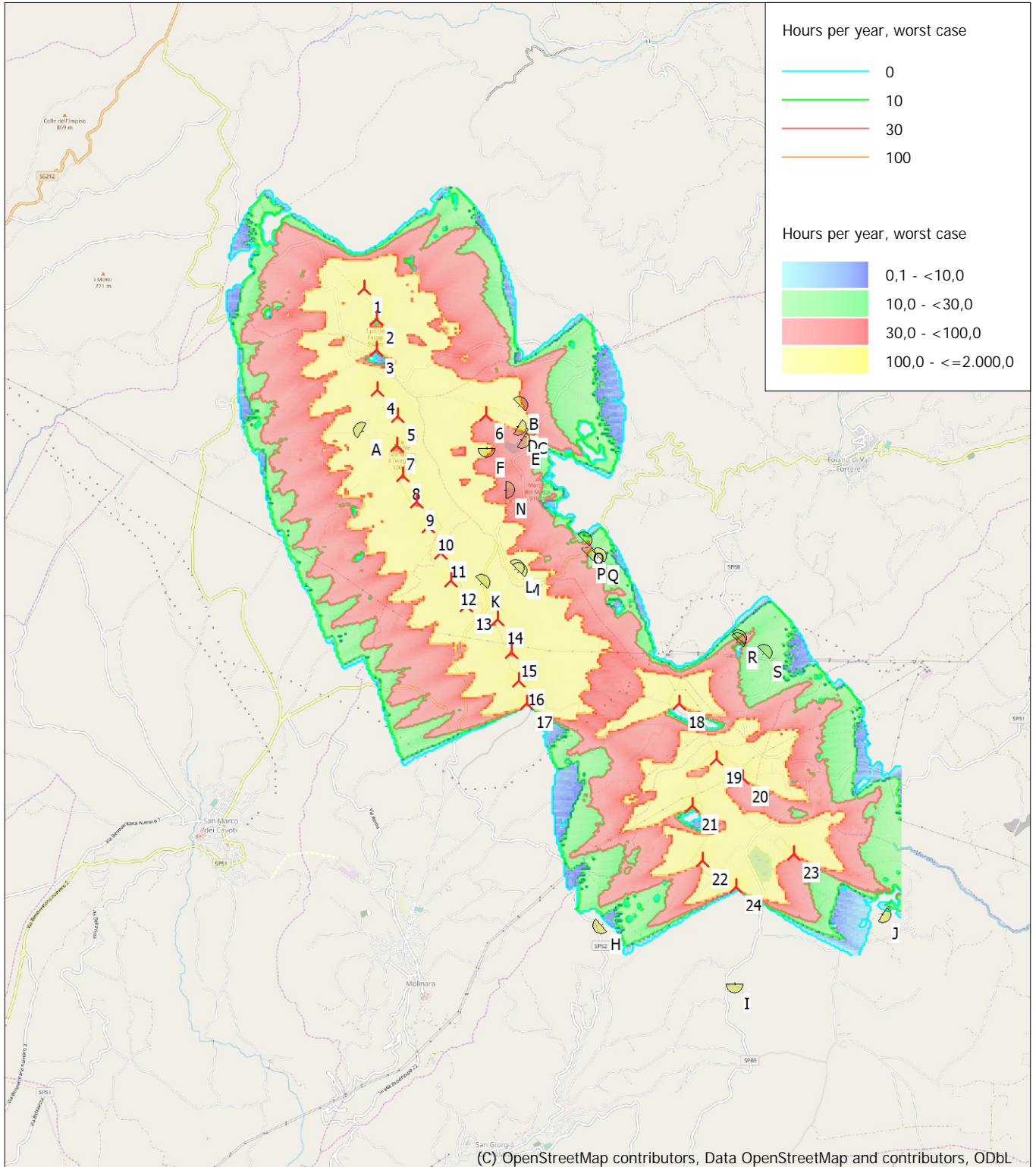


24: GE WIND ENERGY 6-158 Thrust 700 6100 158.0 !O! hub: 101,0 m (TO1



Shadow receptors

## SHADOW - Map



0 1 2 3 4 km

Map: EMD OpenStreetMap , Print scale 1:75.000, Map center UTM (north)-WGS84 Zone: 33 East: 493.770 North: 4.576.214

New WTG

Shadow receptor

Flicker map level: Elevation Grid Data Object: IVPC\_Fortore\_EMDGrid\_0.wpg (1)