

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

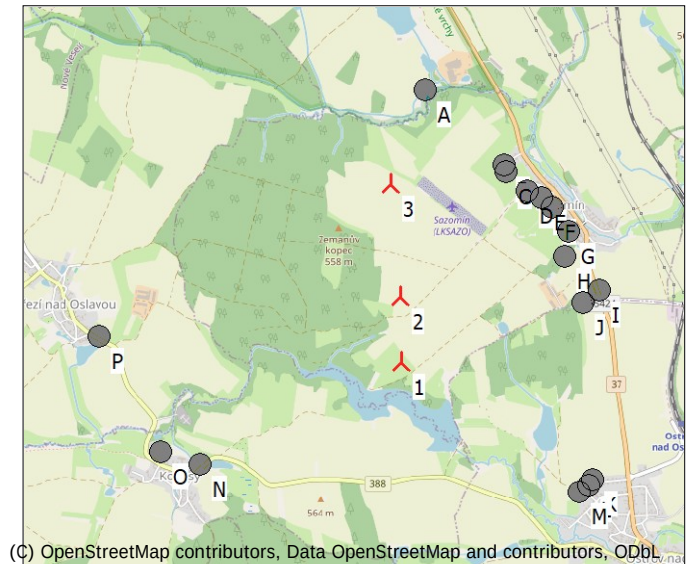
The calculated times are "worst case" given by the following assumptions:
The sun is shining all the day, from sunrise to sunset
The rotor plane is always perpendicular to the line from the WTG to the sun
The WTG is always operating

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:
DHM: Project Wizard Elevation Data Grid (Czech Republic DTM - 20m grid)
Receptor grid resolution: 1,0 m
Topographic shadow included in calculation

All coordinates are in
Geo [deg]-WGS84

WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.					Calculation distance [m]	RPM [RPM]
1	15,966427° E	49,499399° N	550,1	V1	Yes	ENERCON	E-138 EP3 E3-4 260	4 260	138,3	110,0	1 690	11,1
2	15,966344° E	49,503236° N	547,7	V2	Yes	ENERCON	E-138 EP3 E3-4 260	4 260	138,3	110,0	1 690	11,1
3	15,965461° E	49,509942° N	547,1	V3	Yes	ENERCON	E-138 EP3 E3-4 260	4 260	138,3	110,0	1 690	11,1



Shadow receptor-Input

No.	Name	Longitude	Latitude	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
				[m]	[m]	[m]	[m]	[°]		[m]
A	RB1	15,968671° E	49,515583° N	533,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
B	RB2	15,975848° E	49,511135° N	544,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
C	RB3	15,975983° E	49,510741° N	546,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
D	RB4	15,977865° E	49,509526° N	541,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
E	RB5	15,979255° E	49,509139° N	536,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
F	RB6	15,980183° E	49,508575° N	531,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
G	RB7	15,981739° E	49,507136° N	534,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
H	RB8	15,981336° E	49,505631° N	541,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
I	RB9	15,984539° E	49,503625° N	553,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
J	RB10	15,983090° E	49,502932° N	557,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
K	RB11	15,983933° E	49,492399° N	528,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
L	RB12	15,983557° E	49,492068° N	527,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
M	RB13	15,982704° E	49,491650° N	525,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
N	RB14	15,948055° E	49,493333° N	541,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
O	RB15	15,944413° E	49,494054° N	542,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
P	RB16	15,938775° E	49,500939° N	544,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0

Calculation Results

Shadow receptor

No.	Name	Shadow, worst case		
		Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]
A	RB1	19:15	40	0:36
B	RB2	35:26	88	0:41
C	RB3	46:35	101	0:42
D	RB4	42:21	117	0:36

To be continued on next page...

Project: Sazomin
Description: Sazomin
Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Main Result

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Shadow, worst case				
No.	Name	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]
	E RB5	37:36	118	0:32
	F RB6	41:43	137	0:30
	G RB7	28:41	106	0:27
	H RB8	19:25	94	0:25
	I RB9	26:09	111	0:24
	J RB10	31:30	119	0:26
	K RB11	14:25	51	0:23
	L RB12	6:42	36	0:15
	M RB13	0:00	0	0:00
	N RB14	16:46	68	0:23
	O RB15	0:00	0	0:00
	P RB16	0:00	0	0:00

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

No.	Name	Worst case [h/year]
1	V1	71:42
2	V2	89:10
3	V3	133:48

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 - RB1

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 07:53	13:14 (3)	07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	06:44	07:30
2 16:07	32 13:46 (3)	16:51	17:38	19:27	20:13	20:54	21:07	20:39	19:42	18:37	16:36	16:00
3 07:53	30 13:16 (3)	07:29	06:39	06:34	05:34	04:55	04:54	05:28	06:12	06:56	06:45	07:31
4 16:09	29 13:45 (3)	16:54	17:41	19:30	20:16	20:56	21:06	20:36	19:38	18:33	16:33	15:59
5 07:53	28 13:17 (3)	07:26	06:35	06:30	05:31	04:53	04:55	05:30	06:15	06:59	06:49	07:34
6 16:10	26 13:45 (3)	16:56	17:43	19:31	20:17	20:57	21:06	20:34	19:36	18:31	16:31	15:59
7 07:53	23 13:19 (3)	07:24	06:33	06:27	05:29	04:53	04:56	05:32	06:17	07:01	06:50	07:35
8 16:11	21 13:45 (3)	16:58	17:44	19:33	20:19	20:58	21:06	20:33	19:33	18:29	16:30	15:58
9 07:52	20 13:20 (3)	07:23	06:31	06:25	05:28	04:52	04:57	05:33	06:18	07:02	06:52	07:36
10 16:12	19 13:43 (3)	16:59	17:46	19:34	20:20	20:59	21:05	20:31	19:31	18:27	16:28	15:58
11 07:52	18 13:22 (3)	07:21	06:29	06:23	05:26	04:52	04:58	05:35	06:20	07:04	06:53	07:38
12 16:13	17 13:43 (3)	17:01	17:48	19:36	20:22	20:59	21:05	20:29	19:29	18:25	16:27	15:58
13 07:52	16 13:24 (3)	07:20	06:27	06:21	05:24	04:51	04:58	05:36	06:21	07:06	06:55	07:39
14 16:15	15 13:43 (3)	17:03	17:49	19:37	20:23	21:00	21:04	20:28	19:27	18:22	16:25	15:57
15 07:51	14 13:26 (3)	07:18	06:25	06:19	05:23	04:51	04:59	05:37	06:23	07:07	06:57	07:40
16 16:16	13 13:41 (3)	17:04	17:51	19:39	20:24	21:01	21:04	20:26	19:25	18:20	16:24	15:57
17 07:51	12 13:29 (3)	07:16	06:23	06:17	05:21	04:50	05:00	05:39	06:24	07:09	06:58	07:41
18 16:17	11 13:38 (3)	17:06	17:52	19:41	20:26	21:02	21:03	20:24	19:23	18:18	16:22	15:57
19 07:51	10 13:15	07:15	06:21	06:15	05:20	04:50	05:01	05:40	06:25	07:10	07:00	07:42
20 16:19	9 13:10	17:08	17:54	19:42	20:27	21:02	21:02	20:23	19:21	18:16	16:21	15:57
21 07:50	8 13:07	07:13	06:19	06:13	05:18	04:50	05:02	05:42	06:27	07:12	07:02	07:43
22 16:20	7 13:04	17:10	17:56	19:44	20:29	21:03	21:02	20:21	19:19	18:14	16:19	15:57
23 07:49	6 13:01	07:11	06:17	06:11	05:17	04:50	05:03	05:43	06:28	07:13	07:03	07:44
24 16:21	5 12:58	17:11	17:57	19:45	20:30	21:04	21:01	20:19	19:16	18:12	16:18	15:57
25 07:49	4 12:55	07:10	06:14	06:09	05:15	04:49	05:04	05:45	06:30	07:15	07:05	07:45
26 16:23	3 12:52	17:13	17:59	19:47	20:32	21:04	21:00	20:17	19:14	18:10	16:17	15:57
27 07:48	2 12:49	07:08	06:12	06:07	05:14	04:49	05:05	05:46	06:31	07:16	07:06	07:46
28 16:24	1 12:46	17:15	18:00	19:48	20:33	21:05	20:59	20:15	19:12	18:08	16:15	15:57
29 07:47	31 12:43	07:06	06:10	06:05	05:12	04:49	05:06	05:48	06:33	07:18	07:08	07:46
30 16:25	30 12:40	17:16	18:02	19:50	20:34	21:05	20:58	20:14	19:10	18:06	16:14	15:57
31 07:47	29 12:37	07:04	06:08	06:03	05:11	04:49	05:07	05:49	06:34	07:19	07:10	07:47
32 16:27	28 12:34	17:18	18:03	19:51	20:36	21:06	20:57	20:12	19:08	18:04	16:13	15:57
33 07:46	27 12:31	07:03	06:06	06:01	05:10	04:49	05:09	05:50	06:36	07:21	07:11	07:48
34 16:28	26 12:28	17:20	18:05	19:53	20:37	21:06	20:56	20:10	19:05	18:02	16:12	15:58
35 07:45	25 12:25	07:01	06:04	05:59	05:09	04:49	05:10	05:52	06:37	07:23	07:13	07:49
36 16:30	24 12:22	17:21	18:07	19:54	20:38	21:06	20:55	20:08	19:03	18:00	16:11	15:58
37 07:44	23 12:19	06:59	06:02	05:57	05:07	04:49	05:11	05:53	06:39	07:24	07:14	07:49
38 16:31	22 12:16	17:23	18:08	19:56	20:40	21:07	20:54	20:06	19:01	17:58	16:10	15:58
39 07:43	21 12:13	06:57	05:59	05:55	05:06	04:50	05:12	05:55	06:40	07:26	07:16	07:50
40 16:33	20 12:10	17:25	18:10	19:57	20:41	21:07	20:53	20:04	18:59	17:56	16:08	15:59
41 07:42	19 12:07	06:55	05:57	05:53	05:05	04:50	05:13	05:56	06:42	07:27	07:17	07:50
42 16:35	18 12:04	17:26	18:11	19:59	20:42	21:07	20:52	20:02	18:57	17:54	16:07	15:59
43 07:41	17 12:01	06:53	05:55	05:51	05:04	04:50	05:14	05:58	06:43	07:29	07:19	07:51
44 16:36	16 11:58	17:28	18:13	20:00	20:44	21:07	20:51	20:00	18:55	17:52	16:06	16:00
45 07:40	15 11:55	06:51	05:53	05:49	05:03	04:50	05:16	05:59	06:45	07:31	07:20	07:51
46 16:38	14 11:52	17:30	18:14	20:02	20:45	21:07	20:50	19:58	18:52	17:51	16:06	16:00
47 07:39	13 11:49	06:49	05:51	05:47	05:02	04:51	05:17	06:01	06:46	06:32	07:22	07:52
48 16:39	12 11:46	17:31	18:16	20:03	20:46	21:08	20:48	19:56	18:50	16:49	16:05	16:01
49 07:38	11 11:43	06:47	05:49	05:45	05:01	04:51	05:18	06:02	06:47	06:34	07:23	07:52
50 16:41	10 11:40	17:33	18:17	20:05	20:47	21:08	20:47	19:54	18:48	16:47	16:04	16:02
51 07:37	9 11:37	06:45	05:47	05:43	05:00	04:51	05:20	06:04	06:49	06:35	07:25	07:52
52 16:43	8 11:34	17:35	18:19	20:07	20:48	21:08	20:46	19:52	18:46	16:45	16:03	16:02
53 07:35	7 11:31	06:43	05:44	05:42	04:59	04:52	05:21	06:05	06:50	06:37	07:26	07:53
54 16:44	6 11:28	17:36	18:21	20:08	20:50	21:07	20:45	19:50	18:44	16:43	16:02	16:03
55 07:34	5 11:25		06:42	05:40	04:58	04:52	05:22	06:07	06:52	06:39	07:27	07:53
56 16:46	4 11:22		19:22	20:10	20:51	21:07	20:43	19:48	18:42	16:41	16:02	16:04
57 07:33	3 11:19		06:40	05:38	04:57	04:53	05:24	06:08	06:53	06:40	07:29	07:53
58 16:48	2 11:16		19:24	20:11	20:52	21:07	20:42	19:46	18:39	16:40	16:01	16:05
59 07:31	1 11:13		06:38		04:56		05:25	06:09		06:42		07:53
60 16:49			19:25		20:53		20:40	19:44		16:38		16:06
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256
Total, worst case	232											923

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

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

SHADOW - Calendar

Shadow receptor: B - RB2

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	07:53	14:40 (2)	07:30	06:41	06:36	18:00 (3)	05:36	04:55
	16:07	15:01 (2)	16:51	17:38	19:27	18:17 (3)	20:13	20:54
2	07:53	14:41 (2)	07:29	06:39	06:34	18:05 (3)	05:34	04:55
	16:08	15:01 (2)	16:53	17:39	19:28	18:12 (3)	20:14	20:55
3	07:53	14:42 (2)	07:27	06:37	06:32	05:33	04:54	
	16:09	15:00 (2)	16:54	17:41	19:30	20:16	20:56	
4	07:53	14:43 (2)	07:26	06:35	06:29	05:31	04:53	
	16:10	15:00 (2)	16:56	17:43	19:31	20:17	20:57	
5	07:53	14:44 (2)	07:24	06:33	06:27	05:29	04:53	
	16:11	15:00 (2)	16:58	17:44	19:33	20:19	20:58	
6	07:52	14:45 (2)	07:23	06:31	06:25	05:28	04:52	
	16:12	14:59 (2)	16:59	17:46	19:34	20:20	20:59	
7	07:52	14:47 (2)	07:21	06:29	06:23	05:26	04:52	
	16:13	14:59 (2)	17:01	17:48	19:36	20:21	20:59	
8	07:52	14:49 (2)	07:20	06:27	17:07 (3)	06:21	05:24	04:51
	16:15	14:57 (2)	17:03	17:49	17:10 (3)	19:37	20:23	21:00
9	07:51		07:18	06:25	17:04 (3)	06:19	05:23	04:51
	16:16		17:04	17:51	17:12 (3)	19:39	20:24	21:01
10	07:51		07:16	06:23	17:02 (3)	06:17	05:21	04:50
	16:17		17:06	17:52	17:13 (3)	19:41	20:26	21:02
11	07:51		07:15	06:21	16:59 (3)	06:15	05:20	04:50
	16:18		17:08	17:54	17:14 (3)	19:42	20:27	21:02
12	07:50		07:13	06:19	16:58 (3)	06:13	05:18	04:50
	16:20		17:10	17:56	17:16 (3)	19:44	20:29	21:03
13	07:49		07:11	06:17	16:56 (3)	06:11	05:17	04:50
	16:21		17:11	17:57	17:18 (3)	19:45	20:30	21:04
14	07:49		07:10	06:14	16:55 (3)	06:09	05:15	04:49
	16:23		17:13	17:59	17:19 (3)	19:47	20:32	21:04
15	07:48		07:08	06:12	16:54 (3)	06:07	05:14	04:49
	16:24		17:15	18:00	17:21 (3)	19:48	20:33	21:05
16	07:47		07:06	06:10	16:54 (3)	06:05	05:12	04:49
	16:25		17:16	18:02	17:23 (3)	19:50	20:34	21:05
17	07:47		07:04	06:08	16:53 (3)	06:03	05:11	04:49
	16:27		17:18	18:03	17:24 (3)	19:51	20:36	21:06
18	07:46		07:02	06:06	16:52 (3)	06:01	05:10	04:49
	16:28		17:20	18:05	17:25 (3)	19:53	20:37	21:06
19	07:45		07:01	06:04	16:51 (3)	05:59	05:09	04:49
	16:30		17:21	18:07	17:27 (3)	19:54	20:38	21:06
20	07:44		06:59	06:02	16:51 (3)	05:57	05:07	04:49
	16:31		17:23	18:08	17:29 (3)	19:56	20:40	21:07
21	07:43		06:57	05:59	16:51 (3)	05:55	05:06	04:49
	16:33		17:25	18:10	17:30 (3)	19:57	20:41	21:07
22	07:42		06:55	05:57	16:51 (3)	05:53	05:05	04:50
	16:35		17:26	18:11	17:32 (3)	19:59	20:42	21:07
23	07:41		06:53	05:55	16:52 (3)	05:51	05:04	04:50
	16:36		17:28	18:13	17:32 (3)	20:00	20:44	21:07
24	07:40		06:51	05:53	16:51 (3)	05:49	05:03	04:50
	16:38		17:30	18:14	17:30 (3)	20:02	20:45	21:07
25	07:39		06:49	05:51	16:51 (3)	05:47	05:02	04:51
	16:39		17:31	18:16	17:29 (3)	20:03	20:46	21:07
26	07:38		06:47	05:49	16:52 (3)	05:45	05:01	04:51
	16:41		17:33	18:17	17:29 (3)	20:05	20:47	21:07
27	07:37		06:45	05:47	16:53 (3)	05:43	05:00	04:51
	16:43		17:35	18:19	17:28 (3)	20:06	20:48	21:07
28	07:35		06:43	05:44	16:54 (3)	05:41	04:59	04:52
	16:44		17:36	18:21	17:26 (3)	20:08	20:49	21:07
29	07:34			06:42	17:55 (3)	05:40	04:58	04:52
	16:46			19:22	18:25 (3)	20:10	20:51	21:07
30	07:33			06:40	17:57 (3)	05:38	04:57	04:53
	16:48			19:24	18:23 (3)	20:11	20:52	21:07
31	07:31			06:38	17:57 (3)		04:56	
	16:49			19:25	18:20 (3)		20:53	
Potential sun hours	269	283	368	411	24	475	486	
Total, worst case	126		675					

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

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

SHADOW - Calendar

Shadow receptor: B - RB2

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	04:53	05:26	06:11	06:55	17:37 (3)	06:44	07:30	
	21:07	20:39	19:42	18:37	19 17:56 (3)	16:36	16:00	
2	04:54	05:28	06:12	06:56	17:37 (3)	06:45	07:31	
	21:07	20:37	19:40	18:35	17 17:54 (3)	16:35	16:00	
3	04:55	05:29	06:14	06:58	17:39 (3)	06:47	07:33	
	21:06	20:36	19:38	18:33	13 17:52 (3)	16:33	15:59	
4	04:55	05:30	06:15	06:59	17:40 (3)	06:48	07:34	14:34 (2)
	21:06	20:34	19:36	18:31	9 17:49 (3)	16:31	15:59	8 14:42 (2)
5	04:56	05:32	06:17	07:01	17:43 (3)	06:50	07:35	14:32 (2)
	21:06	20:33	19:33	18:29	5 17:48 (3)	16:30	15:58	12 14:44 (2)
6	04:57	05:33	06:18	07:02		06:52	07:36	14:31 (2)
	21:05	20:31	19:31	18:27		16:28	15:58	14 14:45 (2)
7	04:58	05:35	06:20	07:04		06:53	07:38	14:31 (2)
	21:05	20:29	19:29	18:25		16:27	15:58	15 14:46 (2)
8	04:58	05:36	06:21	07:06		06:55	07:39	14:31 (2)
	21:04	20:28	19:27	18:22		16:25	15:57	17 14:48 (2)
9	04:59	05:37	06:23	07:07		06:57	07:40	14:31 (2)
	21:04	20:26	19:25	18:20		16:24	15:57	18 14:49 (2)
10	05:00	05:39	06:24	17:59 (3)	07:09	06:58	07:41	14:30 (2)
	21:03	20:24	19:23	5 18:04 (3)	18:18	16:22	15:57	20 14:50 (2)
11	05:01	05:40	06:25	17:54 (3)	07:10	07:00	07:42	14:30 (2)
	21:02	20:23	19:21	16 18:10 (3)	18:16	16:21	15:57	21 14:51 (2)
12	05:02	05:42	06:27	17:50 (3)	07:12	07:01	07:43	14:30 (2)
	21:02	20:21	19:18	22 18:12 (3)	18:14	16:19	15:57	22 14:52 (2)
13	05:03	05:43	06:28	17:47 (3)	07:13	07:03	07:44	14:31 (2)
	21:01	20:19	19:16	26 18:13 (3)	18:12	16:18	15:57	22 14:53 (2)
14	05:04	05:45	06:30	17:46 (3)	07:15	07:05	07:45	14:31 (2)
	21:00	20:17	19:14	29 18:15 (3)	18:10	16:17	15:57	22 14:53 (2)
15	05:05	05:46	06:31	17:43 (3)	07:16	07:06	07:46	14:31 (2)
	20:59	20:15	19:12	32 18:15 (3)	18:08	16:15	15:57	23 14:54 (2)
16	05:06	05:48	06:33	17:42 (3)	07:18	07:08	07:46	14:31 (2)
	20:58	20:14	19:10	35 18:17 (3)	18:06	16:14	15:57	23 14:54 (2)
17	05:07	05:49	06:34	17:41 (3)	07:19	07:09	07:47	14:31 (2)
	20:57	20:12	19:08	36 18:17 (3)	18:04	16:13	15:57	24 14:55 (2)
18	05:09	05:50	06:36	17:40 (3)	07:21	07:11	07:48	14:32 (2)
	20:56	20:10	19:05	38 18:18 (3)	18:02	16:12	15:58	24 14:56 (2)
19	05:10	05:52	06:37	17:38 (3)	07:23	07:13	07:49	14:32 (2)
	20:55	20:08	19:03	39 18:17 (3)	18:00	16:11	15:58	24 14:56 (2)
20	05:11	05:53	06:39	17:37 (3)	07:24	07:14	07:49	14:32 (2)
	20:54	20:06	19:01	40 18:17 (3)	17:58	16:09	15:58	25 14:57 (2)
21	05:12	05:55	06:40	17:37 (3)	07:26	07:16	07:50	14:33 (2)
	20:53	20:04	18:59	41 18:18 (3)	17:56	16:08	15:59	25 14:58 (2)
22	05:13	05:56	06:42	17:36 (3)	07:27	07:17	07:50	14:33 (2)
	20:52	20:02	18:57	39 18:15 (3)	17:54	16:07	15:59	25 14:58 (2)
23	05:14	05:58	06:43	17:36 (3)	07:29	07:19	07:51	14:33 (2)
	20:51	20:00	18:55	38 18:14 (3)	17:52	16:06	16:00	25 14:58 (2)
24	05:16	05:59	06:44	17:35 (3)	07:31	07:20	07:51	14:34 (2)
	20:50	19:58	18:52	36 18:11 (3)	17:51	16:06	16:00	25 14:59 (2)
25	05:17	06:01	06:46	17:35 (3)	06:32	07:22	07:52	14:35 (2)
	20:48	19:56	18:50	34 18:09 (3)	16:49	16:05	16:01	24 14:59 (2)
26	05:18	06:02	06:47	17:35 (3)	06:34	07:23	07:52	14:35 (2)
	20:47	19:54	18:48	32 18:07 (3)	16:47	16:04	16:02	24 14:59 (2)
27	05:20	06:04	06:49	17:35 (3)	06:35	07:25	07:52	14:36 (2)
	20:46	19:52	18:46	30 18:05 (3)	16:45	16:03	16:02	24 15:00 (2)
28	05:21	06:05	06:50	17:35 (3)	06:37	07:26	07:53	14:37 (2)
	20:44	19:50	18:44	27 18:02 (3)	16:43	16:02	16:03	23 15:00 (2)
29	05:22	06:06	06:52	17:36 (3)	06:39	07:27	07:53	14:38 (2)
	20:43	19:48	18:42	25 18:01 (3)	16:41	16:02	16:04	22 15:00 (2)
30	05:24	06:08	06:53	17:36 (3)	06:40	07:29	07:53	14:38 (2)
	20:42	19:46	18:39	22 17:58 (3)	16:40	16:01	16:05	23 15:01 (2)
31	05:25	06:09			06:42		07:53	14:39 (2)
	20:40	19:44			16:38		16:06	22 15:01 (2)
Potential sun hours	490	447	379	335	275	256	596	
Total, worst case			642	63				

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

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

SHADOW - Calendar

Shadow receptor: C - RB3

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	07:53	14:44 (2)	07:30	06:41		06:36		18:01 (3)	05:36	04:55	
	16:07	15:11 (2)	16:51	17:38		19:27		18:36 (3)	20:13	20:54	
2	07:53	14:45 (2)	07:29	06:39		06:34		18:02 (3)	05:34	04:55	
	16:08	15:12 (2)	16:53	17:39		19:28	33	18:35 (3)	20:14	20:55	
3	07:53	14:44 (2)	07:27	06:37		06:32		18:03 (3)	05:33	04:54	
	16:09	15:11 (2)	16:54	17:41		19:30	31	18:34 (3)	20:16	20:56	
4	07:53	14:45 (2)	07:26	06:35		06:29		18:05 (3)	05:31	04:53	
	16:10	15:12 (2)	16:56	17:43		19:31	27	18:32 (3)	20:17	20:57	
5	07:53	14:47 (2)	07:24	06:33		06:27		18:07 (3)	05:29	04:53	
	16:11	15:12 (2)	16:58	17:44		19:33	23	18:30 (3)	20:19	20:58	
6	07:52	14:47 (2)	07:23	06:31		06:25		18:09 (3)	05:28	04:52	
	16:12	15:11 (2)	16:59	17:46		19:34	18	18:27 (3)	20:20	20:59	
7	07:52	14:48 (2)	07:21	06:29		06:23		18:13 (3)	05:26	04:52	
	16:13	15:12 (2)	17:01	17:48		19:36	10	18:23 (3)	20:21	20:59	
8	07:52	14:49 (2)	07:20	06:27		06:21			05:24	04:51	
	16:15	15:11 (2)	17:03	17:49		19:37			20:23	21:00	
9	07:51	14:50 (2)	07:18	06:25		06:19			05:23	04:51	
	16:16	15:12 (2)	17:04	17:51		19:39			20:24	21:01	
10	07:51	14:51 (2)	07:16	06:23		06:17			05:21	04:50	
	16:17	15:11 (2)	17:06	17:52		19:41			20:26	21:02	
11	07:51	14:53 (2)	07:15	06:21		06:15			05:20	04:50	
	16:18	15:11 (2)	17:08	17:54		19:42			20:27	21:02	
12	07:50	14:54 (2)	07:13	06:19		06:13			05:18	04:50	
	16:20	15:10 (2)	17:10	17:56		19:44			20:29	21:03	
13	07:49	14:56 (2)	07:11	06:17	17:17 (3)	06:11			05:17	04:50	
	16:21	15:09 (2)	17:11	17:57	10	17:27 (3)	19:45		20:30	21:04	
14	07:49	14:59 (2)	07:10	06:14	17:14 (3)	06:09			05:15	04:49	
	16:23	15:08 (2)	17:13	17:59	15	17:29 (3)	19:47		20:32	21:04	
15	07:48		07:08	06:12	17:11 (3)	06:07			05:14	04:49	
	16:24		17:15	18:00	19	17:30 (3)	19:48		20:33	21:05	
16	07:47		07:06	06:10	17:09 (3)	06:05			05:12	04:49	
	16:25		17:16	18:02	23	17:32 (3)	19:50		20:34	21:05	
17	07:47		07:04	06:08	17:08 (3)	06:03			05:11	04:49	
	16:27		17:18	18:03	26	17:34 (3)	19:51		20:36	21:06	
18	07:46		07:02	06:06	17:06 (3)	06:01			05:10	04:49	
	16:28		17:20	18:05	29	17:35 (3)	19:53		20:37	21:06	
19	07:45		07:01	06:04	17:04 (3)	05:59			05:09	04:49	
	16:30		17:21	18:07	32	17:36 (3)	19:54		20:38	21:06	
20	07:44		06:59	06:02	17:04 (3)	05:57			05:07	04:49	
	16:31		17:23	18:08	34	17:38 (3)	19:56		20:40	21:07	
21	07:43		06:57	05:59	17:03 (3)	05:55			05:06	04:49	
	16:33		17:25	18:10	37	17:40 (3)	19:57		20:41	21:07	
22	07:42		06:55	05:57	17:02 (3)	05:53			05:05	04:50	
	16:35		17:26	18:11	39	17:41 (3)	19:59		20:42	21:07	
23	07:41		06:53	05:55	17:02 (3)	05:51			05:04	04:50	
	16:36		17:28	18:13	41	17:43 (3)	20:00		20:44	21:07	
24	07:40		06:51	05:53	17:00 (3)	05:49			05:03	04:50	
	16:38		17:30	18:14	42	17:42 (3)	20:02		20:45	21:07	
25	07:39		06:49	05:51	17:00 (3)	05:47			05:02	04:51	
	16:39		17:31	18:16	41	17:41 (3)	20:03		20:46	21:07	
26	07:38		06:47	05:49	17:00 (3)	05:45			05:01	04:51	
	16:41		17:33	18:17	41	17:41 (3)	20:05		20:47	21:07	
27	07:37		06:45	05:47	17:00 (3)	05:43			05:00	04:51	
	16:43		17:35	18:19	41	17:41 (3)	20:06		20:48	21:07	
28	07:35		06:43	05:44	17:00 (3)	05:41			04:59	04:52	
	16:44		17:36	18:21	40	17:40 (3)	20:08		20:49	21:07	
29	07:34			06:42	18:01 (3)	05:40			04:58	04:52	
	16:46			19:22	39	18:40 (3)	20:10		20:51	21:07	
30	07:33			06:40	18:01 (3)	05:38			04:57	04:53	
	16:48			19:24	38	18:39 (3)	20:11		20:52	21:07	
31	07:31			06:38	18:01 (3)				04:56		
	16:49			19:25	36	18:37 (3)			20:53		
Potential sun hours	269		283	368		411	177		475	486	
Total, worst case	301			623							

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

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

Project: Sazomin
Description: Sazomin
Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Calendar

Shadow receptor: C - RB3

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	04:53	05:26	06:11	06:55	18:00 (3)	06:44	07:30	14:35 (2)	
	21:07	20:39	19:42	18:37	6 18:06 (3)	16:36	16:00	18 14:53 (2)	
2	04:54	05:28	06:12	06:56		06:45	07:31	14:34 (2)	
	21:07	20:37	19:40	18:35		16:35	16:00	20 14:54 (2)	
3	04:55	05:29	06:14	06:58		06:47	07:33	14:33 (2)	
	21:06	20:36	19:38	18:33		16:33	15:59	22 14:55 (2)	
4	04:55	05:30	06:15	06:59		06:48	07:34	14:34 (2)	
	21:06	20:34	19:36	18:31		16:31	15:59	22 14:56 (2)	
5	04:56	05:32	06:17	18:09 (3)	07:01	06:50	07:35	14:33 (2)	
	21:06	20:33	19:33	18:19 (3)	18:29	16:30	15:58	24 14:57 (2)	
6	04:57	05:33	06:18	18:05 (3)	07:02	06:52	07:36	14:33 (2)	
	21:05	20:31	19:31	18:23 (3)	18:27	16:28	15:58	25 14:58 (2)	
7	04:58	05:35	06:20	18:02 (3)	07:04	06:53	07:38	14:33 (2)	
	21:05	20:29	19:29	18:25 (3)	18:25	16:27	15:58	25 14:58 (2)	
8	04:58	05:36	06:21	17:59 (3)	07:06	06:55	07:39	14:34 (2)	
	21:04	20:28	19:27	18:26 (3)	18:22	16:25	15:57	26 15:00 (2)	
9	04:59	05:37	06:23	17:58 (3)	07:07	06:57	07:40	14:34 (2)	
	21:04	20:26	19:25	18:28 (3)	18:20	16:24	15:57	26 15:00 (2)	
10	05:00	05:39	06:24	17:56 (3)	07:09	06:58	07:41	14:34 (2)	
	21:03	20:24	19:23	18:28 (3)	18:18	16:22	15:57	27 15:01 (2)	
11	05:01	05:40	06:25	17:55 (3)	07:10	07:00	07:42	14:34 (2)	
	21:02	20:23	19:21	18:29 (3)	18:16	16:21	15:57	28 15:02 (2)	
12	05:02	05:42	06:27	17:53 (3)	07:12	07:01	07:43	14:34 (2)	
	21:02	20:21	19:18	18:29 (3)	18:14	16:19	15:57	28 15:02 (2)	
13	05:03	05:43	06:28	17:51 (3)	07:13	07:03	07:44	14:34 (2)	
	21:01	20:19	19:16	18:29 (3)	18:12	16:18	15:57	29 15:03 (2)	
14	05:04	05:45	06:30	17:51 (3)	07:15	07:05	07:45	14:35 (2)	
	21:00	20:17	19:14	18:30 (3)	18:10	16:17	15:57	29 15:04 (2)	
15	05:05	05:46	06:31	17:50 (3)	07:16	07:06	07:46	14:35 (2)	
	20:59	20:15	19:12	18:30 (3)	18:08	16:15	15:57	29 15:04 (2)	
16	05:06	05:48	06:33	17:50 (3)	07:18	07:08	07:46	14:35 (2)	
	20:58	20:14	19:10	18:30 (3)	18:06	16:14	15:57	29 15:04 (2)	
17	05:07	05:49	06:34	17:49 (3)	07:19	07:09	07:47	14:35 (2)	
	20:57	20:12	19:08	18:30 (3)	18:04	16:13	15:57	30 15:05 (2)	
18	05:09	05:50	06:36	17:49 (3)	07:21	07:11	07:48	14:36 (2)	
	20:56	20:10	19:05	18:30 (3)	18:02	16:12	15:58	30 15:06 (2)	
19	05:10	05:52	06:37	17:48 (3)	07:23	07:13	07:49	14:36 (2)	
	20:55	20:08	19:03	18:29 (3)	18:00	16:11	15:58	29 15:05 (2)	
20	05:11	05:53	06:39	17:47 (3)	07:24	07:14	07:49	14:37 (2)	
	20:54	20:06	19:01	18:28 (3)	17:58	16:09	15:58	29 15:06 (2)	
21	05:12	05:55	06:40	17:48 (3)	07:26	07:16	07:50	14:38 (2)	
	20:53	20:04	18:59	18:27 (3)	17:56	16:08	15:59	29 15:07 (2)	
22	05:13	05:56	06:42	17:47 (3)	07:27	07:17	07:50	14:38 (2)	
	20:52	20:02	18:57	18:25 (3)	17:54	16:07	15:59	29 15:07 (2)	
23	05:14	05:58	06:43	17:48 (3)	07:29	07:19	07:51	14:38 (2)	
	20:51	20:00	18:55	18:23 (3)	17:52	16:06	16:00	29 15:07 (2)	
24	05:16	05:59	06:44	17:48 (3)	07:31	07:20	07:51	14:39 (2)	
	20:50	19:58	18:52	18:20 (3)	17:51	16:06	16:00	29 15:08 (2)	
25	05:17	06:01	06:46	17:49 (3)	06:32	07:22	07:52	14:39 (2)	
	20:48	19:56	18:50	18:19 (3)	16:49	16:05	16:01	30 15:09 (2)	
26	05:18	06:02	06:47	17:49 (3)	06:34	07:23	07:52	14:39 (2)	
	20:47	19:54	18:48	18:16 (3)	16:47	16:04	16:02	30 15:09 (2)	
27	05:20	06:04	06:49	17:50 (3)	06:35	07:25	07:52	14:41 (2)	
	20:46	19:52	18:46	18:14 (3)	16:45	16:03	16:02	29 15:10 (2)	
28	05:21	06:05	06:50	17:51 (3)	06:37	07:26	14:38 (2)	07:53	14:41 (2)
	20:44	19:50	18:44	18:12 (3)	16:43	16:02	14:47 (2)	16:03	29 15:10 (2)
29	05:22	06:06	06:52	17:53 (3)	06:39	07:27	14:37 (2)	07:53	14:42 (2)
	20:43	19:48	18:42	18:10 (3)	16:41	16:02	14:50 (2)	16:04	28 15:10 (2)
30	05:24	06:08	06:53	17:55 (3)	06:40	07:29	14:35 (2)	07:53	14:42 (2)
	20:42	19:46	18:39	18:07 (3)	16:40	16:01	14:51 (2)	16:05	29 15:11 (2)
31	05:25	06:09			06:42		07:53		14:43 (2)
	20:40	19:44			16:38		16:06	28 15:11 (2)	
Potential sun hours	490	447	379	335	275	256			
Total, worst case			806	6	38	844			

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

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

Project: Sazomin
Description: Sazomin
Sazomin

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Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Calendar

Shadow receptor: D - RB4

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	07:53	15:29 (2)	07:30	15:33 (2)	06:41	06:36	18:36 (3)	05:36	04:55		
2	07:07	15:31 (2)	16:51	15:56 (2)	17:38	19:27	18:52 (3)	20:13	20:54		
3	07:53	15:29 (2)	07:29	15:35 (2)	06:39	06:34	18:35 (3)	05:34	04:55		
4	16:08	15:32 (2)	16:53	15:55 (2)	17:39	19:28	18:54 (3)	20:14	20:55		
5	07:53	15:28 (2)	07:27	15:37 (2)	06:37	06:32	18:34 (3)	05:33	04:54		
6	16:09	15:33 (2)	16:54	15:53 (2)	17:41	19:30	18:56 (3)	20:16	20:56		
7	07:53	15:28 (2)	07:26	15:40 (2)	06:35	06:29	18:33 (3)	05:31	04:53		
8	16:10	15:34 (2)	16:56	15:52 (2)	17:43	19:31	18:57 (3)	20:17	20:57		
9	07:53	15:28 (2)	07:24		06:33	06:27	18:32 (3)	05:29	04:53		
10	16:11	15:35 (2)	16:58		17:44	19:33	18:59 (3)	20:19	20:58		
11	07:52	15:27 (2)	07:23		06:31	06:25	18:31 (3)	05:28	04:52		
12	16:12	15:36 (2)	16:59		17:46	19:34	19:01 (3)	20:20	20:58		
13	07:52	15:27 (2)	07:21		06:29	06:23	18:31 (3)	05:26	04:52		
14	16:13	15:37 (2)	17:01		17:48	19:36	19:03 (3)	20:21	20:59		
15	07:52	15:26 (2)	07:20		06:27	06:21	18:31 (3)	05:24	04:51		
16	16:15	15:38 (2)	17:03		17:49	19:37	19:04 (3)	20:23	21:00		
17	07:51	15:27 (2)	07:18		06:25	06:19	18:29 (3)	05:23	04:51		
18	16:16	15:40 (2)	17:04		17:51	19:39	19:05 (3)	20:24	21:01		
19	07:51	15:26 (2)	07:16		06:23	06:17	18:29 (3)	05:21	04:50		
20	16:17	15:41 (2)	17:06		17:52	19:40	19:05 (3)	20:26	21:02		
21	07:51	15:27 (2)	07:15		06:21	06:15	18:29 (3)	05:20	04:50		
22	16:18	15:42 (2)	17:08		17:54	19:42	19:04 (3)	20:27	21:02		
23	07:50	15:26 (2)	07:13		06:19	06:13	18:29 (3)	05:18	04:50		
24	16:20	15:43 (2)	17:10		17:56	19:44	19:03 (3)	20:29	21:03		
25	07:49	15:26 (2)	07:11		06:17	06:11	18:30 (3)	05:17	04:50		
26	16:21	15:45 (2)	17:11		17:57	19:45	19:03 (3)	20:30	21:04		
27	07:49	15:27 (2)	07:10		06:14	06:09	18:30 (3)	05:15	04:49		
28	16:23	15:47 (2)	17:13		17:59	19:47	19:02 (3)	20:32	21:04		
29	07:48	15:26 (2)	07:08		06:12	06:07	18:31 (3)	05:14	04:49		
30	16:24	15:48 (2)	17:15		18:00	19:48	19:01 (3)	20:33	21:05		
31	07:47	15:26 (2)	07:06		06:10	06:05	18:32 (3)	05:12	04:49		
32	16:25	15:49 (2)	17:16		18:02	19:50	18:59 (3)	20:34	21:05		
33	07:47	15:26 (2)	07:04		06:08	06:03	18:33 (3)	05:11	04:49		
34	16:27	15:50 (2)	17:18		18:03	19:51	18:58 (3)	20:36	21:06		
35	07:46	15:26 (2)	07:02		06:06	06:01	18:34 (3)	05:10	04:49		
36	16:28	15:52 (2)	17:20		18:05	19:53	18:56 (3)	20:37	21:06		
37	07:45	15:26 (2)	07:01		06:04	05:59	18:37 (3)	05:09	04:49		
38	16:30	15:53 (2)	17:21		18:07	19:54	18:55 (3)	20:38	21:06		
39	07:44	15:27 (2)	06:59		06:02	05:57	18:39 (3)	05:07	04:49		
40	16:31	15:55 (2)	17:23		18:08	19:56	18:52 (3)	20:40	21:07		
41	07:43	15:27 (2)	06:57		05:59	05:55		05:06	04:49		
42	16:33	15:57 (2)	17:25		18:10	19:57		20:41	21:07		
43	07:42	15:27 (2)	06:55		05:57	05:53		05:05	04:50		
44	16:35	15:58 (2)	17:26		18:11	19:59		20:42	21:07		
45	07:41	15:28 (2)	06:53		05:55	05:51		05:04	04:50		
46	16:36	15:59 (2)	17:28		18:13	20:00		20:43	21:07		
47	07:40	15:27 (2)	06:51		05:53	05:49		05:03	04:50		
48	16:38	15:58 (2)	17:30		18:14	20:02		20:45	21:07		
49	07:39	15:28 (2)	06:49		05:51	05:47		05:02	04:51		
50	16:39	15:58 (2)	17:31		18:16	20:03		20:46	21:07		
51	07:38	15:29 (2)	06:47		05:49	05:45		05:01	04:51		
52	16:41	15:59 (2)	17:33		18:17	20:05		20:47	21:07		
53	07:37	15:29 (2)	06:45		05:47	05:43		05:00	04:51		
54	16:43	15:58 (2)	17:35		18:19	20:06		20:48	21:07		
55	07:35	15:30 (2)	06:43		05:44	05:41		04:59	04:52		
56	16:44	15:58 (2)	17:36		18:20	20:08		20:49	21:07		
57	07:34	15:31 (2)			06:42	18:44 (3)	05:40	04:58	04:52		
58	16:46	15:58 (2)			19:22	18:48 (3)	20:10	20:51	21:07		
59	07:33	15:31 (2)			06:40	18:41 (3)	05:38	04:57	04:53		
60	16:48	15:57 (2)			19:24	18:50 (3)	20:11	20:52	21:07		
61	07:31	15:32 (2)			06:38	18:38 (3)		04:56			
62	16:49	15:57 (2)			19:25	18:50 (3)		20:53			
Potential sun hours	269	283	368	411	475	486					
Total, worst case	621	71	25	544	475	486					

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

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

SHADOW - Calendar

Shadow receptor: D - RB4

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	04:53 21:07	05:26 20:39	06:11 19:42	18:29 (3) 19:04 (3)	06:55 18:37	06:44 16:36	07:30 16:00	15:09 (2) 15:25 (2)	
2	04:54 21:07	05:28 20:37	06:12 19:40	18:28 (3) 19:04 (3)	06:56 18:35	06:45 16:35	07:31 16:00	15:09 (2) 15:24 (2)	
3	04:55 21:06	05:29 20:36	06:14 19:38	18:27 (3) 19:03 (3)	06:58 18:33	06:47 16:33	07:33 15:59	15:10 (2) 15:23 (2)	
4	04:55 21:06	05:30 20:34	06:15 19:36	18:28 (3) 19:01 (3)	06:59 18:31	06:48 16:31	07:34 15:59	15:11 (2) 15:23 (2)	
5	04:56 21:06	05:32 20:33	06:17 19:33	18:27 (3) 18:59 (3)	07:01 18:29	06:50 16:30	07:35 15:58	15:12 (2) 15:23 (2)	
6	04:57 21:05	05:33 20:31	06:18 19:31	18:28 (3) 18:57 (3)	07:02 18:27	06:52 16:28	15:13 (2) 15:17 (2)	07:36 15:58	15:13 (2) 15:22 (2)
7	04:58 21:05	05:35 20:29	06:20 19:29	18:27 (3) 18:54 (3)	07:04 18:25	06:53 16:27	15:09 (2) 15:22 (2)	07:38 15:58	15:14 (2) 15:21 (2)
8	04:58 21:04	05:36 20:28	06:21 19:27	18:27 (3) 18:52 (3)	07:06 18:22	06:55 16:25	15:07 (2) 15:24 (2)	07:39 15:57	15:16 (2) 15:22 (2)
9	04:59 21:04	05:37 20:26	06:23 19:25	18:28 (3) 18:50 (3)	07:07 18:20	06:57 16:24	15:06 (2) 15:26 (2)	07:40 15:57	15:17 (2) 15:22 (2)
10	05:00 21:03	05:39 20:24	06:24 19:23	18:28 (3) 18:47 (3)	07:09 18:18	06:58 16:22	15:04 (2) 15:27 (2)	07:41 15:57	15:18 (2) 15:22 (2)
11	05:01 21:02	05:40 20:23	06:25 19:21	18:29 (3) 18:46 (3)	07:10 18:16	07:00 16:21	15:03 (2) 15:28 (2)	07:42 15:57	15:19 (2) 15:21 (2)
12	05:02 21:02	05:42 20:21	06:27 19:18	18:30 (3) 18:43 (3)	07:12 18:14	07:01 16:19	15:03 (2) 15:29 (2)	07:43 15:57	15:22 (2) 15:22 (2)
13	05:03 21:01	05:43 20:19	06:28 19:16	18:31 (3) 18:40 (3)	07:13 18:12	07:03 16:18	15:03 (2) 15:30 (2)	07:44 15:57	15:22 (2) 15:22 (2)
14	05:04 21:00	05:45 20:17	06:30 19:14	18:34 (3) 18:38 (3)	07:15 18:10	07:05 16:17	15:01 (2) 15:30 (2)	07:45 15:57	15:22 (2) 15:22 (2)
15	05:05 20:59	05:46 20:15	06:31 19:12		07:16 18:08	07:06 16:15	15:02 (2) 15:31 (2)	07:46 15:57	15:22 (2) 15:22 (2)
16	05:06 20:58	05:48 20:14	06:33 19:10		07:18 18:06	07:08 16:14	15:02 (2) 15:32 (2)	07:46 15:57	15:22 (2) 15:22 (2)
17	05:07 20:57	05:49 20:12	06:34 19:08		07:19 18:04	07:09 16:13	15:02 (2) 15:32 (2)	07:47 15:57	15:22 (2) 15:22 (2)
18	05:09 20:56	05:50 20:10	06:36 19:05		07:21 18:02	07:11 16:12	15:01 (2) 15:32 (2)	07:48 15:58	15:22 (2) 15:22 (2)
19	05:10 20:55	05:52 20:08	06:37 19:03		07:23 18:00	07:13 16:11	15:02 (2) 15:33 (2)	07:49 15:58	15:22 (2) 15:22 (2)
20	05:11 20:54	05:53 20:06	06:39 19:01		07:24 17:58	07:14 16:09	15:02 (2) 15:33 (2)	07:49 15:58	15:22 (2) 15:22 (2)
21	05:12 20:53	05:55 20:04	06:40 18:59		07:26 17:56	07:16 16:08	15:02 (2) 15:32 (2)	07:50 15:59	15:22 (2) 15:22 (2)
22	05:13 20:52	05:56 20:02	06:42 18:57		07:27 17:54	07:17 16:07	15:03 (2) 15:31 (2)	07:50 15:59	15:22 (2) 15:22 (2)
23	05:14 20:51	05:58 20:00	18:42 (3) 18:56 (3)	06:43 18:55	07:29 17:52	07:19 16:06	15:03 (2) 15:30 (2)	07:51 16:00	15:22 (2) 15:22 (2)
24	05:16 20:50	05:59 19:58	18:39 (3) 18:58 (3)	06:44 18:52	07:31 17:51	07:20 16:06	15:03 (2) 15:29 (2)	07:51 16:00	15:22 (2) 15:22 (2)
25	05:17 20:48	06:01 19:56	18:37 (3) 19:00 (3)	06:46 18:50	06:32 16:49	07:22 16:05	15:04 (2) 15:29 (2)	07:52 16:01	15:22 (2) 15:22 (2)
26	05:18 20:47	06:02 19:54	18:35 (3) 19:01 (3)	06:47 18:48	06:34 16:47	07:23 16:04	15:04 (2) 15:27 (2)	07:52 16:02	15:22 (2) 15:22 (2)
27	05:20 20:46	06:04 19:52	18:34 (3) 19:02 (3)	06:49 18:46	06:35 16:45	07:25 16:03	15:05 (2) 15:27 (2)	07:52 16:02	15:22 (2) 15:22 (2)
28	05:21 20:44	06:05 19:50	18:33 (3) 19:03 (3)	06:50 18:44	06:37 16:43	07:26 16:02	15:06 (2) 15:26 (2)	07:53 16:04	15:22 (2) 15:22 (2)
29	05:22 20:43	06:06 19:48	18:31 (3) 19:03 (3)	06:52 18:42	06:39 16:41	07:27 16:02	15:07 (2) 15:26 (2)	07:53 16:04	15:22 (2) 15:22 (2)
30	05:24 20:42	06:08 19:46	18:31 (3) 19:04 (3)	06:53 18:39	06:40 16:40	07:29 16:01	15:07 (2) 15:25 (2)	07:53 16:05	15:22 (2) 15:22 (2)
31	05:25 20:40	06:09 19:44	18:29 (3) 19:03 (3)		06:42 16:38			07:53 16:06	15:22 (2) 15:22 (2)
Potential sun hours	490	447	379	335	275	604	256	100	
Total, worst case		239	337						

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 - RB5

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	07:53	14:55 (1)	07:30	15:47 (2)	06:41	06:36		05:36	04:55		
	16:07	15:10 (1)	16:51	16:11 (2)	17:38	19:27		20:13	20:54		
2	07:53	14:56 (1)	07:29	15:48 (2)	06:39	06:34		18:50 (3)	05:34	04:55	
	16:08	15:10 (1)	16:53	16:13 (2)	17:39	19:28	6	18:56 (3)	20:14	20:55	
3	07:53	14:56 (1)	07:27	15:48 (2)	06:37	06:32		18:48 (3)	05:33	04:54	
	16:09	15:09 (1)	16:54	16:15 (2)	17:41	19:30	10	18:58 (3)	20:16	20:56	
4	07:53	14:58 (1)	07:26	15:48 (2)	06:35	06:29		18:46 (3)	05:31	04:53	
	16:10	15:09 (1)	16:56	16:17 (2)	17:43	19:31	13	18:59 (3)	20:17	20:57	
5	07:53	15:00 (1)	07:24	15:49 (2)	06:33	06:27		18:44 (3)	05:29	04:53	
	16:11	15:08 (1)	16:58	16:16 (2)	17:44	19:33	17	19:01 (3)	20:19	20:58	
6	07:52	15:01 (1)	07:23	15:50 (2)	06:31	06:25		18:43 (3)	05:28	04:52	
	16:12	15:06 (1)	16:59	16:17 (2)	17:46	19:34	20	19:03 (3)	20:20	20:58	
7	07:52		07:21	15:50 (2)	06:29	06:23		18:42 (3)	05:26	04:52	
	16:13		17:01	16:16 (2)	17:48	19:36	23	19:05 (3)	20:21	20:59	
8	07:52		07:20	15:51 (2)	06:27	06:21		18:41 (3)	05:24	04:51	
	16:15		17:03	16:15 (2)	17:49	19:37	25	19:06 (3)	20:23	21:00	
9	07:51		07:18	15:53 (2)	06:25	06:19		18:39 (3)	05:23	04:51	
	16:16		17:04	16:14 (2)	17:51	19:39	28	19:07 (3)	20:24	21:01	
10	07:51		07:16	15:54 (2)	06:23	06:17		18:39 (3)	05:21	04:50	
	16:17		17:06	16:13 (2)	17:52	19:40	29	19:08 (3)	20:26	21:02	
11	07:50		07:15	15:55 (2)	06:21	06:15		18:38 (3)	05:20	04:50	
	16:18		17:08	16:11 (2)	17:54	19:42	32	19:10 (3)	20:27	21:02	
12	07:50		07:13	15:58 (2)	06:19	06:13		18:38 (3)	05:18	04:50	
	16:20		17:10	16:08 (2)	17:56	19:44	32	19:10 (3)	20:29	21:03	
13	07:49		07:11		06:17	06:11		18:38 (3)	05:17	04:50	
	16:21		17:11		17:57	19:45	32	19:10 (3)	20:30	21:04	
14	07:49		07:10		06:14	06:09		18:38 (3)	05:15	04:49	
	16:23		17:13		17:59	19:47	31	19:09 (3)	20:32	21:04	
15	07:48		07:08		06:12	06:07		18:38 (3)	05:14	04:49	
	16:24		17:15		18:00	19:48	30	19:08 (3)	20:33	21:05	
16	07:47		07:06		06:10	06:05		18:39 (3)	05:12	04:49	
	16:25		17:16		18:02	19:50	29	19:08 (3)	20:34	21:05	
17	07:47		07:04		06:08	06:03		18:39 (3)	05:11	04:49	
	16:27		17:18		18:03	19:51	28	19:07 (3)	20:36	21:06	
18	07:46		07:02		06:06	06:01		18:40 (3)	05:10	04:49	
	16:28		17:20		18:05	19:53	25	19:05 (3)	20:37	21:06	
19	07:45		07:01		06:04	05:59		18:42 (3)	05:09	04:49	
	16:30		17:21		18:07	19:54	23	19:05 (3)	20:38	21:06	
20	07:44		06:59		06:02	05:57		18:43 (3)	05:07	04:49	
	16:31		17:23		18:08	19:56	20	19:03 (3)	20:40	21:07	
21	07:43		06:57		05:59	05:55		18:44 (3)	05:06	04:49	
	16:33		17:25		18:10	19:57	17	19:01 (3)	20:41	21:07	
22	07:42	15:51 (2)	06:55		05:57	05:53		18:47 (3)	05:05	04:50	
	16:35	2	15:53 (2)	17:26	18:11	19:59	11	18:58 (3)	20:42	21:07	
23	07:41	15:50 (2)	06:53		05:55	05:51			05:04	04:50	
	16:36	5	15:55 (2)	17:28	18:13	20:00			20:43	21:07	
24	07:40	15:49 (2)	06:51		05:53	05:49			05:03	04:50	
	16:38	7	15:56 (2)	17:30	18:14	20:02			20:45	21:07	
25	07:39	15:49 (2)	06:49		05:51	05:47			05:02	04:51	
	16:39	9	15:58 (2)	17:31	18:16	20:03			20:46	21:07	
26	07:38	15:48 (2)	06:47		05:49	05:45			05:01	04:51	
	16:41	12	16:00 (2)	17:33	18:17	20:05			20:47	21:07	
27	07:37	15:47 (2)	06:45		05:47	05:43			05:00	04:51	
	16:43	14	16:01 (2)	17:35	18:19	20:06			20:48	21:07	
28	07:35	15:47 (2)	06:43		05:44	05:41			04:59	04:52	
	16:44	16	16:03 (2)	17:36	18:20	20:08			20:49	21:07	
29	07:34	15:48 (2)			06:42	05:40			04:58	04:52	
	16:46	18	16:06 (2)		19:22	20:10			20:51	21:07	
30	07:33	15:47 (2)			06:40	05:38			04:57	04:53	
	16:48	20	16:07 (2)		19:24	20:11			20:52	21:07	
31	07:31	15:47 (2)			06:38				04:56		
	16:49	23	16:10 (2)		19:25				20:53		
Potential sun hours	269		283		368	411	481		475	486	
Total, worst case	192		275								

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 - RB5

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	04:53	05:26	06:11	18:38 (3)	06:55	15:23 (2)	07:30	06:44	15:43 (2)	16:00		
	21:07	20:39	19:42	32	19:10 (3)	18:37	16:36	20	15:21 (2)	07:31		
2	04:54	05:28	06:12	18:38 (3)	06:56	15:43 (2)	16:00	06:45	15:20 (2)	07:33		
	21:07	20:37	19:40	29	19:07 (3)	18:35	16:35	22	15:44 (2)	15:59		
3	04:55	05:29	06:14	18:37 (3)	06:58	15:42 (2)	16:00	06:47	15:19 (2)	07:35		
	21:06	20:36	19:38	28	19:05 (3)	18:33	16:33	24	15:18 (2)	07:36		
4	04:55	05:30	06:15	18:38 (3)	06:59	15:40 (2)	16:00	06:48	15:17 (2)	07:38		
	21:06	20:34	19:36	25	19:03 (3)	18:31	16:31	25	15:16 (2)	07:39		
5	04:56	05:32	06:17	18:38 (3)	07:01	15:40 (2)	16:00	06:50	15:15 (2)	07:40		
	21:06	20:33	19:33	23	19:01 (3)	18:29	16:30	27	15:14 (2)	07:41		
6	04:57	05:33	06:18	18:39 (3)	07:02	15:40 (2)	16:00	06:52	15:13 (2)	07:42		
	21:05	20:31	19:31	20	18:59 (3)	18:27	16:28	28	15:12 (2)	07:43	5	14:47 (1)
7	04:58	05:35	06:20	18:39 (3)	07:04	15:11 (2)	16:00	06:53	15:11 (2)	07:44	8	14:46 (1)
	21:05	20:29	19:29	17	18:56 (3)	18:25	16:27	29	15:10 (2)	07:45	11	14:45 (1)
8	04:58	05:36	06:21	18:40 (3)	07:05	15:10 (2)	16:00	06:55	15:09 (2)	07:46	13	14:44 (1)
	21:04	20:28	19:27	14	18:54 (3)	18:22	16:25	28	15:08 (2)	07:47	14	14:43 (1)
9	04:59	05:37	06:23	18:42 (3)	07:07	15:07 (2)	16:00	06:57	15:07 (2)	07:48	15	14:42 (1)
	21:04	20:26	19:25	10	18:52 (3)	18:20	16:24	25	15:06 (2)	07:49	16	14:41 (1)
10	05:00	05:39	06:24	18:43 (3)	07:09	15:06 (2)	16:00	06:58	15:05 (2)	07:50	17	14:40 (1)
	21:03	20:24	19:23	7	18:50 (3)	18:18	16:22	24	15:04 (2)	07:51	18	14:39 (1)
11	05:01	05:40	06:25		07:10	15:05 (2)	16:00	07:00	15:03 (2)	07:52	19	14:38 (1)
	21:02	20:23	19:21		18:16	15:04 (2)	16:00	07:01	15:02 (2)	07:53	20	14:37 (1)
12	05:02	05:42	06:27		07:12	15:03 (2)	16:00	07:03	15:01 (2)	07:54	21	14:36 (1)
	21:01	20:21	19:18		18:14	15:02 (2)	16:00	07:04	15:00 (2)	07:55	22	14:35 (1)
13	05:03	05:43	06:28		07:13	15:01 (2)	16:00	07:05	15:00 (2)	07:56	23	14:34 (1)
	21:01	20:19	19:16		18:12	15:00 (2)	16:00	07:06	14:59 (2)	07:57	24	14:33 (1)
14	05:04	05:45	06:30		07:15	14:58 (2)	16:00	07:07	14:58 (2)	07:58	25	14:32 (1)
	21:00	20:17	19:14		18:10	14:57 (2)	16:00	07:08	14:57 (2)	07:59	26	14:31 (1)
15	05:05	05:46	06:31		07:16	14:56 (2)	16:00	07:09	14:56 (2)	08:00	27	14:30 (1)
	20:59	20:15	19:12		18:08	14:55 (2)	16:00	07:10	14:55 (2)	08:01	28	14:29 (1)
16	05:06	05:48	06:33		07:18	14:54 (2)	16:00	07:11	14:54 (2)	08:02	29	14:28 (1)
	20:58	20:14	19:10		18:06	14:53 (2)	16:00	07:12	14:53 (2)	08:03	30	14:27 (1)
17	05:07	05:49	06:34		07:19	14:52 (2)	16:00	07:13	14:52 (2)	08:04	31	14:26 (1)
	20:57	20:12	19:08		18:04	14:51 (2)	16:00	07:14	14:51 (2)	08:05		
18	05:09	05:50	06:36		07:21	14:50 (2)	16:00	07:15	14:50 (2)	08:06		
	20:56	20:10	19:05		18:02	14:49 (2)	16:00	07:16	14:49 (2)	08:07		
19	05:10	05:52	06:37		07:23	14:48 (2)	16:00	07:17	14:48 (2)	08:08		
	20:55	20:08	19:03		18:00	14:47 (2)	16:00	07:18	14:47 (2)	08:09		
20	05:11	05:53	06:39		07:24	14:46 (2)	16:00	07:19	14:46 (2)	08:10		
	20:54	20:06	19:01		17:58	14:45 (2)	16:00	07:20	14:45 (2)	08:11		
21	05:12	05:55	06:40	18:51 (3)	07:26	14:44 (2)	16:00	07:21	14:44 (2)	08:12		
	20:53	20:04	18:59	12	17:56	14:43 (2)	16:00	07:22	14:43 (2)	08:13		
22	05:13	05:56	06:42	18:49 (3)	07:27	14:42 (2)	16:00	07:23	14:42 (2)	08:14		
	20:52	20:02	18:57	17	17:54	14:41 (2)	16:00	07:24	14:41 (2)	08:15		
23	05:14	05:58	06:43	18:46 (3)	07:29	14:40 (2)	16:00	07:25	14:40 (2)	08:16		
	20:51	20:00	18:55	21	17:52	14:39 (2)	16:00	07:26	14:39 (2)	08:17		
24	05:16	05:59	06:44	18:44 (3)	07:31	14:38 (2)	16:00	07:27	14:38 (2)	08:18		
	20:50	19:58	18:52	24	17:51	14:37 (2)	16:00	07:28	14:37 (2)	08:19		
25	05:17	06:01	06:46	18:43 (3)	07:32	14:36 (2)	16:00	07:29	14:36 (2)	08:20		
	20:48	19:56	18:50	26	16:49	14:35 (2)	16:00	07:30	14:35 (2)	08:21		
26	05:18	06:02	06:47	18:42 (3)	07:34	14:34 (2)	16:00	07:31	14:34 (2)	08:22		
	20:47	19:54	18:48	27	16:47	14:33 (2)	16:00	07:32	14:33 (2)	08:23		
27	05:20	06:04	06:49	18:41 (3)	07:35	14:32 (2)	16:00	07:33	14:32 (2)	08:24		
	20:46	19:52	18:46	29	16:45	14:31 (2)	16:00	07:34	14:31 (2)	08:25		
28	05:21	06:05	06:50	18:40 (3)	07:37	14:30 (2)	16:00	07:35	14:30 (2)	08:26		
	20:44	19:50	18:44	30	16:43	14:29 (2)	16:00	07:36	14:29 (2)	08:27		
29	05:22	06:06	06:52	18:39 (3)	07:39	14:28 (2)	16:00	07:37	14:28 (2)	08:28		
	20:43	19:48	18:42	31	16:41	14:27 (2)	16:00	07:38	14:27 (2)	08:29		
30	05:24	06:08	06:53	18:39 (3)	07:40	14:26 (2)	16:00	07:39	14:26 (2)	08:30		
	20:42	19:46	18:39	32	16:40	14:25 (2)	16:00	07:40	14:25 (2)	08:31		
31	05:25	06:09	06:54	18:38 (3)	07:41	14:24 (2)	16:00	07:41	14:24 (2)	08:32		
	20:40	19:44	18:37	32	16:38	14:23 (2)	16:00	07:42	14:23 (2)	08:33		
Potential sun hours	490	447	379	205	335	27	275	377	256	418		
Total, worst case			281									

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: F - RB6

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	07:53	15:04 (1)	07:30	16:08 (2)	06:41	06:36		05:36	04:55		
	16:07	15:23 (1)	16:51	16:09 (2)	17:38	19:27		20:13	20:54		
2	07:53	15:03 (1)	07:29	16:07 (2)	06:39	06:34		05:34	04:55		
	16:08	15:23 (1)	16:53	16:11 (2)	17:39	19:28		20:14	20:55		
3	07:53	15:04 (1)	07:27	16:06 (2)	06:37	06:32		05:33	04:54		
	16:09	15:24 (1)	16:54	16:13 (2)	17:41	19:30		20:16	20:56		
4	07:53	15:05 (1)	07:26	16:06 (2)	06:35	06:29		05:31	04:53		
	16:10	15:26 (1)	16:56	16:15 (2)	17:43	19:31		20:17	20:57		
5	07:53	15:06 (1)	07:24	16:05 (2)	06:33	06:27		05:29	04:53		
	16:11	15:27 (1)	16:58	16:16 (2)	17:44	19:33		20:19	20:58		
6	07:52	15:06 (1)	07:23	16:05 (2)	06:31	06:25		05:28	04:52		
	16:12	15:28 (1)	16:59	16:18 (2)	17:46	19:34		20:20	20:58		
7	07:52	15:07 (1)	07:21	16:04 (2)	06:29	06:23		19:01 (3)	05:26	04:52	
	16:13	15:30 (1)	17:01	16:20 (2)	17:48	19:36	4	19:05 (3)	20:21	20:59	
8	07:52	15:07 (1)	07:20	16:04 (2)	06:27	06:21		18:58 (3)	05:24	04:51	
	16:15	15:29 (1)	17:03	16:21 (2)	17:49	19:37	8	19:06 (3)	20:23	21:00	
9	07:51	15:08 (1)	07:18	16:04 (2)	06:25	06:19		18:54 (3)	05:23	04:51	
	16:16	15:30 (1)	17:04	16:24 (2)	17:51	19:39	13	19:07 (3)	20:24	21:01	
10	07:51	15:08 (1)	07:16	16:04 (2)	06:23	06:17		18:53 (3)	05:21	04:50	
	16:17	15:30 (1)	17:06	16:25 (2)	17:52	19:40	15	19:08 (3)	20:26	21:02	
11	07:50	15:10 (1)	07:15	16:04 (2)	06:21	06:15		18:51 (3)	05:20	04:50	
	16:18	15:30 (1)	17:08	16:27 (2)	17:54	19:42	19	19:10 (3)	20:27	21:02	
12	07:50	15:10 (1)	07:13	16:04 (2)	06:19	06:13		18:50 (3)	05:18	04:50	
	16:20	15:30 (1)	17:10	16:28 (2)	17:56	19:44	21	19:11 (3)	20:29	21:03	
13	07:49	15:11 (1)	07:11	16:05 (2)	06:17	06:11		18:49 (3)	05:17	04:50	
	16:21	15:29 (1)	17:11	16:31 (2)	17:57	19:45	24	19:13 (3)	20:30	21:04	
14	07:49	15:12 (1)	07:10	16:05 (2)	06:14	06:09		18:49 (3)	05:15	04:49	
	16:23	15:29 (1)	17:13	16:31 (2)	17:59	19:47	25	19:14 (3)	20:32	21:04	
15	07:48	15:14 (1)	07:08	16:06 (2)	06:12	06:07		18:48 (3)	05:14	04:49	
	16:24	15:29 (1)	17:15	16:30 (2)	18:00	19:48	28	19:16 (3)	20:33	21:05	
16	07:47	15:15 (1)	07:06	16:07 (2)	06:10	06:05		18:48 (3)	05:12	04:49	
	16:25	15:28 (1)	17:16	16:29 (2)	18:02	19:50	29	19:17 (3)	20:34	21:05	
17	07:47	15:17 (1)	07:04	16:08 (2)	06:08	06:03		18:48 (3)	05:11	04:49	
	16:27	15:27 (1)	17:18	16:28 (2)	18:03	19:51	29	19:17 (3)	20:36	21:06	
18	07:46	15:20 (1)	07:02	16:09 (2)	06:06	06:01		18:47 (3)	05:10	04:49	
	16:28	15:24 (1)	17:20	16:26 (2)	18:05	19:53	30	19:17 (3)	20:37	21:06	
19	07:45		07:01	16:12 (2)	06:04	05:59		18:48 (3)	05:09	04:49	
	16:30		17:21	16:23 (2)	18:07	19:54	29	19:17 (3)	20:38	21:06	
20	07:44		06:59		06:02	05:57		18:49 (3)	05:07	04:49	
	16:31		17:23		18:08	19:56	28	19:17 (3)	20:40	21:07	
21	07:43		06:57		05:59	05:55		18:49 (3)	05:06	04:49	
	16:33		17:25		18:10	19:57	27	19:16 (3)	20:41	21:07	
22	07:42		06:55		05:57	05:53		18:49 (3)	05:05	04:50	
	16:35		17:26		18:11	19:59	26	19:15 (3)	20:42	21:07	
23	07:41		06:53		05:55	05:51		18:50 (3)	05:04	04:50	
	16:36		17:28		18:13	20:00	23	19:13 (3)	20:43	21:07	
24	07:40		06:51		05:53	05:49		18:51 (3)	05:03	04:50	
	16:38		17:30		18:14	20:02	21	19:12 (3)	20:45	21:07	
25	07:39		06:49		05:51	05:47		18:52 (3)	05:02	04:51	
	16:39		17:31		18:16	20:03	18	19:10 (3)	20:46	21:07	
26	07:38		06:47		05:49	05:45		18:55 (3)	05:01	04:51	
	16:41		17:33		18:17	20:05	13	19:08 (3)	20:47	21:07	
27	07:37		06:45		05:47	05:43		18:58 (3)	05:00	04:51	
	16:43		17:35		18:19	20:06	7	19:05 (3)	20:48	21:07	
28	07:35		06:43		05:44	05:41			04:59	04:52	
	16:44		17:36		18:20	20:08			20:49	21:07	
29	07:34				06:42	05:40			04:58	04:52	
	16:46				19:22	20:09			20:51	21:07	
30	07:33				06:40	05:38			04:57	04:53	
	16:48				19:24	20:11			20:52	21:07	
31	07:31				06:38				04:56		
	16:49				19:25				20:53		
Potential sun hours	269		283		368	411	437		475		486
Total, worst case	329		312								

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

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

SHADOW - Calendar

Shadow receptor: F - RB6

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	04:53 21:07	05:26 20:39		06:11 19:42	18:51 (3) 19:10 (3)	06:55 18:37		06:44 16:36	15:34 (2) 15:55 (2)	07:30 16:00	14:52 (1) 15:12 (1)
2	04:54 21:07	05:28 20:37		06:12 19:40	18:52 (3) 19:07 (3)	06:56 18:35		06:45 16:35	15:33 (2) 15:52 (2)	07:31 16:00	14:52 (1) 15:13 (1)
3	04:55 21:06	05:29 20:36		06:14 19:38	18:52 (3) 19:05 (3)	06:58 18:33		06:47 16:33	15:33 (2) 15:51 (2)	07:33 15:59	14:51 (1) 15:13 (1)
4	04:55 21:06	05:30 20:34		06:15 19:36	18:55 (3) 19:03 (3)	06:59 18:31		06:48 16:31	15:34 (2) 15:49 (2)	07:34 15:59	14:52 (1) 15:14 (1)
5	04:56 21:06	05:32 20:33		06:17 19:33	18:57 (3) 19:01 (3)	07:01 18:29		06:50 16:30	15:35 (2) 15:48 (2)	07:35 15:58	14:52 (1) 15:15 (1)
6	04:57 21:05	05:33 20:31		06:18 19:31		07:02 18:27		06:52 16:28	15:35 (2) 15:46 (2)	07:36 15:58	14:52 (1) 15:14 (1)
7	04:58 21:05	05:35 20:29		06:20 19:29		07:04 18:25		06:53 16:27	15:36 (2) 15:44 (2)	07:38 15:58	14:52 (1) 15:14 (1)
8	04:58 21:04	05:36 20:28		06:21 19:27		07:05 18:22		06:55 16:25	15:37 (2) 15:43 (2)	07:39 15:57	14:53 (1) 15:14 (1)
9	04:59 21:04	05:37 20:26		06:23 19:25		07:07 18:20		06:57 16:24	15:38 (2) 15:42 (2)	07:40 15:57	14:53 (1) 15:14 (1)
10	05:00 21:03	05:39 20:24		06:24 19:23		07:09 18:18		06:58 16:22	15:39 (2) 15:40 (2)	07:41 15:57	14:53 (1) 15:13 (1)
11	05:01 21:02	05:40 20:23		06:25 19:21		07:10 18:16		07:00 16:21		07:42 15:57	14:54 (1) 15:13 (1)
12	05:02 21:01	05:42 20:21		06:27 19:18		07:12 18:14		07:01 16:19		07:43 15:57	14:54 (1) 15:13 (1)
13	05:03 21:01	05:43 20:19		06:28 19:16		07:13 18:12		07:03 16:18		07:44 15:57	14:55 (1) 15:13 (1)
14	05:04 21:00	05:45 20:17		06:30 19:14		07:15 18:10		07:05 16:17		07:45 15:57	14:55 (1) 15:13 (1)
15	05:05 20:59	05:46 20:15		06:31 19:12		07:16 18:08		07:06 16:15		07:46 15:57	14:56 (1) 15:13 (1)
16	05:06 20:58	05:48 20:14		06:33 19:12 (3)		07:18 18:06		07:08 16:14		07:46 15:57	14:55 (1) 15:12 (1)
17	05:07 20:57	05:49 20:12		06:34 19:01 (3)		07:19 18:04		07:09 16:13		07:47 15:57	14:56 (1) 15:13 (1)
18	05:09 20:56	05:50 20:10		06:36 19:17 (3)		07:21 18:02		07:11 16:12		07:48 15:58	14:57 (1) 15:13 (1)
19	05:10 20:55	05:52 20:08		06:37 19:18 (3)		07:23 18:00		07:13 16:11		07:49 15:58	14:57 (1) 15:13 (1)
20	05:11 20:54	05:53 20:06		06:39 19:19 (3)		07:24 17:58		07:14 16:09		07:49 15:58	14:58 (1) 15:13 (1)
21	05:12 20:53	05:55 20:04		06:40 19:20 (3)		07:26 17:56		07:16 16:08		07:50 15:59	14:59 (1) 15:14 (1)
22	05:13 20:52	05:56 20:02		06:42 19:21 (3)		07:27 17:54	16:45 (2)	07:17 16:51 (2)		07:50 15:59	14:59 (1) 15:14 (1)
23	05:14 20:51	05:58 20:00		06:43 19:20 (3)		07:29 17:52	6 14	07:19 16:41 (2)		07:51 14:55 (1)	14:59 (1) 16:00
24	05:16 20:50	05:59 19:58		06:44 19:20 (3)		07:31 17:51		07:20 16:39 (2)	14:58 (1)	07:51 16:00	15:00 (1) 15:16 (1)
25	05:17 20:48	06:01 19:56		06:46 19:21 (3)		06:32 16:49		07:22 15:58 (2)	3 10	07:52 15:05 (1)	15:00 (1) 16:01
26	05:18 20:47	06:02 19:54		06:47 19:20 (3)		06:34 16:47		07:23 15:36 (2)		07:52 14:54 (1)	15:00 (1) 16:02
27	05:20 20:46	06:04 19:52		06:49 19:20 (3)		06:35 16:45		07:25 15:35 (2)		07:52 14:53 (1)	15:01 (1) 15:18 (1)
28	05:21 20:44	06:05 19:50		06:50 19:17 (3)		06:37 16:43		07:26 15:35 (2)	15 17	07:53 15:08 (1)	15:02 (1) 15:19 (1)
29	05:22 20:43	06:06 19:48		06:52 19:15 (3)		06:39 16:41		07:27 15:34 (2)		07:53 14:52 (1)	15:02 (1) 15:19 (1)
30	05:24 20:42	06:08 19:46		06:53 19:14 (3)		06:40 16:40		07:29 15:33 (2)		07:53 14:52 (1)	15:03 (1) 15:20 (1)
31	05:25 20:40	06:09 19:44		06:54 19:11 (3)		06:42 16:38		07:30 15:56 (2)	19	07:53 15:11 (1)	15:03 (1) 15:21 (1)
Potential sun hours	490	447		379		335		275		256	
Total, worst case		386		59		205		210		565	

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

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

SHADOW - Calendar

Shadow receptor: G - RB7

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	07:53 16:07	07:30 16:51	15:47 (1) 16:02 (1)	06:41 17:38	16:35 (2) 17:00 (2)	06:36 19:27
2	07:53 16:08	07:29 16:53	15:49 (1) 16:01 (1)	06:39 17:39	16:36 (2) 16:59 (2)	06:34 19:28
3	07:53 16:09	07:27 16:54	15:51 (1) 15:58 (1)	06:37 17:41	16:37 (2) 16:57 (2)	06:32 19:30
4	07:53 16:10	07:26 16:56	06:35 17:43	16:39 (2) 17:43	06:29 19:31	05:31 19:33
5	07:53 16:11	07:24 16:58	06:33 17:44	16:41 (2) 16:53 (2)	06:27 19:33	05:29 19:33
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 19:34	19:15 (3) 19:31 (3)
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 19:36	19:16 (3) 19:33 (3)
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 19:37	19:20 (3) 19:26 (3)
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 19:39	04:51 20:01
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 19:40	04:50 20:02
11	07:50 16:18	07:15 17:08	06:21 17:54	06:15 19:42	05:20 19:42	04:50 20:02
12	07:50 16:20	07:13 17:09	06:19 17:56	06:13 19:44	05:18 19:44	04:50 20:03
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 19:45	04:50 20:04
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 19:47	04:49 20:04
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 19:48	04:49 20:05
16	07:47 16:25	07:06 17:16	06:10 18:02	06:05 19:50	05:12 19:50	04:49 20:05
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 19:51	04:49 20:06
18	07:46 16:28	07:02 17:20	16:40 (2) 16:41 (2)	06:06 18:05	06:01 19:53	05:10 19:26 (3)
19	07:45 16:30	07:01 15:40 (1) 15:42 (1)	16:39 (2) 16:43 (2)	06:04 18:07	05:59 19:54	05:09 19:29 (3)
20	07:44 16:31	06:59 15:40 (1) 15:41 (1)	16:38 (2) 16:45 (2)	06:02 18:08	05:57 19:56	05:07 19:30 (3)
21	07:43 16:33	06:57 15:41 (1) 15:46 (1)	16:36 (2) 16:47 (2)	05:59 18:10	05:55 19:57	05:06 19:32 (3)
22	07:42 16:35	06:55 15:41 (1) 15:48 (1)	16:37 (2) 16:50 (2)	05:57 18:11	05:53 19:59	05:05 19:33 (3)
23	07:41 16:36	06:53 15:40 (1) 15:49 (1)	16:36 (2) 16:52 (2)	05:55 18:13	05:51 20:00	05:04 19:12 (3)
24	07:40 16:38	06:51 15:41 (1) 15:51 (1)	16:36 (2) 16:54 (2)	05:53 18:14	05:49 20:02	05:03 19:36 (3)
25	07:39 16:39	06:49 15:41 (1) 15:53 (1)	16:36 (2) 16:56 (2)	05:51 18:16	05:47 20:03	05:02 19:37 (3)
26	07:38 16:41	06:47 15:42 (1) 15:55 (1)	16:35 (2) 16:58 (2)	05:49 18:17	05:45 20:05	05:01 19:11 (3)
27	07:36 16:43	06:45 15:42 (1) 15:56 (1)	16:36 (2) 17:00 (2)	05:47 18:19	05:43 20:06	05:00 19:37 (3)
28	07:35 16:44	06:43 15:43 (1) 15:58 (1)	16:36 (2) 17:01 (2)	05:44 18:20	05:41 20:08	04:59 19:10 (3)
29	07:34 16:46	06:41 15:44 (1) 16:01 (1)	06:42 19:22	05:40 20:09	05:40 20:09	04:58 19:36 (3)
30	07:33 16:48	06:40 15:44 (1) 16:02 (1)	06:40 19:24	05:38 20:11	05:38 19:11 (3)	04:57 19:37 (3)
31	07:31 16:49	06:38 15:46 (1) 16:04 (1)	06:38 19:25			04:56 20:53
Potential sun hours	269	283	368	411	475	486
Total, worst case	144	196	97	268	147	

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: G - RB7

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	04:53	05:26	06:11	06:55	06:44	07:30
	21:07	20:39	19:42	18:37	16:36	16:00
2	04:54	05:28	06:12	06:56	06:45	07:31
	21:07	20:37	19:40	18:35	16:35	16:00
3	04:55	05:29	06:14	06:58	06:47	07:33
	21:06	20:36	19:38	18:33	16:33	15:59
4	04:55	05:30	06:15	06:59	06:48	07:34
	21:06	20:34	19:36	18:31	16:31	15:59
5	04:56	05:32	19:28 (3)	06:17	07:01	07:35
	21:06	20:33	9 19:37 (3)	19:33	18:29	15:58
6	04:57	05:33	19:26 (3)	06:18	07:02	07:36
	21:05	20:31	14 19:40 (3)	19:31	18:27	15:58
7	04:58	05:35	19:24 (3)	06:20	07:04	07:38
	21:05	20:29	17 19:41 (3)	19:29	18:25	15:58
8	04:58	05:36	19:22 (3)	06:21	07:05	07:39
	21:04	20:28	20 19:42 (3)	19:27	18:22	15:57
9	04:59	05:37	19:22 (3)	06:23	07:07	07:40
	21:03	20:26	21 19:43 (3)	19:25	18:20	15:57
10	05:00	05:39	19:20 (3)	06:24	07:09	07:41
	21:03	20:24	24 19:44 (3)	19:23	18:18	15:57
11	05:01	05:40	19:19 (3)	06:25	07:10	07:42
	21:02	20:23	25 19:44 (3)	19:21	18:16	15:57
12	05:02	05:42	19:19 (3)	06:27	07:12	07:43
	21:01	20:21	26 19:45 (3)	19:18	18:14	15:57
13	05:03	05:43	19:18 (3)	06:28	07:13	07:44
	21:01	20:19	26 19:44 (3)	19:16	18:12	15:57
14	05:04	05:45	19:19 (3)	06:30	07:15	07:45
	21:00	20:17	26 19:45 (3)	19:14	18:10	15:57
15	05:05	05:46	19:18 (3)	06:31	07:16	07:46
	20:59	20:15	27 19:45 (3)	19:12	18:08	15:57
16	05:06	05:48	19:17 (3)	06:33	07:18	07:46
	20:58	20:14	27 19:44 (3)	19:10	18:06	15:57
17	05:07	05:49	19:18 (3)	06:34	07:19	07:47
	20:57	20:12	26 19:44 (3)	19:08	18:04	15:57
18	05:09	05:50	19:17 (3)	06:36	07:21	07:48
	20:56	20:10	26 19:43 (3)	19:05	18:02	15:58
19	05:10	05:52	19:17 (3)	06:37	07:23	07:49
	20:55	20:08	24 19:41 (3)	19:03	18:00	15:58
20	05:11	05:53	19:18 (3)	06:39	07:24	07:49
	20:54	20:06	22 19:40 (3)	19:01	17:58	15:58
21	05:12	05:55	19:18 (3)	06:40	07:26	07:50
	20:53	20:04	19 19:37 (3)	18:59	17:56	15:59
22	05:13	05:56	19:20 (3)	06:42	07:27	07:50
	20:52	20:02	16 19:36 (3)	18:57	17:54	15:59
23	05:14	05:58	19:21 (3)	06:43	07:29	07:51
	20:51	20:00	13 19:34 (3)	18:55	17:52	16:00
24	05:16	05:59	19:22 (3)	06:44	07:31	07:51
	20:50	19:58	10 19:32 (3)	18:52	17:51	16:00
25	05:17	06:01	19:25 (3)	06:46	06:32	07:52
	20:48	19:56	5 19:30 (3)	18:50	16:49	16:01
26	05:18	06:02		06:47	06:34	07:52
	20:47	19:54		18:48	16:47	16:02
27	05:20	06:04		06:49	06:35	07:52
	20:46	19:52		18:46	16:45	16:02
28	05:21	06:05		06:50	06:37	07:53
	20:44	19:50		18:44	16:43	16:03
29	05:22	06:06		06:52	06:39	07:53
	20:43	19:48		18:42	16:41	16:04
30	05:24	06:08		06:53	06:40	07:53
	20:42	19:46		18:39	16:40	16:05
31	05:25	06:09			06:42	07:53
	20:40	19:44			16:38	16:06
Potential sun hours	490	447	379	335	275	256
Total, worst case		423		267	179	

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: H - RB8

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	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:55 20:54		
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14	04:55 20:55		
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56		
4	07:53 16:10	07:26 16:56	16:00 (1) 16:02 (1)	06:35 19:31	05:31 20:17	04:53 20:57		
5	07:53 16:11	07:24 16:58	16:00 (1) 16:03 (1)	06:33 17:44	05:29 19:33	04:53 20:58		
6	07:52 16:12	07:23 16:59	16:01 (1) 16:06 (1)	06:31 17:46	05:28 20:20	19:38 (3) 19:39 (3)	04:52 20:58	
7	07:52 16:13	07:21 17:01	16:01 (1) 16:08 (1)	06:29 17:48	05:26 20:21	19:37 (3) 19:40 (3)	04:52 20:59	
8	07:52 16:15	07:20 17:03	16:01 (1) 16:09 (1)	06:27 17:49	05:24 20:23	19:37 (3) 19:42 (3)	04:51 21:00	
9	07:51 16:16	07:18 17:04	16:02 (1) 16:12 (1)	06:25 17:51	05:23 20:24	19:36 (3) 19:43 (3)	04:51 21:01	
10	07:51 16:17	07:16 17:06	16:03 (1) 16:14 (1)	06:23 17:52	05:21 20:26	19:36 (3) 19:45 (3)	04:50 21:02	
11	07:50 16:18	07:15 17:08	16:04 (1) 16:16 (1)	06:21 17:54	05:20 20:27	19:36 (3) 19:48 (3)	04:50 21:02	
12	07:50 16:20	07:13 17:10	16:06 (1) 16:18 (1)	06:19 17:56	05:18 20:29	19:35 (3) 19:49 (3)	04:50 21:03	
13	07:49 16:21	07:11 17:11	16:09 (1) 16:18 (1)	06:17 17:57	05:17 20:30	19:35 (3) 19:51 (3)	04:50 21:04	
14	07:49 16:23	07:10 17:13	06:14 17:59	14 16:56 (2)	16 06:09	16 05:15	16 19:35 (3)	16 04:49
15	07:48 16:24	07:08 17:15	06:12 18:00	15 17:11 (2)	15 19:47	18 20:32	18 19:53 (3)	18 21:04
16	07:47 16:25	07:06 17:16	06:10 18:02	16 16:57 (2)	16 06:07	19 05:14	19 19:35 (3)	19 04:49
17	07:47 16:27	07:04 17:18	06:08 18:03	15 17:14 (2)	15 19:50	20 20:34	20 19:55 (3)	20 21:05
18	07:46 16:28	07:02 17:20	06:06 18:05	14 17:01 (2)	14 06:03	20 05:11	20 19:36 (3)	20 04:49
19	07:45 16:30	07:01 17:21	06:04 18:07	14 17:15 (2)	14 19:51	21 20:36	21 19:57 (3)	21 21:06
20	07:44 16:31	06:59 17:23	06:02 18:08	8 17:11 (2)	8 19:53	23 20:37	23 19:36 (3)	23 04:49
21	07:43 16:33	06:57 17:25	05:59 18:10		05:59	05:09	19:36 (3)	04:49
22	07:42 16:35	06:55 17:26	05:57 18:11		19:54	20:38	24 20:00 (3)	24 21:06
23	07:41 16:36	06:53 17:28	05:55 18:13		05:57	05:07	24 20:00 (3)	24 21:07
24	07:40 16:38	06:51 17:30	05:59 18:14		05:55	05:06	23 19:37 (3)	23 04:50
25	07:39 16:39	06:49 17:31	05:57 18:16		19:57	20:41	23 20:00 (3)	23 21:07
26	07:38 16:41	06:47 17:33	05:57 18:17		05:53	05:05	23 20:00 (3)	23 21:07
27	07:36 16:43	06:45 17:35	05:47 18:19		05:51	05:04	23 19:38 (3)	23 04:50
28	07:35 16:44	06:43 17:36	05:44 18:20		20:00	20:43	21 19:59 (3)	21 21:07
29	07:34 16:46		05:53 18:14		05:49	05:03	19 19:39 (3)	19 04:50
30	07:33 16:48		20:02 05:51		20:02	20:45	19 19:58 (3)	19 21:07
31	07:31 16:49		05:51 18:16		05:47	05:02	18 19:40 (3)	18 04:51
			18:16 05:49		20:03	20:46	18 19:58 (3)	18 21:07
			18:17 05:47		05:45 20:05	05:01 20:47	16 19:41 (3)	16 04:51
			18:19 05:44		05:43 20:06	05:00 20:48	14 19:57 (3)	14 21:07
			18:20 05:42		05:41 20:08	04:59 20:49	11 19:55 (3)	11 21:07
			06:42 19:22		05:40 20:09	04:58 20:51	7 19:53 (3)	7 04:52
			06:40 19:24		05:38 20:11	04:57 20:52		04:53 21:07
			06:38 19:25			04:56 20:53		
Potential sun hours	269	283	368	411	475	486		
Total, worst case		79	131		368			

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

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

Project: Sazomin
Description: Sazomin
Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Calendar

Shadow receptor: H - RB8

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	04:53		05:26	19:45 (3)	06:11		06:55	17:35 (2)	06:44	15:33 (1)	07:30	
	21:07		20:39	13 19:58 (3)	19:42		18:37	13 17:48 (2)	16:36	10 15:43 (1)	16:00	
2	04:54		05:28	19:45 (3)	06:12		06:56	17:34 (2)	06:45	15:31 (1)	07:31	
	21:07		20:37	11 19:56 (3)	19:40		18:35	11 17:45 (2)	16:35	10 15:41 (1)	16:00	
3	04:55		05:29	19:46 (3)	06:14		06:58	17:33 (2)	06:47	15:31 (1)	07:33	
	21:06		20:36	9 19:55 (3)	19:38		18:33	11 17:44 (2)	16:33	8 15:39 (1)	15:59	
4	04:55		05:30	19:46 (3)	06:15		06:59	17:32 (2)	06:48	15:30 (1)	07:34	
	21:06		20:34	7 19:53 (3)	19:36		18:31	9 17:41 (2)	16:31	7 15:37 (1)	15:59	
5	04:56		05:32	19:47 (3)	06:17		07:01	17:33 (2)	06:50	15:30 (1)	07:35	
	21:06		20:33	4 19:51 (3)	19:33		18:29	6 17:39 (2)	16:30	5 15:35 (1)	15:58	
6	04:57		05:33	19:48 (3)	06:18		07:02	17:32 (2)	06:52	15:29 (1)	07:36	
	21:05		20:31	2 19:50 (3)	19:31		18:27	5 17:37 (2)	16:28	4 15:33 (1)	15:58	
7	04:58		05:35		06:20		07:04	17:33 (2)	06:53	15:30 (1)	07:38	
	21:05		20:29		19:29		18:25	2 17:35 (2)	16:27	1 15:31 (1)	15:58	
8	04:58		05:36		06:21		07:05		06:55		07:39	
	21:04		20:28		19:27		18:22		16:25		15:57	
9	04:59		05:37		06:23		07:07		06:57		07:40	
	21:03		20:26		19:25		18:20		16:24		15:57	
10	05:00		05:39		06:24		07:09		06:58		07:41	
	21:03		20:24		19:23		18:18		16:22		15:57	
11	05:01		05:40		06:25		07:10		07:00		07:42	
	21:02		20:23		19:21		18:16		16:21		15:57	
12	05:02		05:42		06:27		07:12		07:01		07:43	
	21:01		20:21		19:18		18:14		16:19		15:57	
13	05:03		05:43		06:28		07:13		07:03		07:44	
	21:01		20:19		19:16		18:12		16:18		15:57	
14	05:04	19:55 (3)	05:45		06:30		07:15		07:05		07:45	
	21:00	6 20:01 (3)	20:17		19:14		18:10		16:17		15:57	
15	05:05	19:53 (3)	05:46		06:31		07:16		07:06		07:46	
	20:59	10 20:03 (3)	20:15		19:12		18:08		16:15		15:57	
16	05:06	19:52 (3)	05:48		06:33		07:18		07:08		07:46	
	20:58	13 20:05 (3)	20:14		19:10		18:06		16:14		15:57	
17	05:07	19:51 (3)	05:49		06:34		07:19		07:09		07:47	
	20:57	15 20:06 (3)	20:12		19:08		18:04		16:13		15:57	
18	05:09	19:50 (3)	05:50		06:36		07:21		07:11		07:48	
	20:56	17 20:07 (3)	20:10		19:05		18:02		16:12		15:58	
19	05:10	19:49 (3)	05:52		06:37		07:23		07:13		07:49	
	20:55	19 20:08 (3)	20:08		19:03		18:00		16:11		15:58	
20	05:11	19:48 (3)	05:53		06:39		07:24		07:14		07:49	
	20:54	20 20:08 (3)	20:06		19:01		17:58		16:09		15:58	
21	05:12	19:48 (3)	05:55		06:40		07:26		07:16		07:50	
	20:53	22 20:10 (3)	20:04		18:59		17:56		16:08		15:59	
22	05:13	19:48 (3)	05:56		06:42		07:27		07:17		07:50	
	20:52	22 20:10 (3)	20:02		18:57		17:54		16:07		15:59	
23	05:14	19:47 (3)	05:58		06:43		07:29		07:19		07:51	
	20:51	24 20:11 (3)	20:00		18:55		17:52		16:06		16:00	
24	05:16	19:46 (3)	05:59		06:44		07:31		07:20		07:51	
	20:50	25 20:11 (3)	19:58		18:52		17:51		16:06		16:00	
25	05:17	19:46 (3)	06:01		06:46	17:49 (2)	06:32		07:22		07:52	
	20:48	24 20:10 (3)	19:56		18:50	3 17:52 (2)	16:49		16:05		16:01	
26	05:18	19:46 (3)	06:02		06:47	17:43 (2)	06:34		07:23		07:52	
	20:47	23 20:09 (3)	19:54		18:48	13 17:56 (2)	16:47		16:04		16:02	
27	05:20	19:46 (3)	06:04		06:49	17:41 (2)	06:35		07:25		07:52	
	20:46	21 20:07 (3)	19:52		18:46	15 17:56 (2)	16:45		16:03		16:02	
28	05:21	19:45 (3)	06:05		06:50	17:38 (2)	06:37		07:26		07:53	
	20:44	20 20:05 (3)	19:50		18:44	16 17:54 (2)	16:43		16:02		16:03	
29	05:22	19:45 (3)	06:06		06:52	17:37 (2)	06:39	15:37 (1)	07:27		07:53	
	20:43	18 20:03 (3)	19:48		18:42	15 17:52 (2)	16:41	11 15:48 (1)	16:02		16:04	
30	05:24	19:46 (3)	06:08		06:53	17:35 (2)	06:40	15:35 (1)	07:29		07:53	
	20:42	16 20:02 (3)	19:46		18:39	14 17:49 (2)	16:40	12 15:47 (1)	16:01		16:05	
31	05:25	19:46 (3)	06:09				06:42	15:34 (1)			07:53	
	20:40	14 20:00 (3)	19:44				16:38	11 15:45 (1)			16:06	
Potential sun hours	490		447		379		335		275		256	
Total, worst case	329		46		76		91		45			

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: I - RB9

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	07:53 16:07	07:30 16:51	06:41 17:38	16:47 (1) 17:06 (1)	06:36 19:27	18:35 (2) 20:12
2	07:53 16:08	07:29 16:53	06:39 17:39	16:48 (1) 17:04 (1)	06:34 19:28	18:37 (2) 20:14
3	07:53 16:09	07:27 16:54	06:37 17:41	16:50 (1) 17:02 (1)	06:32 19:30	05:33 20:15
4	07:53 16:10	07:26 16:56	06:35 17:43	16:54 (1) 16:58 (1)	06:29 19:31	05:31 20:17
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:18	04:53 20:58
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:58
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:21	04:52 20:59
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	04:51 21:00
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	04:50 21:02
11	07:50 16:18	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02
12	07:50 16:20	07:13 17:09	06:19 17:56	06:13 19:44	05:18 20:29	19:59 (3) 20:00 (3)
13	07:49 16:21	07:11 17:11	06:16 17:57	06:11 19:45	05:17 20:30	19:59 (3) 20:02 (3)
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	19:58 (3) 20:04 (3)
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	19:57 (3) 20:04 (3)
16	07:47 16:25	07:06 17:16	06:10 18:02	06:05 19:50	05:12 20:34	19:56 (3) 20:06 (3)
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	19:56 (3) 20:07 (3)
18	07:46 16:28	07:02 17:20	16:51 (1) 16:53 (1)	06:06 18:05	06:01 19:53	19:56 (3) 20:09 (3)
19	07:45 16:30	07:01 17:21	16:49 (1) 16:55 (1)	06:04 18:07	05:59 17:42 (2)	19:55 (3) 20:09 (3)
20	07:44 16:31	06:59 17:23	16:48 (1) 16:57 (1)	06:02 18:08	05:57 17:39 (2)	19:55 (3) 20:10 (3)
21	07:43 16:33	06:57 17:25	16:47 (1) 16:59 (1)	05:59 18:10	05:55 17:46 (2)	19:55 (3) 20:12 (3)
22	07:42 16:35	06:55 17:26	16:47 (1) 17:01 (1)	05:57 18:11	05:53 17:36 (2)	19:56 (3) 20:13 (3)
23	07:41 16:36	06:53 17:28	16:46 (1) 17:03 (1)	05:55 18:13	05:51 17:35 (2)	19:56 (3) 20:14 (3)
24	07:40 16:38	06:51 17:30	16:46 (1) 17:05 (1)	05:53 18:14	05:49 17:33 (2)	19:56 (3) 20:15 (3)
25	07:39 16:39	06:49 17:31	16:46 (1) 17:07 (1)	05:51 18:16	05:47 17:33 (2)	19:56 (3) 20:16 (3)
26	07:38 16:41	06:47 17:33	16:46 (1) 17:08 (1)	05:49 18:17	05:45 17:32 (2)	19:57 (3) 20:17 (3)
27	07:36 16:43	06:45 17:35	16:46 (1) 17:08 (1)	05:47 18:19	05:43 17:32 (2)	19:57 (3) 20:16 (3)
28	07:35 16:44	06:43 17:36	16:46 (1) 17:07 (1)	05:44 18:20	05:41 17:32 (2)	19:58 (3) 20:17 (3)
29	07:34 16:46		06:42 19:22	05:40 18:33 (2)	05:40 18:55 (2)	19:59 (3) 20:16 (3)
30	07:33 16:48		06:40 19:24	05:38 18:34 (2)	05:38 18:54 (2)	19:59 (3) 20:16 (3)
31	07:31 16:49		06:38 19:25	05:36 18:33 (2)	05:36 18:52 (2)	19:59 (3) 20:15 (3)
Potential sun hours	269	283	368	411	475	486
Total, worst case		165	255	25	279	59

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 - RB9

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	04:53			05:26	06:11		06:55		06:44	07:30
	21:07			20:39	19:42		18:37		16:36	16:00
2	04:54			05:28	06:12		06:56		06:45	07:31
	21:07			20:37	19:40		18:35		16:35	16:00
3	04:55			05:29	06:14		06:58		06:47	07:33
	21:06			20:36	19:38		18:33		16:33	15:59
4	04:55			05:30	06:15		06:59		06:48	07:34
	21:06			20:34	19:36		18:31		16:31	15:59
5	04:56			05:32	06:17		07:01		06:50	07:35
	21:06			20:33	19:33		18:29		16:30	15:58
6	04:57			05:33	06:18		07:02		06:52	07:36
	21:05			20:31	19:31		18:27		16:28	15:58
7	04:58		20:12 (3)	05:35	06:20		07:04		06:53	07:38
	21:05	6	20:18 (3)	20:29	19:29		18:25		16:27	15:58
8	04:58		20:11 (3)	05:36	06:21		07:05		06:55	07:39
	21:04	9	20:20 (3)	20:28	19:27		18:22		16:25	15:57
9	04:59		20:10 (3)	05:37	06:23		07:07		06:57	07:40
	21:03	10	20:20 (3)	20:26	19:25		18:20		16:24	15:57
10	05:00		20:09 (3)	05:39	06:24	18:31 (2)	07:09	17:27 (1)	06:58	07:41
	21:03	12	20:21 (3)	20:24	19:23	9	18:40 (2)	8	17:35 (1)	16:22
11	05:01		20:09 (3)	05:40	06:25	18:28 (2)	07:10	17:23 (1)	07:00	07:42
	21:02	13	20:22 (3)	20:23	19:21	15	18:43 (2)	14	17:37 (1)	16:21
12	05:02		20:08 (3)	05:42	06:27	18:26 (2)	07:12	17:22 (1)	07:01	07:43
	21:01	15	20:23 (3)	20:21	19:18	18	18:44 (2)	17	17:39 (1)	16:19
13	05:03		20:08 (3)	05:43	06:28	18:24 (2)	07:13	17:20 (1)	07:03	07:44
	21:01	16	20:24 (3)	20:19	19:16	20	18:44 (2)	19	17:39 (1)	16:18
14	05:04		20:07 (3)	05:45	06:30	18:23 (2)	07:15	17:19 (1)	07:05	07:45
	21:00	18	20:25 (3)	20:17	19:14	22	18:45 (2)	21	17:40 (1)	16:17
15	05:05		20:07 (3)	05:46	06:31	18:22 (2)	07:16	17:18 (1)	07:06	07:46
	20:59	18	20:25 (3)	20:15	19:12	23	18:45 (2)	23	17:41 (1)	16:15
16	05:06		20:07 (3)	05:48	06:33	18:22 (2)	07:18	17:17 (1)	07:08	07:46
	20:58	19	20:26 (3)	20:13	19:10	22	18:44 (2)	22	17:39 (1)	16:14
17	05:07		20:06 (3)	05:49	06:34	18:21 (2)	07:19	17:17 (1)	07:09	07:47
	20:57	20	20:26 (3)	20:12	19:08	21	18:42 (2)	20	17:37 (1)	16:13
18	05:09		20:06 (3)	05:50	06:36	18:20 (2)	07:21	17:18 (1)	07:11	07:48
	20:56	20	20:26 (3)	20:10	19:05	19	18:39 (2)	18	17:36 (1)	16:12
19	05:10		20:06 (3)	05:52	06:37	18:20 (2)	07:23	17:17 (1)	07:13	07:49
	20:55	19	20:25 (3)	20:08	19:03	18	18:38 (2)	16	17:33 (1)	16:11
20	05:11		20:05 (3)	05:53	06:39	18:20 (2)	07:24	17:18 (1)	07:14	07:49
	20:54	19	20:24 (3)	20:06	19:01	15	18:35 (2)	13	17:31 (1)	16:09
21	05:12		20:06 (3)	05:55	06:40	18:21 (2)	07:26	17:18 (1)	07:16	07:50
	20:53	18	20:24 (3)	20:04	18:59	12	18:33 (2)	11	17:29 (1)	16:08
22	05:13		20:06 (3)	05:56	06:42	18:21 (2)	07:27	17:19 (1)	07:17	07:50
	20:52	17	20:23 (3)	20:02	18:57	10	18:31 (2)	8	17:27 (1)	16:07
23	05:14		20:06 (3)	05:58	06:43	18:23 (2)	07:29	17:20 (1)	07:19	07:51
	20:51	16	20:22 (3)	20:00	18:55	6	18:29 (2)	5	17:25 (1)	16:06
24	05:16		20:06 (3)	05:59	06:44	18:24 (2)	07:31	17:22 (1)	07:20	07:51
	20:50	14	20:20 (3)	19:58	18:52	2	18:26 (2)	1	17:23 (1)	16:06
25	05:17		20:06 (3)	06:01	06:46		06:32		07:22	07:52
	20:48	13	20:19 (3)	19:56	18:50		16:49		16:05	16:01
26	05:18		20:07 (3)	06:02	06:47		06:34		07:23	07:52
	20:47	12	20:19 (3)	19:54	18:48		16:47		16:04	16:02
27	05:20		20:07 (3)	06:04	06:49		06:35		07:25	07:52
	20:46	10	20:17 (3)	19:52	18:46		16:45		16:03	16:02
28	05:21		20:07 (3)	06:05	06:50		06:37		07:26	07:53
	20:44	9	20:16 (3)	19:50	18:44		16:43		16:02	16:03
29	05:22		20:07 (3)	06:06	06:52		06:39		07:27	07:53
	20:43	7	20:14 (3)	19:48	18:42		16:41		16:02	16:04
30	05:24		20:09 (3)	06:08	06:53		06:40		07:29	07:53
	20:42	5	20:14 (3)	19:46	18:39		16:40		16:01	16:05
31	05:25		20:09 (3)	06:09			06:42			07:53
	20:40	3	20:12 (3)	19:44			16:38			16:06
Potential sun hours	490			447	379		335		275	256
Total, worst case		338				232		216		

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

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

Shadow receptor: J - RB10

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	07:53 16:07	07:30 16:51	06:41 17:38	16:48 (1) 17:13 (1)	06:36 19:27	04:55 20:54
2	07:53 16:08	07:29 16:53	06:39 17:39	16:49 (1) 17:13 (1)	06:34 19:28	04:55 20:54
3	07:53 16:09	07:27 16:54	06:37 17:41	16:49 (1) 17:12 (1)	06:32 19:30	04:54 20:56
4	07:53 16:10	07:26 16:56	06:35 17:43	16:50 (1) 17:11 (1)	06:29 19:31	04:53 20:57
5	07:53 16:11	07:24 16:58	06:33 17:44	16:51 (1) 17:10 (1)	06:27 19:33	04:53 20:58
6	07:52 16:12	07:23 16:59	06:31 17:46	16:52 (1) 17:09 (1)	06:25 19:34	04:52 20:58
7	07:52 16:13	07:21 17:01	06:29 17:48	16:54 (1) 17:06 (1)	06:23 19:36	04:52 20:59
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	18:43 (2) 18:59 (2)	05:24 20:23
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	18:45 (2) 18:55 (2)	05:23 20:24
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	04:50 21:02
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	04:50 21:04
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	04:49 21:04
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:49 21:05
16	07:47 16:25	07:06 17:16	06:10 18:02	06:05 19:50	05:12 20:34	04:49 21:05
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:06
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06
20	07:44 16:31	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 21:07
21	07:43 16:33	06:57 17:25	16:54 (1) 16:59 (1)	05:55 19:57	05:06 20:41	04:50 21:07
22	07:42 16:35	06:55 17:26	16:54 (1) 17:01 (1)	05:53 19:59	05:05 20:42	04:50 21:07
23	07:41 16:36	06:53 17:28	16:52 (1) 17:03 (1)	05:51 20:00	05:04 20:43	04:50 21:07
24	07:40 16:38	06:51 17:30	16:51 (1) 17:05 (1)	05:49 20:02	05:03 20:45	04:50 21:07
25	07:39 16:39	06:49 17:31	16:50 (1) 17:07 (1)	17:48 (2) 17:51 (2)	05:47 20:03	04:51 20:46
26	07:38 16:41	06:47 17:33	16:50 (1) 17:08 (1)	05:45 20:05	05:01 20:47	04:51 20:47
27	07:36 16:43	06:45 17:35	16:49 (1) 17:10 (1)	05:43 20:06	05:00 20:48	04:51 20:48
28	07:35 16:44	06:43 17:36	16:48 (1) 17:11 (1)	05:41 20:08	04:59 20:49	04:52 20:49
29	07:34 16:46		06:42 19:22	05:40 18:58 (2)	04:58 20:51	04:52 20:51
30	07:33 16:48		06:40 19:24	05:38 18:41 (2)	04:57 20:52	04:53 20:52
31	07:31 16:49		06:38 19:25	20 19:00 (2)	04:56 20:53	20:12 (3) 20:22 (3)
Potential sun hours	269	283	368	411	475	486
Total, worst case		116	230	187	48	540

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: J - RB10

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	04:53		20:18 (3)	05:26	06:11			06:55			06:44	07:30
	21:07	18	20:36 (3)	20:39	19:42			18:37			16:36	16:00
2	04:54		20:17 (3)	05:28	06:12			06:56			06:45	07:31
	21:07	18	20:35 (3)	20:37	19:40			18:35			16:35	16:00
3	04:55		20:18 (3)	05:29	06:14		18:43 (2)	06:58			06:47	07:33
	21:06	17	20:35 (3)	20:36	19:38	10	18:53 (2)	18:33			16:33	15:59
4	04:55		20:18 (3)	05:30	06:15		18:40 (2)	06:59			06:48	07:34
	21:06	17	20:35 (3)	20:34	19:36	16	18:56 (2)	18:31			16:31	15:59
5	04:56		20:18 (3)	05:32	06:17		18:38 (2)	07:01			06:50	07:35
	21:06	16	20:34 (3)	20:33	19:33	19	18:57 (2)	18:29			16:30	15:58
6	04:57		20:18 (3)	05:33	06:18		18:37 (2)	07:02		17:32 (1)	06:52	07:36
	21:05	16	20:34 (3)	20:31	19:31	21	18:58 (2)	18:27	8	17:40 (1)	16:28	15:58
7	04:58		20:19 (3)	05:35	06:20		18:35 (2)	07:04		17:29 (1)	06:53	07:38
	21:05	15	20:34 (3)	20:29	19:29	24	18:59 (2)	18:25	15	17:44 (1)	16:27	15:58
8	04:59		20:19 (3)	05:36	06:21		18:34 (2)	07:05		17:26 (1)	06:55	07:39
	21:04	15	20:34 (3)	20:28	19:27	24	18:58 (2)	18:22	18	17:44 (1)	16:25	15:57
9	04:59		20:20 (3)	05:37	06:23		18:33 (2)	07:07		17:25 (1)	06:57	07:40
	21:03	13	20:33 (3)	20:26	19:25	26	18:59 (2)	18:20	21	17:46 (1)	16:24	15:57
10	05:00		20:19 (3)	05:39	06:24		18:32 (2)	07:09		17:24 (1)	06:58	07:41
	21:03	13	20:32 (3)	20:24	19:23	25	18:57 (2)	18:18	23	17:47 (1)	16:22	15:57
11	05:01		20:19 (3)	05:40	06:25		18:33 (2)	07:10		17:23 (1)	07:00	07:42
	21:02	13	20:32 (3)	20:23	19:21	22	18:55 (2)	18:16	24	17:47 (1)	16:21	15:57
12	05:02		20:20 (3)	05:42	06:27		18:32 (2)	07:12		17:23 (1)	07:01	07:43
	21:01	11	20:31 (3)	20:21	19:18	21	18:53 (2)	18:14	24	17:47 (1)	16:19	15:57
13	05:03		20:20 (3)	05:43	06:28		18:31 (2)	07:13		17:21 (1)	07:03	07:44
	21:01	10	20:30 (3)	20:19	19:16	19	18:50 (2)	18:12	24	17:45 (1)	16:18	15:57
14	05:04		20:21 (3)	05:45	06:30		18:32 (2)	07:15		17:22 (1)	07:05	07:45
	21:00	9	20:30 (3)	20:17	19:14	17	18:49 (2)	18:10	21	17:43 (1)	16:17	15:57
15	05:05		20:21 (3)	05:46	06:31		18:32 (2)	07:16		17:22 (1)	07:06	07:46
	20:59	8	20:29 (3)	20:15	19:12	14	18:46 (2)	18:08	20	17:42 (1)	16:15	15:57
16	05:06		20:22 (3)	05:48	06:33		18:33 (2)	07:18		17:21 (1)	07:08	07:46
	20:58	6	20:28 (3)	20:13	19:10	11	18:44 (2)	18:06	18	17:39 (1)	16:14	15:57
17	05:07		20:22 (3)	05:49	06:34		18:34 (2)	07:19		17:22 (1)	07:09	07:47
	20:57	5	20:27 (3)	20:12	19:08	8	18:42 (2)	18:04	15	17:37 (1)	16:13	15:57
18	05:09		20:23 (3)	05:50	06:36		18:36 (2)	07:21		17:23 (1)	07:11	07:48
	20:56	3	20:26 (3)	20:10	19:05	4	18:40 (2)	18:02	13	17:36 (1)	16:12	15:58
19	05:10		20:24 (3)	05:52	06:37			07:23		17:23 (1)	07:13	07:49
	20:55	1	20:25 (3)	20:08	19:03			18:00	10	17:33 (1)	16:11	15:58
20	05:11			05:53	06:39			07:24		17:24 (1)	07:14	07:49
	20:54			20:06	19:01			17:58	7	17:31 (1)	16:09	15:58
21	05:12			05:55	06:40			07:26		17:26 (1)	07:16	07:50
	20:53			20:04	18:59			17:56	3	17:29 (1)	16:08	15:59
22	05:13			05:56	06:42			07:27			07:17	07:50
	20:52			20:02	18:57			17:54			16:07	15:59
23	05:14			05:58	06:43			07:29			07:19	07:51
	20:51			20:00	18:55			17:52			16:06	16:00
24	05:16			05:59	06:44			07:31			07:20	07:51
	20:50			19:58	18:52			17:51			16:06	16:00
25	05:17			06:01	06:46			06:32			07:22	07:52
	20:48			19:56	18:50			16:49			16:05	16:01
26	05:18			06:02	06:47			06:34			07:23	07:52
	20:47			19:54	18:48			16:47			16:04	16:02
27	05:20			06:04	06:49			06:35			07:25	07:52
	20:46			19:52	18:46			16:45			16:03	16:02
28	05:21			06:05	06:50			06:37			07:26	07:53
	20:44			19:50	18:44			16:43			16:02	16:03
29	05:22			06:06	06:52			06:39			07:27	07:53
	20:43			19:48	18:42			16:41			16:02	16:04
30	05:24			06:08	06:53			06:40			07:29	07:53
	20:42			19:46	18:39			16:40			16:01	16:05
31	05:25			06:09				06:42				07:53
	20:40			19:44				16:38				16:06
Potential sun hours	490			447		379		335		264	275	256
Total, worst case		224					281					

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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Project: Sazomin
Description: Sazomin
Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Calendar

Shadow receptor: K - RB11

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	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:12			04:55 20:54	12	20:12 (1) 20:24 (1)	04:53 21:07	21	20:15 (1) 20:36 (1)	05:26 20:39	06:11 19:42	06:55 18:37	06:43 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14			04:55 20:55	13	20:11 (1) 20:24 (1)	04:54 21:07	20	20:15 (1) 20:35 (1)	05:28 20:37	06:12 19:40	06:56 18:35	06:45 16:35	07:31 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:15			04:54 20:56	15	20:11 (1) 20:26 (1)	04:55 21:06	19	20:16 (1) 20:35 (1)	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:29 19:31	05:31 20:17			04:53 20:57	15	20:11 (1) 20:26 (1)	04:55 21:06	19	20:16 (1) 20:35 (1)	05:30 20:34	06:15 19:36	06:59 18:31	06:48 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:18			04:53 20:58	16	20:11 (1) 20:27 (1)	04:56 21:05	19	20:16 (1) 20:34 (1)	05:32 20:33	06:17 19:33	07:01 18:29	06:50 16:30	07:35 15:58
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20			04:52 20:58	17	20:11 (1) 20:28 (1)	04:57 21:05	18	20:17 (1) 20:34 (1)	05:33 20:31	06:18 19:31	07:02 18:27	06:52 16:28	07:36 15:58
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:21			04:52 20:59	18	20:11 (1) 20:29 (1)	04:58 21:05	17	20:17 (1) 20:34 (1)	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:37 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23			04:51 21:00	19	20:10 (1) 20:29 (1)	04:59 21:04	16	20:18 (1) 20:34 (1)	05:36 20:28	06:21 19:27	07:05 18:22	06:55 16:25	07:39 15:57
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24			04:51 21:01	19	20:11 (1) 20:30 (1)	04:59 21:03	14	20:19 (1) 20:33 (1)	05:37 20:26	06:23 19:25	07:07 18:20	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26			04:51 21:02	20	20:11 (1) 20:31 (1)	05:00 21:03	14	20:18 (1) 20:32 (1)	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27			04:50 21:02	21	20:11 (1) 20:32 (1)	05:01 21:02	12	20:19 (1) 20:31 (1)	05:40 20:22	06:25 19:21	07:00 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29			04:50 21:03	21	20:11 (1) 20:32 (1)	05:02 21:01	11	20:20 (1) 20:31 (1)	05:42 20:21	06:27 19:18	07:01 18:14	07:01 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:16 17:57	06:11 19:45	05:17 20:30			04:50 21:03	21	20:11 (1) 20:32 (1)	05:03 21:01	9	20:21 (1) 20:30 (1)	05:43 20:19	06:28 19:16	07:03 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31			04:50 21:04	22	20:11 (1) 20:33 (1)	05:04 21:00	8	20:22 (1) 20:30 (1)	05:45 20:17	06:30 19:14	07:05 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33			04:49 21:05	22	20:11 (1) 20:33 (1)	05:05 20:59	6	20:23 (1) 20:29 (1)	05:46 20:15	06:31 19:12	07:06 18:08	07:06 16:15	07:45 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34			04:49 21:05	22	20:12 (1) 20:34 (1)	05:06 20:58	4	20:24 (1) 20:28 (1)	05:48 20:13	06:33 19:10	07:08 18:06	07:08 16:14	07:46 15:57
17	07:46 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36			04:49 21:05	22	20:12 (1) 20:34 (1)	05:07 20:57		05:49 20:12	05:48 19:08	06:34 18:04	07:09 16:13	07:09 15:57	07:47 15:57
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37			04:49 21:06	23	20:12 (1) 20:35 (1)	05:09 20:56		05:50 20:10	05:49 19:05	06:36 18:02	07:11 16:12	07:11 15:58	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38			04:49 21:06	23	20:12 (1) 20:35 (1)	05:10 20:55		05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:13 15:58	07:48 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40			04:49 21:07	23	20:12 (1) 20:35 (1)	05:11 20:54		05:53 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:14 15:58	07:49 15:58
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41			04:50 21:07	23	20:13 (1) 20:36 (1)	05:12 20:53		05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:08	07:16 15:59	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42			04:50 21:07	23	20:13 (1) 20:36 (1)	05:13 20:52		05:56 20:02	06:42 18:57	07:27 17:54	07:17 16:07	07:17 15:59	07:51 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43			04:50 21:07	23	20:13 (1) 20:36 (1)	05:15 20:51		05:58 20:00	06:43 18:55	07:29 17:52	07:19 16:06	07:19 16:00	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45			04:50 21:07	23	20:13 (1) 20:36 (1)	05:16 20:50		05:59 19:58	06:44 18:52	07:31 17:51	07:20 16:06	07:20 16:00	07:51 16:00
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46			04:51 21:07	22	20:14 (1) 20:36 (1)	05:17 20:48		06:01 19:56	06:46 18:50	07:22 16:49	07:22 16:05	07:22 16:01	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47			04:51 21:07	22	20:14 (1) 20:36 (1)	05:18 20:47		06:02 19:54	06:47 18:48	07:23 16:47	07:23 16:04	07:23 16:02	07:52 16:02
27	07:36 16:43	06:45 17:35	05:47 18:19	05:43 20:06	05:00 20:48	20:17 (1) 20:19 (1)	04:51 21:07	04:51 21:07	23	20:14 (1) 20:37 (1)	05:20 20:46		06:04 19:52	06:49 18:46	07:24 16:45	07:24 16:03	07:24 16:02	07:52 16:02
28	07:35 16:44	06:43 17:36	05:44 18:20	05:41 20:08	04:59 20:49	20:15 (1) 20:20 (1)	04:52 21:07	04:52 21:07	22	20:14 (1) 20:36 (1)	05:21 20:44		06:05 19:50	06:50 18:44	07:26 16:43	07:26 16:02	07:26 16:03	07:52 16:03
29	07:34 16:46		06:42 19:22	05:40 20:09	04:58 20:50	20:14 (1) 20:21 (1)	04:52 21:07	04:52 21:07	22	20:15 (1) 20:37 (1)	05:22 20:43		06:06 19:48	06:52 18:42	07:27 16:41	07:27 16:02	07:27 16:04	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	20:13 (1) 20:21 (1)	04:53 21:07	04:53 21:07	21	20:15 (1) 20:36 (1)	05:24 20:42		06:08 19:46	06:53 18:39	07:29 16:40	07:29 16:01	07:29 16:05	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53	20:13 (1) 20:23 (1)	04:56 21:07	04:56 21:07			05:25 20:40		06:09 19:44		06:42 16:38		07:53 16:06	07:53 16:06
Potential sun hours	269	283	368	411	475			486	608		490	225	447	379	335	275		256
Total, worst case						32												

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

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

Project: Sazomin
Description: Sazomin
Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Calendar

Shadow receptor: L - RB12

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	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:12	04:55 20:54	04:53 21:07	20:24 (1) 20:39	05:26 19:42	06:11 18:37	06:55 16:36	06:43 16:00
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14	04:55 20:55	04:54 21:07	20:24 (1) 20:37	05:28 19:40	06:12 18:35	06:56 16:35	06:45 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:15	04:54 20:56	04:55 21:06	20:25 (1) 20:36	05:29 19:38	06:14 18:33	06:58 16:33	06:47 16:00
4	07:53 16:10	07:26 16:56	06:35 17:43	06:29 19:31	05:31 20:17	04:53 20:57	04:55 21:06	20:26 (1) 20:34	05:30 19:36	06:15 18:31	06:59 16:31	06:48 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:18	04:53 20:58	04:56 21:05	20:26 (1) 20:33	05:32 19:33	06:17 18:29	07:01 16:30	06:50 15:58
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:58	04:57 21:05	20:27 (1) 20:31	05:33 19:31	06:18 18:27	07:02 16:28	06:52 15:58
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:21	04:52 20:59	04:58 21:05	20:28 (1) 20:29	05:35 19:29	06:20 18:25	07:04 16:27	06:53 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	04:51 21:00	04:59 21:04	20:30 (1) 20:29	05:36 19:27	06:21 18:22	07:05 16:25	06:55 15:57
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	04:59 21:03	20:32 (1) 20:26	05:37 19:25	06:23 18:20	07:07 16:24	06:57 15:57
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	04:51 21:02	05:00 21:03	20:33 (1) 20:24	05:39 19:23	06:24 18:18	07:09 16:22	06:58 15:57
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	20:34 (1) 20:22	05:40 19:21	06:25 18:16	07:10 16:21	07:00 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:01	20:35 (1) 20:19	05:42 19:18	06:27 18:14	07:12 16:19	07:01 15:57
13	07:49 16:21	07:11 17:11	06:16 17:57	06:11 19:45	05:17 20:30	04:50 21:03	05:03 21:01	20:36 (1) 20:19	05:43 19:16	06:28 18:12	07:13 16:18	07:03 15:57
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	04:50 21:04	05:04 21:00	20:37 (1) 20:17	05:45 19:14	06:30 18:10	07:15 16:17	07:05 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:49 21:05	05:05 20:59	20:38 (1) 20:15	05:46 19:12	06:31 18:08	07:16 16:15	07:06 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:06 20:58	20:39 (1) 20:13	05:48 19:10	06:33 18:06	07:18 16:14	07:08 15:57
17	07:46 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:05	05:07 20:57	20:40 (1) 20:12	05:49 19:08	06:34 18:04	07:19 16:13	07:09 15:57
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	20:41 (1) 20:10	05:50 19:05	06:36 18:02	07:21 16:12	07:11 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	20:42 (1) 20:15	05:52 19:03	06:37 18:00	07:23 16:11	07:13 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 21:07	05:11 20:54	20:43 (1) 20:15	05:53 19:01	06:39 17:58	07:24 16:10	07:14 15:58
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	20:44 (1) 20:15	05:55 18:59	06:40 17:56	07:26 16:08	07:16 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	20:45 (1) 20:15	05:56 18:57	06:42 17:54	07:27 16:07	07:17 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43	04:50 21:07	05:15 20:51	20:46 (1) 20:15	05:58 18:55	06:43 17:52	07:29 16:06	07:19 16:00
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25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 21:07	05:17 20:48	20:48 (1) 20:14	06:01 18:50	06:46 17:49	07:32 16:05	07:22 16:01
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:07	05:18 20:47	20:49 (1) 20:14	06:02 18:48	06:47 17:46	07:23 16:04	07:22 16:02
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28	07:35 16:44	06:43 17:36	05:44 18:20	05:42 20:08	04:59 20:49	04:52 21:07	05:21 20:44	20:51 (1) 20:14	06:05 18:44	06:50 17:43	07:26 16:02	07:22 16:03
29	07:34 16:46		06:42 19:22	05:40 20:09	04:58 20:50	04:52 21:07	05:22 20:43	20:52 (1) 20:14	06:07 18:42	06:52 17:41	07:27 16:02	07:23 16:04
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31	07:31 16:49		06:38 19:25		04:56 20:53		05:25 20:40	20:54 (1) 19:44	06:09 18:38		06:42 16:38	07:25 16:06
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256
Total, worst case						334	68					

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: M - RB13

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	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:12	04:55 20:54	04:53 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:43 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14	04:55 20:55	04:54 21:07	05:28 20:37	06:12 19:40	06:56 18:35	06:45 16:35	07:31 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:15	04:54 20:56	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:29 19:31	05:31 20:17	04:53 20:57	04:55 21:06	05:30 20:34	06:15 19:36	06:59 18:31	06:48 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:18	04:53 20:58	04:56 21:05	05:32 20:33	06:17 19:33	07:01 18:29	06:50 16:30	07:35 15:58
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:58	04:57 21:05	05:33 20:31	06:18 19:31	07:02 18:27	06:52 16:28	07:36 15:58
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:21	04:52 20:59	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:37 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	04:51 21:00	04:59 21:04	05:36 20:28	06:21 19:27	07:05 18:22	06:55 16:25	07:39 15:57
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	04:59 21:03	05:37 20:26	06:23 19:25	07:07 18:20	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	04:51 21:02	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	05:40 20:22	06:25 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:01	05:42 20:21	06:27 19:18	07:12 18:14	07:01 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:16 17:57	06:11 19:45	05:17 20:30	04:50 21:03	05:03 21:01	05:43 20:19	06:28 19:16	07:13 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	04:50 21:04	05:04 21:00	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:49 21:05	05:05 20:59	05:46 20:15	06:31 19:12	07:16 18:08	07:06 16:15	07:45 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:06 20:58	05:48 20:13	06:33 19:10	07:18 18:06	07:08 16:14	07:46 15:57
17	07:46 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:05	05:07 20:57	05:49 20:12	06:34 19:08	07:19 18:04	07:09 16:13	07:47 15:57
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	05:50 20:10	06:36 19:05	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:48 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 21:07	05:11 20:54	05:53 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:58
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:08	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:56 20:02	06:42 18:57	07:27 17:54	07:17 16:07	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43	04:50 21:07	05:15 20:51	05:58 20:00	06:43 18:55	07:29 17:52	07:19 16:06	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:59 19:58	06:44 18:52	07:31 17:51	07:20 16:06	07:51 16:00
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 21:07	05:17 20:48	06:01 19:56	06:46 18:50	07:32 17:49	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:07	05:18 20:47	06:02 19:54	06:47 18:48	07:33 17:47	07:23 16:04	07:52 16:02
27	07:36 16:43	06:45 17:35	05:47 18:19	05:43 20:06	05:00 20:48	04:51 21:07	05:20 20:46	06:04 19:52	06:49 18:46	07:34 17:45	07:24 16:03	07:52 16:02
28	07:35 16:44	06:43 17:36	05:44 18:20	05:42 20:08	04:59 20:49	04:52 21:07	05:21 20:44	06:05 19:50	06:50 18:44	07:35 17:43	07:26 16:02	07:52 16:03
29	07:34 16:46		06:42 19:22	05:40 20:09	04:58 20:50	04:52 21:07	05:22 20:43	06:07 19:48	06:52 18:42	07:36 17:41	07:27 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	05:24 20:42	06:08 19:46	06:53 18:39	07:37 17:40	07:29 16:01	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53		05:25 20:40	06:09 19:44		06:42 17:38		07:53 16:06
Potential sun hours Total, worst case	269	283	368	411	475	486	490	447	379	335	275	256

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

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

SHADOW - Calendar

Shadow receptor: N - RB14

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	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:56 20:54	05:31 (1) 21:07	05:42 (1) 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	05:35 20:14	04:55 20:55	05:31 (1) 21:07	05:41 (1) 20:37	06:12 19:40	06:57 18:35	06:45 16:35	07:31 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56	05:32 (1) 21:06	05:41 (1) 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	05:31 20:17	04:54 20:57	05:32 (1) 21:06	05:41 (1) 20:34	06:15 19:36	07:00 18:31	06:49 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:28 19:33	05:29 20:19	04:53 20:58	05:33 (1) 21:06	05:40 (1) 20:33	06:17 19:34	07:01 18:29	06:50 16:30	07:35 15:59
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:59	05:33 (1) 21:05	05:40 (1) 20:31	06:18 19:31	07:03 18:27	06:52 16:28	07:36 15:58
7	07:52 16:14	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:22	04:52 20:59	05:34 (1) 21:05	05:40 (1) 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:38	05:25 20:23	04:51 21:00	05:36 (1) 21:04	05:40 (1) 20:28	06:21 19:27	07:06 18:23	06:55 16:25	07:39 15:58
9	07:51 16:16	07:18 17:05	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	05:36 (1) 21:04	05:39 (1) 20:26	06:23 19:25	07:07 18:21	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:53	06:17 19:41	05:21 20:26	04:51 21:02	05:37 (1) 21:03	05:39 (1) 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
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12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:39 (1) 21:02	05:38 (1) 20:21	06:27 19:19	07:12 18:14	07:02 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	04:50 21:04	05:39 (1) 21:01	05:38 (1) 20:19	06:29 19:16	07:13 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:15 17:59	06:09 19:47	05:15 20:32	04:50 21:04	05:41 (1) 21:00	05:38 (1) 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:50 21:05	05:44 (1) 20:59	05:38 (1) 20:15	06:31 19:12	07:16 18:08	07:06 16:16	07:46 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:46 (1) 20:58	05:37 (1) 20:14	06:33 19:10	07:18 18:06	07:08 16:14	07:46 15:57
17	07:47 16:27	07:04 17:18	06:08 18:04	06:03 19:51	05:11 20:36	04:49 21:06	05:47 (1) 20:57	05:38 (1) 20:12	06:34 19:08	07:20 18:04	07:10 16:13	07:47 15:58
18	07:46 16:29	07:03 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:48 (1) 20:56	05:39 (1) 20:10	06:36 19:06	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:49 (1) 20:55	05:38 (1) 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:49 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:50 21:07	05:51 20:54	05:39 (1) 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:59
21	07:43 16:33	06:57 17:25	06:00 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:40 (1) 20:04	06:40 18:59	07:26 17:56	07:16 16:09	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:41 (1) 20:02	06:42 18:57	07:27 17:54	07:17 16:08	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:44	04:50 21:07	05:15 20:51	05:42 (1) 20:00	06:43 18:55	07:29 17:53	07:19 16:07	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:43 (1) 19:58	06:45 18:53	07:31 17:51	07:20 16:06	07:51 16:01
25	07:39 16:40	06:49 17:31	05:51 18:16	05:47 20:04	05:02 20:46	04:51 21:07	05:17 20:48	05:45 (1) 19:56	06:46 18:50	07:32 17:49	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:18	05:45 20:05	05:01 20:47	04:51 21:08	05:18 20:47	05:46 (1) 19:54	06:48 18:48	07:34 17:47	07:23 16:04	07:52 16:02
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	05:00 20:48	04:52 21:07	05:20 20:46	05:47 (1) 19:52	06:49 18:46	07:35 17:45	07:25 16:03	07:52 16:03
28	07:35 16:44	06:43 17:36	05:45 18:21	05:42 20:08	04:59 20:50	04:52 21:07	05:21 20:45	05:48 (1) 19:50	06:51 18:44	07:37 17:43	07:26 16:02	07:53 16:03
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30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	05:24 20:42	05:51 (1) 19:46	06:54 18:40	07:40 17:40	07:29 16:01	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53	05:31 (1) 20:51 (1)	05:25 20:40	05:52 (1) 19:44		06:42 16:38		07:53 16:06
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256
Total, worst case					326	186	494					

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 - RB15

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	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:56 20:54	04:54 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	05:35 20:14	04:55 20:55	04:54 21:07	05:28 20:37	06:12 19:40	06:57 18:35	06:45 16:35	07:32 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	05:31 20:17	04:54 20:57	04:56 21:06	05:31 20:34	06:15 19:36	07:00 18:31	06:49 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:28 19:33	05:29 20:19	04:53 20:58	04:56 21:06	05:32 20:33	06:17 19:34	07:01 18:29	06:50 16:30	07:35 15:59
6	07:52 16:12	07:23 17:00	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:59	04:57 21:05	05:33 20:31	06:18 19:31	07:03 18:27	06:52 16:28	07:36 15:58
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9	07:51 16:16	07:18 17:05	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	05:00 21:04	05:38 20:26	06:23 19:25	07:07 18:21	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:53	06:17 19:41	05:21 20:26	04:51 21:02	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:51 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	05:41 20:23	06:26 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:02	05:42 20:21	06:27 19:19	07:12 18:14	07:02 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	04:50 21:04	05:03 21:01	05:43 20:19	06:29 19:16	07:13 18:12	07:03 16:18	07:44 15:57
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15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:50 21:05	05:05 20:59	05:46 20:15	06:31 19:12	07:16 18:08	07:06 16:16	07:46 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:07 20:58	05:48 20:14	06:33 19:10	07:18 18:06	07:08 16:14	07:46 15:57
17	07:47 16:27	07:04 17:18	06:08 18:04	06:03 19:51	05:11 20:36	04:49 21:06	05:08 20:57	05:49 20:12	06:34 19:08	07:20 18:04	07:10 16:13	07:47 15:58
18	07:46 16:29	07:03 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	05:51 20:10	06:36 19:06	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:49 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:08 20:40	04:50 21:07	05:11 20:54	05:54 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:59
21	07:43 16:33	06:57 17:25	06:00 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:09	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:56 20:02	06:42 18:57	07:27 17:54	07:17 16:08	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:44	04:50 21:07	05:15 20:51	05:58 20:00	06:43 18:55	07:29 17:53	07:19 16:07	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:59 19:58	06:45 18:53	07:31 17:51	07:20 16:06	07:51 16:01
25	07:39 16:40	06:49 17:31	05:51 18:16	05:47 20:04	05:02 20:46	04:51 21:08	05:17 20:48	06:01 19:56	06:46 18:50	06:32 17:49	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:18	05:45 20:05	05:01 20:47	04:51 21:08	05:18 20:47	06:02 19:54	06:48 18:48	06:34 17:47	07:23 16:04	07:52 16:02
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	05:00 20:48	04:52 21:08	05:20 20:46	06:04 19:52	06:49 18:46	06:36 17:45	07:25 16:03	07:52 16:03
28	07:35 16:44	06:43 17:36	05:45 18:21	05:42 20:08	04:59 20:50	04:52 21:07	05:21 20:45	06:05 19:50	06:51 18:44	06:37 17:43	07:26 16:02	07:53 16:03
29	07:34 16:46		06:42 19:22	05:40 20:10	04:58 20:51	04:52 21:07	05:22 20:43	06:07 19:48	06:52 18:42	06:39 17:42	07:27 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	05:24 20:42	06:08 19:46	06:54 18:40	06:40 17:40	07:29 16:01	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53		05:25 20:40	06:10 19:44		06:42 17:38		07:53 16:06
Potential sun hours Total, worst case	269	283	368	411	475	486	490	447	379	335	275	256

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

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

SHADOW - Calendar

Shadow receptor: P - RB16

Assumptions for shadow calculations

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

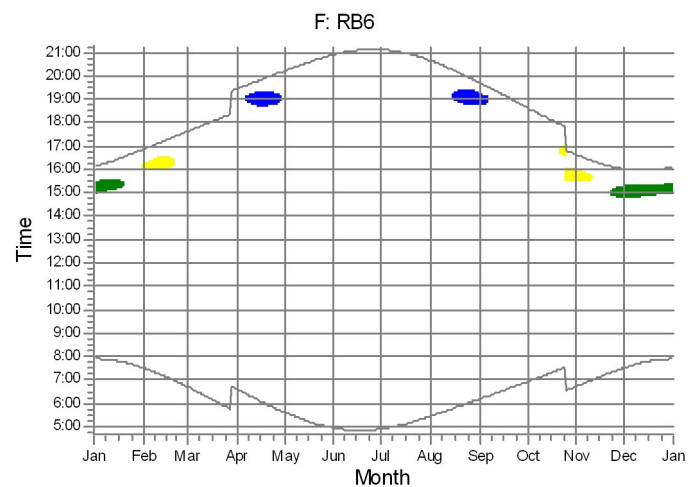
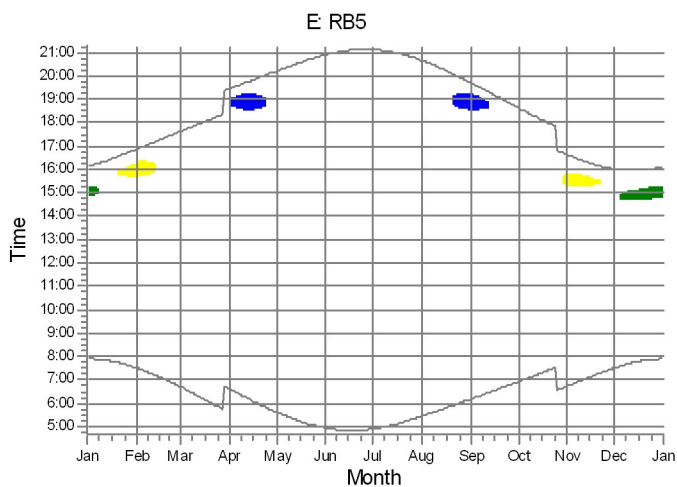
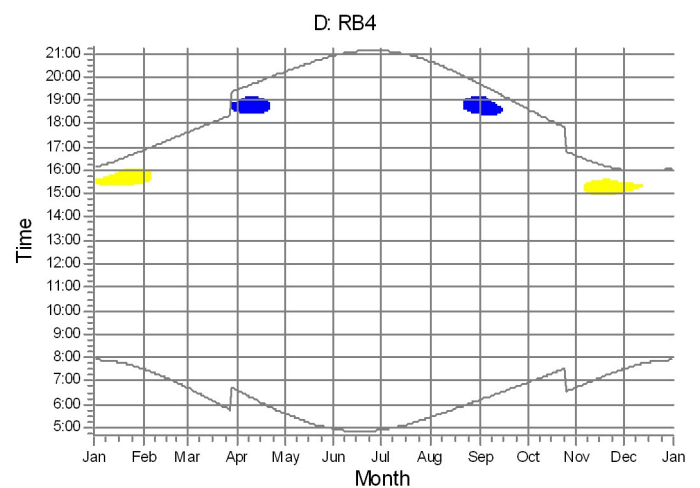
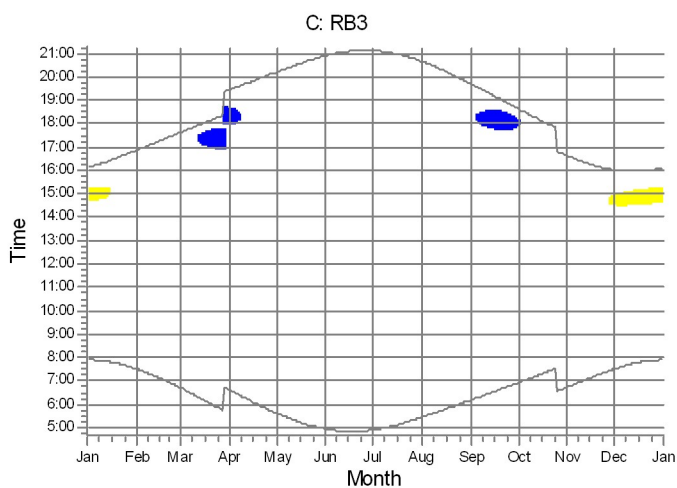
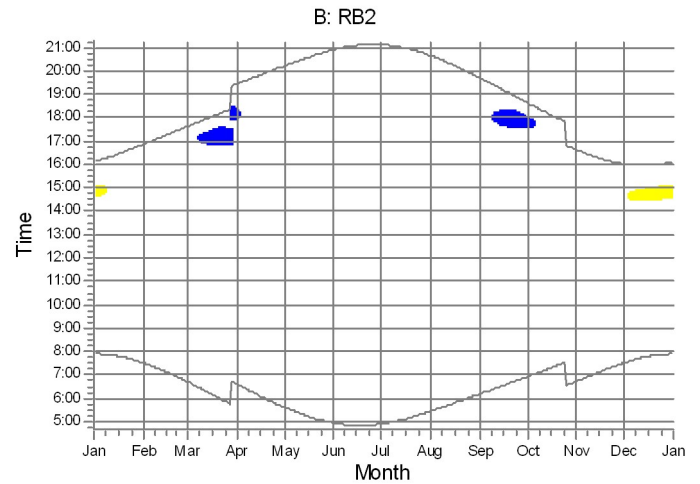
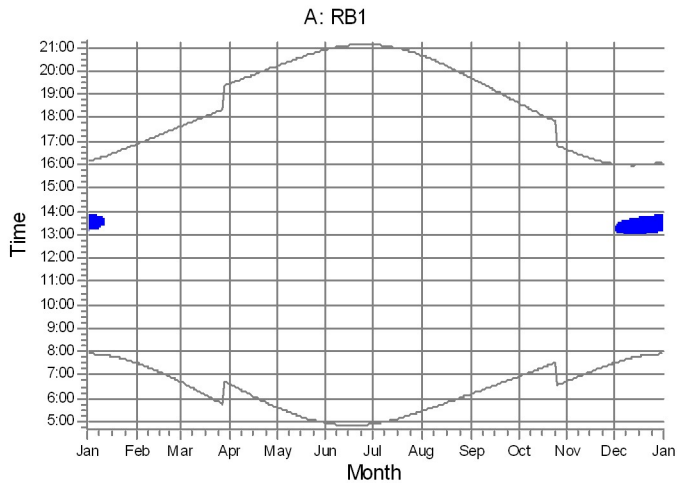
- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:56 20:54	04:54 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	05:35 20:14	04:55 20:55	04:54 21:07	05:28 20:37	06:13 19:40	06:57 18:35	06:45 16:35	07:32 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	05:31 20:17	04:54 20:57	04:56 21:06	05:31 20:34	06:15 19:36	07:00 18:31	06:49 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:45	06:28 19:33	05:29 20:19	04:53 20:58	04:56 21:06	05:32 20:33	06:17 19:34	07:01 18:29	06:50 16:30	07:35 15:59
6	07:53 16:12	07:23 17:00	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:59	04:57 21:05	05:33 20:31	06:18 19:31	07:03 18:27	06:52 16:28	07:37 15:58
7	07:52 16:14	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:22	04:52 20:59	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:38	05:25 20:23	04:51 21:00	04:59 21:04	05:36 20:28	06:21 19:27	07:06 18:23	06:55 16:25	07:39 15:58
9	07:52 16:16	07:18 17:05	06:25 17:51	06:19 19:39	05:23 20:25	04:51 21:01	05:00 21:04	05:38 20:26	06:23 19:25	07:07 18:21	06:57 16:24	07:40 15:57
10	07:51 16:17	07:17 17:06	06:23 17:53	06:17 19:41	05:21 20:26	04:51 21:02	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:51 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	05:41 20:23	06:26 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:02	05:42 20:21	06:27 19:19	07:12 18:14	07:02 16:20	07:43 15:57
13	07:50 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	04:50 21:04	05:03 21:01	05:43 20:19	06:29 19:16	07:13 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:15 17:59	06:09 19:47	05:15 20:32	04:50 21:04	05:04 21:00	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:50 21:05	05:05 20:59	05:46 20:16	06:31 19:12	07:16 18:08	07:06 16:16	07:46 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:06 20:58	05:48 20:14	06:33 19:10	07:18 18:06	07:08 16:14	07:47 15:57
17	07:47 16:27	07:04 17:18	06:08 18:04	06:03 19:51	05:11 20:36	04:49 21:06	05:08 20:57	05:49 20:12	06:34 19:08	07:20 18:04	07:10 16:13	07:47 15:58
18	07:46 16:29	07:03 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	05:51 20:10	06:36 19:06	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:49 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:08 20:40	04:50 21:07	05:11 20:54	05:54 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:59
21	07:43 16:33	06:57 17:25	06:00 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:09	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:56 20:02	06:42 18:57	07:28 17:54	07:17 16:08	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:01	05:04 20:44	04:50 21:07	05:15 20:51	05:58 20:00	06:43 18:55	07:29 17:53	07:19 16:07	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:59 19:58	06:45 18:53	07:31 17:51	07:20 16:06	07:51 16:01
25	07:39 16:40	06:49 17:31	05:51 18:16	05:47 20:04	05:02 20:46	04:51 21:08	05:17 20:49	06:01 19:56	06:46 18:50	06:32 17:49	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:18	05:45 20:05	05:01 20:47	04:51 21:08	05:18 20:47	06:02 19:54	06:48 18:48	06:34 17:47	07:23 16:04	07:52 16:02
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	05:00 20:48	04:52 21:08	05:20 20:46	06:04 19:52	06:49 18:46	06:36 17:45	07:25 16:03	07:52 16:03
28	07:35 16:44	06:43 17:36	05:45 18:21	05:42 20:08	04:59 20:50	04:52 21:08	05:21 20:45	06:05 19:50	06:51 18:44	06:37 17:43	07:26 16:02	07:53 16:03
29	07:34 16:46		06:42 19:22	05:40 20:10	04:58 20:51	04:52 21:07	05:22 20:43	06:07 19:48	06:52 18:42	06:39 17:42	07:28 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	05:24 20:42	06:08 19:46	06:54 18:40	06:40 17:40	07:29 16:01	07:53 16:05
31	07:32 16:49		06:38 19:25		04:56 20:53		05:25 20:40	06:10 19:44		06:42 17:38		07:53 16:06
Potential sun hours Total, worst case	269	283	368	411	475	486	490	447	379	335	275	256

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

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

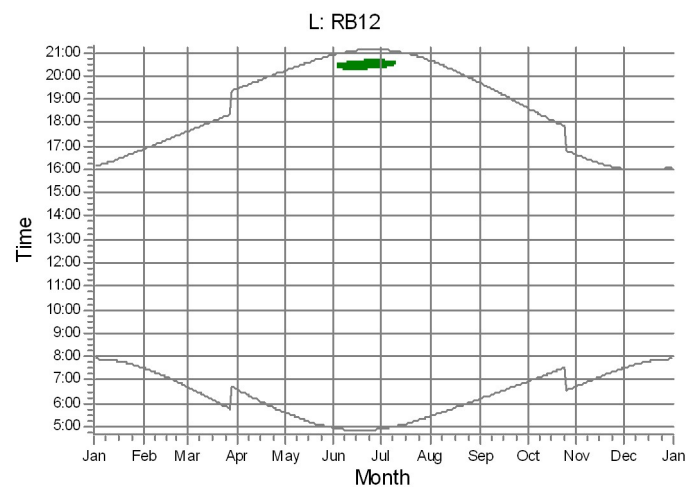
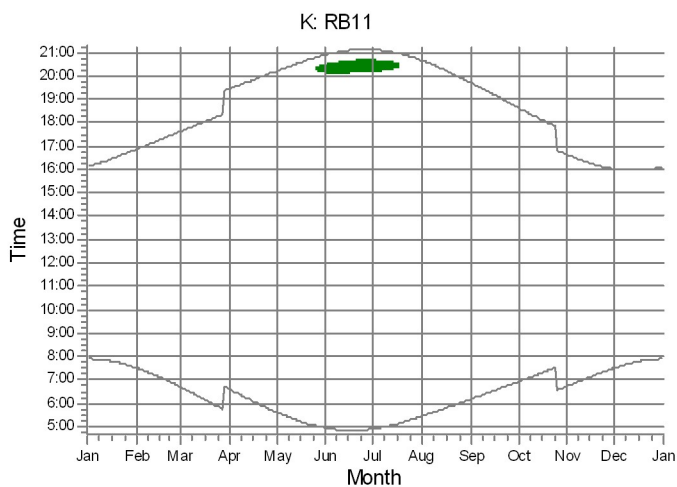
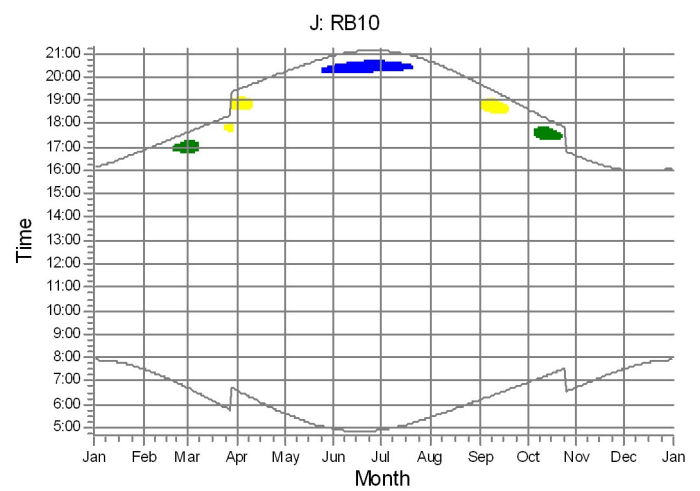
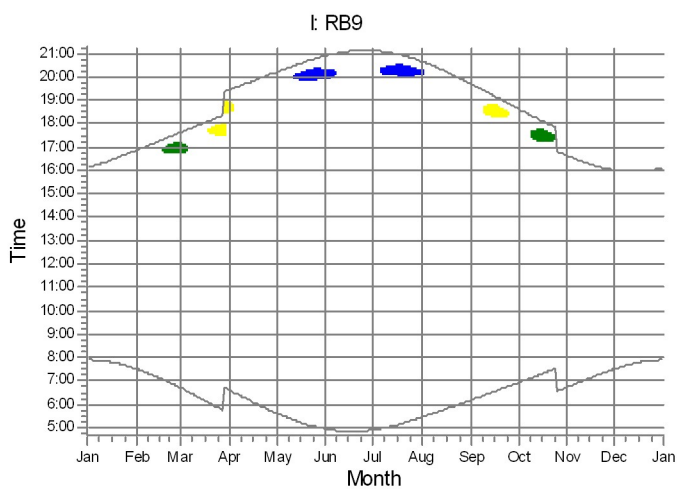
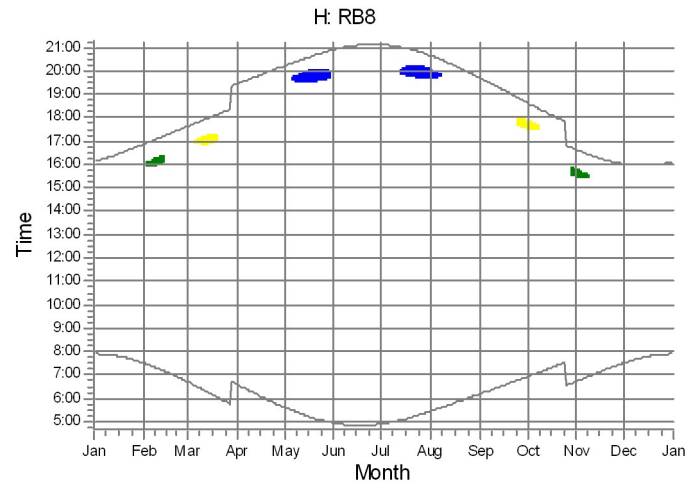
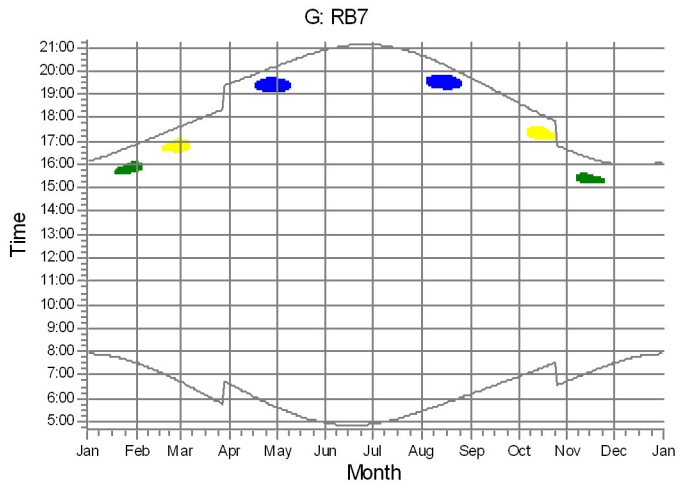
SHADOW - Calendar, graphical



WTGs

1: V1 2: V2 3: V3

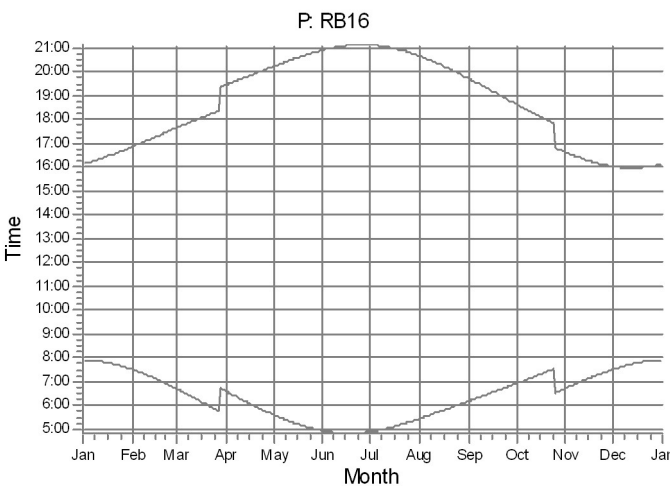
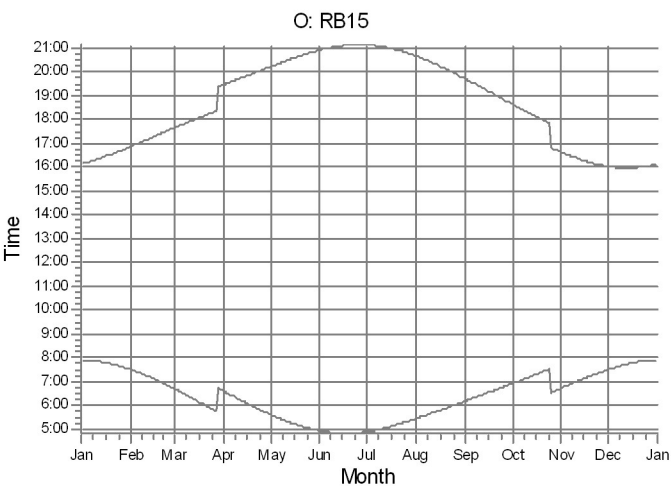
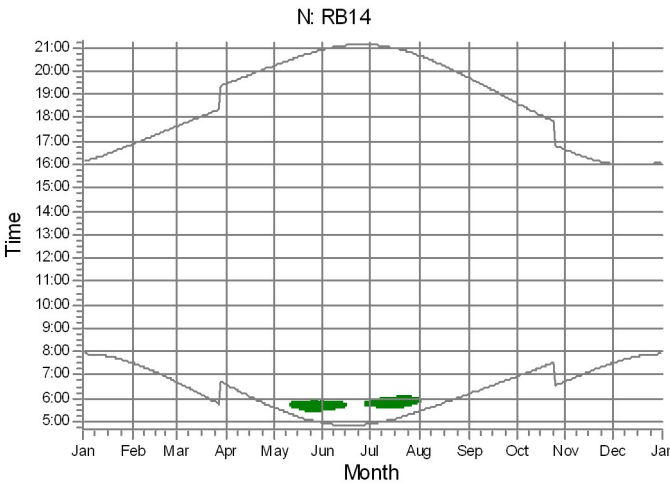
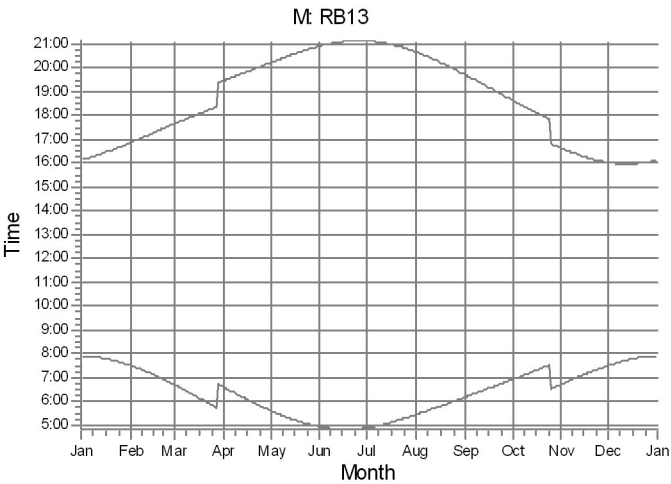
SHADOW - Calendar, graphical



WTGs

1: V1 2: V2 3: V3

SHADOW - Calendar, graphical



WTGs

1: V1

Project: Sazomin
Description: Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Calendar per WTG

WTG: 1 - V1

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	07:53 14:55-15:23/28 16:07	07:30 15:47-16:02/15 16:51	06:41 16:47-17:13/26 17:38	06:36 19:27 20:13	05:36 20:54 20:12-20:24/12	04:55 05:31-05:50/19 20:54 20:12-20:24/12
2	07:53 14:56-15:23/27 16:08	07:29 15:49-16:01/12 16:53	06:39 16:48-17:13/25 17:40	06:34 19:28 20:14	05:34 20:55 20:11-20:24/13	04:55 05:31-05:49/18 20:55 20:11-20:24/13
3	07:53 14:56-15:24/28 16:09	07:27 15:51-15:58/7 16:54	06:37 16:49-17:12/23 17:41	06:32 19:30 20:16	05:33 20:56 20:11-20:26/15	04:54 05:32-05:50/18 20:56 20:11-20:26/15
4	07:53 14:58-15:26/28 16:10	07:26 16:00-16:02/2 16:56	06:35 16:50-17:11/21 17:43	06:30 19:31 20:17	05:31 20:57 20:11-20:26/15	04:53 05:32-05:49/17 20:57 20:11-20:26/15
5	07:53 15:00-15:27/27 16:11	07:24 16:00-16:03/3 16:58	06:33 16:51-17:10/19 17:44	06:27 19:33 20:19	05:29 20:58 20:11-20:27/16	04:53 05:33-05:49/16 20:58 20:11-20:27/16
6	07:52 15:01-15:28/27 16:12	07:23 16:01-16:06/5 16:59	06:31 16:52-17:09/17 17:46	06:25 19:34 20:20	05:28 20:58 20:11-20:28/17	04:52 05:33-05:48/15 20:58 20:11-20:28/17
7	07:52 15:07-15:30/23 16:14	07:21 16:01-16:08/7 17:01	06:29 16:54-17:06/12 17:48	06:23 19:36 20:21	05:26 20:59 20:11-20:29/18	04:52 05:34-05:48/14 20:59 20:11-20:29/18
8	07:52 15:07-15:29/22 16:15	07:20 16:01-16:09/8 17:03	06:27 17:49 17:51	06:21 19:37 20:23	05:24 21:00 20:10-20:29/19	04:51 05:36-05:48/12 21:00 20:10-20:29/19
9	07:51 15:08-15:30/22 16:16	07:18 16:02-16:12/10 17:04	06:25 17:51 17:52	06:19 19:39 20:24	05:23 21:01 20:11-20:30/19	04:51 05:36-05:47/11 21:01 20:11-20:30/19
10	07:51 15:08-15:30/22 16:17	07:16 16:03-16:14/11 17:06	06:23 17:52 17:56	06:17 19:41 20:26	05:21 21:02 20:11-20:31/20	04:51 05:37-05:47/10 21:02 20:11-20:31/20
11	07:51 15:10-15:30/20 16:19	07:15 16:04-16:16/12 17:08	06:21 17:54 17:57	06:15 19:42 20:27	05:20 21:02 20:11-20:32/21	04:50 05:38-05:47/9 21:02 20:11-20:32/21
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19	07:45 15:40-15:42/2 16:30	07:01 16:49-16:55/6 17:21	06:04 18:07 18:10	05:59 19:54 20:38	05:09 05:34-05:50/16 20:38	04:49 20:12-20:35/23 21:06
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Potential sun hours	269	283	368	411	475	486
Sum of minutes with flicker	515	284	143	0	358	794

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: 1 - V1

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	04:53 05:42-05:50/8 21:07 20:15-20:36/21	05:26 20:39 05:28 06:12	06:11 19:42 06:12 06:56	06:55 18:37 06:56 18:35	06:44 15:33-15:43/10 16:36 16:00	07:30 14:52-15:12/20 07:31 14:52-15:13/21
2	04:54 05:41-05:51/10 21:07 20:15-20:35/20	05:28 20:37 05:29 06:14	06:12 19:40 06:14 06:58	06:55 18:35 06:58 18:33	06:45 15:31-15:41/10 16:35 16:00	07:33 14:51-15:13/22 15:59 15:59
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Potential sun hours	490	447	379	335	275	256
Sum of minutes with flicker	719	0	0	355	318	816

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: 2 - V2

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	07:53 15:29-15:31/2 16:07 14:40-15:11/31	07:30 15:33-16:11/38 16:51	06:41 16:35-17:00/25 17:38	06:36 18:35-19:02/27 19:27	05:36 20:13	04:55 20:54
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28	07:35 15:30-16:03/33 16:44	06:43 16:36-17:01/25 17:36	05:44 17:32-17:56/24 18:21	05:42 20:08	04:59 20:49	04:52 21:07
29	07:34 15:31-16:06/35 16:46		06:42 18:33-18:58/25 19:22	05:40 20:10	04:58 20:51	04:52 21:07
30	07:33 15:31-16:07/36 16:48		06:40 18:34-19:00/26 19:24	05:38 20:11	04:57 20:52	04:53 21:07
31	07:31 15:32-16:10/38 16:49		06:38 18:33-19:00/27 19:25		04:56 20:53	
Potential sun hours	269	283	368	411	475	486
Sum of minutes with flicker	980	698	449	193	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: 2 - V2

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	04:53 21:07	05:26 20:39	06:11 19:42	06:55 17:35-17:48/13 18:37	06:44 15:23-15:55/32 16:36	07:30 15:09-15:25/16 16:00 14:35-14:53/18
2	04:54 21:07	05:28 20:37	06:12 19:40	06:56 17:34-17:45/11 18:35	06:45 15:21-15:52/31 16:35	07:31 15:09-15:24/15 16:00 14:34-14:54/20
3	04:55 21:06	05:29 20:36	06:14 18:43-18:53/10 19:38	06:58 17:33-17:44/11 18:33	06:47 15:20-15:51/31 16:33	07:33 15:10-15:23/13 15:59 14:33-14:55/22
4	04:55 21:06	05:30 20:34	06:15 18:40-18:56/16 19:36	06:59 17:32-17:41/9 18:31	06:48 15:20-15:49/29 16:31	07:34 15:11-15:23/12 15:59 14:34-14:56/22
5	04:56 21:06	05:32 20:33	06:17 18:38-18:57/19 19:33	07:01 17:33-17:39/6 18:29	06:50 15:19-15:48/29 16:30	07:35 15:12-15:23/11 15:58 14:32-14:57/25
6	04:57 21:05	05:33 20:31	06:18 18:37-18:58/21 19:31	07:02 17:32-17:37/5 18:27	06:52 15:18-15:46/28 16:28	07:36 15:13-15:22/9 15:58 14:31-14:58/27
7	04:58 21:05	05:35 20:29	06:20 18:35-18:59/24 19:29	07:04 17:33-17:35/2 18:25	06:53 15:09-15:47/38 16:27	07:38 15:14-15:21/7 15:58 14:31-14:58/27
8	04:59 21:04	05:36 20:28	06:21 18:34-18:58/24 19:27	07:06 17:18-17:26/8 18:23	06:55 15:07-15:46/39 16:25	07:39 15:16-15:22/6 15:57 14:31-15:00/29
9	04:59 21:04	05:38 20:26	06:23 18:33-18:59/26 19:25	07:07 17:15-17:29/14 18:20	06:57 15:06-15:44/38 16:24	07:40 15:17-15:22/5 15:57 14:31-15:00/29
10	05:00 21:03	05:39 20:24	06:24 18:31-18:57/26 19:23	07:09 17:13-17:31/18 18:18	06:58 15:04-15:42/38 16:22	07:41 15:18-15:22/4 15:57 14:30-15:01/31
11	05:01 21:02	05:40 20:23	06:26 18:28-18:55/27 19:21	07:10 17:11-17:32/21 18:16	07:00 15:03-15:40/37 16:21	07:42 15:19-15:21/2 15:57 14:30-15:02/32
12	05:02 21:02	05:42 20:21	06:27 18:26-18:53/27 19:19	07:12 17:10-17:33/23 18:14	07:01 15:03-15:39/36 16:19	07:43 14:30-15:02/32 15:57
13	05:03 21:01	05:43 20:19	06:28 18:24-18:50/26 19:16	07:13 17:08-17:33/25 18:12	07:03 15:03-15:38/35 16:18	07:44 14:31-15:03/32 15:57
14	05:04 21:00	05:45 20:17	06:30 18:23-18:49/26 19:14	07:15 17:08-17:34/26 18:10	07:05 15:01-15:35/34 16:17	07:45 14:31-15:04/33 15:57
15	05:05 20:59	05:46 20:15	06:31 18:22-18:46/24 19:12	07:16 17:08-17:32/24 18:08	07:06 15:02-15:34/32 16:15	07:46 14:31-15:04/33 15:57
16	05:06 20:58	05:48 20:14	06:33 18:22-18:44/22 19:10	07:18 17:07-17:29/22 18:06	07:08 15:02-15:33/31 16:14	07:46 14:31-15:04/33 15:57
17	05:07 20:57	05:49 20:12	06:34 18:21-18:42/21 19:08	07:19 17:07-17:27/20 18:04	07:09 15:02-15:32/30 16:13	07:47 14:31-15:05/34 15:57
18	05:09 20:56	05:51 20:10	06:36 18:20-18:40/20 19:05	07:21 17:07-17:25/18 18:02	07:11 15:01-15:32/31 16:12	07:48 14:32-15:06/34 15:58
19	05:10 20:55	05:52 20:08	06:37 18:20-18:38/18 19:03	07:23 17:07-17:22/15 18:00	07:13 15:02-15:33/31 16:11	07:49 14:32-15:05/33 15:58
20	05:11 20:54	05:53 20:06	06:39 18:20-18:35/15 19:01	07:24 17:07-17:20/13 17:58	07:14 15:02-15:33/31 16:10	07:49 14:32-15:06/34 15:58
21	05:12 20:53	05:55 20:04	06:40 18:21-18:33/12 18:59	07:26 17:08-17:18/10 17:56	07:16 15:02-15:32/30 16:09	07:50 14:33-15:07/34 15:59
22	05:13 20:52	05:56 20:02	06:42 18:21-18:31/10 18:57	07:27 17:08-17:15/7 17:54 16:45-16:51/6	07:17 15:03-15:31/28 16:07	07:50 14:33-15:07/34 15:59
23	05:15 20:51	05:58 20:00	06:43 18:23-18:29/6 18:55	07:29 17:10-17:13/3 17:52 16:41-16:55/14	07:19 15:03-15:30/27 16:07	07:51 14:33-15:07/34 16:00
24	05:16 20:50	05:59 19:58	06:45 18:24-18:26/2 18:52	07:31 16:39-16:57/18 17:51	07:20 15:03-15:29/26 16:06	07:51 14:34-15:08/34 16:00
25	05:17 20:48	06:01 19:56	06:46 17:49-17:52/3 18:50	06:32 15:37-15:58/21 16:49	07:22 15:04-15:29/25 16:05	07:52 14:35-15:09/34 16:01
26	05:18 20:47	06:02 19:54	06:47 17:43-17:56/13 18:48	06:34 15:36-15:59/23 16:47	07:23 15:04-15:27/23 16:04	07:52 14:35-15:09/34 16:02
27	05:20 20:46	06:04 19:52	06:49 17:41-17:56/15 18:46	06:35 15:35-16:00/25 16:45	07:25 15:05-15:27/22 16:03	07:52 14:36-15:10/34 16:02
28	05:21 20:44	06:05 19:50	06:50 17:38-17:54/16 18:44	06:37 15:35-16:01/26 16:43	07:26 15:06-15:26/20 16:02 14:38-14:47/9	07:53 14:37-15:10/33 16:03
29	05:22 20:43	06:07 19:48	06:52 17:37-17:52/15 18:42	06:39 15:34-15:59/25 16:42	07:27 15:07-15:26/19 16:02 14:37-14:50/13	07:53 14:38-15:10/32 16:04
30	05:24 20:42	06:08 19:46	06:53 17:35-17:49/14 18:39	06:40 15:27-15:57/30 16:40	07:29 15:07-15:25/18 16:01 14:35-14:51/16	07:53 14:38-15:11/33 16:05
31	05:25 20:40	06:09 19:44		06:42 15:25-15:56/31 16:38		07:53 14:39-15:11/32 16:06
Potential sun hours	490	447	379	335	275	256
Sum of minutes with flicker	0	0	498	543	941	1048

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 - V3

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	07:53 13:14-13:46/32 16:07	07:30 16:51 07:29 16:39	06:41 17:38 06:39 17:40	06:36 18:00-18:52/52 19:27	05:36 19:11-19:36/25 20:13	04:55 20:01-20:24/23 20:54
2	07:53 13:16-13:46/30 16:08	07:29 16:53 07:27 16:37	06:39 17:40 06:37 17:41	06:34 18:02-18:56/54 19:28	05:34 19:11-19:35/24 20:14	04:55 20:01-20:24/23 20:55
3	07:53 13:16-13:45/29 16:09	07:27 16:54 07:24 16:33	06:37 17:41 06:35 17:43	06:32 18:03-18:58/55 19:30	05:33 19:12-19:35/23 20:16	04:54 20:03-20:26/23 20:56
4	07:53 13:17-13:45/28 16:10	07:26 16:56 07:24 16:33	06:35 17:43 06:33 17:44	06:30 18:33-18:59/26 19:31 18:05-18:32/27	05:31 19:12-19:33/21 20:17	04:53 20:03-20:26/23 20:57
5	07:53 13:19-13:45/26 16:11	07:24 16:58 07:23 16:31	06:33 17:44 06:31 17:46	06:27 18:32-19:01/29 19:33 18:07-18:30/23	05:29 19:13-19:32/19 20:19	04:53 20:05-20:28/23 20:58
6	07:52 13:20-13:43/23 16:12	07:23 16:59 07:21 16:29	06:31 17:46 06:29 17:48	06:25 18:31-19:03/32 19:34 18:09-18:27/18	05:28 19:38-19:39/1 20:20 19:15-19:31/16	04:52 20:12-20:28/16 20:59 20:07-20:10/3
7	07:52 13:22-13:43/21 16:13	07:21 17:01 07:20 17:01	06:29 17:48 06:27 17:49	06:23 18:31-19:05/34 19:36 18:13-18:23/10	05:26 19:37-19:40/3 20:22 19:16-19:29/13	04:52 20:13-20:29/16 20:59
8	07:52 13:24-13:43/19 16:15	07:20 17:03 07:18 17:04	06:27 17:49 06:25 17:04-17:12/8	06:21 18:31-19:06/35 19:37	05:24 19:37-19:42/5 20:23 19:20-19:26/6	04:51 20:12-20:29/17 21:00
9	07:51 13:26-13:41/15 16:16	07:18 17:04 07:16 17:06	06:25 17:04-17:12/8 06:23 17:02-17:13/11	06:19 18:29-19:07/38 19:39	05:23 19:36-19:43/7 20:24	04:51 20:13-20:30/17 21:01
10	07:51 13:29-13:38/9 16:17	07:16 17:06 07:15 17:08	06:23 17:02-17:13/11 06:21 16:59-17:14/15	06:17 18:29-19:08/39 19:41	05:21 19:36-19:45/9 20:26	04:51 20:13-20:31/18 21:02
11	07:51 16:19 07:50 16:20	07:15 17:08 07:13 17:10	06:21 16:59-17:14/15 06:19 16:58-17:16/18	06:15 18:29-19:10/41 19:42	05:20 19:36-19:48/12 20:27	04:50 20:14-20:32/18 21:02
12	07:49 16:21 07:49 16:23	07:11 17:11 07:10 17:13	06:17 16:56-17:27/31 06:14 16:55-17:29/34	06:11 18:30-19:13/43 19:45	05:19 19:59-20:00/1 20:29 19:35-19:49/14	04:50 20:13-20:32/19 21:03
13	07:49 16:23 07:48 16:24	07:11 17:13 07:08 17:15	06:17 16:56-17:27/31 06:12 16:54-17:30/36	06:09 18:30-19:14/44 19:47	05:17 19:59-20:02/3 20:30 19:35-19:51/16	04:50 20:14-20:32/18 21:04
14	07:49 16:26 07:47 16:27	07:10 17:16 07:04 17:18	06:14 16:55-17:29/34 06:10 16:54-17:32/38	06:09 18:30-19:14/44 19:48	05:15 19:58-20:04/6 20:32 19:35-19:53/18	04:50 20:14-20:33/19 21:04
15	07:48 16:27 07:46 16:28	07:08 17:18 07:03 17:20	06:12 16:54-17:30/36 06:08 16:53-17:34/41	06:07 18:31-19:16/45 19:48	05:14 19:57-20:04/7 20:33 19:35-19:54/19	04:49 20:14-20:34/20 21:05
16	07:47 16:28 07:47 16:27	07:06 17:16 07:04 17:18	06:10 16:54-17:32/38 06:08 16:53-17:34/41	06:05 18:32-19:17/45 19:50	05:13 19:56-20:06/10 20:34 19:35-19:55/20	04:49 20:14-20:34/20 21:05
17	07:47 16:27 07:46 16:28	07:04 17:18 07:03 17:20	06:08 16:53-17:34/41 06:06 16:52-17:35/43	06:03 18:33-19:17/44 19:51	05:11 19:36-20:07/31 20:36	04:49 20:15-20:34/19 21:06
18	07:46 16:28 07:45 16:30	07:03 17:20 07:01 17:21	06:06 16:52-17:35/43 06:04 16:51-17:36/45	06:01 19:21-19:26/5 19:53 18:34-19:17/43	05:10 19:36-20:09/33 20:37	04:49 20:15-20:35/20 21:06
19	07:45 16:30 07:44 16:32	07:01 17:21 06:59 17:23	06:04 16:51-17:36/45 06:02 16:51-17:38/47	05:59 19:19-19:29/10 19:54 18:37-19:17/40	05:09 19:36-20:09/33 20:38	04:49 20:15-20:35/20 21:06
20	07:44 16:32 07:43 16:33	06:59 17:23 06:57 17:25	06:02 16:51-17:38/47 06:00 16:51-17:40/49	05:57 18:39-19:30/51 19:56	05:07 19:36-20:10/34 20:40	04:49 20:15-20:35/20 21:07
21	07:43 16:33 07:42 16:35	06:57 17:25 06:55 17:26	06:00 16:51-17:40/49 05:57 16:51-17:41/50	05:55 18:44-19:32/48 19:57	05:06 19:37-20:12/35 20:41	04:50 20:16-20:36/20 21:07
22	07:42 16:35 07:41 16:36	06:55 17:26 06:53 17:28	05:57 16:51-17:41/50 05:55 16:52-17:43/51	05:53 18:47-19:33/46 19:59	05:05 19:37-20:13/36 20:42	04:50 20:16-20:36/20 21:07
23	07:41 16:36 07:40 16:38	06:53 17:28 06:51 17:30	05:55 16:52-17:43/51 05:53 16:51-17:42/51	05:51 18:50-19:34/44 20:00	05:04 19:38-20:14/36 20:44	04:50 20:16-20:36/20 21:07
24	07:40 16:38 07:39 16:39	06:51 17:30 06:49 17:31	05:53 16:51-17:42/51 05:51 16:51-17:41/50	05:49 18:51-19:36/45 20:02	05:03 19:39-20:15/36 20:45	04:50 20:16-20:36/20 21:07
25	07:39 16:39 07:38 16:41	06:49 17:31 06:47 17:33	05:51 16:51-17:41/50 05:49 16:52-17:41/49	05:47 19:11-19:37/26 20:03 18:52-19:10/18	05:02 19:40-20:16/36 20:46	04:51 20:17-20:37/20 21:08
26	07:38 16:41 07:37 16:43	06:47 17:33 06:45 17:35	05:49 16:52-17:41/49 05:47 16:53-17:41/48	05:45 19:11-19:38/27 20:05 18:55-19:08/13	05:01 19:41-20:17/36 20:47	04:51 20:17-20:36/19 21:08
27	07:37 16:43 07:35 16:44	06:45 17:35 06:43 17:36	05:47 16:53-17:41/48 05:44 16:54-17:40/46	05:43 19:11-19:37/26 20:07 18:58-19:05/7	05:00 19:43-20:19/36 20:48	04:51 20:17-20:37/20 21:08
28	07:35 16:44 07:34 16:46	06:43 17:36 06:42 18:44-18:48/4	05:44 16:54-17:40/46 05:42 17:55-18:40/45	05:42 19:10-19:37/27 20:08	04:59 19:58-20:20/22 20:50 19:44-19:55/11	04:52 20:17-20:36/19 21:07
29	07:34 16:46 07:33 16:48	06:42 18:44-18:48/4 06:40 18:41-18:50/9	05:42 17:55-18:40/45 05:40 17:57-18:39/42	05:40 19:10-19:36/26 05:38 19:11-19:37/26	04:58 19:59-20:21/22 04:57 19:59-20:22/23	04:52 20:18-20:37/19 21:07
30	07:33 16:48 07:31 16:49	06:40 18:41-18:50/9 06:38 18:38-18:50/12	05:40 17:57-18:39/42 05:38 18:38-18:50/12	05:38 19:11-19:37/26 20:11	04:57 19:59-20:22/23 20:52	04:53 20:17-20:36/19 21:07
31	07:31 16:49 Potential sun hours	06:38 18:38-18:50/12 19:25 17:57-18:37/40	05:38 18:38-18:50/12 19:25 17:57-18:37/40	05:38 19:11-19:37/26 20:11	04:56 19:59-20:22/23 20:53	04:53 20:17-20:36/19 21:07
Sum of minutes with flicker	232	0	916	1304	788	591

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

Project: Sazomin
Description: Sazomin
Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
29.05.2025 13:51/4.1.273

SHADOW - Calendar per WTG

WTG: 3 - V3

Assumptions for shadow calculations

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

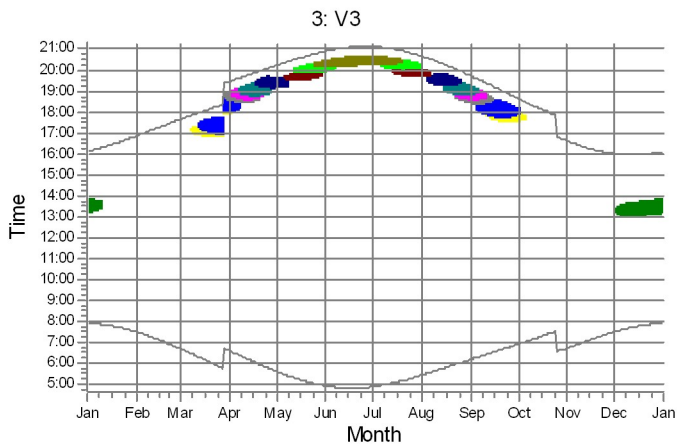
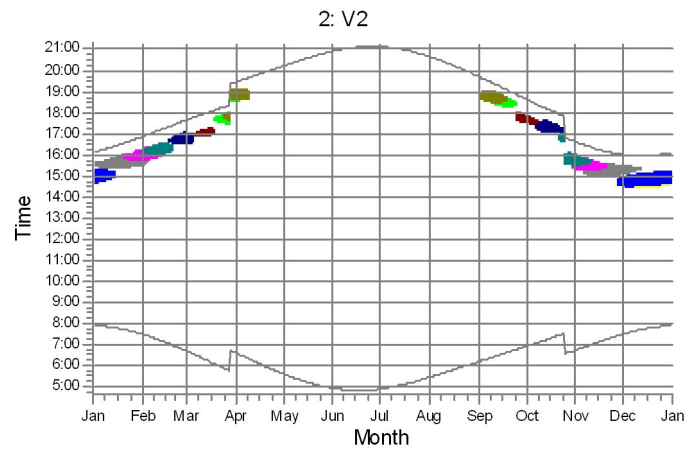
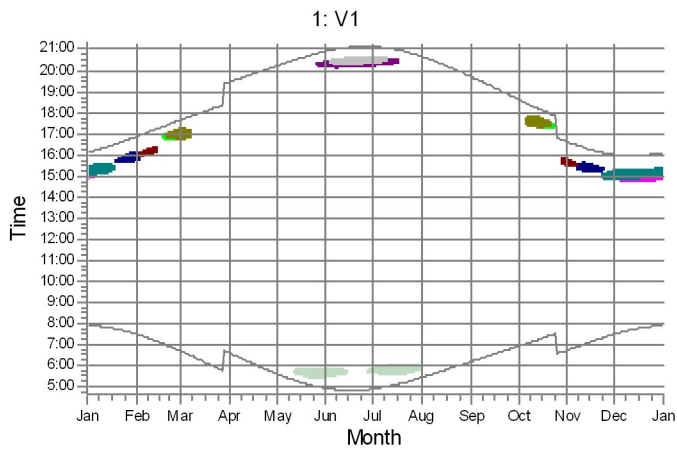
- The sun is shining all the day, from sunrise to sunset
- The rotor plane is always perpendicular to the line from the WTG to the sun
- The WTG is always operating

	July	August	September	October	November	December
1	04:53 20:18-20:36/18 21:07	05:26 19:45-19:58/13 20:39	06:11 18:29-19:10/41 19:42	06:55 18:00-18:06/6 18:37 17:37-17:56/19	06:44 16:36	07:30 16:00
2	04:54 20:17-20:35/18 21:07	05:28 19:45-19:56/11 20:37	06:12 18:28-19:07/39 19:40	06:56 17:37-17:54/17 18:35	06:45 16:35	07:31 13:13-13:20/7 16:00
3	04:55 20:18-20:35/17 21:06	05:29 19:46-19:55/9 20:36	06:14 18:27-19:05/38 19:38	06:58 17:39-17:52/13 18:33	06:47 16:33	07:33 13:10-13:24/14 15:59
4	04:55 20:18-20:35/17 21:06	05:30 19:46-19:53/7 20:34	06:15 18:28-19:03/35 19:36	06:59 17:40-17:49/9 18:31	06:48 16:31	07:34 13:09-13:27/18 15:59
5	04:56 20:18-20:34/16 21:06	05:32 19:47-19:51/4 20:33	06:17 18:27-19:01/34 19:33	07:01 17:43-17:48/5 18:29	06:50 16:30	07:35 13:07-13:28/21 15:58
6	04:57 20:18-20:34/16 21:05	05:33 19:48-19:50/2 20:31	06:18 18:28-18:59/31 19:31	07:03 18:27	06:52 16:28	07:36 13:06-13:29/23 15:58
7	04:58 20:19-20:34/15 21:05	05:35 19:24-19:41/17 20:29	06:20 18:27-18:56/29 19:29	07:04 18:25	06:53 16:27	07:38 13:06-13:32/26 15:58
8	04:59 20:11-20:34/23 21:04	05:36 19:22-19:42/20 20:28	06:21 18:27-18:54/27 19:27	07:06 18:23	06:55 16:25	07:39 13:05-13:33/28 15:57
9	04:59 20:10-20:33/23 21:04	05:38 19:22-19:43/21 20:26	06:23 17:58-18:52/54 19:25	07:07 18:20	06:57 16:24	07:40 13:05-13:34/29 15:57
10	05:00 20:09-20:32/23 21:03	05:39 19:20-19:44/24 20:24	06:24 17:56-18:50/54 19:23	07:09 18:18	06:58 16:22	07:41 13:05-13:35/30 15:57
11	05:01 20:09-20:32/23 21:02	05:40 19:19-19:44/25 20:23	06:26 17:54-18:46/52 19:21	07:10 18:16	07:00 16:21	07:42 13:04-13:36/32 15:57
12	05:02 20:08-20:31/23 21:02	05:42 19:19-19:45/26 20:21	06:27 18:30-18:43/13 19:19	07:12 18:14	07:02 16:19	07:43 13:04-13:37/33 15:57
13	05:03 20:08-20:30/22 21:01	05:43 19:18-19:44/26 20:19	06:28 18:31-18:40/9 19:16	07:13 18:12	07:03 16:18	07:44 13:04-13:37/33 15:57
14	05:04 20:07-20:30/23 21:00	05:45 19:19-19:45/26 20:17	06:30 18:34-18:38/4 19:14	07:15 18:10	07:05 16:17	07:45 13:05-13:38/33 15:57
15	05:05 20:07-20:29/22 20:59	05:46 19:18-19:45/27 20:15	06:31 17:43-18:30/47 19:12	07:16 18:08	07:06 16:15	07:46 13:05-13:39/34 15:57
16	05:06 20:07-20:28/21 20:58	05:48 19:17-19:44/27 20:14	06:33 17:42-18:30/48 19:10	07:18 18:06	07:08 16:14	07:46 13:04-13:39/35 15:57
17	05:07 19:51-20:27/36 20:57	05:49 19:18-19:44/26 20:12	06:34 17:41-18:30/49 19:08	07:19 18:04	07:10 16:13	07:47 13:05-13:40/35 15:57
18	05:09 19:50-20:26/36 20:56	05:50 18:58-19:43/45 20:10	06:36 17:40-18:30/50 19:06	07:21 18:02	07:11 16:12	07:48 13:05-13:41/36 15:58
19	05:10 19:49-20:25/36 20:55	05:52 18:56-19:41/45 20:08	06:37 17:38-18:29/51 19:03	07:23 18:00	07:13 16:11	07:49 13:05-13:41/36 15:58
20	05:11 19:48-20:24/36 20:54	05:53 18:55-19:40/45 20:06	06:39 17:37-18:28/51 19:01	07:24 17:58	07:14 16:10	07:49 13:06-13:42/36 15:58
21	05:12 19:48-20:24/36 20:53	05:55 18:51-19:37/46 20:04	06:40 17:37-18:27/50 18:59	07:26 17:56	07:16 16:08	07:50 13:07-13:43/36 15:59
22	05:13 19:48-20:23/35 20:52	05:56 18:49-19:36/47 20:02	06:42 17:36-18:25/49 18:57	07:27 17:54	07:17 16:07	07:50 13:07-13:43/36 15:59
23	05:15 19:47-20:22/35 20:51	05:58 19:21-19:34/13 20:00	06:43 17:36-18:23/47 18:55	07:29 17:52	07:19 16:06	07:51 13:08-13:44/36 16:00
24	05:16 19:46-20:20/34 20:50	05:59 19:22-19:32/10 19:58	06:45 17:35-18:20/45 18:52	07:31 17:51	07:20 16:06	07:51 13:08-13:44/36 16:00
25	05:17 19:46-20:19/33 20:48	06:01 19:25-19:30/5 19:56	06:46 17:35-18:19/44 18:50	06:32 16:49	07:22 16:05	07:52 13:08-13:44/36 16:01
26	05:18 19:46-20:19/33 20:47	06:02 18:35-19:20/45 19:54	06:47 17:35-18:16/41 18:48	06:34 16:47	07:23 16:04	07:52 13:09-13:44/35 16:02
27	05:20 19:46-20:17/31 20:46	06:04 18:34-19:20/46 19:52	06:49 17:35-18:14/39 18:46	06:35 16:45	07:25 16:03	07:52 13:10-13:45/35 16:02
28	05:21 20:07-20:16/9 20:45	06:05 18:33-19:17/44 19:50	06:50 17:35-18:12/37 18:44	06:37 16:43	07:26 16:02	07:53 13:11-13:45/34 16:03
29	05:22 20:07-20:14/7 20:43	06:07 18:31-19:15/44 19:48	06:52 17:36-18:10/34 18:42	06:39 16:42	07:27 16:02	07:53 13:11-13:45/34 16:04
30	05:24 20:09-20:14/5 20:42	06:08 18:31-19:14/43 19:46	06:53 17:36-18:07/31 18:39	06:40 16:40	07:29 16:01	07:53 13:12-13:45/33 16:05
31	05:25 20:09-20:12/3 20:40	06:09 18:29-19:11/42 19:44		06:42 16:38		07:53 13:13-13:46/33 16:06
Potential sun hours	490	447	379	335	275	256
Sum of minutes with flicker	828	1001	1376	69	0	923

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

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

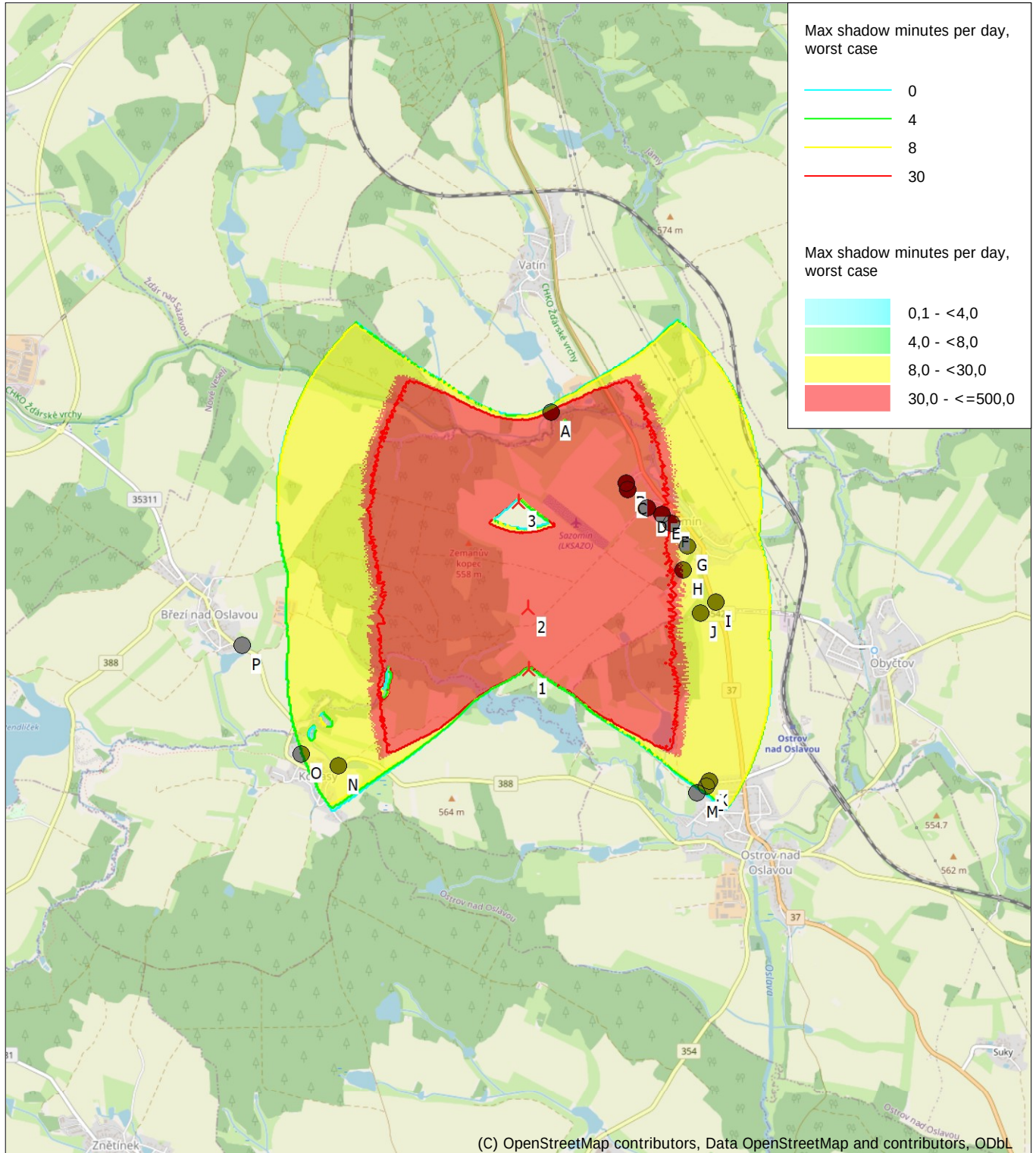
SHADOW - Calendar per WTG, graphical



Shadow receptors

	A: RB1		E: RB5		I: RB9		N: RB14
	B: RB2		F: RB6		J: RB10		
	C: RB3		G: RB7		K: RB11		
	D: RB4		H: RB8		L: RB12		

SHADOW - Map



0 500 1000 1500 2000 m

Map: EMD OpenStreetMap , Print scale 1:40 000, Map center Geo WGS84 East: 15,964547° E North: 49,504683° N

New WTG

Shadow receptor

Flicker map level: Project Wizard Elevation Data Grid (Czech Republic DTM - 20m grid)

Time step: 2 minutes, Day step: 3 days, Map resolution: 10 m, Visibility resolution: 5 m, Eye height: 1,5 m