

Project:

Flickering\_Valka\_Vestas172

Licensed user:

SIA Estonian, Latvian &amp; Lithuanian environment

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Calculated:

15/01/2026 16:54/4.1.254

## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

Assumptions for shadow calculations

Maximum distance for influence

Calculate only when more than 20 % of sun is covered by the blade

Please look in WTG table

Minimum sun height over horizon for influence

3 °

Day step for calculation

1 days

Time step for calculation

1 minutes

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.80	1.82	4.75	6.09	9.67	10.05	8.16	7.72	5.94	2.93	0.63	0.41

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

Monthly aggregation of real case reduction

A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values. A WTG will be visible if it is visible from any part of the receiver window. The ZVI calculation is based on the following assumptions:

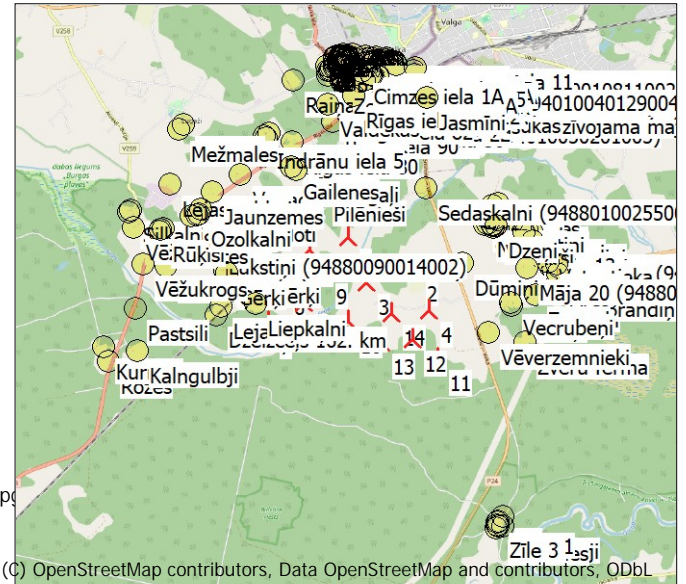
DHM: Elevation Grid Data Object: Flickering\_Valka\_Vestas172\_EMDGrid\_0.wpd

Receptor grid resolution: 1.0 m

Topographic shadow included in calculation

All coordinates are in

Latvian TM LKS92-LKS92 (LV)



New WTG

Scale 1:125,000

Shadow receptor

## WTGs

Y	X	Z	Row data/Description	WTG type			Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
				Valid	Manufact.	Type-generator				Calculation distance [m]	RPM [RPM]
		[m]									
1	619,194	402,093	52.6 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
2	620,315	401,596	57.8 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
3	619,535	401,335	53.5 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
4	620,585	400,916	61.6 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
5	618,569	401,868	53.8 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
6	618,115	401,289	62.5 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
7	617,919	400,632	64.2 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
8	618,506	400,993	62.0 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
9	618,827	401,499	54.4 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
10	619,234	400,696	57.1 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
11	620,756	400,139	55.1 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
12	620,303	400,415	52.6 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
13	619,801	400,367	53.4 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-
14	619,944	400,841	52.6 VESTAS V172-7.2 7200 172.0 !O! hub...	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	166.0	1,904	-

## Shadow receptor-Input

No.	Y	X	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
	Astras	621,845	397,366	57.1	1.0	1.0	90.0	"Green house mode"	2.0
	Ausekli	616,204	401,525	59.0	1.0	1.0	90.0	"Green house mode"	2.0
	Avoti	622,246	402,269	73.0	1.0	1.0	90.0	"Green house mode"	2.0
	Bajari	621,575	402,366	78.2	1.0	1.0	90.0	"Green house mode"	2.0
	Blaumana iela 2	619,187	405,099	58.9	1.0	1.0	90.0	"Green house mode"	2.0
	Blaumana iela 2A	619,212	405,051	60.5	1.0	1.0	90.0	"Green house mode"	2.0
	Brandini	623,279	401,439	76.0	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 1	619,309	404,787	61.8	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 10	619,456	404,508	53.6	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 11	619,468	404,559	55.0	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 12	619,431	404,459	55.2	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 14	619,494	404,416	53.6	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 16	619,507	404,366	52.7	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 18	619,520	404,273	52.8	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 19	619,522	404,426	53.0	1.0	1.0	90.0	"Green house mode"	2.0
	Cimzes iela 1A	619,342	404,832	60.1	1.0	1.0	90.0	"Green house mode"	2.0

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

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No.	Y	X	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
Cimzes iela 2	619,284	404,758	62.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 20	619,512	404,245	53.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 21	619,528	404,407	52.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 21A	619,536	404,387	52.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 22	619,504	404,211	52.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 23	619,541	404,360	52.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 24	619,426	404,205	54.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 25	619,552	404,308	52.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 26	619,470	404,141	53.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 27	619,552	404,247	52.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 28	619,470	404,096	53.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 29	619,528	404,189	52.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 3	619,323	404,769	62.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 30	619,407	404,110	54.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 5	619,341	404,745	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 7	619,361	404,720	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 7a	619,372	404,703	62.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Cimzes iela 9	619,388	404,681	60.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Dravas	621,387	402,525	77.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Dzelzelš 162. km	617,057	400,745	60.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Dzeni	621,646	402,347	78.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 1	619,421	404,364	56.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 10	619,330	404,285	57.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 11 (94010030201001)	619,368	404,190	56.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 11 (94010030201005)	619,357	404,182	56.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 12	619,334	404,235	56.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 13	619,332	404,170	57.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 14	619,320	404,206	57.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 15	619,309	404,133	57.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 16	619,312	404,184	57.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 17	619,283	404,095	57.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 18	619,293	404,148	58.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 18A	619,272	404,121	58.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 19	619,265	404,060	56.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 20	619,266	404,107	58.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 20A	619,256	404,094	57.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 22	619,240	404,074	57.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 3	619,405	404,332	56.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 4	619,388	404,352	57.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 5	619,388	404,293	55.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 6	619,371	404,313	56.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 7	619,365	404,251	55.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 8	619,360	404,292	55.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Darza iela 9	619,350	404,216	56.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Dumini	621,118	401,704	67.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Gailenes	618,227	403,223	66.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Gaisini	621,570	402,697	75.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Gaujas iela 11	620,312	404,461	59.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Gravas	621,450	402,510	77.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Indranu iela 5	617,812	403,675	62.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Indranu iela 5	617,752	403,711	63.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Indranu iela 8	617,841	403,755	65.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jasmini	620,431	404,427	66.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jaunpaukas	620,701	404,392	62.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauntilgali	618,319	403,182	66.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jaunzemes	616,921	402,776	67.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jaunziles	621,804	397,336	55.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauna iela 1	619,133	404,995	60.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauna iela 3	619,115	405,033	60.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauna iela 4	619,106	405,052	61.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauna iela 4A	619,116	405,082	61.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauna iela 5	619,086	405,028	62.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauna iela 6	619,087	405,089	61.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Jauna iela 7	619,104	404,992	60.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

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No.	Y	X	Z	Width	Height	Elevation a.g.l.	Slope of window [°]	Direction mode	Eye height (ZVI) a.g.l. [m]
			[m]	[m]	[m]	[m]			
Kalngulbji	615,759	400,116	67.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Kalnieš i	622,832	401,705	75.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Kalnaldoti	616,760	402,489	65.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Kalngerki	617,174	401,465	64.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Kastanas	621,661	402,454	78.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Kristali	621,615	402,466	78.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Kurmiš i	615,208	400,153	64.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Karla Skalbes iela 10	619,494	405,044	63.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Karla Skalbes iela 11	619,583	405,067	63.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Karla Skalbes iela 15	619,546	405,018	62.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Karla Skalbes iela 17	619,537	404,998	62.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Karla Skalbes iela 19	619,529	404,966	60.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Lati	622,160	402,305	74.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Latini	621,523	402,491	77.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Lauku iela 2	619,223	404,235	59.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Ledini	620,831	404,427	63.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Lejas Gerki	617,129	400,875	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Lejasstaldoti	616,230	402,880	61.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Liepas	623,307	401,500	75.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Liepkalni	617,694	400,932	64.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Lukstini (94880090014001)	616,950	401,888	65.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Lukstini (94880090014002)	617,011	401,935	64.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Liksnaš	622,254	402,221	73.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Livas	622,049	402,303	75.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Mazdzintari	622,623	401,849	75.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Medini	622,130	402,233	75.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 10 (94010010901001)	619,700	405,037	63.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 10 (94010010901002)	619,682	405,046	64.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 12	619,690	405,019	64.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 13	619,754	405,055	61.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 13A	619,775	405,009	58.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 14	619,633	405,019	63.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 15	619,706	404,938	61.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 16	619,652	404,972	62.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 16A	619,640	404,956	61.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 17	619,689	404,984	62.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 18	619,626	404,941	60.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 19	619,665	404,955	61.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 20	619,602	404,936	59.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 21	619,651	404,937	60.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Merkela iela 23	619,654	404,893	58.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Mež males	616,342	403,781	64.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Mež vini 1	622,218	402,177	74.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Mež vini 2	622,224	402,184	74.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Mež ares	615,551	402,385	64.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Miera iela 2	620,195	404,873	53.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Miera iela 5	620,250	404,906	52.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Miera iela 7	620,231	404,811	53.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 1	619,241	404,686	63.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 10	619,201	404,592	62.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 3	619,253	404,656	63.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 5	619,296	404,613	61.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 6	619,251	404,561	61.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 7	619,273	404,594	61.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 8	619,222	404,578	62.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Muzeja iela 9	619,237	404,630	62.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 13	622,270	402,120	73.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 14	622,408	401,857	76.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 16	622,302	402,014	76.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 2	622,636	401,643	76.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 20 (94880100118001)	622,237	402,066	74.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 20 (94880100123001)	622,169	401,666	73.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 22	622,201	402,065	74.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 3	622,709	401,706	75.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

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No.	Y	X	Z	Width	Height	Elevation a.g.l.	Slope of window [°]	Direction mode	Eye height (ZVI) a.g.l. [m]
			[m]	[m]	[m]	[m]			
Maja 4	622,600	401,684	76.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 5	622,670	401,744	75.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 6	622,565	401,725	76.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 7	622,631	401,783	75.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 8	622,530	401,768	75.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Maja 9	622,560	401,856	75.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Malkalni	622,060	402,326	75.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Marstalu iela 6	618,766	404,919	62.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Naglinas	620,515	404,366	62.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Niedras	622,149	402,218	76.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Noras	621,471	402,366	77.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Ozolkalni	616,719	402,395	66.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Oš i	621,560	402,558	77.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Pakalnini	622,287	402,261	70.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Pastsili	615,719	400,792	49.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Pilenieš i	618,721	402,867	60.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Planci	621,226	404,353	61.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Plumes	622,091	402,269	75.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Plumites	616,073	402,097	65.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 13	619,413	405,039	62.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 15	619,443	404,995	63.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 17	619,462	404,972	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 19 (94010010924001)	619,510	404,944	59.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 19 (94010010924003)	619,489	404,944	60.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 21	619,558	404,894	57.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 21A	619,580	404,883	56.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 21B	619,593	404,901	57.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 23	619,603	404,870	56.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Poruka iela 23A	619,632	404,860	55.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Priedulaji	621,922	397,366	57.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Pumpura iela 10A	618,921	405,076	63.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Purva iela 5	619,167	404,094	56.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Purva iela 7	619,292	404,031	56.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Purva iela 9	619,339	404,013	55.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Pinas	621,687	402,595	74.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 37	619,397	405,085	61.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 41	619,186	404,981	59.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 51	619,083	404,927	61.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 53	619,062	404,912	61.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 55	619,029	404,903	61.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 57	619,009	404,895	61.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 58	619,082	404,969	61.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 59	618,990	404,886	62.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 60	619,064	404,960	61.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 61	618,969	404,876	62.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 62	619,047	404,953	61.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 64	619,026	404,943	61.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 66	619,011	404,935	61.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 72	618,959	404,909	62.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 74	618,914	404,887	62.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 76	618,888	404,875	63.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 78	618,224	404,650	71.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 78A	618,858	404,861	63.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 80	618,835	404,849	63.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 82	618,811	404,838	64.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Raina iela 84	618,796	404,830	64.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Riekstini	621,694	402,445	78.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Ritas	621,553	402,483	78.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rozes	615,287	399,907	62.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rubeni	621,956	401,048	76.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rudziš i	622,205	402,218	75.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 29 (94010010711001)	619,887	405,013	52.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 29 (94010010711002)	619,900	404,993	51.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 31A	619,870	404,968	51.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

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No.	Y	X	Z	Width	Height	Elevation a.g.l.	Slope of window [°]	Direction mode	Eye height (ZVI) a.g.l. [m]
			[m]	[m]	[m]	[m]			
Rigas iela 31B	619,907	404,955	50.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 33 (94010010712001)	619,835	404,935	52.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 33 (94010010712002)	619,848	404,953	52.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 35	619,804	404,891	52.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 35A	619,812	404,867	51.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 35B	619,833	404,856	51.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 38 (94010010805002)	619,855	405,021	53.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 40	619,821	405,010	54.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 41 (94010020105001)	619,821	404,724	53.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 41 (94010020105003)	619,733	404,643	53.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 42	619,825	404,976	53.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 44	619,806	404,950	53.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 45	619,596	404,696	55.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 45A	619,570	404,664	55.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 46 (94010010811001)	619,777	404,927	55.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 46 (94010010811002)	619,770	404,943	57.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 47	619,440	404,547	54.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 48	619,763	404,899	56.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 49	619,392	404,535	56.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 50	619,735	404,876	56.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 50A	619,720	404,851	54.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 51	619,377	404,522	55.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 52	619,628	404,759	54.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 53	619,332	404,451	57.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 54	619,605	404,742	56.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 55	619,302	404,432	59.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 56	619,576	404,719	56.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 57	619,279	404,398	60.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 58	619,561	404,707	56.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 59	619,268	404,382	60.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 60	619,541	404,689	56.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 61	619,250	404,350	60.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 62	619,443	404,669	59.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 62A	619,472	404,664	58.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 63	619,239	404,332	60.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 64 (94010040147001)	619,317	404,689	62.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 64 (94010040147003)	619,337	404,640	61.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 65	619,226	404,310	60.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 67	619,219	404,263	60.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 68	619,312	404,535	59.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 69	619,190	404,253	60.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 70	619,231	404,430	59.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 71	619,176	404,216	60.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 72	619,206	404,396	60.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 73	619,142	404,177	58.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 74	619,194	404,379	60.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 75	619,122	404,150	57.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 76	619,174	404,349	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 78	619,148	404,309	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 80	618,237	403,629	66.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 82	619,107	404,234	60.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rigas iela 90	618,890	403,995	60.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Rukiš i	616,098	402,114	65.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Saulieš i	616,598	402,359	66.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Saulites	621,679	402,717	71.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Sedaskalni (94880100120001)	622,429	401,994	76.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Sedaskalni (94880100255001)	620,462	402,939	60.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Sermuli	616,425	403,870	67.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Sietini	621,479	402,502	77.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Silkalni	615,600	402,423	63.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Staldoti	616,697	402,375	66.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Sviestini	622,226	402,246	74.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Seli 10	622,493	401,807	76.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Seli 12	622,459	401,849	75.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

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No.	Y	X	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
Seli Maja 18	622,268	402,040	75.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Sili	621,918	397,525	61.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Taigas	622,184	402,195	75.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdekas	618,802	404,278	61.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 11	619,161	404,649	62.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 13	619,149	404,626	63.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 13A	619,141	404,611	63.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 1A	619,282	404,826	59.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 3	619,241	404,781	60.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 5	619,225	404,755	60.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 7 (94010040129001)	619,194	404,714	62.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 7 (94010040129004)	619,201	404,709	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valdemara iela 9	619,188	404,698	61.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valmieras iela 11	619,434	404,864	58.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valmieras iela 3	619,530	404,772	59.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valmieras iela 5	619,511	404,786	59.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valmieras iela 7	619,489	404,811	59.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valmieras iela 7A	619,481	404,830	59.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Valmieras iela 9	619,462	404,848	59.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vanagi	617,394	403,083	61.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vecrubeni	621,922	401,079	76.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Veikals Seli	622,338	402,055	75.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vetaptieka	622,487	401,946	75.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vidini	621,609	402,323	78.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vienibas gatve 6	619,734	404,584	53.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vienibas gatve 7	619,886	404,612	52.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Veverszemnieki	621,567	400,588	64.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vež i	615,631	402,146	59.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Vež ukrogs	615,828	401,548	55.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Viteni	621,498	402,386	77.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 1	619,064	405,076	62.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 10	619,016	405,083	62.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 12	618,996	405,074	62.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 14	618,981	405,066	63.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 16	618,965	405,057	63.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 1B	619,047	405,065	62.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 3A	619,024	405,056	62.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 3B	619,007	405,048	62.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 5	618,972	405,031	63.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 7	618,956	405,017	64.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zala iela 8	619,033	405,092	62.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zeltini	621,586	402,474	78.5	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemdegas	621,417	402,516	77.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 11	619,205	404,482	60.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 12	619,278	404,505	58.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 13	619,179	404,499	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 13A	619,185	404,484	61.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 14	619,247	404,497	59.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 15	619,145	404,503	62.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 16	619,224	404,511	60.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 17	619,125	404,534	63.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 17A	619,026	404,642	64.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 18	619,217	404,530	60.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 19	619,014	404,668	63.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 19A	619,037	404,621	64.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 20	619,181	404,535	62.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 22	619,151	404,553	62.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 24	619,130	404,591	63.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 28	619,071	404,634	63.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 3	619,489	404,328	52.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 30	619,066	404,652	63.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 31	618,891	404,947	62.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 34	619,045	404,693	63.1	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 36	619,038	404,708	62.7	1.0	1.0	1.0	90.0	"Green house mode"	2.0

To be continued on next page...

## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

...continued from previous page

No.	Y	X	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]	[m]	[m]	[m]	[°]		[m]
Zemgales iela 38	619,030	404,728	61.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 4	619,442	404,419	55.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 40	619,022	404,747	61.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 56	618,943	404,928	61.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 56A	618,920	404,977	62.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 58	618,894	405,029	63.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 6	619,395	404,413	57.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 60	618,883	405,051	63.3	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 6A	619,413	404,403	57.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 7	619,360	404,401	59.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgales iela 8	619,373	404,423	57.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemgali	622,337	401,230	73.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zemites	621,584	402,331	78.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zveru ferma	622,203	400,435	71.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zile - 1	621,843	397,439	59.2	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zile 3	621,807	397,375	57.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zile 4	621,812	397,423	58.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Zitari	616,131	402,136	65.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Ares	622,702	401,570	75.8	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Corzemnieki	618,797	404,752	65.4	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Gerki	617,210	401,440	64.0	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Kirš i	622,112	402,250	75.6	1.0	1.0	1.0	90.0	"Green house mode"	2.0
Ž uldini 2 km dzivojama maja Nr.1	620,333	404,360	58.9	1.0	1.0	1.0	90.0	"Green house mode"	2.0

## Calculation Results

Shadow receptor

No.	Shadow, worst case			Shadow, expected values	
	Shadow hours	Shadow days	Max shadow	Shadow hours	
	per year [h/year]	per year [days/year]	hours per day [h/day]	per year [h/year]	
Astras	0:00	0	0:00	0:00	
Ausekli	0:00	0	0:00	0:00	
Avoti	0:00	0	0:00	0:00	
Bajari	29:47	106	0:28	4:34	
Blaumana iela 2	0:00	0	0:00	0:00	
Blaumana iela 2A	0:00	0	0:00	0:00	
Brandini	0:00	0	0:00	0:00	
Cimzes iela 1	0:00	0	0:00	0:00	
Cimzes iela 10	0:00	0	0:00	0:00	
Cimzes iela 11	0:00	0	0:00	0:00	
Cimzes iela 12	0:00	0	0:00	0:00	
Cimzes iela 14	0:00	0	0:00	0:00	
Cimzes iela 16	0:00	0	0:00	0:00	
Cimzes iela 18	0:00	0	0:00	0:00	
Cimzes iela 19	0:00	0	0:00	0:00	
Cimzes iela 1A	0:00	0	0:00	0:00	
Cimzes iela 2	0:00	0	0:00	0:00	
Cimzes iela 20	0:00	0	0:00	0:00	
Cimzes iela 21	0:00	0	0:00	0:00	
Cimzes iela 21A	0:00	0	0:00	0:00	
Cimzes iela 22	0:00	0	0:00	0:00	
Cimzes iela 23	0:00	0	0:00	0:00	
Cimzes iela 24	0:00	0	0:00	0:00	
Cimzes iela 25	0:00	0	0:00	0:00	
Cimzes iela 26	0:00	0	0:00	0:00	
Cimzes iela 27	0:00	0	0:00	0:00	
Cimzes iela 28	0:00	0	0:00	0:00	
Cimzes iela 29	0:00	0	0:00	0:00	
Cimzes iela 3	0:00	0	0:00	0:00	
Cimzes iela 30	0:00	0	0:00	0:00	
Cimzes iela 5	0:00	0	0:00	0:00	
Cimzes iela 7	0:00	0	0:00	0:00	
Cimzes iela 7a	0:00	0	0:00	0:00	

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

...continued from previous page

No.	Shadow, worst case		Shadow, expected values	
	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
Cimzes iela 9	0:00	0	0:00	0:00
Dravas	33:34	95	0:29	4:10
Dzelzceļš 162. km	114:14	172	0:58	56:34
Dzeni	25:21	87	0:26	4:08
Darza iela 1	0:00	0	0:00	0:00
Darza iela 10	0:00	0	0:00	0:00
Darza iela 11 (94010030201001)	0:00	0	0:00	0:00
Darza iela 11 (94010030201005)	0:00	0	0:00	0:00
Darza iela 12	0:00	0	0:00	0:00
Darza iela 13	0:00	0	0:00	0:00
Darza iela 14	0:00	0	0:00	0:00
Darza iela 15	0:00	0	0:00	0:00
Darza iela 16	0:00	0	0:00	0:00
Darza iela 17	0:00	0	0:00	0:00
Darza iela 18	0:00	0	0:00	0:00
Darza iela 18A	0:00	0	0:00	0:00
Darza iela 19	0:00	0	0:00	0:00
Darza iela 20	0:00	0	0:00	0:00
Darza iela 20A	0:00	0	0:00	0:00
Darza iela 22	0:00	0	0:00	0:00
Darza iela 3	0:00	0	0:00	0:00
Darza iela 4	0:00	0	0:00	0:00
Darza iela 5	0:00	0	0:00	0:00
Darza iela 6	0:00	0	0:00	0:00
Darza iela 7	0:00	0	0:00	0:00
Darza iela 8	0:00	0	0:00	0:00
Darza iela 9	0:00	0	0:00	0:00
Dumini	134:02	218	1:05	32:11
Gailenes	37:15	92	0:37	3:11
Gaisini	10:55	37	0:25	1:46
Gaujas iela 11	0:00	0	0:00	0:00
Gravas	34:12	98	0:28	4:21
Indranu iela 5	0:00	0	0:00	0:00
Indranu iela 5	0:00	0	0:00	0:00
Indranu iela 8	0:00	0	0:00	0:00
Jasmini	0:00	0	0:00	0:00
Jaunpaukas	0:00	0	0:00	0:00
Jauntilgali	41:45	92	0:35	3:36
Jaunzemes	7:12	28	0:22	1:43
Jaunziles	0:00	0	0:00	0:00
Jauna iela 1	0:00	0	0:00	0:00
Jauna iela 3	0:00	0	0:00	0:00
Jauna iela 4	0:00	0	0:00	0:00
Jauna iela 4A	0:00	0	0:00	0:00
Jauna iela 5	0:00	0	0:00	0:00
Jauna iela 6	0:00	0	0:00	0:00
Jauna iela 7	0:00	0	0:00	0:00
Kalngulbji	0:00	0	0:00	0:00
Kalnieš i	0:00	0	0:00	0:00
Kalnaldoti	10:35	37	0:23	1:16
Kalngerki	94:16	187	1:01	31:35
Kastanas	24:40	90	0:26	3:46
Kristali	28:17	106	0:26	4:06
Kurmiš i	0:00	0	0:00	0:00
Karla Skalbes iela 10	0:00	0	0:00	0:00
Karla Skalbes iela 11	0:00	0	0:00	0:00
Karla Skalbes iela 15	0:00	0	0:00	0:00
Karla Skalbes iela 17	0:00	0	0:00	0:00
Karla Skalbes iela 19	0:00	0	0:00	0:00
Lati	0:00	0	0:00	0:00
Latini	33:50	103	0:27	4:27
Lauku iela 2	0:00	0	0:00	0:00
Ledini	0:00	0	0:00	0:00

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

...continued from previous page

No.	Shadow, worst case			Shadow, expected values	
	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]	
Lejas Gerki	123:08	215	0:58	59:28	
Lejasstaldoti	0:00	0	0:00	0:00	
Liepas	0:00	0	0:00	0:00	
Liepkalni	264:29	271	2:01	108:03	
Lukstini (94880090014001)	51:22	150	0:31	11:29	
Lukstini (94880090014002)	64:48	190	0:32	14:16	
Liksnas	0:00	0	0:00	0:00	
Livas	6:22	26	0:22	2:03	
Mazdzintari	0:00	0	0:00	0:00	
Medini	0:00	0	0:00	0:00	
Merkela iela 10 (94010010901001)	0:00	0	0:00	0:00	
Merkela iela 10 (94010010901002)	0:00	0	0:00	0:00	
Merkela iela 12	0:00	0	0:00	0:00	
Merkela iela 13	0:00	0	0:00	0:00	
Merkela iela 13A	0:00	0	0:00	0:00	
Merkela iela 14	0:00	0	0:00	0:00	
Merkela iela 15	0:00	0	0:00	0:00	
Merkela iela 16	0:00	0	0:00	0:00	
Merkela iela 16A	0:00	0	0:00	0:00	
Merkela iela 17	0:00	0	0:00	0:00	
Merkela iela 18	0:00	0	0:00	0:00	
Merkela iela 19	0:00	0	0:00	0:00	
Merkela iela 20	0:00	0	0:00	0:00	
Merkela iela 21	0:00	0	0:00	0:00	
Merkela iela 23	0:00	0	0:00	0:00	
Mež males	0:00	0	0:00	0:00	
Mež vini 1	0:00	0	0:00	0:00	
Mež vini 2	0:00	0	0:00	0:00	
Mež ares	0:00	0	0:00	0:00	
Miera iela 2	0:00	0	0:00	0:00	
Miera iela 5	0:00	0	0:00	0:00	
Miera iela 7	0:00	0	0:00	0:00	
Muzeja iela 1	0:00	0	0:00	0:00	
Muzeja iela 10	0:00	0	0:00	0:00	
Muzeja iela 3	0:00	0	0:00	0:00	
Muzeja iela 5	0:00	0	0:00	0:00	
Muzeja iela 6	0:00	0	0:00	0:00	
Muzeja iela 7	0:00	0	0:00	0:00	
Muzeja iela 8	0:00	0	0:00	0:00	
Muzeja iela 9	0:00	0	0:00	0:00	
Maja 13	0:00	0	0:00	0:00	
Maja 14	0:00	0	0:00	0:00	
Maja 16	0:00	0	0:00	0:00	
Maja 2	0:00	0	0:00	0:00	
Maja 20 (94880100118001)	0:00	0	0:00	0:00	
Maja 20 (94880100123001)	14:32	56	0:23	5:10	
Maja 22	0:00	0	0:00	0:00	
Maja 3	0:00	0	0:00	0:00	
Maja 4	0:00	0	0:00	0:00	
Maja 5	0:00	0	0:00	0:00	
Maja 6	0:00	0	0:00	0:00	
Maja 7	0:00	0	0:00	0:00	
Maja 8	0:00	0	0:00	0:00	
Maja 9	0:00	0	0:00	0:00	
Malkalni	6:14	25	0:21	1:59	
Marstalu iela 6	0:00	0	0:00	0:00	
Naglinas	0:00	0	0:00	0:00	
Niedras	0:00	0	0:00	0:00	
Noras	38:23	109	0:29	5:24	
Ozolkalni	10:08	36	0:23	1:35	
Oš i	11:33	36	0:26	2:22	
Pakalnini	0:00	0	0:00	0:00	
Pastsili	0:00	0	0:00	0:00	

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

...continued from previous page

No.	Shadow, worst case		Shadow, expected values	
	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
Pilenieš i	142:52	110	2:01	12:43
Planci	0:00	0	0:00	0:00
Plumes	6:01	25	0:21	2:01
Plumites	0:00	0	0:00	0:00
Poruka iela 13	0:00	0	0:00	0:00
Poruka iela 15	0:00	0	0:00	0:00
Poruka iela 17	0:00	0	0:00	0:00
Poruka iela 19 (94010010924001)	0:00	0	0:00	0:00
Poruka iela 19 (94010010924003)	0:00	0	0:00	0:00
Poruka iela 21	0:00	0	0:00	0:00
Poruka iela 21A	0:00	0	0:00	0:00
Poruka iela 21B	0:00	0	0:00	0:00
Poruka iela 23	0:00	0	0:00	0:00
Poruka iela 23A	0:00	0	0:00	0:00
Priedulaji	0:00	0	0:00	0:00
Pumpura iela 10A	0:00	0	0:00	0:00
Purva iela 5	0:00	0	0:00	0:00
Purva iela 7	0:00	0	0:00	0:00
Purva iela 9	0:00	0	0:00	0:00
Pinas	9:30	34	0:24	2:05
Raina iela 37	0:00	0	0:00	0:00
Raina iela 41	0:00	0	0:00	0:00
Raina iela 51	0:00	0	0:00	0:00
Raina iela 53	0:00	0	0:00	0:00
Raina iela 55	0:00	0	0:00	0:00
Raina iela 57	0:00	0	0:00	0:00
Raina iela 58	0:00	0	0:00	0:00
Raina iela 59	0:00	0	0:00	0:00
Raina iela 60	0:00	0	0:00	0:00
Raina iela 61	0:00	0	0:00	0:00
Raina iela 62	0:00	0	0:00	0:00
Raina iela 64	0:00	0	0:00	0:00
Raina iela 66	0:00	0	0:00	0:00
Raina iela 72	0:00	0	0:00	0:00
Raina iela 74	0:00	0	0:00	0:00
Raina iela 76	0:00	0	0:00	0:00
Raina iela 78	0:00	0	0:00	0:00
Raina iela 78A	0:00	0	0:00	0:00
Raina iela 80	0:00	0	0:00	0:00
Raina iela 82	0:00	0	0:00	0:00
Raina iela 84	0:00	0	0:00	0:00
Riekstini	22:58	86	0:25	3:33
Ritas	32:18	102	0:27	4:22
Rozes	0:00	0	0:00	0:00
Rubeni	43:15	139	0:29	16:04
Rudziš i	0:00	0	0:00	0:00
Rigas iela 29 (94010010711001)	0:00	0	0:00	0:00
Rigas iela 29 (94010010711002)	0:00	0	0:00	0:00
Rigas iela 31A	0:00	0	0:00	0:00
Rigas iela 31B	0:00	0	0:00	0:00
Rigas iela 33 (94010010712001)	0:00	0	0:00	0:00
Rigas iela 33 (94010010712002)	0:00	0	0:00	0:00
Rigas iela 35	0:00	0	0:00	0:00
Rigas iela 35A	0:00	0	0:00	0:00
Rigas iela 35B	0:00	0	0:00	0:00
Rigas iela 38 (94010010805002)	0:00	0	0:00	0:00
Rigas iela 40	0:00	0	0:00	0:00
Rigas iela 41 (94010020105001)	0:00	0	0:00	0:00
Rigas iela 41 (94010020105003)	0:00	0	0:00	0:00
Rigas iela 42	0:00	0	0:00	0:00
Rigas iela 44	0:00	0	0:00	0:00
Rigas iela 45	0:00	0	0:00	0:00
Rigas iela 45A	0:00	0	0:00	0:00

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

...continued from previous page

No.	Shadow, worst case		Shadow, expected values	
	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
Rigas iela 46 (94010010811001)	0:00	0	0:00	0:00
Rigas iela 46 (94010010811002)	0:00	0	0:00	0:00
Rigas iela 47	0:00	0	0:00	0:00
Rigas iela 48	0:00	0	0:00	0:00
Rigas iela 49	0:00	0	0:00	0:00
Rigas iela 50	0:00	0	0:00	0:00
Rigas iela 50A	0:00	0	0:00	0:00
Rigas iela 51	0:00	0	0:00	0:00
Rigas iela 52	0:00	0	0:00	0:00
Rigas iela 53	0:00	0	0:00	0:00
Rigas iela 54	0:00	0	0:00	0:00
Rigas iela 55	0:00	0	0:00	0:00
Rigas iela 56	0:00	0	0:00	0:00
Rigas iela 57	0:00	0	0:00	0:00
Rigas iela 58	0:00	0	0:00	0:00
Rigas iela 59	0:00	0	0:00	0:00
Rigas iela 60	0:00	0	0:00	0:00
Rigas iela 61	0:00	0	0:00	0:00
Rigas iela 62	0:00	0	0:00	0:00
Rigas iela 62A	0:00	0	0:00	0:00
Rigas iela 63	0:00	0	0:00	0:00
Rigas iela 64 (94010040147001)	0:00	0	0:00	0:00
Rigas iela 64 (94010040147003)	0:00	0	0:00	0:00
Rigas iela 65	0:00	0	0:00	0:00
Rigas iela 67	0:00	0	0:00	0:00
Rigas iela 68	0:00	0	0:00	0:00
Rigas iela 69	0:00	0	0:00	0:00
Rigas iela 70	0:00	0	0:00	0:00
Rigas iela 71	0:00	0	0:00	0:00
Rigas iela 72	0:00	0	0:00	0:00
Rigas iela 73	0:00	0	0:00	0:00
Rigas iela 74	0:00	0	0:00	0:00
Rigas iela 75	0:00	0	0:00	0:00
Rigas iela 76	0:00	0	0:00	0:00
Rigas iela 78	0:00	0	0:00	0:00
Rigas iela 80	20:43	58	0:24	1:37
Rigas iela 82	0:00	0	0:00	0:00
Rigas iela 90	0:00	0	0:00	0:00
Rukiš i	0:00	0	0:00	0:00
Saulieš i	8:41	32	0:22	1:39
Saulites	9:21	34	0:24	1:41
Sedaskalni (94880100120001)	0:00	0	0:00	0:00
Sedaskalni (94880100255001)	51:10	99	0:51	5:54
Sermuli	0:00	0	0:00	0:00
Sietini	34:26	100	0:28	4:25
Silkalni	0:00	0	0:00	0:00
Staldoti	9:50	36	0:23	1:38
Sviestini	0:00	0	0:00	0:00
Seli 10	0:00	0	0:00	0:00
Seli 12	0:00	0	0:00	0:00
Seli Maja 18	0:00	0	0:00	0:00
Sili	0:00	0	0:00	0:00
Talgas	0:00	0	0:00	0:00
Valdekas	0:00	0	0:00	0:00
Valdemara iela 11	0:00	0	0:00	0:00
Valdemara iela 13	0:00	0	0:00	0:00
Valdemara iela 13A	0:00	0	0:00	0:00
Valdemara iela 1A	0:00	0	0:00	0:00
Valdemara iela 3	0:00	0	0:00	0:00
Valdemara iela 5	0:00	0	0:00	0:00
Valdemara iela 7 (94010040129001)	0:00	0	0:00	0:00
Valdemara iela 7 (94010040129004)	0:00	0	0:00	0:00
Valdemara iela 9	0:00	0	0:00	0:00

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

...continued from previous page

No.	Shadow, worst case		Shadow, expected values	
	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]
Valmieras iela 11	0:00	0	0:00	0:00
Valmieras iela 3	0:00	0	0:00	0:00
Valmieras iela 5	0:00	0	0:00	0:00
Valmieras iela 7	0:00	0	0:00	0:00
Valmieras iela 7A	0:00	0	0:00	0:00
Valmieras iela 9	0:00	0	0:00	0:00
Vanagi	13:50	45	0:25	1:26
Vecrubeni	45:23	142	0:29	16:33
Veikals Seli	0:00	0	0:00	0:00
Vetaptieka	0:00	0	0:00	0:00
Vidini	27:21	91	0:27	4:29
Vienibas gatve 6	0:00	0	0:00	0:00
Vienibas gatve 7	0:00	0	0:00	0:00
Veverszemnieki	108:25	238	0:43	49:00
Vež i	0:00	0	0:00	0:00
Vež ukrogs	0:00	0	0:00	0:00
Viteni	36:23	109	0:28	5:07
Zala iela 1	0:00	0	0:00	0:00
Zala iela 10	0:00	0	0:00	0:00
Zala iela 12	0:00	0	0:00	0:00
Zala iela 14	0:00	0	0:00	0:00
Zala iela 16	0:00	0	0:00	0:00
Zala iela 1B	0:00	0	0:00	0:00
Zala iela 3A	0:00	0	0:00	0:00
Zala iela 3B	0:00	0	0:00	0:00
Zala iela 5	0:00	0	0:00	0:00
Zala iela 7	0:00	0	0:00	0:00
Zala iela 8	0:00	0	0:00	0:00
Zeltini	30:33	104	0:26	4:16
Zemdegas	34:04	99	0:29	4:18
Zemgales iela 11	0:00	0	0:00	0:00
Zemgales iela 12	0:00	0	0:00	0:00
Zemgales iela 13	0:00	0	0:00	0:00
Zemgales iela 13A	0:00	0	0:00	0:00
Zemgales iela 14	0:00	0	0:00	0:00
Zemgales iela 15	0:00	0	0:00	0:00
Zemgales iela 16	0:00	0	0:00	0:00
Zemgales iela 17	0:00	0	0:00	0:00
Zemgales iela 17A	0:00	0	0:00	0:00
Zemgales iela 18	0:00	0	0:00	0:00
Zemgales iela 19	0:00	0	0:00	0:00
Zemgales iela 19A	0:00	0	0:00	0:00
Zemgales iela 20	0:00	0	0:00	0:00
Zemgales iela 22	0:00	0	0:00	0:00
Zemgales iela 24	0:00	0	0:00	0:00
Zemgales iela 28	0:00	0	0:00	0:00
Zemgales iela 3	0:00	0	0:00	0:00
Zemgales iela 30	0:00	0	0:00	0:00
Zemgales iela 31	0:00	0	0:00	0:00
Zemgales iela 34	0:00	0	0:00	0:00
Zemgales iela 36	0:00	0	0:00	0:00
Zemgales iela 38	0:00	0	0:00	0:00
Zemgales iela 4	0:00	0	0:00	0:00
Zemgales iela 40	0:00	0	0:00	0:00
Zemgales iela 56	0:00	0	0:00	0:00
Zemgales iela 56A	0:00	0	0:00	0:00
Zemgales iela 58	0:00	0	0:00	0:00
Zemgales iela 6	0:00	0	0:00	0:00
Zemgales iela 60	0:00	0	0:00	0:00
Zemgales iela 6A	0:00	0	0:00	0:00
Zemgales iela 7	0:00	0	0:00	0:00
Zemgales iela 8	0:00	0	0:00	0:00
Zemgali	7:18	28	0:22	3:09

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## SHADOW - Main Result

Calculation: Flickering\_Valka\_Vestas172

...continued from previous page

No.	Shadow, worst case			Shadow, expected values	
	Shadow hours per year [h/year]	Shadow days per year [days/year]	Max shadow hours per day [h/day]	Shadow hours per year [h/year]	
Zemites	28:53	96	0:28	4:38	
Zveru ferma	28:16	92	0:27	12:54	
Zile - 1	0:00	0	0:00	0:00	
Zile 3	0:00	0	0:00	0:00	
Zile 4	0:00	0	0:00	0:00	
Zitari	0:00	0	0:00	0:00	
Ares	0:00	0	0:00	0:00	
Corzemnieki	0:00	0	0:00	0:00	
Gerki	101:32	192	1:05	34:34	
Kirš i	0:00	0	0:00	0:00	
Ž uldini 2 km dzivojama maja Nr.1	0:00	0	0:00	0:00	

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

No.	Name		Worst case [h/year]	Expected [h/year]
1	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (23)		126:23	23:02
2	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (22)		133:48	44:17
3	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (19)		56:41	10:15
4	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (27)		159:12	44:39
5	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (17)		158:30	41:06
6	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (15)		170:15	64:06
7	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (26)		281:52	88:07
8	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (24)		85:56	35:02
9	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (16)		74:27	29:41
10	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (18)		10:21	4:25
11	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (25)		64:59	18:38
12	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (28)		58:51	14:56
13	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (20)		16:32	4:12
14	VESTAS V172-7.2 7200 172.0 !O! hub: 166.0 m (TOT: 252.0 m) (21)		23:49	7:43

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

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