

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B1 - NORDEX N175/6.X 6800 175.0 l-l hub: 179.0 m (TOT: 266.5 m) (101)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 12:36-13:12/36 15:48 10:16-11:22/66	08:15 11:00-11:18/18 16:45	07:11 08:04-08:35/31 17:47 07:37-07:55/18	06:49 19:53	05:32 06:18-07:31/73 20:55	04:36 21:52
2	08:50 12:37-13:13/36 15:49 10:17-11:23/66	08:13 11:05-11:14/9 16:47	07:08 08:06-08:33/27 17:50 07:35-07:56/21	06:46 19:55	05:30 05:58-06:03/5 20:57 06:19-07:29/70	04:35 21:54
3	08:50 12:37-13:13/36 15:50 10:17-11:23/66	08:11 08:41-08:47/6 16:50	07:06 07:35-07:57/22 17:52 08:17-08:31/14	06:43 19:57	05:28 05:56-06:05/9 20:59 06:19-07:25/66	04:33 21:55
4	08:50 12:37-13:13/36 15:52 10:18-11:23/65	08:09 08:39-08:50/11 16:52	07:03 07:34-07:57/23 17:54 08:20-08:27/7	06:41 19:59	05:25 05:54-06:07/13 21:02 06:21-07:20/59	04:32 21:57
5	08:49 12:39-13:14/35 15:53 10:19-11:24/65	08:07 08:37-08:52/15 16:54	07:00 07:33-07:57/24 17:56	06:38 07:19-07:35/16 20:01	05:23 05:52-06:08/16 21:04 06:22-07:20/58	04:32 21:58
6	08:49 12:39-13:14/35 15:55 10:20-11:24/64	08:05 08:34-08:52/18 16:56	06:58 07:33-07:58/25 17:58	06:35 07:15-07:38/23 20:03	05:21 05:50-06:09/19 21:06 06:25-07:19/54	04:31 21:59
7	08:48 12:40-13:14/34 15:56 10:21-11:25/64	08:03 08:33-08:53/20 16:58	06:55 07:32-07:57/25 18:00	06:33 07:12-07:40/28 20:05	05:19 05:49-06:09/20 21:08 06:25-07:19/54	04:30 22:00
8	08:47 12:40-13:14/34 15:58 10:22-11:25/63	08:00 08:32-08:54/22 17:01	06:53 07:32-07:57/25 18:03	06:30 07:10-07:41/31 20:07	05:17 05:48-06:10/22 21:10 06:25-07:18/53	04:29 22:01
9	08:47 12:41-13:14/33 15:59 10:23-11:26/63	07:58 08:31-08:54/23 17:03	06:50 07:33-07:57/24 18:05	06:27 07:08-07:42/34 20:10	05:15 05:48-06:10/22 21:12 06:25-07:17/52	04:28 22:02
10	08:46 12:42-13:14/32 10:41-11:26/45 16:01 10:24-10:39/15	07:56 08:31-08:55/24 17:05	06:47 07:33-07:56/23 18:07	06:25 07:07-07:43/36 20:12	05:12 05:48-06:10/22 21:14 06:25-07:16/51	04:28 22:03
11	08:45 12:43-13:14/31 10:41-11:27/46 16:03 10:26-10:39/13	07:54 08:32-08:56/24 17:07	06:45 07:33-07:54/21 18:09	06:22 07:06-07:44/38 20:14	05:10 05:47-06:10/23 21:16 06:25-07:15/50	04:27 22:04
12	08:44 12:44-13:14/30 10:42-11:27/45 16:04 10:28-10:38/10	07:52 08:31-08:55/24 17:10	06:42 07:35-07:53/18 18:11	06:20 07:04-07:44/40 20:16	05:08 05:47-06:10/23 21:18 06:25-07:13/48	04:27 22:05
13	08:43 12:45-13:13/28 10:41-11:27/46 16:06 10:29-10:36/7	07:49 08:21-08:31/10 17:12 08:32-08:55/23	06:39 07:36-07:51/15 18:13	06:17 07:04-07:45/41 20:18	05:06 05:47-06:09/22 21:20 06:26-07:12/46	04:26 22:06
14	08:42 12:46-13:13/27 16:08 10:42-11:28/46	07:47 08:17-08:54/37 17:14	06:37 07:38-07:47/9 18:15	06:14 06:59-07:45/46 20:20	05:04 05:48-06:10/22 21:22 06:27-07:11/44	04:26 22:07
15	08:41 12:48-13:13/25 16:10 10:43-11:28/45	07:45 08:16-08:54/38 17:16	06:34 18:17	06:12 06:55-07:45/50 20:22	05:02 05:48-06:09/21 21:23 06:28-07:09/41	04:25 22:07
16	08:40 12:49-13:12/23 16:12 10:43-11:28/45	07:43 08:10-08:53/43 17:19	06:31 18:19	06:09 06:52-07:45/53 20:24	05:00 05:48-06:08/20 21:25 06:28-07:07/39	04:25 22:08
17	08:39 12:51-13:11/20 16:14 10:44-11:29/45	07:40 08:08-08:52/44 17:21	06:29 18:22	06:07 06:43-07:45/62 20:26	04:59 05:50-06:09/19 21:27 06:29-07:05/36	04:25 22:08
18	08:37 12:53-13:09/16 16:15 10:44-11:28/44	07:38 08:05-08:50/45 17:23	06:26 18:24	06:04 06:39-07:44/65 20:28	04:57 05:50-06:08/18 21:29 06:30-06:57/27	04:25 22:09
19	08:36 12:55-13:07/12 16:17 10:44-11:28/44	07:35 08:03-08:48/45 17:25	06:23 18:26	06:02 06:38-07:44/66 20:30 06:28-06:35/7	04:55 05:50-06:06/16 21:31 06:31-06:56/25	04:25 22:09
20	08:35 10:46-11:29/43 16:19	07:33 08:01-08:39/38 17:28	06:21 18:28	05:59 06:25-07:43/78 20:32	04:53 05:52-06:06/14 21:33 06:32-06:55/23	04:25 22:10
21	08:33 10:46-11:28/42 16:22	07:31 08:01-08:40/39 17:30	06:18 18:30	05:57 06:23-07:43/80 20:35	04:51 05:53-06:04/11 21:35 06:33-06:53/20	04:25 22:10
22	08:32 10:47-11:28/41 16:24	07:28 08:00-08:40/40 17:32	06:15 18:32	05:54 06:21-07:43/82 20:37	04:50 05:55-06:03/8 21:36 06:35-06:52/17	04:25 22:10
23	08:30 10:47-11:27/40 16:26	07:26 08:01-08:40/39 17:34	06:13 18:34	05:52 06:19-07:42/83 20:39	04:48 06:37-06:50/13 21:38	04:26 22:10
24	08:29 10:49-11:28/39 16:28	07:23 08:00-08:40/40 17:36	06:10 18:36	05:49 06:19-07:41/82 20:41	04:47 06:40-06:47/7 21:40	04:26 22:10
25	08:27 10:50-11:27/37 16:30	07:21 08:01-08:39/38 17:39	06:07 18:38	05:47 06:18-07:41/83 20:43	04:45 21:42	04:26 22:10
26	08:25 10:51-11:27/36 16:32	07:18 08:01-08:39/38 17:41	06:05 18:40	05:44 06:17-07:39/82 20:45	04:44 21:43	04:27 22:10
27	08:24 10:52-11:26/34 16:34	07:16 08:01-08:38/37 17:43 07:42-07:51/9	06:02 18:42	05:42 06:17-07:38/81 20:47	04:42 21:45	04:27 22:10
28	08:22 10:53-11:25/32 16:36	07:13 08:03-08:37/34 17:45 07:40-07:54/14	05:59 18:45	05:39 06:17-07:37/80 20:49	04:41 21:47	04:28 22:10
29	08:20 10:54-11:24/30 16:38		06:57 19:47	05:37 06:18-07:36/78 20:51	04:39 21:48	04:28 22:10
30	08:18 10:56-11:23/27 16:41		06:54 19:49	05:35 06:17-07:33/76 20:53	04:38 21:50	04:29 22:09
31	08:17 10:58-11:21/23 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	2061	865	372	1521	1391	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

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Operational time

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425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:15 05:58-06:20/22	06:17 07:05-07:43/38	07:17 08:14-08:32/18	07:22 08:01-08:24/23	08:24 12:25-12:56/31 10:23-11:09/46
2	22:09	21:28 06:36-07:24/48	20:14	18:53	16:36	15:45 10:08-10:21/13
3	04:31	05:17 05:58-06:20/22	06:19 07:06-07:42/36	07:19 08:13-08:33/20	07:25 08:01-08:24/23	08:26 12:25-12:57/32 10:24-11:09/45
4	22:08	21:26 06:35-07:25/50	20:11	18:51	16:34	15:44 10:07-10:23/16
5	04:31	05:19 05:58-06:20/22	06:21 07:06-07:41/35	07:21 08:11-08:33/22	07:27 08:02-08:24/22	08:27 12:24-12:57/33
6	22:08	21:24 06:35-07:26/51	20:09	18:48	16:31	15:43 10:07-11:10/63
7	04:32	05:21 05:58-06:20/22	06:23 07:08-07:39/31	07:23 08:10-08:34/24	07:29 08:02-08:23/21	08:29 12:25-12:58/33
8	22:07	21:22 06:35-07:27/52	20:06	18:45	16:29	15:42 10:06-11:09/63
9	04:33	05:23 05:58-06:19/21	06:25 07:08-07:36/28	07:25 08:09-08:34/25	07:31 08:05-08:23/18	08:31 12:25-12:59/34
10	22:07	21:19 06:34-07:27/53	20:03	18:43	16:27	15:41 10:06-11:10/64
11	04:34	05:25 05:59-06:19/20	06:27 07:10-07:34/24	07:27 08:08-08:34/26	07:33 08:07-08:21/14	08:32 12:25-13:00/35
12	22:06	21:17 06:34-07:28/54	20:01	18:40	16:25	15:41 10:06-11:11/65
13	04:36	05:27 06:00-06:18/18	06:29 07:14-07:30/16	07:29 08:08-08:33/25	07:36 08:09-08:19/10	08:34 12:25-13:00/35
14	22:05	21:15 06:33-07:29/56	19:58	18:38	16:23	15:40 10:06-11:10/65
15	04:37	05:29 06:02-06:17/15	06:31 07:21-07:24/3	07:31 08:08-08:33/25	07:38 08:12-08:18/6	08:35 12:25-13:01/36
16	22:04	21:13 06:31-07:29/58	19:55	18:35	16:21	15:40 10:06-11:11/65
17	04:38	05:31 06:04-06:16/12	06:33	07:34 08:09-08:33/24	07:40 10:35-10:45/10	08:37 12:25-13:01/36
18	22:03	21:11 06:30-07:30/60	19:53	18:32	16:19	15:39 10:07-11:12/65
19	04:39	05:33 06:06-06:14/8	06:35	07:36 08:09-08:32/23	07:42 10:31-10:49/18	08:38 12:26-13:02/36
20	22:02	21:08 06:29-07:35/66	19:50	18:30 08:53-09:04/11	16:17	15:39 10:06-11:12/66
21	04:40	05:35 06:07-06:10/3	06:37	07:38 08:43-08:46/3 08:49-09:06/17	07:44 10:29-10:52/23	08:39 12:26-13:02/36
22	22:01	21:06 06:27-07:38/71	19:47	18:27 08:09-08:31/22	16:15	15:38 10:06-11:12/66
23	04:42	05:37 06:26-07:40/74	06:39	07:40 08:38-09:08/30	07:46 10:27-10:54/27	08:40 12:27-13:04/37
24	22:00	21:04	19:45	18:25 08:10-08:30/20	16:13	15:38 10:07-11:13/66
25	04:43	05:39 06:26-07:42/76	06:41	07:42 08:36-09:09/33	07:48 10:26-10:56/30	08:41 12:27-13:04/37
26	21:59	21:01	19:42	18:22 08:11-08:28/17	16:11	15:38 10:07-11:13/66
27	04:45	05:41 06:25-07:43/78	06:43	07:44 08:34-09:10/36	07:51 10:25-10:57/32	08:43 12:27-13:04/37
28	21:58	20:59	19:39	18:19 08:13-08:25/12	16:09	15:38 10:07-11:13/66
29	04:46	05:43 06:25-07:45/80	06:45	07:46 08:34-09:11/37	07:53 10:24-10:58/34	08:44 12:27-13:05/38
30	21:57	20:57	19:37	18:17 08:16-08:22/6	16:07	15:38 10:08-11:13/65
31	04:48	05:45 06:25-07:46/81	06:47	07:48 08:33-09:11/38	07:55 10:24-11:00/36	08:45 12:28-13:05/37
32	21:55	20:54	19:34	18:14	16:06	15:38 10:08-11:14/66
33	04:49	05:47 06:25-07:46/81	06:49	07:50 08:32-09:11/39	07:57 10:23-11:00/37	08:45 12:28-13:06/38
34	21:54	20:52	19:31	18:12	16:04	15:38 10:08-11:14/66
35	04:51	05:49 06:24-07:46/82	06:51	07:52 08:31-09:11/40	07:59 10:23-11:02/39	08:46 12:29-13:06/37
36	21:52	20:49	19:28	18:09	16:02	15:38 10:09-11:15/66
37	04:52	05:51 06:24-07:47/83	06:53	07:54 08:32-09:12/40	08:01 10:22-11:02/40	08:47 12:30-13:07/37
38	21:51	20:47	19:26	18:07	16:01	15:38 10:10-11:16/66
39	04:54	05:53 06:25-07:47/82	06:55	07:57 08:31-09:11/40	08:03 10:22-11:03/41	08:48 12:29-13:07/38
40	21:49	20:45	19:23	18:04	15:59	15:38 10:10-11:15/65
41	04:56	05:55 06:26-07:48/82	06:57	07:59 08:31-09:10/39	08:05 10:21-11:03/42	08:48 12:30-13:08/38
42	21:48	20:42	19:20	18:02	15:57	15:39 10:10-11:16/66
43	04:57	05:57 06:28-07:48/80	06:59	08:01 08:32-09:15/43	08:07 10:22-11:05/43	08:49 12:30-13:08/38
44	21:46	20:40	19:18	17:59	15:56	15:39 10:10-11:16/66
45	04:59	05:59 06:30-07:48/78	07:01	08:03 08:34-09:20/46	08:09 12:32-12:44/12	08:49 12:31-13:09/38
46	21:45	20:37	19:15	17:57	15:55 10:22-11:05/43	15:40 10:11-11:17/66
47	05:01	06:02-06:17/15	06:01 06:42-07:48/66	07:03	08:05 08:36-09:21/45	08:50 12:31-13:09/38
48	21:43	20:35 06:32-06:38/6	19:12	17:54	15:53 10:21-11:05/44	15:40 10:12-11:18/66
49	05:03	06:01-06:18/17	06:03 06:43-07:48/65	07:05	08:13 12:28-12:48/20	08:50 12:32-13:09/37
50	21:41	20:32	19:10	16:52	15:52 10:21-11:06/45	15:41 10:12-11:18/66
51	05:04	06:00-06:18/18	06:05 06:45-07:47/62	07:07	08:15 12:27-12:50/23	08:51 12:32-13:10/38
52	21:39	20:29	19:07	16:50	15:50 10:22-11:07/45	15:42 10:12-11:18/66
53	05:06	06:00-06:19/19	06:07 06:54-07:46/52	07:09	08:17 12:27-12:52/25	08:51 12:33-13:10/37
54	21:37	20:27	19:04	16:47	15:49 10:22-11:07/45	15:43 10:13-11:19/66
55	05:08	05:58-06:19/21	06:09 06:56-07:46/50	07:11	08:19 12:26-12:53/27	08:51 12:33-13:11/38
56	21:36	20:24	19:02	16:45	15:48 10:22-11:08/46	15:43 10:13-11:19/66
57	05:10	05:58-06:20/22	06:11 07:00-07:46/46	07:13 08:21-08:26/5	08:21 12:26-12:54/28 10:23-11:08/45	08:51 12:34-13:11/37
58	21:34	20:22	18:59	16:43 08:01-08:25/24	15:47 10:11-10:16/5	15:44 10:14-11:20/66
59	05:12	05:58-06:20/22	06:13 07:04-07:45/41	07:15 08:17-08:30/13	08:22 12:26-12:55/29 10:23-11:08/45	08:51 12:35-13:12/37
60	21:32	20:19	18:56	16:40	15:46 10:09-10:19/10	15:45 10:15-11:21/66
61	05:14	05:58-06:21/23	06:15 07:04-07:44/40	07:20 08:01-08:25/24		08:51 12:35-13:12/37
62	21:30	20:16		16:38		15:46 10:16-11:21/65
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	543	2189	229	1089	1142	3145

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

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5	08:49 15:53	08:07 08:59-09:41/42 16:54	07:00 17:56	06:38 07:23-08:00/37 20:01	05:23 21:03	04:32 21:58
6	08:48 15:55	08:04 08:59-09:42/43 16:56	06:58 17:58	06:35 07:23-08:00/37 20:03	05:21 21:05	04:31 21:59
7	08:48 15:56	08:02 08:59-09:42/43 16:58	06:55 18:00	06:33 07:23-07:59/36 20:05	05:19 21:07	04:30 22:00
8	08:47 15:58	08:00 09:00-09:42/42 17:01	06:52 18:02	06:30 07:22-07:59/37 20:07	05:17 21:09	04:29 22:01
9	08:46 15:59	07:58 08:59-09:41/42 17:03	06:50 18:05	06:27 07:22-07:59/37 20:09	05:15 21:11	04:28 22:02
10	08:46 16:01	07:56 09:00-09:40/40 17:05	06:47 18:07	06:25 07:22-07:57/35 20:11	05:12 21:13	04:28 22:03
11	08:45 16:03	07:54 08:59-09:39/40 17:07	06:45 18:09	06:22 07:23-07:57/34 20:14	05:10 21:15	04:27 22:04
12	08:44 16:04	07:51 09:00-09:38/38 17:10	06:42 18:11	06:19 07:22-07:56/34 20:16	05:08 21:17	04:27 22:05
13	08:43 16:06	07:49 09:01-09:37/36 17:12	06:39 18:13	06:17 07:23-07:55/32 20:18	05:06 21:19	04:26 22:06
14	08:42 16:08	07:47 09:02-09:34/32 17:14	06:37 18:15	06:14 07:24-07:53/29 20:20	05:04 21:21	04:26 22:06
15	08:41 16:10	07:45 09:03-09:32/29 17:16	06:34 18:17	06:12 07:25-07:52/27 20:22	05:02 21:23	04:26 22:07
16	08:40 16:12	07:42 09:04-09:26/22 17:19	06:31 18:19	06:09 07:26-07:50/24 20:24	05:00 21:25	04:25 22:08
17	08:38 16:14	07:40 09:06-09:25/19 17:21	06:29 18:22	06:07 07:28-07:48/20 20:26	04:59 21:27	04:25 22:08
18	08:37 16:16	07:38 09:08-09:21/13 17:23	06:26 18:24	06:04 07:30-07:45/15 20:28	04:57 21:29	04:25 22:09
19	08:36 16:17	07:35 17:25	06:23 18:26	06:02 07:35-07:39/4 20:30	04:55 21:31	04:25 22:09
20	08:34 09:18-09:26/8 16:19	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09
21	08:33 09:16-09:29/13 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:51 21:34	04:25 22:10
22	08:32 09:14-09:31/17 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10
23	08:30 09:13-09:33/20 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10
24	08:29 09:12-09:34/22 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10
25	08:27 09:09-09:35/26 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10
26	08:25 09:07-09:37/30 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10
27	08:24 09:05-09:38/33 16:34	07:16 17:43	06:02 06:39-06:51/12 18:42	05:42 20:47	04:42 21:45	04:27 22:10
28	08:22 09:04-09:39/35 16:36	07:13 17:45	05:59 06:35-06:54/19 18:44	05:39 20:49	04:41 21:46	04:28 22:10
29	08:20 09:03-09:40/37 16:38		06:57 07:32-07:56/24 19:47	05:37 20:51	04:39 21:48	04:28 22:09
30	08:18 09:01-09:40/39 16:41		06:54 07:30-07:57/27 19:49	05:35 20:53	04:38 21:49	04:29 22:09
31	08:16 09:00-09:40/40 16:43		06:51 07:28-07:58/30 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	528
Sum of minutes with flicker	320	647	112	574	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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B11 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (98)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:15 21:28	06:17 07:22-07:56/34 20:14	07:17 18:53	07:22 08:29-09:10/41 16:36	08:24 15:45
2	04:31 22:08	05:17 21:26	06:19 07:21-07:56/35 20:11	07:19 18:51	07:24 08:29-09:10/41 16:34	08:26 15:44
3	04:32 22:08	05:19 21:23	06:21 07:20-07:57/37 20:08	07:21 18:48	07:27 08:28-09:10/42 16:31	08:27 15:43
4	04:32 22:07	05:21 21:21	06:23 07:19-07:56/37 20:06	07:23 18:45	07:29 08:29-09:11/42 16:29	08:29 15:42
5	04:33 22:06	05:23 21:19	06:25 07:19-07:55/36 20:03	07:25 18:43	07:31 08:28-09:11/43 16:27	08:30 15:41
6	04:35 22:06	05:25 21:17	06:27 07:18-07:55/37 20:01	07:27 18:40	07:33 08:29-09:12/43 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 07:18-07:55/37 19:58	07:29 18:37	07:35 08:29-09:12/43 16:23	08:33 15:40
8	04:37 22:04	05:29 21:13	06:31 07:18-07:54/36 19:55	07:31 18:35	07:38 08:29-09:12/43 16:21	08:35 15:40
9	04:38 22:03	05:31 21:10	06:33 07:19-07:53/34 19:53	07:33 18:32	07:40 08:31-09:12/41 16:19	08:36 15:39
10	04:39 22:02	05:33 21:08	06:35 07:19-07:53/34 19:50	07:35 18:30	07:42 08:31-09:12/41 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:37 07:19-07:52/33 19:47	07:38 18:27	07:44 08:32-09:12/40 16:15	08:39 15:38
12	04:42 22:00	05:37 21:04	06:39 07:20-07:50/30 19:45	07:40 18:24	07:46 08:33-09:12/39 16:13	08:40 15:38
13	04:43 21:59	05:39 21:01	06:41 07:21-07:49/28 19:42	07:42 18:22	07:48 08:35-09:12/37 16:11	08:41 15:38
14	04:45 21:58	05:41 20:59	06:43 07:23-07:47/24 19:39	07:44 18:19	07:50 08:36-09:11/35 16:09	08:42 15:38
15	04:46 21:56	05:43 20:57	06:45 07:24-07:45/21 19:36	07:46 18:17	07:53 08:37-09:10/33 16:07	08:43 15:38
16	04:48 21:55	05:45 20:54	06:47 07:27-07:41/14 19:34	07:48 18:14	07:55 08:40-09:10/30 16:06	08:44 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 08:43-09:09/26 16:04	08:45 15:38
18	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 08:46-09:08/22 16:02	08:46 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 08:48-09:08/20 16:01	08:47 15:38
20	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 08:49-09:06/17 15:59	08:48 15:38
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 08:51-09:04/13 15:57	08:48 15:39
22	04:57 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 08:54-09:02/8 15:56	08:49 15:39
23	04:59 21:44	05:59 20:37	07:01 19:15	08:03 09:42-09:49/7 17:57	08:09 15:55	08:49 15:40
24	05:01 21:43	06:01 07:38-07:44/6 20:34	07:03 19:12	08:05 09:38-09:53/15 17:54	08:11 15:53	08:50 15:40
25	05:03 21:41	06:03 07:32-07:48/16 20:32	07:05 19:09	07:07 08:35-08:55/20 16:52	08:13 15:52	08:50 15:41
26	05:04 21:39	06:05 07:29-07:50/21 20:29	07:07 19:07	07:09 08:34-08:57/23 16:50	08:15 15:50	08:50 15:42
27	05:06 21:37	06:07 07:27-07:52/25 20:27	07:09 19:04	07:11 08:32-09:02/30 16:47	08:17 15:49	08:50 15:43
28	05:08 21:35	06:09 07:26-07:53/27 20:24	07:11 19:01	07:14 08:31-09:04/33 16:45	08:19 15:48	08:51 15:44
29	05:10 21:33	06:11 07:24-07:54/30 20:22	07:13 18:59	07:16 08:31-09:07/36 16:43	08:20 15:47	08:51 15:44
30	05:12 21:32	06:13 07:23-07:55/32 20:19	07:15 18:56	07:18 08:30-09:08/38 16:40	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 07:22-07:56/34 20:16		07:20 08:29-09:08/39 16:38		08:51 15:47
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	0	191	507	241	740	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B12 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (99)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January		February		March		April	May	June	
1	08:50	09:30-09:54/24	08:14		07:10	07:47-08:16/29	06:49	05:32		04:36 05:45-06:06/21
	15:48		16:45		17:47		19:53	20:55		21:52
2	08:50	09:29-09:54/25	08:12		07:08	07:46-08:16/30	06:46	05:30		04:35 05:46-06:05/19
	15:49		16:47		17:49		19:55	20:57		21:54
3	08:50	09:29-09:55/26	08:11		07:05	07:46-08:17/31	06:43	05:28		04:34 05:46-06:05/19
	15:51		16:50		17:52		19:57	20:59		21:55
4	08:49	09:28-09:56/28	08:09		07:03	07:46-08:17/31	06:41	05:25		04:33 05:47-06:04/17
	15:52		16:52		17:54		19:59	21:01		21:56
5	08:49	09:28-09:56/28	08:06		07:00	07:45-08:16/31	06:38	05:23		04:32 05:48-06:04/16
	15:53		16:54		17:56		20:01	21:03		21:57
6	08:48	09:29-09:58/29	08:04		06:58	07:46-08:16/30	06:35	05:21		04:31 05:49-06:04/15
	15:55		16:56		17:58		20:03	21:05		21:59
7	08:48	09:29-09:58/29	08:02		06:55	07:46-08:15/29	06:33	05:19 05:50-05:59/9		04:30 05:49-06:03/14
	15:56		16:58		18:00		20:05	21:07		22:00
8	08:47	09:29-09:59/30	08:00		06:52	07:46-08:14/28	06:30	05:17 05:48-06:02/14		04:29 05:51-06:03/12
	15:58		17:01		18:02		20:07	21:09		22:01
9	08:46	09:29-09:59/30	07:58		06:50	07:47-08:13/26	06:27	05:15 05:46-06:03/17		04:28 05:04-05:08/4
	15:59		17:03		18:05		20:09	21:11		22:02 05:52-06:01/9
10	08:46	09:29-10:00/31	07:56		06:47	07:47-08:12/25	06:25	05:12 05:45-06:04/19		04:28 05:04-05:10/6
	16:01		17:05		18:07		20:11	21:13		22:03 05:53-06:01/8
11	08:45	09:29-10:01/32	07:54		06:45	07:48-08:09/21	06:22	05:10 05:43-06:05/22		04:27 05:03-05:10/7
	16:03		17:07		18:09		20:14	21:15		22:04 05:54-05:59/5
12	08:44	09:29-10:00/31	07:51		06:42	07:49-08:07/18	06:19	05:08 05:42-06:06/24		04:27 05:03-05:11/8
	16:04		17:10		18:11		20:16	21:17		22:05
13	08:43	09:29-10:01/32	07:49		06:39	07:53-08:03/10	06:17	05:06 05:42-06:06/24		04:26 05:03-05:12/9
	16:06		17:12		18:13		20:18	21:19		22:06
14	08:42	09:30-10:02/32	07:47		06:37		06:14	05:04 05:42-06:07/25		04:26 05:03-05:13/10
	16:08		17:14		18:15		20:20	21:21		22:06
15	08:41	09:29-10:01/32	07:45		06:34		06:12	05:02 05:41-06:08/27		04:26 05:02-05:13/11
	16:10		17:16		18:17		20:22	21:23		22:07
16	08:40	09:30-10:02/32	07:42		06:31		06:09	05:00 05:41-06:08/27		04:25 05:02-05:13/11
	16:12		17:19		18:19		20:24	21:25		22:08
17	08:38	09:30-10:02/32	07:40		06:29		06:07	04:59 05:41-06:08/27		04:25 05:02-05:14/12
	16:14		17:21		18:21		20:26	21:27		22:08
18	08:37	09:31-10:02/31	07:38		06:26		06:04	04:57 05:41-06:08/27		04:25 05:02-05:14/12
	16:16		17:23		18:24		20:28	21:29		22:09
19	08:36	09:31-10:02/31	07:35		06:23		06:02	04:55 05:40-06:08/28		04:25 05:02-05:14/12
	16:18		17:25		18:26		20:30	21:31		22:09
20	08:34	09:31-10:01/30	07:33		06:21		05:59	04:53 05:41-06:08/27		04:25 05:02-05:15/13
	16:20		17:28		18:28		20:32	21:33		22:09
21	08:33	09:32-10:02/30	07:30		06:18		05:57	04:52 05:40-06:08/28		04:25 05:03-05:16/13
	16:22		17:30		18:30		20:34	21:34		22:10
22	08:32	09:32-10:01/29	07:28		06:15		05:54	04:50 05:41-06:08/27		04:25 05:03-05:16/13
	16:24		17:32		18:32		20:36	21:36		22:10
23	08:30	09:33-10:00/27	07:26 07:58-08:08/10		06:13		05:52	04:48 05:41-06:09/28		04:26 05:03-05:15/12
	16:26		17:34		18:34		20:39	21:38		22:10
24	08:28	09:33-09:59/26	07:23 07:55-08:11/16		06:10		05:49	04:47 05:41-06:08/27		04:26 05:04-05:16/12
	16:28		17:36		18:36		20:41	21:40		22:10
25	08:27	09:34-09:58/24	07:21 07:52-08:13/21		06:07		05:47	04:45 05:42-06:08/26		04:26 05:04-05:16/12
	16:30		17:39		18:38		20:43	21:41		22:10
26	08:25	09:36-09:57/21	07:18 07:51-08:15/24		06:05		05:44	04:44 05:42-06:08/26		04:27 05:04-05:15/11
	16:32		17:41		18:40		20:45	21:43		22:10
27	08:24	09:38-09:53/15	07:16 07:49-08:15/26		06:02		05:42	04:42 05:42-06:07/25		04:27 05:05-05:16/11
	16:34		17:43		18:42		20:47	21:45		22:10
28	08:22	09:40-09:52/12	07:13 07:48-08:15/27		05:59		05:39	04:41 05:43-06:07/24		04:28 05:05-05:15/10
	16:36		17:45		18:44		20:49	21:46		22:10
29	08:20	09:43-09:49/6			06:57		05:37	04:39 05:43-06:07/24		04:28 05:06-05:15/9
	16:38				19:47		20:51	21:48		22:09
30	08:18				06:54		05:35	04:38 05:44-06:07/23		04:29 05:07-05:16/9
	16:41				19:49		20:53	21:49		22:09
31	08:16				06:51			04:37 05:44-06:06/22		
	16:43				19:51			21:51		
Potential sun hours	235		266		366		426	508		528
Sum of minutes with flicker	785		124		339		0	597		382

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B12 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (99)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 05:07-05:14/7 22:09 05:59-06:03/4	05:16 05:53-06:16/23 21:28	06:17 20:14	07:17 08:30-08:45/15 18:53	07:22 16:36	08:24 09:10-09:42/32 15:45
2	04:31 05:08-05:14/6 22:08 05:58-06:05/7	05:17 05:54-06:15/21 21:25	06:19 20:11	07:19 08:28-08:48/20 18:51	07:24 16:34	08:26 09:11-09:42/31 15:44
3	04:32 05:09-05:14/5 22:08 05:57-06:06/9	05:19 05:55-06:14/19 21:23	06:21 20:08	07:21 08:26-08:49/23 18:48	07:27 16:31	08:27 09:12-09:42/30 15:43
4	04:33 05:10-05:12/2 22:07 05:57-06:08/11	05:21 05:57-06:13/16 21:21	06:23 20:06	07:23 08:24-08:50/26 18:45	07:29 16:29	08:29 09:13-09:43/30 15:42
5	04:34 05:56-06:09/13 22:06	05:23 05:58-06:10/12 21:19	06:25 20:03	07:25 08:23-08:51/28 18:43	07:31 16:27	08:30 09:14-09:43/29 15:41
6	04:35 05:55-06:10/15 22:06	05:25 06:01-06:07/6 21:17	06:27 20:01	07:27 08:22-08:51/29 18:40	07:33 16:25	08:32 09:15-09:44/29 15:41
7	04:36 05:55-06:11/16 22:05	05:27 21:15	06:29 19:58	07:29 08:21-08:51/30 18:37	07:35 16:23	08:33 09:15-09:43/28 15:40
8	04:37 05:54-06:11/17 22:04	05:29 21:13	06:31 19:55	07:31 08:21-08:51/30 18:35	07:37 16:21	08:35 09:17-09:44/27 15:40
9	04:38 05:54-06:12/18 22:03	05:31 21:10	06:33 19:53	07:33 08:20-08:51/31 18:32	07:40 16:19	08:36 09:17-09:44/27 15:39
10	04:39 05:53-06:13/20 22:02	05:33 21:08	06:35 19:50	07:35 08:21-08:51/30 18:30	07:42 16:17	08:38 09:19-09:44/25 15:39
11	04:41 05:53-06:13/20 22:01	05:35 21:06	06:37 19:47	07:38 08:20-08:51/31 18:27	07:44 16:15	08:39 09:20-09:44/24 15:38
12	04:42 05:53-06:15/22 22:00	05:37 21:04	06:39 19:44	07:40 08:20-08:50/30 18:24	07:46 16:13	08:40 09:21-09:44/23 15:38
13	04:43 05:53-06:15/22 21:59	05:39 21:01	06:41 19:42	07:42 08:21-08:49/28 18:22	07:48 09:14-09:21/7 16:11	08:41 09:23-09:45/22 15:38
14	04:45 05:52-06:15/23 21:57	05:41 20:59	06:43 19:39	07:44 08:21-08:48/27 18:19	07:50 09:11-09:23/12 16:09	08:42 09:24-09:45/21 15:38
15	04:46 05:51-06:15/24 21:56	05:43 20:56	06:45 19:36	07:46 08:22-08:47/25 18:17	07:52 09:10-09:25/15 16:07	08:43 09:25-09:45/20 15:38
16	04:48 05:52-06:17/25 21:55	05:45 20:54	06:47 19:34	07:48 08:24-08:46/22 18:14	07:55 09:09-09:30/21 16:06	08:44 09:26-09:46/20 15:38
17	04:49 05:51-06:17/26 21:54	05:47 20:52	06:49 19:31	07:50 08:25-08:44/19 18:12	07:57 09:08-09:32/24 16:04	08:45 09:27-09:46/19 15:38
18	04:51 05:52-06:18/26 21:52	05:49 20:49	06:51 19:28	07:52 08:27-08:42/15 18:09	07:59 09:07-09:33/26 16:02	08:46 09:28-09:46/18 15:38
19	04:52 05:51-06:18/27 21:51	05:51 20:47	06:53 19:26	07:54 08:30-08:38/8 18:07	08:01 09:08-09:35/27 16:01	08:47 09:28-09:46/18 15:38
20	04:54 05:51-06:18/27 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 09:07-09:36/29 15:59	08:47 09:29-09:47/18 15:38
21	04:56 05:51-06:18/27 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 09:07-09:37/30 15:57	08:48 09:29-09:47/18 15:39
22	04:57 05:51-06:19/28 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 09:07-09:38/31 15:56	08:49 09:30-09:48/18 15:39
23	04:59 05:50-06:18/28 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 09:08-09:39/31 15:55	08:49 09:30-09:48/18 15:40
24	05:01 05:51-06:19/28 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 09:08-09:39/31 15:53	08:50 09:31-09:49/18 15:40
25	05:03 05:50-06:18/28 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 09:08-09:40/32 15:52	08:50 09:31-09:49/18 15:41
26	05:04 05:51-06:18/27 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 09:08-09:40/32 15:51	08:50 09:31-09:50/19 15:42
27	05:06 05:51-06:19/28 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 09:08-09:40/32 15:49	08:50 09:31-09:50/19 15:43
28	05:08 05:51-06:18/27 21:35	06:09 20:24	07:11 19:01	07:14 16:45	08:18 09:09-09:41/32 15:48	08:51 09:31-09:51/20 15:44
29	05:10 05:52-06:18/26 21:33	06:11 20:22	07:13 18:59	07:16 16:43	08:20 09:10-09:42/32 15:47	08:51 09:31-09:52/21 15:44
30	05:12 05:52-06:18/26 21:31	06:13 20:19	07:15 08:35-08:41/6 18:56	07:18 16:40	08:22 09:11-09:42/31 15:46	08:51 09:31-09:53/22 15:45
31	05:14 05:53-06:17/24 21:30	06:15 20:16		07:20 16:38		08:51 09:30-09:53/23 15:47
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	689	97	6	467	475	705

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B14 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (100)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 09:33-10:29/56 15:48	08:15 09:20-10:29/69 16:45	07:11 07:37-08:24/47 17:48	06:49 07:14-07:26/12 19:53	05:33 06:19-07:15/56 20:55	04:36 05:16-05:39/23 21:52
2	08:50 09:34-10:30/56 15:49	08:13 09:20-10:29/69 16:48	07:08 07:35-08:23/48 17:50	06:46 07:11-07:27/16 19:55	05:30 06:19-07:15/56 20:57	04:35 05:16-05:39/23 21:54
3	08:50 09:33-10:30/57 15:51	08:11 09:20-10:29/69 16:50	07:06 07:32-08:23/51 17:52	06:43 07:09-07:29/20 19:57	05:28 06:19-07:14/55 20:59	04:34 05:17-05:40/23 21:55
4	08:50 09:32-10:30/58 15:52	08:09 09:21-10:29/68 16:52	07:03 07:29-08:22/53 17:54	06:41 07:06-07:29/23 19:59	05:26 06:19-07:13/54 21:02	04:33 05:17-05:40/23 21:56
5	08:49 09:33-10:32/59 15:53	08:07 09:21-10:28/67 16:54	07:00 07:26-08:20/54 17:56	06:38 07:03-07:29/26 20:01	05:23 06:19-07:12/53 21:04	04:32 05:17-05:40/23 21:58
6	08:49 09:32-10:32/60 15:55	08:05 09:20-10:27/67 16:56	06:58 07:24-08:19/55 17:58	06:35 07:01-07:29/28 20:03	05:21 06:20-07:11/51 21:06	04:31 05:17-05:40/23 21:59
7	08:48 09:32-10:32/60 15:56	08:03 09:21-10:26/65 16:59	06:55 07:21-08:17/56 18:01	06:33 06:58-07:29/31 20:05	05:19 05:58-07:10/72 21:08	04:30 05:18-05:41/23 22:00
8	08:47 09:32-10:33/61 15:58	08:00 09:21-10:26/65 17:01	06:53 07:18-08:13/55 18:03	06:30 06:56-07:29/33 20:08	05:17 05:57-07:08/71 21:10	04:29 05:18-05:41/23 22:01
9	08:47 09:32-10:33/61 16:00	07:58 09:21-10:24/63 17:03	06:50 07:16-08:04/48 18:05	06:28 06:53-07:28/35 20:10	05:15 05:56-07:07/71 21:12	04:29 05:18-05:41/23 22:02
10	08:46 09:32-10:34/62 16:01	07:56 09:22-10:23/61 17:05	06:47 07:13-08:02/49 18:07	06:25 06:51-07:27/36 20:12	05:13 05:54-07:04/70 21:14	04:28 05:18-05:41/23 22:03
11	08:45 09:32-10:35/63 16:03	07:54 09:23-10:21/58 17:08	06:45 07:10-07:59/49 18:09	06:22 06:48-07:27/39 20:14	05:11 05:53-07:03/70 21:16	04:27 05:19-05:41/22 22:04
12	08:44 09:32-10:35/63 16:05	07:52 09:23-10:18/55 17:10	06:42 07:08-07:59/51 18:11	06:20 06:46-07:25/39 20:16	05:09 05:53-07:03/70 21:18	04:27 05:18-05:41/23 22:05
13	08:43 09:31-10:35/64 16:06	07:49 09:24-10:13/49 17:12	06:40 07:05-07:58/53 18:13	06:17 06:45-07:24/39 20:18	05:07 05:53-07:03/70 21:20	04:26 05:17-05:41/22 22:06
14	08:42 09:31-10:36/65 16:08	07:47 09:24-10:03/39 17:14	06:37 07:02-07:56/54 18:15	06:15 06:43-07:22/39 20:20	05:05 05:52-07:02/70 21:22	04:26 05:19-05:42/23 22:07
15	08:41 09:32-10:35/63 16:10	07:45 09:25-09:59/34 17:17	06:34 07:01-07:56/55 18:18	06:12 06:43-07:20/37 20:22	05:03 05:51-07:01/70 21:23	04:26 05:20-05:42/22 22:07
16	08:40 09:31-10:36/65 16:12	07:43 09:26-09:58/32 17:19	06:32 06:59-07:55/56 18:20	06:09 06:42-07:14/32 20:24	05:01 05:51-06:27/36 21:25	04:26 05:20-05:42/22 22:08
17	08:39 09:32-10:37/65 16:14	07:40 09:28-09:56/28 17:21	06:29 06:57-07:53/56 18:22	06:07 06:42-07:16/34 20:26	04:59 05:51-06:28/37 21:27	04:25 05:20-05:41/21 22:08
18	08:37 09:30-10:36/66 16:16	07:38 09:29-09:54/25 17:23	06:26 06:56-07:51/55 18:24	06:04 06:41-07:16/35 20:28	04:57 05:50-06:28/38 21:29	04:25 05:20-05:42/22 22:09
19	08:36 09:28-10:36/68 16:18	07:35 08:03-08:20/17 17:26	06:24 06:56-07:50/54 18:26	06:02 06:41-07:17/36 20:30	04:55 05:27-05:29/2 06:31-06:58/27 21:31	04:25 05:21-05:43/22 22:09
20	08:35 09:28-10:37/69 16:20	07:33 08:00-08:21/21 17:28	06:21 06:55-07:47/52 18:28	05:59 06:31-07:18/47 20:33	04:53 05:25-05:32/7 06:32-06:56/24 21:33	04:25 05:21-05:43/22 22:10
21	08:33 09:26-10:36/70 16:22	07:31 07:58-08:23/25 17:30	06:18 06:54-07:42/48 18:30	05:57 06:28-07:18/50 20:35	04:52 05:24-05:34/10 06:34-06:55/21 21:35	04:25 05:21-05:43/22 22:10
22	08:32 09:25-10:36/71 16:24	07:28 07:55-08:23/28 17:32	06:16 06:54-07:36/42 18:32	05:54 06:26-07:18/52 20:37	04:50 05:22-05:34/12 06:35-06:53/18 21:36	04:26 05:21-05:43/22 22:10
23	08:30 09:24-10:35/71 16:26	07:26 07:53-08:25/32 17:34	06:13 06:54-07:35/41 18:34	05:52 06:24-07:18/54 20:39	04:48 05:21-05:36/15 06:37-06:52/15 21:38	04:26 05:21-05:43/22 22:10
24	08:29 09:24-10:35/71 16:28	07:23 07:50-08:25/35 17:37	06:10 06:53-07:34/41 18:36	05:49 06:23-07:18/55 20:41	04:47 05:19-05:36/17 06:39-06:48/9 21:40	04:26 05:22-05:44/22 22:10
25	08:27 09:24-10:35/71 16:30	07:21 07:48-08:25/37 17:39	06:07 06:54-07:34/40 18:38	05:47 06:22-07:18/56 20:43	04:45 05:18-05:37/19 21:42	04:26 05:22-05:43/21 22:10
26	08:25 09:23-10:34/71 16:32	07:18 07:45-08:25/40 17:41	06:05 06:54-07:32/38 18:41	05:44 06:21-07:17/56 20:45	04:44 05:17-05:38/21 21:43	04:27 05:22-05:44/22 22:10
27	08:24 09:22-10:33/71 16:34	07:16 07:42-08:25/43 17:43	06:02 06:54-07:30/36 18:43	05:42 06:20-07:17/57 20:47	04:42 05:17-05:38/21 21:45	04:27 05:22-05:44/22 22:10
28	08:22 09:22-10:31/69 16:37	07:13 07:40-08:25/45 17:45	05:59 06:56-07:29/33 18:45	05:40 06:20-07:17/57 20:49	04:41 05:16-05:38/22 21:46	04:28 05:23-05:45/22 22:10
29	08:20 09:22-10:30/68 16:39		06:57 07:56-08:27/31 19:47	05:37 06:20-07:17/57 20:51	04:40 05:16-05:38/22 21:48	04:29 05:22-05:44/22 22:10
30	08:18 09:21-10:30/69 16:41		06:54 07:58-08:24/26 19:49	05:35 06:20-07:17/57 20:53	04:38 05:16-05:39/23 21:50	04:29 05:23-05:45/22 22:09
31	08:17 09:21-10:30/69 16:43		06:51 07:17-07:24/7 19:51		04:37 05:16-05:39/23 21:51	04:29 05:23-05:45/22 22:09
Potential sun hours	235	266	366	426	508	528
Sum of minutes with flicker	2012	1351	1828	1188	2022	1609

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B14 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (100)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 05:23-05:46/23 22:09 06:01-06:33/32	05:16 06:04-07:13/69 21:28 20:14	06:17 06:47-07:26/39 20:11	07:17 07:46-08:38/52 18:54 18:00-18:20/20	07:23 08:51-09:52/61 16:36	08:24 09:14-10:17/63 15:45
2	04:31 05:22-05:45/23 22:08 06:00-06:32/32	05:18 06:04-07:14/70 21:26	06:19 06:50-07:26/36 20:11	07:19 07:48-08:38/50 18:51 18:01-18:17/17	07:25 08:51-09:54/63 16:34	08:26 09:15-10:17/62 15:44
3	04:32 05:23-05:45/22 22:08 06:01-06:33/32	05:20 06:05-07:15/70 21:24	06:21 06:51-07:26/35 20:09	07:21 07:50-08:39/49 18:48 18:03-18:15/12	07:27 08:51-09:56/65 16:32	08:27 09:15-10:17/62 15:43
4	04:33 05:23-05:46/23 22:07 06:01-06:33/32	05:21 06:06-07:17/71 21:22	06:23 06:53-07:26/33 20:06	07:23 07:52-08:40/48 18:46	07:29 08:50-09:56/66 16:29	08:29 09:16-10:17/61 15:42
5	04:34 05:23-05:46/23 22:07 06:01-06:34/33	05:23 06:08-07:19/71 21:19	06:25 06:55-07:26/31 20:03	07:25 07:54-08:48/54 18:43	07:31 08:50-09:57/67 16:27	08:31 09:17-10:18/61 15:42
6	04:35 05:23-05:46/23 22:06 06:01-06:34/33	05:25 06:08-07:20/72 21:17	06:27 06:57-07:26/29 20:01	07:27 07:56-08:52/56 18:40	07:33 08:51-09:58/67 16:25	08:32 09:18-10:18/60 15:41
7	04:36 05:23-05:47/24 22:05 06:01-06:35/34	05:27 06:29-07:21/52 21:15	06:29 06:58-07:24/26 19:58	07:29 07:58-08:54/56 18:38	07:36 08:50-09:59/69 16:23	08:34 09:19-10:18/59 15:40
8	04:37 05:23-05:47/24 22:04 06:00-06:35/35	05:29 06:29-07:22/53 21:13	06:31 07:00-07:23/23 19:55	07:32 08:00-08:55/55 18:35	07:38 08:51-10:00/69 16:21	08:35 09:20-10:19/59 15:40
9	04:38 05:24-05:47/23 22:03 06:00-06:35/35	05:31 06:28-07:23/55 21:11	06:33 07:02-07:22/20 19:53	07:34 08:03-08:57/54 18:32	07:40 08:51-10:00/69 16:19	08:36 09:21-10:18/57 15:39
10	04:39 05:24-05:47/23 22:02 06:00-06:36/36	05:33 06:28-07:23/55 21:08	06:35 07:04-07:20/16 19:50	07:36 08:05-08:57/52 18:30	07:42 08:51-10:00/69 16:17	08:38 09:23-10:19/56 15:39
11	04:41 05:25-05:48/23 22:01 06:01-06:37/36	05:35 06:28-07:24/56 21:06	06:37 07:06-07:18/12 19:47	07:38 08:07-08:58/51 18:27	07:44 08:52-10:01/69 16:15	08:39 09:23-10:19/56 15:39
12	04:42 05:25-05:48/23 22:00 06:00-06:37/37	05:37 06:27-07:24/57 21:04	06:39 07:08-07:16/8 19:45	07:40 08:09-08:58/49 18:25	07:46 08:52-10:01/69 16:13	08:40 09:38-10:20/42 15:38
13	04:43 05:25-05:47/22 21:59 06:00-06:37/37	05:39 06:27-07:24/57 21:01	06:41 07:49-08:15/26 19:42	07:42 08:11-08:57/46 18:22	07:48 08:54-10:02/68 16:11	08:41 09:39-10:20/41 15:38
14	04:45 05:25-05:47/22 21:58 06:00-06:37/37	05:41 06:27-07:24/57 20:59	06:43 07:47-08:17/30 19:39	07:44 08:13-08:57/44 18:20	07:51 08:54-10:03/69 16:09	08:43 09:39-10:20/41 15:38
15	04:46 05:26-05:48/22 21:56 06:00-06:38/38	05:43 06:28-07:25/57 20:57	06:45 07:45-08:19/34 19:37	07:46 08:16-08:58/42 18:17	07:53 08:54-10:05/71 16:08	08:44 09:40-10:21/41 15:38
16	04:48 05:26-05:47/21 21:55 06:00-06:38/38	05:45 06:28-07:25/57 20:54	06:47 07:44-08:20/36 19:34	07:48 08:18-08:57/39 18:14	07:55 08:56-10:07/71 16:06	08:45 09:40-10:21/41 15:38
17	04:49 05:27-05:47/20 21:54 06:00-06:38/38	05:47 06:28-07:25/57 20:52	06:49 07:43-08:20/37 19:31	07:50 08:20-08:56/36 18:12	07:57 08:56-10:08/72 16:04	08:45 09:41-10:21/40 15:38
18	04:51 05:27-05:47/20 21:52 06:00-06:39/39	05:49 06:29-07:25/56 20:49	06:51 07:42-08:21/39 19:29	07:52 08:22-08:56/34 18:09	07:59 08:58-10:09/71 16:02	08:46 09:42-10:22/40 15:38
19	04:53 05:28-05:46/18 06:51-06:56/5 21:51 06:00-06:38/38	05:51 06:29-07:23/54 20:47	06:53 07:41-08:21/40 19:26	07:55 08:25-08:55/30 18:07	08:01 08:59-10:10/71 16:01	08:47 09:42-10:22/40 15:38
20	04:54 05:30-05:46/16 06:48-07:00/12 21:49 06:00-06:39/39	05:53 06:30-07:23/53 20:45	06:55 07:40-08:22/42 19:23	07:57 08:27-08:54/27 18:04	08:03 09:00-10:11/71 15:59	08:48 09:42-10:22/40 15:39
21	04:56 05:31-05:45/14 06:46-07:02/16 21:48 06:00-06:39/39	05:55 06:31-07:23/52 20:42	06:57 07:40-08:22/42 19:20	07:59 08:29-08:53/24 18:02	08:05 09:01-10:11/70 15:58	08:48 09:43-10:23/40 15:39
22	04:58 05:33-05:44/11 06:44-07:04/20 21:46 06:00-06:39/39	05:57 06:33-07:22/49 20:40	06:59 07:39-08:21/42 17:59-18:25/26 19:18	08:01 08:31-08:51/20 17:59	08:07 09:04-10:13/69 15:56	08:49 09:43-10:23/40 15:40
23	04:59 05:35-05:43/8 06:43-07:05/22 21:45 06:00-06:39/39	05:59 06:35-07:21/46 20:37	07:01 07:39-08:31/52 19:15	08:03 10:02-10:23/21 17:57	08:09 09:05-10:13/68 15:55	08:49 09:44-10:24/40 15:40
24	05:01 05:36-05:41/5 06:42-07:07/25 21:43 06:01-06:39/38	06:01 06:45-07:21/36 20:35	07:03 07:39-08:33/54 19:12	08:05 09:59-10:25/26 17:55	08:11 09:07-10:13/66 15:53	08:50 09:45-10:25/40 15:41
25	05:03 06:01-06:39/38 21:41 06:41-07:08/27	06:03 06:44-07:20/36 20:32	07:05 07:39-08:34/55 19:10	08:07 08:57-09:26/29 16:52	08:13 09:09-10:14/65 15:52	08:50 09:45-10:25/40 15:41
26	05:05 06:01-06:38/37 21:39 06:40-07:09/29	06:05 06:44-07:18/34 20:29	07:07 07:40-08:35/55 19:07	08:09 08:56-09:28/32 16:50	08:15 09:10-10:14/64 15:51	08:50 09:45-10:25/40 15:42
27	05:06 06:01-07:10/69 21:37	06:07 06:45-07:17/32 20:27	07:09 07:40-08:36/56 19:04	08:12 08:55-09:30/35 16:47	08:17 09:11-10:15/64 15:49	08:51 09:45-10:26/41 15:43
28	05:08 06:02-07:11/69 21:36	06:09 06:44-07:21/37 20:24	07:11 07:41-08:37/56 19:02	08:14 08:53-09:33/40 16:45	08:19 09:12-10:16/64 15:48	08:51 09:46-10:26/40 15:44
29	05:10 06:02-07:11/69 21:34	06:11 06:44-07:23/39 20:22	07:13 07:42-08:37/55 18:59	08:16 08:53-09:44/51 16:43	08:21 09:12-10:16/64 15:47	08:51 09:46-10:27/41 15:45
30	05:12 06:02-07:12/70 21:32	06:13 06:45-07:24/39 20:19	07:15 07:44-08:37/53 18:56	08:18 08:52-09:48/56 16:41	08:22 09:13-10:16/63 15:46	08:51 09:47-10:28/41 15:46
31	05:14 06:03-07:13/70 21:30	06:15 06:46-07:25/39 20:17	07:17 07:45-08:38/54 18:54	08:20 08:51-09:50/59 16:38	08:24 09:14-10:17/63 15:45	08:51 09:47-10:29/42 15:47
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	1920	1668	1464	1407	2024	1546

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B15 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	07:19-07:43/24 20:55	05:32 21:52
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	07:18-07:43/25 20:57	05:30 21:54
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	07:16-07:43/27 20:59	05:28 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:16-07:44/28 21:01	05:25 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	07:15-07:43/28 21:03	05:23 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	07:15-07:44/29 21:05	05:21 21:59
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	07:15-07:43/28 21:07	05:19 22:00
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	07:14-07:42/28 21:10	05:17 22:01
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	07:15-07:42/27 21:12	05:14 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	07:15-07:40/25 21:14	05:12 22:03
11	08:45 16:03	07:54 17:07	06:45 18:09	06:22 20:14	07:16-07:39/23 21:16	05:10 22:04
12	08:44 16:04	07:52 17:10	06:42 18:11	06:19 20:16	07:16-07:37/21 21:18	05:08 22:05
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	07:18-07:36/18 21:19	05:06 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	07:19-07:33/14 21:21	05:04 22:06
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	07:22-07:30/8 21:23	05:02 22:07
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	05:00 22:08
17	08:39 16:13	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	05:19-05:57/38 22:08
18	08:37 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	05:20-05:57/37 22:09
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	05:20-05:57/37 22:09
20	08:35 16:19	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	05:20-05:57/37 22:09
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:35	05:20-05:57/37 22:10
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	05:21-05:58/37 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:51 20:39	04:48 21:38	05:21-05:58/37 22:10
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:47 21:40	05:21-05:58/37 22:10
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	05:22-05:59/37 22:10
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:43 21:43	05:21-05:59/38 22:10
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 05:32-05:39/7 21:45	05:22-05:59/37 22:10
28	08:22 16:36	07:13 17:45	05:59 06:29-06:36/7 18:44	05:39 20:49	04:41 05:29-05:42/13 21:46	05:22-05:59/37 22:10
29	08:20 16:38		06:57 07:26-07:40/14 19:47	05:37 20:51	04:39 05:26-05:44/18 21:48	05:23-05:59/36 22:10
30	08:18 16:41		06:54 07:23-07:41/18 19:49	05:35 20:53	04:38 05:25-05:46/21 21:49	05:23-05:59/36 22:09
31	08:16 16:43		06:51 07:20-07:42/22 19:51		04:37 05:24-05:47/23 21:51	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	0	0	61	353	82	1045

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B15 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 05:23-05:59/36 22:09	05:15 21:28	06:17 07:15-07:38/23 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	04:31 05:24-05:59/35 22:08	05:17 21:26	06:19 07:14-07:39/25 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	04:31 05:24-05:59/35 22:08	05:19 21:24	06:21 07:13-07:40/27 20:09	07:21 18:48	07:27 16:31	08:27 15:43
4	04:32 05:25-05:59/34 22:07	05:21 21:21	06:23 07:12-07:40/28 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	04:33 05:26-05:59/33 22:06	05:23 21:19	06:25 07:11-07:39/28 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	04:34 05:26-05:59/33 22:06	05:25 21:17	06:27 07:11-07:39/28 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	04:36 05:27-05:58/31 22:05	05:27 21:15	06:29 07:10-07:39/29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	04:37 05:28-05:58/30 22:04	05:29 21:13	06:31 07:10-07:38/28 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	04:38 05:28-05:58/30 22:03	05:31 21:10	06:33 07:11-07:38/27 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	04:39 05:29-05:57/28 22:02	05:33 21:08	06:35 07:11-07:37/26 19:50	07:35 18:30	07:42 16:17	08:38 15:39
11	04:40 05:30-05:56/26 22:01	05:35 21:06	06:37 07:12-07:36/24 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	04:42 05:31-05:55/24 22:00	05:37 21:04	06:39 07:12-07:34/22 19:45	07:40 18:24	07:46 16:13	08:40 15:38
13	04:43 05:33-05:55/22 21:59	05:39 21:01	06:41 07:14-07:33/19 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	04:45 05:34-05:54/20 21:58	05:41 20:59	06:43 07:15-07:30/15 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	04:46 05:36-05:52/16 21:56	05:43 20:57	06:45 07:18-07:27/9 19:36	07:46 18:17	07:53 16:07	08:43 15:38
16	04:48 05:40-05:50/10 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:48 15:39
22	04:57 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:40
24	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:43
28	05:08 21:35	06:09 07:23-07:32/9 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	05:10 21:34	06:11 07:20-07:34/14 20:22	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:44
30	05:12 21:32	06:13 07:18-07:36/18 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 07:16-07:37/21 20:16		07:20 16:38		08:51 15:46
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	443	62	358	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B17 - NORDEX N175/6.X 6800 175.0 !- hub: 179.0 m (TOT: 266.5 m) (108)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January		February		March		April		May		June	
1	08:51	10:50-11:33/43	08:15	07:11			06:49		05:32	07:25-08:49/84	04:36	07:33-08:36/63
	15:48		16:45	17:47			19:53		20:55	06:31-07:15/44	21:53	
2	08:50	10:51-11:34/43	08:13	07:08			06:46		05:30	07:25-08:49/84	04:34	07:34-08:35/61
	15:49		16:47	17:50			19:55		20:57	06:31-07:15/44	21:54	
3	08:50	10:51-11:34/43	08:11	07:06	07:36-07:45/9		06:43		05:28	07:25-08:49/84	04:33	07:34-08:35/61
	15:50		16:49	17:52			19:57		20:59	06:31-07:15/44	21:55	
4	08:50	10:51-11:35/44	08:09	07:03	07:32-07:48/16		06:41	08:12-08:18/6	05:25	07:25-08:49/84	04:32	07:34-08:34/60
	15:52		16:52	17:54			19:59		21:02	06:31-07:15/44	21:57	
5	08:49	10:52-11:36/44	08:07	07:00	07:30-07:49/19		06:38	08:02-08:26/24	05:23	07:25-08:49/84	04:31	07:36-08:34/58
	15:53		16:54	17:56			20:01		21:04	06:31-07:14/43	21:58	
6	08:49	10:52-11:36/44	08:05	06:58	07:29-07:51/22		06:35	07:58-08:30/32	05:21	07:25-08:49/84	04:31	07:36-08:34/58
	15:55		16:56	17:58			20:03		21:06	06:32-07:14/42	21:59	
7	08:48	10:53-11:36/43	08:03	06:55	07:27-07:52/25		06:33	07:54-08:33/39	05:19	07:25-08:48/83	04:30	07:36-08:33/57
	15:56		16:58	18:00			20:05		21:08	06:32-07:13/41	22:00	
8	08:47	10:53-11:37/44	08:00	06:53	07:25-07:52/27		06:30	07:51-08:35/44	05:17	07:25-08:48/83	04:29	07:37-08:33/56
	15:58		17:01	18:02			20:07		21:10	06:32-07:13/41	22:01	
9	08:47	10:53-11:37/44	07:58	06:50	07:25-07:53/28		06:27	07:49-08:38/49	05:14	07:25-08:47/82	04:28	07:37-08:33/56
	15:59		17:03	18:05			20:10		21:12	06:33-07:12/39	22:02	
10	08:46	10:54-11:38/44	07:56	06:47	07:24-07:53/29		06:25	07:46-08:39/53	05:12	07:25-08:47/82	04:28	07:38-08:33/55
	16:01		17:05	18:07			20:12		21:14	06:33-07:12/39	22:03	
11	08:45	10:55-11:38/43	07:54	06:45	07:24-07:52/28		06:22	07:44-08:41/57	05:10	07:25-08:46/81	04:27	07:38-08:32/54
	16:02		17:07	18:09			20:14		21:16	06:33-07:11/38	22:04	
12	08:44	10:55-11:39/44	07:52	06:42	07:24-07:53/29		06:19	07:42-08:42/60	05:08	07:25-08:46/81	04:26	07:39-08:32/53
	16:04		17:10	18:11			20:16	06:45-06:46/1	21:18	06:34-07:10/36	22:05	
13	08:43	10:55-11:38/43	07:49	06:39	07:23-07:52/29		06:17	07:41-08:44/63	05:06	07:25-08:45/80	04:26	07:40-08:32/52
	16:06		17:12	18:13			20:18	06:43-06:50/7	21:20	06:34-07:09/35	22:06	
14	08:42	10:56-11:39/43	07:47	06:37	07:23-07:51/28		06:14	07:39-08:44/65	05:04	07:25-08:44/79	04:26	07:40-08:31/51
	16:08		17:14	18:15			20:20	06:40-06:52/12	21:22	06:36-07:09/33	22:07	
15	08:41	10:57-11:39/42	07:45	06:34	07:23-07:50/27		06:12	07:38-08:46/68	05:02	07:26-08:45/79	04:25	07:40-08:32/52
	16:10		17:16	18:17			20:22	06:38-06:53/15	21:24	06:36-07:07/31	22:07	
16	08:40	10:57-11:39/42	07:42	06:31	07:24-07:50/26		06:09	07:36-08:46/70	05:00	07:26-08:44/78	04:25	07:41-08:32/51
	16:12		17:19	18:19			20:24	06:35-07:02/27	21:25	06:37-07:06/29	22:08	
17	08:39	10:58-11:39/41	07:40	06:29	07:24-07:48/24		06:07	07:35-08:47/72	04:58	07:26-08:43/77	04:25	07:41-08:32/51
	16:13		17:21	18:22			20:26	06:33-07:06/33	21:27	06:38-07:04/26	22:08	
18	08:37	10:58-11:39/41	07:38	06:26	07:25-07:47/22		06:04	07:34-08:47/73	04:57	07:27-08:43/76	04:25	07:41-08:32/51
	16:15		17:23	18:24			20:28	06:32-07:08/36	21:29	06:40-07:04/24	22:09	
19	08:36	10:59-11:39/40	07:35	06:23	07:27-07:45/18		06:02	07:33-08:48/75	04:55	07:26-08:42/76	04:25	07:42-08:32/50
	16:17		17:25	18:26			20:30	06:32-07:10/38	21:31	06:41-07:02/21	22:09	
20	08:35	11:00-11:39/39	07:33	06:21	07:29-07:42/13		05:59	07:31-08:48/77	04:53	07:27-08:42/75	04:25	07:42-08:32/50
	16:19		17:28	18:28			20:32	06:31-07:10/39	21:33	06:43-07:00/17	22:10	
21	08:33	11:00-11:39/39	07:31	06:18	07:34-07:36/2		05:56	07:31-08:49/78	04:51	07:27-08:41/74	04:25	07:42-08:32/50
	16:21		17:30	18:30			20:35	06:32-07:12/40	21:35	06:45-06:57/12	22:10	
22	08:32	11:01-11:38/37	07:28	06:15			05:54	07:29-08:48/79	04:50	07:28-08:41/73	04:25	07:43-08:33/50
	16:23		17:32	18:32			20:37	06:32-07:13/41	21:36	06:51-06:53/2	22:10	
23	08:30	11:02-11:38/36	07:26	06:13			05:51	07:29-08:49/80	04:48	07:28-08:40/72	04:25	07:43-08:33/50
	16:26		17:34	18:34			20:39	06:32-07:13/41	21:38		22:10	
24	08:29	11:04-11:38/34	07:23	06:10			05:49	07:29-08:50/81	04:46	07:29-08:40/71	04:26	07:43-08:33/50
	16:28		17:36	18:36			20:41	06:33-07:14/41	21:40		22:10	
25	08:27	11:05-11:37/32	07:21	06:07			05:47	07:27-08:49/82	04:45	07:30-08:40/70	04:26	07:43-08:34/51
	16:30		17:39	18:38			20:43	06:34-07:15/41	21:42		22:10	
26	08:25	11:06-11:36/30	07:18	06:05			05:44	07:27-08:49/82	04:43	07:29-08:38/69	04:27	07:43-08:34/51
	16:32		17:41	18:40			20:45	06:33-07:14/41	21:43		22:10	
27	08:24	11:07-11:35/28	07:16	06:02			05:42	07:27-08:50/83	04:42	07:30-08:38/68	04:27	07:43-08:35/52
	16:34		17:43	18:42			20:47	06:33-07:15/42	21:45		22:10	
28	08:22	11:09-11:34/25	07:13	05:59			05:39	07:27-08:50/83	04:41	07:31-08:38/67	04:28	07:43-08:34/51
	16:36		17:45	18:45			20:49	06:32-07:15/43	21:47		22:10	
29	08:20	11:11-11:32/21		06:57			05:37	07:26-08:49/83	04:39	07:31-08:37/66	04:28	07:43-08:35/52
	16:38			19:47			20:51	06:31-07:15/44	21:48		22:10	
30	08:18	11:14-11:30/16		06:54			05:35	07:25-08:49/84	04:38	07:32-08:37/65	04:29	07:42-08:35/53
	16:41			19:49			20:53	06:31-07:15/44	21:50		22:09	
31	08:17	11:19-11:25/6		06:51					04:37	07:33-08:36/63		
	16:43			19:51					21:51			
Potential sun hours	235		266	366			426		508		529	1610
Sum of minutes with flicker		1158	0	421			2368		3099			

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B17 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (108)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 07:43-08:36/53 22:09	05:15 07:35-08:56/81 21:28 06:44-07:20/36	06:17 07:43-08:40/57 20:14	07:17 08:03-08:32/29 18:53	07:22 16:36	08:24 10:37-11:20/43 15:45
2	04:31 07:43-08:37/54 22:08	05:17 07:35-08:57/82 21:26 06:43-07:21/38	06:19 07:45-08:38/53 20:11	07:19 08:03-08:32/29 18:51	07:25 16:34	08:26 10:37-11:21/44 15:44
3	04:31 07:43-08:38/55 22:08	05:19 07:35-08:57/82 21:24 06:43-07:22/39	06:21 07:47-08:36/49 20:09	07:21 08:02-08:31/29 18:48	07:27 16:31	08:28 10:38-11:21/43 15:43
4	04:32 07:43-08:38/55 22:07	05:21 07:34-08:57/83 21:22 06:43-07:23/40	06:23 07:48-08:32/44 20:06	07:23 08:02-08:30/28 18:45	07:29 16:29	08:29 10:37-11:21/44 15:42
5	04:33 07:43-08:39/56 22:07	05:23 07:34-08:57/83 21:19 06:41-07:22/41	06:25 07:50-08:29/39 20:03	07:25 08:02-08:29/27 18:43	07:31 16:27	08:31 10:38-11:21/43 15:41
6	04:34 07:43-08:40/57 22:06	05:25 07:34-08:58/84 21:17 06:41-07:23/42	06:27 07:53-08:26/33 20:01	07:27 08:03-08:28/25 18:40	07:33 16:25	08:32 10:39-11:22/43 15:41
7	04:35 07:42-08:41/59 22:05	05:27 07:34-08:58/84 21:15 06:41-07:23/42	06:29 07:57-08:21/24 19:58	07:29 08:03-08:27/24 18:38	07:36 16:23	08:34 10:38-11:22/44 15:40
8	04:37 07:42-08:41/59 22:04	05:29 07:34-08:58/84 21:13 06:41-07:24/43	06:31 08:04-08:13/9 19:55	07:31 08:04-08:25/21 18:35	07:38 16:21	08:35 10:39-11:23/44 15:39
9	04:38 07:42-08:42/60 22:03	05:31 07:34-08:58/84 21:11 06:41-07:24/43	06:33 19:53	07:33 08:06-08:24/18 18:32	07:40 16:19	08:37 10:40-11:23/43 15:39
10	04:39 07:41-08:43/62 22:02	05:33 07:33-08:58/85 21:08 06:40-07:23/43	06:35 19:50	07:36 08:08-08:21/13 18:30	07:42 16:17	08:38 10:40-11:23/43 15:39
11	04:40 07:41-08:43/62 22:01	05:35 07:34-08:58/84 21:06 06:40-07:23/43	06:37 19:47	07:38 18:27	07:44 10:49-10:57/8 16:15	08:39 10:40-11:23/43 15:38
12	04:42 07:40-08:44/64 22:00	05:37 07:34-08:58/84 21:04 06:40-07:23/43	06:39 19:45	07:40 18:24	07:46 10:45-11:01/16 16:13	08:40 10:41-11:25/44 15:38
13	04:43 07:41-08:45/64 21:59	05:39 07:34-08:58/84 21:01 06:40-07:23/43	06:41 19:42	07:42 18:22	07:48 10:43-11:04/21 16:11	08:42 10:42-11:25/43 15:38
14	04:45 07:40-08:46/66 21:58	05:41 07:34-08:58/84 20:59 06:40-07:23/43	06:43 19:39	07:44 18:19	07:51 10:41-11:06/25 16:09	08:43 10:42-11:25/43 15:38
15	04:46 07:40-08:46/66 21:57	05:43 07:34-08:57/83 20:57 06:40-07:23/43	06:45 19:37	07:46 18:17	07:53 10:39-11:07/28 16:07	08:44 10:42-11:25/43 15:38
16	04:47 07:40-08:47/67 21:55	05:45 07:33-08:56/83 20:54 06:40-07:22/42	06:47 19:34	07:48 18:14	07:55 10:39-11:09/30 16:06	08:45 10:43-11:26/43 15:38
17	04:49 07:39-08:48/69 21:54	05:47 07:34-08:56/82 20:52 06:40-07:21/41	06:49 19:31	07:50 18:12	07:57 10:38-11:10/32 16:04	08:46 10:44-11:26/42 15:38
18	04:51 07:39-08:48/69 21:52	05:49 07:34-08:56/82 20:49 06:39-07:20/41	06:51 19:28	07:52 18:09	07:59 10:38-11:12/34 16:02	08:46 10:44-11:27/43 15:38
19	04:52 07:39-08:49/70 21:51	05:51 07:34-08:55/81 20:47 06:38-07:19/41	06:53 19:26	07:54 18:07	08:01 10:37-11:13/36 16:01	08:47 10:45-11:27/42 15:38
20	04:54 07:38-08:49/71 21:49	05:53 07:35-08:55/80 20:45 06:37-07:19/42	06:55 19:23	07:57 18:04	08:03 10:36-11:13/37 15:59	08:48 10:45-11:27/42 15:38
21	04:55 07:38-08:51/73 21:48	05:55 07:35-08:54/79 20:42 06:37-07:18/41	06:57 19:20	07:59 18:02	08:05 10:35-11:14/39 15:57	08:48 10:46-11:28/42 15:39
22	04:57 07:38-08:52/74 21:46	05:57 07:36-08:53/77 20:40 06:36-07:16/40	06:59 19:18	08:01 17:59	08:07 10:36-11:15/39 15:56	08:49 10:46-11:28/42 15:39
23	04:59 07:37-08:52/75 21:45	05:59 07:36-08:53/77 20:37 06:36-07:15/39	07:01 08:14-08:25/11 19:15	08:03 17:57	08:09 10:36-11:16/40 15:54	08:50 10:47-11:29/42 15:40
24	05:01 07:38-08:53/75 21:43	06:01 07:37-08:52/75 20:35 06:36-07:13/37	07:03 08:11-08:27/16 19:12	08:05 17:54	08:11 10:35-11:16/41 15:53	08:50 10:47-11:29/42 15:40
25	05:02 07:37-08:53/76 21:41	06:03 07:36-08:50/74 20:32 06:36-07:10/34	07:05 08:08-08:29/21 19:10	07:07 16:52	08:13 10:35-11:17/42 15:52	08:50 10:47-11:30/43 15:41
26	05:04 07:37-08:54/77 21:39	06:05 07:37-08:49/72 20:29 06:35-07:07/32	07:07 08:07-08:30/23 19:07	07:09 16:50	08:15 10:36-11:18/42 15:50	08:51 10:47-11:30/43 15:42
27	05:06 07:37-08:55/78 21:37	06:07 07:38-08:48/70 20:27 06:37-07:03/26	07:09 08:06-08:32/26 19:04	07:12 16:47	08:17 10:36-11:18/42 15:49	08:51 10:48-11:30/42 15:42
28	05:08 07:36-08:54/78 21:36	06:09 07:39-08:46/67 20:24 06:39-06:54/15	07:11 08:05-08:32/27 19:01	07:14 16:45	08:19 10:36-11:19/43 15:48	08:51 10:48-11:31/43 15:43
29	05:10 07:36-08:55/79 21:34	06:11 07:40-08:45/65 20:22 06:41-06:52/11	07:13 08:04-08:32/28 18:59	07:16 16:43	08:21 10:36-11:19/43 15:47	08:51 10:49-11:32/43 15:44
30	05:12 07:36-08:56/80 21:32	06:13 07:41-08:43/62 20:19 06:43-06:50/7	07:15 08:03-08:32/29 18:56	07:18 16:40	08:22 10:36-11:20/44 15:46	08:51 10:49-11:32/43 15:45
31	05:13 07:35-08:56/81 21:30	06:15 07:42-08:42/60 20:16		07:20 16:38		08:51 10:50-11:33/43 15:46
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	2330	3548	489	243	682	1330

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B18 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (93)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:36 21:52
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:54
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:25 21:01	04:32 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58
6	08:49 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:12	04:28 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:14	04:28 22:03
11	08:45 16:03	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:15	04:27 22:04
12	08:44 16:04	07:52 17:10	06:42 18:11	06:19 20:16	05:08 21:17	04:27 22:05
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08
18	08:37 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09
19	08:36 16:17	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09
20	08:35 16:19	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:10
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:10
29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:09
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09
31	08:16 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	0	175	555	1083	0	682

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B18 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (93)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 05:15-05:39/24 22:09	05:15 21:28	06:17 07:30-08:25/55 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	04:31 05:15-05:39/24 22:08	05:17 21:26	06:19 07:29-08:25/56 20:11	07:19 18:51	07:24 16:34	08:26 15:44
3	04:32 05:16-05:39/23 22:08	05:19 21:23	06:21 07:29-08:25/56 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	04:32 05:17-05:39/22 22:07	05:21 21:21	06:23 07:28-08:24/56 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	04:33 05:18-05:38/20 22:06	05:23 21:19	06:25 07:27-08:25/58 20:03	07:25 08:36-08:44/8 18:43	07:31 16:27	08:31 15:41
6	04:34 05:18-05:38/20 22:06	05:25 21:17	06:27 07:27-08:24/57 20:01	07:27 08:32-08:47/15 18:40	07:33 16:25	08:32 15:41
7	04:36 05:19-05:38/19 22:05	05:27 21:15	06:29 07:27-08:24/57 19:58	07:29 08:30-08:48/18 18:37	07:35 16:23	08:34 15:40
8	04:37 05:20-05:37/17 22:04	05:29 21:13	06:31 07:28-08:24/56 19:55	07:31 08:28-08:49/21 18:35	07:38 16:21	08:35 15:40
9	04:38 05:21-05:36/15 22:03	05:31 21:10	06:33 07:28-08:24/56 19:53	07:33 08:27-08:50/23 18:32	07:40 16:19	08:36 15:39
10	04:39 05:22-05:35/13 22:02	05:33 21:08	06:35 07:28-08:23/55 19:50	07:35 08:27-08:51/24 18:30	07:42 16:17	08:38 15:39
11	04:40 05:24-05:33/9 22:01	05:35 21:06	06:37 07:29-08:23/54 19:47	07:38 08:26-08:51/25 18:27	07:44 16:15	08:39 15:38
12	04:42 05:27-05:32/5 22:00	05:37 21:04	06:39 07:29-08:22/53 19:45	07:40 08:25-08:51/26 18:24	07:46 16:13	08:40 15:38
13	04:43 21:59	05:39 21:01	06:41 07:30-08:21/51 19:42	07:42 08:25-08:51/26 18:22	07:48 16:11	08:41 15:38
14	04:45 21:58	05:41 20:59	06:43 07:31-08:20/49 19:39	07:44 08:25-08:50/25 18:19	07:50 16:09	08:42 15:38
15	04:46 21:56	05:43 20:57	06:45 07:33-08:19/46 19:36	07:46 08:24-08:50/26 18:17	07:53 16:07	08:43 15:38
16	04:48 21:55	05:45 20:54	06:47 07:35-08:18/43 19:34	07:48 08:25-08:50/25 18:14	07:55 16:06	08:44 15:38
17	04:49 21:54	05:47 20:52	06:49 07:37-08:16/39 19:31	07:50 08:26-08:49/23 18:12	07:57 16:04	08:45 15:38
18	04:51 21:52	05:49 20:49	06:51 07:40-08:13/33 19:28	07:52 08:26-08:47/21 18:09	07:59 16:02	08:46 15:38
19	04:52 21:51	05:51 07:52-07:56/4 20:47	06:53 07:42-08:11/29 19:26	07:54 08:27-08:46/19 18:07	08:01 16:01	08:47 15:38
20	04:54 21:49	05:53 07:46-08:02/16 20:44	06:55 07:43-08:09/26 19:23	07:56 08:29-08:45/16 18:04	08:03 15:59	08:48 15:38
21	04:56 21:48	05:55 07:43-08:05/22 20:42	06:57 07:46-08:06/20 19:20	07:59 08:31-08:42/11 18:02	08:05 15:57	08:48 15:39
22	04:57 21:46	05:57 07:41-08:07/26 20:39	06:59 07:50-08:01/11 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	04:59 21:44	05:59 07:39-08:12/33 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:40
24	05:01 21:43	06:01 07:38-08:16/38 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	05:03 21:41	06:03 07:35-08:17/42 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	05:04 21:39	06:05 07:34-08:19/45 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	05:06 21:37	06:07 07:33-08:20/47 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:43
28	05:08 21:35	06:09 07:32-08:21/49 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	05:10 21:34	06:11 07:31-08:22/51 20:22	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:44
30	05:12 21:32	06:13 07:31-08:23/52 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 07:30-08:24/54 20:16		07:20 16:38		08:51 15:46
Potential sun hours		529	469	385	324	247
Sum of minutes with flicker		211	479	1016	352	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B2 - NORDEX N175/6.X 6800 175.0 l-l hub: 179.0 m (TOT: 266.5 m) (102)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 09:00-09:29/29 16:45	07:11 07:55-08:20/25 17:47	06:49 19:53	05:32 20:55	04:36 21:52	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 08:30-09:01/31 16:36	08:24 15:45
2	08:50 15:49	08:13 09:00-09:30/30 16:47	07:08 07:55-08:19/24 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 08:30-09:01/31 16:34	08:26 15:44
3	08:50 15:50	08:11 09:00-09:31/31 16:49	07:05 07:56-08:18/22 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 08:30-09:02/32 16:31	08:27 15:43
4	08:50 15:52	08:09 09:00-09:32/32 16:52	07:03 07:57-08:17/20 17:54	06:41 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 08:30-09:02/32 16:29	08:29 15:42
5	08:49 15:53	08:07 09:00-09:32/32 16:54	07:00 07:58-08:14/16 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 08:29-09:01/32 16:27	08:31 15:41
6	08:49 15:55	08:05 09:00-09:32/32 16:56	06:58 08:01-08:12/11 17:58	06:35 20:03	05:21 21:06	04:31 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 08:30-09:02/32 16:25	08:32 15:41
7	08:48 15:56	08:02 09:00-09:32/32 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 08:38-08:46/8 18:37	07:35 08:30-09:01/31 16:23	08:34 15:40
8	08:47 15:58	08:00 09:01-09:32/31 17:01	06:53 18:02	06:30 20:07	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 08:34-08:49/15 18:35	07:38 08:31-09:02/31 16:21	08:35 15:39
9	08:47 15:59	07:58 09:00-09:31/31 17:03	06:50 18:05	06:27 20:09	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:33 08:32-08:50/18 18:32	07:40 08:31-09:01/30 16:19	08:36 15:39
10	08:46 16:01	07:56 09:01-09:32/31 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 08:31-08:52/21 18:30	07:42 08:31-09:00/29 16:17	08:38 15:39
11	08:45 16:03	07:54 09:02-09:31/29 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 08:30-08:53/23 18:27	07:44 08:32-09:00/28 16:15	08:39 15:38
12	08:44 16:04	07:52 09:02-09:30/28 17:10	06:42 18:11	06:19 20:16	05:08 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 08:29-08:53/24 18:24	07:46 08:33-08:59/26 16:13	08:40 15:38
13	08:43 16:06	07:49 09:03-09:30/27 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 08:28-08:53/25 18:22	07:48 08:35-08:59/24 16:11	08:41 15:38
14	08:42 16:08	07:47 09:04-09:28/24 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 08:27-08:53/26 18:19	07:51 08:35-08:58/23 16:09	08:43 15:38
15	08:41 16:10	07:45 09:06-09:27/21 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:57	06:45 19:36	07:46 08:28-08:54/26 18:17	07:53 08:36-08:57/21 16:07	08:44 15:38
16	08:40 16:12	07:42 09:07-09:25/18 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 08:27-08:53/26 18:14	07:55 08:39-08:56/17 16:06	08:45 15:38
17	08:39 16:13	07:40 09:10-09:23/13 17:21	06:29 18:22	06:07 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 08:27-08:53/26 18:12	07:57 08:40-08:54/14 16:04	08:45 15:38
18	08:37 16:15	07:38 08:05-08:12/7 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 08:27-08:52/25 18:09	07:59 08:44-08:52/8 16:02	08:46 15:38
19	08:36 16:17	07:35 08:03-08:16/13 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 08:28-08:52/24 18:07	08:01 16:01	08:47 15:38
20	08:35 16:19	07:33 08:00-08:17/17 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:54 21:49	05:53 20:44	06:55 19:23	07:57 08:29-08:50/21 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:31 07:59-08:19/20 17:30	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 08:29-08:49/20 18:02	08:05 15:57	08:48 15:39
22	08:32 16:23	07:28 07:57-08:20/23 17:32	06:15 18:32	05:54 20:37	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:18	08:01 08:31-08:47/16 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:26 07:57-08:21/24 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 08:34-08:46/12 17:57	08:09 15:54	08:49 15:40
24	08:29 09:10-09:18/8 16:28	07:23 07:56-08:21/25 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 09:43-09:49/6 17:54	08:11 15:53	08:50 15:40
25	08:27 09:07-09:21/14 16:30	07:21 07:55-08:21/26 17:39	06:07 18:38	05:47 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:10	07:07 08:38-08:53/15 16:52	08:13 15:52	08:50 15:41
26	08:25 09:06-09:23/17 16:32	07:18 07:55-08:21/26 17:41	06:05 18:40	05:44 20:45	04:43 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 08:37-08:56/19 16:50	08:15 15:50	08:50 15:42
27	08:24 09:04-09:25/21 16:34	07:16 07:55-08:21/26 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:12 08:35-08:57/22 16:47	08:17 15:49	08:51 15:42
28	08:22 09:03-09:26/23 16:36	07:13 07:55-08:21/26 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 08:33-08:58/25 16:45	08:19 15:48	08:51 15:43
29	08:20 09:03-09:27/24 16:38	07:11 07:55-08:21/26 17:45	05:57 18:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 08:33-08:59/26 16:43	08:21 15:47	08:51 15:44
30	08:18 09:02-09:29/27 16:41	07:11 07:55-08:21/26 17:45	05:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 08:31-09:00/29 16:40	08:22 15:46	08:51 15:45
31	08:16 09:02-09:30/28 16:43	07:11 07:55-08:21/26 17:45	05:51 19:51	05:32 21:51	04:37 21:51	04:29 22:10	05:13 21:30	06:15 20:16	07:20 16:38	07:20 08:30-09:00/30 16:38	08:24 15:46	08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Sum of minutes with flicker	162	704	118	0	0	0	0	0	0	533	472	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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B22 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (94)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 09:41-11:03/82 12:55-13:17/22 15:48 13:26-14:29/63 12:31-12:47/16	08:15 09:33-10:49/76 08:51-09:26/35 15:48 13:35-14:49/74	07:11 15:56-16:56/60 17:47 08:40-09:16/36	06:49 07:44-08:17/33 19:53	05:32 06:54-07:02/8 06:00-06:33/33 20:55 20:17-20:23/6	04:36 21:52
2	08:50 09:41-11:04/83 12:56-13:17/21 15:49 13:27-14:30/63 12:32-12:47/15	08:13 09:34-10:49/75 08:51-09:26/35 16:47 13:36-14:49/73	07:08 15:56-16:55/59 17:50 08:41-09:04/23	06:46 07:45-08:14/29 19:55	05:30 20:14-20:25/11 20:57 05:59-06:32/33	04:35 21:54
3	08:50 09:40-11:04/84 12:57-13:16/19 15:51 13:26-14:31/65 12:33-12:46/13	08:11 09:36-10:48/72 08:51-09:26/35 16:50 13:38-14:49/71	07:06 15:56-16:54/58 17:52 08:44-09:02/18	06:43 07:48-08:12/24 19:57	05:28 20:13-20:27/14 20:59 05:59-06:30/31	04:34 21:55
4	08:50 09:39-11:04/85 12:58-13:14/16 15:52 13:26-14:32/66 12:34-12:45/11	08:09 09:36-10:48/72 08:51-09:26/35 16:52 13:39-14:49/70	07:03 15:56-16:53/57 17:54 08:47-08:58/11	06:41 07:12-07:25/13 19:59	05:26 20:12-20:29/17 05:59-06:21/22 21:02 06:23-06:27/4	04:33 21:57
5	08:49 09:39-11:06/87 13:00-13:14/14 12:37-12:45/8 15:53 13:27-14:33/66 09:36-09:38/2	08:07 09:37-10:47/70 08:51-09:26/35 16:54 13:41-14:49/68	07:00 15:56-16:52/56 17:56	06:38 07:08-07:27/19 20:01	05:23 20:11-20:31/20 21:04 05:59-06:20/21	04:32 21:58
6	08:49 09:33-11:06/93 13:01-13:13/12 15:55 13:27-14:34/67	08:05 09:36-10:45/69 08:51-09:25/34 16:56 13:42-14:47/65	06:58 15:56-16:53/57 17:58	06:35 07:06-07:30/24 20:03	05:21 20:11-20:32/21 21:06 05:59-06:20/21	04:31 21:59
7	08:48 09:32-11:06/94 13:03-13:12/9 15:56 13:27-14:35/68	08:03 09:37-10:44/67 08:47-09:25/38 16:59 13:44-14:47/63	06:55 15:56-16:52/56 18:00	06:33 07:04-07:31/27 20:05	05:19 20:10-20:33/23 21:08 05:59-06:19/20	04:30 22:00
8	08:47 09:31-11:06/95 15:58 13:27-14:36/69	08:00 09:38-10:43/65 08:45-09:27/42 17:01 13:47-14:46/59	06:53 15:57-16:51/54 18:03	06:30 07:03-07:33/30 20:08	05:17 20:10-20:33/23 21:10 06:00-06:19/19	04:29 22:01
9	08:47 09:30-11:06/96 15:59 13:27-14:37/70	07:58 09:38-10:40/62 08:43-09:27/44 17:03 13:49-14:45/56 08:27-08:32/5	06:50 15:58-16:50/52 18:05	06:28 06:53-07:33/40 20:10	05:15 20:10-20:33/23 21:12 06:00-06:18/18	04:29 22:02
10	08:46 09:30-11:07/97 16:01 13:28-14:38/70	07:56 09:39-10:36/57 14:01-14:44/43 08:25-08:35/10 17:05 13:56-14:00/4 08:41-09:28/47	06:47 15:58-16:49/51 18:07	06:25 06:50-07:33/43 20:12	05:13 20:09-20:33/24 21:14 06:01-06:17/16	04:28 22:03
11	08:45 09:30-11:07/97 16:03 13:28-14:39/71	07:54 09:40-10:27/47 08:23-08:36/13 17:08 14:03-14:42/39 08:41-09:29/48	06:45 15:59-16:48/49 18:09	06:22 06:48-07:34/46 20:14	05:11 20:09-20:33/24 21:16 06:02-06:15/13	04:27 22:04
12	08:44 09:30-11:07/97 16:05 13:27-14:39/72	07:52 09:40-10:24/44 08:20-08:37/17 17:10 14:04-14:40/36 08:39-09:29/50	06:42 07:13-07:18/5 18:11 16:01-16:47/46	06:20 06:45-07:34/49 20:16	05:08 20:09-20:33/24 21:18 06:04-06:13/9	04:27 22:05
13	08:43 09:29-11:07/98 16:06 13:28-14:40/72	07:49 09:42-10:23/41 08:18-09:30/72 17:12 14:07-14:37/30	06:39 07:08-07:22/14 18:13 16:02-16:45/43	06:17 06:43-07:34/51 20:18	05:06 20:10-20:32/22 21:20	04:26 22:06
14	08:42 09:29-11:07/98 16:08 13:28-14:42/74	07:47 09:42-10:21/39 08:17-09:30/73 17:14 14:10-14:31/21	06:37 07:05-07:24/19 18:15 16:04-16:42/38	06:14 06:40-07:34/54 20:20	05:04 20:11-20:33/22 21:22	04:26 22:07
15	08:41 09:29-11:08/99 16:10 13:28-14:42/74	07:45 09:44-10:20/36 17:17 08:16-09:30/74	06:34 07:04-07:26/22 18:17 16:07-16:39/32	06:12 06:41-07:34/53 20:22	05:03 20:11-20:32/21 21:23	04:26 22:07
16	08:40 09:28-11:07/99 16:12 13:28-14:43/75	07:43 09:46-10:16/30 08:15-09:30/75 17:19 16:14-16:24/10	06:32 07:02-07:27/25 18:20 16:13-16:18/5	06:09 06:40-07:33/53 20:24	05:01 20:11-20:31/20 21:25	04:25 22:08
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Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	5502	3978	1538	1382	656	58

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B22 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (94)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 20:20-20:43/23	06:17 06:47-07:33/46	07:17 07:50-08:00/10	07:23 09:08-10:07/59 08:11-08:58/47	08:24 09:12-10:49/97
2	04:31 22:08	05:18 20:20-20:43/23	06:19 06:49-07:32/43	07:19 16:39-17:26/47	16:36 13:24-14:13/49 07:55-08:04/9	15:45 13:10-14:21/71
3	04:32 22:08	05:19 20:20-20:43/23	06:21 06:51-07:31/40	07:21 16:37-17:27/50	16:34 13:18-14:14/56 07:57-08:01/4	15:44 13:11-14:21/70
4	04:33 22:08	05:21 20:20-20:43/23	06:23 07:00-07:30/30	07:23 16:35-17:27/52	16:32 13:16-14:16/60	15:43 13:10-14:20/70
5	04:34 22:07	05:22 20:20-20:43/23	06:25 06:53-06:55/2	07:25 16:34-17:28/54	16:29 13:13-14:17/64	15:42 13:11-14:20/69
6	04:35 22:07	05:23 20:19-20:42/23	06:25 07:01-07:28/27	07:25 16:34-17:28/54	07:31 09:06-10:15/69 08:22-08:56/34	08:31 09:17-10:51/94 12:49-12:57/8
7	04:36 22:06	05:24 20:20-20:42/22	06:27 07:02-07:25/23	07:27 16:33-17:28/55	16:27 13:11-14:17/66	15:42 13:12-14:20/68
8	04:37 22:06	05:25 20:20-20:42/21	06:29 07:03-07:23/20	07:29 16:32-17:28/56	07:33 09:06-10:17/71 08:21-08:56/35	08:32 09:19-10:52/93 12:48-12:59/11
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63	05:32 22:00	06:21 06:47-06:22/5	07:15 07:47-08:03/16	09:17 16:43-17:24/41	16:30 13:27-14:07/40 08:10-08:59/49	15:47 13:26-14:28/62 09:42-09:49/7
64	05:33 22:00	06:22 06:47-06:22/5	07:15 07:47-08:03/16	09:19 16:43-17:24/41	16:28 13:26-14:06/40 08:10-08:59/49	15:47 13:26-14:28/62 09:42-09:49/7
65	05:34 22:00	06:23 06:47-06:22/5	07:15 07:47-08:03/16	09:21 16:43-17:24/41	16:26 13:25-14:05/40 08:10-08:59/49	15:47 13:26-14:28/62 09:42-09:49/7
66	05:35 22:00	06:24 06:47-06:22/5	07:15 07:47-08:03/16	09:23 16:43-17:24/41	16:24 13:24-14:04/40 08:10-08:59/49	15:47 13:26-14:28/62 09:42-09:49/7
67	05:36 22:00	06:25 06:47-06:22/5	07:15 07:47-08:03/16	09:25 16:43-17:24/41	16:22 13:23-14:03/40 08:10-08:59/49	15:47 13:26-14:28/62 09:42-09:49/7
68	05:37 22:00	06:26 06:47-06:22/5	07:15 07:47-08:03/16	09:27 16:43-17:24/41	16:20 13:22-14:02/40 08:	

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B23 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (97)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48 08:50 15:49	08:14 16:45 08:13 16:47	07:10 17:47 07:08 17:49	06:48 19:53 07:11-07:29/18 19:55	05:32 20:55 05:30 20:57	04:36 21:52 04:34 21:54	04:30 22:09 04:31 22:08	05:15 21:28 05:17 21:26	06:17 20:14 06:59-07:28/29 20:11	07:17 18:53 07:19 18:51	07:22 16:36 07:24 16:34	08:24 15:45 08:26 15:44
2	08:50 15:50 08:49 15:52	08:11 16:49 08:09 17:54	07:05 17:52 07:03 17:54	06:43 19:57 07:06-07:30/24 19:59	05:28 20:59 05:25 21:01	04:33 21:55 04:32 21:56	04:31 22:08 04:32 22:07	05:19 21:23 05:21 21:21	06:23 20:08 06:58-07:27/29 20:06	07:21 18:48 07:23 18:45	07:27 16:31 07:29 16:29	08:27 15:43 08:29 15:42
3	08:49 15:53 08:48 15:55	08:07 16:54 08:04 16:56	07:00 17:56 06:58 17:58	06:38 20:01 07:03-07:31/28 20:03	05:23 21:03 05:21 21:05	04:31 21:58 04:31 21:59	04:33 22:06 04:34 22:06	05:23 21:19 05:25 21:17	06:25 20:03 06:58-07:26/28 20:01	07:25 18:43 07:27 18:40	07:31 16:27 07:33 16:25	08:30 15:41 08:32 15:41
4	08:48 15:56 08:47 15:58	08:02 16:58 08:00 17:01	06:55 18:00 06:52 18:02	06:33 20:05 07:02-07:30/28 20:07	05:19 21:07 05:17 21:09	04:30 22:00 04:29 22:01	04:36 22:05 04:37 22:04	05:27 21:15 05:29 21:13	06:29 19:58 07:00-07:25/25 19:55	07:29 18:37 07:31 18:35	07:35 16:23 07:38 16:21	08:33 15:40 08:35 15:39
5	08:47 15:59 08:46 16:01	07:58 17:03 07:56 17:05	06:50 18:05 06:47 18:07	06:27 20:09 07:01-07:30/29 20:11	05:14 21:11 05:12 21:13	04:28 22:02 04:28 22:03	04:38 22:03 04:39 22:03	05:31 21:10 05:33 21:10	06:33 19:53 07:04-07:22/18 19:50	07:33 18:32 07:35 18:30	07:40 16:19 07:42 16:17	08:36 15:39 08:38 15:39
6	08:46 16:01 08:45 16:03	07:54 17:05 07:54 17:07	06:45 18:07 06:42 18:09	06:22 20:11 07:01-07:28/27 20:14	05:10 21:13 05:08 21:15	04:27 22:03 04:27 22:04	05:35 21:08 05:37 21:06	05:35 21:06 05:37 21:04	06:37 19:50 07:06-07:20/14 19:47	07:37 18:30 07:40 18:27	07:44 16:17 07:46 16:15	08:39 15:39 08:40 15:38
7	08:44 16:04 08:43 16:06	07:51 17:07 07:49 17:12	06:39 18:09 06:39 18:13	06:19 20:16 07:01-07:26/25 20:18	05:08 21:17 05:06 21:19	04:27 22:04 04:26 22:06	05:37 21:06 05:39 21:01	05:37 21:04 05:39 21:01	06:39 19:44 07:08-07:17/9 19:42	07:40 18:24 07:42 18:22	07:46 16:13 07:48 16:11	08:40 15:38 08:41 15:38
8	08:42 16:06 08:41 16:08	07:47 17:12 07:44 17:15	06:37 18:13 06:34 18:15	06:14 20:20 07:02-07:23/21 20:22	05:04 21:21 05:02 21:22	04:26 22:06 04:25 22:06	05:41 21:01 05:43 21:01	05:41 21:01 05:43 21:01	06:43 19:42 07:06-07:20/14 19:39	07:44 18:22 07:46 18:19	07:50 16:11 07:52 16:09	08:42 15:38 08:43 15:38
9	08:41 16:10 08:40 16:12	07:45 17:16 07:42 17:19	06:34 18:17 06:31 18:19	06:12 20:22 07:03-07:21/18 20:24	05:02 21:23 05:00 21:25	04:25 22:07 04:25 22:08	05:43 21:06 05:45 21:04	05:43 21:06 05:45 21:04	06:45 19:36 07:06-07:20/14 19:34	07:46 18:17 07:48 18:14	07:53 16:07 07:55 16:06	08:43 15:38 08:44 15:38
10	08:38 16:13 08:37 16:15	07:40 17:21 07:38 17:23	06:29 18:21 06:26 18:24	06:07 20:26 07:08-07:14/6 20:28	04:58 21:27 04:57 21:29	04:25 22:08 04:25 22:09	05:47 21:04 05:49 21:01	05:47 21:04 05:49 21:01	06:49 19:31 07:08-07:17/9 19:28	07:50 18:12 07:52 18:09	07:57 16:04 07:59 16:02	08:45 15:38 08:46 15:38
11	08:36 16:17 08:35 16:19	07:35 17:25 07:33 17:27	06:23 18:26 06:21 18:28	06:01 20:30 07:01-07:26/25 20:32	04:55 21:31 04:54 21:33	04:25 22:09 04:25 22:09	05:51 21:01 05:51 21:01	05:51 21:01 05:51 21:01	06:53 19:26 07:08-07:17/9 19:23	07:54 18:07 07:56 18:04	08:01 16:01 08:03 15:59	08:47 15:38 08:48 15:38
12	08:33 16:21 08:32 16:23	07:30 17:30 07:28 17:32	06:18 18:30 06:15 18:32	05:56 20:34 06:14 20:36	04:51 21:34 04:50 21:36	04:25 22:10 04:25 22:10	05:55 21:48 05:57 21:46	05:55 21:48 05:57 21:46	06:57 19:20 07:08-07:17/9 19:18	07:59 18:02 08:01 17:59	08:05 15:57 08:07 15:56	08:48 15:39 08:49 15:39
13	08:30 16:26 08:29 16:28	07:26 17:34 07:23 17:36	06:13 18:34 06:10 18:36	05:51 20:39 06:12 20:41	04:48 21:38 04:46 21:40	04:25 22:10 04:25 22:10	05:59 21:44 06:01 21:43	05:59 21:44 06:01 21:43	07:01 19:15 07:03 19:12	08:03 17:57 08:05 17:54	08:09 15:54 08:11 15:53	08:49 15:40 08:50 15:40
14	08:27 16:30 08:25 16:32	07:21 17:39 07:18 17:41	06:07 18:38 06:05 18:40	05:47 20:43 05:44 20:45	04:45 21:41 04:43 21:43	04:26 22:10 04:27 22:10	06:03 21:32 06:05 21:39	06:03 21:32 06:05 21:39	07:05 19:09 07:07 19:07	08:07 16:52 08:09 16:50	08:13 15:52 08:15 15:50	08:50 15:41 08:50 15:42
15	08:24 16:34 08:22 16:36	07:16 17:43 07:13 17:45	06:02 18:42 05:59 18:44	05:42 20:47 05:39 20:49	04:42 21:45 04:41 21:46	04:27 22:10 04:28 22:10	06:06 21:27 06:09 21:35	06:06 21:27 06:09 21:35	07:09 19:04 07:11 19:01	08:11 16:47 08:13 16:45	08:17 15:49 08:19 15:48	08:50 15:43 08:51 15:43
16	08:20 16:38 08:18 16:41	07:13 17:46 07:10 17:49	05:59 18:44 06:54 19:46	05:39 20:49 05:37 20:51	04:41 21:46 04:39 21:48	04:28 22:10 04:28 22:09	06:09 21:24 06:11 21:22	06:09 21:24 06:11 21:22	07:13 18:59 07:15 18:56	08:19 16:43 08:21 16:40	08:51 15:48 08:52 15:46	08:51 15:45 08:51 15:45
17	08:16 16:43	07:06 17:51	07:16-07:24/8 19:51	05:35 20:53 04:37 21:51	04:38 21:49 04:37 21:51	04:29 22:09 04:30 21:52	06:13 21:32 06:15 21:30	07:01-07:26/25 21:32 07:00-07:27/27 21:30	07:15 18:56 07:17 18:58	08:22 16:40 08:24 16:38	08:51 15:45 08:51 15:46	08:51 15:45 08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Sum of minutes with flicker	0	0	8	382	0	0	0	112	284	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B24 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (95)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 08:45-09:20/35 16:45 15:29-15:49/20	07:11 15:36-15:44/8 17:48	06:49 07:14-07:29/15 19:53 07:33-07:53/20	05:33 20:55	04:36 05:27-06:00/33 21:52
2	08:50 15:49	08:13 08:43-09:21/38 16:47 15:27-15:52/25	07:08 17:09-17:20/11 17:50	06:46 07:11-07:30/19 19:55 07:34-07:51/17	05:30 20:57	04:35 05:26-06:01/35 21:54
3	08:50 15:51	08:11 08:43-09:21/38 16:50 15:26-15:53/27	07:06 17:08-17:23/15 17:52	06:43 07:10-07:31/21 19:57 07:35-07:50/15	05:28 20:59	04:34 05:26-06:01/35 21:55
4	08:50 15:52	08:09 08:42-09:21/39 16:52 15:25-15:55/30	07:03 17:06-17:24/18 17:54	06:41 07:09-07:31/22 19:59 07:37-07:47/10	05:26 21:01	04:33 05:26-06:03/37 21:56
5	08:49 15:53	08:07 08:42-09:21/39 16:54 15:23-15:56/33	07:00 17:04-17:25/21 17:56	06:38 07:08-07:31/23 20:01	05:23 20:21-20:31/10 21:04	04:32 05:26-06:03/37 21:58
6	08:49 15:55	08:05 08:41-09:20/39 16:56 15:22-15:57/35	06:58 17:04-17:26/22 17:58	06:35 07:08-07:31/23 20:03	05:21 20:19-20:33/14 21:06	04:31 05:26-06:03/37 21:59
7	08:48 15:56	08:03 08:42-09:19/37 16:59 15:22-15:58/36	06:55 17:03-17:26/23 18:00	06:33 07:07-07:30/23 20:05	05:19 20:17-20:35/18 21:08	04:30 05:26-06:04/38 22:00
8	08:47 15:58	08:00 08:42-09:19/37 17:01 15:22-15:59/37	06:53 17:02-17:26/24 18:03	06:30 07:08-07:30/22 20:07	05:17 20:16-20:36/20 21:10	04:29 05:26-06:04/38 22:01
9	08:47 16:00	07:58 08:42-09:17/35 17:03 15:20-15:59/39	06:50 17:02-17:26/24 18:05	06:28 07:07-07:29/22 20:10	05:15 20:15-20:36/21 21:12	04:29 05:25-06:04/39 22:02
10	08:46 16:01	07:56 08:43-09:15/32 17:05 15:20-16:00/40	06:47 17:02-17:26/24 18:07	06:25 07:07-07:28/21 20:12	05:13 20:14-20:37/23 21:14	04:28 05:26-06:05/39 22:03
11	08:45 16:03	07:54 08:43-09:12/29 17:08 15:19-16:00/41	06:45 17:01-17:25/24 18:09	06:22 07:09-07:27/18 20:14	05:11 20:14-20:37/23 21:16	04:27 05:26-06:06/40 22:04
12	08:44 16:05	07:52 08:44-09:07/23 17:10 15:19-16:01/42	06:42 17:01-17:23/22 18:11	06:20 07:09-07:25/16 20:16	05:09 20:13-20:37/24 21:18	04:27 05:25-06:05/40 22:05
13	08:43 16:06	07:49 08:45-09:04/19 17:12 15:20-16:02/42	06:39 17:03-17:23/20 18:13	06:17 07:11-07:23/12 20:18	05:07 20:13-20:37/24 21:20	04:26 05:26-06:06/40 22:06
14	08:42 16:08	07:47 08:46-09:02/16 17:14 15:19-16:01/42	06:37 17:03-17:21/18 18:15	06:14 07:15-07:18/3 20:20	05:05 20:13-20:38/25 21:21	04:26 05:26-06:06/40 22:06
15	08:41 16:10	07:45 08:48-09:00/12 17:17 15:19-16:02/43	06:34 17:05-17:19/14 18:17	06:12 20:22	05:03 20:13-20:38/25 21:23	04:26 05:26-06:07/41 22:07
16	08:40 16:12	07:42 08:52-08:55/3 17:19 15:19-16:01/42	06:32 17:08-17:17/9 18:20	06:09 20:24	05:01 20:12-20:38/26 21:25	04:26 05:26-06:06/40 22:08
17	08:39 16:14	07:40 15:19-16:02/43 17:21 18:22	06:29 18:22	06:07 20:26	04:59 20:13-20:39/26 21:27	04:25 05:26-06:07/41 22:08
18	08:37 16:16	07:38 15:19-16:01/42 17:23 18:24	06:26 06:51-06:55/4 18:24	06:04 20:28	04:57 20:13-20:38/25 21:29	04:25 05:26-06:07/41 22:09
19	08:36 16:18	07:35 15:20-16:01/41 17:26 18:26	06:24 06:49-06:59/10 18:26	06:02 20:30	04:55 20:13-20:38/25 21:31	04:25 05:26-06:07/41 22:09
20	08:35 16:20	07:33 15:20-16:00/40 17:28 18:28	06:21 06:46-07:00/14 18:28	05:59 20:32	04:53 20:14-20:38/24 21:33	04:25 05:27-06:08/41 22:10
21	08:33 16:22	07:31 15:21-16:00/39 17:30 18:30	06:18 06:43-07:01/18 18:30	05:57 20:35	04:52 20:13-20:37/24 21:35	04:25 05:27-06:08/41 22:10
22	08:32 09:05-09:09/4 16:24	07:28 15:21-15:59/38 17:32 18:32	06:15 06:41-07:02/21 18:32	05:54 20:37	04:50 05:37-05:48/11 21:36	04:26 05:27-06:08/41 22:10
23	08:30 09:03-09:12/9 16:26	07:26 15:23-15:58/35 17:34 18:34	06:13 06:38-07:02/24 18:34	05:52 20:39	04:48 05:35-05:51/16 21:38	04:26 05:27-06:08/41 22:10
24	08:29 09:02-09:14/12 16:28	07:23 15:23-15:57/34 17:37 18:36	06:10 06:35-07:02/27 18:36	05:49 20:41	04:47 05:33-05:52/19 21:40	04:26 05:28-06:09/41 22:10
25	08:27 09:00-09:16/16 16:30	07:21 15:24-15:55/31 17:39 18:38	06:07 06:35-07:02/27 18:38	05:47 20:43	04:45 05:32-05:54/22 21:42	04:26 05:28-06:09/41 22:10
26	08:25 08:58-09:17/19 16:32	07:18 15:26-15:54/28 17:41 18:40	06:05 06:34-07:01/27 18:40	05:44 20:45	04:44 05:31-05:56/25 21:43	04:27 05:28-06:08/40 22:10
27	08:24 08:56-09:18/22 16:34	07:16 15:28-15:51/23 17:43 18:43	06:02 06:33-07:00/27 18:43	05:42 20:47	04:42 05:30-05:57/27 21:45	04:27 05:29-06:09/40 22:10
28	08:22 08:54-09:19/25 16:36	07:13 15:31-15:49/18 17:45 18:45	05:59 06:33-07:00/27 18:45	05:40 20:49	04:41 05:28-05:57/29 21:46	04:28 05:29-06:10/41 22:10
29	08:20 08:52-09:20/28 16:39	07:11 15:31-15:49/18 17:45 18:45	06:57 07:32-07:59/27 19:47	05:37 20:51	04:40 05:28-05:58/30 21:48	04:29 05:29-06:09/40 22:10
30	08:18 08:50-09:20/30 16:41 15:35-15:42/7	07:09 15:31-15:49/18 17:45 18:45	06:54 07:19-07:24/5 19:49 07:32-07:57/25	05:35 20:53	04:38 05:27-05:59/32 21:49	04:29 05:30-06:10/40 22:09
31	08:16 08:48-09:21/33 16:43 15:31-15:46/15	07:07 15:31-15:49/18 17:45 18:45	06:51 07:17-07:28/11 19:51 07:33-07:55/22	05:37 20:53	04:37 05:27-06:00/33 21:51	04:29 05:30-06:10/40 22:09
Potential sun hours	235	266	366	426	508	528
Sum of minutes with flicker	220	1457	613	322	786	1179

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B24 - NORDEX N175/6.X 6800 175.0 !- hub: 179.0 m (TOT: 266.5 m) (95)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July		August		September		October		November		December	
1	04:30	05:30-06:10/40	05:16	20:24-20:48/24	06:17	07:08-07:26/18	07:17	17:42-18:03/21	07:22	08:12-08:45/33	08:24	
	22:09		21:28		20:14		18:54		16:36	14:50-15:30/40	15:45	
2	04:31	05:30-06:09/39	05:18	20:24-20:47/23	06:19	07:06-07:27/21	07:19	17:41-18:03/22	07:25	08:11-08:47/36	08:26	
	22:08		21:26		20:11		18:51		16:34	14:50-15:29/39	15:44	
3	04:32	05:30-06:09/39	05:20	20:25-20:47/22	06:21	07:05-07:27/22	07:21	17:40-18:03/23	07:27	08:12-08:49/37	08:27	
	22:08		21:24		20:09		18:48		16:32	14:51-15:29/38	15:43	
4	04:33	05:31-06:10/39	05:21	20:26-20:46/20	06:23	07:05-07:27/22	07:23	17:39-18:03/24	07:29	08:11-08:49/38	08:29	
	22:07		21:22		20:06		18:46		16:29	14:52-15:28/36	15:42	
5	04:34	05:31-06:10/39	05:23	20:26-20:45/19	06:25	07:04-07:27/23	07:25	17:39-18:03/24	07:31	08:11-08:49/38	08:31	
	22:07		21:19		20:03		18:43		16:27	14:52-15:27/35	15:42	
6	04:35	05:32-06:10/38	05:25	20:27-20:43/16	06:27	07:04-07:27/23	07:27	17:39-18:02/23	07:33	08:12-08:51/39	08:32	
	22:06		21:17		20:01		18:40		16:25	14:54-15:26/32	15:41	
7	04:36	05:32-06:09/37	05:27	20:29-20:41/12	06:29	07:03-07:26/23	07:29	17:39-18:02/23	07:36	08:12-08:51/39	08:34	
	22:05		21:15		19:58		18:38		16:23	14:55-15:25/30	15:40	
8	04:37	05:33-06:09/36	05:29	20:31-20:39/8	06:31	07:03-07:25/22	07:32	17:39-18:01/22	07:38	08:13-08:52/39	08:35	
	22:04		21:13		19:55	07:32-07:40/8	18:35		16:21	14:57-15:24/27	15:40	
9	04:38	05:33-06:09/36	05:31		06:33	07:03-07:24/21	07:34	17:39-17:59/20	07:40	08:14-08:51/37	08:36	
	22:03		21:11		19:53	07:29-07:43/14	18:32		16:19	14:58-15:22/24	15:39	
10	04:39	05:33-06:09/36	05:33		06:35	07:04-07:23/19	07:36	17:41-17:59/18	07:42	08:16-08:51/35	08:38	
	22:02		21:08		19:50	07:27-07:44/17	18:30		16:17	15:00-15:20/20	15:39	
11	04:41	05:35-06:09/34	05:35		06:37	07:06-07:22/16	07:38	17:42-17:56/14	07:44	08:19-08:52/33	08:39	
	22:01		21:06		19:47	07:25-07:45/20	18:27		16:15	15:03-15:18/15	15:39	
12	04:42	05:35-06:09/34	05:37		06:39	07:08-07:20/12	07:40	17:45-17:53/8	07:46	08:21-08:51/30	08:40	
	22:00	20:33-20:37/4	21:04		19:45	07:24-07:46/22	18:25		16:13	15:07-15:14/7	15:38	
13	04:43	05:36-06:08/32	05:39		06:41	07:10-07:17/7	07:42	16:06-16:19/13	07:48	08:24-08:51/27	08:41	
	21:59	20:31-20:39/8	21:01		19:42	07:23-07:48/25	18:22		16:11		15:38	
14	04:45	05:36-06:07/31	05:41		06:43	07:23-07:49/26	07:44	16:02-16:22/20	07:51	08:26-08:51/25	08:42	
	21:58	20:29-20:41/12	20:59		19:39		18:19		16:09		15:38	
15	04:46	05:38-06:07/29	05:43		06:45	07:22-07:50/28	07:46	16:00-16:25/25	07:53	08:28-08:50/22	08:44	
	21:56	20:28-20:42/14	20:57		19:37		18:17		16:08		15:38	
16	04:48	05:38-06:06/28	05:45		06:47	07:22-07:50/28	07:48	15:58-16:27/29	07:55	08:31-08:50/19	08:44	
	21:55	20:28-20:43/15	20:54		19:34		18:14		16:06		15:38	
17	04:49	05:39-06:05/26	05:47		06:49	07:22-07:50/28	07:50	15:56-16:28/32	07:57	08:33-08:49/16	08:45	
	21:54	20:26-20:44/18	20:52		19:31		18:12		16:04		15:38	
18	04:51	05:41-06:04/23	05:49		06:51	07:22-07:50/28	07:52	15:54-16:28/34	07:59	08:36-08:48/12	08:46	
	21:52	20:26-20:45/19	20:49		19:29		18:09		16:02		15:38	
19	04:53	05:42-06:03/21	05:51		06:53	07:23-07:49/26	07:54	15:53-16:29/36	08:01	08:38-08:47/9	08:47	
	21:51	20:25-20:46/21	20:47		19:26		18:07		16:01		15:38	
20	04:54	05:44-06:02/18	05:53		06:55	07:24-07:49/25	07:57	15:52-16:30/38	08:03	08:40-08:44/4	08:48	
	21:49	20:25-20:47/22	20:45		19:23		18:04		15:59		15:39	
21	04:56	05:45-05:59/14	05:55		06:57	07:26-07:48/22	07:59	15:51-16:30/39	08:05		08:48	
	21:48	20:24-20:47/23	20:42		19:20		18:02		15:58		15:39	
22	04:58	05:49-05:57/8	05:57		06:59	07:28-07:47/19	08:01	15:50-16:31/41	08:07		08:49	
	21:46	20:25-20:48/23	20:40		19:18		17:59		15:56		15:39	
23	04:59	20:24-20:48/24	05:59		07:01	07:30-07:45/15	08:03	15:50-16:31/41	08:09		08:49	
	21:44		20:37		19:15		17:57		15:55		15:40	
24	05:01	20:24-20:48/24	06:01		07:03	07:32-07:43/11	08:05	15:49-16:31/42	08:11		08:50	
	21:43		20:35		19:12		17:55		15:53		15:41	
25	05:03	20:23-20:48/25	06:03		07:05	07:34-07:40/6	07:07	14:49-15:31/42	08:13		08:50	
	21:41		20:32		19:10		16:52		15:52		15:41	
26	05:05	20:23-20:48/25	06:05		07:07		07:09	08:21-08:27/6	08:15		08:50	
	21:39		20:29		19:07		16:50	14:49-15:32/43	15:51		15:42	
27	05:06	20:23-20:49/26	06:07		07:09	17:51-17:56/5	07:12	08:17-08:30/13	08:17		08:51	
	21:37		20:27		19:04		16:47	14:49-15:31/42	15:49		15:43	
28	05:08	20:23-20:48/25	06:09		07:11	17:46-17:59/13	07:14	08:15-08:31/16	08:19		08:51	
	21:36		20:24		19:02		16:45	14:48-15:31/43	15:48		15:44	
29	05:10	20:23-20:49/26	06:11	07:15-07:20/5	07:13	17:44-18:01/17	07:16	08:14-08:33/19	08:20		08:51	
	21:34		20:22		18:59		16:43	14:49-15:31/42	15:47		15:45	
30	05:12	20:23-20:49/26	06:13	07:11-07:23/12	07:15	17:43-18:03/20	07:18	08:13-08:37/24	08:22		08:51	
	21:32		20:19		18:56		16:41	14:49-15:31/42	15:46		15:46	
31	05:14	20:24-20:49/25	06:15	07:09-07:25/16			07:20	08:12-08:42/30			08:51	
	21:30		20:17				16:38	14:49-15:30/41			15:47	
Potential sun hours	529		469		385		324		247		216	
Sum of minutes with flicker	1082		177		672		1035		911		186	

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B25 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 12:19-13:08/49 15:48	08:15 12:42-13:06/24 16:45	07:11 17:47 19:53	06:49 19:53 20:55	05:33 06:39-06:51/12 20:55	04:36 20:14-20:52/38 21:52
2	08:50 12:19-13:08/49 15:49	08:13 12:45-13:03/18 16:47	07:08 17:50 19:55	06:46 17:50 19:55	05:30 20:57 21:54	04:35 20:14-20:52/38 21:54
3	08:50 12:20-13:09/49 15:51	08:11 12:50-12:59/9 16:50	07:06 17:52 19:57	06:43 19:57 20:59	05:28 20:59 21:55	04:34 20:14-20:53/39 21:55
4	08:50 12:20-13:09/49 15:52	08:09 16:52 17:54	07:03 17:54 19:59	06:41 19:59 21:01	05:26 21:01 21:56	04:33 20:14-20:53/39 21:56
5	08:49 12:20-13:09/49 15:53	08:07 16:54 17:56	07:00 17:56 20:01	06:38 20:01 21:03	05:23 21:03 21:58	04:32 20:14-20:54/40 21:58
6	08:49 12:21-13:11/50 15:55	08:05 16:01-16:13/12 16:56	06:58 17:58 20:03	06:35 20:03 21:06	05:21 21:06 21:59	04:31 20:14-20:54/40 21:59
7	08:48 12:22-13:11/49 15:56	08:02 15:58-16:16/18 16:59	06:55 17:58 20:05	06:33 20:05 21:08	05:19 21:08 22:00	04:30 20:14-20:54/40 22:00
8	08:47 12:22-13:11/49 15:58	08:00 15:56-16:18/22 17:01	06:53 18:03 20:07	06:30 20:07 21:10	05:17 21:10 22:01	04:29 20:14-20:55/41 22:01
9	08:47 12:22-13:12/50 15:59	07:58 15:55-16:20/25 17:03	06:50 18:05 20:10	06:27 20:10 21:12	05:15 21:12 22:02	04:29 20:14-20:55/41 22:02
10	08:46 12:23-13:12/49 16:01	07:56 15:54-16:21/27 17:05	06:47 18:07 20:12	06:25 20:12 21:14	05:13 21:14 22:03	04:28 20:14-20:55/41 22:03
11	08:45 12:24-13:13/49 16:03	07:54 15:53-16:22/29 17:08	06:45 18:09 20:14	06:22 20:14 21:16	05:11 21:16 22:04	04:27 20:14-20:55/41 22:04
12	08:44 12:23-13:12/49 16:05	07:52 15:52-16:23/31 17:10	06:42 18:11 20:16	06:20 06:48-06:51/3 20:16	05:08 21:18 22:05	04:27 20:14-20:56/42 22:05
13	08:43 12:24-13:13/49 16:06	07:49 15:52-16:24/32 17:12	06:39 18:13 20:18	06:17 06:43-06:56/13 20:18	05:06 21:19 22:06	04:26 20:15-20:56/41 22:06
14	08:42 12:25-13:14/49 16:08	07:47 15:51-16:24/33 17:14	06:37 18:15 20:20	06:14 06:40-06:57/17 20:20	05:04 21:21 22:06	04:26 20:15-20:57/42 22:06
15	08:41 12:25-13:13/48 16:10	07:45 15:51-16:25/34 17:17	06:34 18:17 20:22	06:12 06:39-06:59/20 20:22	05:03 21:23 22:07	04:26 20:15-20:56/41 22:07
16	08:40 12:25-13:14/49 16:12	07:42 15:50-16:25/35 17:19	06:31 18:20 20:24	06:09 06:37-07:00/23 20:24	05:01 21:25 22:08	04:26 20:15-20:57/42 22:08
17	08:39 12:26-13:14/48 16:14	07:40 15:51-16:25/34 17:21	06:29 18:22 20:26	06:07 06:36-07:01/25 20:26	04:59 21:27 22:08	04:25 20:15-20:57/42 22:08
18	08:37 12:27-13:14/47 16:16	07:38 15:50-16:25/35 17:23	06:26 18:24 20:28	06:04 06:35-07:00/25 20:28	04:57 20:27-20:37/10 21:29	04:25 20:15-20:57/42 22:09
19	08:36 12:27-13:14/47 16:18	07:35 15:51-16:25/34 17:25	06:23 18:26 20:30	06:02 06:35-07:01/26 20:30	04:55 20:24-20:40/16 21:31	04:25 20:15-20:57/42 22:09
20	08:35 12:27-13:14/47 16:20	07:33 15:51-16:24/33 17:28	06:21 18:28 20:32	05:59 06:34-07:02/28 20:32	04:53 20:22-20:42/20 21:33	04:25 20:16-20:57/41 22:09
21	08:33 12:29-13:14/45 16:22	07:31 15:52-16:24/32 17:30	06:18 18:30 20:34	05:57 06:33-07:01/28 20:34	04:52 20:20-20:43/23 21:35	04:25 20:17-20:59/42 22:10
22	08:32 12:29-13:14/45 16:24	07:28 15:52-16:23/31 17:32	06:15 18:32 20:37	05:54 06:34-07:01/27 20:37	04:50 20:20-20:45/25 21:36	04:26 20:17-20:58/41 22:10
23	08:30 12:30-13:14/44 16:26	07:26 15:52-16:22/30 17:34	06:13 18:34 20:39	05:52 06:33-07:00/27 20:39	04:48 20:19-20:46/27 21:38	04:26 20:17-20:58/41 22:10
24	08:29 12:30-13:13/43 16:28	07:23 15:53-16:21/28 17:37	06:10 18:36 20:41	05:49 06:33-07:00/27 20:41	04:47 20:17-20:47/30 21:40	04:26 20:16-20:58/42 22:10
25	08:27 12:31-13:13/42 16:30	07:21 15:54-16:20/26 17:39	06:07 18:38 20:43	05:47 06:34-07:00/26 20:43	04:45 20:17-20:48/31 21:41	04:26 20:17-20:59/42 22:10
26	08:25 12:33-13:13/40 16:32	07:18 15:56-16:19/23 17:41	06:05 18:40 20:45	05:44 06:34-06:58/24 20:45	04:44 20:17-20:49/32 21:43	04:27 20:17-20:59/42 22:10
27	08:24 12:34-13:12/38 16:34	07:16 15:58-16:16/18 17:43	06:02 18:43 20:47	05:42 06:34-06:57/23 20:47	04:42 20:15-20:49/34 21:45	04:27 20:18-20:59/41 22:10
28	08:22 12:35-13:12/37 16:36	07:13 16:01-16:12/11 17:45	05:59 18:45 20:49	05:40 06:35-06:57/22 20:49	04:41 20:15-20:50/35 21:46	04:28 20:17-20:59/42 22:10
29	08:20 12:37-13:11/34 16:39		06:57 19:47 20:51	05:37 06:37-06:55/18 20:51	04:40 20:15-20:50/35 21:48	04:29 20:18-21:00/42 22:09
30	08:18 12:37-13:09/32 16:41		06:54 19:49 20:53	05:35 06:38-06:54/16 20:53	04:38 20:15-20:51/36 21:49	04:29 20:19-21:00/41 22:09
31	08:16 12:39-13:07/28 16:43		06:51 19:51 20:55		04:37 20:15-20:52/37 21:51	
Potential sun hours	235	266	366	426	508	528
Sum of minutes with flicker	1402	684	0	418	403	1229

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B25 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 20:18-20:59/41 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 15:24-15:51/27 16:36	08:24 12:06-12:55/49 15:45
2	04:31 20:19-21:00/41 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 15:25-15:49/24 16:34	08:26 12:05-12:54/49 15:44
3	04:32 20:19-21:00/41 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 15:26-15:47/21 16:32	08:27 12:06-12:55/49 15:43
4	04:33 20:20-21:00/40 22:07	05:21 21:21	06:23 20:06	07:23 18:46	07:29 15:28-15:46/18 16:29	08:29 12:06-12:55/49 15:42
5	04:34 20:20-21:00/40 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 15:31-15:42/11 16:27	08:31 12:07-12:56/49 15:42
6	04:35 20:20-21:00/40 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 12:08-12:57/49 15:41
7	04:36 20:21-21:00/39 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:34 12:07-12:56/49 15:40
8	04:37 20:21-21:00/39 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 12:20-12:30/10 16:21	08:35 12:08-12:57/49 15:40
9	04:38 20:21-21:00/39 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 12:15-12:34/19 16:19	08:36 12:08-12:57/49 15:39
10	04:39 20:21-21:00/39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 12:12-12:37/25 16:17	08:38 12:09-12:58/49 15:39
11	04:41 20:22-21:00/38 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 12:11-12:39/28 16:15	08:39 12:09-12:58/49 15:39
12	04:42 20:23-21:00/37 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 12:09-12:41/32 16:13	08:40 12:10-12:58/48 15:38
13	04:43 20:23-21:00/37 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 12:09-12:43/34 16:11	08:41 12:11-12:59/48 15:38
14	04:45 20:23-20:59/36 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 12:07-12:44/37 16:09	08:42 12:11-12:59/48 15:38
15	04:46 20:24-20:59/35 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 12:06-12:44/38 16:08	08:43 12:12-13:00/48 15:38
16	04:48 20:25-20:59/34 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 12:06-12:46/40 16:06	08:44 12:12-13:00/48 15:38
17	04:49 20:25-20:58/33 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 12:05-12:47/42 16:04	08:45 12:13-13:01/48 15:38
18	04:51 20:26-20:58/32 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 12:04-12:47/43 16:02	08:46 12:13-13:01/48 15:38
19	04:53 20:27-20:57/30 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 12:05-12:49/44 16:01	08:47 12:13-13:01/48 15:38
20	04:54 20:28-20:57/29 21:49	05:53 20:44	06:55 19:23	07:57 18:04	08:03 12:04-12:49/45 15:59	08:48 12:14-13:02/48 15:39
21	04:56 20:29-20:55/26 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 12:04-12:49/45 15:58	08:48 12:14-13:02/48 15:39
22	04:57 20:30-20:55/25 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 12:04-12:51/47 15:56	08:49 12:15-13:03/48 15:39
23	04:59 20:31-20:53/22 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 12:04-12:51/47 15:55	08:49 12:15-13:03/48 15:40
24	05:01 20:33-20:52/19 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 12:04-12:51/47 15:53	08:50 12:16-13:04/48 15:41
25	05:03 20:35-20:49/14 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 12:04-12:52/48 15:52	08:50 12:16-13:04/48 15:41
26	05:05 20:39-20:45/6 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 12:04-12:52/48 15:51	08:50 12:17-13:05/48 15:42
27	05:06 21:37 05:08	06:07 20:27	07:09 19:04	07:12 16:47	08:17 12:04-12:52/48 15:49	08:51 12:17-13:05/48 15:43
28	05:10 21:34 05:12	06:09 20:24	07:11 19:02	07:14 16:45	08:19 12:05-12:54/49 15:48	08:51 12:17-13:06/49 15:44
29	05:12 21:32 05:14	06:11 20:22	07:13 18:59	07:16 16:43	08:20 12:05-12:54/49 15:47	08:51 12:18-13:06/48 15:45
30	05:12 21:32 05:14	06:13 20:19	07:15 18:56	07:18 16:40	08:22 12:05-12:54/49 15:46	08:51 12:19-13:07/48 15:46
31	05:14 21:30 Potential sun hours	06:15 20:16		07:20 16:38		08:51 15:47
	Sum of minutes with flicker	469	384	324	248	216
		852	434	0	536	1015
						1501

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B3 - NORDEX N175/6.X 6800 175.0 I-! hub: 179.0 m (TOT: 266.5 m) (103)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:50 15:48	08:14 15:34-15:56/22 16:45	07:10 16:20-16:53/33 17:47	06:48 19:53	05:32 20:55	04:35 21:52
2	08:50 15:49	08:12 15:34-15:56/22 16:47	07:08 16:20-16:52/32 17:49	06:46 19:55	05:30 20:57	04:34 21:54
3	08:50 15:50	08:11 15:35-15:56/21 16:49	07:05 16:20-16:51/31 17:51	06:43 19:57	05:27 20:59	04:33 21:55
4	08:50 15:51	08:09 15:36-15:56/20 16:51	07:03 16:21-16:51/30 17:54	06:40 19:59	05:25 21:01	04:32 21:56
5	08:49 15:53	08:06 15:36-15:54/18 16:54	07:00 16:21-16:50/29 17:56	06:38 20:01	05:23 21:03	04:31 21:58
6	08:49 15:54	08:04 15:37-15:54/17 16:56	06:58 16:21-16:49/28 17:58	06:35 20:03	05:21 21:05	04:30 21:59
7	08:48 15:56	08:02 15:39-15:53/14 16:58	06:55 16:23-16:48/25 18:00	06:32 20:05	05:19 21:07	04:29 22:00
8	08:47 15:57	08:00 15:41-15:50/9 17:00	06:52 16:24-16:46/22 18:02	06:30 20:07	05:16 21:09	04:29 22:01
9	08:47 15:59	07:58 17:03	06:50 16:26-16:44/18 18:04	06:27 20:09	05:14 21:11	04:28 22:02
10	08:46 16:01	07:56 17:05	06:47 16:29-16:41/12 18:07	06:25 20:11	05:12 21:13	04:27 22:03
11	08:45 16:02	07:54 17:07	06:44 17:08-17:39/31 18:09	06:22 20:13	05:10 21:15	04:27 22:04
12	08:44 16:04	07:51 17:09	06:42 17:08-17:39/31 18:11	06:19 20:16	05:08 21:17	04:26 22:05
13	08:43 16:06	07:49 17:12	06:39 17:07-17:40/33 18:13	06:17 20:18	05:06 21:19	04:26 22:06
14	08:42 16:08	07:47 17:14	06:37 17:07-17:41/34 18:15	06:14 20:20	05:04 21:21	04:25 22:06
15	08:41 16:09	07:45 17:16	06:34 17:07-17:41/34 18:17	06:12 20:22	05:02 21:23	04:25 22:07
16	08:40 16:11	07:42 17:18	06:31 17:07-17:40/33 18:19	06:09 20:24	05:00 21:25	04:25 22:08
17	08:38 16:13	07:40 17:21	06:29 17:08-17:41/33 18:21	06:06 20:26	04:58 21:27	04:25 22:08
18	08:37 16:15	07:38 16:31-16:43/12 17:23	06:26 17:08-17:40/32 18:23	06:04 20:28	04:56 21:29	04:25 22:09
19	08:36 16:17	07:35 16:29-16:47/18 17:25	06:23 17:09-17:39/30 18:26	06:01 20:30	04:55 21:31	04:25 22:09
20	08:35 16:19	07:33 16:27-16:48/21 17:27	06:21 17:12-17:38/26 18:28	05:59 20:32	04:53 21:33	04:25 22:09
21	08:33 15:38-15:43/5 16:21	07:30 16:25-16:49/24 17:30	06:18 17:14-17:37/23 18:30	05:56 20:34	04:51 21:34	04:25 22:10
22	08:32 15:36-15:46/10 16:23	07:28 16:24-16:51/27 17:32	06:15 17:17-17:35/18 18:32	05:54 20:36	04:49 21:36	04:25 22:10
23	08:30 15:35-15:48/13 16:25	07:25 16:22-16:51/29 17:34	06:12 17:18-17:33/15 18:34	05:51 20:38	04:48 21:38	04:25 22:10
24	08:29 15:34-15:50/16 16:27	07:23 16:22-16:52/30 17:36	06:10 17:22-17:30/8 18:36	05:49 20:41	04:46 21:40	04:26 22:10
25	08:27 15:34-15:52/18 16:30	07:20 16:21-16:52/31 17:38	06:07 18:38	05:46 20:43	04:45 21:41	04:26 22:10
26	08:25 15:33-15:53/20 16:32	07:18 16:21-16:53/32 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10
27	08:24 15:33-15:54/21 16:34	07:15 16:20-16:53/33 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10
28	08:22 15:33-15:54/21 16:36	07:13 16:20-16:52/32 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10
29	08:20 15:33-15:55/22 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09
30	08:18 15:33-15:55/22 16:40		06:54 19:48	05:34 20:53	04:38 21:49	04:29 22:09
31	08:16 15:33-15:56/23 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	191	432	741	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B3 - NORDEX N175/6.X 6800 175.0 l-l hub: 179.0 m (TOT: 266.5 m) (103)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	17:46-18:19/33 16:36	07:22 15:45
2	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	17:46-18:17/31 16:33	07:24 15:44
3	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	17:08-17:16/8 17:46-18:15/29	07:27 16:31
4	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	17:05-17:20/15 17:48-18:14/26	07:29 16:29
5	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	17:02-17:22/20 17:48-18:10/22	07:31 16:27
6	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	17:00-17:24/24 17:49-18:07/18	07:33 16:25
7	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	16:58-17:24/26 17:50-18:05/15	07:35 16:23
8	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	16:57-17:25/28 17:53-18:02/9	07:37 16:21
9	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	16:55-17:25/30 16:54-17:25/31	07:40 16:19
10	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	16:54-17:25/31 16:53-17:25/32	07:42 16:17
11	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	16:53-17:25/32 16:52-17:24/32	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:44	07:40 18:24	16:54-17:26/32 16:53-17:26/33	07:46 16:13
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	16:53-17:26/33 16:53-17:25/32	07:48 16:11
14	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	16:53-17:25/32 16:52-17:25/33	07:50 16:09
15	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	16:52-17:25/33 16:52-17:24/32	07:53 16:07
16	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	16:52-17:24/32 16:53-17:24/31	07:55 16:05
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	16:53-17:24/31 16:53-17:23/30	07:57 16:04
18	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	16:53-17:23/30 16:54-17:22/28	07:59 16:02
19	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	16:54-17:22/28 16:54-17:21/27	08:01 16:00
20	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	16:54-17:21/27 16:56-17:20/24	08:03 15:59
21	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	16:56-17:20/24 16:57-17:18/21	08:05 15:57
22	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	16:57-17:18/21 16:59-17:15/16	08:07 15:56
23	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	16:59-17:15/16 17:03-17:12/9	08:09 15:54
24	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	17:03-17:12/9 17:52-18:22/30	08:11 15:53
25	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	17:52-18:22/30 17:50-18:22/32	08:13 15:51
26	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	17:50-18:22/32 17:49-18:22/33	08:15 15:50
27	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	17:49-18:22/33 17:48-18:22/34	08:17 15:49
28	05:08 21:35	06:09 20:24	07:11 19:01	07:14 16:45	17:48-18:22/34 17:47-18:21/34	08:19 15:48
29	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:42	17:47-18:21/34 17:47-18:20/33	08:20 15:47
30	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	17:47-18:20/33 17:46-18:19/33	08:22 15:46
31	05:13 21:30	06:15 20:16		07:20 16:38	17:46-18:19/33 16:36	08:24 15:45
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	0	0	306	745	338	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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B4 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (104)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51	10:25-10:44/19		08:15	07:11					06:49			05:32			04:36	05:30-06:06/36	
	15:48			16:45	17:47					19:53			20:55			21:52		
2	08:50	10:26-10:44/18		08:13	07:08					06:46			05:30			04:35	05:30-06:06/36	
	15:49			16:47	17:50					19:55			20:57			21:54		
3	08:50	10:27-10:44/17		08:11	07:05					06:43			05:28			04:33	05:30-06:05/35	
	15:50	09:29-09:31/2		16:49	17:52					19:57			20:59			21:55		
4	08:50	10:27-10:43/16		08:09	07:03					06:41			05:25			04:32	05:29-06:05/36	
	15:52	09:28-09:32/4		16:52	17:54					19:59			21:01			21:56		
5	08:49	10:29-10:44/15		08:07	07:00					06:38			05:23			04:31	05:30-06:05/35	
	15:53	09:28-09:34/6		16:54	17:56					20:01			21:03			21:58		
6	08:49	10:30-10:43/13		08:05	06:58					06:35			05:21			04:31	05:30-06:05/35	
	15:55	09:27-09:35/8		16:56	17:58					20:03			21:06			21:59		
7	08:48	10:32-10:43/11		08:02	06:55					06:33			05:19			04:30	05:30-06:05/35	
	15:56	09:26-09:36/10		16:58	18:00					20:05			21:08			22:00		
8	08:47	10:33-10:42/9		08:00	06:53	07:18-07:24/6				06:30			05:17			04:29	05:30-06:06/36	
	15:58	09:25-09:37/12		17:01	18:02					20:07			21:10			22:01		
9	08:47	10:37-10:39/2		07:58	06:50	07:16-07:27/11				06:27	06:53-07:01/8		05:15	05:47-05:57/10		04:28	05:29-06:06/37	
	15:59	09:24-09:38/14		17:03	18:05					20:09			21:12			22:02		
10	08:46	09:23-09:39/16		07:56	06:47	07:13-07:28/15				06:25	06:50-07:03/13		05:12	05:45-05:59/14		04:28	05:29-06:07/38	
	16:01			17:05	18:07					20:12			21:14			22:03		
11	08:45	09:22-09:40/18		07:54	06:45	07:10-07:29/19				06:22	06:48-07:05/17		05:10	05:43-06:01/18		04:27	05:29-06:07/38	
	16:03			17:07	18:09					20:14			21:16			22:04		
12	08:44	09:21-09:41/20		07:52	06:42	07:08-07:30/22				06:20	06:45-07:05/20		05:08	05:42-06:02/20		04:27	05:29-06:08/39	
	16:04			17:10	18:11					20:16			21:18			22:05		
13	08:43	09:20-09:41/21		07:49	06:39	07:05-07:30/25				06:17	06:43-07:06/23		05:06	05:41-06:03/22		04:26	05:29-06:09/40	
	16:06			17:12	18:13					20:18			21:20			22:06		
14	08:42	09:20-09:42/22		07:47	06:37	07:02-07:29/27				06:14	06:40-07:06/26		05:04	05:41-06:04/23		04:26	05:28-06:08/40	
	16:08			17:14	18:15					20:20			21:21			22:06		
15	08:41	09:21-09:43/22		07:45	06:34	06:59-07:29/30				06:12	06:38-07:07/29		05:02	05:40-06:04/24		04:25	05:28-06:09/41	
	16:10			17:16	18:17					20:22			21:23			22:07		
16	08:40	09:20-09:44/24		07:42	06:31	06:57-07:29/32				06:09	06:35-07:06/31		05:00	05:37-06:05/28		04:25	05:29-06:09/40	
	16:12			17:19	18:19					20:24			21:25			22:08		
17	08:39	09:21-09:45/24		07:40	06:29	06:54-07:28/34				06:07	06:33-07:06/33		04:59	05:36-06:06/30		04:25	05:29-06:10/41	
	16:14			17:21	18:22					20:26			21:27			22:08		
18	08:37	09:21-09:45/24		07:38	06:26	06:51-07:26/35				06:04	06:32-07:05/33		04:57	05:34-06:06/32		04:25	05:29-06:10/41	
	16:15			17:23	18:24					20:28			21:29			22:09		
19	08:36	09:21-09:45/24		07:35	06:23	06:49-07:26/37				06:02	06:32-07:05/33		04:55	05:33-06:06/33		04:25	05:29-06:10/41	
	16:17			17:25	18:26					20:30			21:31			22:09		
20	08:35	09:22-09:46/24		07:33	06:21	06:47-07:23/36				05:59	06:30-07:04/34		04:53	05:33-06:06/33		04:25	05:29-06:10/41	
	16:19			17:28	18:28					20:32			21:33			22:10		
21	08:33	09:22-09:46/24		07:31	06:18	06:46-07:19/33				05:56	06:30-07:03/33		04:51	05:31-06:06/35		04:25	05:29-06:10/41	
	16:21			17:30	18:30					20:34			21:35			22:10		
22	08:32	09:22-09:46/24		07:28	06:15	06:47-07:17/30				05:54	06:31-07:02/31		04:50	05:31-06:07/36		04:25	05:30-06:11/41	
	16:24			17:32	18:32					20:37			21:36			22:10		
23	08:30	09:22-09:45/23		07:26	06:13	06:46-07:15/29				05:52	06:30-07:00/30		04:48	05:30-06:06/36		04:25	05:30-06:11/41	
	16:26			17:34	18:34					20:39			21:38			22:10		
24	08:29	09:24-09:46/22		07:23	06:10	06:46-07:13/27				05:49	06:30-06:58/28		04:47	05:30-06:06/36		04:26	05:30-06:11/41	
	16:28			17:36	18:36					20:41			21:40			22:10		
25	08:27	09:24-09:46/22		07:21	06:07	06:46-07:10/24				05:47	06:31-06:54/23		04:45	05:30-06:07/37		04:26	05:31-06:12/41	
	16:30			17:39	18:38					20:43			21:42			22:10		
26	08:25	09:25-09:45/20		07:18	06:05	06:47-07:05/18				05:44	06:31-06:53/22		04:44	05:30-06:07/37		04:27	05:31-06:12/41	
	16:32			17:41	18:40					20:45			21:43			22:10		
27	08:24	09:26-09:45/19		07:16	06:02	06:47-07:03/16				05:42	06:32-06:52/20		04:42	05:29-06:06/37		04:27	05:31-06:12/41	
	16:34			17:43	18:42					20:47			21:45			22:10		
28	08:22	09:27-09:44/17		07:13	05:59	06:48-07:01/13				05:39	06:34-06:50/16		04:41	05:29-06:06/37		04:28	05:31-06:12/41	
	16:36			17:45	18:45					20:49			21:46			22:10		
29	08:20	09:29-09:43/14			06:57	07:52-07:58/6				05:37	06:36-06:48/12		04:39	05:29-06:06/37		04:28	05:32-06:12/40	
	16:38				19:47					20:51			21:48			22:10		
30	08:18	09:31-09:41/10			06:54					05:35			04:38	05:29-06:06/37		04:29	05:33-06:12/39	
	16:41				19:49					20:53			21:49			22:09		
31	08:16	09:35-09:38/3			06:51								04:37	05:30-06:06/36				
	16:43				19:51								21:51					
	235			266	366					426			508			529		1168
Potential sun hours																		
Sum of minutes with flicker	613			0			525			515			688			1168		

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B4 - NORDEX N175/6.X 6800 175.0 l-l hub: 179.0 m (TOT: 266.5 m) (104)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 05:33-06:12/39 22:09	05:15 05:52-06:12/20 21:28	06:17 06:47-07:04/17 20:14	07:17 07:46-08:09/23 18:53	07:22 16:36	08:24 09:04-09:22/18 15:45
2	04:31 05:33-06:12/39 22:08	05:17 05:54-06:11/17 21:26	06:19 06:49-07:02/13 20:11	07:19 07:49-08:08/19 18:51	07:25 16:34	08:26 09:06-09:22/16 15:44
3	04:31 05:34-06:12/38 22:08	05:19 05:56-06:09/13 21:24	06:21 06:51-06:59/8 20:09	07:21 07:50-08:07/17 18:48	07:27 16:31	08:27 10:20-10:22/2 15:43 09:08-09:22/14
4	04:32 05:35-06:12/37 22:07	05:21 05:59-06:06/7 21:21	06:23 20:06	07:23 07:52-08:05/13 18:45	07:29 16:29	08:29 10:18-10:25/7 15:42 09:09-09:21/12
5	04:33 05:36-06:12/36 22:07	05:23 21:19	06:25 20:03	07:25 07:54-08:03/9 18:43	07:31 16:27	08:31 10:17-10:28/11 15:41 09:11-09:21/10
6	04:34 05:36-06:11/35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 10:16-10:29/13 15:41 09:13-09:21/8
7	04:36 05:37-06:12/35 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:34 10:15-10:30/15 15:40 09:14-09:20/6
8	04:37 05:37-06:12/35 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 10:16-10:31/15 15:40 09:16-09:20/4
9	04:38 05:37-06:12/35 22:03	05:31 21:11	06:33 19:53	07:33 18:32	07:40 16:19	08:36 10:15-10:32/17 15:39 09:18-09:20/2
10	04:39 05:37-06:13/36 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 10:16-10:33/17 15:39
11	04:40 05:37-06:13/36 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 09:05-09:09/4 16:15	08:39 10:15-10:34/19 15:38
12	04:42 05:38-06:14/36 22:00	05:37 21:04	06:39 19:45	07:40 18:24	07:46 09:02-09:12/10 16:13	08:40 10:16-10:35/19 15:38
13	04:43 05:38-06:15/37 21:59	05:39 06:46-06:53/7 21:01	06:41 19:42	07:42 18:22	07:48 09:01-09:15/14 16:11	08:41 10:16-10:36/20 15:38
14	04:45 05:38-06:15/37 21:58	05:41 06:42-06:56/14 20:59	06:43 07:44-07:47/3 19:39	07:44 18:19	07:51 08:59-09:16/17 16:09	08:43 10:16-10:36/20 15:38
15	04:46 05:38-06:15/37 21:56	05:43 06:41-06:58/17 20:57	06:45 07:39-07:51/12 19:36	07:46 18:17	07:53 08:58-09:17/19 16:07	08:44 10:16-10:37/21 15:38
16	04:48 05:39-06:16/37 21:55	05:45 06:39-06:59/20 20:54	06:47 07:37-07:52/15 19:34	07:48 18:14	07:55 08:58-09:18/20 16:06	08:44 10:17-10:37/20 15:38
17	04:49 05:39-06:16/37 21:54	05:47 06:37-06:59/22 20:52	06:49 07:35-07:53/18 19:31	07:50 18:12	07:57 08:57-09:19/22 16:04	08:45 10:17-10:38/21 15:38
18	04:51 05:40-06:16/36 21:52	05:49 06:37-07:01/24 20:49	06:51 07:34-07:58/24 19:28	07:52 18:09	07:59 08:58-09:20/22 16:02	08:46 10:18-10:39/21 15:38
19	04:52 05:40-06:16/36 21:51	05:51 06:36-07:04/28 20:47	06:53 07:33-08:00/27 19:26	07:54 18:07	08:01 08:57-09:20/23 16:01	08:47 10:18-10:40/22 15:38
20	04:54 05:41-06:17/36 21:49	05:53 06:36-07:06/30 20:44	06:55 07:33-08:01/28 19:23	07:57 18:04	08:03 08:57-09:21/24 15:59	08:48 10:18-10:39/21 15:38
21	04:56 05:41-06:16/35 21:48	05:55 06:35-07:07/32 20:42	06:57 07:32-08:02/30 19:20	07:59 18:02	08:05 08:57-09:21/24 15:57	08:48 10:19-10:40/21 15:39
22	04:57 05:42-06:17/35 21:46	05:57 06:35-07:08/33 20:39	06:59 07:31-08:02/31 19:18	08:01 17:59	08:07 08:58-09:22/24 15:56	08:49 10:19-10:40/21 15:39
23	04:59 05:42-06:16/34 21:44	05:59 06:35-07:09/34 20:37	07:01 07:31-08:06/35 19:15	08:03 17:57	08:09 08:58-09:22/24 15:54	08:49 10:20-10:41/21 15:40
24	05:01 05:43-06:17/34 21:43	06:01 06:35-07:09/34 20:34	07:03 07:31-08:08/37 19:12	08:05 17:54	08:11 08:58-09:22/24 15:53	08:50 10:20-10:42/22 15:40
25	05:02 05:44-06:16/32 21:41	06:03 06:36-07:09/33 20:32	07:05 07:33-08:09/36 19:10	07:07 16:52	08:13 08:58-09:22/24 15:52	08:50 10:20-10:42/22 15:41
26	05:04 05:45-06:16/31 21:39	06:05 06:35-07:08/33 20:29	07:07 07:36-08:10/34 19:07	07:09 16:50	08:15 09:00-09:23/23 15:50	08:50 10:21-10:42/21 15:42
27	05:06 05:47-06:16/29 21:37	06:07 06:37-07:08/31 20:27	07:09 07:38-08:11/33 19:04	07:12 16:47	08:17 09:00-09:23/23 15:49	08:51 10:21-10:42/21 15:43
28	05:08 05:48-06:15/27 21:36	06:09 06:39-07:08/29 20:24	07:11 07:41-08:11/30 19:01	07:14 16:45	08:19 09:00-09:22/22 15:48	08:51 10:22-10:43/21 15:43
29	05:10 05:50-06:14/24 21:34	06:11 06:41-07:07/26 20:22	07:13 07:42-08:10/28 18:59	07:16 16:43	08:20 09:01-09:22/21 15:47	08:51 10:23-10:43/20 15:44
30	05:12 05:51-06:14/23 21:32	06:13 06:43-07:06/23 20:19	07:15 07:44-08:10/26 18:56	07:18 16:40	08:22 09:02-09:22/20 15:46	08:51 10:24-10:44/20 15:45
31	05:14 05:52-06:13/21 21:30	06:15 06:45-07:05/20 20:16		07:20 16:38		08:51 10:25-10:44/19 15:46
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	1055	547	485	81	404	620

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:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B5 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (105)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:24 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:19 21:07	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:01	06:52 18:02	06:30 20:07	05:16 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:16	05:08 21:17	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:37
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:44 15:37
17	08:38 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:48 15:39
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:40
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:30	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:22	07:13 18:59	07:16 16:42	08:20 15:47	08:51 15:44
30	08:18 16:40		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:51 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B7 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (106)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:24 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
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31	08:16 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar per WTG

WTG: B9 - NORDEX N175/6.X 6800 175.0 !-! hub: 179.0 m (TOT: 266.5 m) (107)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
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31	08:16 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

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

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