

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Huvudresultat

Beräkning: Skuggberäkning Skäckarp layout 8
Antaganden för skuggberäkningar

Maximalt avstånd för påverkan

Beräkna endast när mer än 20 % av solen skymms av rotorbladet

Titta i VKV tabell

Minsta solhöjd över horisonten för påverkan 3 °
Dag steg för beräkning 1 dagar
Tidsteg för beräkning 1 minuter

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

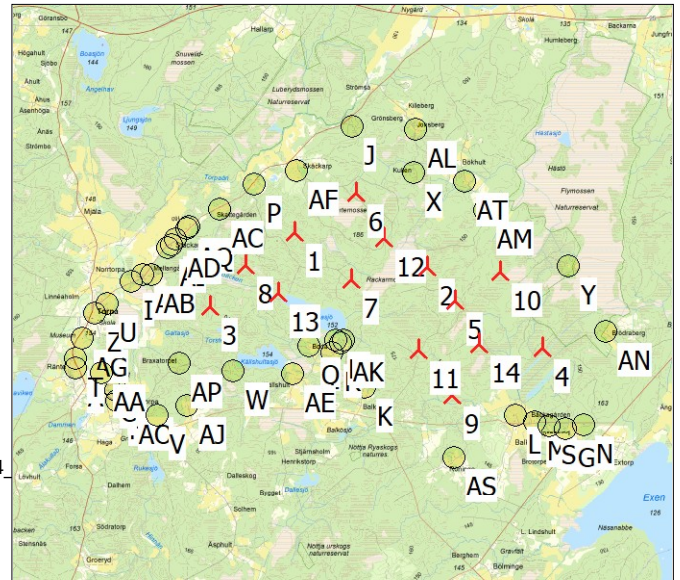
Jan	Feb	Mar	Apr	Maj	Jun	Jul	Aug	Sep	Okt	Nov	Dec
1,36	1,52	2,62	6,08	8,82	7,64	6,65	5,42	4,02	2,68	1,38	0,88

Driftl tid

0	Totalt
8 760	8 760

För att undvika skuggor från de VKV som inte syns görs en ZVI beräkning före skuggberäkningen. ZVI-beräkningen grundas på följande antaganden:
Höjdkonturer används: Höjd Data Objekt: SRE_Siting_Skackarp_DJN_190424
Hinder som används vid beräkning
Ögonhöjd för karta: 1,5 m
Nätupplösning: 1,0 m

Alla koordinater är i
Swedish UTM 33-SWREF99 (SE)
VKV



	Östkoordinat	Nordkoordinat	Z	Raddata/Beskrivning	VKV-typ		Typ-generator	Effekt, nominell [kW]	Rotordiameter [m]	Navhöjd [m]	Skuggdata	
					Giltig	Tillverkare.					Beräkning avstånd [m]	RPM [RPM]
			[m]									
1	417 345	6 287 361	184,6	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
2	419 540	6 286 778	158,7	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
3	415 937	6 286 125	161,1	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
4	421 460	6 285 452	148,2	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
5	420 015	6 286 231	164,6	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
6	418 365	6 288 011	173,4	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
7	418 285	6 286 571	168,6	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
8	416 529	6 286 817	162,6	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
9	419 964	6 284 668	147,1	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
10	420 765	6 286 700	144,0	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
11	419 397	6 285 410	163,0	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
12	418 825	6 287 261	164,6	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
13	417 079	6 286 355	152,8	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	
14	420 404	6 285 510	155,5	VESTAS V210-4.0_270...Ja	VESTAS	V210-4.0_270m_DJ-4 000	4 000	210,0	165,0	1 901	10,4	

Skuggmottagare-Indata

No.	Östkoordinat	Nordkoordinat	Z	Bredd	Höjd	Höjd ö.m..	Lutning	Riktning	Ögonhöjd öor ZVI
			[m]	[m]	[m]	[m]	[°]		[m]
A	413 713	6 285 116	160,2	5,0	5,0	2,0	0,0	Växthusläge	2,0
B	414 018	6 286 018	156,6	5,0	5,0	2,0	0,0	Växthusläge	2,0
C	414 245	6 284 858	155,0	5,0	5,0	2,0	0,0	Växthusläge	2,0
D	414 373	6 284 752	152,0	5,0	5,0	2,0	0,0	Växthusläge	2,0
E	418 032	6 285 572	157,8	5,0	5,0	2,0	0,0	Växthusläge	2,0
F	418 154	6 285 568	154,6	5,0	5,0	2,0	0,0	Växthusläge	2,0
G	421 843	6 284 114	149,9	5,0	5,0	2,0	0,0	Växthusläge	2,0
H	414 394	6 284 574	157,6	5,0	5,0	2,0	0,0	Växthusläge	2,0
I	414 634	6 286 541	141,1	5,0	5,0	2,0	0,0	Växthusläge	2,0
J	418 309	6 289 110	149,2	5,0	5,0	2,0	0,0	Växthusläge	2,0
K	418 514	6 284 796	165,7	5,0	5,0	2,0	0,0	Växthusläge	2,0
L	421 011	6 284 329	139,3	5,0	5,0	2,0	0,0	Växthusläge	2,0
M	421 329	6 284 218	140,4	5,0	5,0	2,0	0,0	Växthusläge	2,0
N	422 148	6 284 180	152,2	5,0	5,0	2,0	0,0	Växthusläge	2,0
O	415 297	6 287 146	158,8	5,0	5,0	2,0	0,0	Växthusläge	2,0
P	416 668	6 288 149	149,8	5,0	5,0	2,0	0,0	Växthusläge	2,0
Q	417 580	6 285 475	159,3	5,0	5,0	2,0	0,0	Växthusläge	2,0
R	417 975	6 285 369	170,5	5,0	5,0	2,0	0,0	Växthusläge	2,0

Fortsättning på nästa sida...

SHADOW - Huvudresultat

Beräkning: Skuggberäkning Skäckarp layout 8

...fortsättning från föregående sida

No.	Östkoordinat	Nordkoordinat	Z	Bredd	Höjd	Höjd ö.m..	Lutning fönster	Riktning släge	Ögonhöjd öor	ZVI
			[m]	[m]	[m]	[m]	[°]			[m]
S	421 574	6 284 163	146,3	5,0	5,0	2,0	0,0	Växthusläge		2,0
T	413 699	6 285 270	160,9	5,0	5,0	2,0	0,0	Växthusläge		2,0
U	414 231	6 286 183	144,4	5,0	5,0	2,0	0,0	Växthusläge		2,0
V	415 060	6 284 332	146,1	5,0	5,0	2,0	0,0	Växthusläge		2,0
W	416 323	6 285 061	162,8	5,0	5,0	2,0	0,0	Växthusläge		2,0
X	419 323	6 288 344	160,2	5,0	5,0	2,0	0,0	Växthusläge		2,0
Y	421 889	6 286 806	144,4	5,0	5,0	2,0	0,0	Växthusläge		2,0
Z	414 020	6 286 024	156,8	5,0	5,0	2,0	0,0	Växthusläge		2,0
AA	414 135	6 285 024	152,2	5,0	5,0	2,0	0,0	Växthusläge		2,0
AB	414 969	6 286 665	150,5	5,0	5,0	2,0	0,0	Växthusläge		2,0
AC	416 103	6 287 735	159,8	5,0	5,0	2,0	0,0	Växthusläge		2,0
AD	415 358	6 287 243	159,6	5,0	5,0	2,0	0,0	Växthusläge		2,0
AE	417 314	6 285 012	161,6	5,0	5,0	2,0	0,0	Växthusläge		2,0
AF	417 372	6 288 375	156,2	5,0	5,0	2,0	0,0	Växthusläge		2,0
AG	413 823	6 285 598	154,6	5,0	5,0	2,0	0,0	Växthusläge		2,0
AH	414 822	6 286 652	147,4	5,0	5,0	2,0	0,0	Växthusläge		2,0
AI	415 239	6 287 106	157,3	5,0	5,0	2,0	0,0	Växthusläge		2,0
AJ	415 565	6 284 483	148,4	5,0	5,0	2,0	0,0	Växthusläge		2,0
AK	418 118	6 285 534	157,7	5,0	5,0	2,0	0,0	Växthusläge		2,0
AL	419 360	6 289 067	155,5	5,0	5,0	2,0	0,0	Växthusläge		2,0
AM	420 508	6 287 731	151,1	5,0	5,0	2,0	0,0	Växthusläge		2,0
AN	422 521	6 285 722	145,1	5,0	5,0	2,0	0,0	Växthusläge		2,0
AO	414 550	6 284 482	158,9	5,0	5,0	2,0	0,0	Växthusläge		2,0
AP	415 431	6 285 191	153,4	5,0	5,0	2,0	0,0	Växthusläge		2,0
AQ	415 564	6 287 424	154,3	5,0	5,0	2,0	0,0	Växthusläge		2,0
AR	415 596	6 287 455	153,7	5,0	5,0	2,0	0,0	Växthusläge		2,0
AS	419 994	6 283 631	158,7	5,0	5,0	2,0	0,0	Växthusläge		2,0
AT	420 173	6 288 200	152,6	5,0	5,0	2,0	0,0	Växthusläge		2,0

Beräkning Resultat

Skuggmottagare

No.	Skuggor, värsta fall			Skuggor, förväntade värden	
	Skuggtimmar per år [t/år]	Skugg dagar per år [dagar/år]	Max skugga timmar per dag [t/dag]	Skuggtimmar per år [t/år]	
A	0:00	0	0:00	0:00	
B	0:00	0	0:00	0:00	
C	0:00	0	0:00	0:00	
D	0:00	0	0:00	0:00	
E	40:49	94	0:36	5:28	
F	59:53	115	0:43	8:56	
G	0:00	0	0:00	0:00	
H	0:00	0	0:00	0:00	
I	20:55	45	0:36	1:37	
J	52:02	74	0:49	7:57	
K	50:16	100	0:44	7:58	
L	50:11	86	0:46	6:47	
M	25:27	57	0:36	3:23	
N	0:00	0	0:00	0:00	
O	82:22	146	0:43	10:31	
P	81:53	160	0:48	11:14	
Q	27:02	82	0:29	2:26	
R	19:22	46	0:35	0:12	
S	16:03	46	0:30	1:58	
T	0:00	0	0:00	0:00	
U	13:27	37	0:29	0:08	
V	0:00	0	0:00	0:00	
W	0:00	0	0:00	0:00	
X	92:49	140	0:56	12:11	
Y	55:01	104	0:43	6:05	
Z	0:00	0	0:00	0:00	
AA	0:00	0	0:00	0:00	
AB	50:30	101	0:44	5:00	

Fortsättning på nästa sida...

SHADOW - Huvudresultat

Beräkning: Skuggberäkning Skäckarp layout 8

...fortsättning från föregående sida

No.	Skuggor, värsta fall			Skuggor, förväntade värden	
	Skuggtimmar per år [t/år]	Skuggdagar per år [dagar/år]	Max skugga timmar per dag [t/dag]	Skuggtimmar per år [t/år]	
AC	129:19	146	1:23	17:41	
AD	77:16	134	0:42	10:14	
AE	17:11	52	0:28	4:35	
AF	135:54	179	1:22	19:13	
AG	0:00	0	0:00	0:00	
AH	40:30	90	0:40	3:37	
AI	76:41	151	0:43	9:29	
AJ	0:00	0	0:00	0:00	
AK	50:02	105	0:41	6:50	
AL	28:56	64	0:36	3:38	
AM	114:01	149	1:20	15:37	
AN	32:29	56	0:45	2:04	
AO	0:00	0	0:00	0:00	
AP	0:00	0	0:00	0:00	
AQ	80:45	165	0:44	10:22	
AR	77:34	161	0:44	9:56	
AS	0:00	0	0:00	0:00	
AT	73:12	134	1:04	9:05	

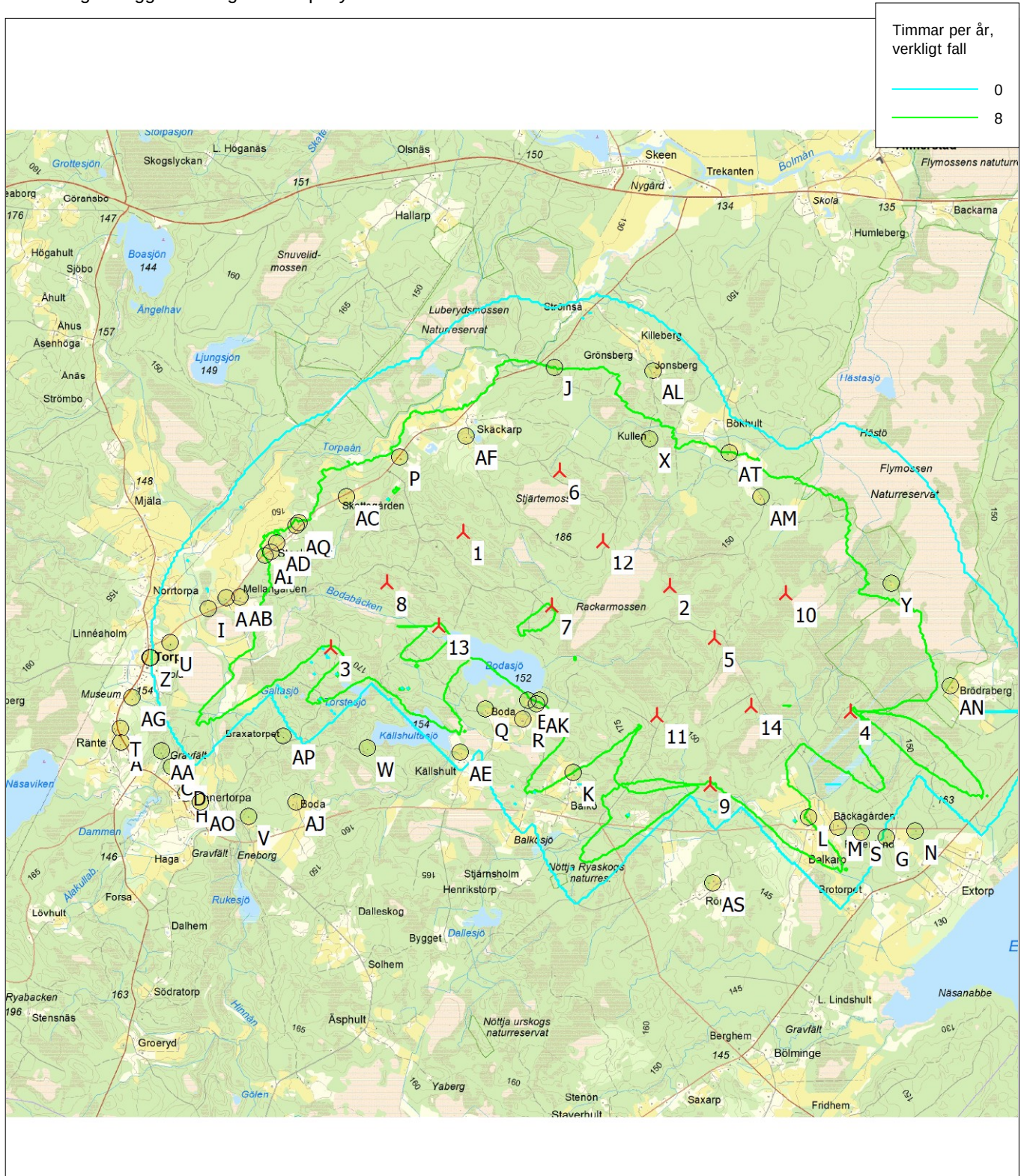
Total skuggpåverkan hos skuggmottagare från enskilda vindkraftverk

No.	Namn	Värsta fall [t/år]	Förväntad [t/år]
1	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (130)	149:03	18:30
2	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (131)	59:23	7:41
3	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (132)	248:44	32:25
4	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (133)	56:35	5:22
5	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (134)	17:35	2:19
6	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (135)	178:22	18:26
7	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (136)	0:00	0:00
8	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (137)	224:55	25:34
9	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (138)	68:53	7:29
10	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (139)	101:14	10:58
11	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (140)	81:33	9:36
12	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (141)	95:36	11:41
13	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (142)	83:50	15:38
14	VESTAS V210-4.0_270m_DJ 4000 210.0 !O! nav: 165,0 m (TOT:270,0 m) (143)	0:00	0:00

Totaltider i tabeller för skuggmottagare respektive VKV kan vara olika, eftersom ett vindkraftverk kan ge skuggor hos två eller flera skuggmottagare samtidigt och/eller skuggmottagare kan få skuggor från två eller flera vindkraftverk samtidigt.

SHADOW - Karta

Beräkning: Skuggberäkning Skäckarp layout 8



Karta: TK_SP , Utskriftsskala 1:60 000, Kartcentrum Swedish UTM 33-SWREF99 (SE) Ost: 417 840 Nord: 6 286 650

🚩 Nytt vindkraftverk 📍 Skuggmottagare

Flicker karta nivå: Höjd Data Objekt: SRE_Siting_Skackarp_DJN_190424_RECOVER001 2019-05-07 13_16_49_EMDGrid_2.wpg (4)

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: A - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (93)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONÖBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:22	04:24	04:18	05:05	06:07	07:08	07:14	08:16
	15:37	16:34	17:37	19:43	20:47	21:44	22:01	21:19	20:05	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:18
	15:38	16:37	17:40	19:46	20:49	21:46	22:00	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:41	16:41	17:44	19:50	20:53	21:49	21:59	21:13	19:57	18:35	16:19	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:59	21:11	19:54	18:33	16:16	15:30
6	08:40	07:56	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:18	07:25	08:24
	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14	15:29
7	08:40	07:54	06:46	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:26
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:49	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:53	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:04	04:17	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
10	08:38	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:20	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:16	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:43	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:07	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
13	08:35	07:40	06:30	06:07	04:55	04:15	04:32	05:28	06:31	07:32	07:40	08:33
	15:55	17:02	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:35	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:50	20:50	19:30	18:09	15:58	15:26
15	08:33	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:35
	15:59	17:06	18:08	20:13	21:15	21:59	21:48	20:48	19:27	18:07	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:01	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:03	17:11	18:12	20:17	21:19	22:00	21:46	20:43	19:21	18:01	15:53	15:26
18	08:29	07:29	06:16	05:54	04:46	04:13	04:39	05:39	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
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23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
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31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: B - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (94)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONÖBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
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4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
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	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
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	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	531	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: C - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (95)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONÖBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42 15:37	08:06 16:34	07:01 17:37	06:38 19:43	05:22 20:47	04:24 21:44	04:18 22:01	05:05 21:19	06:07 20:04	07:08 18:43	07:14 16:25	08:16 15:34
2	08:42 15:38	08:04 16:37	06:59 17:39	06:36 19:46	05:19 20:49	04:23 21:46	04:19 22:00	05:06 21:17	06:09 20:02	07:10 18:41	07:16 16:23	08:17 15:33
3	08:42 15:39	08:02 16:39	06:56 17:42	06:33 19:48	05:17 20:51	04:22 21:47	04:20 22:00	05:08 21:15	06:11 19:59	07:12 18:38	07:18 16:21	08:19 15:32
4	08:41 15:41	08:00 16:41	06:53 17:44	06:30 19:50	05:15 20:53	04:21 21:48	04:21 21:59	05:10 21:13	06:13 19:57	07:14 18:35	07:20 16:19	08:21 15:31
5	08:41 15:42	07:58 16:43	06:51 17:46	06:28 19:52	05:12 20:55	04:20 21:50	04:22 21:59	05:12 21:11	06:15 19:54	07:16 18:33	07:22 16:16	08:22 15:30
6	08:40 15:43	07:56 16:46	06:48 17:48	06:25 19:54	05:10 20:57	04:19 21:51	04:23 21:58	05:14 21:08	06:17 19:51	07:18 18:30	07:25 16:14	08:24 15:29
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10	08:38 15:50	07:47 16:55	06:38 17:57	06:14 20:02	05:01 21:05	04:16 21:55	04:28 21:54	05:22 20:59	06:25 19:40	07:26 18:19	07:33 16:06	08:30 15:27
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12	08:36 15:53	07:43 16:59	06:32 18:01	06:09 20:07	04:57 21:09	04:15 21:57	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	07:38 16:02	08:32 15:27
13	08:35 15:55	07:40 17:02	06:30 18:03	06:07 20:09	04:55 21:11	04:15 21:58	04:32 21:51	05:28 20:52	06:31 19:32	07:32 18:12	07:40 16:00	08:33 15:26
14	08:34 15:57	07:38 17:04	06:27 18:05	06:04 20:11	04:53 21:13	04:14 21:59	04:33 21:50	05:30 20:50	06:33 19:30	07:35 18:09	07:42 15:58	08:34 15:26
15	08:33 15:59	07:36 17:06	06:24 18:08	06:01 20:13	04:51 21:15	04:14 21:59	04:35 21:48	05:32 20:48	06:35 19:27	07:37 18:07	07:44 15:56	08:35 15:26
16	08:31 16:01	07:33 17:08	06:22 18:10	06:22 20:15	05:59 21:17	04:49 22:00	04:36 21:47	05:34 20:45	06:37 19:24	07:39 18:04	07:46 15:55	08:36 15:26
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29	08:11 16:28		06:47 19:37	05:26 20:42	04:28 21:40	04:17 22:02	04:59 21:25	06:01 20:12	07:03 18:49	07:07 16:32	08:12 15:36	08:43 15:33
30	08:10 16:30		06:44 19:39	05:24 20:44	04:27 21:41	04:17 22:01	05:01 21:23	06:03 20:10	07:05 18:46	07:09 16:30	08:14 15:35	08:43 15:34
31	08:08 16:32		06:41 19:41		04:25 21:43		05:03 21:21	06:05 20:07		07:11 16:27		08:43 15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: D - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (96)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:22	04:24	04:18	05:05	06:07	07:08	07:13	08:16
	15:37	16:34	17:37	19:43	20:47	21:44	22:01	21:19	20:04	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:17
	15:38	16:37	17:39	19:46	20:49	21:46	22:00	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:41	16:41	17:44	19:50	20:53	21:48	21:59	21:13	19:56	18:35	16:19	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:59	21:11	19:54	18:33	16:16	15:30
6	08:40	07:56	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:18	07:24	08:24
	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14	15:29
7	08:40	07:54	06:46	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:25
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:53	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:04	04:17	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
10	08:38	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:19	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:16	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:43	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:07	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
13	08:35	07:40	06:30	06:07	04:55	04:15	04:32	05:28	06:31	07:32	07:40	08:33
	15:55	17:02	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:35	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:50	20:50	19:30	18:09	15:58	15:26
15	08:33	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:35
	15:59	17:06	18:08	20:13	21:15	21:59	21:48	20:48	19:27	18:06	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:01	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:02	17:11	18:12	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:53	15:26
18	08:29	07:29	06:16	05:54	04:46	04:13	04:39	05:38	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
19	08:27	07:26	06:14	05:51	04:44	04:13	04:41	05:41	06:43	07:45	07:53	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:43	20:38	19:16	17:56	15:50	15:27
20	08:26	07:24	06:11	05:48	04:42	04:13	04:43	05:43	06:45	07:47	07:55	08:40
	16:08	17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:49	07:57	08:40
	16:11	17:20	18:20	20:25	21:26	22:02	21:39	20:33	19:11	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:39	04:14	04:46	05:47	06:49	07:52	07:59	08:41
	16:13	17:22	18:22	20:28	21:28	22:02	21:38	20:30	19:08	17:49	15:45	15:28
23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
	16:15	17:24	18:24	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:15	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:33	20:23	19:00	16:42	15:41	15:30
26	08:17	07:09	05:55	05:34	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:16	04:55	05:57	06:59	07:03	08:08	08:43
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:18	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:52	16:34	15:37	15:32
29	08:11		06:47	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:10		06:44	05:24	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: E - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (97)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drifttid
0 Totalt
8 760 8 760

	Januari	Februari	Mars		April		Maj		Juni	
1	08:42	08:06	07:01		06:38	07:28 (11)	05:21		04:24	20:51 (13)
	15:36	16:34	17:37		19:43	32 08:00 (11)	20:46		21:44	15 21:06 (13)
2	08:42	08:04	06:58		06:36	07:28 (11)	05:19		04:23	20:50 (13)
	15:38	16:36	17:39		19:45	30 07:58 (11)	20:48		21:46	17 21:07 (13)
3	08:42	08:02	06:56		06:33	07:28 (11)	05:17		04:22	20:49 (13)
	15:39	16:39	17:41		19:47	29 07:57 (11)	20:50		21:47	19 21:08 (13)
4	08:41	08:00	06:53		06:30	07:29 (11)	05:14		04:21	20:48 (13)
	15:40	16:41	17:44		19:49	27 07:56 (11)	20:53		21:48	21 21:09 (13)
5	08:41	07:58	06:51		06:27	07:30 (11)	05:12		04:20	20:47 (13)
	15:42	16:43	17:46		19:52	23 07:53 (11)	20:55		21:50	23 21:10 (13)
6	08:40	07:55	06:48		06:25	07:32 (11)	05:10		04:19	20:47 (13)
	15:43	16:45	17:48		19:54	18 07:50 (11)	20:57		21:51	24 21:11 (13)
7	08:40	07:53	06:45		06:22	07:35 (11)	05:08		04:18	20:47 (13)
	15:45	16:48	17:50		19:56	13 07:48 (11)	20:59		21:52	25 21:12 (13)
8	08:39	07:51	06:43		06:19		05:05		04:17	20:46 (13)
	15:46	16:50	17:52		19:58		21:01		21:53	27 21:13 (13)
9	08:38	07:49	06:40		06:17		05:03		04:16	20:47 (13)
	15:48	16:52	17:54		20:00		21:03		21:54	27 21:14 (13)
10	08:37	07:47	06:37		06:14		05:01		04:16	20:46 (13)
	15:49	16:54	17:57		20:02		21:05		21:55	29 21:15 (13)
11	08:36	07:45	06:35		06:12		04:59		04:15	20:46 (13)
	15:51	16:57	17:59		20:04		21:07		21:56	30 21:16 (13)
12	08:36	07:42	06:32		06:09		04:57		04:15	20:46 (13)
	15:53	16:59	18:01		20:06		21:09		21:57	30 21:16 (13)
13	08:35	07:40	06:29		06:06		04:55		04:14	20:46 (13)
	15:55	17:01	18:03		20:08		21:11		21:58	31 21:17 (13)
14	08:33	07:38	06:27		06:04		04:53		04:14	20:46 (13)
	15:57	17:04	18:05		20:11		21:13		21:58	32 21:18 (13)
15	08:32	07:35	06:24		06:01		04:51		04:14	20:46 (13)
	15:58	17:06	18:07		20:13		21:15		21:59	33 21:19 (13)
16	08:31	07:33	06:21		05:58		04:49		04:13	20:47 (13)
	16:00	17:08	18:09		20:15		21:17		22:00	32 21:19 (13)
17	08:30	07:31	06:19		05:56		04:47		04:13	20:47 (13)
	16:02	17:10	18:12	11	06:55 (11)		21:19		22:00	33 21:20 (13)
18	08:29	07:28	06:16		06:41 (11)	05:53	04:45		04:13	20:47 (13)
	16:04	17:13	18:14	16	06:57 (11)	20:19	21:21		22:01	33 21:20 (13)
19	08:27	07:26	06:13		06:39 (11)	05:51	04:43		04:13	20:47 (13)
	16:06	17:15	18:16	21	07:00 (11)	20:21	21:22		22:01	34 21:21 (13)
20	08:26	07:23	06:11		06:36 (11)	05:48	04:42		04:13	20:47 (13)
	16:08	17:17	18:18	25	07:01 (11)	20:23	21:24		22:01	34 21:21 (13)
21	08:24	07:21	06:08		06:33 (11)	05:46	04:40		04:13	20:47 (13)
	16:10	17:19	18:20	28	07:01 (11)	20:25	21:26		22:02	34 21:21 (13)
22	08:23	07:19	06:05		06:32 (11)	05:43	04:38		04:13	20:47 (13)
	16:12	17:22	18:22	31	07:03 (11)	20:27	21:28		22:02	34 21:21 (13)
23	08:21	07:16	06:02		06:30 (11)	05:41	04:37		04:14	20:47 (13)
	16:14	17:24	18:24	33	07:03 (11)	20:29	21:30		22:02	34 21:21 (13)
24	08:20	07:14	06:00		06:29 (11)	05:38	04:35		04:14	20:48 (13)
	16:17	17:26	18:26	34	07:03 (11)	20:32	21:31		22:02	33 21:21 (13)
25	08:18	07:11	05:57		06:28 (11)	05:36	04:33		04:14	20:48 (13)
	16:19	17:28	18:28	35	07:03 (11)	20:34	21:33		22:02	33 21:21 (13)
26	08:16	07:09	05:54		06:28 (11)	05:33	04:32		04:15	20:49 (13)
	16:21	17:30	18:31	35	07:03 (11)	20:36	21:35		22:02	33 21:22 (13)
27	08:15	07:06	05:52		06:27 (11)	05:31	04:30		04:15	20:49 (13)
	16:23	17:33	18:33	36	07:03 (11)	20:38	21:36		22:02	32 21:21 (13)
28	08:13	07:03	05:49		06:27 (11)	05:28	04:29	20:58 (13)	04:16	20:49 (13)
	16:25	17:35	18:35	35	07:02 (11)	20:40	21:38	2 21:00 (13)	22:02	32 21:21 (13)
29	08:11		06:46		07:27 (11)	05:26	04:28	20:55 (13)	04:16	20:49 (13)
	16:27		19:37	35	08:02 (11)	20:42	21:40	7 21:02 (13)	22:01	31 21:20 (13)
30	08:09		06:44		07:27 (11)	05:24	04:26	20:53 (13)	04:17	20:50 (13)
	16:30		19:39	34	08:01 (11)	20:44	21:41	10 21:03 (13)	22:01	30 21:20 (13)
31	08:07		06:41		07:27 (11)		04:25	20:52 (13)		
	16:32		19:41	33	08:00 (11)		21:43	13 21:05 (13)		
Möjliga soltimmar	234	265	366		427		509		530	
Totalt, värsta fall			442		172		32		875	
Sol reduktion			0,22		0,43		0,54		0,43	
Drifttid red.			1,00		1,00		1,00		1,00	
Vindrikt. red.			0,12		0,12		0,63		0,63	
Total reduktion			0,02		0,04		0,30		0,24	
Total, verklig			10		8		10		214	

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: E - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (97)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Jul	Augusti	September		Oktober	November	December
1	04:18 22:01	20:51 (13) 21:20 (13)	05:04 21:19	06:07 20:04		07:07 18:43	07:13 16:25
2	04:19 22:00	20:51 (13) 21:20 (13)	05:06 21:17	06:09 20:02		07:09 18:41	07:15 16:23
3	04:20 22:00	20:51 (13) 21:19 (13)	05:08 21:15	06:11 19:59		07:11 18:38	07:18 16:20
4	04:21 21:59	20:52 (13) 21:19 (13)	05:10 21:13	06:13 19:56		07:13 18:35	07:20 16:18
5	04:22 21:58	20:52 (13) 21:18 (13)	05:12 21:10	06:15 19:54	07:31 (11) 07:44 (11)	07:16 18:32	07:22 16:16
6	04:23 21:58	20:53 (13) 21:17 (13)	05:14 21:08	06:17 19:51	07:28 (11) 07:46 (11)	07:18 18:30	07:24 16:14
7	04:24 21:57	20:54 (13) 21:17 (13)	05:16 21:06	06:19 19:48	07:26 (11) 07:48 (11)	07:20 18:27	07:26 16:12
8	04:25 21:56	20:54 (13) 21:16 (13)	05:18 21:04	06:21 19:46	07:24 (11) 07:50 (11)	07:22 18:25	07:29 16:10
9	04:26 21:55	20:56 (13) 21:16 (13)	05:20 21:02	06:23 19:43	07:22 (11) 07:51 (11)	07:24 18:22	07:31 16:08
10	04:27 21:54	20:57 (13) 21:15 (13)	05:22 20:59	06:25 19:40	07:21 (11) 07:52 (11)	07:26 18:19	07:33 16:06
11	04:29 21:53	20:58 (13) 21:14 (13)	05:24 20:57	06:27 19:37	07:20 (11) 07:52 (11)	07:28 18:17	07:35 16:04
12	04:30 21:52	20:59 (13) 21:13 (13)	05:26 20:55	06:29 19:35	07:19 (11) 07:52 (11)	07:30 18:14	07:37 16:02
13	04:32 21:51	21:00 (13) 21:11 (13)	05:28 20:52	06:31 19:32	07:18 (11) 07:53 (11)	07:32 18:11	07:40 16:00
14	04:33 21:49	21:02 (13) 21:11 (13)	05:30 20:50	06:33 19:29	07:18 (11) 07:53 (11)	07:34 18:09	07:42 15:58
15	04:34 21:48	21:05 (13) 21:10 (13)	05:32 20:47	06:35 19:27	07:17 (11) 07:53 (11)	07:36 18:06	07:44 15:56
16	04:36 21:47	05:34 20:45	06:37 19:24	06:37 19:24	07:17 (11) 07:52 (11)	07:39 18:04	07:46 15:54
17	04:38 21:45	05:36 20:43	06:39 19:21	06:39 19:21	07:17 (11) 07:52 (11)	07:41 18:01	07:48 15:53
18	04:39 21:44	05:38 20:40	06:41 19:18	06:41 19:18	07:16 (11) 07:51 (11)	07:43 17:59	07:50 15:51
19	04:41 21:42	05:40 20:38	06:43 19:16	06:43 19:16	07:17 (11) 07:51 (11)	07:45 17:56	07:52 15:49
20	04:42 21:41	05:42 20:35	06:45 19:13	06:45 19:13	07:16 (11) 07:49 (11)	07:47 17:54	07:54 15:48
21	04:44 21:39	05:44 20:33	06:47 19:10	06:47 19:10	07:16 (11) 07:48 (11)	07:49 17:51	07:56 15:46
22	04:46 21:38	05:46 20:30	06:49 19:08	06:49 19:08	07:17 (11) 07:46 (11)	07:51 17:49	07:58 15:45
23	04:48 21:36	05:48 20:28	06:51 19:05	06:51 19:05	07:20 (11) 07:46 (11)	07:54 17:46	08:00 15:43
24	04:49 21:34	05:50 20:25	06:53 19:02	06:53 19:02	07:22 (11) 07:44 (11)	07:56 17:44	08:02 15:42
25	04:51 21:32	05:52 20:22	06:55 18:59	06:55 18:59	07:24 (11) 07:42 (11)	06:58 16:41	08:04 15:40
26	04:53 21:31	05:54 20:20	06:57 18:57	06:57 18:57	07:26 (11) 07:39 (11)	07:00 16:39	08:06 15:39
27	04:55 21:29	05:57 20:17	06:59 18:54	06:59 18:54	07:28 (11) 07:33 (11)	07:02 16:36	08:08 15:38
28	04:57 21:27	05:59 20:15	07:01 18:51	07:01 18:51	07:04 16:34	07:04 15:37	08:10 15:32
29	04:59 21:25	06:01 20:12	07:03 18:49	07:03 18:49	07:07 16:32	07:07 15:35	08:12 15:33
30	05:00 21:23	06:03 20:10	07:05 18:46	07:05 18:46	07:09 16:29	07:09 15:34	08:14 15:34
31	05:02 21:21	06:05 20:07			07:11 16:27		08:16 15:35
Möjliga soltimmar	531	470	385		323	246	215
Totalt, värsta fall	301		627				
Sol reduktion	0,39		0,31				
Drifttid red.	1,00		1,00				
Vindrikt. red.	0,63		0,12				
Total reduktion	0,22		0,03				
Total, verklig	66		21				

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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SHADOW - Kalender

1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

8 760 8 760

		[Januari	[Februari	[Mars		[April		[Maj		[Juni			
	1	08:42	08:06	07:01		06:38		07:29 (11)	05:21		04:24	20:33 (13)	
		15:36	16:34	17:37		19:43	37	08:06 (11)	20:46		21:44	33	21:06 (13)
	2	08:42	08:04	06:58		06:35		07:28 (11)	05:19		04:23		20:33 (13)
		15:38	16:36	17:39		19:45	37	08:05 (11)	20:48		21:46	34	21:07 (13)
	3	08:42	08:02	06:56		06:33		07:28 (11)	05:17		04:22		20:32 (13)
		15:39	16:39	17:41		19:47	35	08:03 (11)	20:50		21:47	36	21:08 (13)
	4	08:41	08:00	06:53		06:30		07:30 (11)	05:14		04:21		20:32 (13)
		15:40	16:41	17:44		19:49	32	08:02 (11)	20:53		21:48	36	21:08 (13)
	5	08:41	07:58	06:51		06:27		07:30 (11)	05:12		04:20		20:32 (13)
		15:42	16:43	17:46		19:52	31	08:01 (11)	20:55		21:50	36	21:08 (13)
	6	08:40	07:55	06:48		06:25		07:30 (11)	05:10		04:19		20:31 (13)
		15:43	16:45	17:48		19:54	29	07:59 (11)	20:57		21:51	37	21:08 (13)
	7	08:40	07:53	06:45		06:22		07:32 (11)	05:08		04:18		20:32 (13)
		15:45	16:48	17:50		19:56	25	07:57 (11)	20:59		21:52	37	21:09 (13)
	8	08:39	07:51	06:43		06:19		07:34 (11)	05:05		04:17		20:32 (13)
		15:46	16:50	17:52		19:58	20	07:54 (11)	21:01		21:53	37	21:09 (13)
	9	08:38	07:49	06:40		06:17		07:36 (11)	05:03		04:16		20:32 (13)
		15:48	16:52	17:54		20:00	15	07:51 (11)	21:03		21:54	38	21:10 (13)
	10	08:37	07:47	06:37		06:14			05:01		04:16		20:32 (13)
		15:49	16:54	17:57		20:02			21:05		21:55	38	21:10 (13)
	11	08:36	07:45	06:35		06:12			04:59		04:15		20:32 (13)
		15:51	16:57	17:59		20:04			21:07		21:56	39	21:11 (13)
	12	08:36	07:42	06:32		06:09			04:57		04:15		20:32 (13)
		15:53	16:59	18:01		20:06			21:09		21:57	38	21:10 (13)
	13	08:35	07:40	06:29		06:06			04:55		04:14		20:32 (13)
		15:55	17:01	18:03		20:08			21:11		21:58	39	21:11 (13)
	14	08:33	07:38	06:27		06:04			04:53		04:14		04:51 (2)
		15:56	17:03	18:05		20:11			21:13		21:58	39	21:11 (13)
	15	08:32	07:35	06:24		06:01			04:51		04:14		04:51 (2)
		15:58	17:06	18:07		20:13			21:15		21:59	41	21:12 (13)
	16	08:31	07:33	06:21		05:58			04:49		04:13		04:51 (2)
		16:00	17:08	18:09		20:15			21:17		22:00	41	21:12 (13)
	17	08:30	07:31	06:19		05:56			04:47		04:13		04:51 (2)
		16:02	17:10	18:12	13	06:58 (11)			21:19		22:00	42	21:12 (13)
	18	08:29	07:28	06:16		06:41 (11)			04:45		04:13		04:51 (2)
		16:04	17:13	18:14	20	07:01 (11)			21:21		22:01	42	21:13 (13)
	19	08:27	07:26	06:13		06:39 (11)			04:43		04:13		04:51 (2)
		16:06	17:15	18:16	25	07:04 (11)			21:22		22:01	43	21:13 (13)
	20	08:26	07:23	06:11		06:37 (11)			04:42	20:45 (13)	04:13		04:51 (2)
		16:08	17:17	18:18	28	07:05 (11)			21:24	3	20:48 (13)	43	21:13 (13)
	21	08:24	07:21	06:08		06:35 (11)			04:40		20:41 (13)		04:51 (2)
		16:10	17:19	18:20	31	07:06 (11)			21:26	9	20:50 (13)	43	21:13 (13)
	22	08:23	07:19	06:05		06:34 (11)			04:38		20:40 (13)		04:51 (2)
		16:12	17:22	18:22	33	07:07 (11)			21:28	12	20:52 (13)	43	21:13 (13)
	23	08:21	07:16	06:02		06:33 (11)			04:37		20:38 (13)		04:51 (2)
		16:14	17:24	18:24	34	07:07 (11)			21:30	15	20:53 (13)	43	21:13 (13)
	24	08:20	07:14	06:00		06:31 (11)			04:35		20:37 (13)		04:52 (2)
		16:17	17:26	18:26	37	07:08 (11)			21:31	18	20:55 (13)	43	21:14 (13)
	25	08:18	07:11	05:57		06:30 (11)			04:33		20:35 (13)		04:52 (2)
		16:19	17:28	18:28	37	07:07 (11)			21:33	20	20:55 (13)	42	21:14 (13)
	26	08:16	07:09	05:54		06:30 (11)			04:32		20:35 (13)		04:53 (2)
		16:21	17:30	18:31	38	07:08 (11)			21:35	22	20:57 (13)	42	21:14 (13)
	27	08:15	07:06	05:52		06:29 (11)			04:30		20:34 (13)		04:53 (2)
		16:23	17:33	18:33	39	07:08 (11)			21:36	25	20:59 (13)	41	21:14 (13)
	28	08:13	07:03	05:49		06:28 (11)			04:29		20:34 (13)		04:54 (2)
		16:25	17:35	18:35	39	07:07 (11)			21:38	26	21:00 (13)	40	21:15 (13)
	29	08:11		06:46		07:29 (11)			04:28		20:34 (13)		20:35 (13)
		16:27		19:37	39	08:08 (11)			21:40	28	21:02 (13)	39	21:14 (13)
	30	08:09		06:44		07:28 (11)			04:26		20:33 (13)		20:36 (13)
		16:30		19:39	39	08:07 (11)			21:41	30	21:03 (13)	38	21:14 (13)
	31	08:07		06:41		07:28 (11)			04:25		20:33 (13)		
		16:32		19:41	38	08:06 (11)			21:43	32	21:05 (13)		
Möjliga soltimmar		234	265	366		427			509		530		
Totalt, värsta fall				490		261			240		1183		
Sol reduktion				0,22		0,43			0,54		0,43		
Drifttid red.				1,00		1,00			1,00		1,00		
Vindrikt. red.				0,13		0,13			0,59		0,59		
Total reduktion				0,03		0,05			0,29		0,23		
Total, verklig				13		13			69		276		

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: F - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (98)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drifttid
0 Totalt
8 760 8 760

	Jul	Augusti	September	Oktober	November	December
1	04:18 22:01 39	20:36 (13) 21:15 (13) 21:19	05:04 21:19 20:04		07:07 18:43 16:25	08:16 15:33
2	04:19 22:00 38	20:37 (13) 21:15 (13) 21:17	05:06 20:02 15	07:41 (11) 07:42 (11) 07:34 (11)	07:09 18:41 16:23	08:17 15:32 08:19
3	04:20 22:00 38	20:36 (13) 21:14 (13) 21:15	05:08 21:15 19:59	07:31 (11) 07:49 (11) 18:38	07:11 18:38 16:20	08:19 15:31
4	04:21 21:59 38	20:37 (13) 21:15 (13) 21:13	05:10 19:54 20	07:31 (11) 07:51 (11) 18:35	07:13 16:18 15:31	08:21 15:31
5	04:22 21:58 38	20:37 (13) 21:15 (13) 21:10	05:12 19:54 24	07:29 (11) 07:53 (11) 18:32	07:16 16:16 15:30	08:22 15:30
6	04:23 21:58 37	20:38 (13) 21:15 (13) 21:08	05:14 19:51 28	07:27 (11) 07:55 (11) 18:30	07:18 16:14 15:29	08:24 15:29
7	04:24 21:57 37	20:38 (13) 21:15 (13) 21:06	05:16 19:48 31	07:25 (11) 07:56 (11) 18:27	07:20 16:12 15:28	08:25 15:28
8	04:25 21:56 36	20:38 (13) 21:14 (13) 21:04	05:18 19:46 33	07:24 (11) 07:57 (11) 18:25	07:22 16:10 15:28	08:27 15:28
9	04:26 21:55 35	20:40 (13) 21:15 (13) 21:02	05:20 19:43 34	07:23 (11) 07:57 (11) 18:22	07:31 16:08 15:27	08:28 15:27
10	04:27 21:54 35	20:40 (13) 21:15 (13) 20:59	05:22 19:40 36	07:22 (11) 07:58 (11) 18:19	07:33 16:06 15:27	08:29 15:27
11	04:29 21:53 34	20:40 (13) 21:14 (13) 20:57	05:24 19:37 37	07:21 (11) 07:58 (11) 18:17	07:35 16:04 15:27	08:31 15:27
12	04:30 21:52 33	20:40 (13) 21:13 (13) 20:55	05:26 19:35 38	07:20 (11) 07:58 (11) 18:14	07:30 16:02 15:26	08:32 15:26
13	04:32 21:51 30	20:41 (13) 21:11 (13) 20:52	05:28 19:32 38	07:20 (11) 07:58 (11) 18:11	07:40 16:00 15:26	08:33 15:26
14	04:33 21:49 29	20:42 (13) 21:11 (13) 20:50	05:30 19:29 39	07:19 (11) 07:58 (11) 18:09	07:42 15:58 15:26	08:34 15:26
15	04:34 21:48 28	20:42 (13) 21:10 (13) 20:47	05:32 19:27 39	07:19 (11) 07:58 (11) 18:06	07:44 15:56 15:26	08:35 15:26
16	04:36 21:47 25	20:43 (13) 21:08 (13) 20:45	05:34 19:24 38	07:19 (11) 07:57 (11) 18:04	07:39 15:54 15:26	08:36 15:26
17	04:38 21:45 23	20:44 (13) 21:07 (13) 20:43	05:36 19:21 38	07:19 (11) 07:57 (11) 18:01	07:48 15:53 15:26	08:37 15:26
18	04:39 21:44 21	20:45 (13) 21:06 (13) 20:40	05:38 19:18 37	07:19 (11) 07:56 (11) 17:59	07:50 15:51 15:26	08:38 15:26
19	04:41 21:42 19	20:46 (13) 21:05 (13) 20:38	05:40 19:16 36	07:18 (11) 07:54 (11) 17:56	07:52 15:49 15:26	08:39 15:26
20	04:42 21:41 16	20:47 (13) 21:03 (13) 20:35	05:42 19:13 35	07:18 (11) 07:53 (11) 17:54	07:47 15:48 15:27	08:39 15:27
21	04:44 21:39 13	20:49 (13) 21:02 (13) 20:33	05:44 19:10 33	07:19 (11) 07:52 (11) 17:51	07:49 15:46 15:27	08:40 15:27
22	04:46 21:38 10	20:50 (13) 21:00 (13) 20:30	05:46 19:08 32	07:19 (11) 07:51 (11) 17:49	07:58 15:45 15:28	08:41 15:28
23	04:48 21:36 6	20:53 (13) 20:59 (13) 20:28	05:48 19:05 29	07:20 (11) 07:49 (11) 17:46	08:00 15:43 15:28	08:41 15:28
24	04:49 21:34		05:50 19:02 26	07:22 (11) 07:48 (11) 17:44	08:02 15:42 15:29	08:42 15:29
25	04:51 21:32		05:52 20:22 22	07:24 (11) 07:46 (11) 16:41	08:04 15:40 15:29	08:42 15:29
26	04:53 21:31		05:54 20:20 16	07:27 (11) 07:43 (11) 16:39	08:06 15:39 15:30	08:42 15:30
27	04:55 21:29		05:57 20:17 6	07:31 (11) 07:37 (11) 16:36	08:08 15:38 15:31	08:42 15:31
28	04:57 21:27		05:59 20:15 18:51	07:04 16:34 15:37	08:10 15:37 15:32	08:42 15:32
29	04:59 21:25		06:01 20:12 18:49	07:07 16:32 15:35	08:12 15:35 15:33	08:43 15:33
30	05:00 21:23		06:03 20:10 18:46	07:09 16:29 15:34	08:14 15:34 15:34	08:42 15:34
31	05:02 21:21		06:05 20:07	07:11 16:27		08:42 15:35
Möjliga soltimmar	531	470	385	323	246	215
Totalt, värsta fall	658		761			
Sol reduktion	0,39		0,31			
Drifttid red.	1,00		1,00			
Vindrikt. red.	0,59		0,13			
Total reduktion	0,21		0,04			
Total, verklig	138		28			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: G - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (99)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:05	07:01	06:38	05:21	04:24	04:18	05:04	06:06	07:07	07:13	08:15
	15:36	16:34	17:37	19:43	20:46	21:44	22:00	21:19	20:04	18:43	16:25	15:33
2	08:42	08:03	06:58	06:35	05:19	04:23	04:19	05:06	06:08	07:09	07:15	08:17
	15:37	16:36	17:39	19:45	20:48	21:45	22:00	21:16	20:01	18:40	16:22	15:32
3	08:41	08:01	06:55	06:33	05:16	04:22	04:19	05:08	06:10	07:11	07:17	08:19
	15:39	16:38	17:41	19:47	20:50	21:47	21:59	21:14	19:59	18:38	16:20	15:31
4	08:41	07:59	06:53	06:30	05:14	04:20	04:20	05:10	06:12	07:13	07:20	08:20
	15:40	16:41	17:43	19:49	20:52	21:48	21:59	21:12	19:56	18:35	16:18	15:30
5	08:40	07:57	06:50	06:27	05:12	04:20	04:21	05:12	06:15	07:15	07:22	08:22
	15:41	16:43	17:46	19:51	20:54	21:49	21:58	21:10	19:53	18:32	16:16	15:30
6	08:40	07:55	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:17	07:24	08:23
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	15:46	16:50	17:52	19:58	21:00	21:53	21:56	21:03	19:45	18:24	16:10	15:28
9	08:38	07:49	06:40	06:17	05:03	04:16	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:54	20:00	21:03	21:54	21:55	21:01	19:43	18:22	16:08	15:27
10	08:37	07:46	06:37	06:14	05:01	04:16	04:27	05:22	06:25	07:26	07:33	08:29
	15:49	16:54	17:56	20:02	21:05	21:55	21:54	20:59	19:40	18:19	16:06	15:27
11	08:36	07:44	06:34	06:11	04:59	04:15	04:29	05:24	06:27	07:28	07:35	08:30
	15:51	16:56	17:59	20:04	21:07	21:56	21:53	20:57	19:37	18:16	16:04	15:26
12	08:35	07:42	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:37	08:32
	15:53	16:59	18:01	20:06	21:09	21:57	21:51	20:54	19:34	18:14	16:02	15:26
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	15:55	17:01	18:03	20:08	21:11	21:57	21:50	20:52	19:32	18:11	16:00	15:26
14	08:33	07:37	06:26	06:03	04:53	04:14	04:33	05:30	06:33	07:34	07:41	08:34
	15:56	17:03	18:05	20:10	21:13	21:58	21:49	20:50	19:29	18:09	15:58	15:26
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	15:58	17:06	18:07	20:12	21:14	21:59	21:48	20:47	19:26	18:06	15:56	15:26
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	16:00	17:08	18:09	20:14	21:16	21:59	21:46	20:45	19:24	18:03	15:54	15:26
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	16:02	17:10	18:11	20:17	21:18	22:00	21:45	20:42	19:21	18:01	15:52	15:26
18	08:28	07:28	06:16	05:53	04:45	04:13	04:39	05:38	06:41	07:43	07:50	08:38
	16:04	17:12	18:13	20:19	21:20	22:00	21:43	20:40	19:18	17:58	15:51	15:26
19	08:27	07:26	06:13	05:51	04:43	04:13	04:41	05:40	06:43	07:45	07:52	08:38
	16:06	17:15	18:16	20:21	21:22	22:01	21:42	20:37	19:15	17:56	15:49	15:26
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21	08:24	07:21	06:08	05:45	04:40	04:13	04:44	05:44	06:47	07:49	07:56	08:40
	16:10	17:19	18:20	20:25	21:26	22:01	21:39	20:32	19:10	17:51	15:46	15:27
22	08:23	07:18	06:05	05:43	04:38	04:13	04:46	05:46	06:49	07:51	07:58	08:40
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	16:21	17:30	18:30	20:36	21:34	22:02	21:30	20:20	18:56	16:39	15:39	15:30
27	08:14	07:06	05:51	05:31	04:30	04:15	04:55	05:56	06:59	07:02	08:08	08:42
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	16:29		19:39	20:44	21:41	22:01	21:23	20:09	18:46	16:29	15:34	15:34
31	08:07		06:41		04:25		05:02	06:04		07:11		08:42
	16:32		19:41		21:42		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: H - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (100)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
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	15:37	16:34	17:37	19:43	20:47	21:44	22:01	21:19	20:04	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:17
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	16:08	17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:54	15:48	15:27
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24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:15	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:33	20:23	19:00	16:42	15:41	15:30
26	08:17	07:09	05:55	05:34	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:16	04:55	05:57	06:59	07:03	08:08	08:43
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:18	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:52	16:34	15:37	15:32
29	08:11		06:47	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:10		06:44	05:24	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: I - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (101)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan	Feb	Mar	Apr	Maj	Jun	Jul	Aug	Sep	Okt	Nov	Dec
1,36	1,52	2,62	6,08	8,82	7,64	6,65	5,42	4,02	2,68	1,38	0,88

Drift tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars		April	Maj	Juni	Juli	Augusti	September		Oktober		November	December		
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	15:37	16:34	17:37		19:43	20:47	21:44	22:01	21:19	20:04		18:43	35	08:24 (3)	16:25	15:33	
2	08:42	08:04	06:59		06:36	05:19	04:23	04:19	05:06	06:09		07:10		07:49 (3)	07:16	08:18	
	15:38	16:36	17:39		19:46	20:49	21:46	22:01	21:17	20:02		18:41	35	08:24 (3)	16:23	15:33	
3	08:42	08:02	06:56		06:33	05:17	04:22	04:20	05:08	06:11		07:12		07:49 (3)	07:18	08:19	
	15:39	16:39	17:42	8	07:34 (3)	19:48	20:51	21:47	22:00	21:15	19:59	18:38	34	08:23 (3)	16:21	15:32	
4	08:41	08:00	06:53		07:22 (3)	06:30	05:15	04:21	04:21	05:10	06:13	07:14		07:49 (3)	07:20	08:21	
	15:40	16:41	17:44	16	07:38 (3)	19:50	20:53	21:49	21:59	21:13	19:57	18:35	33	08:22 (3)	16:18	15:31	
5	08:41	07:58	06:51		07:19 (3)	06:28	05:12	04:20	04:22	05:12	06:15	07:16		07:51 (3)	07:22	08:22	
	15:42	16:43	17:46	21	07:40 (3)	19:52	20:55	21:50	21:59	21:11	19:54	18:33	31	08:22 (3)	16:16	15:30	
6	08:40	07:56	06:48		07:17 (3)	06:25	05:10	04:19	04:23	05:14	06:17	07:18		07:51 (3)	07:25	08:24	
	15:43	16:46	17:48	24	07:41 (3)	19:54	20:57	21:51	21:58	21:08	19:51	18:30	29	08:20 (3)	16:14	15:29	
7	08:40	07:54	06:46		07:16 (3)	06:22	05:08	04:18	04:24	05:16	06:19	07:20		07:52 (3)	07:27	08:26	
	15:45	16:48	17:50	27	07:43 (3)	19:56	20:59	21:52	21:57	21:06	19:48	18:27	26	08:18 (3)	16:12	15:29	
8	08:39	07:51	06:43		07:14 (3)	06:20	05:06	04:17	04:25	05:18	06:21	07:22		07:53 (3)	07:29	08:27	
	15:46	16:50	17:53	30	07:44 (3)	19:58	21:01	21:53	21:56	21:04	19:46	18:25	23	08:16 (3)	16:10	15:28	
9	08:38	07:49	06:40		07:12 (3)	06:17	05:03	04:17	04:26	05:20	06:23	07:24		07:55 (3)	07:31	08:28	
	15:48	16:52	17:55	32	07:44 (3)	20:00	21:03	21:54	21:55	21:02	19:43	18:22	19	08:14 (3)	16:08	15:28	
10	08:38	07:47	06:38		07:11 (3)	06:14	05:01	04:16	04:28	05:22	06:25	07:26		07:57 (3)	07:33	08:30	
	15:50	16:55	17:57	33	07:44 (3)	20:02	21:05	21:55	21:54	20:59	19:40	18:19	14	08:11 (3)	16:06	15:27	
11	08:37	07:45	06:35		07:11 (3)	06:12	04:59	04:15	04:29	05:24	06:27	07:28		07:35	08:31		
	15:51	16:57	17:59	34	07:45 (3)	20:04	21:07	21:56	21:53	20:57	19:38	18:17		16:04	15:27		
12	08:36	07:43	06:32		07:10 (3)	06:09	04:57	04:15	04:30	05:26	06:29	07:30		07:38	08:32		
	15:53	16:59	18:01	35	07:45 (3)	20:07	21:09	21:57	21:52	20:55	19:35	18:14		16:02	15:27		
13	08:35	07:40	06:30		07:09 (3)	06:06	04:55	04:14	04:32	05:28	06:31	07:32		07:40	08:33		
	15:55	17:01	18:03	36	07:45 (3)	20:09	21:11	21:58	21:51	20:52	19:32	18:12		16:00	15:26		
14	08:34	07:38	06:27		07:10 (3)	06:04	04:53	04:14	04:33	05:30	06:33	07:35		07:42	08:34		
	15:57	17:04	18:05	35	07:45 (3)	20:11	21:13	21:59	21:50	20:50	19:30	18:09		15:58	15:26		
15	08:33	07:36	06:24		07:09 (3)	06:01	04:51	04:14	04:35	05:32	06:35	07:37		07:44	08:36		
	15:59	17:06	18:08	36	07:45 (3)	20:13	21:15	21:59	21:48	20:48	19:27	18:06		15:56	15:26		
16	08:31	07:33	06:22		07:09 (3)	05:59	04:49	04:13	04:36	05:34	06:37	07:39		07:46	08:36		
	16:00	17:08	18:10	35	07:44 (3)	20:15	21:17	22:00	21:47	20:45	19:24	18:04		15:55	15:26		
17	08:30	07:31	06:19		07:09 (3)	05:56	04:47	04:13	04:38	05:36	06:39	07:41		07:48	08:37		
	16:02	17:10	18:12	34	07:43 (3)	20:17	21:19	22:01	21:46	20:43	19:21	18:01		15:53	15:26		
18	08:29	07:29	06:16		07:09 (3)	05:54	04:45	04:13	04:39	05:38	06:41	07:43		07:50	08:38		
	16:04	17:13	18:14	34	07:43 (3)	20:19	21:21	22:01	21:44	20:40	19:19	17:59		15:51	15:26		
19	08:28	07:26	06:14		07:10 (3)	05:51	04:44	04:13	04:41	05:40	06:43	07:45	08:04 (3)	07:45	07:53	08:39	
	16:06	17:15	18:16	31	07:41 (3)	20:21	21:23	22:01	21:43	20:38	19:16	13	08:17 (3)	17:56	15:49	15:27	
20	08:26	07:24	06:11		07:10 (3)	05:48	04:42	04:13	04:43	05:42	06:45	07:47		08:01 (3)	07:47	07:55	08:40
	16:08	17:17	18:18	30	07:40 (3)	20:23	21:25	22:02	21:41	20:35	19:13	19	08:20 (3)	17:54	15:48	15:27	
21	08:25	07:21	06:08		07:10 (3)	05:46	04:40	04:13	04:44	05:45	06:47	07:58 (3)	07:50	07:57	08:40		
	16:10	17:19	18:20	28	07:38 (3)	20:26	21:26	22:02	21:39	20:33	19:11	24	08:22 (3)	17:51	15:46	15:27	
22	08:23	07:19	06:05		07:12 (3)	05:43	04:38	04:13	04:46	05:47	06:49	07:56 (3)	07:52	07:59	08:41		
	16:13	17:22	18:22	25	07:37 (3)	20:28	21:28	22:02	21:38	20:30	19:08	27	08:23 (3)	17:49	15:45	15:28	
23	08:22	07:16	06:03		07:13 (3)	05:41	04:37	04:14	04:48	05:49	06:51	07:55 (3)	07:54	08:01	08:41		
	16:15	17:24	18:24	21	07:34 (3)	20:30	21:30	22:02	21:36	20:28	19:05	29	08:24 (3)	17:46	15:43	15:28	
24	08:20	07:14	06:00		07:15 (3)	05:38	04:35	04:14	04:50	05:51	06:53	07:54 (3)	07:56	08:03	08:42		
	16:17	17:26	18:27	16	07:31 (3)	20:32	21:32	22:02	21:34	20:25	19:02	31	08:25 (3)	17:44	15:42	15:29	
25	08:18	07:11	05:57		07:21 (3)	05:36	04:34	04:14	04:51	05:53	06:55	07:52 (3)	06:58	08:05	08:42		
	16:19	17:28	18:29	5	07:26 (3)	20:34	21:33	22:02	21:33	20:23	19:00	33	08:25 (3)	16:41	15:41	15:30	
26	08:17	07:09	05:55		05:33	04:32	04:15	04:53	05:55	06:57	07:52 (3)	07:00		08:07	08:42		
	16:21	17:31	18:31		20:36	21:35	22:02	21:31	20:20	18:57	33	08:25 (3)	16:39	15:39	15:30		
27	08:15	07:06	05:52		05:31	04:31	04:15	04:55	05:57	06:59	07:51 (3)	07:03		08:09	08:43		
	16:23	17:33	18:33		20:38	21:37	22:02	21:29	20:18	18:54	35	08:26 (3)	16:37	15:38	15:31		
28	08:13	07:04	05:49		05:29	04:29	04:16	04:57	05:59	07:01		07:50 (3)	07:05	08:10	08:43		
	16:25	17:35	18:35		20:40	21:38	22:02	21:27	20:15	18:52	35	08:25 (3)	16:34	15:37	15:32		
29	08:11		06:46		05:26	04:28	04:17	04:59	06:01	07:03		07:50 (3)	07:07	08:12	08:43		
	16:28		19:37		20:42	21:40	22:02	21:25	20:12	18:49	35	08:25 (3)	16:32	15:36	15:33		
30	08:10		06:44		05:24	04:27	04:17	05:01	06:03	07:05		07:49 (3)	07:09	08:14	08:43		
	16:30		19:39		20:44	21:41	22:01	21:23	20:10	18:46	36	08:25 (3)	16:30	15:35	15:34		
31	08:08		06:41			04:25		05:03	06:05			07:11			08:43		
	16:32		19:41			21:43		21:21	20:07			16:27			15:35		
Möjliga soltimmar	234	265	366		427	509	531	531	470	385		323		246	214		
Totalt, värsta fall				626							350		279				
Sol reduktion				0,22							0,31		0,26				
Drifttid red.				1,00							1,00		1,00				
Vindrikt. red.				0,30							0,30		0,30				
Total reduktion				0,07							0,10		0,08				
Total, verklig				42							33		22				

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: J - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (102)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan	Feb	Mar	Apr	Maj	Jun	Jul	Aug	Sep	Okt	Nov	Dec
1,36	1,52	2,62	6,08	8,82	7,64	6,65	5,42	4,02	2,68	1,38	0,88

Drift tid

0 Totalt

8 760 8 760

		Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	11:26 (6)	08:06	07:01	06:38	05:21	04:24	04:18	05:04	06:07	07:07	07:13	08:16
	15:36	48	12:14 (6)	16:34	17:37	19:43	20:46	21:44	22:01	21:19	20:04	18:43	16:25
2	08:42	11:27 (6)	08:04	06:58	06:35	05:19	04:23	04:18	05:06	06:09	07:09	07:16	08:17
	15:37	48	12:15 (6)	16:36	17:39	19:45	20:49	21:46	22:00	21:17	20:02	18:40	16:23
3	08:42	11:27 (6)	08:02	06:56	06:33	05:16	04:21	04:19	05:08	06:11	07:11	07:18	08:19
	15:39	48	12:15 (6)	16:38	17:41	19:47	20:51	21:47	22:00	21:15	19:59	18:38	16:20
4	08:41	11:28 (6)	08:00	06:53	06:30	05:14	04:20	04:20	05:10	06:13	07:13	07:20	08:21
	15:40	48	12:16 (6)	16:41	17:44	19:50	20:53	21:48	21:59	21:13	19:56	18:35	16:18
5	08:41	11:28 (6)	07:58	06:51	06:27	05:12	04:19	04:21	05:12	06:15	07:16	07:22	08:22
	15:41	48	12:16 (6)	16:43	17:46	19:52	20:55	21:50	21:59	21:11	19:54	18:32	16:16
6	08:40	11:29 (6)	07:56	06:48	06:25	05:10	04:19	04:22	05:14	06:17	07:18	07:24	08:24
	15:43	47	12:16 (6)	16:45	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14
7	08:40	11:29 (6)	07:53	06:45	06:22	05:07	04:18	04:24	05:16	06:19	07:20	07:27	08:25
	15:44	47	12:16 (6)	16:47	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12
8	08:39	11:30 (6)	07:51	06:43	06:19	05:05	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	47	12:17 (6)	16:50	17:52	19:58	21:01	21:53	21:56	21:04	19:46	18:24	16:10
9	08:38	11:30 (6)	07:49	06:40	06:17	05:03	04:16	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	47	12:17 (6)	16:52	17:54	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08
10	08:38	11:31 (6)	07:47	06:37	06:14	05:01	04:16	04:27	05:22	06:25	07:26	07:33	08:30
	15:49	46	12:17 (6)	16:54	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:19	16:06
11	08:37	11:32 (6)	07:45	06:35	06:11	04:59	04:15	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	46	12:18 (6)	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:37	18:17	16:04
12	08:36	11:33 (6)	07:42	06:32	06:09	04:57	04:14	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	45	12:18 (6)	16:59	18:01	20:06	21:09	21:57	21:52	20:55	19:35	18:14	16:02
13	08:35	11:33 (6)	07:40	06:29	06:06	04:55	04:14	04:31	05:28	06:31	07:32	07:40	08:33
	15:54	44	12:17 (6)	17:01	18:03	20:08	21:11	21:58	21:51	20:52	19:32	18:11	16:00
14	08:34	11:34 (6)	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:34	07:42	08:34
	15:56	44	12:18 (6)	17:03	18:05	20:11	21:13	21:59	21:50	20:50	19:29	18:09	15:58
15	08:33	11:34 (6)	07:35	06:24	06:01	04:51	04:13	04:34	05:32	06:35	07:36	07:44	11:25 (6)
	15:58	43	12:17 (6)	17:06	18:07	20:13	21:15	21:59	21:48	20:48	19:27	18:06	15:56
16	08:31	11:35 (6)	07:33	06:21	05:58	04:49	04:13	04:36	05:34	06:37	07:39	07:46	11:26 (6)
	16:00	42	12:17 (6)	17:08	18:09	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:54
17	08:30	11:36 (6)	07:31	06:19	05:56	04:47	04:13	04:37	05:36	06:39	07:41	07:48	11:20 (6)
	16:02	41	12:17 (6)	17:10	18:12	20:17	21:19	22:01	21:45	20:43	19:21	18:01	15:52
18	08:29	11:37 (6)	07:28	06:16	05:53	04:45	04:13	04:39	05:38	06:41	07:43	07:50	11:19 (6)
	16:04	40	12:17 (6)	17:12	18:14	20:19	21:21	22:01	21:44	20:40	19:18	17:59	15:51
19	08:27	11:38 (6)	07:26	06:13	05:51	04:43	04:13	04:41	05:40	06:43	07:45	07:52	11:18 (6)
	16:06	38	12:16 (6)	17:15	18:16	20:21	21:23	22:01	21:43	20:38	19:16	17:56	15:49
20	08:26	11:39 (6)	07:24	06:11	05:48	04:41	04:13	04:42	05:42	06:45	07:47	07:55	11:17 (6)
	16:08	37	12:16 (6)	17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:53	15:47
21	08:25	11:41 (6)	07:21	06:08	05:46	04:40	04:13	04:44	05:44	06:47	07:49	07:57	11:16 (6)
	16:10	35	12:16 (6)	17:19	18:20	20:25	21:26	22:02	21:39	20:33	19:10	17:51	15:46
22	08:23	11:42 (6)	07:19	06:05	05:43	04:38	04:13	04:46	05:46	06:49	07:51	07:59	11:15 (6)
	16:12	33	12:15 (6)	17:21	18:22	20:27	21:28	22:02	21:38	20:30	19:08	17:49	15:44
23	08:22	11:43 (6)	07:16	06:02	05:41	04:36	04:13	04:47	05:48	06:51	07:54	08:01	11:15 (6)
	16:14	31	12:14 (6)	17:24	18:24	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43
24	08:20	11:45 (6)	07:14	06:00	05:38	04:35	04:14	04:49	05:50	06:53	07:56	08:03	11:14 (6)
	16:16	28	12:13 (6)	17:26	18:26	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42
25	08:18	11:47 (6)	07:11	05:57	05:36	04:33	04:14	04:51	05:52	06:55	06:58	08:05	11:14 (6)
	16:19	24	12:11 (6)	17:28	18:28	20:34	21:33	22:02	21:33	20:23	18:59	16:41	15:40
26	08:17	11:49 (6)	07:09	05:54	05:33	04:32	04:14	04:53	05:54	06:57	07:00	08:07	11:14 (6)
	16:21	20	12:09 (6)	17:30	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39
27	08:15	11:52 (6)	07:06	05:52	05:31	04:30	04:15	04:55	05:56	06:59	07:02	08:08	11:14 (6)
	16:23	14	12:06 (6)	17:33	18:33	20:38	21:37	22:02	21:29	20:17	18:54	16:36	15:38
28	08:13		07:04	05:49	05:28	04:29	04:16	04:56	05:58	07:01	07:05	08:10	11:14 (6)
	16:25		17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:51	16:34	15:36	11:58 (6)
29	08:11			06:46	05:26	04:27	04:16	04:58	06:00	07:03	07:07	08:12	11:14 (6)
	16:27			19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:35	11:58 (6)
30	08:09			06:44	05:23	04:26	04:17	05:00	06:03	07:05	07:09	08:14	11:14 (6)
	16:29			19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:29	15:34	11:59 (6)
31	08:08			06:41		04:25		05:02	06:05		07:11		08:43
	16:32			19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234		265	366	427	509	531	531	470	385	323	246	214
Totalt, värsta fall	1079											561	1482
Sol reduktion	0,18											0,17	0,13
Drifttid red.	1,00											1,00	1,00
Vindrikt. red.	1,00											1,00	1,00
Total reduktion	0,18											0,17	0,13
Total, verklig	194											94	188

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: K - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (103)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars		April		Maj		Juni	
1	08:42 15:36	08:05 16:34	07:01 17:37		06:38 19:43	30	07:20 (9) 07:50 (9)	05:21 20:46	04:24 21:44	04:59 (11) 05:32 (11)
2	08:42 15:38	08:04 16:36	06:58 17:39		06:35 19:45	28	07:20 (9) 07:48 (9)	05:19 20:48	04:23 21:45	04:59 (11) 05:33 (11)
3	08:42 15:39	08:02 16:39	06:56 17:41		06:33 19:47	25	07:21 (9) 07:46 (9)	05:17 20:50	04:22 21:47	04:58 (11) 05:34 (11)
4	08:41 15:40	08:00 16:41	06:53 17:44		06:30 19:49	22	07:23 (9) 07:45 (9)	05:14 20:52	04:21 21:48	04:58 (11) 05:34 (11)
5	08:41 15:42	07:57 16:43	06:51 17:46		06:27 19:52	18	07:24 (9) 07:42 (9)	05:12 20:55	04:20 21:49	04:57 (11) 05:34 (11)
6	08:40 15:43	07:55 16:45	06:48 17:48		06:25 19:54	13	07:26 (9) 07:39 (9)	05:10 20:57	04:19 21:51	04:57 (11) 05:35 (11)
7	08:40 15:45	07:53 16:48	06:45 17:50		06:22 19:56		05:08 20:59	04:18 21:52	04:57 (11) 05:36 (11)	
8	08:39 15:46	07:51 16:50	06:43 17:52		06:19 19:58		05:05 21:01	04:17 21:53	04:56 (11) 05:36 (11)	
9	08:38 15:48	07:49 16:52	06:40 17:54		06:17 20:00		05:03 21:03	04:16 21:54	04:57 (11) 05:37 (11)	
10	08:37 15:49	07:47 16:54	06:37 17:57		06:14 20:02		05:01 21:05	04:16 21:55	04:56 (11) 05:37 (11)	
11	08:36 15:51	07:44 16:57	06:35 17:59		06:12 20:04		04:59 21:07	04:15 21:56	04:57 (11) 05:38 (11)	
12	08:35 15:53	07:42 16:59	06:32 18:01		06:09 20:06		04:57 21:09	04:15 21:57	04:56 (11) 05:38 (11)	
13	08:34 15:55	07:40 17:01	06:29 18:03		06:06 20:08		04:55 21:11	04:14 21:58	04:56 (11) 05:38 (11)	
14	08:33 15:57	07:38 17:03	06:27 18:05		06:04 20:10		04:53 21:13	04:14 21:58	04:57 (11) 05:39 (11)	
15	08:32 15:58	07:35 17:06	06:24 18:07		06:01 20:13		04:51 21:15	04:14 21:59	04:57 (11) 05:39 (11)	
16	08:31 16:00	07:33 17:08	06:21 18:09		05:58 20:15		04:49 21:17	04:13 22:00	04:57 (11) 05:40 (11)	
17	08:30 16:02	07:31 17:10	06:19 18:12	1	06:44 (9) 06:45 (9)		05:56 20:17	04:47 21:19	04:57 (11) 05:40 (11)	
18	08:29 16:04	07:28 17:13	06:16 18:14	7	06:41 (9) 06:48 (9)		05:53 20:19	04:45 21:20	04:57 (11) 05:40 (11)	
19	08:27 16:06	07:26 17:15	06:13 18:16	11	06:39 (9) 06:50 (9)		05:51 20:21	04:43 21:22	04:57 (11) 05:41 (11)	
20	08:26 16:08	07:23 17:17	06:11 18:18	15	06:36 (9) 06:51 (9)		05:48 20:23	04:42 21:24	04:58 (11) 05:41 (11)	
21	08:24 16:10	07:21 17:19	06:08 18:20	19	06:33 (9) 06:52 (9)		05:46 20:25	04:40 21:26	04:58 (11) 05:41 (11)	
22	08:23 16:12	07:18 17:21	06:05 18:22	22	06:31 (9) 06:53 (9)		05:43 20:27	04:38 21:28	04:58 (11) 05:41 (11)	
23	08:21 16:14	07:16 17:24	06:02 18:24	25	06:28 (9) 06:53 (9)		05:41 20:29	04:37 21:30	04:58 (11) 05:41 (11)	
24	08:20 16:17	07:14 17:26	06:00 18:26	28	06:25 (9) 06:53 (9)		05:38 20:32	04:35 21:31	04:58 (11) 05:42 (11)	
25	08:18 16:19	07:11 17:28	05:57 18:28	31	06:22 (9) 06:53 (9)		05:36 20:34	04:33 21:33	04:58 (11) 05:41 (11)	
26	08:16 16:21	07:08 17:30	05:54 18:31	34	06:20 (9) 06:54 (9)		05:33 20:36	04:32 21:35	04:59 (11) 05:42 (11)	
27	08:15 16:23	07:06 17:33	05:52 18:33	33	06:20 (9) 06:53 (9)		05:31 20:38	04:30 21:36	04:59 (11) 05:42 (11)	
28	08:13 16:25	07:03 17:35	05:49 18:35	33	06:19 (9) 06:52 (9)		05:28 20:40	04:29 21:38	05:00 (11) 05:42 (11)	
29	08:11 16:27		06:46 19:37	33	07:20 (9) 07:53 (9)		05:26 20:42	04:28 21:40	04:16 22:01	04:59 (11) 05:42 (11)
30	08:09 16:30		06:44 19:39	33	07:19 (9) 07:52 (9)		05:24 20:44	04:26 21:41	04:17 22:01	05:00 (11) 05:42 (11)
31	08:07 16:32		06:41 19:41	31	07:19 (9) 07:50 (9)			04:25 21:43	05:00 (11) 05:31 (11)	
Möjliga soltimmar	234	265	366		427		509		530	
Totalt, värsta fall				356	136		180		1228	
Sol reduktion				0,22	0,43		0,54		0,43	
Drifttid red.				1,00	1,00		1,00		1,00	
Vindrikt. red.				0,09	0,09		0,57		0,57	
Total reduktion				0,02	0,03		0,28		0,23	
Total, verklig				6	5		51		278	

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: K - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (103)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Jul	Augusti	September	Oktober	November	December
1	04:18 22:01 41	05:01 (11) 05:42 (11) 21:19	05:04 21:19 20:04	07:07 18:43 15:33	07:13 16:25 15:33	08:15 15:33
2	04:19 22:00 41	05:01 (11) 05:42 (11) 21:17	05:06 20:02 06:11	07:09 18:40 15:32	07:15 16:23 15:32	08:17 15:32
3	04:20 22:00 40	05:01 (11) 05:41 (11) 21:15	05:08 19:59 06:13	07:11 18:38 15:31	07:18 16:20 15:31	08:19 15:31
4	04:21 21:59 39	05:02 (11) 05:41 (11) 21:10	05:10 19:54 06:17	07:13 18:35 15:30	07:20 16:18 15:30	08:21 15:30
5	04:22 21:58 39	05:02 (11) 05:41 (11) 21:10	05:12 19:54 06:17	07:15 18:32 15:29	07:22 16:16 15:29	08:22 15:29
6	04:23 21:58 38	05:03 (11) 05:41 (11) 21:08	05:14 19:51 06:19	07:22 (9) 18:30 15:29	07:18 16:14 15:29	08:24 15:29
7	04:24 21:57 38	05:03 (11) 05:41 (11) 21:06	05:16 19:48 06:21	07:19 (9) 18:27 15:28	07:20 16:12 15:28	08:25 15:28
8	04:25 21:56 37	05:04 (11) 05:41 (11) 21:04	05:18 19:46 06:23	07:17 (9) 18:24 15:27	07:22 16:10 15:27	08:27 15:27
9	04:26 21:55 36	05:05 (11) 05:41 (11) 21:01	05:20 19:43 06:25	07:15 (9) 18:22 15:26	07:24 16:08 15:26	08:28 15:26
10	04:27 21:54 35	05:06 (11) 05:41 (11) 20:59	05:22 19:40 06:27	07:14 (9) 18:19 15:25	07:26 16:06 15:25	08:29 15:25
11	04:29 21:53 33	05:07 (11) 05:40 (11) 20:57	05:24 19:37 06:29	07:13 (9) 18:17 15:24	07:28 16:04 15:24	08:31 15:24
12	04:30 21:52 32	05:07 (11) 05:39 (11) 20:55	05:26 19:35 06:31	07:12 (9) 18:14 15:23	07:30 16:02 15:23	08:32 15:23
13	04:32 21:50 30	05:08 (11) 05:38 (11) 20:52	05:28 19:32 06:33	07:11 (9) 18:11 15:22	07:32 16:00 15:22	08:33 15:22
14	04:33 21:49 28	05:10 (11) 05:38 (11) 20:50	05:30 19:29 06:35	07:10 (9) 18:09 15:21	07:34 15:58 15:21	08:34 15:21
15	04:34 21:48 26	05:11 (11) 05:37 (11) 20:47	05:32 19:27 06:37	07:09 (9) 18:06 15:20	07:36 15:56 15:20	08:35 15:20
16	04:36 21:47 24	05:12 (11) 05:36 (11) 20:45	05:34 19:24 06:39	07:09 (9) 18:04 15:19	07:39 15:54 15:19	08:36 15:19
17	04:38 21:45 21	05:14 (11) 05:35 (11) 20:43	05:36 19:21 06:41	07:09 (9) 18:01 15:18	07:41 15:53 15:18	08:37 15:18
18	04:39 21:44 18	05:15 (11) 05:33 (11) 20:40	05:38 19:18 06:43	07:09 (9) 17:59 15:17	07:43 15:51 15:17	08:38 15:17
19	04:41 21:42 13	05:18 (11) 05:31 (11) 20:38	05:40 19:16 06:45	07:11 (9) 17:56 15:16	07:45 15:49 15:16	08:39 15:16
20	04:42 21:41 6	05:21 (11) 05:27 (11) 20:35	05:42 19:13 06:47	07:13 (9) 17:54 15:15	07:47 15:48 15:15	08:39 15:15
21	04:44 21:39 23	05:44 20:33 19:10	06:47 19:10 15:46	07:15 (9) 17:51 15:46	07:49 15:46 15:46	08:40 15:46
22	04:46 21:37 20	05:46 20:30 19:08	06:49 19:08 15:45	07:17 (9) 17:49 15:45	07:51 15:45 15:45	08:41 15:45
23	04:48 21:36 16	05:48 20:28 19:05	06:51 19:05 15:43	07:19 (9) 17:46 15:43	07:54 15:43 15:43	08:41 15:43
24	04:49 21:34 13	05:50 20:25 19:02	06:53 19:02 15:42	07:21 (9) 17:44 15:42	07:56 15:42 15:42	08:41 15:42
25	04:51 21:32 8	05:52 20:22 18:59	06:55 18:59 15:40	07:24 (9) 16:41 15:40	08:04 15:40 15:40	08:42 15:40
26	04:53 21:30 3	05:54 20:20 18:57	06:57 18:57 15:39	07:26 (9) 16:39 15:39	08:06 15:39 15:39	08:42 15:39
27	04:55 21:29 28	05:56 20:17 18:54	06:59 18:54 15:31	07:29 (9) 16:36 15:31	08:08 15:38 15:31	08:42 15:31
28	04:57 21:27 29	05:59 20:15 18:51	07:01 18:51 15:32	07:04 16:34 15:32	08:10 15:37 15:32	08:42 15:32
29	04:59 21:25 30	06:01 20:12 18:49	07:03 18:49 15:33	07:07 16:32 15:33	08:12 15:35 15:33	08:42 15:33
30	05:00 21:23 31	06:03 20:09 18:46	07:05 18:46 15:34	07:09 16:29 15:34	08:14 15:34 15:34	08:42 15:34
Möjliga soltimmar	531	470	385	323	246	215
Totalt, värsta fall	615		501			
Sol reduktion	0,39		0,31			
Drifttid red.	1,00		1,00			
Vindrikt. red.	0,57		0,09			
Total reduktion	0,20		0,03			
Total, verklig	125		13			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: L - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (104)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drifftid
0
8 760 8 760

	Januari	Februari	Mars	April		Maj		Juni	Juli		Augusti		September	Oktober	November	December		
1	08:42 15:36	08:05 16:34	07:01 17:37	06:38 19:43		05:21 20:46		19:17 (9) 20:01 (9)	04:24 21:44	04:18 22:00	05:04 21:19	45	19:26 (9) 20:11 (9)	06:06 20:04	07:07 18:43	07:13 16:25	08:15 15:33	
2	08:42 15:37	08:03 16:36	06:58 17:39	06:35 19:45		05:19 20:48		19:16 (9) 20:01 (9)	04:23 21:45	04:19 22:00	05:06 21:17	45	19:26 (9) 20:11 (9)	06:09 20:01	07:09 18:40	07:15 16:22	08:17 15:32	
3	08:41 15:39	08:01 16:38	06:56 17:41	06:33 19:47		05:16 20:50		19:16 (9) 20:01 (9)	04:22 21:47	04:20 21:59	05:08 21:14	46	19:26 (9) 20:12 (9)	06:11 19:59	07:11 18:38	07:17 16:20	08:19 15:31	
4	08:41 15:40	07:59 16:41	06:53 17:43	06:30 19:49		05:14 20:52		19:16 (9) 20:02 (9)	04:21 21:48	04:20 21:59	05:10 21:12	46	19:25 (9) 20:11 (9)	06:13 19:56	07:13 18:35	07:20 16:18	08:20 15:30	
5	08:40 15:41	07:57 16:43	06:50 17:46	06:27 19:51		05:12 20:54		19:16 (9) 20:02 (9)	04:20 21:49	04:21 21:58	05:12 21:10	46	19:25 (9) 20:11 (9)	06:15 19:53	07:15 18:32	07:22 16:16	08:22 15:30	
6	08:40 15:43	07:55 16:45	06:48 17:48	06:25 19:53		05:10 20:56		19:16 (9) 20:02 (9)	04:19 21:50	04:23 21:57	05:14 21:08	46	19:25 (9) 20:11 (9)	06:17 19:51	07:17 18:30	07:24 16:14	08:23 15:29	
7	08:39 15:44	07:53 16:47	06:45 17:50	06:22 19:56		05:07 20:59		19:16 (9) 20:02 (9)	04:18 21:52	04:24 21:56	05:16 21:06	46	19:25 (9) 20:11 (9)	06:19 19:48	07:19 18:27	07:26 16:12	08:25 15:28	
8	08:39 15:46	07:51 16:50	06:42 17:52	06:19 19:58		05:05 21:01		19:16 (9) 20:02 (9)	04:17 21:53	04:25 21:56	05:18 21:04	46	19:25 (9) 20:11 (9)	06:21 19:45	07:22 18:24	07:28 16:10	08:26 15:28	
9	08:38 15:48	07:49 16:52	06:40 17:54	06:17 20:00		05:03 21:03		19:16 (9) 20:02 (9)	04:16 21:54	04:26 21:55	05:20 21:01	46	19:25 (9) 20:11 (9)	06:23 19:43	07:24 18:22	07:31 16:08	08:28 15:27	
10	08:37 15:49	07:47 16:54	06:37 17:56	06:14 20:02		05:01 21:05		19:16 (9) 20:01 (9)	04:16 21:55	04:27 21:54	05:22 20:59	45	19:25 (9) 20:10 (9)	06:25 19:40	07:26 18:19	07:33 16:06	08:29 15:27	
11	08:36 15:51	07:44 16:57	06:35 17:59	06:11 20:04		04:59 21:07		19:16 (9) 20:01 (9)	04:15 21:56	04:29 21:53	05:24 20:57	44	19:25 (9) 20:09 (9)	06:27 19:37	07:28 18:16	07:35 16:04	08:30 15:27	
12	08:35 15:53	07:42 16:59	06:32 18:01	06:09 20:06		04:57 21:09		19:16 (9) 20:00 (9)	04:15 21:57	04:30 21:51	19:46 (9) 19:51 (9)	20:56 20:54	44	19:25 (9) 20:09 (9)	06:29 19:35	07:30 18:14	07:37 16:02	08:32 15:26
13	08:34 15:55	07:40 17:01	06:29 18:03	06:06 20:08		04:55 21:11		19:16 (9) 20:00 (9)	04:14 21:57	04:31 21:50	19:43 (9) 19:54 (9)	20:58 20:52	43	19:26 (9) 20:09 (9)	06:31 19:32	07:32 18:11	07:39 16:00	08:33 15:26
14	08:33 15:56	07:37 17:03	06:27 18:05	06:03 20:10		04:53 21:13		19:17 (9) 19:59 (9)	04:14 21:58	04:33 21:49	19:41 (9) 19:57 (9)	20:50 20:50	42	19:26 (9) 20:08 (9)	06:33 19:29	07:34 18:09	07:41 15:58	08:34 15:26
15	08:32 15:58	07:35 17:06	06:24 18:07	06:01 20:12		04:51 21:15		19:18 (9) 20:00 (9)	04:13 21:59	04:34 21:48	19:40 (9) 19:58 (9)	20:52 20:47	40	19:27 (9) 20:07 (9)	06:35 19:26	07:36 18:06	07:44 15:56	08:35 15:26
16	08:31 16:00	07:33 17:08	06:21 18:09	05:58 20:15		04:49 21:16		19:18 (9) 19:59 (9)	04:13 21:59	04:36 21:46	19:38 (9) 19:59 (9)	20:54 20:45	39	19:27 (9) 20:06 (9)	06:37 19:24	07:38 18:04	07:46 15:54	08:36 15:26
17	08:30 16:02	07:30 17:10	06:18 18:11	05:56 20:17		04:47 21:18		19:18 (9) 19:58 (9)	04:13 22:00	04:37 21:45	19:37 (9) 20:01 (9)	20:56 20:42	37	19:28 (9) 20:05 (9)	06:39 19:21	07:40 18:01	07:48 15:53	08:37 15:26
18	08:28 16:04	07:28 17:12	06:16 18:14	05:53 20:19		04:45 21:20		19:20 (9) 19:58 (9)	04:13 22:00	04:39 21:44	19:36 (9) 20:02 (9)	20:58 20:40	35	19:28 (9) 20:03 (9)	06:41 19:18	07:43 17:58	07:50 15:51	08:38 15:26
19	08:27 16:06	07:26 17:15	06:13 18:16	05:51 20:21	6	04:43 19:38 (9) 21:22		19:20 (9) 19:57 (9)	04:13 22:01	04:41 21:42	19:35 (9) 20:04 (9)	20:47 20:37	33	19:29 (9) 20:02 (9)	06:43 19:16	07:45 17:56	07:52 15:49	08:39 15:26
20	08:26 16:08	07:23 17:17	06:10 18:18	05:48 20:23	16	04:42 19:33 (9) 21:24		19:20 (9) 19:56 (9)	04:13 22:01	04:42 21:41	19:34 (9) 20:04 (9)	20:42 20:35	30	19:30 (9) 20:00 (9)	06:45 19:13	07:47 17:53	07:54 15:48	08:40 15:27
21	08:24 16:10	07:21 17:19	06:08 18:20	05:46 20:25	22	04:40 19:29 (9) 21:26		19:22 (9) 19:56 (9)	04:13 22:01	04:44 21:39	19:33 (9) 20:05 (9)	20:44 20:32	26	19:32 (9) 19:58 (9)	06:47 19:10	07:49 17:51	07:56 15:46	08:41 15:27
22	08:23 16:12	07:18 17:21	06:05 18:22	05:43 20:27	27	04:38 19:27 (9) 21:28		19:22 (9) 19:55 (9)	04:13 22:02	04:46 21:37	19:32 (9) 20:06 (9)	20:46 20:30	22	19:34 (9) 19:56 (9)	06:49 19:07	07:51 17:48	07:58 15:44	08:42 15:27
23	08:21 16:14	07:16 17:24	06:02 18:24	05:41 20:29	31	04:36 19:24 (9) 21:29		19:24 (9) 19:55 (9)	04:13 22:02	04:47 21:36	19:32 (9) 20:07 (9)	20:48 20:27	15	19:37 (9) 19:52 (9)	06:51 19:05	07:53 17:46	08:00 15:43	08:41 15:28
24	08:20 16:16	07:13 17:26	06:00 18:26	05:38 20:31	33	04:35 19:23 (9) 21:31		19:25 (9) 19:56 (9)	04:14 22:02	04:49 21:34	19:30 (9) 20:07 (9)	20:50 20:25		06:53 19:02	07:56 17:44	08:02 15:42	08:41 15:29	
25	08:18 16:19	07:11 17:28	05:57 18:28	05:36 20:33	36	04:33 19:22 (9) 21:33		19:26 (9) 19:58 (9)	04:14 22:02	04:51 21:32	19:30 (9) 20:08 (9)	20:52 20:22		06:55 18:59	06:58 16:41	08:04 15:40	08:42 15:29	
26	08:16 16:21	07:08 17:30	05:54 18:30	05:33 20:36	38	04:32 19:20 (9) 21:35		19:27 (9) 19:58 (9)	04:15 22:02	04:53 21:30	19:30 (9) 20:09 (9)	20:54 20:20		06:57 18:57	07:00 16:39	08:06 15:39	08:42 15:30	
27	08:15 16:23	07:06 17:32	05:51 18:32	05:31 20:38	39	04:30 19:20 (9) 21:36		19:29 (9) 19:59 (9)	04:15 22:02	04:55 21:28	19:28 (9) 20:09 (9)	20:56 20:17		06:59 18:54	07:02 16:36	08:08 15:38	08:42 15:31	
28	08:13 16:25	07:03 17:35	05:49 18:35	05:28 20:40	41	04:29 19:19 (9) 21:38		19:19 (9) 20:00 (9)	04:16 22:01	04:57 21:27	19:28 (9) 20:09 (9)	20:58 20:15		07:01 18:51	07:04 16:34	08:10 15:36	08:42 15:32	
29	08:11 16:27	07:01 17:37	05:46 18:37	05:26 20:42	43	04:28 19:18 (9) 21:39		19:18 (9) 20:01 (9)	04:16 22:01	04:58 21:25	19:28 (9) 20:10 (9)	20:00 20:12		07:03 18:48	07:06 16:32	08:12 15:35	08:42 15:33	
30	08:09 16:29	06:59 17:39	05:43 18:39	05:23 20:44	43	04:26 19:17 (9) 21:41		19:17 (9) 20:00 (9)	04:17 22:01	05:00 21:23	19:28 (9) 20:11 (9)	20:02 20:09		07:05 18:46	07:09 16:29	08:14 15:34	08:42 15:34	
31	08:07 16:32	06:41 17:41	05:31 18:41	05:13 20:44	43	04:25 19:16 (9) 21:42		19:16 (9) 19:44 (9)	04:17 22:01	05:02 21:21	19:27 (9) 20:10 (9)	20:04 20:07		07:06 16:27	07:11 15:35	08:15 15:35	08:42 15:35	
Möjliga soltimmar	234	265	366	427		509		530	531		470		385	323	246	215		
Totalt, värsta fall				375		1124			605		907							
Sol reduktion				0,43		0,54			0,39		0,36							
Drifftid red.				1,00		1,00			1,00		1,00							
Vindrikt. red.				0,31		0,31			0,31		0,31							
Total reduktion				0,13		0,17			0,12		0,11							
Total, verklig				49		186			72		100							

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: M - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (105)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Antaganden för skuggberäkningar

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drift tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December		
1	08:42 15:36	08:05 16:34	07:01 17:37	06:38 19:43	05:21 20:46	19:27 (9) 20:02 (9)	04:24 21:44	04:18 22:00	05:04 21:19	19:43 (9) 20:07 (9)	06:06 20:04	07:07 18:43	07:13 16:25	08:15 15:33
2	08:42 15:37	08:03 16:36	06:58 17:39	06:35 19:45	05:19 20:48	19:27 (9) 20:02 (9)	04:23 21:45	04:19 22:00	05:06 21:17	19:42 (9) 20:08 (9)	06:08 20:01	07:09 18:40	07:15 16:22	08:17 15:32
3	08:41 15:39	08:01 16:38	06:56 17:41	06:33 19:47	05:16 20:50	19:27 (9) 20:02 (9)	04:22 21:47	04:20 21:59	05:08 21:14	19:41 (9) 20:09 (9)	06:11 19:59	07:11 18:38	07:17 16:20	08:19 15:31
4	08:41 15:40	07:59 16:41	06:53 17:43	06:30 19:49	05:14 20:52	19:28 (9) 20:02 (9)	04:21 21:48	04:20 21:59	05:10 21:12	19:39 (9) 20:09 (9)	06:13 19:56	07:13 18:35	07:20 16:18	08:20 15:30
5	08:40 15:41	07:57 16:43	06:50 17:46	06:27 19:51	05:12 20:54	19:28 (9) 20:02 (9)	04:20 21:49	04:21 21:58	05:12 21:10	19:39 (9) 20:10 (9)	06:15 19:53	07:15 18:32	07:22 16:16	08:22 15:30
6	08:40 15:43	07:55 16:45	06:48 17:48	06:25 19:53	05:10 20:56	19:28 (9) 20:01 (9)	04:19 21:50	04:23 21:57	05:14 21:08	19:38 (9) 20:10 (9)	06:17 19:51	07:17 18:30	07:24 16:14	08:23 15:29
7	08:39 15:44	07:53 16:47	06:45 17:50	06:22 19:56	05:07 20:58	19:29 (9) 20:01 (9)	04:18 21:52	04:24 21:56	05:16 21:06	19:38 (9) 20:11 (9)	06:19 19:48	07:19 18:27	07:26 16:12	08:25 15:28
8	08:39 15:46	07:51 16:50	06:42 17:52	06:19 19:58	05:05 21:01	19:29 (9) 20:00 (9)	04:17 21:53	04:25 21:56	05:18 21:04	19:37 (9) 20:11 (9)	06:21 19:45	07:22 18:24	07:28 16:10	08:26 15:28
9	08:38 15:48	07:49 16:52	06:40 17:54	06:17 20:00	05:03 21:03	19:30 (9) 19:59 (9)	04:16 21:54	04:26 21:55	05:20 21:01	19:37 (9) 20:11 (9)	06:23 19:43	07:24 18:22	07:31 16:08	08:28 15:27
10	08:37 15:49	07:47 16:54	06:37 17:56	06:14 20:02	05:01 21:05	19:31 (9) 19:58 (9)	04:16 21:55	04:27 21:54	05:22 20:59	19:36 (9) 20:11 (9)	06:25 19:40	07:26 18:19	07:33 16:06	08:29 15:27
11	08:36 15:51	07:44 16:57	06:35 17:59	06:11 20:04	04:59 21:07	19:32 (9) 19:57 (9)	04:15 21:56	04:29 21:53	05:24 20:57	19:36 (9) 20:11 (9)	06:27 19:37	07:28 18:16	07:35 16:04	08:30 15:26
12	08:35 15:53	07:42 16:59	06:32 18:01	06:09 20:06	04:57 21:09	19:33 (9) 19:56 (9)	04:15 21:57	04:30 21:51	05:26 20:54	19:35 (9) 20:11 (9)	06:29 19:35	07:30 18:14	07:37 16:02	08:32 15:26
13	08:34 15:55	07:40 17:01	06:29 18:03	06:06 20:08	04:55 21:11	19:34 (9) 19:55 (9)	04:14 21:57	04:31 21:50	05:28 20:52	19:35 (9) 20:10 (9)	06:31 19:32	07:32 18:11	07:39 16:00	08:33 15:26
14	08:33 15:56	07:37 17:03	06:27 18:05	06:03 20:10	04:53 21:13	19:35 (9) 19:53 (9)	04:14 21:58	04:33 21:49	05:30 20:50	19:36 (9) 20:10 (9)	06:33 19:29	07:34 18:09	07:41 15:58	08:34 15:26
15	08:32 15:58	07:35 17:06	06:24 18:07	06:01 20:12	04:51 21:15	19:38 (9) 19:52 (9)	04:13 21:59	04:34 21:48	05:32 20:47	19:36 (9) 20:10 (9)	06:35 19:26	07:36 18:06	07:44 15:56	08:35 15:26
16	08:31 16:00	07:33 17:08	06:21 18:09	05:58 20:14	04:49 21:16	19:41 (9) 19:48 (9)	04:13 21:59	04:36 21:46	05:34 20:45	19:36 (9) 20:09 (9)	06:37 19:24	07:38 18:03	07:46 15:54	08:36 15:26
17	08:30 16:02	07:30 17:10	06:18 18:11	05:56 20:17	04:47 21:18	04:13 22:00	04:37 21:45	04:37 21:45	05:36 20:42	19:36 (9) 20:09 (9)	06:39 19:21	07:40 18:01	07:48 15:52	08:37 15:26
18	08:28 16:04	07:28 17:12	06:16 18:13	05:53 20:19	19:45 (9) 19:48 (9)	04:45 21:20	04:43 21:44	04:39 21:44	05:38 20:40	19:36 (9) 20:07 (9)	06:41 19:18	07:43 17:58	07:50 15:51	08:38 15:26
19	08:27 16:06	07:26 17:15	06:13 18:16	05:51 20:21	19:40 (9) 19:50 (9)	04:43 21:22	04:41 21:42	04:41 21:42	05:40 20:37	19:36 (9) 20:05 (9)	06:43 19:16	07:45 17:56	07:52 15:49	08:38 15:26
20	08:26 16:08	07:23 17:17	06:10 18:18	05:48 20:23	19:37 (9) 19:53 (9)	04:42 21:24	04:43 21:40	04:42 21:40	05:42 20:35	19:37 (9) 20:03 (9)	06:45 19:13	07:47 17:53	07:54 15:48	08:39 15:27
21	08:24 16:10	07:21 17:19	06:08 18:20	05:46 20:25	19:35 (9) 19:54 (9)	04:40 21:26	04:43 21:39	04:44 21:39	05:44 20:32	19:38 (9) 20:01 (9)	06:47 19:10	07:49 17:51	07:56 15:46	08:40 15:27
22	08:23 16:12	07:18 17:21	06:05 18:22	05:43 20:27	19:33 (9) 19:56 (9)	04:38 21:28	04:43 21:27	04:46 21:27	05:46 20:30	19:40 (9) 19:58 (9)	06:49 19:07	07:51 17:48	07:58 15:44	08:40 15:27
23	08:21 16:14	07:16 17:24	06:02 18:24	05:40 20:29	19:31 (9) 19:58 (9)	04:36 21:29	04:43 21:36	04:47 21:36	05:48 20:27	19:41 (9) 19:56 (9)	06:51 19:05	07:53 17:46	08:00 15:43	08:41 15:28
24	08:20 16:16	07:13 17:26	06:00 18:26	05:38 20:31	19:31 (9) 20:00 (9)	04:35 21:31	04:44 21:34	04:49 21:34	05:50 20:25	19:44 (9) 19:54 (9)	06:53 19:02	07:56 17:44	08:02 15:42	08:41 15:29
25	08:18 16:19	07:11 17:28	05:57 18:28	05:36 20:33	19:30 (9) 20:02 (9)	04:33 21:33	04:44 21:32	04:51 21:32	05:52 20:22	19:54 (9) 19:59	06:55 16:41	07:55 17:40	08:04 15:40	08:42 15:29
26	08:16 16:21	07:08 17:30	05:54 18:30	05:33 20:36	19:29 (9) 20:01 (9)	04:32 21:35	04:45 21:30	04:53 21:30	05:54 20:20	19:56 (9) 19:56	06:57 16:39	07:57 17:39	08:06 15:39	08:42 15:30
27	08:14 16:23	07:06 17:32	05:51 18:32	05:31 20:38	19:28 (9) 20:02 (9)	04:30 21:36	04:45 21:28	04:55 21:28	05:56 20:17	19:54 (9) 19:54	06:59 16:36	07:02 17:35	08:08 15:38	08:42 15:31
28	08:13 16:25	07:03 17:35	05:49 18:35	05:28 20:40	19:28 (9) 20:02 (9)	04:29 21:38	04:46 21:27	04:56 21:27	05:58 20:14	19:50 (9) 20:00 (9)	07:01 16:34	07:04 17:35	08:10 15:36	08:42 15:32
29	08:11 16:27	06:46 17:37	05:26 18:37	05:26 20:42	19:28 (9) 20:03 (9)	04:28 21:39	04:46 21:25	04:58 21:25	06:00 20:12	19:47 (9) 20:03 (9)	07:03 16:32	07:06 17:35	08:12 15:33	08:42 15:33
30	08:09 16:29	06:43 17:39	05:23 18:44	05:23 20:44	19:27 (9) 20:02 (9)	04:26 21:41	04:47 21:23	05:00 21:23	06:02 20:09	19:46 (9) 20:05 (9)	07:05 16:29	07:09 17:34	08:14 15:34	08:42 15:34
31	08:07 16:32	06:41 19:41	06:41 19:41	06:41 19:41	06:41 19:41	04:25 21:42	05:02 21:21	05:02 21:21	06:04 20:07	19:44 (9) 20:05 (9)	06:04 19:02	07:11 17:44	08:42 15:42	08:42 15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215		
Totalt, värsta fall				329	433		66	699						
Sol reduktion				0,43	0,54		0,39	0,36						
Drifttid red.				1,00	1,00		1,00	1,00						
Vindrikt. red.				0,31	0,31		0,31	0,31						
Total reduktion				0,13	0,17		0,12	0,11						
Total, verklig				44	73		8	78						

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: N - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (106)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42 15:36	08:05 16:34	07:01 17:37	06:38 19:43	05:21 20:46	04:24 21:44	04:18 22:00	05:04 21:19	06:06 20:04	07:07 18:43	07:13 16:25	08:15 15:33
2	08:42 15:37	08:03 16:36	06:58 17:39	06:35 19:45	05:19 20:48	04:23 21:45	04:19 22:00	05:06 21:16	06:08 20:01	07:09 18:40	07:15 16:22	08:17 15:32
3	08:41 15:39	08:01 16:38	06:55 17:41	06:33 19:47	05:16 20:50	04:21 21:47	04:19 21:59	05:08 21:14	06:10 19:59	07:11 18:38	07:17 16:20	08:19 15:31
4	08:41 15:40	07:59 16:41	06:53 17:43	06:30 19:49	05:14 20:52	04:20 21:48	04:20 21:59	05:10 21:12	06:12 19:56	07:13 18:35	07:20 16:18	08:20 15:30
5	08:40 15:41	07:57 16:43	06:50 17:46	06:27 19:51	05:12 20:54	04:20 21:49	04:21 21:58	05:12 21:10	06:14 19:53	07:15 18:32	07:22 16:16	08:22 15:30
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7	08:39 15:44	07:53 16:47	06:45 17:50	06:22 19:56	05:07 20:58	04:18 21:52	04:24 21:56	05:16 21:06	06:19 19:48	07:19 18:27	07:26 16:12	08:25 15:28
8	08:39 15:46	07:51 16:50	06:42 17:52	06:19 19:58	05:05 21:00	04:17 21:53	04:25 21:56	05:18 21:03	06:21 19:45	07:21 18:24	07:28 16:10	08:26 15:28
9	08:38 15:48	07:49 16:52	06:40 17:54	06:17 20:00	05:03 21:03	04:16 21:54	04:26 21:55	05:20 21:01	06:23 19:43	07:24 18:22	07:31 16:07	08:28 15:27
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11	08:36 15:51	07:44 16:56	06:34 17:59	06:11 20:04	04:59 21:07	04:15 21:56	04:29 21:53	05:24 20:57	06:27 19:37	07:28 18:16	07:35 16:04	08:30 15:26
12	08:35 15:53	07:42 16:59	06:32 18:01	06:09 20:06	04:57 21:09	04:15 21:56	04:30 21:51	05:26 20:54	06:29 19:34	07:30 18:14	07:37 16:02	08:32 15:26
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14	08:33 15:56	07:37 17:03	06:26 18:05	06:03 20:10	04:53 21:13	04:14 21:58	04:33 21:49	05:30 20:50	06:33 19:29	07:34 18:09	07:41 15:58	08:34 15:26
15	08:32 15:58	07:35 17:06	06:24 18:07	06:01 20:12	04:51 21:14	04:13 21:59	04:34 21:48	05:32 20:47	06:35 19:26	07:36 18:06	07:44 15:56	08:35 15:26
16	08:31 16:00	07:33 17:08	06:21 18:09	05:58 20:14	04:49 21:16	04:13 21:59	04:36 21:46	05:34 20:45	06:37 19:24	07:38 18:03	07:46 15:54	08:36 15:26
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20	08:26 16:08	07:23 17:17	06:10 18:18	05:48 20:23	04:41 21:24	04:13 22:01	04:42 21:40	05:42 20:35	06:45 19:13	07:47 17:53	07:54 15:47	08:39 15:27
21	08:24 16:10	07:21 17:19	06:08 18:20	05:45 20:25	04:40 21:26	04:13 22:01	04:44 21:39	05:44 20:32	06:47 19:10	07:49 17:51	07:56 15:46	08:40 15:27
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25	08:18 16:18	07:11 17:28	05:57 18:28	05:35 20:33	04:33 21:33	04:14 22:02	04:51 21:32	05:52 20:22	06:55 18:59	06:58 16:41	08:04 15:40	08:42 15:29
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27	08:14 16:23	07:06 17:32	05:51 18:32	05:31 20:38	04:30 21:36	04:15 22:02	04:55 21:28	05:56 20:17	06:59 18:54	07:02 16:36	08:08 15:38	08:42 15:31
28	08:13 16:25	07:03 17:35	05:49 18:34	05:28 20:40	04:29 21:38	04:16 22:01	04:56 21:26	05:58 20:14	07:01 18:51	07:04 16:34	08:10 15:36	08:42 15:32
29	08:11 16:27		06:46 19:37	05:26 20:42	04:27 21:39	04:16 22:01	04:58 21:25	06:00 20:12	07:03 18:48	07:06 16:32	08:12 15:35	08:42 15:33
30	08:09 16:29		06:43 19:39	05:23 20:44	04:26 21:41	04:17 22:01	05:00 21:23	06:02 20:09	07:05 18:46	07:09 16:29	08:13 15:34	08:42 15:34
31	08:07 16:32		06:41 19:41		04:25 21:42		05:02 21:21	06:04 20:07		07:11 16:27		08:42 15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: O - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (107)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 35	09:29 (3) 08:06 10:04 (3) 16:34 09:30 (3) 08:04	09:39 (3) 07:01 10:14 (3) 17:37 09:41 (3) 06:59	06:38 19:43 06:36	05:21 20:47 05:19	04:24 21:44 04:23
2	08:42 15:38 35	09:30 (3) 08:04 10:05 (3) 16:36 09:30 (3) 08:02	09:41 (3) 06:59 10:14 (3) 17:39 09:41 (3) 06:56	06:36 19:45 06:33	05:19 20:49 05:17	04:23 21:46 04:22
3	08:42 15:39 35	09:30 (3) 08:02 10:05 (3) 16:39 09:30 (3) 08:00	09:41 (3) 06:56 10:12 (3) 17:42 09:43 (3) 06:53	06:33 19:48 06:30	05:17 20:51 05:14	04:22 21:47 04:21
4	08:41 15:40 37	09:30 (3) 08:00 10:07 (3) 16:41 09:30 (3) 07:58	09:43 (3) 06:53 10:11 (3) 17:44 09:45 (3) 06:51	06:30 19:50 06:28	05:14 20:53 05:12	04:21 21:49 04:20
5	08:41 15:42 37	09:30 (3) 07:58 10:07 (3) 16:43 09:30 (3) 07:56	09:45 (3) 06:51 10:10 (3) 17:46 09:47 (3) 06:48	06:28 19:52 06:25	05:12 20:55 05:10	04:20 21:50 04:19
6	08:40 15:43 38	09:30 (3) 07:56 10:08 (3) 16:45 09:30 (3) 07:54	09:47 (3) 06:48 10:08 (3) 17:48 09:50 (3) 06:45	07:14 (8) 06:25 07:26 (8) 19:54 07:12 (8) 06:22	06:25 20:57 06:22	05:10 21:51 05:08
7	08:40 15:45 38	09:30 (3) 07:54 10:08 (3) 16:48 09:30 (3) 07:51	09:50 (3) 06:45 10:04 (3) 17:50 06:43	06:22 19:56 07:09 (8) 06:20	06:22 20:59 06:20	05:08 21:52 05:06
8	08:39 15:46 39	09:30 (3) 07:51 10:09 (3) 16:50 09:31 (3) 07:49	06:43 17:52 06:40	06:20 19:58 07:06 (8) 06:17	05:06 21:01 05:03	04:17 21:53 04:17
9	08:38 15:48 39	09:31 (3) 07:49 10:10 (3) 16:52 09:31 (3) 07:47	06:40 17:55 06:38	06:17 20:00 07:03 (8) 06:14	05:03 21:03 05:01	04:17 21:54 04:16
10	08:38 15:50 40	09:31 (3) 07:47 10:11 (3) 16:55 09:31 (3) 07:45	06:38 17:57 06:35	06:14 20:02 07:02 (8) 06:12	05:01 21:05 06:12	04:16 21:55 04:15
11	08:37 15:51 40	09:31 (3) 07:45 10:11 (3) 16:57 09:32 (3) 07:43	06:35 17:59 06:32	06:12 20:04 07:01 (8) 06:09	06:12 21:07 06:09	04:15 21:56 04:15
12	08:36 15:53 40	09:32 (3) 07:43 10:12 (3) 16:59 09:31 (3) 07:40	06:32 18:01 06:30	06:09 21:09 07:00 (8) 06:06	06:09 21:09 06:06	04:15 21:57 04:14
13	08:35 15:55 41	09:31 (3) 07:40 10:12 (3) 17:01 09:31 (3) 07:38	06:06 18:03 06:27	06:06 21:11 07:00 (8) 06:04	06:06 21:11 06:04	04:14 21:58 04:14
14	08:34 15:57 42	09:31 (3) 07:38 10:13 (3) 17:04 09:32 (3) 07:36	06:27 18:05 06:24	06:04 21:13 06:59 (8) 06:01	06:04 21:13 06:01	04:14 21:59 04:14
15	08:33 15:58 42	09:32 (3) 07:36 10:14 (3) 17:06 09:32 (3) 07:33	06:24 18:08 06:22	06:01 21:15 07:36 (8) 05:59	06:01 21:15 05:59	04:14 21:59 04:13
16	08:31 16:00 42	09:32 (3) 07:33 10:14 (3) 17:08 09:31 (3) 07:31	06:22 18:10 06:19	05:59 21:17 06:57 (8) 05:56	05:59 21:17 05:56	04:13 22:00 04:13
17	08:30 16:02 43	09:31 (3) 07:31 10:14 (3) 17:10 09:32 (3) 07:29	06:19 18:12 06:16	05:56 21:19 06:57 (8) 05:53	05:56 21:19 05:53	04:13 22:01 04:13
18	08:29 16:04 43	09:32 (3) 07:29 10:15 (3) 17:13 09:32 (3) 07:26	06:16 18:14 06:13	05:53 21:21 06:57 (8) 05:51	05:53 21:21 05:51	04:13 22:01 04:13
19	08:28 16:06 43	09:32 (3) 07:26 10:15 (3) 17:15 09:33 (3) 07:24	06:13 18:16 06:11	05:51 21:23 06:57 (8) 05:48	05:51 21:23 05:48	04:13 22:01 04:13
20	08:26 16:08 43	09:33 (3) 07:24 10:16 (3) 17:17 09:33 (3) 07:21	06:11 18:18 06:08	05:48 21:25 06:57 (8) 05:46	05:48 21:25 05:46	04:13 22:02 04:13
21	08:25 16:10 43	09:33 (3) 07:21 10:16 (3) 17:19 09:33 (3) 07:19	06:08 18:20 06:05	05:46 21:26 06:58 (8) 05:43	05:46 21:26 05:43	04:13 22:02 04:13
22	08:23 16:12 43	09:33 (3) 07:19 10:16 (3) 17:22 09:33 (3) 07:16	06:05 18:22 06:03	05:43 21:28 06:58 (8) 05:41	05:43 21:28 05:41	04:13 22:02 04:14
23	08:22 16:15 43	09:33 (3) 07:16 10:16 (3) 17:24 09:34 (3) 07:14	06:03 18:24 06:00	05:41 21:30 06:58 (8) 05:38	05:41 21:30 05:38	04:14 22:02 04:14
24	08:20 16:17 42	09:34 (3) 07:14 10:16 (3) 17:26 09:34 (3) 07:11	06:00 18:27 05:57	05:38 21:32 07:00 (8) 05:36	05:38 21:32 05:36	04:14 22:02 04:14
25	08:18 16:19 42	09:34 (3) 07:11 10:16 (3) 17:28 09:35 (3) 07:09	05:57 18:29 05:55	05:36 21:33 07:29 (8) 05:34	05:36 21:33 05:34	04:14 22:02 04:15
26	08:17 16:21 41	09:35 (3) 07:09 10:16 (3) 17:31 09:35 (3) 07:06	05:55 18:31 05:52	05:34 21:35 07:00 (8) 05:33	05:33 21:35 05:33	04:15 22:02 04:15
27	08:15 16:23 41	09:35 (3) 07:06 10:16 (3) 17:33 09:36 (3) 07:04	05:52 18:33 05:49	05:31 21:37 07:24 (8) 05:29	05:31 21:37 05:29	04:15 22:02 04:16
28	08:13 16:25 40	09:36 (3) 07:04 10:16 (3) 17:35 09:36 (3) 07:00	05:49 18:35 06:46	05:29 21:38 08:08 (8) 05:26	05:29 21:38 05:26	04:16 22:02 04:17
29	08:11 16:28 40	09:36 (3) 07:00 10:16 (3) 17:37 09:37 (3) 06:44	06:46 19:37 06:44	05:26 21:40 05:24	05:26 21:40 05:24	04:17 22:02 04:17
30	08:10 16:30 38	09:37 (3) 06:44 10:15 (3) 17:39 09:38 (3) 06:41	06:44 19:39 06:41	05:24 21:41 06:41	05:24 21:41 06:41	04:17 22:01 04:17
31	08:08 16:32 37	09:38 (3) 06:41 10:15 (3) 17:41 10:15 (3) 17:41	06:41 19:41 06:41	06:41 21:43 06:41	06:41 21:43 06:41	04:17 22:01 04:17
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1242	187	712			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,85	0,85	0,26			
Total reduktion	0,17	0,15	0,06			
Total, verklig	210	28	45			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: O - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (107)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 21:19	06:07 20:04	07:07 18:43	07:40 (8) 08:14 (8)	07:14 16:25
2	04:19 22:01	05:06 21:17	06:09 20:02	07:10 18:41	07:40 (8) 08:13 (8)	07:16 16:23
3	04:20 22:00	05:08 21:15	06:11 19:59	07:12 18:38	07:41 (8) 08:12 (8)	07:18 16:21
4	04:21 21:59	05:10 21:13	06:13 19:56	07:14 18:35	07:42 (8) 08:10 (8)	07:20 16:18
5	04:22 21:59	05:12 21:11	06:15 19:54	07:16 18:33	07:45 (8) 08:09 (8)	07:22 16:16
6	04:23 21:58	05:14 21:08	06:17 19:51	07:18 18:30	07:47 (8) 08:07 (8)	07:25 16:14
7	04:24 21:57	05:16 21:06	06:19 19:48	07:20 18:27	07:49 (8) 08:04 (8)	07:27 16:12
8	04:25 21:56	05:18 21:04	06:21 19:46	07:22 18:25	07:52 (8) 07:59 (8)	07:29 16:10
9	04:26 21:55	05:20 21:02	06:23 19:43	07:24 18:22	07:31 16:08	07:31 15:33
10	04:28 21:54	05:22 20:59	06:25 19:40	07:26 18:19	07:33 16:06	07:33 15:27
11	04:29 21:53	05:24 20:57	06:27 19:38	07:28 18:17	07:35 16:04	07:35 15:27
12	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	07:38 16:02	07:38 15:26
13	04:32 21:51	05:28 20:52	06:31 19:32	07:32 18:12	07:40 16:00	07:40 15:26
14	04:33 21:50	05:30 20:50	06:33 19:30	07:35 08:00 (8)	07:42 08:05 (8)	07:42 15:58
15	04:35 21:48	05:32 20:48	06:35 19:27	07:37 08:10 (8)	07:44 15:56	07:44 15:49
16	04:36 21:47	05:34 20:45	06:37 19:24	07:39 08:13 (8)	07:46 15:55	07:46 15:49
17	04:38 21:46	05:36 20:43	06:39 19:21	07:41 08:14 (8)	07:48 15:53	07:48 15:49
18	04:39 21:44	05:38 20:40	06:41 19:19	07:43 08:16 (8)	07:50 15:51	07:50 15:49
19	04:41 21:43	05:40 20:38	06:43 19:16	07:45 08:17 (8)	07:53 15:49	07:53 15:49
20	04:42 21:41	05:42 20:35	06:45 19:13	07:47 08:18 (8)	07:55 15:48	07:55 15:48
21	04:44 21:39	05:44 20:33	06:47 19:10	07:49 08:18 (8)	07:57 15:46	07:57 15:46
22	04:46 21:38	05:46 20:30	06:49 19:08	07:52 08:18 (8)	07:59 15:45	07:59 15:45
23	04:48 21:36	05:49 20:28	06:51 19:05	07:54 08:19 (8)	08:01 15:43	08:01 15:43
24	04:49 21:34	05:51 20:25	06:53 19:02	07:56 08:19 (8)	08:03 15:42	08:03 15:42
25	04:51 21:33	05:53 20:23	06:55 19:00	07:58 08:18 (8)	08:05 15:40	08:05 15:40
26	04:53 21:31	05:55 20:20	06:57 18:57	08:00 08:18 (8)	08:07 15:39	08:07 15:39
27	04:55 21:29	05:57 20:18	06:59 18:54	08:03 08:18 (8)	08:09 15:38	08:09 15:38
28	04:57 21:27	05:59 20:15	07:01 18:51	08:05 08:17 (8)	08:10 15:37	08:10 15:37
29	04:59 21:25	06:01 20:12	07:03 18:49	08:07 08:16 (8)	08:12 15:36	08:12 15:36
30	05:01 21:23	06:03 20:10	07:05 18:46	08:09 08:16 (8)	08:14 15:34	08:14 15:34
31	05:02 21:21	06:05 20:07		07:11 16:27		08:43 15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			534	192	1023	1052
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,26	0,26	0,85	0,85
Total reduktion			0,09	0,07	0,16	0,12
Total, verklig			48	14	161	125

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: P - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (108)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]
Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drift tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 33	12:12 (8) 12:45 (8) 16:34	08:06 09:08 (1) 07:01	06:38 19:43 27	07:22 (6) 07:49 (6) 20:46	04:24 21:44
2	08:42 15:38 31	12:14 (8) 12:45 (8) 16:36	08:04 09:07 (1) 06:58	06:36 19:45 25	07:22 (6) 07:47 (6) 20:49	04:23 21:46
3	08:42 15:39 31	12:14 (8) 12:45 (8) 16:39	08:02 09:06 (1) 06:56	06:33 19:48 24	07:22 (6) 07:46 (6) 20:51	04:22 21:47
4	08:41 15:40 30	12:16 (8) 12:46 (8) 16:41	08:00 09:06 (1) 06:53	06:30 19:50 22	07:23 (6) 07:45 (6) 20:53	04:21 21:49
5	08:41 15:42 30	12:16 (8) 12:46 (8) 16:43	07:58 09:05 (1) 06:51	06:28 19:52 18	07:24 (6) 07:42 (6) 20:55	04:20 21:50
6	08:40 15:43 28	12:17 (8) 12:45 (8) 16:45	07:56 09:05 (1) 06:48	06:25 19:54 13	07:26 (6) 07:39 (6) 20:57	04:19 21:51
7	08:40 15:45 27	12:18 (8) 12:45 (8) 16:48	07:53 09:05 (1) 06:45	06:22 19:56 4	07:31 (6) 07:35 (6) 20:59	04:18 21:52
8	08:39 15:46 26	12:19 (8) 12:45 (8) 16:50	07:51 09:05 (1) 06:43	06:20 19:58	05:05 21:01	04:17 21:53
9	08:38 15:48 24	12:20 (8) 12:44 (8) 16:52	07:49 09:05 (1) 06:40	06:17 20:00	05:03 21:03	04:16 21:54
10	08:38 15:49 22	12:22 (8) 12:44 (8) 16:54	07:47 09:05 (1) 06:37	06:14 20:02	05:01 21:05	04:16 21:55
11	08:37 15:51 19	12:24 (8) 12:43 (8) 16:57	07:45 09:05 (1) 06:35	06:12 20:04	04:59 21:07	04:15 21:56
12	08:36 15:53 17	12:26 (8) 12:43 (8) 16:59	07:42 09:05 (1) 06:32	06:09 20:06	04:57 21:09	04:15 21:57
13	08:35 15:55 13	12:27 (8) 12:40 (8) 17:01	07:40 09:06 (1) 06:30	06:06 20:09	04:55 21:11	04:14 21:58
14	08:34 15:56 5	12:32 (8) 12:37 (8) 17:04	07:38 09:05 (1) 06:27	06:04 20:11	04:53 21:13	04:14 21:59
15	08:33 15:58	07:36 17:06	06:24 09:06 (1) 18:07	06:01 20:13	04:51 21:15	04:13 21:59
16	08:31 16:00	07:33 17:08	06:21 09:06 (1) 18:10	05:59 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02	07:31 17:10	06:19 09:07 (1) 18:12	05:56 20:17	04:47 21:19	04:13 22:01
18	08:29 16:04	07:28 17:13	06:16 09:07 (1) 18:14	05:53 20:19	04:45 21:21	04:13 22:01
19	08:28 16:06	07:26 17:15	06:13 09:08 (1) 18:16	05:51 20:21	04:43 21:23	04:13 22:01
20	08:26 16:08	07:24 17:17	06:11 09:09 (1) 18:18	05:48 20:23	04:42 21:25	04:13 22:02
21	08:25 16:10	09:24 (1) 09:28 (1) 17:19	06:08 09:11 (1) 18:20	05:46 06:33 (6) 20:25	04:40 21:26	04:13 22:02
22	08:23 16:12	09:19 (1) 09:33 (1) 17:22	06:05 09:11 (1) 18:22	05:43 06:31 (6) 20:28	04:38 21:28	04:13 22:02
23	08:22 16:14	09:17 (1) 09:36 (1) 17:24	06:03 09:13 (1) 18:24	05:41 06:28 (6) 20:30	04:37 21:30	04:13 22:02
24	08:20 16:17	09:15 (1) 09:38 (1) 17:26	06:00 09:15 (1) 18:26	05:38 06:25 (6) 20:32	04:35 21:32	04:14 22:02
25	08:18 16:19	09:13 (1) 09:40 (1) 17:28	05:57 09:17 (1) 18:29	05:36 06:24 (6) 20:34	04:33 21:33	04:14 22:02
26	08:17 16:21	09:12 (1) 09:42 (1) 17:30	05:54 09:22 (1) 18:31	05:33 06:23 (6) 20:36	04:32 21:35	04:15 22:02
27	08:15 16:23	09:11 (1) 09:43 (1) 17:33	05:52 09:37 (1) 18:33	05:31 06:22 (6) 20:38	04:30 21:37	04:15 22:02
28	08:13 16:25	09:10 (1) 09:45 (1) 17:35	05:49 09:41 (1) 18:35	05:28 06:21 (6) 20:40	04:29 21:38	04:16 22:02
29	08:11 16:27	09:09 (1) 09:46 (1) 17:37	05:46 09:47 (1) 18:37	05:26 07:22 (6) 20:42	04:28 21:40	04:16 22:02
30	08:10 16:30	09:09 (1) 09:47 (1) 17:39	05:44 09:49 (1) 18:39	05:24 07:21 (6) 20:44	04:26 21:41	04:17 22:01
31	08:08 16:32	09:08 (1) 09:48 (1) 17:41	05:41 09:51 (1) 18:41	05:21 07:21 (6) 20:46	04:25 21:43	04:17 22:01
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	635	1061	276	133		
Sol reduktion	0,18	0,16	0,22	0,43		
Drifttid red.	1,00	1,00	1,00	1,00		
Vindrikt. red.	0,88	0,76	0,08	0,08		
Total reduktion	0,18	0,14	0,02	0,04		
Total, verklig	114	146	6	5		

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: P - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (108)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18	05:04	06:07	07:07	07:13	08:35 (1) 08:16
	22:01	21:19	20:04	18:43	16:25 48	09:23 (1) 15:33 19
2	04:19	05:06	06:09	07:09	07:16	08:34 (1) 08:18
	22:00	21:17	20:02	18:41	16:23 48	09:22 (1) 15:32 22
3	04:20	05:08	06:11	07:11	07:18	08:35 (1) 08:19
	22:00	21:15	19:59	18:38	16:20 48	09:23 (1) 15:31 23
4	04:21	05:10	06:13	07:14	07:20	08:35 (1) 08:21
	21:59	21:13	19:56	18:35	16:18 47	09:22 (1) 15:31 26
5	04:22	05:12	06:15	07:16	07:22	08:36 (1) 08:22
	21:59	21:11	19:54	18:33	16:16 46	09:22 (1) 15:30 27
6	04:23	05:14	06:17	07:18	07:24	08:36 (1) 08:24
	21:58	21:08	19:51	18:30	16:14 46	09:22 (1) 15:29 28
7	04:24	05:16	06:19	07:20	07:27	08:37 (1) 08:25
	21:57	21:06	19:48	18:27	16:12 45	09:22 (1) 15:28 30
8	04:25	05:18	06:21	07:22	07:29	08:37 (1) 08:27
	21:56	21:04	19:46	18:25	16:10 44	09:21 (1) 15:28 30
9	04:26	05:20	06:23	07:24	07:31	08:37 (1) 08:28
	21:55	21:02	19:43	18:22	16:08 43	09:20 (1) 15:27 31
10	04:27	05:22	06:25	07:26	07:33	08:38 (1) 08:30
	21:54	20:59	19:40	18:19	16:06 42	09:20 (1) 15:27 31
11	04:29	05:24	06:27	07:28	07:35	08:39 (1) 08:31
	21:53	20:57	19:38	18:17	16:04 40	09:19 (1) 15:27 32
12	04:30	05:26	06:29	07:30	07:38	08:40 (1) 08:32
	21:52	20:55	19:35	18:14	16:02 39	09:19 (1) 15:26 33
13	04:31	05:28	06:31	07:32	07:40	08:41 (1) 08:33
	21:51	20:52	19:32	18:11	16:00 37	09:18 (1) 15:26 34
14	04:33	05:30	06:33	07:34	07:42	08:43 (1) 08:34
	21:50	20:50	19:29	18:09	15:58 34	09:17 (1) 15:26 34
15	04:34	05:32	06:35	07:37	07:44	08:44 (1) 08:35
	21:48	20:48	19:27	18:06	15:56 32	09:16 (1) 15:26 34
16	04:36	05:34	06:37	07:39	09:52 (1) 07:46	08:45 (1) 08:36
	21:47	20:45	19:24	18:04	15:54 30	09:15 (1) 15:26 34
17	04:37	05:36	06:39	07:41	09:48 (1) 07:48	08:47 (1) 08:37
	21:46	20:43	19:21	18:01	15:53 27	09:14 (1) 15:26 35
18	04:39	05:38	06:41	07:43	09:45 (1) 07:50	08:49 (1) 08:38
	21:44	20:40	19:19	17:59	15:51 23	09:12 (1) 15:26 35
19	04:41	05:40	06:43	07:45	09:43 (1) 07:53	08:52 (1) 08:39
	21:43	20:38	19:16	17:56	15:49 19	09:11 (1) 15:26 34
20	04:42	05:42	06:45	07:47	09:42 (1) 07:55	08:54 (1) 08:40
	21:41	20:35	19:13	17:54	15:48 14	09:08 (1) 15:27 35
21	04:44	05:44	06:47	07:49	09:40 (1) 07:57	08:59 (1) 08:40
	21:39	20:33	19:10	17:51	15:46 5	09:04 (1) 15:27 35
22	04:46	05:46	06:49	07:52	09:39 (1) 07:59	08:41
	21:38	20:30	19:08	17:49	15:45 39	15:27 35
23	04:48	05:48	06:51	07:54	09:39 (1) 08:01	08:41
	21:36	20:28	19:05	17:46	15:43 41	15:28 35
24	04:49	05:50	06:53	07:56	09:37 (1) 08:03	08:42
	21:34	20:25	19:02	17:44	15:42 43	15:29 35
25	04:51	05:52	06:55	06:58	08:36 (1) 08:05	08:42
	21:33	20:23	19:00	16:41	15:40 45	15:29 35
26	04:53	05:55	06:57	07:00	08:36 (1) 08:07	08:42
	21:31	20:20	18:57	16:39	15:39 46	15:30 35
27	04:55	05:57	06:59	07:02	08:35 (1) 08:09	08:43
	21:29	20:17	18:54	16:37	15:38 47	15:31 34
28	04:57	05:59	07:01	07:05	08:35 (1) 08:10	12:13 (8) 08:43
	21:27	20:15	18:51	16:34	15:37 47	12:17 (8) 15:32 34
29	04:58	06:01	07:03	07:07	08:35 (1) 08:12	12:09 (8) 08:43
	21:25	20:12	18:49	16:32	15:35 12	12:21 (8) 15:33 34
30	05:00	06:03	07:05	07:09	08:34 (1) 08:14	12:07 (8) 08:43
	21:23	20:10	18:46	16:29	15:34 17	12:24 (8) 15:34 33
31	05:02	06:05		07:11	08:35 (1)	08:43
	21:21	20:07		16:27	09:23 (1)	15:35 33
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			412	621	790	985
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,08	0,76	0,77	0,99
Total reduktion			0,03	0,22	0,15	0,14
Total, verklig			12	137	115	141

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: Q - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (109)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars		April		Maj		Juni	
1	08:42 15:36	08:06 16:34	07:01 17:37		06:38 19:43	26	07:11 (11) 07:37 (11)	05:21 20:46	19:45 (3) 20:13 (3)	04:24 21:44
2	08:42 15:38	08:04 16:36	06:58 17:39		06:36 19:45	25	07:11 (11) 07:36 (11)	05:19 20:48	19:45 (3) 20:14 (3)	04:23 21:46
3	08:42 15:39	08:02 16:39	06:56 17:41		06:33 19:47	24	07:11 (11) 07:35 (11)	05:17 20:51	19:45 (3) 20:14 (3)	04:22 21:47
4	08:41 15:40	08:00 16:41	06:53 17:44		06:30 19:50	22	07:12 (11) 07:34 (11)	05:14 20:53	19:45 (3) 20:14 (3)	04:21 21:48
5	08:41 15:42	07:58 16:43	06:51 17:46		06:27 19:52	21	07:12 (11) 07:33 (11)	05:12 20:55	19:45 (3) 20:13 (3)	04:20 21:50
6	08:40 15:43	07:55 16:45	06:48 17:48		06:25 19:54	17	07:13 (11) 07:30 (11)	05:10 20:57	19:45 (3) 20:13 (3)	04:19 21:51
7	08:40 15:45	07:53 16:48	06:45 17:50		06:22 19:56	12	07:16 (11) 07:28 (11)	05:08 20:59	19:46 (3) 20:13 (3)	04:18 21:52
8	08:39 15:46	07:51 16:50	06:43 17:52		06:19 19:58	2	07:20 (11) 07:22 (11)	05:05 21:01	19:46 (3) 20:12 (3)	04:17 21:53
9	08:38 15:48	07:49 16:52	06:40 17:54		06:17 20:00			05:03 21:03	19:47 (3) 20:12 (3)	04:16 21:54
10	08:37 15:49	07:47 16:54	06:37 17:57		06:14 20:02			05:01 21:05	19:47 (3) 20:11 (3)	04:16 21:55
11	08:36 15:51	07:45 16:57	06:35 17:59		06:12 20:04			04:59 21:07	19:48 (3) 20:10 (3)	04:15 21:56
12	08:36 15:53	07:42 16:59	06:32 18:01		06:09 20:06			04:57 21:09	19:49 (3) 20:08 (3)	04:15 21:57
13	08:35 15:55	07:40 17:01	06:29 18:03		06:06 20:08			04:55 21:11	19:50 (3) 20:07 (3)	04:14 21:58
14	08:33 15:57	07:38 17:04	06:27 18:05		06:04 20:11			04:53 21:13	19:53 (3) 20:06 (3)	04:14 21:58
15	08:32 15:58	07:35 17:06	06:24 18:07		06:01 20:13			04:51 21:15	19:55 (3) 20:03 (3)	04:14 21:59
16	08:31 16:00	07:33 17:08	06:21 18:09		05:59 20:15			04:49 21:17	04:13 22:00	
17	08:30 16:02	07:31 17:10	06:19 18:12		05:56 20:17			04:47 21:19	04:13 22:00	
18	08:29 16:04	07:28 17:13	06:16 18:14		05:53 20:19			04:45 21:21	04:13 22:01	
19	08:27 16:06	07:26 17:15	06:13 18:16		05:51 20:21			04:43 21:22	04:13 22:01	
20	08:26 16:08	07:23 17:17	06:11 18:18		05:48 20:23			04:42 21:24	04:13 22:02	
21	08:24 16:10	07:21 17:19	06:08 18:20		05:46 20:25			04:40 21:26	04:13 22:02	
22	08:23 16:12	07:19 17:22	06:05 18:22		05:43 20:27			04:38 21:28	04:13 22:02	
23	08:21 16:14	07:16 17:24	06:03 18:24	6	06:28 (11) 06:34 (11)	05:41 20:30	19:55 (3) 19:59 (3)	04:37 21:30	04:14 22:02	
24	08:20 16:17	07:14 17:26	06:00 18:26	11	06:25 (11) 06:36 (11)	05:38 20:32	19:52 (3) 20:00 (3)	04:35 21:31	04:14 22:02	
25	08:18 16:19	07:11 17:28	05:57 18:28	14	06:22 (11) 06:36 (11)	05:36 20:34	19:50 (3) 20:02 (3)	04:33 21:33	04:14 22:02	
26	08:17 16:21	07:09 17:30	05:54 18:31	18	06:20 (11) 06:38 (11)	05:33 20:36	19:49 (3) 20:05 (3)	04:32 21:35	04:15 22:02	
27	08:15 16:23	07:06 17:33	05:52 18:33	21	06:17 (11) 06:38 (11)	05:31 20:38	19:48 (3) 20:06 (3)	04:30 21:37	04:15 22:02	
28	08:13 16:25	07:03 17:35	05:49 18:35	24	06:14 (11) 06:38 (11)	05:28 20:40	19:47 (3) 20:08 (3)	04:29 21:38	04:16 22:02	
29	08:11 16:27		06:46 19:37	27	07:12 (11) 07:39 (11)	05:26 20:42	19:46 (3) 20:10 (3)	04:28 21:40	04:16 22:01	
30	08:09 16:30		06:44 19:39	27	07:11 (11) 07:38 (11)	05:24 20:44	19:46 (3) 20:12 (3)	04:26 21:41	04:17 22:01	
31	08:07 16:32		06:41 19:41	26	07:11 (11) 07:37 (11)			04:25 21:43		
Möjliga soltimmar	234	265	366		427		509			530
Totalt, värsta fall			174		278		352			
Sol reduktion			0,22		0,43		0,54			
Drifttid red.			1,00		1,00		1,00			
Vindrikt. red.			0,04		0,19		0,37			
Total reduktion			0,01		0,07		0,18			
Total, verklig			1		20		63			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: Q - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (109)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]
Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 21:19	19:59 (3) 20:19 (3)	06:07 20:04		07:07 18:43
2	04:19 22:00	05:06 21:17	19:58 (3) 20:20 (3)	06:09 20:02		07:09 18:41
3	04:20 22:00	05:08 21:15	19:57 (3) 20:21 (3)	06:11 19:59		07:11 18:38
4	04:21 21:59	05:10 21:13	19:57 (3) 20:22 (3)	06:13 19:56	07:18 (11) 07:19 (11)	07:13 18:35
5	04:22 21:58	05:12 21:10	19:55 (3) 20:22 (3)	06:15 19:54	07:12 (11) 07:24 (11)	07:16 18:33
6	04:23 21:58	05:14 21:08	19:55 (3) 20:22 (3)	06:17 19:51	07:09 (11) 07:26 (11)	07:18 18:30
7	04:24 21:57	05:16 21:06	19:55 (3) 20:23 (3)	06:19 19:48	07:08 (11) 07:28 (11)	07:20 18:27
8	04:25 21:56	05:18 21:04	19:54 (3) 20:23 (3)	06:21 19:46	07:06 (11) 07:29 (11)	07:22 18:25
9	04:26 21:55	05:20 21:02	19:54 (3) 20:23 (3)	06:23 19:43	07:05 (11) 07:29 (11)	07:24 18:22
10	04:27 21:54	05:22 20:59	19:54 (3) 20:23 (3)	06:25 19:40	07:04 (11) 07:30 (11)	07:26 18:19
11	04:29 21:53	05:24 20:57	19:53 (3) 20:22 (3)	06:27 19:37	07:03 (11) 07:30 (11)	07:28 18:17
12	04:30 21:52	05:26 20:55	19:53 (3) 20:21 (3)	06:29 19:35	07:03 (11) 07:30 (11)	07:30 18:14
13	04:32 21:51	05:28 20:52	19:54 (3) 20:19 (3)	06:31 19:32	07:02 (11) 07:29 (11)	07:32 18:11
14	04:33 21:49	05:30 20:50	19:54 (3) 20:17 (3)	06:33 19:29	07:02 (11) 07:29 (11)	07:34 18:09
15	04:34 21:48	05:32 20:47	19:55 (3) 20:15 (3)	06:35 19:27	07:04 (11) 07:28 (11)	07:36 18:06
16	04:36 21:47	05:34 20:45	19:55 (3) 20:13 (3)	06:37 19:24	07:06 (11) 07:28 (11)	07:39 18:04
17	04:38 21:45	05:36 20:43	19:56 (3) 20:11 (3)	06:39 19:21	07:08 (11) 07:27 (11)	07:41 18:01
18	04:39 21:44	05:38 20:40	19:57 (3) 20:09 (3)	06:41 19:18	07:10 (11) 07:25 (11)	07:43 17:59
19	04:41 21:42	05:40 20:38	19:59 (3) 20:06 (3)	06:43 19:16	07:12 (11) 07:24 (11)	07:45 17:56
20	04:42 21:41	05:42 20:35	20:00 (3) 20:03 (3)	06:45 19:13	07:14 (11) 07:21 (11)	07:47 17:54
21	04:44 21:39	05:44 20:33		06:47 19:10	07:16 (11) 07:18 (11)	07:49 17:51
22	04:46 21:38	05:46 20:30		06:49 19:08		07:51 17:49
23	04:48 21:36	05:48 20:28		06:51 19:05		07:54 17:46
24	04:49 21:34	05:50 20:25		06:53 19:02		07:56 17:44
25	04:51 21:32	05:52 20:23		06:55 18:59		06:58 16:41
26	04:53 21:31	05:55 20:20		06:57 18:57		07:00 16:39
27	04:55 21:29	05:57 20:17		06:59 18:54		07:02 16:37
28	04:57 21:27	20:08 (3) 20:11 (3)	05:59 20:15	07:01 18:51		07:05 16:34
29	04:59 21:25	20:04 (3) 20:15 (3)	06:01 20:12	07:03 18:49		07:07 16:32
30	05:00 21:23	20:03 (3) 20:17 (3)	06:03 20:10	07:05 18:46		07:09 16:30
31	05:02 21:21	20:00 (3) 20:18 (3)	06:05 20:07			07:11 16:27
Möjliga soltimmar	531	470	385		323	246
Totalt, värsta fall	46	440	332			215
Sol reduktion	0,39	0,36				
Drifttid red.	1,00	1,00				
Vindrikt. red.	0,37	0,37				
Total reduktion	0,13	0,12	0,01			
Total, verklig	6	52	3			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: R - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (110)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drift tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars		April	Maj	Juni	Juli	Augusti		September		Oktober	November	December
1	08:42 15:36	08:06 16:34	07:01 17:37		06:38 19:43	25 07:04 (11) 07:29 (11)	05:21 20:46	04:24 21:44	04:18 22:01	05:04 21:19	06:07 20:04	32 06:53 (11) 07:25 (11)	07:07 18:43	07:13 16:25	08:16 15:33
2	08:42 15:38	08:04 16:36	06:58 17:39		06:36 19:45	28 07:01 (11) 07:29 (11)	05:19 20:48	04:23 21:46	04:19 22:00	05:06 21:17	06:09 20:02	33 06:53 (11) 07:26 (11)	07:09 18:41	07:15 16:23	08:17 15:32
3	08:42 15:39	08:02 16:39	06:56 17:41		06:33 19:47	31 06:58 (11) 07:29 (11)	05:17 20:50	04:22 21:47	04:20 22:00	05:08 21:15	06:11 19:59	34 06:52 (11) 07:26 (11)	07:11 18:38	07:18 16:20	08:19 15:31
4	08:41 15:40	08:00 16:41	06:53 17:44		06:30 19:49	33 06:57 (11) 07:30 (11)	05:14 20:53	04:21 21:48	04:21 21:59	05:10 21:13	06:13 19:56	35 06:51 (11) 07:26 (11)	07:13 18:35	07:20 16:18	08:21 15:31
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6	08:40 15:43	07:55 16:45	06:48 17:48		06:25 19:54	34 06:55 (11) 07:29 (11)	05:10 20:57	04:19 21:51	04:23 21:58	05:14 21:08	06:17 19:51	34 06:51 (11) 07:25 (11)	07:18 18:30	07:24 16:14	08:24 15:29
7	08:40 15:45	07:53 16:48	06:45 17:50		06:22 19:56	35 06:55 (11) 07:30 (11)	05:08 20:59	04:18 21:52	04:24 21:57	05:16 21:06	06:19 19:48	34 06:51 (11) 07:25 (11)	07:20 18:27	07:26 16:12	08:25 15:29
8	08:39 15:46	07:51 16:50	06:43 17:52		06:19 19:58	35 06:54 (11) 07:29 (11)	05:05 21:01	04:17 21:53	04:25 21:56	05:18 21:04	06:21 19:46	33 06:51 (11) 07:24 (11)	07:22 18:25	07:29 16:10	08:27 15:28
9	08:38 15:48	07:49 16:52	06:40 17:54		06:17 20:00	34 06:54 (11) 07:28 (11)	05:03 21:03	04:16 21:54	04:26 21:55	05:20 21:02	06:23 19:43	32 06:52 (11) 07:24 (11)	07:24 18:22	07:31 16:08	08:28 15:27
10	08:37 15:49	07:47 16:54	06:37 17:57		06:14 20:02	33 06:55 (11) 07:28 (11)	05:01 21:05	04:16 21:55	04:27 21:54	05:22 20:59	06:25 19:40	29 06:54 (11) 07:23 (11)	07:26 18:19	07:33 16:06	08:29 15:27
11	08:36 15:51	07:45 16:57	06:35 17:59		06:12 20:04	32 06:54 (11) 07:26 (11)	04:59 21:07	04:15 21:56	04:29 21:53	05:24 20:57	06:27 19:37	26 06:56 (11) 07:22 (11)	07:28 18:17	07:35 16:04	08:31 15:27
12	08:36 15:53	07:42 16:59	06:32 18:01		06:09 20:06	31 06:55 (11) 07:26 (11)	04:57 21:09	04:15 21:57	04:30 21:52	05:26 20:55	06:29 19:35	22 06:58 (11) 07:20 (11)	07:30 18:14	07:37 16:02	08:32 15:26
13	08:35 15:55	07:40 17:01	06:29 18:03		06:06 20:08	29 06:55 (11) 07:24 (11)	04:55 21:11	04:14 21:58	04:32 21:51	05:28 20:52	06:31 19:32	19 07:00 (11) 07:19 (11)	07:32 18:11	07:40 16:00	08:33 15:26
14	08:33 15:57	07:38 17:04	06:27 18:05		06:04 20:11	26 06:57 (11) 07:23 (11)	04:53 21:13	04:14 21:58	04:33 21:49	05:30 20:50	06:33 19:29	15 07:02 (11) 07:17 (11)	07:34 18:09	07:42 15:58	08:34 15:26
15	08:32 15:58	07:35 17:06	06:24 18:07		06:01 20:13	24 06:57 (11) 07:21 (11)	04:51 21:15	04:14 21:59	04:34 21:48	05:32 20:47	06:35 19:27	10 07:04 (11) 07:14 (11)	07:36 18:06	07:44 15:56	08:35 15:26
16	08:31 16:00	07:33 17:08	06:21 18:09		05:58 20:15	21 06:59 (11) 07:20 (11)	04:49 21:17	04:13 22:00	04:36 21:47	05:34 20:45	06:37 19:24	7 07:06 (11) 07:10 (11)	07:39 18:04	07:46 15:54	08:36 15:26
17	08:30 16:02	07:31 17:10	06:19 18:12		05:56 20:17	16 07:00 (11) 07:16 (11)	04:47 21:19	04:13 22:00	04:38 21:45	05:36 20:43	06:39 19:21	7 07:06 (11) 18:01	07:41 15:53	07:48 15:26	08:37 15:26
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19	08:27 16:06	07:26 17:15	06:13 18:16		05:51 20:21	07:13 (11) 21:22	04:43 22:01	04:13 21:42	04:41 20:38	05:40 20:38	06:43 19:16	7 07:06 (11) 17:56	07:45 15:49	07:52 15:26	08:39 15:26
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23	08:21 16:14	07:16 17:24	06:02 18:24		05:41 20:29	21:29 21:30	04:37 22:02	04:14 21:36	04:48 20:28	05:48 20:28	06:51 19:05	7 07:06 (11) 17:46	07:54 15:43	08:00 15:28	08:41 15:28
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25	08:18 16:19	07:11 17:28	05:57 18:28		05:36 20:34	21:33 21:35	04:33 22:02	04:14 21:32	04:51 20:22	05:52 18:59	07:06 (11) 10 07:16 (11)	06:55 18:59	08:04 15:40	08:42 15:29	08:42 15:29
26	08:16 16:21	07:09 17:30	05:54 18:31		05:33 20:36	21:35 21:35	04:32 22:02	04:15 21:31	04:53 20:20	05:54 20:20	07:03 (11) 17 07:20 (11)	06:57 18:57	08:06 15:39	08:42 15:30	08:42 15:30
27	08:15 16:23	07:06 17:33	05:52 18:33	06:17 (11) 06:20 (11)	05:31 20:38	04:30 21:36	04:15 22:02	04:55 21:29	05:57 20:17	06:57 20:17	07:01 (11) 21 07:22 (11)	06:59 18:54	08:08 15:38	08:42 15:31	08:42 15:31
28	08:13 16:25	07:03 17:35	05:49 18:35	06:14 (11) 06:23 (11)	05:28 20:40	04:29 21:38	04:16 22:02	04:57 21:27	05:59 20:15	06:59 (11) 24 07:23 (11)	07:01 18:51	06:59 (11) 17:51	08:10 15:37	08:42 15:32	08:42 15:32
29	08:11 16:27	07:01 17:37	05:46 18:37	06:12 (11) 07:26 (11)	05:26 20:42	04:28 21:40	04:16 22:01	04:59 21:25	06:01 20:12	06:57 (11) 27 07:24 (11)	07:03 18:49	06:57 (11) 17:49	08:12 15:35	08:42 15:33	08:42 15:33
30	08:09 16:30	06:44 17:39	05:44 18:39	07:09 (11) 07:27 (11)	05:24 20:44	04:26 21:41	04:17 22:01	05:00 21:23	06:03 20:10	06:56 (11) 29 07:25 (11)	07:05 18:46	06:56 (11) 17:46	08:14 15:34	08:42 15:34	08:42 15:34
31	08:07 16:32	06:41 17:41	05:41 18:41	07:06 (11) 07:28 (11)	05:24 20:44	04:25 21:43	04:25 21:21	05:02 21:21	06:05 20:07	06:54 (11) 31 07:25 (11)	07:11 18:46	06:54 (11) 17:46	08:15 15:35	08:42 15:35	08:42 15:35
Möjliga soltimmar	234	265	366		427	509	530	531	470		385		323	246	215
Totalt, värsta fall			66		510				159		427				
Sol reduktion			0,22		0,43				0,36		0,31				
Drifttid red.			1,00		1,00				1,00		1,00				
Vindrikt. red.			0,03		0,03				0,03		0,03				
Total reduktion			0,01		0,01				0,01		0,01				
Total, verklig			0		6				2		4				

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: S - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (111)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan	Feb	Mar	Apr	Maj	Jun	Jul	Aug	Sep	Okt	Nov	Dec
1,36	1,52	2,62	6,08	8,82	7,64	6,65	5,42	4,02	2,68	1,38	0,88

Drift tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December				
1	08:42	08:05	07:01	06:38	05:21	19:31 (9)	04:24	04:18	05:04	06:06	07:07	07:13	08:15			
	15:36	16:34	17:37	19:43	20:46	27	19:58 (9)	21:44	22:00	21:19	20:04	18:43	16:25	15:33		
2	08:42	08:03	06:58	06:35	05:19	19:32 (9)	04:23	04:19	05:06	06:08	07:09	07:15	08:17			
	15:37	16:36	17:39	19:45	20:48	26	19:58 (9)	21:45	22:00	21:17	20:01	18:40	16:22	15:32		
3	08:41	08:01	06:55	06:33	05:16	19:33 (9)	04:22	04:20	05:08	06:10	07:11	07:17	08:19			
	15:39	16:38	17:41	19:47	20:50	24	19:57 (9)	21:47	21:59	21:14	19:59	18:38	16:20	15:31		
4	08:41	07:59	06:53	06:30	05:14	19:34 (9)	04:21	04:20	05:10	06:13	07:13	07:20	08:20			
	15:40	16:41	17:43	19:49	20:52	22	19:56 (9)	21:48	21:59	21:12	19:56	18:35	16:18	15:30		
5	08:40	07:57	06:50	06:27	05:12	19:35 (9)	04:20	04:21	05:12	19:50 (9)	06:15	07:15	07:22	08:22		
	15:41	16:43	17:46	19:51	20:54	20	19:55 (9)	21:49	21:58	21:10	19:59 (9)	19:53	18:32	16:16	15:30	
6	08:40	07:55	06:48	06:25	05:10	19:37 (9)	04:19	04:23	05:14	19:47 (9)	06:17	07:17	07:24	08:23		
	15:43	16:45	17:48	19:53	20:56	16	19:53 (9)	21:50	21:57	21:08	20:01 (9)	19:51	18:30	16:14	15:29	
7	08:39	07:53	06:45	06:22	05:07	19:39 (9)	04:18	04:24	05:16	19:45 (9)	06:19	07:19	07:26	08:25		
	15:44	16:47	17:50	19:56	20:58	12	19:51 (9)	21:52	21:56	21:06	18	20:03 (9)	19:48	18:27	16:12	15:28
8	08:39	07:51	06:42	06:19	05:05	19:42 (9)	04:17	04:25	05:18	19:44 (9)	06:21	07:21	07:28	08:26		
	15:46	16:50	17:52	19:58	21:01	6	19:48 (9)	21:53	21:56	21:03	20	20:04 (9)	19:45	18:24	16:10	15:28
9	08:38	07:49	06:40	06:17	05:03	19:49 (9)	04:16	04:26	05:20	19:43 (9)	06:23	07:24	07:31	08:28		
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17	08:30	07:30	06:18	05:56	04:47	19:40 (9)	04:13	04:37	05:36	19:38 (9)	06:39	07:40	07:48	08:37		
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19	08:27	07:26	06:13	05:51	04:43	19:36 (9)	04:13	04:41	05:40	19:37 (9)	06:43	07:45	07:52	08:38		
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31	08:07	07:00	05:41	05:21	04:25				05:02	19:44 (9)	07:06	07:11	08:15	08:42		
	16:32	17:42	18:42	20:47	21:42				21:21	20:07		16:27	15:35	15:35	15:35	
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215	153	100	60	30
Totalt, värsta fall																
Sol reduktion				0,43	0,54					0,36						
Drifttid red.				1,00	1,00					1,00						
Vindrikt. red.				0,30	0,30					0,30						
Total reduktion				0,13	0,16					0,11						
Total, verklig				42	25					52						

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: T - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (112)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:22	04:24	04:18	05:05	06:07	07:08	07:14	08:16
	15:37	16:34	17:37	19:43	20:47	21:44	22:01	21:19	20:05	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:18
	15:38	16:37	17:40	19:46	20:49	21:46	22:00	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:41	16:41	17:44	19:50	20:53	21:49	21:59	21:13	19:57	18:35	16:19	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:59	21:11	19:54	18:33	16:16	15:30
6	08:40	07:56	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:18	07:25	08:24
	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:09	19:51	18:30	16:14	15:29
7	08:40	07:54	06:46	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:26
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:49	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:53	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:04	04:17	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
10	08:38	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:20	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:16	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:43	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:07	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
13	08:35	07:40	06:30	06:07	04:55	04:15	04:32	05:28	06:31	07:32	07:40	08:33
	15:55	17:02	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:35	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:50	20:50	19:30	18:09	15:58	15:26
15	08:33	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:35
	15:59	17:06	18:08	20:13	21:15	21:59	21:48	20:48	19:27	18:07	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:01	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:03	17:11	18:12	20:17	21:19	22:01	21:46	20:43	19:21	18:01	15:53	15:26
18	08:29	07:29	06:16	05:54	04:46	04:13	04:39	05:39	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
19	08:28	07:26	06:14	05:51	04:44	04:13	04:41	05:41	06:43	07:45	07:53	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:43	20:38	19:16	17:56	15:50	15:27
20	08:26	07:24	06:11	05:49	04:42	04:13	04:43	05:43	06:45	07:47	07:55	08:40
	16:09	17:17	18:18	20:23	21:25	22:02	21:41	20:35	19:13	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:50	07:57	08:40
	16:11	17:20	18:20	20:26	21:26	22:02	21:39	20:33	19:11	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:39	04:14	04:46	05:47	06:49	07:52	07:59	08:41
	16:13	17:22	18:22	20:28	21:28	22:02	21:38	20:30	19:08	17:49	15:45	15:28
23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
	16:15	17:24	18:25	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:15	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:33	20:23	19:00	16:42	15:41	15:30
26	08:17	07:09	05:55	05:34	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:16	04:55	05:57	06:59	07:03	08:09	08:43
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:18	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:52	16:34	15:37	15:32
29	08:11		06:47	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:10		06:44	05:24	04:27	04:17	05:01	06:03	07:06	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: U - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (113)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drift tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September		Oktober	November	December
1	08:42	08:06	07:01	06:38	07:11 (3)	05:22	04:24	04:18	05:04	06:07	07:08	07:14	08:16
	15:37	16:34	17:37	19:43	29 07:40 (3)	20:47	21:44	22:01	21:19	20:05	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	07:11 (3)	05:19	04:23	04:19	05:06	06:09	07:16 (3)	07:10	08:18
	15:38	16:37	17:39	19:46	28 07:39 (3)	20:49	21:46	22:01	21:17	20:02	10 07:26 (3)	18:41	16:23
3	08:42	08:02	06:56	06:33	07:10 (3)	05:17	04:22	04:20	05:08	06:11	07:13 (3)	07:12	08:19
	15:39	16:39	17:42	19:48	28 07:38 (3)	20:51	21:47	22:00	21:15	19:59	15 07:28 (3)	18:38	16:21
4	08:41	08:00	06:53	06:30	07:11 (3)	05:15	04:21	04:21	05:10	06:13	07:10 (3)	07:14	08:21
	15:40	16:41	17:44	19:50	27 07:38 (3)	20:53	21:49	21:59	21:13	19:57	19 07:29 (3)	18:35	16:18
5	08:41	07:58	06:51	06:28	07:11 (3)	05:12	04:20	04:22	05:12	06:15	07:08 (3)	07:16	08:22
	15:42	16:43	17:46	19:52	26 07:37 (3)	20:55	21:50	21:59	21:11	19:54	22 07:30 (3)	18:33	16:16
6	08:40	07:56	06:48	06:25	07:12 (3)	05:10	04:19	04:23	05:14	06:17	07:07 (3)	07:18	08:24
	15:43	16:46	17:48	19:54	24 07:36 (3)	20:57	21:51	21:58	21:09	19:51	24 07:31 (3)	18:30	16:14
7	08:40	07:54	06:46	06:22	07:12 (3)	05:08	04:18	04:24	05:16	06:19	07:06 (3)	07:20	08:26
	15:45	16:48	17:50	19:56	22 07:34 (3)	20:59	21:52	21:57	21:06	19:49	26 07:32 (3)	18:27	16:12
8	08:39	07:51	06:43	06:20	07:13 (3)	05:06	04:17	04:25	05:18	06:21	07:05 (3)	07:22	08:27
	15:46	16:50	17:53	19:58	19 07:32 (3)	21:01	21:53	21:56	21:04	19:46	27 07:32 (3)	18:25	16:10
9	08:38	07:49	06:40	06:17	07:15 (3)	05:04	04:17	04:26	05:20	06:23	07:04 (3)	07:24	08:28
	15:48	16:52	17:55	20:00	15 07:30 (3)	21:03	21:54	21:55	21:02	19:43	28 07:32 (3)	18:22	16:08
10	08:38	07:47	06:38	06:14	07:17 (3)	05:01	04:16	04:28	05:22	06:25	07:04 (3)	07:26	08:30
	15:50	16:55	17:57	20:02	10 07:27 (3)	21:05	21:55	21:54	21:00	19:40	28 07:32 (3)	18:19	16:06
11	08:37	07:45	06:35	06:12	04:59	04:15	04:29	05:24	06:27	07:04 (3)	07:28	07:36	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	28 07:32 (3)	18:17	16:04	15:27
12	08:36	07:43	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:03 (3)	07:30	07:38	08:32
	15:53	16:59	18:01	20:07	21:09	21:57	21:52	20:55	19:35	29 07:32 (3)	18:14	16:02	15:27
13	08:35	07:40	06:30	06:07	04:55	04:14	04:32	05:28	06:31	07:03 (3)	07:32	07:40	08:33
	15:55	17:01	18:03	20:09	21:11	21:58	21:51	20:52	19:32	28 07:31 (3)	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:03 (3)	07:35	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:50	20:50	19:30	28 07:31 (3)	18:09	15:58	15:26
15	08:33	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:04 (3)	07:37	07:44	08:36
	15:59	17:06	18:08	20:13	21:15	21:59	21:48	20:48	19:27	26 07:30 (3)	18:06	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:06 (3)	07:39	07:46	08:36
	16:00	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	22 07:28 (3)	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:08 (3)	07:41	07:48	08:37
	16:02	17:11	18:12	20:17	21:19	22:01	21:46	20:43	19:21	19 07:27 (3)	18:01	15:53	15:26
18	08:29	07:29	06:16	05:54	04:45	04:13	04:39	05:38	06:41	07:10 (3)	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	15 07:25 (3)	17:59	15:51	15:26
19	08:28	07:26	06:14	05:51	04:44	04:13	04:41	05:40	06:43	07:12 (3)	07:45	07:53	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:43	20:38	19:16	10 07:22 (3)	17:56	15:50	15:27
20	08:26	07:24	06:11	05:48	04:42	04:13	04:43	05:43	06:45	07:14 (3)	07:47	07:55	08:40
	16:08	17:17	18:18	20:23	21:25	22:02	21:41	20:35	19:13	4 07:18 (3)	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:50	07:57	08:40	15:27
	16:10	17:20	18:20	20:26	21:26	22:02	21:39	20:33	19:11	17:51	15:46	15:27	08:41
22	08:23	07:19	06:05	05:43	04:38	04:14	04:46	05:47	06:49	07:52	07:59	08:41	15:28
	16:13	17:22	18:22	20:28	21:28	22:02	21:38	20:30	19:08	17:49	15:45	15:28	08:41
23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41	15:28
	16:15	17:24	18:25	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28	08:42
24	08:20	07:14	06:00	06:25 (3)	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42	15:29
	16:17	17:26	18:27	9 06:34 (3)	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29	08:42
25	08:18	07:11	05:57	06:23 (3)	04:34	04:14	04:51	05:53	06:55	06:58	08:05	08:42	15:30
	16:19	17:28	18:29	14 06:37 (3)	21:33	22:02	21:33	20:23	19:00	16:42	15:41	15:30	08:42
26	08:17	07:09	05:55	06:20 (3)	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42	15:30
	16:21	17:31	18:31	18 06:38 (3)	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30	08:43
27	08:15	07:06	05:52	06:17 (3)	04:31	04:15	04:55	05:57	06:59	07:03	08:09	08:43	15:31
	16:23	17:33	18:33	22 06:39 (3)	21:37	22:02	21:29	20:18	18:54	16:37	15:38	15:31	08:43
28	08:13	07:04	05:49	06:15 (3)	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43	15:32
	16:25	17:35	18:35	25 06:40 (3)	21:38	22:02	21:27	20:15	18:52	16:34	15:37	15:32	08:43
29	08:11		06:47	07:13 (3)	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43	15:33
	16:28		19:37	27 07:40 (3)	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33	08:43
30	08:10		06:44	07:12 (3)	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43	15:34
	16:30		19:39	28 07:40 (3)	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34	08:43
31	08:08		06:41	07:11 (3)	04:25		05:03	06:05		07:11		08:43	15:35
	16:32		19:41	28 07:39 (3)	21:43		21:21	20:07		16:27		15:35	215
Möjliga soltimmar	234	265	366	427	509	531	531	470	385	323	246	215	
Totalt, värsta fall			171	228					408				
Sol reduktion			0,22	0,43					0,31				
Drifttid red.			1,00	1,00					1,00				
Vindrikt. red.			0,03	0,03					0,03				
Total reduktion			0,01	0,01					0,01				
Total, verklig			1	3					4				

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: V - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (114)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
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	16:02	17:11	18:12	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:53	15:26
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22	08:23	07:19	06:05	05:43	04:38	04:14	04:46	05:47	06:49	07:52	07:59	08:41
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	16:15	17:24	18:24	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
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	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
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	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:16	04:55	05:57	06:59	07:02	08:08	08:42
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	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
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	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: W - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (115)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:21	04:24	04:18	05:04	06:07	07:07	07:13	08:16
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2	08:42	08:04	06:58	06:36	05:19	04:23	04:19	05:06	06:09	07:09	07:16	08:17
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	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: X - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (116)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 44	13:27 (12) 14:11 (12) 16:34	07:01 17:37 24	16:36 (6) 17:00 (6) 19:43	05:21 20:46 21:44	04:24 20:46 21:44
2	08:42 15:37 44	13:28 (12) 14:12 (12) 16:36	06:58 17:39 29	16:34 (6) 17:03 (6) 19:45	05:19 20:48 21:46	04:22 20:48 21:46
3	08:42 15:39 44	13:28 (12) 14:12 (12) 16:38	06:56 17:41 33	16:31 (6) 17:04 (6) 19:47	05:16 20:51 21:47	04:21 20:51 21:47
4	08:41 15:40 44	13:29 (12) 14:13 (12) 16:41	06:53 17:43 36	16:29 (6) 17:05 (6) 19:49	05:14 20:53 21:48	04:20 20:53 21:48
5	08:41 15:41 44	13:29 (12) 14:13 (12) 16:43	06:50 17:46 38	16:29 (6) 17:07 (6) 19:52	05:12 20:55 21:50	04:19 20:55 21:50
6	08:40 15:43 45	13:29 (12) 14:14 (12) 16:45	06:48 17:48 41	16:27 (6) 17:08 (6) 19:54	05:10 20:57 21:51	04:19 20:57 21:51
7	08:40 15:44 44	13:30 (12) 14:14 (12) 16:47	06:45 17:50 42	16:26 (6) 17:08 (6) 19:56	05:07 20:59 21:52	04:18 20:59 21:52
8	08:39 15:46 44	13:30 (12) 14:14 (12) 16:50	06:43 17:52 44	16:25 (6) 17:09 (6) 19:58	05:05 21:01 21:53	04:17 21:01 21:53
9	08:38 15:48 44	13:31 (12) 14:15 (12) 16:52	06:40 17:54 45	16:24 (6) 17:09 (6) 20:00	05:03 21:03 21:54	04:16 21:03 21:54
10	08:37 15:49 44	13:31 (12) 14:15 (12) 16:54	06:37 17:57 46	16:23 (6) 17:09 (6) 20:02	05:01 21:05 21:55	04:16 21:05 21:55
11	08:37 15:51 44	13:32 (12) 14:16 (12) 16:57	06:35 17:59 47	16:22 (6) 17:09 (6) 20:04	04:59 21:07 21:56	04:15 21:07 21:56
12	08:36 15:53 43	13:32 (12) 14:15 (12) 16:59	06:32 18:01 47	16:23 (6) 17:10 (6) 20:06	04:57 21:09 21:57	04:14 21:09 21:57
13	08:35 15:54 44	13:32 (12) 14:16 (12) 17:01	06:29 18:03 48	16:22 (6) 17:10 (6) 20:08	04:55 21:11 21:58	04:14 21:11 21:58
14	08:34 15:56 43	13:33 (12) 14:16 (12) 17:03	06:27 18:05 48	16:21 (6) 17:09 (6) 20:11	04:53 21:13 21:59	04:14 21:13 21:59
15	08:32 15:58 43	13:33 (12) 14:16 (12) 17:06	06:24 18:07 48	16:22 (6) 17:10 (6) 20:13	04:51 21:15 21:59	04:13 21:15 21:59
16	08:31 16:00 43	13:34 (12) 14:17 (12) 17:08	06:21 18:09 47	16:22 (6) 17:09 (6) 20:15	04:49 21:17 22:00	04:13 21:17 22:00
17	08:30 16:02 41	13:35 (12) 14:17 (12) 17:10	06:19 18:11 47	16:21 (6) 17:08 (6) 20:17	04:47 21:19 22:00	04:13 21:19 22:00
18	08:29 16:04 41	13:36 (12) 14:17 (12) 17:12	06:16 18:14 46	16:21 (6) 17:07 (6) 20:19	04:45 21:21 22:01	04:13 21:21 22:01
19	08:27 16:06 40	13:36 (12) 14:16 (12) 17:15	06:13 18:16 45	16:22 (6) 17:07 (6) 20:21	04:43 21:22 22:01	04:13 21:22 22:01
20	08:26 16:08 39	13:37 (12) 14:16 (12) 17:17	06:11 18:18 44	16:22 (6) 17:06 (6) 20:23	04:41 21:24 22:02	04:13 21:24 22:02
21	08:25 16:10 39	13:38 (12) 14:17 (12) 17:19	06:08 18:20 42	16:23 (6) 17:05 (6) 20:25	04:40 21:26 22:02	04:13 21:26 22:02
22	08:23 16:12 37	13:39 (12) 14:16 (12) 17:21	06:05 18:22 40	16:23 (6) 17:03 (6) 20:27	04:38 21:28 22:02	04:13 21:28 22:02
23	08:21 16:14 35	13:40 (12) 14:15 (12) 17:24	06:02 18:24 38	16:25 (6) 17:03 (6) 20:29	04:36 21:30 22:02	04:13 21:30 22:02
24	08:20 16:16 34	13:41 (12) 14:15 (12) 17:26	06:00 18:26 35	16:26 (6) 17:01 (6) 20:32	04:35 21:32 22:02	04:14 21:32 22:02
25	08:18 16:18 32	13:42 (12) 14:14 (12) 17:28	05:57 18:28 32	16:27 (6) 16:59 (6) 20:34	04:33 21:33 22:02	04:14 21:33 22:02
26	08:17 16:21 29	13:44 (12) 14:13 (12) 17:30	05:54 18:31 27	16:30 (6) 16:57 (6) 20:36	04:32 21:35 22:02	04:14 21:35 22:02
27	08:15 16:23 27	13:45 (12) 14:12 (12) 17:32	05:52 18:33 22	16:32 (6) 16:54 (6) 20:38	04:30 21:37 22:02	04:15 21:37 22:02
28	08:13 16:25 23	13:48 (12) 14:11 (12) 17:35	05:49 18:35 15	16:35 (6) 16:50 (6) 20:40	04:29 21:38 22:02	04:16 21:38 22:02
29	08:11 16:27 19	13:50 (12) 14:09 (12) 17:37	06:46 19:37 14	05:26 20:42 21:40	04:27 21:40 22:02	04:16 21:40 22:02
30	08:09 16:29 12	13:54 (12) 14:06 (12) 17:39	06:43 19:39 13	05:23 20:44 21:41	04:26 21:41 22:01	04:17 21:41 22:01
31	08:07 16:32		06:41 19:41		04:25 21:43	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1149	26	1096			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,91	0,33	0,33			
Total reduktion	0,18	0,06	0,08			
Total, verklig	211	2	89			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: X - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (116)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 21:19	06:07 20:04	07:07 18:43	17:02 (6) 17:49 (6)	07:13 16:25
2	04:18 22:00	05:06 21:17	06:09 20:02	07:09 18:40	17:01 (6) 17:48 (6)	07:15 16:22
3	04:19 22:00	05:08 21:15	06:11 19:59	07:11 18:38	17:01 (6) 17:48 (6)	07:18 16:20
4	04:20 21:59	05:10 21:13	06:13 19:56	07:13 18:35	17:01 (6) 17:47 (6)	07:20 16:18
5	04:21 21:58	05:12 21:10	06:15 19:54	07:15 18:32	17:01 (6) 17:46 (6)	07:22 16:16
6	04:22 21:58	05:14 21:08	06:17 19:51	07:18 18:30	17:01 (6) 17:45 (6)	07:24 16:14
7	04:24 21:57	05:16 21:06	06:19 19:48	07:20 18:27	17:03 (6) 17:44 (6)	07:27 16:12
8	04:25 21:56	05:18 21:04	06:21 19:46	07:22 18:24	17:03 (6) 17:43 (6)	07:29 16:10
9	04:26 21:55	05:20 21:02	06:23 19:43	07:24 18:22	17:04 (6) 17:41 (6)	07:31 16:08
10	04:27 21:54	05:22 20:59	06:25 19:40	07:26 18:19	17:05 (6) 17:39 (6)	07:33 16:06
11	04:28 21:53	05:24 20:57	06:27 19:37	07:28 18:17	17:06 (6) 17:37 (6)	07:35 16:04
12	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	17:08 (6) 17:35 (6)	07:37 16:02
13	04:31 21:51	05:28 20:52	06:31 19:32	07:32 18:11	17:11 (6) 17:33 (6)	07:40 16:00
14	04:33 21:49	05:30 20:50	06:33 19:29	07:34 18:09	17:14 (6) 17:29 (6)	07:42 15:58
15	04:34 21:48	05:32 20:47	06:35 19:27	17:26 (6) 17:40 (6)	07:36 18:06	07:44 15:56
16	04:36 21:47	05:34 20:45	06:37 19:24	17:21 (6) 17:42 (6)	07:39 18:04	07:46 15:54
17	04:37 21:45	05:36 20:43	06:39 19:21	17:18 (6) 17:44 (6)	07:41 18:01	07:48 15:52
18	04:39 21:44	05:38 20:40	06:41 19:18	17:15 (6) 17:11 (6)	07:43 17:58	07:50 15:51
19	04:40 21:42	05:40 20:38	06:43 19:16	17:13 (6) 17:47 (6)	07:45 17:56	07:52 15:49
20	04:42 21:41	05:42 20:35	06:45 19:13	17:11 (6) 17:48 (6)	07:47 17:53	07:54 15:47
21	04:44 21:39	05:44 20:33	06:47 19:10	17:09 (6) 17:49 (6)	07:49 17:51	07:56 15:46
22	04:46 21:38	05:46 20:30	06:49 19:07	17:08 (6) 17:49 (6)	07:51 17:48	07:59 15:44
23	04:47 21:36	05:48 20:28	06:51 19:05	17:06 (6) 17:50 (6)	07:54 17:46	08:01 15:43
24	04:49 21:34	05:50 20:25	06:53 19:02	17:05 (6) 17:50 (6)	07:56 17:44	08:03 15:41
25	04:51 21:32	05:52 20:22	06:55 18:59	17:04 (6) 17:50 (6)	06:58 16:41	08:04 15:40
26	04:53 21:31	05:54 20:20	06:57 18:57	17:04 (6) 17:51 (6)	07:00 16:39	08:06 15:39
27	04:55 21:29	05:56 20:17	06:59 18:54	17:04 (6) 17:51 (6)	07:02 16:36	08:08 15:38
28	04:56 21:27	05:58 20:15	07:01 18:51	17:03 (6) 17:50 (6)	07:04 16:34	08:10 15:36
29	04:58 21:25	06:00 20:12	07:03 18:49	17:02 (6) 17:50 (6)	07:07 16:32	08:12 15:35
30	05:00 21:23	06:02 20:09	07:05 18:46	17:02 (6) 17:50 (6)	07:09 16:29	08:14 15:34
31	05:02 21:21	06:04 20:07		07:11 16:27		08:42 15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			616	523	664	1495
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,33	0,33	0,91	0,92
Total reduktion			0,12	0,09	0,17	0,13
Total, verklig			71	49	114	195

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: Y - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (117)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 33	13:04 (4) 13:37 (4)	08:05 16:34	07:01 17:37	06:38 19:43	18:08 (10) 20:46
2	08:42 15:37 32	13:05 (4) 13:37 (4)	08:03 16:36	06:58 17:39	06:35 19:45	18:09 (10) 20:48
3	08:41 15:39 32	13:05 (4) 13:37 (4)	08:01 16:38	06:56 17:41	06:33 19:47	18:09 (10) 20:50
4	08:41 15:40 31	13:06 (4) 13:37 (4)	07:59 16:41	06:53 17:43	06:30 19:49	18:09 (10) 20:52
5	08:41 15:41 31	13:06 (4) 13:37 (4)	07:57 16:43	06:50 17:46	06:27 19:51	18:11 (10) 20:54
6	08:40 15:43 30	13:08 (4) 13:38 (4)	07:55 16:45	06:48 17:48	06:25 19:53	18:11 (10) 20:57
7	08:39 15:44 28	13:09 (4) 13:37 (4)	07:53 16:47	06:45 17:50	06:22 19:56	18:12 (10) 20:59
8	08:39 15:46 27	13:10 (4) 13:37 (4)	07:51 16:50	06:42 17:52	06:19 19:58	18:14 (10) 21:01
9	08:38 15:47 26	13:11 (4) 13:37 (4)	07:49 16:52	06:40 17:54	06:17 20:00	18:15 (10) 21:03
10	08:37 15:49 25	13:12 (4) 13:37 (4)	07:47 16:54	06:37 17:56	06:14 20:02	18:18 (10) 21:05
11	08:36 15:51 23	13:13 (4) 13:36 (4)	07:44 16:56	06:34 17:59	06:11 20:04	18:20 (10) 21:07
12	08:35 15:53 21	13:14 (4) 13:35 (4)	07:42 16:59	06:32 18:01	06:09 20:06	18:35 (10) 21:09
13	08:34 15:54 19	13:16 (4) 13:35 (4)	07:40 17:01	06:29 18:03	06:06 20:08	18:35 (10) 21:11
14	08:33 15:56 15	13:18 (4) 13:33 (4)	07:38 17:03	06:26 18:05	06:03 20:10	18:35 (10) 21:13
15	08:32 15:58 10	13:21 (4) 13:31 (4)	07:35 17:05	06:24 18:07	06:01 20:12	18:35 (10) 21:15
16	08:31 16:00	13:31 (4)	17:05 18:07	06:21 18:09	05:58 20:15	21:15 22:00
17	08:30 16:02	17:10	18:11	17:28 (10) 17:41 (10)	05:56 20:17	21:17 22:00
18	08:28 16:04	17:12	18:13	17:24 (10) 17:43 (10)	05:53 20:19	21:18 22:01
19	08:27 16:06	17:15	18:16	17:21 (10) 17:45 (10)	05:50 20:21	21:20 22:02
20	08:26 16:08	17:17	18:18	17:18 (10) 17:47 (10)	05:48 20:23	21:22 22:03
21	08:24 16:10	17:19	18:20	17:17 (10) 17:50 (10)	05:45 20:25	21:24 22:04
22	08:23 16:12	17:21	18:22	17:15 (10) 17:51 (10)	05:42 20:27	21:26 22:05
23	08:21 16:14	17:23	18:24	17:14 (10) 17:52 (10)	05:40 20:29	21:28 22:06
24	08:20 16:16	17:26	18:26	17:12 (10) 17:52 (10)	05:38 20:31	21:30 22:07
25	08:18 16:18	17:28	18:28	17:11 (10) 17:52 (10)	05:35 20:33	21:31 22:08
26	08:16 16:21	17:30	18:30	17:10 (10) 17:52 (10)	05:33 20:36	21:33 22:09
27	08:15 16:23	17:32	18:32	17:10 (10) 17:53 (10)	05:31 20:38	21:35 22:10
28	08:13 16:25	17:35	18:35	17:10 (10) 17:53 (10)	05:28 20:40	21:36 22:11
29	08:11 16:27	17:37	18:37	17:09 (10) 17:52 (10)	05:26 20:42	21:38 22:12
30	08:09 16:29	17:39	18:39	18:09 (10) 18:52 (10)	05:23 20:44	21:40 22:13
31	08:07 16:32	17:41	18:41	18:09 (10) 18:51 (10)	05:21 20:46	21:42 22:14
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	383		566	357		
Sol reduktion	0,18		0,22	0,43		
Drifttid red.	1,00		1,00	1,00		
Vindrikt. red.	0,95		0,09	0,09		
Total reduktion	0,25		0,03	0,06		
Total, verklig	96		17	21		

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)		Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: Y - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (117)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drifttid

0 Totalt

8 760 8 760

	Jul	Augusti	September		Oktober	November		December
1	04:18	05:04	06:06		18:19 (10)	07:07		08:15
	22:01	21:19	20:04	15	18:34 (10)	18:43		15:33
2	04:18	05:06	06:08		18:16 (10)	07:09		08:17
	22:00	21:17	20:01	21	18:37 (10)	18:40		15:32
3	04:19	05:08	06:10		18:13 (10)	07:11		08:19
	21:59	21:15	19:59	26	18:39 (10)	18:38		15:31
4	04:20	05:10	06:12		18:11 (10)	07:13		08:20
	21:59	21:12	19:56	29	18:40 (10)	18:35		15:30
5	04:21	05:12	06:14		18:09 (10)	07:15		08:22
	21:58	21:10	19:53	32	18:41 (10)	18:32		15:30
6	04:22	05:14	06:16		18:07 (10)	07:17		08:24
	21:57	21:08	19:51	35	18:42 (10)	18:30		15:29
7	04:23	05:16	06:19		18:06 (10)	07:19		08:25
	21:57	21:06	19:48	37	18:43 (10)	18:27		15:28
8	04:25	05:18	06:21		18:05 (10)	07:22		08:27
	21:56	21:04	19:45	38	18:43 (10)	18:24		15:28
9	04:26	05:20	06:23		18:04 (10)	07:24		08:28
	21:55	21:01	19:43	39	18:43 (10)	18:22		15:27
10	04:27	05:22	06:25		18:03 (10)	07:26		08:29
	21:54	20:59	19:40	41	18:44 (10)	18:19		15:27
11	04:28	05:24	06:27		18:02 (10)	07:28		08:31
	21:53	20:57	19:37	42	18:44 (10)	18:16		15:26
12	04:30	05:26	06:29		18:00 (10)	07:30		08:32
	21:52	20:54	19:35	43	18:43 (10)	18:14		15:26
13	04:31	05:28	06:31		18:00 (10)	07:32		08:33
	21:50	20:52	19:32	42	18:42 (10)	18:11		15:26
14	04:33	05:30	06:33		17:59 (10)	07:34		08:34
	21:49	20:50	19:29	43	18:42 (10)	18:09		15:26
15	04:34	05:32	06:35		17:59 (10)	07:36		08:35
	21:48	20:47	19:26	43	18:42 (10)	18:06		15:26
16	04:36	05:34	06:37		17:58 (10)	07:38		08:36
	21:47	20:45	19:24	43	18:41 (10)	18:03		15:26
17	04:37	05:36	06:39		17:58 (10)	07:40		08:37
	21:45	20:42	19:21	43	18:41 (10)	18:01		15:26
18	04:39	05:38	06:41		17:58 (10)	07:43		08:38
	21:44	20:40	19:18	42	18:40 (10)	17:58		15:26
19	04:40	05:40	06:43		17:58 (10)	07:45		08:39
	21:42	20:37	19:15	41	18:39 (10)	17:56		15:26
20	04:42	05:42	06:45		17:59 (10)	07:47		08:39
	21:41	20:35	19:13	39	18:38 (10)	17:53		15:26
21	04:44	05:44	06:47		17:59 (10)	07:49		08:40
	21:39	20:32	19:10	38	18:37 (10)	17:51		15:27
22	04:45	05:46	06:49		18:00 (10)	07:51		08:40
	21:37	20:30	19:07	35	18:35 (10)	17:48		15:27
23	04:47	05:48	06:51		18:00 (10)	07:53		08:41
	21:36	20:27	19:05	34	18:34 (10)	17:46		15:28
24	04:49	05:50	06:53		18:02 (10)	07:56		08:41
	21:34	20:25	19:02	29	18:31 (10)	17:43		15:28
25	04:51	05:52	06:55		18:03 (10)	06:58		08:42
	21:32	20:22	18:59	25	18:28 (10)	16:41		15:29
26	04:53	05:54	06:57		18:05 (10)	07:00		08:42
	21:30	20:20	18:56	21	18:26 (10)	16:39		15:30
27	04:54	05:56	06:59		18:07 (10)	07:02		08:08
	21:28	20:17	18:54	16	18:23 (10)	16:36		15:37
28	04:56	05:58	07:01			07:04		08:10
	21:27	20:15	18:51			16:34		15:36
29	04:58	06:00	07:03			07:06		08:12
	21:25	20:12	18:48			16:32		15:35
30	05:00	06:02	07:05			07:09		08:14
	21:23	20:09	18:46			16:29		15:34
31	05:02	06:04				07:11		08:16
	21:21	20:07				16:27		15:35
Möjliga soltimmar	531	470	385		323	246		214
Totalt, värsta fall			932			63		1000
Sol reduktion			0,31			0,17		0,13
Drifttid red.			1,00			1,00		1,00
Vindrikt. red.			0,09			0,95		0,95
Total reduktion			0,04			0,23		0,18
Total, verklig			40			15		177

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: Z - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (118)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:22	04:24	04:18	05:04	06:07	07:08	07:14	08:16
	15:37	16:34	17:37	19:43	20:47	21:44	22:01	21:19	20:05	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:18
	15:38	16:37	17:39	19:46	20:49	21:46	22:01	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:40	16:41	17:44	19:50	20:53	21:49	21:59	21:13	19:57	18:35	16:18	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:59	21:11	19:54	18:33	16:16	15:30
6	08:40	07:56	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:18	07:25	08:24
	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:09	19:51	18:30	16:14	15:29
7	08:40	07:54	06:46	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:26
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:49	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:53	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:04	04:17	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
10	08:38	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	21:00	19:40	18:20	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:15	04:29	05:24	06:27	07:28	07:36	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:43	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:07	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
13	08:35	07:40	06:30	06:07	04:55	04:14	04:32	05:28	06:31	07:32	07:40	08:33
	15:55	17:01	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:35	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:50	20:50	19:30	18:09	15:58	15:26
15	08:33	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:36
	15:59	17:06	18:08	20:13	21:15	21:59	21:48	20:48	19:27	18:07	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:01	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:02	17:11	18:12	20:17	21:19	22:01	21:46	20:43	19:21	18:01	15:53	15:26
18	08:29	07:29	06:16	05:54	04:46	04:13	04:39	05:38	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
19	08:28	07:26	06:14	05:51	04:44	04:13	04:41	05:41	06:43	07:45	07:53	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:43	20:38	19:16	17:56	15:50	15:27
20	08:26	07:24	06:11	05:48	04:42	04:13	04:43	05:43	06:45	07:47	07:55	08:40
	16:08	17:17	18:18	20:23	21:25	22:02	21:41	20:35	19:13	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:50	07:57	08:40
	16:10	17:20	18:20	20:26	21:26	22:02	21:39	20:33	19:11	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:38	04:14	04:46	05:47	06:49	07:52	07:59	08:41
	16:13	17:22	18:22	20:28	21:28	22:02	21:38	20:30	19:08	17:49	15:45	15:28
23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
	16:15	17:24	18:25	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:15	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:33	20:23	19:00	16:42	15:41	15:30
26	08:17	07:09	05:55	05:34	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:15	04:55	05:57	06:59	07:03	08:09	08:43
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:18	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:52	16:34	15:37	15:32
29	08:11		06:47	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:10		06:44	05:24	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	531	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AA - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (119)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:22	04:24	04:18	05:05	06:07	07:08	07:14	08:16
	15:37	16:34	17:37	19:43	20:47	21:44	22:01	21:19	20:04	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:18
	15:38	16:37	17:39	19:46	20:49	21:46	22:00	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:41	16:41	17:44	19:50	20:53	21:48	21:59	21:13	19:57	18:35	16:19	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:59	21:11	19:54	18:33	16:16	15:30
6	08:40	07:56	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:18	07:25	08:24
	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14	15:29
7	08:40	07:54	06:46	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:25
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:53	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:04	04:17	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
10	08:38	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:20	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:16	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:43	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:07	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
13	08:35	07:40	06:30	06:07	04:55	04:15	04:32	05:28	06:31	07:32	07:40	08:33
	15:55	17:02	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:35	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:50	20:50	19:30	18:09	15:58	15:26
15	08:33	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:35
	15:59	17:06	18:08	20:13	21:15	21:59	21:48	20:48	19:27	18:07	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:01	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:02	17:11	18:12	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:53	15:26
18	08:29	07:29	06:16	05:54	04:46	04:13	04:39	05:39	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
19	08:28	07:26	06:14	05:51	04:44	04:13	04:41	05:41	06:43	07:45	07:53	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:43	20:38	19:16	17:56	15:50	15:27
20	08:26	07:24	06:11	05:48	04:42	04:13	04:43	05:43	06:45	07:47	07:55	08:40
	16:08	17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:50	07:57	08:40
	16:11	17:20	18:20	20:26	21:26	22:02	21:39	20:33	19:11	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:39	04:14	04:46	05:47	06:49	07:52	07:59	08:41
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23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
	16:15	17:24	18:25	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:15	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:33	20:23	19:00	16:42	15:41	15:30
26	08:17	07:09	05:55	05:34	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:16	04:55	05:57	06:59	07:03	08:08	08:43
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:18	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:52	16:34	15:37	15:32
29	08:11		06:47	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:10		06:44	05:24	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AB - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (120)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42	08:06	07:01	07:50 (3)	06:38	05:21
	15:36	16:34	17:37	08:34 (3)	19:43	20:47
2	08:42	08:04	06:59	07:50 (3)	06:36	05:19
	15:38	16:36	17:39	08:34 (3)	19:45	20:49
3	08:42	08:02	06:56	07:49 (3)	06:33	05:17
	15:39	16:39	17:42	08:33 (3)	19:48	20:51
4	08:41	08:00	06:53	07:50 (3)	06:30	05:15
	15:40	16:41	17:44	08:33 (3)	19:50	20:53
5	08:41	07:58	06:51	07:49 (3)	06:28	05:12
	15:42	16:43	17:46	08:33 (3)	19:52	20:55
6	08:40	07:56	06:48	07:49 (3)	06:25	05:10
	15:43	16:46	17:48	08:32 (3)	19:54	20:57
7	08:40	07:54	06:46	07:50 (3)	06:22	05:08
	15:45	16:48	17:50	08:31 (3)	19:56	20:59
8	08:39	07:51	06:43	07:50 (3)	06:20	05:06
	15:46	16:50	17:52	08:30 (3)	19:58	21:01
9	08:38	07:49	06:40	07:51 (3)	06:17	05:03
	15:48	16:52	17:55	08:29 (3)	20:00	21:03
10	08:38	07:47	06:38	07:51 (3)	06:14	05:01
	15:50	16:55	17:57	08:27 (3)	20:02	21:05
11	08:37	07:45	06:35	07:53 (3)	06:12	05:00
	15:51	16:57	17:59	08:26 (3)	20:04	21:07
12	08:36	07:43	06:32	07:54 (3)	06:09	04:57
	15:53	16:59	18:01	08:24 (3)	20:07	21:09
13	08:35	07:40	06:30	07:55 (3)	06:06	04:55
	15:55	17:01	18:03	08:21 (3)	20:09	21:11
14	08:34	07:38	06:27	07:58 (3)	06:04	04:53
	15:57	17:04	18:05	08:19 (3)	20:11	21:13
15	08:33	07:36	06:24	08:00 (3)	06:01	04:51
	15:59	17:06	18:08	08:15 (3)	20:13	21:15
16	08:31	07:33	06:22	05:59	06:42 (8)	04:49
	16:00	17:08	18:10	20:15	07:12 (8)	21:17
17	08:30	07:31	06:19	05:56	06:41 (8)	04:47
	16:02	17:10	18:12	20:17	07:11 (8)	21:19
18	08:29	07:29	06:16	05:53	06:42 (8)	04:45
	16:04	17:13	18:14	20:19	07:10 (8)	21:21
19	08:28	07:26	06:13	05:51	06:42 (8)	04:44
	16:06	17:15	18:16	20:21	07:08 (8)	21:23
20	08:26	07:24	06:11	05:48	06:43 (8)	04:42
	16:08	17:17	18:18	20:23	07:07 (8)	21:25
21	08:25	07:21	06:08	05:46	06:45 (8)	04:40
	16:10	17:19	18:20	20:26	07:06 (8)	21:26
22	08:23	07:19	06:05	05:43	06:46 (8)	04:38
	16:12	17:22	18:22	20:28	07:03 (8)	21:28
23	08:22	07:16	06:03	05:41	06:48 (8)	04:37
	16:15	17:24	18:24	20:30	07:01 (8)	21:30
24	08:20	07:14	06:00	05:38	06:53 (8)	04:35
	16:17	17:26	18:27	20:32	06:55 (8)	21:32
25	08:18	07:11	05:57	05:36		04:34
	16:19	17:28	18:29	20:34		21:33
26	08:17	07:09	05:55	05:33		04:32
	16:21	17:31	18:31	20:36		21:35
27	08:15	07:06	05:52	05:31		04:31
	16:23	17:33	18:33	20:38		21:37
28	08:13	07:04	05:49	05:29		04:29
	16:25	17:35	18:35	20:40		21:38
29	08:11		06:46	05:26		04:28
	16:28		19:37	20:42		21:40
30	08:10		06:44	05:24		04:26
	16:30		19:39	20:44		21:41
31	08:08		06:41			04:25
	16:32		19:41			21:43
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall		443	542	517		
Sol reduktion		0,16	0,22	0,43		
Drifttid red.		1,00	1,00	1,00		
Vindrikt. red.		0,49	0,49	0,10		
Total reduktion		0,09	0,13	0,05		
Total, verklig		40	68	25		

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AB - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (120)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti		September		Oktober		November	December
1	04:18	05:04		06:07	06:42 (8)	07:07	08:33 (3)	07:14	08:16
	22:01	21:19		20:04	31 07:13 (8)	18:43	29 09:02 (3)	16:25	15:33
2	04:19	05:06		06:09	06:42 (8)	07:10	08:31 (3)	07:16	08:18
	22:00	21:17		20:02	30 07:12 (8)	18:41	32 09:03 (3)	16:23	15:32
3	04:20	05:08		06:11	06:41 (8)	07:12	08:30 (3)	07:18	08:19
	22:00	21:15		19:59	30 07:11 (8)	18:38	34 09:04 (3)	16:21	15:32
4	04:21	05:10		06:13	06:42 (8)	07:14	08:28 (3)	07:20	08:21
	21:59	21:13		19:56	28 07:10 (8)	18:35	37 09:05 (3)	16:18	15:31
5	04:22	05:12		06:15	06:44 (8)	07:16	08:28 (3)	07:22	08:22
	21:59	21:11		19:54	25 07:09 (8)	18:33	39 09:07 (3)	16:16	15:30
6	04:23	05:14		06:17	06:46 (8)	07:18	08:27 (3)	07:25	08:24
	21:58	21:08		19:51	21 07:07 (8)	18:30	40 09:07 (3)	16:14	15:29
7	04:24	05:16		06:19	06:48 (8)	07:20	08:26 (3)	07:27	08:26
	21:57	21:06		19:48	17 07:05 (8)	18:27	41 09:07 (3)	16:12	15:29
8	04:25	05:18		06:21	06:50 (8)	07:22	08:25 (3)	07:29	08:27
	21:56	21:04		19:46	13 07:03 (8)	18:25	43 09:08 (3)	16:10	15:28
9	04:26	05:20		06:23	06:52 (8)	07:24	08:24 (3)	07:31	08:28
	21:55	21:02		19:43	7 06:59 (8)	18:22	44 09:08 (3)	16:08	15:28
10	04:28	05:22		06:25		07:26	08:23 (3)	07:33	08:30
	21:54	20:59		19:40		18:19	44 09:07 (3)	16:06	15:27
11	04:29	05:24		06:27		07:28	08:23 (3)	07:35	08:31
	21:53	20:57		19:38		18:17	44 09:07 (3)	16:04	15:27
12	04:30	05:26		06:29		07:30	08:24 (3)	07:38	08:32
	21:52	20:55		19:35		18:14	44 09:08 (3)	16:02	15:26
13	04:32	05:28		06:31		07:32	08:23 (3)	07:40	08:33
	21:51	20:52		19:32		18:12	44 09:07 (3)	16:00	15:26
14	04:33	05:30		06:33		07:35	08:23 (3)	07:42	08:34
	21:50	20:50		19:30		18:09	44 09:07 (3)	15:58	15:26
15	04:35	05:32		06:35		07:37	08:23 (3)	07:44	08:35
	21:48	20:48		19:27		18:06	43 09:06 (3)	15:56	15:26
16	04:36	05:34		06:37		07:39	08:24 (3)	07:46	08:36
	21:47	20:45		19:24		18:04	42 09:06 (3)	15:55	15:26
17	04:38	05:36		06:39		07:41	08:24 (3)	07:48	08:37
	21:46	20:43		19:21		18:01	41 09:05 (3)	15:53	15:26
18	04:39	05:38		06:41		07:43	08:24 (3)	07:50	08:38
	21:44	20:40		19:19		17:59	40 09:04 (3)	15:51	15:26
19	04:41	05:40	06:57 (8)	06:43		07:45	08:24 (3)	07:53	08:39
	21:43	20:38	6 07:03 (8)	19:16		17:56	39 09:03 (3)	15:49	15:27
20	04:43	05:42	06:53 (8)	06:45		07:47	08:26 (3)	07:55	08:40
	21:41	20:35	14 07:07 (8)	19:13		17:54	36 09:02 (3)	15:48	15:27
21	04:44	05:44	06:51 (8)	06:47		07:49	08:27 (3)	07:57	08:40
	21:39	20:33	18 07:09 (8)	19:10		17:51	34 09:01 (3)	15:46	15:27
22	04:46	05:47	06:48 (8)	06:49		07:52	08:28 (3)	07:59	08:41
	21:38	20:30	22 07:10 (8)	19:08		17:49	31 08:59 (3)	15:45	15:28
23	04:48	05:49	06:47 (8)	06:51		07:54	08:30 (3)	08:01	08:41
	21:36	20:28	24 07:11 (8)	19:05		17:46	28 08:58 (3)	15:43	15:28
24	04:49	05:51	06:46 (8)	06:53		07:56	08:31 (3)	08:03	08:42
	21:34	20:25	26 07:12 (8)	19:02		17:44	24 08:55 (3)	15:42	15:29
25	04:51	05:53	06:45 (8)	06:55		06:58	07:33 (3)	08:05	08:42
	21:33	20:23	28 07:13 (8)	19:00		16:41	20 07:53 (3)	15:40	15:29
26	04:53	05:55	06:44 (8)	06:57		07:00	07:38 (3)	08:07	08:42
	21:31	20:20	29 07:13 (8)	18:57		16:39	11 07:49 (3)	15:39	15:30
27	04:55	05:57	06:43 (8)	06:59		07:03		08:09	08:43
	21:29	20:18	31 07:14 (8)	18:54		16:37		15:38	15:31
28	04:57	05:59	06:43 (8)	07:01	08:43 (3)	07:05		08:10	08:43
	21:27	20:15	31 07:14 (8)	18:51	11 08:54 (3)	16:34		15:37	15:32
29	04:59	06:01	06:42 (8)	07:03	08:39 (3)	07:07		08:12	08:43
	21:25	20:12	32 07:14 (8)	18:49	19 08:58 (3)	16:32		15:36	15:33
30	05:01	06:03	06:42 (8)	07:05	08:36 (3)	07:09		08:14	08:43
	21:23	20:10	32 07:14 (8)	18:46	24 09:00 (3)	16:30		15:34	15:34
31	05:02	06:05	06:42 (8)			07:11			08:43
	21:21	20:07	31 07:13 (8)			16:27			15:35
Möjliga soltimmar	531	470		385		323		246	214
Totalt, värsta fall		324		256		948			
Sol reduktion		0,36		0,31		0,26			
Drifttid red.		1,00		1,00		1,00			
Vindrikt. red.		0,10		0,18		0,49			
Total reduktion		0,04		0,07		0,15			
Total, verklig		13		17		138			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AC - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (121)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]
Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 69	09:22 (13) 08:06 10:41 (8) 16:34	10:07 (8) 07:01 10:48 (8) 17:37	06:38 19:43	05:21 20:47	04:24 21:44
2	08:42 15:38 71	09:22 (13) 08:04 10:42 (8) 16:36	10:09 (8) 06:58 10:48 (8) 17:39	06:36 19:45	05:19 20:49	04:23 21:46
3	08:42 15:39 72	09:21 (13) 08:02 10:42 (8) 16:39	10:09 (8) 06:56 10:46 (8) 17:42	06:33 19:48	05:17 20:51	04:22 21:47
4	08:41 15:40 73	09:21 (13) 08:00 10:43 (8) 16:41	10:11 (8) 06:53 10:45 (8) 17:44	06:30 19:50	05:14 20:53	04:21 21:49
5	08:41 15:42 76	09:20 (13) 07:58 10:44 (8) 16:43	10:13 (8) 06:51 10:43 (8) 17:46	07:24 (1) 06:28 07:32 (1) 19:52	05:12 20:55	04:20 21:50
6	08:40 15:43 77	09:19 (13) 07:56 10:44 (8) 16:45	10:15 (8) 06:48 10:41 (8) 17:48	07:19 (1) 06:25 07:35 (1) 19:54	05:10 20:57	04:19 21:51
7	08:40 15:45 79	09:18 (13) 07:54 10:45 (8) 16:48	10:17 (8) 06:45 10:38 (8) 17:50	07:16 (1) 06:22 07:38 (1) 19:56	05:08 20:59	04:18 21:52
8	08:39 15:46 79	09:18 (13) 07:51 10:45 (8) 16:50	10:21 (8) 06:43 10:34 (8) 17:52	07:14 (1) 06:20 07:40 (1) 19:58	05:05 21:01	04:17 21:53
9	08:38 15:48 80	09:19 (13) 07:49 10:46 (8) 16:52	06:40 17:55	07:12 (1) 06:17 07:41 (1) 20:00	05:03 21:03	04:16 21:54
10	08:38 15:49 82	09:19 (13) 07:47 10:47 (8) 16:54	06:38 17:57	07:10 (1) 06:14 07:42 (1) 20:02	05:01 21:05	04:16 21:55
11	08:37 15:51 81	09:19 (13) 07:45 10:47 (8) 16:57	06:35 17:59	07:10 (1) 06:12 07:43 (1) 20:04	04:59 21:07	04:15 21:56
12	08:36 15:53 82	09:20 (13) 07:42 10:48 (8) 16:59	06:32 18:01	07:09 (1) 06:09 07:43 (1) 20:06	04:57 21:09	04:15 21:57
13	08:35 15:55 82	09:20 (13) 07:40 10:48 (8) 17:01	06:30 18:03	07:07 (1) 06:06 07:43 (1) 20:09	04:55 21:11	04:14 21:58
14	08:34 15:57 82	09:20 (13) 07:38 10:49 (8) 17:04	06:27 18:05	07:06 (1) 06:04 07:43 (1) 20:11	04:53 21:13	04:14 21:59
15	08:33 15:58 83	09:20 (13) 07:36 10:49 (8) 17:06	06:24 18:07	07:07 (1) 06:01 07:44 (1) 20:13	04:51 21:15	04:14 21:59
16	08:31 16:00 82	09:21 (13) 07:33 10:49 (8) 17:08	06:21 18:10	07:06 (1) 05:59 07:43 (1) 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02 82	09:21 (13) 07:31 10:49 (8) 17:10	06:19 18:12	07:05 (1) 05:56 07:43 (1) 20:17	04:47 21:19	04:13 22:01
18	08:29 16:04 81	09:22 (13) 07:28 10:50 (8) 17:13	06:16 18:14	07:06 (1) 05:53 07:43 (1) 20:19	04:45 21:21	04:13 22:01
19	08:28 16:06 81	09:22 (13) 07:26 10:50 (8) 17:15	06:13 18:16	07:05 (1) 05:51 07:42 (1) 20:21	04:43 21:23	04:13 22:01
20	08:26 16:08 80	09:23 (13) 07:24 10:50 (8) 17:17	06:11 18:18	07:05 (1) 05:48 07:41 (1) 20:23	04:42 21:25	04:13 22:02
21	08:25 16:10 80	09:24 (13) 07:21 10:51 (8) 17:19	06:08 18:20	07:05 (1) 05:46 07:40 (1) 20:25	04:40 21:26	04:13 22:02
22	08:23 16:12 79	09:24 (13) 07:19 10:51 (8) 17:22	06:05 18:22	07:06 (1) 05:43 07:39 (1) 20:28	04:38 21:28	04:13 22:02
23	08:22 16:14 77	09:25 (13) 07:16 10:51 (8) 17:24	06:03 18:24	07:07 (1) 05:41 07:38 (1) 20:30	04:37 21:30	04:14 22:02
24	08:20 16:17 75	09:26 (13) 07:14 10:51 (8) 17:26	06:00 18:27	07:07 (1) 05:38 07:36 (1) 20:32	04:35 21:32	04:14 22:02
25	08:18 16:19 73	09:27 (13) 07:11 10:51 (8) 17:28	05:57 18:29	07:09 (1) 05:36 07:35 (1) 20:34	04:33 21:33	04:14 22:02
26	08:17 16:21 70	09:28 (13) 07:09 10:50 (8) 17:30	05:54 18:31	07:10 (1) 05:33 07:32 (1) 20:36	04:32 21:35	04:15 22:02
27	08:15 16:23 66	09:30 (13) 07:06 10:50 (8) 17:33	05:52 18:33	07:12 (1) 05:31 07:29 (1) 20:38	04:30 21:37	04:15 22:02
28	08:13 16:25 62	09:32 (13) 07:04 10:50 (8) 17:35	05:49 18:35	07:16 (1) 05:28 07:24 (1) 20:40	04:29 21:38	04:16 22:02
29	08:11 16:27 57	09:34 (13) 10:50 (8)	06:46 19:37	05:26 20:42	04:28 21:40	04:16 22:02
30	08:10 16:30 44	10:05 (8) 10:49 (8)	06:44 19:39	05:24 20:44	04:26 21:41	04:17 22:01
31	08:08 16:32 43	10:06 (8) 10:49 (8)	06:41 19:41		04:25 21:43	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	2300	241	696			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,88	0,91	0,29			
Total reduktion	0,17	0,16	0,07			
Total, verklig	389	37	48			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AC - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (121)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drift tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18	05:04	06:07	07:07	07:47 (1)	07:13
	22:01	21:19	20:04	18:43	08:22 (1)	16:25
2	04:19	05:06	06:09	07:09	07:48 (1)	07:16
	22:00	21:17	20:02	18:41	08:21 (1)	16:23
3	04:20	05:08	06:11	07:12	07:48 (1)	07:18
	22:00	21:15	19:59	18:38	08:20 (1)	16:20
4	04:21	05:10	06:13	07:14	07:49 (1)	07:20
	21:59	21:13	19:56	18:35	08:19 (1)	16:18
5	04:22	05:12	06:15	07:16	07:50 (1)	07:22
	21:59	21:11	19:54	18:33	08:17 (1)	16:16
6	04:23	05:14	06:17	07:18	07:52 (1)	07:24
	21:58	21:08	19:51	18:30	08:16 (1)	16:14
7	04:24	05:16	06:19	07:20	07:54 (1)	07:27
	21:57	21:06	19:48	18:27	08:13 (1)	16:12
8	04:25	05:18	06:21	07:22	07:57 (1)	07:29
	21:56	21:04	19:46	18:25	08:10 (1)	16:10
9	04:26	05:20	06:23	07:24	07:31	07:31
	21:55	21:02	19:43	18:22	16:08	39
10	04:27	05:22	06:25	07:26	07:33	09:38 (8)
	21:54	20:59	19:40	18:19	16:06	41
11	04:29	05:24	06:27	07:28	07:35	09:37 (8)
	21:53	20:57	19:38	18:17	16:04	43
12	04:30	05:26	06:29	07:30	07:38	09:37 (8)
	21:52	20:55	19:35	18:14	16:02	44
13	04:32	05:28	06:31	07:32	07:40	09:06 (13)
	21:51	20:52	19:32	18:12	16:00	57
14	04:33	05:30	06:33	07:34	07:42	09:04 (13)
	21:50	20:50	19:29	18:09	15:58	63
15	04:34	05:32	06:35	08:07 (1)	07:37	07:44
	21:48	20:48	19:27	08:13 (1)	18:06	15:56
16	04:36	05:34	06:37	08:02 (1)	07:39	07:46
	21:47	20:45	19:24	08:18 (1)	18:04	15:54
17	04:38	05:36	06:39	07:59 (1)	07:41	07:48
	21:46	20:43	19:21	08:20 (1)	18:01	15:53
18	04:39	05:38	06:41	07:53 (1)	07:43	07:50
	21:44	20:40	19:19	08:22 (1)	17:59	15:51
19	04:41	05:40	06:43	07:55 (1)	07:45	07:53
	21:43	20:38	19:16	08:23 (1)	17:56	15:49
20	04:42	05:42	06:45	07:53 (1)	07:47	07:55
	21:41	20:35	19:13	08:24 (1)	17:54	15:48
21	04:44	05:44	06:47	07:52 (1)	07:49	07:57
	21:39	20:33	19:10	08:25 (1)	17:51	15:46
22	04:46	05:46	06:49	07:51 (1)	07:52	07:59
	21:38	20:30	19:08	08:25 (1)	17:49	15:45
23	04:48	05:48	06:51	07:50 (1)	07:54	08:01
	21:36	20:28	19:05	08:26 (1)	17:46	15:43
24	04:49	05:50	06:53	07:49 (1)	07:56	08:03
	21:34	20:25	19:02	08:26 (1)	17:44	15:42
25	04:51	05:53	06:55	07:49 (1)	06:58	08:05
	21:33	20:23	19:00	08:26 (1)	16:41	15:40
26	04:53	05:55	06:57	07:48 (1)	07:00	08:07
	21:31	20:20	18:57	08:25 (1)	16:39	15:39
27	04:55	05:57	06:59	07:48 (1)	07:02	08:09
	21:29	20:18	18:54	08:25 (1)	16:37	15:38
28	04:57	05:59	07:01	07:47 (1)	07:05	08:10
	21:27	20:15	18:51	08:25 (1)	16:34	15:37
29	04:59	06:01	07:03	07:47 (1)	07:07	08:12
	21:25	20:12	18:49	08:24 (1)	16:32	15:35
30	05:00	06:03	07:05	07:47 (1)	07:09	08:14
	21:23	20:10	18:46	08:23 (1)	16:30	15:34
31	05:02	06:05		07:11		
	21:21	20:07		16:27		
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			489	213	1712	2108
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,29	0,29	0,88	0,88
Total reduktion			0,10	0,08	0,16	0,12
Total, verklig			47	17	271	252

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AD - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (122)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]
Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drifttid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 40	09:45 (3) 08:06 10:25 (3) 16:34	10:11 (3) 07:01 10:19 (3) 17:37	07:28 (8) 06:38 07:50 (8) 19:43	05:21 20:47	04:24 21:44
2	08:42 15:38 40	09:46 (3) 08:04 10:26 (3) 16:36	06:59 17:39	07:25 (8) 06:36 07:52 (8) 19:45	05:19 20:49	04:23 21:46
3	08:42 15:39 40	09:46 (3) 08:02 10:26 (3) 16:39	06:56 17:42	07:22 (8) 06:33 07:52 (8) 19:48	05:17 20:51	04:22 21:47
4	08:41 15:40 41	09:47 (3) 08:00 10:28 (3) 16:41	06:53 17:44	07:21 (8) 06:30 07:54 (8) 19:50	05:14 20:53	04:21 21:49
5	08:41 15:42 41	09:47 (3) 07:58 10:28 (3) 16:43	06:51 17:46	07:20 (8) 06:28 07:54 (8) 19:52	05:12 20:55	04:20 21:50
6	08:40 15:43 41	09:47 (3) 07:56 10:28 (3) 16:45	06:48 17:48	07:19 (8) 06:25 07:55 (8) 19:54	05:10 20:57	04:19 21:51
7	08:40 15:45 42	09:47 (3) 07:54 10:29 (3) 16:48	06:45 17:50	07:18 (8) 06:22 07:56 (8) 19:56	05:08 20:59	04:18 21:52
8	08:39 15:46 42	09:47 (3) 07:51 10:29 (3) 16:50	06:43 17:52	07:17 (8) 06:20 07:56 (8) 19:58	05:06 21:01	04:17 21:53
9	08:38 15:48 42	09:48 (3) 07:49 10:30 (3) 16:52	06:40 17:55	07:17 (8) 06:17 07:55 (8) 20:00	05:03 21:03	04:17 21:54
10	08:38 15:50 42	09:48 (3) 07:47 10:30 (3) 16:55	06:38 17:57	07:16 (8) 06:14 07:55 (8) 20:02	05:01 21:05	04:16 21:55
11	08:37 15:51 42	09:49 (3) 07:45 10:31 (3) 16:57	06:35 17:59	07:16 (8) 06:12 07:55 (8) 20:04	04:59 21:07	04:15 21:56
12	08:36 15:53 42	09:49 (3) 07:43 10:31 (3) 16:59	06:32 18:01	07:16 (8) 06:09 07:55 (8) 20:07	04:57 21:09	04:15 21:57
13	08:35 15:55 42	09:49 (3) 07:40 10:31 (3) 17:01	06:30 18:03	07:15 (8) 06:06 07:54 (8) 20:09	04:55 21:11	04:14 21:58
14	08:34 15:57 42	09:50 (3) 07:38 10:32 (3) 17:04	06:27 18:05	07:16 (8) 06:04 07:54 (8) 20:11	04:53 21:13	04:14 21:59
15	08:33 15:58 41	09:51 (3) 07:36 10:32 (3) 17:06	06:24 18:07	07:16 (8) 06:01 07:53 (8) 20:13	04:51 21:15	04:14 21:59
16	08:31 16:00 41	09:51 (3) 07:33 10:32 (3) 17:08	06:22 18:10	07:16 (8) 05:59 07:52 (8) 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02 41	09:51 (3) 07:31 10:32 (3) 17:10	06:19 18:12	07:16 (8) 05:56 07:50 (8) 20:17	04:47 21:19	04:13 22:01
18	08:29 16:04 40	09:52 (3) 07:29 10:32 (3) 17:13	06:16 18:14	07:18 (8) 05:53 07:49 (8) 20:19	04:45 21:21	04:13 22:01
19	08:28 16:06 40	09:52 (3) 07:26 10:32 (3) 17:15	06:13 18:16	07:18 (8) 05:51 07:47 (8) 20:21	04:44 21:23	04:13 22:01
20	08:26 16:08 39	09:54 (3) 07:24 10:33 (3) 17:17	06:11 18:18	07:19 (8) 05:48 07:45 (8) 20:23	04:42 21:25	04:13 22:02
21	08:25 16:10 38	09:54 (3) 07:21 10:32 (3) 17:19	06:08 18:20	07:21 (8) 05:46 07:42 (8) 20:25	04:40 21:26	04:13 22:02
22	08:23 16:12 38	09:54 (3) 07:19 10:32 (3) 17:22	06:05 18:22	07:24 (8) 05:43 07:40 (8) 20:28	04:38 21:28	04:13 22:02
23	08:22 16:15 37	09:55 (3) 07:16 10:32 (3) 17:24	06:03 18:24	07:29 (8) 05:41 07:34 (8) 20:30	04:37 21:30	04:14 22:02
24	08:20 16:17 35	09:56 (3) 07:14 10:31 (3) 17:26	06:00 18:27	05:38 20:32	04:35 21:32	04:14 22:02
25	08:18 16:19 34	09:57 (3) 07:11 10:31 (3) 17:28	05:57 18:29	05:36 20:34	04:33 21:33	04:14 22:02
26	08:17 16:21 32	09:58 (3) 07:09 10:30 (3) 17:31	05:55 18:31	05:33 20:36	04:32 21:35	04:15 22:02
27	08:15 16:23 30	09:59 (3) 07:06 10:29 (3) 17:33	05:52 18:33	05:31 20:38	04:31 21:37	04:15 22:02
28	08:13 16:25 28	10:00 (3) 07:04 10:28 (3) 17:35	07:30 (8) 05:49 07:47 (8) 18:35	05:29 20:40	04:29 21:38	04:16 22:02
29	08:11 16:28 25	10:02 (3) 10:27 (3)	06:46 19:37	05:26 20:42	04:28 21:40	04:17 22:02
30	08:10 16:30 21	10:04 (3) 10:25 (3)	06:44 19:39	05:24 20:44	04:26 21:41	04:17 22:01
31	08:08 16:32 16	10:07 (3) 10:23 (3)	06:41 19:41		04:25 21:43	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1155	37	726			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,89	0,46	0,34			
Total reduktion	0,17	0,08	0,08			
Total, verklig	202	3	60			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)		Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AD - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (122)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Jul	Augusti	September	Oktober	November	December
1	04:18	05:04	06:07	07:07	07:55 (8)	07:14
	22:01	21:19	20:04	18:43	08:34 (8)	16:25
2	04:19	05:06	06:09	07:10	07:54 (8)	07:16
	22:01	21:17	20:02	18:41	08:33 (8)	16:23
3	04:20	05:08	06:11	07:12	07:54 (8)	07:18
	22:00	21:15	19:59	18:38	08:33 (8)	16:21
4	04:21	05:10	06:13	07:14	07:54 (8)	07:20
	21:59	21:13	19:56	18:35	08:33 (8)	16:18
5	04:22	05:12	06:15	07:16	07:54 (8)	07:22
	21:59	21:11	19:54	18:33	08:33 (8)	16:16
6	04:23	05:14	06:17	07:18	07:54 (8)	07:25
	21:58	21:08	19:51	18:30	08:32 (8)	16:14
7	04:24	05:16	06:19	07:20	07:55 (8)	07:27
	21:57	21:06	19:48	18:27	08:31 (8)	16:12
8	04:25	05:18	06:21	07:22	07:55 (8)	07:29
	21:56	21:04	19:46	18:25	08:30 (8)	16:10
9	04:26	05:20	06:23	07:24	07:55 (8)	07:31
	21:55	21:02	19:43	18:22	08:29 (8)	16:08
10	04:28	05:22	06:25	07:26	07:56 (8)	07:33
	21:54	20:59	19:40	18:19	08:27 (8)	16:06
11	04:29	05:24	06:27	07:28	07:57 (8)	07:35
	21:53	20:57	19:38	18:17	08:26 (8)	16:04
12	04:30	05:26	06:29	07:30	08:00 (8)	07:38
	21:52	20:55	19:35	18:14	08:25 (8)	16:02
13	04:32	05:28	06:31	07:32	08:02 (8)	07:40
	21:51	20:52	19:32	18:12	08:22 (8)	16:00
14	04:33	05:30	06:33	07:35	08:04 (8)	07:42
	21:50	20:50	19:30	18:09	08:19 (8)	15:58
15	04:35	05:32	06:35	07:37	08:07 (8)	07:44
	21:48	20:48	19:27	18:06	08:14 (8)	15:56
16	04:36	05:34	06:37	07:39	07:46	07:46
	21:47	20:45	19:24	18:04	15:54	32
17	04:38	05:36	06:39	07:41	07:48	09:31 (3)
	21:46	20:43	19:21	18:01	15:53	34
18	04:39	05:38	06:41	07:43	07:50	09:30 (3)
	21:44	20:40	19:19	17:59	15:51	35
19	04:41	05:40	06:43	07:45	07:53	09:30 (3)
	21:43	20:38	19:16	17:56	15:49	37
20	04:42	05:42	06:45	07:47	07:55	09:30 (3)
	21:41	20:35	19:13	17:54	15:48	37
21	04:44	05:44	06:47	08:11 (8)	07:49	07:57
	21:39	20:33	19:10	18:24 (8)	17:51	15:46
22	04:46	05:46	06:49	08:07 (8)	07:52	07:59
	21:38	20:30	19:08	18:27 (8)	17:49	15:45
23	04:48	05:49	06:51	08:05 (8)	07:54	08:01
	21:36	20:28	19:05	18:29 (8)	17:46	15:43
24	04:49	05:51	06:53	08:03 (8)	07:56	08:03
	21:34	20:25	19:02	18:31 (8)	17:44	15:42
25	04:51	05:53	06:55	08:01 (8)	06:58	08:05
	21:33	20:23	19:00	18:32 (8)	16:41	15:40
26	04:53	05:55	06:57	07:59 (8)	07:00	08:07
	21:31	20:20	18:57	18:33 (8)	16:39	15:39
27	04:55	05:57	06:59	07:58 (8)	07:03	08:09
	21:29	20:18	18:54	18:33 (8)	16:37	15:38
28	04:57	05:59	07:01	07:57 (8)	07:05	08:10
	21:27	20:15	18:51	18:34 (8)	16:34	15:37
29	04:59	06:01	07:03	07:56 (8)	07:07	08:12
	21:25	20:12	18:49	18:34 (8)	16:32	15:36
30	05:01	06:03	07:05	07:55 (8)	07:09	08:14
	21:23	20:10	18:46	18:34 (8)	16:30	15:34
31	05:02	06:05		07:11		08:43
	21:21	20:07		16:27		15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			299	465	712	1242
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,34	0,34	0,89	0,89
Total reduktion			0,12	0,10	0,16	0,12
Total, verklig			35	45	116	153

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AE - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (123)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj		Juni		Juli		Augusti	September	Oktober	November	December	
1	08:42	08:06	07:01	06:38	05:21		04:24		20:53 (3)	04:18	20:56 (3)	05:04	06:07	07:07	07:13	08:16
	15:36	16:34	17:37	19:43	20:46		21:44	13	21:06 (3)	22:01	21:20 (3)	21:19	20:04	18:43	16:25	15:33
2	08:42	08:04	06:58	06:36	05:19		04:23		20:52 (3)	04:19	20:56 (3)	05:06	06:09	07:09	07:16	08:17
	15:38	16:36	17:39	19:45	20:48		21:46	15	21:07 (3)	22:00	21:20 (3)	21:17	20:02	18:41	16:23	15:32
3	08:42	08:02	06:56	06:33	05:17		04:22		20:52 (3)	04:20	20:57 (3)	05:08	06:11	07:11	07:18	08:19
	15:39	16:39	17:41	19:47	20:51		21:47	16	21:08 (3)	22:00	21:20 (3)	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:14		04:21		20:51 (3)	04:21	20:56 (3)	05:10	06:13	07:13	07:20	08:21
	15:40	16:41	17:44	19:50	20:53		21:48	18	21:09 (3)	21:59	21:18 (3)	21:13	19:56	18:35	16:18	15:31
5	08:41	07:58	06:51	06:28	05:12		04:20		20:51 (3)	04:22	20:56 (3)	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55		21:50	19	21:10 (3)	21:58	21:18 (3)	21:10	19:54	18:33	16:16	15:30
6	08:40	07:55	06:48	06:25	05:10		04:19		20:52 (3)	04:23	20:57 (3)	05:14	06:17	07:18	07:24	08:24
	15:43	16:45	17:48	19:54	20:57		21:51	20	21:12 (3)	21:58	21:17 (3)	21:08	19:51	18:30	16:14	15:29
7	08:40	07:53	06:45	06:22	05:08		04:18		20:51 (3)	04:24	20:57 (3)	05:16	06:19	07:20	07:27	08:25
	15:45	16:48	17:50	19:56	20:59		21:52	21	21:12 (3)	21:57	21:17 (3)	21:06	19:48	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06		04:17		20:51 (3)	04:25	20:58 (3)	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:52	19:58	21:01		21:53	22	21:13 (3)	21:56	21:16 (3)	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:03		04:17		20:51 (3)	04:26	20:59 (3)	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03		21:54	23	21:14 (3)	21:55	21:16 (3)	21:02	19:43	18:22	16:08	15:27
10	08:37	07:47	06:37	06:14	05:01		04:16		20:51 (3)	04:28	20:59 (3)	05:22	06:25	07:26	07:33	08:29
	15:50	16:54	17:57	20:02	21:05		21:55	24	21:15 (3)	21:54	21:15 (3)	21:09	19:40	18:19	16:06	15:27
11	08:36	07:45	06:35	06:12	04:59		04:15		20:51 (3)	04:29	21:00 (3)	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07		21:56	25	21:16 (3)	21:53	21:14 (3)	21:07	19:38	18:17	16:04	15:27
12	08:36	07:42	06:32	06:09	04:57		04:15		20:52 (3)	04:30	21:00 (3)	05:26	06:29	07:30	07:37	08:32
	15:53	16:59	18:01	20:06	21:09		21:57	25	21:17 (3)	21:52	21:13 (3)	21:05	19:35	18:14	16:02	15:26
13	08:35	07:40	06:29	06:06	04:55		04:14		20:51 (3)	04:32	21:01 (3)	05:28	06:31	07:32	07:40	08:33
	15:55	17:01	18:03	20:08	21:11		21:58	26	21:17 (3)	21:51	21:11 (3)	21:02	19:32	18:11	16:00	15:26
14	08:33	07:38	06:27	06:04	04:53		04:14		20:52 (3)	04:33	21:02 (3)	05:30	06:33	07:34	07:42	08:34
	15:57	17:04	18:05	20:11	21:13		21:58	26	21:18 (3)	21:49	21:11 (3)	21:00	19:29	18:09	15:58	15:26
15	08:32	07:35	06:24	06:01	04:51		04:14		20:52 (3)	04:35	21:03 (3)	05:32	06:35	07:36	07:44	08:35
	15:58	17:06	18:07	20:13	21:15		21:59	27	21:19 (3)	21:48	21:10 (3)	21:07	19:27	18:06	15:56	15:26
16	08:31	07:33	06:21	05:59	04:49		04:13		20:52 (3)	04:36	21:05 (3)	05:34	06:37	07:39	07:46	08:36
	16:00	17:08	18:10	20:15	21:17		22:00	27	21:19 (3)	21:47	21:09 (3)	21:05	19:24	18:04	15:54	15:26
17	08:30	07:31	06:19	05:56	04:47		04:13		20:52 (3)	04:38	21:06 (3)	05:36	06:39	07:41	07:48	08:37
	16:02	17:10	18:12	20:17	21:19		22:00	28	21:20 (3)	21:45	21:07 (3)	21:03	19:21	18:01	15:53	15:26
18	08:29	07:28	06:16	05:53	04:45		04:13		20:53 (3)	04:39		05:38	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21		22:01	27	21:20 (3)	21:44		20:40	19:18	17:59	15:51	15:26
19	08:27	07:26	06:13	05:51	04:44		04:13		20:53 (3)	04:41		20:40	19:18	17:59	15:51	15:26
	16:06	17:15	18:16	20:21	21:22		22:01	28	21:21 (3)	21:42		20:38	19:16	17:56	15:49	15:26
20	08:26	07:23	06:11	05:48	04:42		04:13		20:53 (3)	04:42		20:42	19:15	17:55	15:48	15:27
	16:08	17:17	18:18	20:23	21:24		22:02	28	21:21 (3)	21:41		20:35	19:13	17:54	15:48	15:27
21	08:24	07:21	06:08	05:46	04:40		04:13		20:53 (3)	04:44		20:44	19:17	17:56	15:49	15:26
	16:10	17:19	18:20	20:25	21:26		22:02	28	21:21 (3)	21:39		20:33	19:10	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:38		04:13		20:53 (3)	04:46		20:46	19:18	17:57	15:49	15:26
	16:12	17:22	18:22	20:27	21:28		22:02	28	21:21 (3)	21:38		20:30	19:08	17:49	15:45	15:28
23	08:21	07:16	06:03	05:41	04:37		04:14		20:54 (3)	04:48		20:48	19:15	17:54	15:48	15:27
	16:14	17:24	18:24	20:30	21:30		22:02	28	21:22 (3)	21:36		20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35		04:14		20:54 (3)	04:49		20:50	19:05	17:56	15:48	15:27
	16:17	17:26	18:26	20:32	21:31		22:02	27	21:21 (3)	21:34		20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:33		04:14		20:53 (3)	04:51		20:53	19:05	17:56	15:48	15:27
	16:19	17:28	18:29	20:34	21:33		22:02	28	21:21 (3)	21:32		20:23	18:59	17:41	15:40	15:29
26	08:17	07:09	05:54	05:33	04:32		04:15		20:54 (3)	04:53		20:55	19:07	17:58	15:49	15:28
	16:21	17:30	18:31	20:36	21:35		22:02	28	21:22 (3)	21:31		20:20	18:57	17:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31		04:15		20:54 (3)	04:55		20:57	19:09	17:59	15:49	15:30
	16:23	17:33	18:33	20:38	21:36	3	20:59 (3)	27	21:21 (3)	21:29		20:17	18:54	17:37	15:38	15:31
28	08:13	07:03	05:49	05:28	04:29		04:16		20:55 (3)	04:57		20:59	19:01	17:50	15:40	15:30
	16:25	17:35	18:35	20:40	21:38	5	21:00 (3)	26	21:21 (3)	21:27		20:15	18:51	17:34	15:37	15:32
29	08:11		06:46	05:26	04:28		04:17		20:54 (3)	04:59		20:12	18:49	17:32	15:35	15:33
	16:27		19:37	20:42	21:40	8	21:02 (3)	26	21:21 (3)	21:25		20:12	18:49	17:32	15:35	15:33
30	08:09		06:44	05:24	04:26		04:17		20:53 (3)	05:00		20:10	18:46	17:30	15:34	15:34
	16:30		19:39	20:44	21:41	10	21:03 (3)	25	21:20 (3)	21:23		20:10	18:46	17:30	15:34	15:34
31	08:07		06:41		04:25		20:53 (3)			05:02		20:05		17:11		08:42
	16:32		19:41		21:43	12	21:05 (3)			21:21		20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509		530		531		470	385	323	246	215	
Totalt, värsta fall					38		729		264							
Sol reduktion					0,54		0,43		0,39							
Drifftid red.					1,00		1,00		1,00							
Vindrikt. red.					0,63		0,63		0,63							
Total reduktion					0,34		0,27		0,24							
Total, verklig					13		198		64							

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AF - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (124)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 81	11:43 (1) 08:06 14:22 (8) 16:34	08:37 (12) 07:01 12:27 (1) 17:37	07:38 (6) 06:38 07:48 (6) 19:43	05:21 20:46	04:24 21:44
2	08:42 15:37 81	11:44 (1) 08:04 14:23 (8) 16:36	08:35 (12) 06:58 08:44 (12) 17:39	07:33 (6) 06:36 07:52 (6) 19:45	05:19 20:49	04:23 21:46
3	08:42 15:39 80	11:44 (1) 08:02 14:22 (8) 16:39	08:32 (12) 06:56 08:45 (12) 17:41	07:30 (6) 06:33 07:55 (6) 19:47	05:17 20:51	04:22 21:47
4	08:41 15:40 80	11:45 (1) 08:00 14:23 (8) 16:41	08:30 (12) 06:53 08:46 (12) 17:44	07:28 (6) 06:30 07:57 (6) 19:50	05:14 20:53	04:21 21:48
5	08:41 15:41 79	11:45 (1) 07:58 14:23 (8) 16:43	08:28 (12) 06:51 08:48 (12) 17:46	07:26 (6) 06:27 07:58 (6) 19:52	05:12 20:55	04:20 21:50
6	08:40 15:43 78	11:46 (1) 07:56 14:23 (8) 16:45	08:26 (12) 06:48 08:49 (12) 17:48	07:24 (6) 06:25 07:59 (6) 19:54	05:10 20:57	04:19 21:51
7	08:40 15:44 78	11:46 (1) 07:53 14:23 (8) 16:48	08:23 (12) 06:45 08:49 (12) 17:50	07:22 (6) 06:22 08:00 (6) 19:56	05:08 20:59	04:18 21:52
8	08:39 15:46 79	11:46 (1) 07:51 14:24 (8) 16:50	08:22 (12) 06:43 08:49 (12) 17:52	07:22 (6) 06:19 08:01 (6) 19:58	05:05 21:01	04:17 21:53
9	08:38 15:48 78	11:47 (1) 07:49 14:24 (8) 16:52	08:22 (12) 06:40 08:49 (12) 17:54	07:20 (6) 06:17 08:02 (6) 20:00	05:03 21:03	04:16 21:54
10	08:38 15:49 77	11:47 (1) 07:47 14:24 (8) 16:54	08:22 (12) 06:37 08:50 (12) 17:57	07:19 (6) 06:14 08:02 (6) 20:02	05:01 21:05	04:16 21:55
11	08:37 15:51 75	11:48 (1) 07:45 14:24 (8) 16:57	08:22 (12) 06:35 08:50 (12) 17:59	07:19 (6) 06:12 08:03 (6) 20:04	04:59 21:07	04:15 21:56
12	08:36 15:53 73	11:49 (1) 07:42 14:24 (8) 16:59	08:22 (12) 06:32 08:49 (12) 18:01	07:18 (6) 06:09 08:03 (6) 20:06	04:57 21:09	04:15 21:57
13	08:35 15:55 72	11:49 (1) 07:40 14:23 (8) 17:01	08:23 (12) 06:29 08:49 (12) 18:03	07:17 (6) 06:06 08:02 (6) 20:09	04:55 21:11	04:14 21:58
14	08:34 15:56 69	11:50 (1) 07:38 14:23 (8) 17:03	08:23 (12) 06:27 08:48 (12) 18:05	07:16 (6) 06:04 08:02 (6) 20:11	04:53 21:13	04:14 21:59
15	08:33 15:58 66	11:50 (1) 07:36 14:21 (8) 17:06	08:24 (12) 06:24 08:48 (12) 18:07	07:17 (6) 06:01 08:02 (6) 20:13	04:51 21:15	04:13 21:59
16	08:31 16:00 63	11:51 (1) 07:33 14:21 (8) 17:08	08:24 (12) 06:21 08:47 (12) 18:09	07:16 (6) 05:58 08:02 (6) 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02 59	11:51 (1) 07:31 14:19 (8) 17:10	08:26 (12) 06:19 08:46 (12) 18:12	07:16 (6) 05:56 08:01 (6) 20:17	04:47 21:19	04:13 22:01
18	08:29 16:04 49	11:52 (1) 07:28 12:41 (1) 17:13	08:27 (12) 06:16 08:44 (12) 18:14	07:15 (6) 05:53 08:00 (6) 20:19	04:45 21:21	04:13 22:01
19	08:27 16:06 47	11:53 (1) 07:26 12:40 (1) 17:15	08:30 (12) 06:13 08:42 (12) 18:16	07:16 (6) 05:51 08:00 (6) 20:21	04:43 21:23	04:13 22:01
20	08:26 16:08 47	11:53 (1) 07:24 12:40 (1) 17:17	06:11 18:18	07:16 (6) 05:48 07:59 (6) 20:23	04:42 21:24	04:13 22:02
21	08:25 16:10 45	11:55 (1) 07:21 12:40 (1) 17:19	06:08 18:20	07:16 (6) 05:46 07:58 (6) 20:25	04:40 21:26	04:13 22:02
22	08:23 16:12 45	11:55 (1) 07:19 12:40 (1) 17:21	06:05 18:22	07:17 (6) 05:43 07:57 (6) 20:28	04:38 21:28	04:13 22:02
23	08:22 16:14 43	11:56 (1) 07:16 12:39 (1) 17:24	06:03 18:24	07:17 (6) 05:41 07:55 (6) 20:30	04:36 21:30	04:13 22:02
24	08:20 16:16 42	11:57 (1) 07:14 12:39 (1) 17:26	06:00 18:26	07:18 (6) 05:38 07:54 (6) 20:32	04:35 21:32	04:14 22:02
25	08:18 16:19 40	11:58 (1) 07:11 12:38 (1) 17:28	05:57 18:29	07:19 (6) 05:36 07:51 (6) 20:34	04:33 21:33	04:14 22:02
26	08:17 16:21 38	11:59 (1) 07:09 12:37 (1) 17:30	05:54 18:31	07:21 (6) 05:33 07:50 (6) 20:36	04:32 21:35	04:15 22:02
27	08:15 16:23 35	12:01 (1) 07:06 12:36 (1) 17:33	05:52 18:33	07:22 (6) 05:31 07:47 (6) 20:38	04:30 21:37	04:15 22:02
28	08:13 16:25 33	12:02 (1) 07:04 12:35 (1) 17:35	05:49 18:35	07:24 (6) 05:28 07:44 (6) 20:40	04:29 21:38	04:16 22:02
29	08:11 16:27 30	12:04 (1) 07:00 12:34 (1) 17:30	06:46 19:37	08:29 (6) 05:26 08:40 (6) 20:42	04:28 21:40	04:16 22:02
30	08:10 16:30 26	12:06 (1) 06:56 12:32 (1) 17:24	06:44 19:39	05:24 20:44	04:26 21:41	04:17 22:01
31	08:08 16:32 21	12:09 (1) 06:51 12:30 (1) 17:19	06:41 19:41		04:25 21:43	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1809	410	1033			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,97	0,62	0,34			
Total reduktion	0,19	0,11	0,08			
Total, verklig	346	45	86			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AF - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (124)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18	05:04	06:07	07:07	07:57 (6)	07:13
	22:01	21:19	20:04	18:43	08:42 (6)	16:25
2	04:19	05:06	06:09	07:09	07:57 (6)	07:16
	22:00	21:17	20:02	18:41	08:41 (6)	16:23
3	04:20	05:08	06:11	07:11	07:57 (6)	07:18
	22:00	21:15	19:59	18:38	08:40 (6)	16:20
4	04:20	05:10	06:13	07:14	07:57 (6)	07:20
	21:59	21:13	19:56	18:35	08:39 (6)	16:18
5	04:21	05:12	06:15	07:16	07:57 (6)	07:22
	21:59	21:11	19:54	18:33	08:38 (6)	16:16
6	04:23	05:14	06:17	07:18	07:59 (6)	07:24
	21:58	21:08	19:51	18:30	08:38 (6)	16:14
7	04:24	05:16	06:19	07:20	08:00 (6)	07:27
	21:57	21:06	19:48	18:27	08:36 (6)	16:12
8	04:25	05:18	06:21	07:22	08:00 (6)	07:29
	21:56	21:04	19:46	18:25	08:34 (6)	16:10
9	04:26	05:20	06:23	07:24	08:02 (6)	07:31
	21:55	21:02	19:43	18:22	08:32 (6)	16:08
10	04:27	05:22	06:25	07:26	08:03 (6)	07:33
	21:54	20:59	19:40	18:19	08:30 (6)	16:06
11	04:29	05:24	06:27	07:28	08:05 (6)	07:35
	21:53	20:57	19:38	18:17	08:27 (6)	16:04
12	04:30	05:26	06:29	07:30	08:09 (6)	07:38
	21:52	20:55	19:35	18:14	08:25 (6)	16:02
13	04:31	05:28	06:31	07:32		07:40
	21:51	20:52	19:32	18:11		16:00
14	04:33	05:30	06:33	08:20 (6)	07:34	07:42
	21:50	20:50	19:29	08:29 (6)	18:09	15:58
15	04:34	05:32	06:35	08:15 (6)	07:37	07:44
	21:48	20:48	19:27	08:33 (6)	18:06	15:56
16	04:36	05:34	06:37	08:12 (6)	07:39	07:46
	21:47	20:45	19:24	08:36 (6)	18:04	15:54
17	04:37	05:36	06:39	08:09 (6)	07:41	07:48
	21:45	20:43	19:21	08:38 (6)	18:01	15:53
18	04:39	05:38	06:41	08:07 (6)	07:43	07:50
	21:44	20:40	19:19	08:40 (6)	17:59	15:51
19	04:41	05:40	06:43	08:06 (6)	07:45	07:52
	21:43	20:38	19:16	08:41 (6)	17:56	15:49
20	04:42	05:42	06:45	08:04 (6)	07:47	07:55
	21:41	20:35	19:13	08:42 (6)	17:54	15:48
21	04:44	05:44	06:47	08:03 (6)	07:49	07:57
	21:39	20:33	19:10	08:42 (6)	17:51	15:46
22	04:46	05:46	06:49	08:02 (6)	07:52	09:02 (12)
	21:38	20:30	19:08	08:43 (6)	17:49	09:09 (12)
23	04:47	05:48	06:51	08:01 (6)	07:54	08:59 (12)
	21:36	20:28	19:05	08:43 (6)	17:46	09:13 (12)
24	04:49	05:50	06:53	08:00 (6)	07:56	08:57 (12)
	21:34	20:25	19:02	08:44 (6)	17:44	09:15 (12)
25	04:51	05:52	06:55	07:59 (6)	06:58	07:55 (12)
	21:33	20:23	18:59	08:44 (6)	16:41	08:16 (12)
26	04:53	05:54	06:57	07:58 (6)	07:00	07:54 (12)
	21:31	20:20	18:57	08:44 (6)	16:39	08:17 (12)
27	04:55	05:56	06:59	07:58 (6)	07:02	07:53 (12)
	21:29	20:17	18:54	08:44 (6)	16:36	08:18 (12)
28	04:57	05:59	07:01	07:57 (6)	07:05	07:52 (12)
	21:27	20:15	18:51	08:43 (6)	16:34	08:18 (12)
29	04:58	06:01	07:03	07:57 (6)	07:07	07:52 (12)
	21:25	20:12	18:49	08:43 (6)	16:32	08:19 (12)
30	05:00	06:03	07:05	07:57 (6)	07:09	07:51 (12)
	21:23	20:10	18:46	08:42 (6)	16:29	08:19 (12)
31	05:02	06:05		07:11	07:52 (12)	
	21:21	20:07		16:27	08:19 (12)	
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			626	635	1148	2493
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,34	0,43	0,92	0,96
Total reduktion			0,12	0,12	0,17	0,13
Total, verklig			74	77	195	331

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
-------------	---------------------	---------------------	---------------------	--------------------------------------	-------------------------------------	-----------------------------------	----------------------------------

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AG - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (125)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42 15:37	08:06 16:34	07:01 17:37	06:38 19:43	05:22 20:47	04:24 21:44	04:18 22:01	05:05 21:19	06:07 20:05	07:08 18:43	07:14 16:25	08:16 15:34
2	08:42 15:38	08:04 16:37	06:59 17:39	06:36 19:46	05:19 20:49	04:23 21:46	04:19 22:00	05:06 21:17	06:09 20:02	07:10 18:41	07:16 16:23	08:18 15:33
3	08:42 15:39	08:02 16:39	06:56 17:42	06:33 19:48	05:17 20:51	04:22 21:47	04:20 22:00	05:08 21:15	06:11 19:59	07:12 18:38	07:18 16:21	08:19 15:32
4	08:41 15:40	08:00 16:41	06:53 17:44	06:30 19:50	05:15 20:53	04:21 21:49	04:21 21:59	05:10 21:13	06:13 19:57	07:14 18:35	07:20 16:19	08:21 15:31
5	08:41 15:42	07:58 16:43	06:51 17:46	06:28 19:52	05:12 20:55	04:20 21:50	04:22 21:59	05:12 21:11	06:15 19:54	07:16 18:33	07:22 16:16	08:22 15:30
6	08:40 15:43	07:56 16:46	06:48 17:48	06:25 19:54	05:10 20:57	04:19 21:51	04:23 21:58	05:14 21:09	06:17 19:51	07:18 18:30	07:25 16:14	08:24 15:29
7	08:40 15:45	07:54 16:48	06:46 17:50	06:22 19:56	05:08 20:59	04:18 21:52	04:24 21:57	05:16 21:06	06:19 19:49	07:20 18:27	07:27 16:12	08:26 15:29
8	08:39 15:46	07:51 16:50	06:43 17:53	06:20 19:58	05:06 21:01	04:17 21:53	04:25 21:56	05:18 21:04	06:21 19:46	07:22 18:25	07:29 16:10	08:27 15:28
9	08:38 15:48	07:49 16:52	06:40 17:55	06:17 20:00	05:04 21:03	04:17 21:54	04:26 21:55	05:20 21:02	06:23 19:43	07:24 18:22	07:31 16:08	08:28 15:28
10	08:38 15:50	07:47 16:55	06:38 17:57	06:14 20:02	05:01 21:05	04:16 21:55	04:28 21:54	05:22 21:00	06:25 19:40	07:26 18:20	07:33 16:06	08:30 15:27
11	08:37 15:51	07:45 16:57	06:35 17:59	06:12 20:04	04:59 21:07	04:16 21:56	04:29 21:53	05:24 20:57	06:27 19:38	07:28 18:17	07:36 16:04	08:31 15:27
12	08:36 15:53	07:43 16:59	06:32 18:01	06:09 20:07	04:57 21:09	04:15 21:57	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	07:38 16:02	08:32 15:27
13	08:35 15:55	07:40 17:02	06:30 18:03	06:07 20:09	04:55 21:11	04:15 21:58	04:32 21:51	05:28 20:52	06:31 19:32	07:32 18:12	07:40 16:00	08:33 15:26
14	08:34 15:57	07:38 17:04	06:27 18:05	06:04 20:11	04:53 21:13	04:14 21:59	04:33 21:50	05:30 20:50	06:33 19:30	07:35 18:09	07:42 15:58	08:34 15:26
15	08:33 15:59	07:36 17:06	06:24 18:08	06:01 20:13	04:51 21:15	04:14 21:59	04:35 21:48	05:32 20:48	06:35 19:27	07:37 18:07	07:44 15:56	08:35 15:26
16	08:31 16:01	07:33 17:08	06:22 18:10	06:22 20:15	05:59 21:17	04:49 22:00	04:36 21:47	05:34 20:45	06:37 19:24	07:39 18:04	07:46 15:55	08:36 15:26
17	08:30 16:02	07:31 17:11	06:19 18:12	05:56 20:17	04:47 21:19	04:13 22:01	04:38 21:46	05:36 20:43	06:39 19:21	07:41 18:01	07:48 15:53	08:37 15:26
18	08:29 16:04	07:29 17:13	06:16 18:14	05:54 20:19	04:46 21:21	04:13 22:01	04:39 21:44	05:39 20:40	06:41 19:19	07:43 17:59	07:50 15:51	08:38 15:26
19	08:28 16:06	07:26 17:15	06:14 18:16	05:51 20:21	04:44 21:23	04:13 22:01	04:41 21:43	05:41 20:38	06:43 19:16	07:45 17:56	07:53 15:50	08:39 15:27
20	08:26 16:08	07:24 17:17	06:11 18:18	05:48 20:23	04:42 21:25	04:13 22:02	04:43 21:41	05:43 20:35	06:45 19:13	07:47 17:54	07:55 15:48	08:40 15:27
21	08:25 16:11	07:21 17:20	06:08 18:20	05:46 20:26	04:40 21:26	04:13 22:02	04:44 21:39	05:45 20:33	06:47 19:11	07:50 17:51	07:57 15:46	08:40 15:27
22	08:23 16:13	07:19 17:22	06:05 18:22	05:43 20:28	04:39 21:28	04:14 22:02	04:46 21:38	05:47 20:30	06:49 19:08	07:52 17:49	07:59 15:45	08:41 15:28
23	08:22 16:15	07:16 17:24	06:03 18:25	05:41 20:30	04:37 21:30	04:14 22:02	04:48 21:36	05:49 20:28	06:51 19:05	07:54 17:46	08:01 15:43	08:41 15:28
24	08:20 16:17	07:14 17:26	06:00 18:27	05:38 20:32	04:35 21:32	04:14 22:02	04:50 21:34	05:51 20:25	06:53 19:02	07:56 17:44	08:03 15:42	08:42 15:29
25	08:18 16:19	07:11 17:28	05:57 18:29	05:36 20:34	04:34 21:33	04:15 22:02	04:51 21:33	05:53 20:23	06:55 19:00	06:58 16:42	08:05 15:41	08:42 15:30
26	08:17 16:21	07:09 17:31	05:55 18:31	05:34 20:36	04:32 21:35	04:15 22:02	04:53 21:31	05:55 20:20	06:57 18:57	07:00 16:39	08:07 15:39	08:42 15:30
27	08:15 16:23	07:06 17:33	05:52 18:33	05:31 20:38	04:31 21:37	04:16 22:02	04:55 21:29	05:57 20:18	06:59 18:54	07:03 16:37	08:09 15:38	08:43 15:31
28	08:13 16:25	07:04 17:35	05:49 18:35	05:29 20:40	04:29 21:38	04:16 22:02	04:57 21:27	05:59 20:15	07:01 18:52	07:05 16:34	08:10 15:37	08:43 15:32
29	08:11 16:28		06:47 19:37	05:26 20:42	04:28 21:40	04:17 22:02	04:59 21:25	06:01 20:12	07:03 18:49	07:07 16:32	08:12 15:36	08:43 15:33
30	08:10 16:30		06:44 19:39	05:24 20:44	04:27 21:41	04:17 22:01	05:01 21:23	06:03 20:10	07:06 18:46	07:09 16:30	08:14 15:35	08:43 15:34
31	08:08 16:32		06:41 19:41		04:25 21:43		05:03 21:21	06:05 20:07		07:11 16:27		08:43 15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AH - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (126)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42	08:06	07:01	07:39 (3)	06:38	05:21
	15:36	16:34	17:37	08:16 (3)	19:43	20:47
2	08:42	08:04	06:59	07:38 (3)	06:36	05:19
	15:38	16:36	17:39	08:16 (3)	19:46	20:49
3	08:42	08:02	06:56	07:37 (3)	06:33	05:17
	15:39	16:39	17:42	08:16 (3)	19:48	20:51
4	08:41	08:00	06:53	07:37 (3)	06:30	05:15
	15:40	16:41	17:44	08:17 (3)	19:50	20:53
5	08:41	07:58	06:51	07:36 (3)	06:28	05:12
	15:42	16:43	17:46	08:16 (3)	19:52	20:55
6	08:40	07:56	06:48	07:36 (3)	06:25	05:10
	15:43	16:46	17:48	08:16 (3)	19:54	20:57
7	08:40	07:54	06:46	07:37 (3)	06:22	05:08
	15:45	16:48	17:50	08:16 (3)	19:56	20:59
8	08:39	07:51	06:43	07:36 (3)	06:20	05:06
	15:46	16:50	17:52	08:15 (3)	19:58	21:01
9	08:38	07:49	06:40	07:36 (3)	06:17	05:03
	15:48	16:52	17:55	08:14 (3)	20:00	21:03
10	08:38	07:47	06:38	07:36 (3)	06:14	05:01
	15:50	16:55	17:57	08:13 (3)	20:02	21:05
11	08:37	07:45	06:35	07:37 (3)	06:12	05:05
	15:51	16:57	17:59	08:12 (3)	20:04	21:07
12	08:36	07:43	06:32	07:38 (3)	06:09	05:04
	15:53	16:59	18:01	08:11 (3)	20:07	21:09
13	08:35	07:40	06:30	07:38 (3)	06:06	05:05
	15:55	17:01	18:03	08:09 (3)	20:09	21:11
14	08:34	07:38	06:27	07:40 (3)	06:04	05:03
	15:57	17:04	18:05	08:08 (3)	20:11	21:13
15	08:33	07:36	06:24	07:41 (3)	06:01	05:01
	15:59	17:06	18:08	08:05 (3)	20:13	21:15
16	08:31	07:33	06:22	07:43 (3)	05:59	05:04
	16:00	17:08	18:10	08:02 (3)	20:15	21:17
17	08:30	07:31	06:19	07:46 (3)	05:56	05:04
	16:02	17:10	18:12	07:58 (3)	20:17	21:19
18	08:29	07:29	06:16	05:54	06:44 (8)	04:45
	16:04	17:13	18:14	20:19	07:06 (8)	21:21
19	08:28	07:26	06:14	05:51	06:44 (8)	04:44
	16:06	17:15	18:16	20:21	07:04 (8)	21:23
20	08:26	07:24	06:11	05:48	06:46 (8)	04:42
	16:08	17:17	18:18	20:23	07:03 (8)	21:25
21	08:25	07:21	07:52 (3)	06:08	06:49 (8)	04:40
	16:10	17:19	08:05 (3)	18:20	07:00 (8)	21:26
22	08:23	07:19	07:49 (3)	06:05	05:43	04:38
	16:12	17:22	08:08 (3)	18:22	20:28	21:28
23	08:22	07:16	07:46 (3)	06:03	05:41	04:37
	16:15	17:24	08:10 (3)	18:24	20:30	21:30
24	08:20	07:14	07:44 (3)	06:00	05:38	04:35
	16:17	17:26	08:12 (3)	18:27	20:32	21:32
25	08:18	07:11	07:42 (3)	05:57	05:36	04:34
	16:19	17:28	08:13 (3)	18:29	20:34	21:33
26	08:17	07:09	07:42 (3)	05:55	05:33	04:32
	16:21	17:31	08:14 (3)	18:31	20:36	21:35
27	08:15	07:06	07:40 (3)	05:52	05:31	04:31
	16:23	17:33	08:15 (3)	18:33	20:38	21:37
28	08:13	07:04	07:39 (3)	05:49	05:29	04:29
	16:25	17:35	08:15 (3)	18:35	20:40	21:38
29	08:11		06:46	05:26		04:28
	16:28		19:37	20:42		21:40
30	08:10		06:44	05:24		04:26
	16:30		19:39	20:44		21:41
31	08:08		06:41			04:25
	16:32		19:41			21:43
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall		218	569	421		
Sol reduktion		0,16	0,22	0,43		
Drifttid red.		1,00	1,00	1,00		
Vindrikt. red.		0,43	0,43	0,10		
Total reduktion		0,08	0,11	0,05		
Total, verklig		17	62	20		

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AH - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (126)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 21:19	06:07 20:04	06:42 (8) 07:11 (8)	07:07 18:43	08:17 (3) 16:25
2	04:19 22:00	05:06 21:17	06:09 20:02	06:42 (8) 07:11 (8)	07:10 18:41	08:16 (3) 16:23
3	04:20 22:00	05:08 21:15	06:11 19:59	06:41 (8) 07:09 (8)	07:12 18:38	08:15 (3) 16:21
4	04:21 21:59	05:10 21:13	06:13 19:57	06:42 (8) 07:08 (8)	07:14 18:35	08:13 (3) 16:18
5	04:22 21:59	05:12 21:11	06:15 19:54	06:44 (8) 07:07 (8)	07:16 18:33	08:14 (3) 16:16
6	04:23 21:58	05:14 21:08	06:17 19:51	06:46 (8) 07:06 (8)	07:18 18:30	08:13 (3) 16:14
7	04:24 21:57	05:16 21:06	06:19 19:48	06:48 (8) 07:04 (8)	07:20 18:27	08:12 (3) 16:12
8	04:25 21:56	05:18 21:04	06:21 19:46	06:50 (8) 07:02 (8)	07:22 18:25	08:12 (3) 16:10
9	04:26 21:55	05:20 21:02	06:23 19:43	06:52 (8) 06:59 (8)	07:24 18:22	08:11 (3) 16:08
10	04:28 21:54	05:22 20:59	06:25 19:40	07:26 18:19	08:11 (3) 08:50 (3)	07:33 16:06
11	04:29 21:53	05:24 20:57	06:27 19:38	07:28 18:17	08:11 (3) 08:50 (3)	07:35 16:04
12	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	08:12 (3) 08:50 (3)	07:38 16:02
13	04:32 21:51	05:28 20:52	06:31 19:32	07:32 18:12	08:12 (3) 08:49 (3)	07:40 16:00
14	04:33 21:50	05:30 20:50	06:33 19:30	07:35 18:09	08:12 (3) 08:48 (3)	07:42 15:58
15	04:35 21:48	05:32 20:48	06:35 19:27	07:37 18:06	08:13 (3) 08:47 (3)	07:44 15:56
16	04:36 21:47	05:34 20:45	06:37 19:24	07:39 18:04	08:14 (3) 08:46 (3)	07:46 15:55
17	04:38 21:46	05:36 20:43	06:39 19:21	07:41 18:01	08:15 (3) 08:44 (3)	07:48 15:53
18	04:39 21:44	05:38 20:40	06:41 19:19	07:43 17:59	08:16 (3) 08:42 (3)	07:50 15:51
19	04:41 21:43	05:40 20:38	06:43 19:16	07:45 17:56	08:18 (3) 08:40 (3)	07:53 15:49
20	04:43 21:41	05:42 20:35	06:45 19:13	07:47 17:54	08:21 (3) 08:38 (3)	07:55 15:48
21	04:44 21:39	05:45 20:33	06:47 19:11	07:49 17:51	08:24 (3) 08:34 (3)	07:57 15:46
22	04:46 21:38	05:47 20:30	06:52 (8) 07:04 (8)	06:49 19:08	07:52 17:49	07:59 15:45
23	04:48 21:36	05:49 20:28	06:50 (8) 07:07 (8)	06:51 19:05	07:54 17:46	08:01 15:43
24	04:49 21:34	05:51 20:25	06:48 (8) 07:08 (8)	06:53 19:02	07:56 17:44	08:03 15:42
25	04:51 21:33	05:53 20:23	06:47 (8) 07:09 (8)	06:55 19:00	06:58 16:41	08:05 15:40
26	04:53 21:31	05:55 20:20	06:45 (8) 07:10 (8)	06:57 18:57	08:31 (3) 08:39 (3)	07:00 16:39
27	04:55 21:29	05:57 20:18	06:45 (8) 07:11 (8)	06:59 18:54	08:26 (3) 08:43 (3)	07:03 16:37
28	04:57 21:27	05:59 20:15	06:44 (8) 07:11 (8)	07:01 18:52	08:23 (3) 08:45 (3)	07:05 16:34
29	04:59 21:25	06:01 20:12	06:43 (8) 07:11 (8)	07:03 18:49	08:21 (3) 08:47 (3)	07:07 16:32
30	05:01 21:23	06:03 20:10	06:43 (8) 07:11 (8)	07:05 18:46	08:19 (3) 08:48 (3)	07:09 16:30
31	05:02 21:21	06:05 20:07	06:42 (8) 07:11 (8)	07:11 16:27	07:11 16:27	08:43 15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall		236	292	694		
Sol reduktion		0,36	0,31	0,26		
Drifttid red.		1,00	1,00	1,00		
Vindrikt. red.		0,10	0,21	0,43		
Total reduktion		0,04	0,08	0,13		
Total, verklig		9	22	87		

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)		Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AI - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (127)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42	09:22 (3) 08:06	09:24 (3) 07:01	06:38	05:21	04:24
	15:36	09:45 (3) 16:34	10:04 (3) 17:37	19:43	20:47	21:44
2	08:42	09:22 (3) 08:04	09:25 (3) 06:59	06:36	05:19	04:23
	15:38	09:46 (3) 16:36	10:04 (3) 17:39	19:45	20:49	21:46
3	08:42	09:22 (3) 08:02	09:25 (3) 06:56	06:33	05:17	04:22
	15:39	09:47 (3) 16:39	10:03 (3) 17:42	19:48	20:51	21:47
4	08:41	09:22 (3) 08:00	09:26 (3) 06:53	06:30	05:14	04:21
	15:40	09:49 (3) 16:41	10:02 (3) 17:44	19:50	20:53	21:49
5	08:41	09:22 (3) 07:58	09:27 (3) 06:51	06:28	05:12	04:20
	15:42	09:49 (3) 16:43	10:02 (3) 17:46	19:52	20:55	21:50
6	08:40	09:22 (3) 07:56	09:28 (3) 06:48	06:25	05:10	04:19
	15:43	09:50 (3) 16:45	10:01 (3) 17:48	19:54	20:57	21:51
7	08:40	09:21 (3) 07:54	09:29 (3) 06:46	06:22	05:08	04:18
	15:45	09:51 (3) 16:48	09:59 (3) 17:50	19:56	20:59	21:52
8	08:39	09:21 (3) 07:51	09:31 (3) 06:43	06:20	05:06	04:17
	15:46	09:52 (3) 16:50	09:58 (3) 17:52	19:58	21:01	21:53
9	08:38	09:21 (3) 07:49	09:33 (3) 06:40	07:06 (8) 06:17	05:03	04:17
	15:48	09:53 (3) 16:52	09:57 (3) 17:55	07:16 (8) 20:00	21:03	21:54
10	08:38	09:21 (3) 07:47	09:35 (3) 06:38	07:03 (8) 06:14	05:01	04:16
	15:50	09:54 (3) 16:55	09:53 (3) 17:57	07:19 (8) 20:02	21:05	21:55
11	08:37	09:21 (3) 07:45	09:39 (3) 06:35	07:01 (8) 06:12	04:59	04:15
	15:51	09:55 (3) 16:57	09:50 (3) 17:59	07:22 (8) 20:04	21:07	21:56
12	08:36	09:21 (3) 07:43	06:32	06:58 (8) 06:09	04:57	04:15
	15:53	09:56 (3) 16:59	18:01	07:23 (8) 20:07	21:09	21:57
13	08:35	09:20 (3) 07:40	06:30	06:55 (8) 06:06	04:55	04:14
	15:55	09:57 (3) 17:01	18:03	07:24 (8) 20:09	21:11	21:58
14	08:34	09:21 (3) 07:38	06:27	06:54 (8) 06:04	04:53	04:14
	15:57	09:58 (3) 17:04	18:05	07:26 (8) 20:11	21:13	21:59
15	08:33	09:21 (3) 07:36	06:24	06:53 (8) 06:01	04:51	04:14
	15:58	09:59 (3) 17:06	18:08	07:26 (8) 20:13	21:15	21:59
16	08:31	09:20 (3) 07:33	06:22	06:51 (8) 05:59	04:49	04:13
	16:00	09:59 (3) 17:08	18:10	07:26 (8) 20:15	21:17	22:00
17	08:30	09:20 (3) 07:31	06:19	06:50 (8) 05:56	04:47	04:13
	16:02	10:00 (3) 17:10	18:12	07:26 (8) 20:17	21:19	22:01
18	08:29	09:21 (3) 07:29	06:16	06:50 (8) 05:53	04:45	04:13
	16:04	10:01 (3) 17:13	18:14	07:27 (8) 20:19	21:21	22:01
19	08:28	09:20 (3) 07:26	06:13	06:50 (8) 05:51	04:44	04:13
	16:06	10:01 (3) 17:15	18:16	07:26 (8) 20:21	21:23	22:01
20	08:26	09:21 (3) 07:24	06:11	06:49 (8) 05:48	04:42	04:13
	16:08	10:02 (3) 17:17	18:18	07:26 (8) 20:23	21:25	22:02
21	08:25	09:21 (3) 07:21	06:08	06:48 (8) 05:46	04:40	04:13
	16:10	10:03 (3) 17:19	18:20	07:25 (8) 20:26	21:26	22:02
22	08:23	09:21 (3) 07:19	06:05	06:49 (8) 05:43	04:38	04:13
	16:12	10:03 (3) 17:22	18:22	07:25 (8) 20:28	21:28	22:02
23	08:22	09:21 (3) 07:16	06:03	06:49 (8) 05:41	04:37	04:14
	16:15	10:03 (3) 17:24	18:24	07:24 (8) 20:30	21:30	22:02
24	08:20	09:21 (3) 07:14	06:00	06:48 (8) 05:38	04:35	04:14
	16:17	10:03 (3) 17:26	18:27	07:23 (8) 20:32	21:32	22:02
25	08:18	09:21 (3) 07:11	05:57	06:49 (8) 05:36	04:34	04:14
	16:19	10:04 (3) 17:28	18:29	07:23 (8) 20:34	21:33	22:02
26	08:17	09:21 (3) 07:09	05:55	06:50 (8) 05:33	04:32	04:15
	16:21	10:04 (3) 17:31	18:31	07:21 (8) 20:36	21:35	22:02
27	08:15	09:21 (3) 07:06	05:52	06:50 (8) 05:31	04:31	04:15
	16:23	10:04 (3) 17:33	18:33	07:19 (8) 20:38	21:37	22:02
28	08:13	09:22 (3) 07:04	05:49	06:51 (8) 05:29	04:29	04:16
	16:25	10:04 (3) 17:35	18:35	07:17 (8) 20:40	21:38	22:02
29	08:11	09:22 (3)	06:46	07:53 (8) 05:26	04:28	04:17
	16:28	10:04 (3)	19:37	08:16 (8) 20:42	21:40	22:02
30	08:10	09:23 (3)	06:44	07:54 (8) 05:24	04:26	04:17
	16:30	10:04 (3)	19:39	08:13 (8) 20:44	21:41	22:01
31	08:08	09:23 (3)	06:41	07:57 (8)	04:25	
	16:32	10:04 (3)	19:41	08:09 (8)	21:43	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1125	331	664			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,81	0,81	0,22			
Total reduktion	0,16	0,15	0,05			
Total, verklig	184	48	36			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AI - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (127)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18	05:04	06:07	07:07	07:36 (8)	07:14
	22:01	21:19	20:04	18:43	08:03 (8)	16:25
2	04:19	05:06	06:09	07:10	07:38 (8)	07:16
	22:01	21:17	20:02	18:41	08:01 (8)	16:23
3	04:20	05:08	06:11	07:12	07:40 (8)	07:18
	22:00	21:15	19:59	18:38	07:58 (8)	16:21
4	04:21	05:10	06:13	07:14	07:42 (8)	07:20
	21:59	21:13	19:56	18:35	07:55 (8)	16:18
5	04:22	05:12	06:15	07:16	07:47 (8)	07:22
	21:59	21:11	19:54	18:33	07:50 (8)	16:16
6	04:23	05:14	06:17	07:18	07:25	07:25
	21:58	21:08	19:51	18:30	16:14	35
7	04:24	05:16	06:19	07:20	07:27	08:56 (3)
	21:57	21:06	19:48	18:27	16:12	37
8	04:25	05:18	06:21	07:22	07:29	08:55 (3)
	21:56	21:04	19:46	18:25	16:10	38
9	04:26	05:20	06:23	07:24	07:31	08:55 (3)
	21:55	21:02	19:43	18:22	16:08	40
10	04:28	05:22	06:25	07:26	07:33	08:55 (3)
	21:54	20:59	19:40	18:19	16:06	40
11	04:29	05:24	06:27	07:28	07:35	08:54 (3)
	21:53	20:57	19:38	18:17	16:04	41
12	04:30	05:26	06:29	07:50 (8)	07:38	08:54 (3)
	21:52	20:55	19:35	18:14	16:02	42
13	04:32	05:28	06:31	07:46 (8)	07:40	08:54 (3)
	21:51	20:52	19:32	18:12	16:00	42
14	04:33	05:30	06:33	07:43 (8)	07:42	08:54 (3)
	21:50	20:50	19:30	18:09	15:58	43
15	04:35	05:32	06:35	07:41 (8)	07:44	08:54 (3)
	21:48	20:48	19:27	18:06	15:56	43
16	04:36	05:34	06:37	07:40 (8)	07:39	08:54 (3)
	21:47	20:45	19:24	18:04	15:55	43
17	04:38	05:36	06:39	07:38 (8)	07:41	08:55 (3)
	21:46	20:43	19:21	18:01	15:53	43
18	04:39	05:38	06:41	07:37 (8)	07:43	08:55 (3)
	21:44	20:40	19:19	17:59	15:51	42
19	04:41	05:40	06:43	07:36 (8)	07:45	08:56 (3)
	21:43	20:38	19:16	17:56	15:49	42
20	04:43	05:42	06:45	07:35 (8)	07:47	08:56 (3)
	21:41	20:35	19:13	17:54	15:48	42
21	04:44	05:44	06:47	07:35 (8)	07:49	08:56 (3)
	21:39	20:33	19:10	17:51	15:46	42
22	04:46	05:46	06:49	07:34 (8)	07:52	08:57 (3)
	21:38	20:30	19:08	17:49	15:45	41
23	04:48	05:49	06:51	07:34 (8)	07:54	08:01
	21:36	20:28	19:05	17:46	15:43	41
24	04:49	05:51	06:53	07:33 (8)	07:56	08:03
	21:34	20:25	19:02	17:44	15:42	40
25	04:51	05:53	06:55	07:33 (8)	06:58	08:05
	21:33	20:23	19:00	16:41	15:40	40
26	04:53	05:55	06:57	07:33 (8)	07:00	08:07
	21:31	20:20	18:57	16:39	15:39	38
27	04:55	05:57	06:59	07:33 (8)	07:03	08:09
	21:29	20:18	18:54	16:37	15:38	38
28	04:57	05:59	07:01	07:33 (8)	07:05	08:10
	21:27	20:15	18:51	16:34	15:37	37
29	04:59	06:01	07:03	07:34 (8)	07:07	08:12
	21:25	20:12	18:49	16:32	15:36	37
30	05:01	06:03	07:05	07:34 (8)	07:09	08:14
	21:23	20:10	18:46	16:30	15:34	36
31	05:02	06:05		07:11	09:07 (3)	
	21:21	20:07		16:27	09:20 (3)	
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			589		1140	655
Sol reduktion			0,31		0,26	0,13
Drifttid red.			1,00		1,00	1,00
Vindrikt. red.			0,22		0,30	0,81
Total reduktion			0,08		0,09	0,12
Total, verklig			45		174	75

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AJ - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (128)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:21	04:24	04:18	05:04	06:07	07:07	07:13	08:16
	15:37	16:34	17:37	19:43	20:46	21:44	22:01	21:19	20:04	18:43	16:25	15:34
2	08:42	08:04	06:58	06:36	05:19	04:23	04:19	05:06	06:09	07:09	07:16	08:17
	15:38	16:37	17:39	19:45	20:49	21:46	22:00	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:40	16:41	17:44	19:50	20:53	21:48	21:59	21:13	19:56	18:35	16:18	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:58	21:11	19:54	18:33	16:16	15:30
6	08:40	07:56	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:18	07:24	08:24
	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14	15:29
7	08:40	07:53	06:45	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:25
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:52	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:03	04:17	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
10	08:37	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:19	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:15	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:42	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:06	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
13	08:35	07:40	06:30	06:06	04:55	04:15	04:32	05:28	06:31	07:32	07:40	08:33
	15:55	17:01	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:34	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:58	21:49	20:50	19:29	18:09	15:58	15:26
15	08:32	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:35
	15:59	17:06	18:07	20:13	21:15	21:59	21:48	20:48	19:27	18:06	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:00	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:02	17:10	18:12	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:53	15:26
18	08:29	07:28	06:16	05:54	04:45	04:13	04:39	05:38	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
19	08:27	07:26	06:13	05:51	04:44	04:13	04:41	05:40	06:43	07:45	07:52	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:42	20:38	19:16	17:56	15:49	15:27
20	08:26	07:24	06:11	05:48	04:42	04:13	04:43	05:42	06:45	07:47	07:54	08:40
	16:08	17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:49	07:57	08:40
	16:10	17:19	18:20	20:25	21:26	22:02	21:39	20:33	19:10	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:38	04:14	04:46	05:47	06:49	07:52	07:59	08:41
	16:13	17:22	18:22	20:28	21:28	22:02	21:38	20:30	19:08	17:49	15:45	15:28
23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
	16:15	17:24	18:24	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:15	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:32	20:23	19:00	16:41	15:41	15:30
26	08:17	07:09	05:55	05:33	04:32	04:15	04:53	05:55	06:57	07:00	08:06	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:15	04:55	05:57	06:59	07:02	08:08	08:42
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:17	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:51	16:34	15:37	15:32
29	08:11		06:46	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:09		06:44	05:24	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:42
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AK - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (129)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

		Januari	Februari	Mars		April		Maj		Juni	
	1	08:42 15:36	08:06 16:34	07:01 17:37		06:38 19:43		07:22 (11) 08:00 (11)	05:21 20:46	04:24 21:44	20:44 (13) 21:06 (13)
	2	08:42 15:38	08:04 16:36	06:58 17:39		06:35 19:45	38	07:22 (11) 07:59 (11)	05:19 20:48	04:23 21:46	20:44 (13) 21:07 (13)
	3	08:42 15:39	08:02 16:39	06:56 17:41		06:33 19:47	37	07:21 (11) 07:57 (11)	05:17 20:50	04:22 21:47	20:43 (13) 21:08 (13)
	4	08:41 15:40	08:00 16:41	06:53 17:44		06:30 19:49	36	07:22 (11) 07:57 (11)	05:14 20:53	04:21 21:48	20:43 (13) 21:09 (13)
	5	08:41 15:42	07:58 16:43	06:51 17:46		06:27 19:52	35	07:22 (11) 07:56 (11)	05:12 20:55	04:20 21:50	20:42 (13) 21:10 (13)
	6	08:40 15:43	07:55 16:45	06:48 17:48		06:25 19:54	34	07:23 (11) 07:54 (11)	05:10 20:57	04:19 21:51	20:42 (13) 21:11 (13)
	7	08:40 15:45	07:53 16:48	06:45 17:50		06:22 19:56	31	07:24 (11) 07:53 (11)	05:08 20:59	04:18 21:52	20:42 (13) 21:12 (13)
	8	08:39 15:46	07:51 16:50	06:43 17:52		06:19 19:58	29	07:25 (11) 07:51 (11)	05:05 21:01	04:17 21:53	20:42 (13) 21:13 (13)
	9	08:38 15:48	07:49 16:52	06:40 17:54		06:17 20:00	26	07:26 (11) 07:48 (11)	05:03 21:03	04:16 21:54	20:42 (13) 21:14 (13)
	10	08:37 15:49	07:47 16:54	06:37 17:57		06:14 20:02	22	07:28 (11) 07:46 (11)	05:01 21:05	04:16 21:55	20:42 (13) 21:15 (13)
	11	08:36 15:51	07:45 16:57	06:35 17:59		06:12 20:04	18	07:31 (11) 07:41 (11)	04:59 21:07	04:15 21:56	20:42 (13) 21:16 (13)
	12	08:36 15:53	07:42 16:59	06:32 18:01		06:09 20:06	10		04:57 21:09	04:15 21:57	20:41 (13) 21:16 (13)
	13	08:35 15:55	07:40 17:01	06:29 18:03		06:06 20:08			04:55 21:11	04:14 21:58	20:42 (13) 21:17 (13)
	14	08:33 15:57	07:38 17:04	06:27 18:05		06:04 20:11			04:53 21:13	04:14 21:58	04:51 (2) 21:18 (13)
	15	08:32 15:58	07:35 17:06	06:24 18:07		06:01 20:13			04:51 21:15	04:14 21:59	04:51 (2) 21:19 (13)
	16	08:31 16:00	07:33 17:08	06:21 18:09		05:58 20:15			04:49 21:17	04:13 22:00	04:51 (2) 21:19 (13)
	17	08:30 16:02	07:31 17:10	06:19 18:12		05:56 20:17			04:47 21:19	04:13 22:00	04:51 (2) 21:19 (13)
	18	08:29 16:04	07:28 17:13	06:16 18:14		05:53 20:19			04:45 21:21	04:13 22:01	04:51 (2) 21:20 (13)
	19	08:27 16:06	07:26 17:15	06:13 18:16	13	06:39 (11) 06:52 (11)			04:43 21:22	04:13 22:01	04:51 (2) 21:20 (13)
	20	08:26 16:08	07:23 17:17	06:11 18:18	19	06:36 (11) 06:55 (11)			04:42 21:24	04:13 22:01	04:51 (2) 21:20 (13)
	21	08:24 16:10	07:21 17:19	06:08 18:20	23	06:33 (11) 06:56 (11)			04:40 21:26	04:13 22:02	04:51 (2) 21:20 (13)
	22	08:23 16:12	07:19 17:22	06:05 18:22	27	06:31 (11) 06:58 (11)			04:38 21:28	04:13 22:02	04:51 (2) 21:20 (13)
	23	08:21 16:14	07:16 17:24	06:02 18:24	31	06:28 (11) 06:59 (11)			04:37 21:30	04:14 22:02	04:51 (2) 21:20 (13)
	24	08:20 16:17	07:14 17:26	06:00 18:26	32	06:27 (11) 06:59 (11)			04:35 21:31	04:14 22:02	04:52 (2) 21:21 (13)
	25	08:18 16:19	07:11 17:28	05:57 18:28	35	06:25 (11) 07:00 (11)			04:33 21:33	20:51 (13) 20:55 (13)	04:52 (2) 21:20 (13)
	26	08:16 16:21	07:09 17:30	05:54 18:31	36	06:25 (11) 07:01 (11)			04:32 21:35	20:49 (13) 20:57 (13)	04:53 (2) 21:21 (13)
	27	08:15 16:23	07:06 17:33	05:52 18:33	36	06:24 (11) 07:00 (11)			04:30 21:36	20:48 (13) 20:59 (13)	04:53 (2) 21:21 (13)
	28	08:13 16:25	07:03 17:35	05:49 18:35	37	06:23 (11) 07:00 (11)			04:29 21:38	20:47 (13) 21:00 (13)	04:54 (2) 21:21 (13)
	29	08:11 16:27		06:46 19:37	38	07:23 (11) 08:01 (11)			04:28 21:40	20:46 (13) 21:02 (13)	20:45 (13) 21:20 (13)
	30	08:09 16:30		06:44 19:39	38	07:22 (11) 08:00 (11)			04:26 21:41	20:45 (13) 21:03 (13)	20:46 (13) 21:20 (13)
	31	08:07 16:32		06:41 19:41	37	07:22 (11) 07:59 (11)			04:25 21:43	20:45 (13) 21:05 (13)	
Möjliga soltimmar		234	265	366		427			509	530	
Totalt, värsta fall				402		316			90		1043
Sol reduktion				0,22		0,43			0,54		0,43
Drifttid red.				1,00		1,00			1,00		1,00
Vindrikt. red.				0,10		0,10			0,62		0,62
Total reduktion				0,02		0,04			0,30		0,24
Total, verklig				8		12			27		253

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AK - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (129)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Jul	Augusti	September		Oktober	November	December
1	04:18 22:01 34	20:46 (13) 21:20 (13) 21:19	05:04 21:19 20:04		07:30 (11) 07:41 (11) 18:43	07:07 18:43 16:25	08:16 15:33
2	04:19 22:00 33	20:47 (13) 21:20 (13) 21:17	05:06 20:02 06:11	11	07:26 (11) 07:44 (11) 18:41	07:09 18:41 16:23	08:17 15:32
3	04:20 22:00 33	20:46 (13) 21:19 (13) 21:15	05:08 21:15 19:59	18	07:24 (11) 07:46 (11) 18:38	07:11 18:38 16:20	08:19 15:31
4	04:21 21:59 32	20:47 (13) 21:19 (13) 21:13	05:10 19:56 06:13	22	07:22 (11) 07:48 (11) 18:35	07:13 18:35 16:18	08:21 15:31
5	04:22 21:58 31	20:47 (13) 21:18 (13) 21:10	05:12 19:54 06:15	26	07:20 (11) 07:49 (11) 18:32	07:16 18:32 16:16	08:22 15:30
6	04:23 21:58 29	20:48 (13) 21:17 (13) 21:08	05:14 19:51 06:17	29	07:19 (11) 07:50 (11) 18:30	07:18 18:30 16:14	08:24 15:29
7	04:24 21:57 29	20:48 (13) 21:17 (13) 21:06	05:16 19:48 06:19	31	07:18 (11) 07:51 (11) 18:27	07:20 18:27 16:12	08:25 15:28
8	04:25 21:56 27	20:49 (13) 21:16 (13) 21:04	05:18 19:46 06:21	33	07:17 (11) 07:51 (11) 18:25	07:22 18:25 16:10	08:27 15:28
9	04:26 21:55 26	20:50 (13) 21:16 (13) 21:02	05:20 19:43 06:23	34	07:16 (11) 07:52 (11) 18:22	07:24 18:22 16:08	08:28 15:27
10	04:27 21:54 24	20:51 (13) 21:15 (13) 20:59	05:22 19:40 06:25	36	07:15 (11) 07:52 (11) 18:19	07:26 18:19 16:06	08:29 15:27
11	04:29 21:53 23	20:51 (13) 21:14 (13) 20:57	05:24 19:37 06:27	37	07:14 (11) 07:52 (11) 18:17	07:28 18:17 16:04	08:31 15:27
12	04:30 21:52 21	20:52 (13) 21:13 (13) 20:55	05:26 19:35 06:29	38	07:14 (11) 07:52 (11) 18:14	07:30 18:14 16:02	08:32 15:26
13	04:32 21:51 18	20:53 (13) 21:11 (13) 20:52	05:28 19:32 06:31	38	07:14 (11) 07:52 (11) 18:11	07:32 18:11 16:00	08:33 15:26
14	04:33 21:49 17	20:54 (13) 21:11 (13) 20:50	05:30 19:29 06:33	38	07:13 (11) 07:51 (11) 18:09	07:34 18:09 15:58	08:34 15:26
15	04:34 21:48 15	20:55 (13) 21:10 (13) 20:47	05:32 19:27 06:35	38	07:13 (11) 07:51 (11) 18:06	07:36 18:06 15:56	08:35 15:26
16	04:36 21:47 12	20:56 (13) 21:08 (13) 20:45	05:34 19:24 06:37	38	07:13 (11) 07:50 (11) 18:04	07:39 18:04 15:54	08:36 15:26
17	04:38 21:45 9	20:58 (13) 21:07 (13) 20:43	05:36 19:21 06:39	37	07:13 (11) 07:49 (11) 18:01	07:41 18:01 15:53	08:37 15:26
18	04:39 21:44 6	21:00 (13) 21:06 (13) 20:40	05:38 19:18 06:41	36	07:14 (11) 07:48 (11) 17:59	07:50 17:59 15:51	08:38 15:26
19	04:41 21:42 2	21:03 (13) 21:05 (13) 20:38	05:40 19:16 06:43	34	07:13 (11) 07:46 (11) 17:56	07:45 17:56 15:49	08:39 15:26
20	04:42 21:41 21	20:38 20:35 05:44	06:45 19:13 06:47	34	07:14 (11) 07:45 (11) 17:54	07:47 17:54 15:48	08:39 15:27
21	04:44 21:39 22	20:33 05:46 20:30	06:47 19:10 06:49	31	07:15 (11) 07:43 (11) 17:51	07:49 17:51 15:46	08:40 15:27
22	04:46 21:38 23	05:46 20:30 05:48	06:49 19:08 06:51	28	07:17 (11) 07:41 (11) 17:49	07:51 17:49 15:45	08:41 15:28
23	04:48 21:36 24	05:48 20:28 05:50	06:51 19:05 06:53	24	07:20 (11) 07:40 (11) 17:46	08:00 15:43 15:28	08:41 15:28
24	04:49 21:34 25	05:50 20:25 05:52	06:53 19:02 06:55	20	07:22 (11) 07:37 (11) 17:44	08:02 15:42 15:29	08:42 15:29
25	04:51 21:32 26	05:52 20:22 05:54	06:55 18:59 06:57	15	07:26 (11) 07:31 (11) 16:41	08:04 15:40 15:29	08:42 15:29
26	04:53 21:31 27	05:54 20:20 05:57	06:57 18:57 06:59	5	07:00 16:39 15:39	08:06 15:39 15:30	08:42 15:30
27	04:55 21:29 28	05:57 20:17 05:59	06:59 18:54 07:01		07:02 16:36 15:38	08:08 15:38 15:31	08:42 15:31
28	04:57 21:27 29	05:59 20:15 06:01	07:01 18:51 07:03		07:04 16:34 15:37	08:10 15:37 15:32	08:42 15:32
29	04:59 21:25 30	06:01 20:12 06:03	07:03 18:49 07:05		07:07 16:32 15:35	08:12 15:35 15:33	08:43 15:33
30	05:00 21:23 31	06:03 20:10 06:05	07:05 18:46 06:07		07:09 16:29 15:34	08:14 15:34 15:34	08:42 15:34
Möjliga soltimmar	531	470	385		323	246	215
Totalt, värsta fall	421		730				
Sol reduktion	0,39		0,31				
Drifttid red.	1,00		1,00				
Vindrikt. red.	0,62		0,10				
Total reduktion	0,22		0,03				
Total, verklig	91		20				

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AL - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (130)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42 15:36	08:06 16:34	14:58 (6) 15:33 (6)	07:01 17:37	06:38 20:46	05:21 20:46	04:24 22:01	04:18 22:01	05:04 21:19	06:06 20:04	07:07 18:43	07:13 16:25
2	08:42 15:37	08:04 16:36	14:57 (6) 15:32 (6)	06:58 17:39	06:35 20:48	05:19 20:48	04:22 21:46	04:18 22:00	05:06 21:17	06:09 20:02	07:09 18:40	07:16 16:22
3	08:42 15:39	08:02 16:38	14:58 (6) 15:32 (6)	06:56 17:41	06:33 20:51	05:16 20:51	04:21 21:47	04:19 22:00	05:08 21:15	06:11 19:59	07:11 18:38	07:18 16:20
4	08:41 15:40	08:00 16:41	14:59 (6) 15:33 (6)	06:53 17:43	06:30 20:53	05:14 20:53	04:20 21:48	04:20 21:59	05:10 21:13	06:13 19:56	07:13 18:35	07:20 16:18
5	08:41 15:41	07:58 16:43	15:00 (6) 15:33 (6)	06:51 17:46	06:27 19:52	05:12 20:55	04:19 21:50	04:21 21:59	05:12 21:10	06:15 19:54	07:15 18:32	07:22 16:16
6	08:40 15:43	07:55 16:45	15:00 (6) 15:31 (6)	06:48 17:48	06:25 19:54	05:10 20:57	04:18 21:51	04:22 21:58	05:14 21:08	06:17 19:51	07:18 18:30	07:24 16:14
7	08:40 15:44	07:53 16:47	15:01 (6) 15:31 (6)	06:45 17:50	06:22 19:56	05:07 20:59	04:18 21:52	04:23 21:57	05:16 21:06	06:19 19:48	07:20 18:27	07:27 16:12
8	08:39 15:46	07:51 16:50	15:02 (6) 15:31 (6)	06:43 17:52	06:19 19:58	05:05 21:01	04:17 21:53	04:25 21:56	05:18 21:04	06:21 19:46	07:22 18:24	07:29 16:10
9	08:38 15:47	07:49 16:52	15:03 (6) 15:29 (6)	06:40 17:54	06:17 20:00	05:03 21:03	04:16 21:54	04:26 21:55	05:20 21:02	06:23 19:43	07:24 18:22	07:31 16:07
10	08:37 15:49	07:47 16:54	15:05 (6) 15:28 (6)	06:37 17:57	06:14 20:02	05:01 21:05	04:15 21:55	04:27 21:54	05:22 20:59	06:25 19:40	07:26 18:19	07:33 16:05
11	08:37 15:51	07:45 16:57	15:07 (6) 15:27 (6)	06:35 17:59	06:11 20:04	05:04 21:07	04:15 21:56	04:28 21:53	05:24 20:57	06:27 19:37	07:28 18:16	07:35 16:04
12	08:36 15:53	07:42 16:59	15:10 (6) 15:24 (6)	06:32 18:01	06:09 20:06	04:57 21:09	04:14 21:57	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	07:37 16:02
13	08:35 15:54	07:40 17:01	15:15 (6) 15:20 (6)	06:29 18:03	06:06 20:08	04:55 21:11	04:14 21:58	04:31 21:51	05:28 20:52	06:31 19:32	07:32 18:11	07:40 16:00
14	08:34 15:56	15:13 (6) 17:04	5 15:20 (6)	18:03	20:08	21:11	21:58	21:51	20:52	19:32	18:11	16:00
15	08:32 15:58	15:02 (6) 17:06	15:16 (6) 17:03	18:05	20:11	21:13	21:59	21:49	20:50	19:29	18:09	15:58
16	08:31 16:00	15:01 (6) 17:08	15:18 (6) 17:06	18:07	20:13	21:15	21:59	21:48	20:47	19:27	18:06	15:56
17	08:30 16:02	15:00 (6) 17:10	15:20 (6) 17:08	18:09	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:54
18	08:29 16:04	15:00 (6) 17:12	15:22 (6) 17:10	18:11	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:52
19	08:27 16:06	15:00 (6) 17:15	15:22 (6) 17:12	18:14	20:19	21:21	22:01	21:44	20:40	19:18	17:58	15:51
20	08:26 16:08	14:58 (6) 17:17	15:24 (6) 17:15	18:16	20:21	21:23	22:01	21:42	20:38	19:16	17:56	15:49
21	08:25 16:10	14:58 (6) 17:19	15:25 (6) 17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:53	15:47
22	08:23 16:12	14:59 (6) 17:21	15:26 (6) 17:19	18:20	20:25	21:26	22:02	21:39	20:33	19:10	17:51	15:46
23	08:21 16:14	14:58 (6) 17:24	15:27 (6) 17:21	18:22	20:27	21:28	22:02	21:38	20:30	19:07	17:48	15:44
24	08:20 16:16	14:57 (6) 17:26	15:28 (6) 17:24	18:24	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43
25	08:18 16:18	14:57 (6) 17:28	15:29 (6) 17:26	18:26	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:41
26	08:17 16:21	14:57 (6) 17:30	15:30 (6) 17:28	18:28	20:34	21:33	22:02	21:32	20:23	18:59	17:41	15:40
27	08:15 16:23	14:57 (6) 17:32	15:31 (6) 17:30	18:31	20:36	21:35	22:02	21:31	20:20	18:57	17:39	15:39
28	08:13 16:25	14:57 (6) 17:35	15:32 (6) 17:33	18:33	20:38	21:37	22:02	21:29	20:17	18:54	17:36	15:37
29	08:11 16:27	14:56 (6) 17:37	15:33 (6) 17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:51	17:34	15:36
30	08:09 16:29	14:56 (6) 17:39	15:34 (6) 17:37	18:37	20:42	21:40	22:02	21:25	20:12	18:48	17:32	15:35
31	08:08 16:32	14:56 (6) 17:41	15:35 (6) 17:39	18:39	20:44	21:42	22:01	21:23	20:10	18:46	17:29	15:34
Möjliga soltimmar	234	265	366	427	509	531	531	470	385	323	246	214
Totalt, värsta fall	516	349								44	827	
Sol reduktion	0,18	0,16								0,26	0,17	
Drifttid red.	1,00	1,00								1,00	1,00	
Vindrikt. red.	0,73	0,73								0,73	0,73	
Total reduktion	0,13	0,12								0,19	0,12	
Total, verklig	68	41								8	101	

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AM - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (131)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]
Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 77	10:37 (10) 13:37 (5) 16:34 37	15:05 (2) 15:42 (2) 17:37	06:38 19:43	05:21 20:46	04:24 21:44
2	08:42 15:37 76	10:38 (10) 13:37 (5) 16:36 38	15:04 (2) 15:42 (2) 17:39 8	06:58 17:02 (12) 19:45	05:19 20:48	04:22 21:46
3	08:42 15:39 76	10:38 (10) 13:37 (5) 16:38 37	15:05 (2) 15:42 (2) 17:41 12	06:56 17:00 (12) 19:47	05:16 20:50	04:21 21:47
4	08:41 15:40 74	10:39 (10) 13:37 (5) 16:41 38	15:05 (2) 15:43 (2) 17:43 16	06:53 17:14 (12) 19:49	05:14 20:52	04:20 21:48
5	08:41 15:41 72	10:40 (10) 13:37 (5) 16:43 37	15:06 (2) 15:43 (2) 17:46 20	06:50 16:57 (12) 19:51	05:12 20:55	04:19 21:50
6	08:40 15:43 72	10:40 (10) 13:37 (5) 16:45 36	15:06 (2) 15:42 (2) 17:48 24	06:48 16:55 (12) 19:54	05:10 20:57	04:18 21:51
7	08:40 15:44 70	10:41 (10) 13:37 (5) 16:47 36	15:06 (2) 15:42 (2) 17:50 27	06:45 16:54 (12) 19:56	05:07 20:59	04:18 21:52
8	08:39 15:46 67	10:41 (10) 13:36 (5) 16:50 35	15:07 (2) 15:42 (2) 17:52 28	06:43 16:54 (12) 19:58	05:05 21:01	04:17 21:53
9	08:38 15:47 66	10:42 (10) 13:36 (5) 16:52 34	15:07 (2) 15:41 (2) 17:54 28	06:40 16:54 (12) 20:00	05:03 21:03	04:16 21:54
10	08:37 15:49 62	10:43 (10) 13:35 (5) 16:54 32	15:09 (2) 15:41 (2) 17:56 28	06:37 16:53 (12) 20:02	05:01 21:05	04:15 21:55
11	08:36 15:51 59	10:43 (10) 13:34 (5) 16:56 31	15:09 (2) 15:40 (2) 17:59 27	06:35 16:53 (12) 20:11	04:59 21:07	04:15 21:56
12	08:36 15:53 53	10:43 (10) 13:31 (5) 16:59 28	15:11 (2) 15:39 (2) 18:01 28	06:32 16:53 (12) 20:06	04:57 21:09	04:14 21:57
13	08:34 15:54 46	10:44 (10) 11:30 (10) 17:01 25	15:13 (2) 15:38 (2) 18:03 27	06:29 16:53 (12) 20:08	04:55 21:11	04:14 21:58
14	08:33 15:56 45	10:45 (10) 11:30 (10) 17:03 22	15:14 (2) 15:36 (2) 18:05 24	06:27 16:54 (12) 20:10	04:53 21:13	04:14 21:58
15	08:32 15:58 44	10:46 (10) 11:30 (10) 17:06 17	15:17 (2) 15:34 (2) 18:07 23	06:24 16:54 (12) 20:13	04:51 21:15	04:13 21:59
16	08:31 16:00 47	10:47 (10) 15:20 (2) 17:08 10	15:20 (2) 15:30 (2) 18:09 20	06:21 16:56 (12) 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02 51	10:47 (10) 15:22 (2) 17:10	06:19 18:11 16	05:56 16:58 (12) 20:17	04:47 21:19	04:13 22:00
18	08:29 16:04 54	10:49 (10) 15:25 (2) 17:12	06:16 18:14 10	05:53 17:00 (12) 20:19	04:45 21:21	04:13 22:01
19	08:27 16:06 56	10:50 (10) 15:27 (2) 17:15	06:13 18:16	05:51 20:21	04:43 21:22	04:13 22:01
20	08:26 16:08 58	10:50 (10) 15:29 (2) 17:17	06:10 18:18	05:48 20:23	04:41 21:24	04:13 22:02
21	08:24 16:10 59	10:51 (10) 15:31 (2) 17:19	06:08 18:20	05:45 20:25	04:40 21:26	04:13 22:02
22	08:23 16:12 60	10:53 (10) 15:34 (2) 17:21	06:05 18:22	05:43 20:27	04:38 21:28	04:13 22:02
23	08:21 16:14 60	10:55 (10) 15:36 (2) 17:24	06:02 18:24	05:40 20:29	04:36 21:30	04:13 22:02
24	08:20 16:16 60	10:56 (10) 15:37 (2) 17:26	06:00 18:26	05:38 20:32	04:35 21:31	04:14 22:02
25	08:18 16:18 57	10:58 (10) 15:38 (2) 17:28	05:57 18:28	05:35 20:34	04:33 21:33	04:14 22:02
26	08:16 16:21 53	11:00 (10) 15:38 (2) 17:30	05:54 18:30	05:33 20:36	04:32 21:35	04:14 22:02
27	08:15 16:23 48	11:04 (10) 15:39 (2) 17:32	05:52 18:33	05:31 20:38	04:30 21:36	04:15 22:02
28	08:13 16:25 35	15:05 (2) 15:40 (2) 17:35	05:49 18:35	05:28 20:40	04:29 21:38	04:15 22:02
29	08:11 16:27 36	15:05 (2) 15:41 (2)	06:46 19:37	05:26 20:42	04:27 21:40	04:16 22:01
30	08:09 16:29 36	15:05 (2) 15:41 (2)	06:43 19:39	05:23 20:44	04:26 21:41	04:17 22:01
31	08:07 16:32 37	15:05 (2) 15:42 (2)	06:41 19:41		04:25 21:43	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1766	493	366			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,90	0,70	0,27			
Total reduktion	0,17	0,12	0,06			
Total, verklig	303	58	23			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)		Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AM - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (131)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 21:19	06:06 20:04	07:07 18:43	07:13 17:59 (12)	08:16 15:11 (2)
2	04:18 22:00	05:06 21:17	06:08 20:01	07:09 18:40	07:15 17:59 (12)	08:17 15:11 (2)
3	04:19 22:00	05:08 21:15	06:10 19:59	07:11 18:38	07:18 17:59 (12)	08:19 15:12 (2)
4	04:20 21:59	05:10 21:13	06:13 19:56	07:13 18:35	07:20 17:59 (12)	08:21 15:12 (2)
5	04:21 21:58	05:12 21:10	06:15 19:53	07:15 18:32	07:22 17:58 (12)	08:22 15:12 (2)
6	04:22 21:58	05:14 21:08	06:17 19:51	07:17 18:30	07:24 17:57 (12)	08:24 15:13 (2)
7	04:23 21:57	05:16 21:06	06:19 19:48	07:20 18:27	07:26 17:55 (12)	08:25 15:12 (2)
8	04:25 21:56	05:18 21:04	06:21 19:45	07:22 18:24	07:29 17:54 (12)	08:27 15:13 (2)
9	04:26 21:55	05:20 21:01	06:23 19:43	07:24 18:22	07:31 17:51 (12)	08:28 15:13 (2)
10	04:27 21:54	05:22 20:59	06:25 19:40	07:26 18:19	07:33 17:48 (12)	08:29 15:13 (2)
11	04:28 21:53	05:24 20:57	06:27 19:37	07:28 18:16	07:35 17:45 (12)	08:31 15:13 (2)
12	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	07:37 17:42 (12)	08:32 15:13 (2)
13	04:31 21:51	05:28 20:52	06:31 19:32	07:32 18:11	07:39 16:00	08:33 15:13 (2)
14	04:33 21:49	05:30 20:50	06:33 19:29	07:34 18:09	07:42 15:58	08:34 15:12 (2)
15	04:34 21:48	05:32 20:47	06:35 19:26	07:36 18:06	07:44 15:56	08:35 15:12 (2)
16	04:36 21:47	05:34 20:45	06:37 19:24	07:38 18:03	07:46 15:54	08:36 15:11 (2)
17	04:37 21:45	05:36 20:42	06:39 19:21	07:41 18:01	07:48 15:52	08:37 15:12 (2)
18	04:39 21:44	05:38 20:40	06:41 19:18	07:43 17:58	07:50 15:51	08:38 15:11 (2)
19	04:40 21:42	05:40 20:38	06:43 19:16	07:45 17:56	07:52 15:49	08:39 15:10 (2)
20	04:42 21:41	05:42 20:35	06:45 19:13	07:47 17:53	07:54 15:47	08:39 15:09 (2)
21	04:44 21:39	05:44 20:33	06:47 19:10	07:49 17:51	07:56 15:46	08:40 15:07 (2)
22	04:46 21:37	05:46 20:30	06:49 19:07	07:51 17:48	07:58 15:44	08:41 15:05 (2)
23	04:47 21:36	05:48 20:28	06:51 19:05	07:53 17:46	08:00 15:43	08:41 15:04 (2)
24	04:49 21:34	05:50 20:25	06:53 19:02	07:56 17:43	08:02 15:41	08:42 15:02 (2)
25	04:51 21:32	05:52 20:22	06:55 18:59	07:58 17:41	08:04 15:40	08:42 15:00 (2)
26	04:53 21:30	05:54 20:20	06:57 18:57	08:00 17:40 (12)	08:06 15:01 (2)	08:42 14:59 (2)
27	04:55 21:29	05:56 20:17	06:59 18:54	08:02 17:38 (12)	08:08 15:04 (2)	08:42 11:09 (10)
28	04:56 21:27	05:58 20:15	07:01 18:51	08:04 17:37 (12)	08:10 14:43 (2)	08:42 10:25 (10)
29	04:58 21:25	06:00 20:12	07:03 18:48	08:06 17:35 (12)	08:12 14:42 (2)	08:42 10:25 (10)
30	05:00 21:23	06:02 20:09	07:05 18:46	08:08 17:34 (12)	08:14 14:40 (2)	08:42 10:25 (10)
31	05:02 21:21	06:04 20:07		08:10 16:27	08:16 15:09 (2)	08:42 13:13 (5)
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			111	401	1359	2345
Sol reduktion			0,31	0,26		0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,27	0,42	0,82	0,96
Total reduktion			0,09	0,11	0,14	0,13
Total, verklig			10	45	196	302

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AN - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (132)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drift tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars		April	Maj	Juni	Juli	Augusti	September		Oktober		November	December	
1	08:42	08:05	07:01		06:38	05:21	04:24	04:18	05:04	06:06		07:07		17:24 (4)	07:13	08:15
	15:36	16:34	17:37		19:43	20:46	21:44	22:00	21:19	20:04		18:43	41	18:05 (4)	16:25	15:33
2	08:42	08:03	06:58		06:35	05:19	04:22	04:18	05:06	06:08		07:09		17:24 (4)	07:15	08:17
	15:37	16:36	17:39		19:45	20:48	21:45	22:00	21:17	20:01		18:40	40	18:04 (4)	16:22	15:32
3	08:41	08:01	06:55		06:33	05:16	04:21	04:19	05:08	06:10		07:11		17:25 (4)	07:17	08:19
	15:39	16:38	17:41		19:47	20:50	21:47	21:59	21:14	19:59		18:38	37	18:02 (4)	16:20	15:31
4	08:41	07:59	06:53		06:30	05:14	04:20	04:20	05:10	06:12		07:13		17:25 (4)	07:20	08:20
	15:40	16:41	17:43	7	17:10 (4)	19:49	20:52	21:48	21:59	21:12		18:35	36	18:01 (4)	16:18	15:30
5	08:40	07:57	06:50		06:27	05:12	04:19	04:21	05:12	06:14		07:15		17:26 (4)	07:22	08:22
	15:41	16:43	17:45	18	17:15 (4)	19:51	20:54	21:49	21:58	21:10		18:32	33	17:59 (4)	16:16	15:30
6	08:40	07:55	06:48		06:24	05:10	04:18	04:22	05:14	06:16		07:17		17:27 (4)	07:24	08:23
	15:43	16:45	17:48	23	17:18 (4)	19:53	20:56	21:50	21:57	21:08		18:30	30	17:57 (4)	16:14	15:29
7	08:39	07:53	06:45		06:22	05:07	04:18	04:23	05:16	06:18		07:19		17:29 (4)	07:26	08:25
	15:44	16:47	17:50	28	17:20 (4)	19:56	20:58	21:52	21:56	21:06		18:27	26	17:55 (4)	16:12	15:28
8	08:39	07:51	06:42		06:19	05:05	04:17	04:25	05:18	06:20		07:21		17:31 (4)	07:28	08:26
	15:46	16:50	17:52	31	17:21 (4)	19:58	21:01	21:53	21:56	21:04		18:24	21	17:52 (4)	16:09	15:28
9	08:38	07:49	06:40		06:17	05:03	04:16	04:26	05:20	06:23		07:24		17:35 (4)	07:31	08:28
	15:47	16:52	17:54	34	17:23 (4)	20:00	21:03	21:54	21:55	21:01		18:22	14	17:49 (4)	16:07	15:27
10	08:37	07:46	06:37		06:14	05:01	04:15	04:27	05:22	06:25		07:26			07:33	08:29
	15:49	16:54	17:56	37	17:24 (4)	20:02	21:05	21:55	21:54	20:59		18:19			16:05	15:27
11	08:36	07:44	06:34		06:11	04:59	04:15	04:28	05:24	06:27		07:28			07:35	08:30
	15:51	16:56	17:58	38	17:24 (4)	20:04	21:07	21:56	21:53	20:57		18:16			16:03	15:26
12	08:35	07:42	06:32		06:09	04:57	04:14	04:30	05:26	06:29		17:46 (4)			07:30	08:32
	15:53	16:59	18:01	41	17:25 (4)	20:06	21:09	21:57	21:51	20:54	12	17:58 (4)			16:01	15:26
13	08:34	07:40	06:29		06:06	04:55	04:14	04:31	05:28	06:31		17:41 (4)			07:32	08:33
	15:54	17:01	18:03	42	17:26 (4)	20:08	21:11	21:57	21:50	20:52	20	18:01 (4)			16:00	15:26
14	08:33	07:37	06:26		06:03	04:53	04:14	04:33	05:30	06:33		17:38 (4)			07:34	08:34
	15:56	17:03	18:05	43	17:26 (4)	20:10	21:13	21:58	21:49	20:50	25	18:03 (4)			15:58	15:26
15	08:32	07:35	06:24		06:01	04:51	04:13	04:34	05:32	06:35		17:36 (4)			07:44	08:35
	15:58	17:05	18:07	44	17:26 (4)	20:12	21:15	21:59	21:48	20:47	29	18:05 (4)			15:56	15:26
16	08:31	07:33	06:21		06:00	04:49	04:13	04:36	05:34	06:37		17:34 (4)			07:46	08:36
	16:00	17:08	18:09	44	17:26 (4)	20:14	21:16	21:59	21:46	20:45	32	18:06 (4)			15:54	15:26
17	08:30	07:30	06:18		06:00	04:47	04:13	04:37	05:36	06:39		17:32 (4)			07:48	08:37
	16:02	17:10	18:11	44	17:26 (4)	20:17	21:18	22:00	21:45	20:42	35	18:07 (4)			15:52	15:26
18	08:28	07:28	06:16		06:00	04:45	04:13	04:39	05:38	06:41		17:30 (4)			07:50	08:38
	16:04	17:12	18:13	44	17:25 (4)	20:19	21:20	22:00	21:44	20:40	38	18:08 (4)			15:51	15:26
19	08:27	07:26	06:13		06:00	04:43	04:13	04:40	05:40	06:43		17:29 (4)			07:52	08:38
	16:06	17:14	18:16	44	17:25 (4)	20:21	21:22	22:01	21:42	20:37	39	18:08 (4)			15:49	15:26
20	08:26	07:23	06:10		06:00	04:41	04:13	04:42	05:42	06:45		17:28 (4)			07:54	08:39
	16:08	17:17	18:18	44	17:25 (4)	20:23	21:24	22:01	21:40	20:35	40	18:08 (4)			15:47	15:26
21	08:24	07:21	06:08		06:00	04:40	04:13	04:44	05:44	06:47		17:27 (4)			07:56	08:40
	16:10	17:19	18:20	43	17:24 (4)	20:25	21:26	22:01	21:39	20:32	42	18:09 (4)			15:46	15:27
22	08:23	07:18	06:05		06:00	04:38	04:13	04:46	05:46	06:49		17:26 (4)			07:58	08:40
	16:12	17:21	18:22	42	17:23 (4)	20:27	21:28	22:02	21:37	20:30	43	18:09 (4)			15:44	15:27
23	08:21	07:16	06:02		06:00	04:36	04:13	04:47	05:48	06:51		17:25 (4)			08:00	08:41
	16:14	17:23	18:24	41	17:23 (4)	20:29	21:29	22:02	21:36	20:27	44	18:09 (4)			15:43	15:28
24	08:20	07:13	06:00		06:00	04:35	04:14	04:49	05:50	06:53		17:24 (4)			08:02	08:41
	16:16	17:26	18:26	40	17:22 (4)	20:31	21:31	22:02	21:34	20:25	44	18:08 (4)			15:41	15:28
25	08:18	07:11	06:00		06:00	04:33	04:14	04:51	05:52	06:55		17:24 (4)			08:04	08:42
	16:18	17:28	18:28	37	17:20 (4)	20:33	21:33	22:02	21:32	20:22	44	18:08 (4)			15:40	15:29
26	08:16	07:08	06:00		06:00	04:32	04:14	04:53	05:54	06:57		17:23 (4)			08:06	08:42
	16:21	17:30	18:30	36	17:19 (4)	20:36	21:35	22:02	21:30	20:20	45	18:08 (4)			15:39	15:30
27	08:14	07:06	06:00		06:00	04:30	04:15	04:54	05:56	06:59		17:23 (4)			08:08	08:42
	16:23	17:32	18:32	33	17:18 (4)	20:38	21:36	22:02	21:28	20:17	44	18:07 (4)			15:37	15:31
28	08:13	07:03	06:00		06:00	04:29	04:15	04:56	05:58	07:01		17:23 (4)			08:10	08:42
	16:25	17:35	18:34	30	17:16 (4)	20:40	21:38	22:01	21:27	20:14	44	18:07 (4)			15:36	15:31
29	08:11		06:00		06:00	04:27	04:16	04:58	06:00	07:03		17:23 (4)			08:12	08:42
	16:27		19:37	25	18:13 (4)	20:42	21:39	22:01	21:25	20:12	43	18:06 (4)			15:35	15:32
30	08:09		06:00		06:00	04:26	04:17	05:00	06:02	07:05		17:24 (4)			08:14	08:42
	16:29		19:39	20	18:11 (4)	20:44	21:41	22:01	21:23	20:09	42	18:06 (4)			15:34	15:33
31	08:07		06:00		06:00	04:25		05:02	06:04			07:11				08:42
	16:32		19:41	13	18:07 (4)		21:42	21:21	20:07			16:27				15:35
Möjliga soltimmar	234	265	366		427	509	531	531	470	385		323		246	215	
Totalt, värsta fall				966						705		278				
Sol reduktion				0,22						0,31		0,26				
Drifttid red.				1,00						1,00		1,00				
Vindrikt. red.				0,25						0,25		0,25				
Total reduktion				0,05						0,08		0,06				
Total, verklig				53						54		18				

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AO - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (133)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:22	04:24	04:18	05:05	06:07	07:08	07:13	08:16
	15:37	16:34	17:37	19:43	20:46	21:44	22:01	21:19	20:04	18:43	16:25	15:34
2	08:42	08:04	06:59	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:17
	15:38	16:37	17:39	19:45	20:49	21:46	22:00	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:41	16:41	17:44	19:50	20:53	21:48	21:59	21:13	19:56	18:35	16:19	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:58	21:11	19:54	18:33	16:16	15:30
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	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14	15:29
7	08:40	07:53	06:46	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:25
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:53	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:04	04:17	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
10	08:38	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:19	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:16	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:42	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:07	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
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	15:55	17:01	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:35	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:49	20:50	19:30	18:09	15:58	15:26
15	08:33	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:35
	15:59	17:06	18:08	20:13	21:15	21:59	21:48	20:48	19:27	18:06	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:01	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:02	17:11	18:12	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:53	15:26
18	08:29	07:28	06:16	05:54	04:46	04:13	04:39	05:38	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
19	08:27	07:26	06:14	05:51	04:44	04:13	04:41	05:41	06:43	07:45	07:52	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:42	20:38	19:16	17:56	15:50	15:27
20	08:26	07:24	06:11	05:48	04:42	04:13	04:43	05:43	06:45	07:47	07:55	08:40
	16:08	17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:49	07:57	08:40
	16:11	17:20	18:20	20:25	21:26	22:02	21:39	20:33	19:11	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:39	04:14	04:46	05:47	06:49	07:52	07:59	08:41
	16:13	17:22	18:22	20:28	21:28	22:02	21:38	20:30	19:08	17:49	15:45	15:28
23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
	16:15	17:24	18:24	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:15	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:33	20:23	19:00	16:42	15:41	15:30
26	08:17	07:09	05:55	05:34	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:16	04:55	05:57	06:59	07:02	08:08	08:42
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:18	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:52	16:34	15:37	15:32
29	08:11		06:47	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:10		06:44	05:24	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AP - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (134)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:06	07:01	06:38	05:21	04:24	04:18	05:04	06:07	07:07	07:13	08:16
	15:37	16:34	17:37	19:43	20:46	21:44	22:01	21:19	20:04	18:43	16:25	15:33
2	08:42	08:04	06:58	06:36	05:19	04:23	04:19	05:06	06:09	07:10	07:16	08:17
	15:38	16:36	17:39	19:45	20:49	21:46	22:00	21:17	20:02	18:41	16:23	15:33
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:12	07:18	08:19
	15:39	16:39	17:42	19:48	20:51	21:47	22:00	21:15	19:59	18:38	16:21	15:32
4	08:41	08:00	06:53	06:30	05:15	04:21	04:21	05:10	06:13	07:14	07:20	08:21
	15:40	16:41	17:44	19:50	20:53	21:48	21:59	21:13	19:56	18:35	16:18	15:31
5	08:41	07:58	06:51	06:28	05:12	04:20	04:22	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55	21:50	21:58	21:11	19:54	18:33	16:16	15:30
6	08:40	07:56	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:18	07:24	08:24
	15:43	16:46	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14	15:29
7	08:40	07:53	06:45	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:27	08:25
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12	15:29
8	08:39	07:51	06:43	06:20	05:06	04:17	04:25	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:52	19:58	21:01	21:53	21:56	21:04	19:46	18:25	16:10	15:28
9	08:38	07:49	06:40	06:17	05:03	04:17	04:26	05:20	06:23	07:24	07:31	08:28
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10	08:37	07:47	06:38	06:14	05:01	04:16	04:28	05:22	06:25	07:26	07:33	08:30
	15:50	16:55	17:57	20:02	21:05	21:55	21:54	20:59	19:40	18:19	16:06	15:27
11	08:37	07:45	06:35	06:12	04:59	04:15	04:29	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
12	08:36	07:42	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:38	08:32
	15:53	16:59	18:01	20:06	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:27
13	08:35	07:40	06:30	06:06	04:55	04:14	04:32	05:28	06:31	07:32	07:40	08:33
	15:55	17:01	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
14	08:34	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:34	07:42	08:34
	15:57	17:04	18:05	20:11	21:13	21:59	21:49	20:50	19:29	18:09	15:58	15:26
15	08:32	07:36	06:24	06:01	04:51	04:14	04:35	05:32	06:35	07:37	07:44	08:35
	15:59	17:06	18:07	20:13	21:15	21:59	21:48	20:48	19:27	18:06	15:56	15:26
16	08:31	07:33	06:22	05:59	04:49	04:14	04:36	05:34	06:37	07:39	07:46	08:36
	16:00	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
17	08:30	07:31	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:02	17:10	18:12	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:53	15:26
18	08:29	07:28	06:16	05:54	04:45	04:13	04:39	05:38	06:41	07:43	07:50	08:38
	16:04	17:13	18:14	20:19	21:21	22:01	21:44	20:40	19:19	17:59	15:51	15:26
19	08:27	07:26	06:13	05:51	04:44	04:13	04:41	05:40	06:43	07:45	07:52	08:39
	16:06	17:15	18:16	20:21	21:23	22:01	21:42	20:38	19:16	17:56	15:49	15:27
20	08:26	07:24	06:11	05:48	04:42	04:13	04:43	05:42	06:45	07:47	07:55	08:40
	16:08	17:17	18:18	20:23	21:24	22:02	21:41	20:35	19:13	17:54	15:48	15:27
21	08:25	07:21	06:08	05:46	04:40	04:13	04:44	05:45	06:47	07:49	07:57	08:40
	16:10	17:19	18:20	20:25	21:26	22:02	21:39	20:33	19:10	17:51	15:46	15:27
22	08:23	07:19	06:05	05:43	04:38	04:14	04:46	05:47	06:49	07:52	07:59	08:41
	16:13	17:22	18:22	20:28	21:28	22:02	21:38	20:30	19:08	17:49	15:45	15:28
23	08:22	07:16	06:03	05:41	04:37	04:14	04:48	05:49	06:51	07:54	08:01	08:41
	16:15	17:24	18:24	20:30	21:30	22:02	21:36	20:28	19:05	17:46	15:43	15:28
24	08:20	07:14	06:00	05:38	04:35	04:14	04:50	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:27	20:32	21:32	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:18	07:11	05:57	05:36	04:34	04:14	04:51	05:53	06:55	06:58	08:05	08:42
	16:19	17:28	18:29	20:34	21:33	22:02	21:32	20:23	19:00	16:41	15:41	15:30
26	08:17	07:09	05:55	05:33	04:32	04:15	04:53	05:55	06:57	07:00	08:07	08:42
	16:21	17:31	18:31	20:36	21:35	22:02	21:31	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:31	04:15	04:55	05:57	06:59	07:02	08:08	08:42
	16:23	17:33	18:33	20:38	21:37	22:02	21:29	20:17	18:54	16:37	15:38	15:31
28	08:13	07:04	05:49	05:29	04:29	04:16	04:57	05:59	07:01	07:05	08:10	08:43
	16:25	17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:51	16:34	15:37	15:32
29	08:11		06:46	05:26	04:28	04:17	04:59	06:01	07:03	07:07	08:12	08:43
	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
30	08:10		06:44	05:24	04:27	04:17	05:01	06:03	07:05	07:09	08:14	08:43
	16:30		19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:30	15:35	15:34
31	08:08		06:41		04:25		05:03	06:05		07:11		08:43
	16:32		19:41		21:43		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AQ - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (135)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari			Februari			Mars			April			Maj			Juni	
	1	08:42	10:34 (3)	08:06		07:01		08:01 (8)	06:38		07:13 (1)	05:21		04:24			
		15:36	37	11:11 (3)	16:34		17:37	42	08:43 (8)	19:43	27	07:40 (1)	20:47	21:44			
	2	08:42	10:35 (3)	08:04		06:59		08:01 (8)	06:36		07:12 (1)	05:19		04:23			
		15:38	37	11:12 (3)	16:36		17:39	41	08:42 (8)	19:45	27	07:39 (1)	20:49	21:46			
	3	08:42	10:35 (3)	08:02		06:56		08:01 (8)	06:33		07:11 (1)	05:17		04:22			
		15:39	36	11:11 (3)	16:39		17:42	39	08:40 (8)	19:48	27	07:38 (1)	20:51	21:47			
	4	08:41	10:36 (3)	08:00		08:30 (13)	06:53		08:02 (8)	06:30		07:12 (1)	05:14	04:21			
		15:40	36	11:12 (3)	16:41	4	08:34 (13)	17:44	38	08:40 (8)	19:50	26	07:38 (1)	20:53	21:49		
	5	08:41	10:37 (3)	07:58		08:28 (13)	06:51		08:03 (8)	06:28		07:12 (1)	05:12	04:20			
		15:42	35	11:12 (3)	16:43	8	08:36 (13)	17:46	35	08:38 (8)	19:52	25	07:37 (1)	20:55	21:50		
	6	08:40	10:37 (3)	07:56		08:26 (13)	06:48		08:03 (8)	06:25		07:12 (1)	05:10	04:19			
		15:43	35	11:12 (3)	16:45	11	08:37 (13)	17:48	34	08:37 (8)	19:54	24	07:36 (1)	20:57	21:51		
	7	08:40	10:38 (3)	07:54		08:23 (13)	06:45		08:05 (8)	06:22		07:13 (1)	05:08	04:18			
		15:45	34	11:12 (3)	16:48	15	08:38 (13)	17:50	31	08:36 (8)	19:56	22	07:35 (1)	20:59	21:52		
	8	08:39	10:39 (3)	07:51		08:21 (13)	06:43		08:06 (8)	06:20		07:14 (1)	05:06	04:17			
		15:46	33	11:12 (3)	16:50	18	08:39 (13)	17:52	27	08:33 (8)	19:58	19	07:33 (1)	21:01	21:53		
	9	08:38	10:39 (3)	07:49		08:19 (13)	06:40		08:08 (8)	06:17		07:16 (1)	05:03	04:16			
		15:48	33	11:12 (3)	16:52	21	08:40 (13)	17:55	22	08:30 (8)	20:00	15	07:31 (1)	21:03	21:54		
	10	08:38	10:40 (3)	07:47		08:16 (13)	06:38		08:10 (8)	06:14		07:19 (1)	05:01	04:16			
		15:49	32	11:12 (3)	16:55	24	08:40 (13)	17:57	16	08:26 (8)	20:02	8	07:27 (1)	21:05	21:55		
	11	08:37	10:42 (3)	07:45		08:14 (13)	06:35			06:12			04:59	04:15			
		15:51	30	11:12 (3)	16:57	27	08:41 (13)	17:59		20:04			21:07	21:56			
	12	08:36	10:43 (3)	07:43		08:13 (13)	06:32			06:09			04:57	04:15			
		15:53	29	11:12 (3)	16:59	27	08:40 (13)	18:01		20:07			21:09	21:57			
	13	08:35	10:43 (3)	07:40		08:12 (8)	06:30			06:06			04:55	04:14			
		15:55	28	11:11 (3)	17:01	29	08:41 (13)	18:03		20:09			21:11	21:58			
	14	08:34	10:45 (3)	07:38		08:09 (8)	06:27			06:04			04:53	04:14			
		15:57	26	11:11 (3)	17:04	31	08:40 (13)	18:05		20:11			21:13	21:59			
	15	08:33	10:46 (3)	07:36		08:08 (8)	06:24			06:01			04:51	04:14			
		15:58	25	11:11 (3)	17:06	32	08:40 (13)	18:07		20:13			21:15	21:59			
	16	08:31	10:47 (3)	07:33		08:06 (8)	06:22			05:59			04:49	04:13			
		16:00	23	11:10 (3)	17:08	33	08:39 (8)	18:10		20:15			21:17	22:00			
	17	08:30	10:49 (3)	07:31		08:06 (8)	06:19			05:56			04:47	04:13			
		16:02	19	11:08 (3)	17:10	35	08:41 (8)	18:12		20:17			21:19	22:01			
	18	08:29	10:51 (3)	07:28		08:04 (8)	06:16			05:53			04:45	04:13			
		16:04	16	11:07 (3)	17:13	37	08:41 (8)	18:14		20:19			21:21	22:01			
	19	08:28	10:54 (3)	07:26		08:04 (8)	06:13			05:51			04:44	04:13			
		16:06	10	11:04 (3)	17:15	39	08:43 (8)	18:16		20:21			21:23	22:01			
	20	08:26		07:24		08:03 (8)	06:11			05:48			04:42	04:13			
		16:08		17:17	40	08:43 (8)	18:18			20:23			21:25	22:02			
	21	08:25		07:21		08:03 (8)	06:08			05:46			04:40	04:13			
		16:10		17:19	41	08:44 (8)	18:20			20:25			21:26	22:02			
	22	08:23		07:19		08:02 (8)	06:05			05:43			04:38	04:13			
		16:12		17:22	42	08:44 (8)	18:22			20:28			21:28	22:02			
	23	08:22		07:16		08:01 (8)	06:03			05:41			04:37	04:14			
		16:15		17:24	42	08:43 (8)	18:24			20:30			21:30	22:02			
	24	08:20		07:14		08:01 (8)	06:00		06:25 (1)	05:38			04:35	04:14			
		16:17		17:26	43	08:44 (8)	18:27	7	06:32 (1)	20:32			21:32	22:02			
	25	08:18		07:11		08:00 (8)	05:57		06:23 (1)	05:36			04:33	04:14			
		16:19		17:28	44	08:44 (8)	18:29	13	06:36 (1)	20:34			21:33	22:02			
	26	08:17		07:09		08:01 (8)	05:55		06:20 (1)	05:33			04:32	04:15			
		16:21		17:31	43	08:44 (8)	18:31	17	06:37 (1)	20:36			21:35	22:02			
	27	08:15		07:06		08:01 (8)	05:52		06:17 (1)	05:31			04:30	04:15			
		16:23		17:33	42	08:43 (8)	18:33	21	06:38 (1)	20:38			21:37	22:02			
	28	08:13		07:04		08:00 (8)	05:49		06:15 (1)	05:29			04:29	04:16			
		16:25		17:35	43	08:43 (8)	18:35	24	06:39 (1)	20:40			21:38	22:02			
	29	08:11					06:46		07:15 (1)	05:26			04:28	04:16			
		16:27					19:37	25	07:40 (1)	20:42			21:40	22:02			
	30	08:10					06:44		07:13 (1)	05:24			04:26	04:17			
		16:30					19:39	27	07:40 (1)	20:44			21:41	22:01			
	31	08:08					06:41		07:12 (1)				04:25				
		16:32					19:41	28	07:40 (1)				21:43				
Möjliga soltimmar		234		265		366			427			509		531			
Totalt, värsta fall		554		771		487		220									
Sol reduktion		0,18		0,16		0,22		0,43									
Drifttid red.		1,00		1,00		1,00		1,00									
Vindrikt. red.		0,96		0,55		0,37		0,04									
Total reduktion		0,20		0,10		0,10		0,02									
Total, verklig		113		80		47		4									

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AQ - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (135)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18	05:04	06:07	07:07	07:13	07:46 (13)
	22:01	21:19	20:04	18:43	16:25	08:09 (13)
2	04:19	05:06	06:09	07:17 (1)	07:10	07:48 (13)
	22:01	21:17	20:02	8 07:25 (1)	18:41	16:23
3	04:20	05:08	06:11	07:13 (1)	07:12	08:50 (8)
	22:00	21:15	19:59	15 07:28 (1)	18:38	12 09:02 (8)
4	04:21	05:10	06:13	07:11 (1)	07:14	08:46 (8)
	21:59	21:13	19:56	19 07:30 (1)	18:35	20 09:06 (8)
5	04:22	05:12	06:15	07:09 (1)	07:16	08:43 (8)
	21:59	21:11	19:54	22 07:31 (1)	18:33	25 09:08 (8)
6	04:23	05:14	06:17	07:08 (1)	07:18	08:42 (8)
	21:58	21:08	19:51	24 07:32 (1)	18:30	29 09:11 (8)
7	04:24	05:16	06:19	07:07 (1)	07:20	08:40 (8)
	21:57	21:06	19:48	25 07:32 (1)	18:27	32 09:12 (8)
8	04:25	05:18	06:21	07:06 (1)	07:22	08:38 (8)
	21:56	21:04	19:46	26 07:32 (1)	18:25	35 09:13 (8)
9	04:26	05:20	06:23	07:06 (1)	07:24	08:37 (8)
	21:55	21:02	19:43	27 07:33 (1)	18:22	37 09:14 (8)
10	04:27	05:22	06:25	07:05 (1)	07:26	08:36 (8)
	21:54	20:59	19:40	28 07:33 (1)	18:19	38 09:14 (8)
11	04:29	05:24	06:27	07:05 (1)	07:28	08:35 (8)
	21:53	20:57	19:38	27 07:32 (1)	18:17	40 09:15 (8)
12	04:30	05:26	06:29	07:05 (1)	07:30	08:35 (8)
	21:52	20:55	19:35	27 07:32 (1)	18:14	41 09:16 (8)
13	04:32	05:28	06:31	07:05 (1)	07:32	08:34 (8)
	21:51	20:52	19:32	26 07:31 (1)	18:12	42 09:16 (8)
14	04:33	05:30	06:33	07:05 (1)	07:35	08:33 (8)
	21:50	20:50	19:30	25 07:30 (1)	18:09	43 09:16 (8)
15	04:34	05:32	06:35	07:05 (1)	07:37	08:32 (8)
	21:48	20:48	19:27	24 07:29 (1)	18:06	43 09:15 (8)
16	04:36	05:34	06:37	07:06 (1)	07:39	08:33 (8)
	21:47	20:45	19:24	22 07:28 (1)	18:04	43 09:16 (8)
17	04:38	05:36	06:39	07:08 (1)	07:41	08:33 (8)
	21:46	20:43	19:21	18 07:26 (1)	18:01	43 09:16 (8)
18	04:39	05:38	06:41	07:10 (1)	07:43	08:32 (8)
	21:44	20:40	19:19	14 07:24 (1)	17:59	43 09:15 (8)
19	04:41	05:40	06:43	07:12 (1)	07:45	08:32 (8)
	21:43	20:38	19:16	9 07:21 (1)	17:56	42 09:14 (8)
20	04:42	05:42	06:45	07:47	07:47	08:33 (8)
	21:41	20:35	19:13	17:54	42 09:15 (8)	15:48
21	04:44	05:44	06:47	07:49	08:33 (8)	07:57
	21:39	20:33	19:10	17:51	41 09:14 (8)	15:46
22	04:46	05:46	06:49	07:52	08:33 (8)	07:59
	21:38	20:30	19:08	17:49	40 09:13 (8)	15:45
23	04:48	05:48	06:51	07:54	08:34 (8)	08:01
	21:36	20:28	19:05	17:46	39 09:13 (8)	15:43
24	04:49	05:51	06:53	07:56	08:35 (8)	08:03
	21:34	20:25	19:02	17:44	36 09:11 (8)	15:42
25	04:51	05:53	06:55	06:58	07:35 (8)	08:05
	21:33	20:23	19:00	16:41	35 08:10 (8)	15:40
26	04:53	05:55	06:57	07:00	07:37 (8)	08:07
	21:31	20:20	18:57	16:39	33 08:10 (13)	15:39
27	04:55	05:57	06:59	07:03	07:38 (8)	08:09
	21:29	20:18	18:54	16:37	32 08:10 (13)	15:38
28	04:57	05:59	07:01	07:05	07:39 (8)	08:10
	21:27	20:15	18:51	16:34	30 08:09 (13)	15:37
29	04:59	06:01	07:03	07:07	07:42 (8)	08:12
	21:25	20:12	18:49	16:32	28 08:10 (13)	15:35
30	05:00	06:03	07:05	07:09	07:43 (13)	08:14
	21:23	20:10	18:46	16:30	27 08:10 (13)	15:34
31	05:02	06:05		07:11	07:44 (13)	
	21:21	20:07		16:27	26 08:10 (13)	
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			386	1017	270	1140
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,04	0,54	0,82	0,96
Total reduktion			0,01	0,16	0,16	0,14
Total, verklig			5	166	44	164

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AR - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (136)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari			Februari			Mars			April			Maj		Juni	
	1	08:42	10:42 (3)	08:06		07:01		08:10 (8)	06:38		07:16 (1)	05:21	04:24			
		15:36	35	11:17 (3)	16:34		17:37	39	08:49 (8)	19:43	28	07:44 (1)	20:47	21:44		
	2	08:42	10:43 (3)	08:04		08:35 (13)	06:59		08:10 (8)	06:36		07:16 (1)	05:19	04:23		
		15:38	34	11:17 (3)	16:36	4	08:39 (13)	17:39	38	08:48 (8)	19:45	27	07:43 (1)	20:49	21:46	
	3	08:42	10:43 (3)	08:02		08:32 (13)	06:56		08:11 (8)	06:33		07:15 (1)	05:17	04:22		
		15:39	34	11:17 (3)	16:39	8	08:40 (13)	17:42	35	08:46 (8)	19:48	27	07:42 (1)	20:51	21:47	
	4	08:41	10:44 (3)	08:00		08:30 (13)	06:53		08:13 (8)	06:30		07:16 (1)	05:14	04:21		
		15:40	34	11:18 (3)	16:41	12	08:42 (13)	17:44	32	08:45 (8)	19:50	26	07:42 (1)	20:53	21:49	
	5	08:41	10:45 (3)	07:58		08:28 (13)	06:51		08:13 (8)	06:28		07:16 (1)	05:12	04:20		
		15:42	33	11:18 (3)	16:43	15	08:43 (13)	17:46	30	08:43 (8)	19:52	24	07:40 (1)	20:55	21:50	
	6	08:40	10:46 (3)	07:56		08:26 (13)	06:48		08:15 (8)	06:25		07:17 (1)	05:10	04:19		
		15:43	32	11:18 (3)	16:45	18	08:44 (13)	17:48	26	08:41 (8)	19:54	21	07:38 (1)	20:57	21:51	
	7	08:40	10:46 (3)	07:54		08:23 (13)	06:45		08:18 (8)	06:22		07:19 (1)	05:08	04:18		
		15:45	32	11:18 (3)	16:48	21	08:44 (13)	17:50	20	08:38 (8)	19:56	18	07:37 (1)	20:59	21:52	
	8	08:39	10:47 (3)	07:51		08:21 (13)	06:43		08:21 (8)	06:20		07:20 (1)	05:06	04:17		
		15:46	31	11:18 (3)	16:50	24	08:45 (13)	17:52	13	08:34 (8)	19:58	14	07:34 (1)	21:01	21:53	
	9	08:38	10:48 (3)	07:49		08:19 (13)	06:40			06:17		07:24 (1)	05:03	04:16		
		15:48	30	11:18 (3)	16:52	27	08:46 (13)	17:55		20:00	7	07:31 (1)	21:03	21:54		
	10	08:38	10:49 (3)	07:47		08:18 (13)	06:38			06:14			05:01	04:16		
		15:49	29	11:18 (3)	16:55	27	08:45 (13)	17:57		20:02			21:05	21:55		
	11	08:37	10:50 (3)	07:45		08:18 (8)	06:35			06:12			04:59	04:15		
		15:51	27	11:17 (3)	16:57	28	08:46 (13)	17:59		20:04			21:07	21:56		
	12	08:36	10:52 (3)	07:43		08:16 (8)	06:32			06:09			04:57	04:15		
		15:53	25	11:17 (3)	16:59	30	08:46 (8)	18:01		20:07			21:09	21:57		
	13	08:35	10:52 (3)	07:40		08:15 (8)	06:30			06:06			04:55	04:14		
		15:55	24	11:16 (3)	17:01	33	08:48 (8)	18:03		20:09			21:11	21:58		
	14	08:34	10:54 (3)	07:38		08:13 (8)	06:27			06:04			04:53	04:14		
		15:57	22	11:16 (3)	17:04	35	08:48 (8)	18:05		20:11			21:13	21:59		
	15	08:33	10:56 (3)	07:36		08:13 (8)	06:24			06:01			04:51	04:14		
		15:58	19	11:15 (3)	17:06	37	08:50 (8)	18:07		20:13			21:15	21:59		
	16	08:31	10:58 (3)	07:33		08:11 (8)	06:22			05:59			04:49	04:13		
		16:00	15	11:13 (3)	17:08	39	08:50 (8)	18:10		20:15			21:17	22:00		
	17	08:30	11:01 (3)	07:31		08:11 (8)	06:19			05:56			04:47	04:13		
		16:02	9	11:10 (3)	17:10	40	08:51 (8)	18:12		20:17			21:19	22:01		
	18	08:29		07:28		08:10 (8)	06:16			05:53			04:45	04:13		
		16:04		17:13	41	08:51 (8)	18:14			20:19			21:21	22:01		
	19	08:28		07:26		08:10 (8)	06:13			05:51			04:44	04:13		
		16:06		17:15	42	08:52 (8)	18:16			20:21			21:23	22:01		
	20	08:26		07:24		08:09 (8)	06:11			05:48			04:42	04:13		
		16:08		17:17	43	08:52 (8)	18:18			20:23			21:25	22:02		
	21	08:25		07:21		08:09 (8)	06:08			05:46			04:40	04:13		
		16:10		17:19	44	08:53 (8)	18:20			20:25			21:26	22:02		
	22	08:23		07:19		08:09 (8)	06:05			05:43			04:38	04:13		
		16:12		17:22	43	08:52 (8)	18:22			20:28			21:28	22:02		
	23	08:22		07:16		08:08 (8)	06:03		06:28 (1)	05:41			04:37	04:14		
		16:14		17:24	44	08:52 (8)	18:24	10	06:38 (1)	20:30			21:30	22:02		
	24	08:20		07:14		08:09 (8)	06:00		06:25 (1)	05:38			04:35	04:14		
		16:17		17:26	43	08:52 (8)	18:27	15	06:40 (1)	20:32			21:32	22:02		
	25	08:18		07:11		08:08 (8)	05:57		06:23 (1)	05:36			04:33	04:14		
		16:19		17:28	43	08:51 (8)	18:29	20	06:43 (1)	20:34			21:33	22:02		
	26	08:17		07:09		08:09 (8)	05:55		06:21 (1)	05:33			04:32	04:15		
		16:21		17:31	43	08:52 (8)	18:31	22	06:43 (1)	20:36			21:35	22:02		
	27	08:15		07:06		08:09 (8)	05:52		06:19 (1)	05:31			04:30	04:15		
		16:23		17:33	42	08:51 (8)	18:33	25	06:44 (1)	20:38			21:37	22:02		
	28	08:13		07:04		08:09 (8)	05:49		06:18 (1)	05:29			04:29	04:16		
		16:25		17:35	40	08:49 (8)	18:35	26	06:44 (1)	20:40			21:38	22:02		
	29	08:11					06:46		07:18 (1)	05:26			04:28	04:16		
		16:27					19:37	27	07:45 (1)	20:42			21:40	22:02		
	30	08:10					06:44		07:17 (1)	05:24			04:26	04:17		
		16:30					19:39	27	07:44 (1)	20:44			21:41	22:01		
	31	08:08					06:41		07:16 (1)				04:25			
		16:32					19:41	28	07:44 (1)				21:43			
Möjliga soltimmar		234		265		366			427			509	531			
Totalt, värsta fall		465		866		433		192								
Sol reduktion		0,18		0,16		0,22		0,43								
Drifttid red.		1,00		1,00		1,00		1,00								
Vindrikt. red.		0,97		0,57		0,33		0,05								
Total reduktion		0,20		0,11		0,09		0,03								
Total, verklig		95		93		37		5								

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
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Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AR - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (136)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 21:19	06:07 20:04	07:07 18:43	07:13 16:25	07:48 (13) 08:15 (13)
2	04:19 22:01	05:06 21:17	06:09 20:02	07:10 18:41	07:16 16:23	07:48 (13) 08:15 (13)
3	04:20 22:00	05:08 21:15	06:11 19:59	07:21 (1) 07:12 07:27 (1)	07:18 16:21	08:14 (13) 08:19 15:31
4	04:21 21:59	05:10 21:13	06:13 19:56	07:17 (1) 07:14 07:31 (1)	07:20 16:18	07:53 (13) 08:21 15:31
5	04:22 21:59	05:12 21:11	06:15 19:54	07:15 (1) 07:16 07:33 (1)	07:22 16:16	07:56 (13) 08:22 15:30
6	04:23 21:58	05:14 21:08	06:17 19:51	07:13 (1) 07:18 07:34 (1)	07:25 16:14	07:58 (13) 08:24 15:29
7	04:24 21:57	05:16 21:06	06:19 19:48	07:12 (1) 07:20 07:35 (1)	07:27 16:12	08:01 (13) 08:26 15:29
8	04:25 21:56	05:18 21:04	06:21 19:46	07:11 (1) 07:22 07:36 (1)	07:29 16:10	08:03 (13) 08:27 15:28
9	04:26 21:55	05:20 21:02	06:23 19:43	07:10 (1) 07:24 07:36 (1)	07:31 16:08	08:06 (13) 08:28 15:27
10	04:27 21:54	05:22 20:59	06:25 19:40	07:09 (1) 07:26 07:36 (1)	07:33 16:06	08:10 (13) 08:30 15:27
11	04:29 21:53	05:24 20:57	06:27 19:38	07:08 (1) 07:28 07:36 (1)	07:35 16:04	08:11 (13) 08:31 15:27
12	04:30 21:52	05:26 20:55	06:29 19:35	07:08 (1) 07:30 07:36 (1)	07:38 16:02	08:12 (13) 08:32 15:26
13	04:32 21:51	05:28 20:52	06:31 19:32	07:08 (1) 07:32 07:36 (1)	07:40 16:00	08:13 (13) 08:33 15:26
14	04:33 21:50	05:30 20:50	06:33 19:30	07:08 (1) 07:35 07:35 (1)	07:42 15:58	08:14 (13) 08:34 15:26
15	04:34 21:48	05:32 20:48	06:35 19:27	07:08 (1) 07:37 07:34 (1)	07:44 15:56	08:15 (13) 08:36 15:26
16	04:36 21:47	05:34 20:45	06:37 19:24	07:08 (1) 07:39 07:33 (1)	07:46 15:54	08:16 (13) 08:36 15:26
17	04:38 21:46	05:36 20:43	06:39 19:21	07:09 (1) 07:41 07:32 (1)	07:48 15:53	08:17 (13) 08:37 15:26
18	04:39 21:44	05:38 20:40	06:41 19:19	07:10 (1) 07:43 07:30 (1)	07:50 15:51	08:18 (13) 08:38 15:26
19	04:41 21:43	05:40 20:38	06:43 19:16	07:12 (1) 07:45 07:28 (1)	07:53 15:49	08:19 (13) 08:39 15:26
20	04:42 21:41	05:42 20:35	06:45 19:13	07:14 (1) 07:47 07:26 (1)	07:55 15:48	08:20 (13) 08:40 15:27
21	04:44 21:39	05:44 20:33	06:47 19:10	07:15 17:51	07:57 15:46	08:21 (13) 08:40 15:27
22	04:46 21:38	05:46 20:30	06:49 19:08	07:17 17:49	07:59 15:45	08:22 (13) 08:41 15:28
23	04:48 21:36	05:48 20:28	06:51 19:05	07:19 17:46	08:01 15:43	08:23 (13) 08:41 15:28
24	04:49 21:34	05:51 20:25	06:53 19:02	07:21 17:44	08:03 15:42	08:24 (13) 08:42 15:29
25	04:51 21:33	05:53 20:23	06:55 19:00	07:23 16:41	08:05 15:40	08:25 (13) 08:42 15:29
26	04:53 21:31	05:55 20:20	06:57 18:57	07:25 16:39	08:07 15:39	08:26 (13) 08:43 15:30
27	04:55 21:29	05:57 20:18	06:59 18:54	07:27 16:37	08:09 15:38	08:27 (13) 08:43 15:31
28	04:57 21:27	05:59 20:15	07:01 18:51	07:29 16:34	08:10 15:37	08:28 (13) 08:43 15:32
29	04:59 21:25	06:01 20:12	07:03 18:49	07:31 16:32	08:12 15:35	08:29 (13) 08:43 15:33
30	05:00 21:23	06:03 20:10	07:05 18:46	07:33 16:30	08:14 15:34	08:30 (13) 08:43 15:34
31	05:02 21:21	06:05 20:07		07:35 16:27	08:15 (13)	08:31 (13) 08:43 15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			393	963	266	1076
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,05	0,57	0,75	0,97
Total reduktion			0,02	0,17	0,15	0,14
Total, verklig			8	164	39	155

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AS - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (137)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November	December
1	08:42	08:05	07:01	06:38	05:21	04:24	04:18	05:04	06:07	07:07	07:13	08:15
	15:36	16:34	17:37	19:43	20:46	21:44	22:00	21:19	20:04	18:43	16:25	15:33
2	08:42	08:03	06:58	06:35	05:19	04:23	04:19	05:06	06:09	07:09	07:15	08:17
	15:38	16:36	17:39	19:45	20:48	21:45	22:00	21:17	20:01	18:40	16:23	15:32
3	08:41	08:01	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:11	07:17	08:19
	15:39	16:39	17:41	19:47	20:50	21:47	21:59	21:14	19:59	18:38	16:20	15:31
4	08:41	07:59	06:53	06:30	05:14	04:21	04:21	05:10	06:13	07:13	07:20	08:20
	15:40	16:41	17:43	19:49	20:52	21:48	21:59	21:12	19:56	18:35	16:18	15:31
5	08:40	07:57	06:50	06:27	05:12	04:20	04:22	05:12	06:15	07:15	07:22	08:22
	15:42	16:43	17:46	19:51	20:54	21:49	21:58	21:10	19:53	18:32	16:16	15:30
6	08:40	07:55	06:48	06:25	05:10	04:19	04:23	05:14	06:17	07:17	07:24	08:24
	15:43	16:45	17:48	19:54	20:56	21:50	21:57	21:08	19:51	18:30	16:14	15:29
7	08:39	07:53	06:45	06:22	05:08	04:18	04:24	05:16	06:19	07:20	07:26	08:25
	15:45	16:48	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12	15:28
8	08:39	07:51	06:43	06:19	05:05	04:17	04:25	05:18	06:21	07:22	07:28	08:26
	15:46	16:50	17:52	19:58	21:01	21:53	21:56	21:04	19:45	18:24	16:10	15:28
9	08:38	07:49	06:40	06:17	05:03	04:16	04:26	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:54	20:00	21:03	21:54	21:55	21:01	19:43	18:22	16:08	15:27
10	08:37	07:47	06:37	06:14	05:01	04:16	04:27	05:22	06:25	07:26	07:33	08:29
	15:49	16:54	17:56	20:02	21:05	21:55	21:54	20:59	19:40	18:19	16:06	15:27
11	08:36	07:44	06:35	06:11	04:59	04:15	04:29	05:24	06:27	07:28	07:35	08:30
	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:37	18:17	16:04	15:27
12	08:35	07:42	06:32	06:09	04:57	04:15	04:30	05:26	06:29	07:30	07:37	08:32
	15:53	16:59	18:01	20:06	21:09	21:57	21:51	20:54	19:35	18:14	16:02	15:26
13	08:34	07:40	06:29	06:06	04:55	04:14	04:32	05:28	06:31	07:32	07:39	08:33
	15:55	17:01	18:03	20:08	21:11	21:57	21:50	20:52	19:32	18:11	16:00	15:26
14	08:33	07:38	06:27	06:04	04:53	04:14	04:33	05:30	06:33	07:34	07:42	08:34
	15:56	17:03	18:05	20:10	21:13	21:58	21:49	20:50	19:29	18:09	15:58	15:26
15	08:32	07:35	06:24	06:01	04:51	04:14	04:34	05:32	06:35	07:36	07:44	08:35
	15:58	17:06	18:07	20:12	21:15	21:59	21:48	20:47	19:26	18:06	15:56	15:26
16	08:31	07:33	06:21	05:58	04:49	04:13	04:36	05:34	06:37	07:38	07:46	08:36
	16:00	17:08	18:09	20:15	21:17	21:59	21:46	20:45	19:24	18:04	15:54	15:26
17	08:30	07:30	06:19	05:56	04:47	04:13	04:38	05:36	06:39	07:41	07:48	08:37
	16:02	17:10	18:11	20:17	21:18	22:00	21:45	20:42	19:21	18:01	15:53	15:26
18	08:28	07:28	06:16	05:53	04:45	04:13	04:39	05:38	06:41	07:43	07:50	08:38
	16:04	17:12	18:14	20:19	21:20	22:00	21:44	20:40	19:18	17:58	15:51	15:26
19	08:27	07:26	06:13	05:51	04:43	04:13	04:41	05:40	06:43	07:45	07:52	08:38
	16:06	17:15	18:16	20:21	21:22	22:01	21:42	20:37	19:16	17:56	15:49	15:26
20	08:26	07:23	06:10	05:48	04:42	04:13	04:42	05:42	06:45	07:47	07:54	08:39
	16:08	17:17	18:18	20:23	21:24	22:01	21:41	20:35	19:13	17:53	15:48	15:27
21	08:24	07:21	06:08	05:46	04:40	04:13	04:44	05:44	06:47	07:49	07:56	08:40
	16:10	17:19	18:20	20:25	21:26	22:02	21:39	20:32	19:10	17:51	15:46	15:27
22	08:23	07:18	06:05	05:43	04:38	04:13	04:46	05:46	06:49	07:51	07:58	08:40
	16:12	17:21	18:22	20:27	21:28	22:02	21:37	20:30	19:07	17:49	15:45	15:28
23	08:21	07:16	06:02	05:41	04:37	04:14	04:48	05:48	06:51	07:53	08:00	08:41
	16:14	17:24	18:24	20:29	21:29	22:02	21:36	20:27	19:05	17:46	15:43	15:28
24	08:20	07:13	06:00	05:38	04:35	04:14	04:49	05:50	06:53	07:56	08:02	08:41
	16:16	17:26	18:26	20:31	21:31	22:02	21:34	20:25	19:02	17:44	15:42	15:29
25	08:19	07:11	05:57	05:36	04:33	04:14	04:51	05:52	06:55	06:58	08:04	08:42
	16:19	17:28	18:28	20:34	21:33	22:02	21:32	20:22	18:59	16:41	15:40	15:29
26	08:16	07:08	05:54	05:33	04:32	04:15	04:53	05:54	06:57	07:00	08:06	08:42
	16:21	17:30	18:30	20:36	21:35	22:02	21:30	20:20	18:57	16:39	15:39	15:30
27	08:15	07:06	05:52	05:31	04:30	04:15	04:55	05:56	06:59	07:02	08:08	08:42
	16:23	17:33	18:33	20:38	21:36	22:02	21:28	20:17	18:54	16:36	15:38	15:31
28	08:13	07:03	05:49	05:28	04:29	04:16	04:57	05:58	07:01	07:04	08:10	08:42
	16:25	17:35	18:35	20:40	21:38	22:01	21:27	20:15	18:51	16:34	15:37	15:32
29	08:11		06:46	05:26	04:28	04:16	04:58	06:00	07:03	07:06	08:12	08:42
	16:27		19:37	20:42	21:39	22:01	21:25	20:12	18:48	16:32	15:35	15:33
30	08:09		06:43	05:24	04:26	04:17	05:00	06:03	07:05	07:09	08:14	08:42
	16:30		19:39	20:44	21:41	22:01	21:23	20:09	18:46	16:29	15:34	15:34
31	08:07		06:41		04:25		05:02	06:05		07:11		08:42
	16:32		19:41		21:42		21:21	20:07		16:27		15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall												
Sol reduktion												
Drifttid red.												
Vindrikt. red.												
Total reduktion												
Total, verklig												

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Solnedgång (hh: mm)	Minuter med skuggor	Första tillfälle (hh:mm) med skuggor	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)	(VKV orsakar flicker sista gång)
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Projekt:
SRE_FM_Skackarp_DJN_200127

Beskrivning:
Stena Skäckarp

Användarlicens:
WSP Sverige AB
FE 711
SE-833 84 Strömsund
+46 31 727 25 00
Daniel Johansson / daniel.u.johansson@wsp.com
Beräknad:
2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AT - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (138)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]
Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 60	10:13 (10) 14:04 (2) 16:34	08:06 16:34	06:38 19:43	05:21 20:46	04:24 21:44
2	08:42 15:37 59	10:15 (10) 14:05 (2) 16:36	08:04 16:01 (12) 17:39	06:35 19:45	05:19 20:48	04:22 21:46
3	08:42 15:39 58	10:15 (10) 14:05 (2) 16:38	08:02 15:53 (12) 16:56	06:33 19:47	05:16 20:50	04:21 21:47
4	08:41 15:40 58	10:15 (10) 14:05 (2) 16:41	08:00 15:52 (12) 16:53	06:30 19:49	05:14 20:53	04:20 21:48
5	08:41 15:41 56	10:17 (10) 14:06 (2) 16:43	07:57 15:49 (12) 16:48	06:27 19:51	05:12 20:55	04:19 21:50
6	08:40 15:43 55	10:18 (10) 14:06 (2) 16:45	07:55 15:49 (12) 16:48	06:25 19:54	05:10 20:57	04:18 21:51
7	08:40 15:44 52	10:19 (10) 14:06 (2) 16:47	07:53 15:49 (12) 16:45	06:22 19:56	05:07 20:59	04:18 21:52
8	08:39 15:46 50	10:20 (10) 14:06 (2) 16:50	07:51 15:49 (12) 16:43	06:19 19:58	05:05 21:01	04:17 21:53
9	08:38 15:47 48	10:21 (10) 14:06 (2) 16:52	07:49 15:47 (12) 16:40	06:17 20:00	05:03 21:03	04:16 21:54
10	08:37 15:49 45	10:22 (10) 14:06 (2) 16:54	07:47 15:47 (12) 16:37	06:14 20:02	05:01 21:05	04:15 21:55
11	08:36 15:51 41	10:24 (10) 14:06 (2) 16:56	07:45 15:47 (12) 16:35	06:11 20:04	04:59 21:07	04:15 21:56
12	08:36 15:53 37	10:25 (10) 14:05 (2) 16:59	07:42 15:47 (12) 16:32	06:09 20:06	04:57 21:09	04:14 21:57
13	08:35 15:54 30	10:28 (10) 14:05 (2) 17:01	07:40 15:47 (12) 16:29	06:06 20:08	04:55 21:11	04:14 21:58
14	08:33 15:56 22	13:43 (2) 14:05 (2) 17:03	07:38 15:47 (12) 16:27	06:03 20:10	04:53 21:13	04:14 21:58
15	08:32 15:58 19	13:44 (2) 14:03 (2) 17:06	07:35 15:48 (12) 16:24	17:33 (6) 06:01 20:13	04:51 21:15	04:13 21:59
16	08:31 16:00 16	13:47 (2) 14:03 (2) 17:08	07:33 15:48 (12) 16:21	17:30 (6) 05:58 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02 12	13:49 (2) 14:01 (2) 17:10	07:31 15:49 (12) 16:19	17:28 (6) 05:56 20:17	04:47 21:19	04:13 22:00
18	08:29 16:04 5	13:53 (2) 13:58 (2) 17:12	07:28 15:49 (12) 16:16	17:26 (6) 05:53 20:19	04:45 21:21	04:13 22:01
19	08:27 16:06	07:26 17:15	06:13 15:50 (12) 16:13	17:25 (6) 05:51 20:21	04:43 21:22	04:13 22:01
20	08:26 16:08	07:23 17:17	06:10 15:51 (12) 16:10	17:24 (6) 05:48 20:23	04:41 21:24	04:13 22:02
21	08:24 16:10	07:21 17:19	06:08 15:52 (12) 16:08	17:23 (6) 05:45 20:25	04:40 21:26	04:13 22:02
22	08:23 16:12	07:18 17:21	06:05 15:55 (12) 16:05	17:22 (6) 05:43 20:27	04:38 21:28	04:13 22:02
23	08:21 16:14	07:16 17:24	06:02 15:59 (12) 16:02	17:23 (6) 05:40 20:29	04:36 21:30	04:13 22:02
24	08:20 16:16	07:13 17:26	06:00 16:06 (12) 18:24	17:22 (6) 05:38 20:32	04:35 21:31	04:14 22:02
25	08:18 16:18	07:11 17:28	05:57 18:28	17:22 (6) 05:35 20:34	04:33 21:33	04:14 22:02
26	08:16 16:21	07:08 17:30	05:54 18:30	17:23 (6) 05:33 20:36	04:32 21:35	04:14 22:02
27	08:15 16:23	07:06 17:32	05:52 18:33	17:23 (6) 05:31 20:38	04:30 21:37	04:15 22:02
28	08:13 16:25	07:03 17:35	05:49 18:35	17:24 (6) 05:28 20:40	04:29 21:38	04:15 22:02
29	08:11 16:27		06:46 19:37	18:24 (6) 05:26 20:42	04:27 21:40	04:16 22:02
30	08:09 16:29		06:43 19:39	18:27 (6) 05:23 20:44	04:26 21:41	04:17 22:01
31	08:07 16:32		06:41 19:41	18:29 (6) 05:21 20:46	04:25 21:43	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	723	508	342			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,92	0,57	0,10			
Total reduktion	0,19	0,10	0,03			
Total, verklig	134	52	9			

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		

Projekt:

SRE_FM_Skackarp_DJN_200127

Beskrivning:

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson / daniel.u.johansson@wsp.com

Beräknad:

2020-01-29 12:37/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 8Skuggmottagare: AT - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (138)
Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Jan Feb Mar Apr Maj Jun Jul Aug Sep Okt Nov Dec
1,36 1,52 2,62 6,08 8,82 7,64 6,65 5,42 4,02 2,68 1,38 0,88

Drift tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 21:19	06:06 20:04	07:07 18:43	07:13 16:25	15:17 (12) 15:47 (12)
2	04:18 22:00	05:06 21:17	06:08 20:02	07:09 18:40	07:15 16:22	15:17 (12) 15:32
3	04:19 22:00	05:08 21:15	06:11 19:59	07:11 18:38	07:18 16:20	15:18 (12) 15:31
4	04:20 21:59	05:10 21:13	06:13 19:56	07:13 18:35	07:20 16:18	15:19 (12) 15:30
5	04:21 21:58	05:12 21:10	06:15 19:54	07:15 18:32	07:22 16:16	15:19 (12) 15:30
6	04:22 21:58	05:14 21:08	06:17 19:51	07:17 18:30	07:24 16:14	15:21 (12) 15:29
7	04:23 21:57	05:16 21:06	06:19 19:48	07:20 18:27	07:26 16:12	15:22 (12) 15:28
8	04:25 21:56	05:18 21:04	06:21 19:45	07:22 18:24	07:29 16:10	15:24 (12) 15:28
9	04:26 21:55	05:20 21:01	06:23 19:43	07:24 18:22	07:31 16:07	15:26 (12) 15:27
10	04:27 21:54	05:22 20:59	06:25 19:40	07:26 18:19	07:33 16:05	15:31 (12) 15:27
11	04:28 21:53	05:24 20:57	06:27 19:37	07:28 18:16	07:35 16:03	15:31 (12) 15:26
12	04:30 21:52	05:26 20:55	06:29 19:35	18:23 (6) 18:29 (6)	07:30 16:02	15:32 15:26
13	04:31 21:51	05:28 20:52	06:31 19:32	18:19 (6) 18:32 (6)	07:32 16:00	15:33 15:26
14	04:33 21:49	05:30 20:50	06:33 19:29	18:15 (6) 18:33 (6)	07:34 15:58	15:34 15:26
15	04:34 21:48	05:32 20:47	06:35 19:26	18:13 (6) 18:34 (6)	07:36 15:56	15:35 15:26
16	04:36 21:47	05:34 20:45	06:37 19:24	18:12 (6) 18:35 (6)	07:38 15:54	15:36 15:26
17	04:37 21:45	05:36 20:43	06:39 19:21	18:11 (6) 18:35 (6)	07:41 15:52	15:37 15:26
18	04:39 21:44	05:38 20:40	06:41 19:18	18:10 (6) 18:35 (6)	07:43 15:51	15:38 15:26
19	04:40 21:42	05:40 20:38	06:43 19:16	18:09 (6) 18:35 (6)	07:45 16:28 (12)	15:39 15:26
20	04:42 21:41	05:42 20:35	06:45 19:13	18:08 (6) 18:35 (6)	07:47 16:41 (12)	15:49 15:26
21	04:44 21:39	05:44 20:33	06:47 19:10	18:08 (6) 18:35 (6)	07:49 16:23 (12)	15:56 15:27
22	04:46 21:38	05:46 20:30	06:49 19:07	18:08 (6) 18:34 (6)	07:51 16:21 (12)	15:58 15:27
23	04:47 21:36	05:48 20:28	06:51 19:05	18:08 (6) 18:33 (6)	07:54 16:19 (12)	15:59 15:28
24	04:49 21:34	05:50 20:25	06:53 19:02	18:08 (6) 18:31 (6)	07:56 16:16 (12)	15:40 13:31 (2)
25	04:51 21:32	05:52 20:22	06:55 18:59	18:08 (6) 18:28 (6)	08:04 15:18 (12)	15:41 13:27 (2)
26	04:53 21:31	05:54 20:20	06:57 18:57	18:09 (6) 18:26 (6)	08:06 15:17 (12)	15:42 13:25 (2)
27	04:55 21:29	05:56 20:17	06:59 18:54	18:11 (6) 18:24 (6)	08:08 15:17 (12)	15:43 13:24 (2)
28	04:56 21:27	05:58 20:15	07:01 18:51	18:13 (6) 18:21 (6)	08:10 15:16 (12)	15:44 13:23 (2)
29	04:58 21:25	06:00 20:12	07:03 18:48	07:07 16:32	08:12 15:17 (12)	15:45 10:10 (10)
30	05:00 21:23	06:02 20:09	07:05 18:46	07:09 16:29	08:14 15:16 (12)	15:46 10:08 (10)
31	05:02 21:21	06:04 20:07		07:11 16:27	15:16 (12) 15:46 (12)	15:47 13:47 (2)
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			342	332	315	1830
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,10	0,57	0,72	0,92
Total reduktion			0,04	0,16	0,14	0,13
Total, verklig			12	55	43	240

Tabell layout: För varje dag i varje månad används följande matris

Dag i månad	Soluppgång (hh: mm)	Första tillfälle (hh:mm) med skuggor	(VKV orsakar flicker första gång)
	Solnedgång (hh: mm)	Sista tillfälle (hh:mm) med skuggor	(VKV orsakar flicker sista gång)
	Minuter med skuggor		