

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 12:24/3.2.737

SHADOW - Huvudresultat

Beräkning: Skuggberäkning Skäckarp layout 7
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]

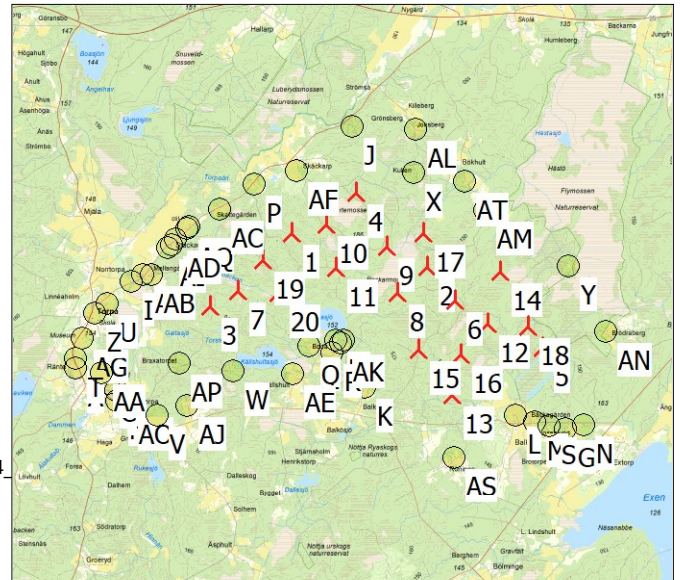
Jan	Feb	Mar	Apr	Maj	Jun	Jul	Aug	Sep	Okt	Nov	Dec
1,36	1,52	2,62	6,08	8,82	7,64	6,65	5,42	4,02	2,68	1,38	0,88

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



Skala 1:125 000
Nytt vindkraftverk Skuggmottagare

	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	417 295	6 287 341	183,5	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
2	419 540	6 286 778	158,7	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
3	415 937	6 286 125	161,1	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
4	418 365	6 288 011	173,4	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
5	421 460	6 285 452	148,2	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
6	420 015	6 286 231	164,6	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
7	416 399	6 286 388	161,1	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
8	419 050	6 286 363	163,8	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
9	418 875	6 287 118	162,9	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
10	417 868	6 287 480	181,6	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
11	418 035	6 286 771	180,3	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
12	420 548	6 285 839	154,2	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
13	419 964	6 284 668	147,1	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
14	420 765	6 286 700	144,0	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
15	419 399	6 285 410	163,0	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
16	420 102	6 285 331	161,3	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
17	419 490	6 287 348	156,6	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
18	421 223	6 285 801	147,5	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
19	416 815	6 286 901	171,2	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	
20	417 075	6 286 351	152,9	VESTAS V190-4.0_270...Ja	VESTAS	V190-4.0_270m_DJ-4 000	4 000	190,0	175,0	1 900	10,4	

Skuggmottagare-Indata

No.	Östkoordinat	Nordkoordinat	Z	Bredd	Höjd	Höjd ö.m..	Lutning	Riktning	Ögonhöjd för ZVI
			[m]	[m]	[m]	[m]	[°]	slä	[m]
A	413 713	6 285 116	160,2	5,0	5,0	2,0	0,0	Växthusslä	2,0
B	414 018	6 286 018	156,6	5,0	5,0	2,0	0,0	Växthusslä	2,0
C	414 245	6 284 858	155,0	5,0	5,0	2,0	0,0	Växthusslä	2,0
D	414 373	6 284 752	152,0	5,0	5,0	2,0	0,0	Växthusslä	2,0
E	418 032	6 285 572	157,8	5,0	5,0	2,0	0,0	Växthusslä	2,0
F	418 154	6 285 568	154,6	5,0	5,0	2,0	0,0	Växthusslä	2,0
G	421 843	6 284 114	149,9	5,0	5,0	2,0	0,0	Växthusslä	2,0
H	414 394	6 284 574	157,6	5,0	5,0	2,0	0,0	Växthusslä	2,0
I	414 634	6 286 541	141,1	5,0	5,0	2,0	0,0	Växthusslä	2,0
J	418 309	6 289 110	149,2	5,0	5,0	2,0	0,0	Växthusslä	2,0
K	418 514	6 284 796	165,7	5,0	5,0	2,0	0,0	Växthusslä	2,0
L	421 011	6 284 329	139,3	5,0	5,0	2,0	0,0	Växthusslä	2,0
M	421 329	6 284 218	140,4	5,0	5,0	2,0	0,0	Växthusslä	2,0

Fortsättning på nästa sida...

SHADOW - Huvudresultat

Beräkning: Skuggberäkning Skäckarp layout 7

...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]
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
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	52:57	131	0:45	8:28	
F	48:34	103	0:35	7:11	
G	0:00	0	0:00	0:00	
H	0:00	0	0:00	0:00	
I	27:35	64	0:38	1:39	
J	59:33	74	1:08	8:51	
K	52:13	131	0:35	7:18	
L	42:00	80	0:42	5:44	
M	21:35	52	0:32	2:53	
N	0:00	0	0:00	0:00	
O	82:30	180	0:39	10:29	
P	100:23	190	0:49	14:02	
Q	74:18	149	0:56	14:00	
R	42:09	121	0:31	5:50	
S	29:21	89	0:27	5:41	
T	0:00	0	0:00	0:00	
U	11:24	34	0:26	0:07	
V	0:00	0	0:00	0:00	
W	0:00	0	0:00	0:00	

Fortsättning på nästa sida...

SHADOW - Huvudresultat

Beräkning: Skuggberäkning Skäckarp layout 7

...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]
X	130:31	167	1:25	18:23
Y	111:43	175	0:59	14:20
Z	0:00	0	0:00	0:00
AA	0:00	0	0:00	0:00
AB	52:30	118	0:40	4:42
AC	112:53	178	0:54	14:34
AD	82:05	167	0:38	10:44
AE	15:10	48	0:26	4:02
AF	175:09	164	1:55	25:35
AG	0:00	0	0:00	0:00
AH	34:05	75	0:36	2:48
AI	70:25	160	0:39	8:42
AJ	0:00	0	0:00	0:00
AK	40:05	93	0:35	5:18
AL	22:51	56	0:32	2:51
AM	119:49	171	1:14	16:18
AN	47:03	93	0:41	2:25
AO	0:00	0	0:00	0:00
AP	0:00	0	0:00	0:00
AQ	97:17	198	0:44	12:38
AR	97:13	198	0:46	12:36
AS	0:00	0	0:00	0:00
AT	108:04	146	1:09	13:57

Total skuggpåverkan hos skuggmottagare från enskilda vindkraftverk

No.	Namn	Värsta fall [t/år]	Förväntad [t/år]
1	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (110)	128:37	16:14
2	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (111)	50:35	6:28
3	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (112)	219:21	28:57
4	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (113)	150:38	15:49
5	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (114)	48:59	4:46
6	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (115)	16:28	2:10
7	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (116)	183:42	27:00
8	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (117)	35:26	8:09
9	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (118)	59:37	7:18
10	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (119)	103:46	12:55
11	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (120)	20:27	2:43
12	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (121)	14:33	1:37
13	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (122)	60:58	6:38
14	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (123)	91:51	10:15
15	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (124)	65:08	6:28
16	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (125)	30:44	6:07
17	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (126)	122:07	16:08
18	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (127)	69:42	7:04
19	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (128)	149:03	16:24
20	VESTAS V190-4.0_270m_DJ 4000 190.0 !O! nav: 175,0 m (TOT:270,0 m) (129)	74:45	13:43

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.

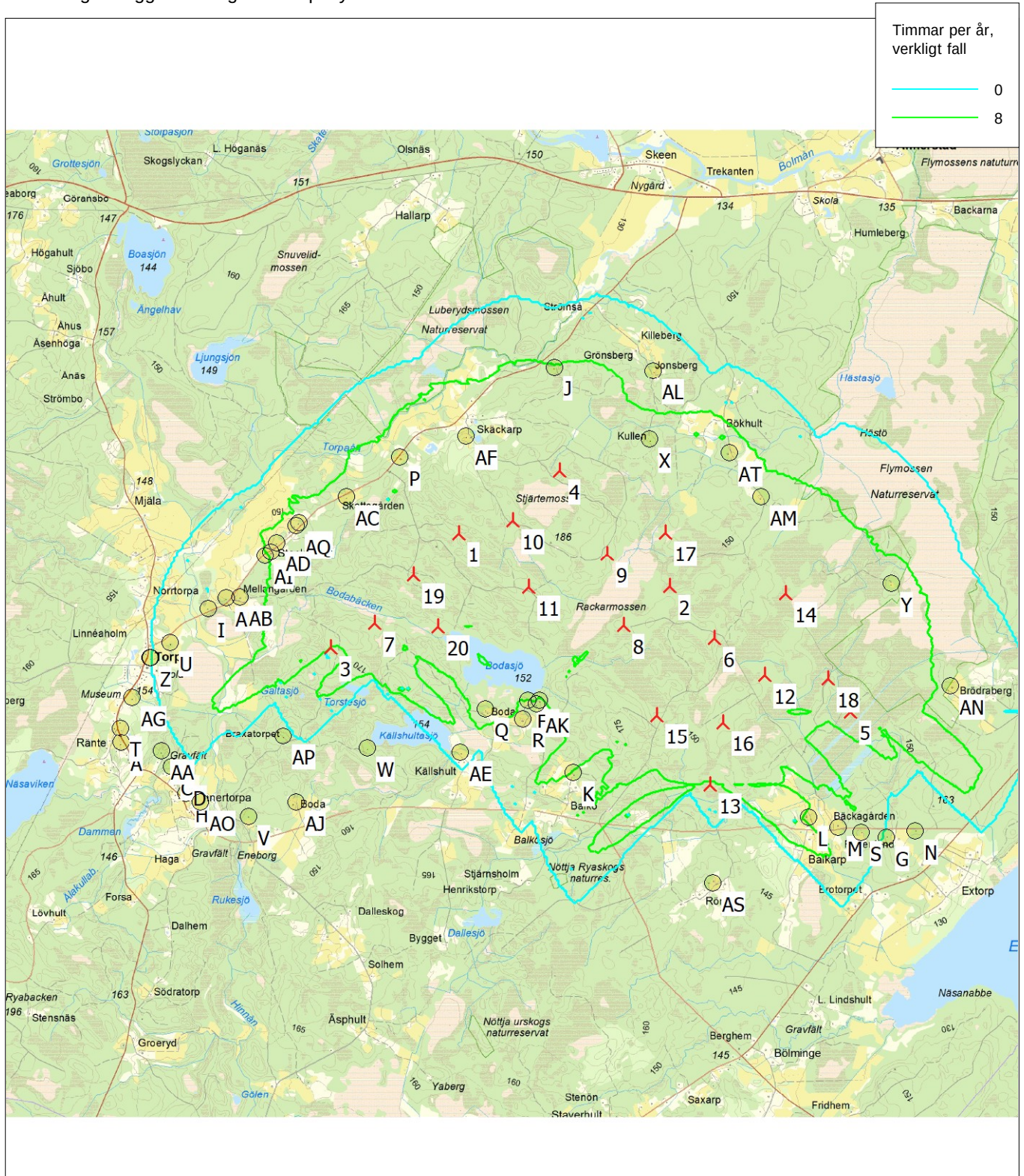
Projekt:
SRE_FM_Skackarp_DJN_200127

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 12:24/3.2.737

SHADOW - Karta

Beräkning: Skuggberäkning Skäckarp layout 7



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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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
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	15:55	17:02	18:03	20:09	21:11	21:58	21:51	20:52	19:32	18:12	16:00	15:26
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	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
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	16:03	17:11	18:12	20:17	21:19	22:00	21:46	20:43	19:21	18:01	15:53	15:26
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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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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
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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
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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
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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)
-------------	---------------------	---------------------	---------------------	--------------------------------------	-------------------------------------	-----------------------------------	----------------------------------

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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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	15:51	16:57	17:59	20:04	21:07	21:56	21:53	20:57	19:38	18:17	16:04	15:27
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	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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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
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	16:01	17:08	18:10	20:15	21:17	22:00	21:47	20:45	19:24	18:04	15:55	15:26
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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
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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
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	16:28		19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:36	15:33
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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)	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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	08:06	07:01	06:38	05:22	04:24	04:18	05:05	06:07	07:08	07:14	08:16
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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
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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
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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	21:45	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	08:28	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	07:49	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	08:08	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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

	Januari	Februari	Mars		April		Maj		Juni
1	08:42	08:06	07:01		06:38		07:30 (15)	05:21	04:24
	15:36	16:34	17:37		19:43	30	08:00 (15)	20:46	21:44
2	08:42	08:04	06:58		06:36		07:30 (15)	05:19	20:15 (7)
	15:38	16:36	17:39		19:45	28	07:58 (15)	20:48	21:46
3	08:42	08:02	06:56		06:33		07:30 (15)	05:17	20:11 (7)
	15:39	16:39	17:41		19:47	26	07:56 (15)	20:50	21:47
4	08:41	08:00	06:53		06:30		07:31 (15)	05:14	20:09 (7)
	15:40	16:41	17:44		19:49	24	07:55 (15)	20:53	21:48
5	08:41	07:58	06:51		06:27		07:32 (15)	05:12	20:07 (7)
	15:42	16:43	17:46		19:52	21	07:53 (15)	20:55	21:50
6	08:40	07:55	06:48		06:25		07:34 (15)	05:10	20:06 (7)
	15:43	16:45	17:48		19:54	16	07:50 (15)	20:57	21:51
7	08:40	07:53	06:45		06:22		07:37 (15)	05:08	20:05 (7)
	15:45	16:48	17:50		19:56	10	07:47 (15)	20:59	21:52
8	08:39	07:51	06:43		06:19		05:05	20:05 (7)	20:47
	15:46	16:50	17:52		19:58		21:01	22	20:27 (7)
9	08:38	07:49	06:40		06:17		05:03	20:04 (7)	20:46
	15:48	16:52	17:54		20:00		21:03	24	20:28 (7)
10	08:37	07:47	06:37		06:14		05:01	20:04 (7)	20:44
	15:49	16:54	17:57		20:02		21:05	24	20:28 (7)
11	08:36	07:45	06:35		06:12		04:59	20:03 (7)	20:42
	15:51	16:57	17:59		20:04		21:07	25	20:28 (7)
12	08:36	07:42	06:32		06:09		04:57	20:03 (7)	20:40
	15:53	16:59	18:01		20:06		21:09	25	20:28 (7)
13	08:35	07:40	06:29		06:06		04:55	20:03 (7)	20:38
	15:55	17:01	18:03		20:08		21:11	25	20:28 (7)
14	08:33	07:38	06:27		06:04		04:53	20:03 (7)	20:36
	15:57	17:04	18:05		20:11		21:13	25	20:28 (7)
15	08:32	07:35	06:24		06:01		04:51	20:03 (7)	20:34
	15:58	17:06	18:07		20:13		21:15	26	20:29 (7)
16	08:31	07:33	06:21		05:58		04:49	20:03 (7)	20:32
	16:00	17:08	18:09		20:15		21:17	25	20:28 (7)
17	08:30	07:31	06:19		05:56		04:47	20:03 (7)	20:30
	16:02	17:10	18:12		20:17		21:19	25	20:28 (7)
18	08:29	07:28	06:16		05:53		04:45	20:04 (7)	20:28
	16:04	17:13	18:14		20:19		21:21	24	20:28 (7)
19	08:27	07:26	06:13		05:51		04:43	20:05 (7)	20:26
	16:06	17:15	18:16	12	06:55 (15)		21:22	22	20:27 (7)
20	08:26	07:23	06:11		06:39 (15)		04:42	20:06 (7)	20:24
	16:08	17:17	18:18	19	06:58 (15)		21:24	21	20:27 (7)
21	08:24	07:21	06:08		06:37 (15)		04:40	20:06 (7)	20:22
	16:10	17:19	18:20	22	06:59 (15)		21:26	20	20:26 (7)
22	08:23	07:19	06:05		06:36 (15)		04:38	20:07 (7)	20:20
	16:12	17:22	18:22	25	07:01 (15)		21:28	19	20:26 (7)
23	08:21	07:16	06:02		06:34 (15)		04:37	20:08 (7)	20:18
	16:14	17:24	18:24	27	07:01 (15)		21:30	17	20:25 (7)
24	08:20	07:14	06:00		06:32 (15)		04:35	20:09 (7)	20:16
	16:17	17:26	18:26	29	07:01 (15)		21:31	15	20:24 (7)
25	08:18	07:11	05:57		06:31 (15)		04:33	20:10 (7)	20:14
	16:19	17:28	18:28	30	07:01 (15)		21:33	13	20:23 (7)
26	08:16	07:09	05:54		06:31 (15)		04:32	20:12 (7)	20:12
	16:21	17:30	18:31	31	07:02 (15)		21:35	9	20:21 (7)
27	08:15	07:06	05:52		06:30 (15)		04:30	20:14 (7)	20:10
	16:23	17:33	18:33	32	07:02 (15)		21:36	6	20:20 (7)
28	08:13	07:03	05:49		06:29 (15)		04:29	20:16	20:08
	16:25	17:35	18:35	32	07:01 (15)		21:38	22:02	20:06
29	08:11		06:46		07:30 (15)		04:28	20:16	20:04
	16:27		19:37	32	08:02 (15)		21:40	22:01	20:02
30	08:09		06:44		07:29 (15)		04:26	20:17	20:00
	16:30		19:39	32	08:01 (15)		21:41	22:01	20:00
31	08:07		06:41		07:29 (15)		04:25		
	16:32		19:41	31	08:00 (15)		21:43		
Möjliga soltimmar	234	265	366		427		509		530
Totalt, värsta fall				354	155		484		976
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		0,45		0,63
Total reduktion				0,02	0,05		0,22		0,25
Total, verklig				9	7		108		245

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: E - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (97)
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

Drifftid
0 Totalt
8 760 8 760

	Jul	Augusti	September	Oktober	November	December
1	04:18 22:01	05:04 (8) 21:17 (20)	05:04 21:19	20:13 (7) 06:07	07:07 18:43	07:13 15:33
2	04:19 22:00	05:05 (8) 21:17 (20)	05:06 21:17	20:14 (7) 06:09	07:09 18:41	07:15 15:32
3	04:20 22:00	05:07 (8) 21:16 (20)	05:08 21:15	20:14 (7) 06:11	07:11 18:38	07:18 15:31
4	04:21 21:59	20:54 (20) 21:15 (20)	05:10 21:13	20:15 (7) 06:13	07:13 18:35	07:20 15:31
5	04:22 21:58	20:55 (20) 21:15 (20)	05:12 21:10	20:14 (7) 06:15	07:16 18:32	07:22 15:30
6	04:23 21:58	20:56 (20) 21:14 (20)	05:14 21:08	20:15 (7) 06:17	07:18 18:30	07:24 15:29
7	04:24 21:57	20:57 (20) 21:14 (20)	05:16 21:06	20:16 (7) 06:19	07:20 18:27	07:26 15:28
8	04:25 21:56	20:58 (20) 21:13 (20)	05:18 21:04	20:17 (7) 06:21	07:22 18:25	07:29 15:28
9	04:26 21:55	21:01 (20) 21:12 (20)	05:20 21:02	20:19 (7) 06:23	07:24 (15) 18:22	07:31 15:27
10	04:27 21:54	21:03 (20) 21:10 (20)	05:22 20:59	20:21 (7) 06:25	07:26 (15) 18:19	07:33 15:27
11	04:29 21:53	05:24 20:57	06:27 19:37	07:22 (15) 18:17	07:28 16:04	07:35 15:27
12	04:30 21:52	05:26 20:55	06:29 19:35	07:21 (15) 18:14	07:30 16:02	07:37 15:26
13	04:32 21:51	05:28 20:52	06:31 19:32	07:21 (15) 18:11	07:32 16:00	07:40 15:26
14	04:33 21:49	05:30 20:50	06:33 19:29	07:20 (15) 18:09	07:34 15:58	07:42 15:26
15	04:34 21:48	05:32 20:47	06:35 19:27	07:20 (15) 18:06	07:36 15:56	07:44 15:26
16	04:36 21:47	05:34 20:45	06:37 19:24	07:19 (15) 18:04	07:39 15:54	07:46 15:26
17	04:38 21:45	20:22 (7) 20:30 (7)	05:36 20:43	06:39 19:21	07:19 (15) 18:01	07:48 15:53
18	04:39 21:44	20:20 (7) 20:32 (7)	05:38 20:40	06:41 19:18	07:19 (15) 17:59	07:50 15:51
19	04:41 21:42	20:19 (7) 20:33 (7)	05:40 20:38	06:43 19:16	07:20 (15) 17:56	07:52 15:49
20	04:42 21:41	20:18 (7) 20:34 (7)	05:42 20:35	06:45 19:13	07:19 (15) 17:54	07:54 15:48
21	04:44 21:39	20:17 (7) 20:35 (7)	05:44 20:33	06:47 19:10	07:20 (15) 17:51	07:56 15:46
22	04:46 21:38	20:16 (7) 20:36 (7)	05:46 20:30	06:49 19:08	07:21 (15) 17:49	07:58 15:45
23	04:48 21:36	20:16 (7) 20:37 (7)	05:48 20:28	06:51 19:05	07:23 (15) 17:46	08:00 15:43
24	04:49 21:34	20:16 (7) 20:38 (7)	05:50 20:25	06:53 19:02	07:25 (15) 17:44	08:02 15:42
25	04:51 21:32	20:15 (7) 20:38 (7)	05:52 20:22	06:55 18:59	07:30 (15) 17:41	08:04 15:40
26	04:53 21:31	20:15 (7) 20:38 (7)	05:54 20:20	06:57 18:57	07:00 16:39	08:06 15:39
27	04:55 21:29	20:15 (7) 20:39 (7)	05:57 20:17	06:59 18:54	07:02 16:36	08:08 15:38
28	04:57 21:27	20:14 (7) 20:39 (7)	05:59 20:15	07:01 18:51	07:04 16:34	08:10 15:37
29	04:59 21:25	20:14 (7) 20:39 (7)	06:01 20:12	07:03 18:49	07:07 16:32	08:12 15:35
30	05:00 21:23	20:14 (7) 20:39 (7)	06:03 20:10	07:05 18:46	07:09 16:29	08:14 15:34
31	05:02 21:21	20:13 (7) 20:39 (7)	06:05 20:07		07:11 16:27	08:16 15:35
Möjliga soltimmar	531	470	385	323	246	215
Totalt, värsta fall	502	183	523			
Sol reduktion	0,39	0,36	0,31			
Drifftid red.	1,00	1,00	1,00			
Vindrikt. red.	0,52	0,45	0,12			
Total reduktion	0,19	0,15	0,03			
Total, verklig	94	27	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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SRE FM Skackarp DJN 200127

Stena Skäckarp

WSP Sverige AB

SE-833 84 Strömsund

+46 31 727 25 00

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

Beräknad:

2020-01-29 12:24/3.2.737

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: F - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (98°)
Antaganden för skuggberäkningar Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]
Solsken Fok. Medelv. Solhöjd i Grader Solsk. i Grader Solsk. i Grader Solsk. i Grader Solsk. i Grader Solsk. i Grader

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		07:31 (15)	05:21			04:24		20:34 (20)
		15:36	16:34	17:37			19:43	34	08:05 (15)	20:46			21:44	28	21:02 (20)
	2	08:42	08:04	06:58			06:35		07:31 (15)	05:19			04:23		20:34 (20)
		15:38	16:36	17:39			19:45	33	08:04 (15)	20:48			21:46	28	21:02 (20)
	3	08:42	08:02	06:56			06:33		07:31 (15)	05:17			04:22		20:33 (20)
		15:39	16:39	17:41			19:47	32	08:03 (15)	20:50			21:47	30	21:03 (20)
	4	08:41	08:00	06:53			06:30		07:32 (15)	05:14			04:21		20:33 (20)
		15:40	16:41	17:44			19:49	30	08:02 (15)	20:53			21:48	30	21:03 (20)
	5	08:41	07:58	06:51			06:27		07:32 (15)	05:12			04:20		20:33 (20)
		15:42	16:43	17:46			19:52	28	08:00 (15)	20:55			21:50	31	21:04 (20)
	6	08:40	07:55	06:48			06:25		07:33 (15)	05:10			04:19		20:32 (20)
		15:43	16:45	17:48			19:54	25	07:58 (15)	20:57			21:51	32	21:04 (20)
	7	08:40	07:53	06:45			06:22		07:34 (15)	05:08			04:18		20:33 (20)
		15:45	16:48	17:50			19:56	23	07:57 (15)	20:59			21:52	32	21:05 (20)
	8	08:39	07:51	06:43			06:19		07:36 (15)	05:05			04:17		20:32 (20)
		15:46	16:50	17:52			19:58	18	07:54 (15)	21:01			21:53	33	21:05 (20)
	9	08:38	07:49	06:40			06:17		07:38 (15)	05:03			04:16		20:33 (20)
		15:48	16:52	17:54			20:00	12	07:50 (15)	21:03			21:54	33	21:06 (20)
	10	08:37	07:47	06:37			06:14			05:01			04:16		20:32 (20)
		15:49	16:54	17:57			20:02			21:05			21:55	34	21:06 (20)
	11	08:36	07:45	06:35			06:12			04:59			04:15		20:33 (20)
		15:51	16:57	17:59			20:04			21:07			21:56	33	21:06 (20)
	12	08:36	07:42	06:32			06:09			04:57			04:15		20:32 (20)
		15:53	16:59	18:01			20:06			21:09			21:57	34	21:06 (20)
	13	08:35	07:40	06:29			06:06			04:55			04:14		20:33 (20)
		15:55	17:01	18:03			20:08			21:11			21:58	34	21:07 (20)
	14	08:33	07:38	06:27			06:04			04:53			04:14		20:33 (20)
		15:56	17:03	18:05			20:11			21:13			21:58	34	21:07 (20)
	15	08:32	07:35	06:24			06:01			04:51			04:14		20:33 (20)
		15:58	17:06	18:07			20:13			21:15			21:59	35	21:08 (20)
	16	08:31	07:33	06:21			05:58			04:49			04:13		20:34 (20)
		16:00	17:08	18:09			20:15			21:17			22:00	34	21:08 (20)
	17	08:30	07:31	06:19			05:56			04:47			04:13		20:34 (20)
		16:02	17:10	18:12			20:17			21:19			22:00	34	21:08 (20)
	18	08:29	07:28	06:16			05:53			04:45			04:13		20:34 (20)
		16:04	17:13	18:14			20:19			21:21			22:01	35	21:09 (20)
	19	08:27	07:26	06:13		06:47 (15)	05:51			04:43			04:13		20:34 (20)
		16:06	17:15	18:16	11	06:58 (15)	20:21			21:22			22:01	35	21:09 (20)
	20	08:26	07:23	06:11		06:43 (15)	05:48			04:42			04:13		20:34 (20)
		16:08	17:17	18:18	18	07:01 (15)	20:23			21:24			22:01	35	21:09 (20)
	21	08:24	07:21	06:08		06:40 (15)	05:46			04:40			04:13		20:34 (20)
		16:10	17:19	18:20	23	07:03 (15)	20:25			21:26			22:02	35	21:09 (20)
	22	08:23	07:19	06:05		06:39 (15)	05:43			04:38			04:13		20:34 (20)
		16:12	17:22	18:22	26	07:05 (15)	20:27			21:28			22:02	35	21:09 (20)
	23	08:21	07:16	06:02		06:37 (15)	05:41			04:37		20:46 (20)	04:14		20:34 (20)
		16:14	17:24	18:24	28	07:05 (15)	20:29			21:30	1	20:47 (20)	22:02	35	21:09 (20)
	24	08:20	07:14	06:00		06:35 (15)	05:38			04:35		20:41 (20)	04:14		20:35 (20)
		16:17	17:26	18:26	31	07:06 (15)	20:32			21:31	11	20:52 (20)	22:02	35	21:10 (20)
	25	08:18	07:11	05:57		06:34 (15)	05:36			04:33		20:39 (20)	04:14		20:35 (20)
		16:19	17:28	18:28	32	07:06 (15)	20:34			21:33	14	20:53 (20)	22:02	34	21:09 (20)
	26	08:16	07:09	05:54		06:33 (15)	05:33			04:32		20:38 (20)	04:15		20:36 (20)
		16:21	17:30	18:31	34	07:07 (15)	20:36			21:35	17	20:55 (20)	22:02	34	21:10 (20)
	27	08:15	07:06	05:52		06:32 (15)	05:31			04:30		20:37 (20)	04:15		20:35 (20)
		16:23	17:33	18:33	35	07:07 (15)	20:38			21:36	20	20:57 (20)	22:02	35	21:10 (20)
	28	08:13	07:03	05:49		06:31 (15)	05:28			04:29		20:36 (20)	04:16		20:36 (20)
		16:25	17:35	18:35	35	07:06 (15)	20:40			21:38	22	20:58 (20)	22:02	34	21:10 (20)
	29	08:11		06:46		07:32 (15)	05:26			04:28		20:35 (20)	04:16		20:36 (20)
		16:27		19:37	35	08:07 (15)	20:42			21:40	24	20:59 (20)	22:01	34	21:10 (20)
	30	08:09		06:44		07:31 (15)	05:24			04:26		20:35 (20)	04:17		20:36 (20)
		16:30		19:39	35	08:06 (15)	20:44			21:41	25	21:00 (20)	22:01	34	21:10 (20)
	31	08:07		06:41		07:30 (15)				04:25		20:35 (20)			
		16:32		19:41	35	08:05 (15)				21:43	26	21:01 (20)			
Möjliga soltimmar		234	265	366			427			509			530		
Totalt, värsta fall				378			235			160			999		
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				10			12			46			232		

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid
0 Totalt
8 760 8 760

	Jul	Augusti	September		Oktober	November	December
1	04:18 22:01 34	20:37 (20) 21:11 (20) 21:19	05:04 21:19 20:04		07:07 18:43 16:25	07:13 16:25 15:33	08:16 15:33
2	04:19 22:00 33	20:38 (20) 21:11 (20) 21:17	05:06 21:17 20:02		07:09 18:41 16:23	07:15 16:23 15:32	08:17 15:32
3	04:20 22:00 33	20:37 (20) 21:10 (20) 21:15	05:08 21:15 19:59	12	07:36 (15) 07:48 (15) 18:38	07:11 18:38 16:20	07:18 15:31 15:31
4	04:21 21:59 32	20:38 (20) 21:10 (20) 21:13	05:10 21:13 19:56	18	07:33 (15) 07:51 (15) 18:35	07:13 18:35 16:18	07:20 15:31 15:31
5	04:22 21:58 32	20:38 (20) 21:10 (20) 21:10	05:12 21:10 19:54	22	07:31 (15) 07:53 (15) 18:32	07:16 18:32 16:16	07:22 15:30 15:30
6	04:23 21:58 32	20:38 (20) 21:10 (20) 21:08	05:14 21:08 19:51	25	07:29 (15) 07:54 (15) 18:30	07:18 18:30 16:14	07:24 15:29 15:29
7	04:24 21:57 31	20:39 (20) 21:10 (20) 21:06	05:16 21:06 19:48	28	07:27 (15) 07:55 (15) 18:27	07:20 18:27 16:12	07:26 15:28 15:28
8	04:25 21:56 31	20:39 (20) 21:10 (20) 21:04	05:18 21:04 19:46	30	07:26 (15) 07:56 (15) 18:25	07:22 18:25 16:10	07:29 15:28 15:28
9	04:26 21:55 30	20:41 (20) 21:11 (20) 21:02	05:20 21:02 19:43	32	07:25 (15) 07:57 (15) 18:22	07:31 18:22 16:08	07:31 15:27 15:27
10	04:27 21:54 29	20:41 (20) 21:10 (20) 20:59	05:22 20:59 19:40	33	07:24 (15) 07:57 (15) 18:19	07:33 18:19 16:06	07:33 15:27 15:27
11	04:29 21:53 29	20:41 (20) 21:10 (20) 20:57	05:24 20:57 19:37	34	07:23 (15) 07:57 (15) 18:17	07:35 18:17 16:04	07:35 15:27 15:27
12	04:30 21:52 27	20:42 (20) 21:09 (20) 20:55	05:26 20:55 19:35	34	07:23 (15) 07:57 (15) 18:14	07:30 18:14 16:02	07:37 15:26 15:26
13	04:32 21:51 26	20:42 (20) 21:08 (20) 20:52	05:28 20:52 19:32	35	07:22 (15) 07:57 (15) 18:11	07:40 18:11 16:00	07:40 15:26 15:26
14	04:33 21:49 24	20:44 (20) 21:08 (20) 20:50	05:30 20:50 19:29	35	07:22 (15) 07:57 (15) 18:09	07:42 18:09 15:58	07:42 15:26 15:26
15	04:34 21:48 23	20:44 (20) 21:07 (20) 20:47	05:32 20:47 19:27	35	07:22 (15) 07:57 (15) 18:06	07:44 18:06 15:56	07:44 15:26 15:26
16	04:36 21:47 21	20:45 (20) 21:06 (20) 20:45	05:34 20:45 19:24	34	07:22 (15) 07:56 (15) 18:04	07:39 18:04 15:54	07:46 15:26 15:26
17	04:38 21:45 19	20:47 (20) 21:06 (20) 20:43	05:36 20:43 19:21	33	07:22 (15) 07:55 (15) 18:01	07:41 18:01 15:53	07:48 15:26 15:26
18	04:39 21:44 16	20:48 (20) 21:04 (20) 20:40	05:38 20:40 19:18	33	07:22 (15) 07:55 (15) 17:59	07:43 17:59 15:51	07:50 15:26 15:26
19	04:41 21:42 13	20:50 (20) 21:03 (20) 20:38	05:40 20:38 19:16	32	07:21 (15) 07:53 (15) 17:56	07:45 17:56 15:49	07:52 15:26 15:26
20	04:42 21:41 8	20:52 (20) 21:00 (20) 20:35	05:42 20:35 19:13	29	07:22 (15) 07:51 (15) 17:54	07:47 17:54 15:48	07:54 15:27 15:27
21	04:44 21:39 27	20:54 20:33 19:10	05:44 20:33 19:10	27	07:23 (15) 07:50 (15) 17:51	07:49 17:51 15:46	07:56 15:27 15:27
22	04:46 21:38 24	05:46 20:30 19:08	06:49 19:08 18:57	24	07:24 (15) 07:48 (15) 17:49	07:51 17:49 15:45	08:01 15:28 15:28
23	04:48 21:36 20	05:48 20:28 19:05	06:51 19:05 18:54	20	07:26 (15) 07:46 (15) 17:46	07:54 17:46 15:43	08:00 15:28 15:28
24	04:49 21:34 14	05:50 20:25 19:02	06:53 19:02 18:51	14	07:29 (15) 07:43 (15) 17:44	07:56 17:44 15:42	08:02 15:29 15:29
25	04:51 21:32 26	05:52 20:22 18:59	06:55 20:22 18:59		06:58 16:41 15:40	08:04 15:40 15:29	08:04 15:29 15:29
26	04:53 21:31 27	05:54 20:20 18:57	06:57 20:20 18:57		07:00 16:39 15:39	08:06 15:39 15:30	08:06 15:30 15:30
27	04:55 21:29 28	05:57 20:17 18:54	06:59 20:17 18:54		07:02 16:36 15:38	08:08 15:38 15:31	08:08 15:31 15:31
28	04:57 21:27 29	05:59 20:15 18:51	07:01 20:15 18:51		07:04 16:34 15:37	08:10 15:37 15:32	08:08 15:32 15:32
29	04:59 21:25 30	06:01 20:12 18:49	07:03 20:12 18:49		07:07 16:32 15:35	08:12 15:35 15:33	08:08 15:33 15:33
30	05:00 21:23 31	06:03 20:10 18:46	07:05 20:10 18:46		07:09 16:29 15:34	08:14 15:34 15:34	08:08 15:34 15:34
31	05:02 21:21	06:05 20:07			07:11 16:27		08:08 15:35
Möjliga soltimmar	531	470	385		323	246	215
Totalt, värsta fall	523		619				
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	109		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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftid

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
	15:43	16:45	17:48	19:53	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	05:07	04:18	04:24	05:16	06:19	07:19	07:26	08:25
	15:44	16:47	17:50	19:56	20:58	21:52	21:56	21:06	19:48	18:27	16:12	15:28
8	08:39	07:51	06:42	06:19	05:05	04:17	04:25	05:18	06:21	07:21	07:28	08:26
	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
13	08:34	07:40	06:29	06:06	04:55	04:14	04:31	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	07:37	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
15	08:32	07:35	06:24	06:01	04:51	04:13	04:34	05:32	06:35	07:36	07:44	08:35
	15:58	17:06	18:07	20:12	21:14	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	20:14	21:16	21:59	21:46	20:45	19:24	18:03	15:54	15:26
17	08:30	07:30	06:18	05:56	04:47	04:13	04:37	05:36	06:39	07:40	07:48	08:37
	16:02	17:10	18:11	20:17	21:18	22:00	21:45	20:42	19:21	18:01	15:52	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
20	08:26	07:23	06:10	05:48	04:41	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	21:40	20:35	19:13	17:53	15:47	15:27
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
	16:12	17:21	18:22	20:27	21:28	22:02	21:37	20:30	19:07	17:48	15:44	15:27
23	08:21	07:16	06:02	05:40	04:36	04:13	04:47	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	07:55	08:02	08:41
	16:16	17:26	18:26	20:31	21:31	22:02	21:34	20:25	19:02	17:43	15:42	15:29
25	08:18	07:11	05:57	05:36	04:33	04:14	04:51	05:52	06:55	06:58	08:04	08:42
	16:18	17:28	18:28	20:33	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	21:34	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
	16:23	17:32	18:32	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	04:56	05:58	07:01	07:04	08:10	08:42
	16:25	17:35	18:35	20:40	21:38	22:01	21:26	20:14	18:51	16:34	15:36	15:32
29	08:11		06:46	05:26	04:27	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	05:23	04:26	04:17	05:00	06:02	07:05	07:09	08:13	08:42
	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												
Driftid 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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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
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	07:13 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 19:56	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	07:24 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 19:48	07:20 18:27	07:27 16:12	08:25 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 20:59	06:25 19:40	07:26 18:19	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	07:35 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 21:49	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 18:06	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 16:03	07:31 17:11	06:19 18:12	05:56 20:17	04:47 21:19	04:13 22:00	04:38 21:45	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	07:28 17:13	06:16 18:14	05:54 20:19	04:46 21:21	04:13 22:01	04:39 21:44	05:38 20:40	06:41 19:19	07:43 17:59	07:50 15:51	08:38 15:26
19	08:27 16:06	07:26 17:15	06:14 18:16	05:51 20:21	04:44 21:23	04:13 22:01	04:41 21:42	05:41 20:38	06:43 19:16	07:45 17:56	07:52 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 21:24	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 20:25	04:40 21:26	04:13 22:02	04:44 21:39	05:45 20:33	06:47 19:11	07:49 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 18:24	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	08:08 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	07:05 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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SRE_FM_Skackarp_DJN_200127

Stena Skäckarp

Användarlicens:

WSP Sverige AB

FE 711

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson

Beräknad:

2020-

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 1 - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (101)
 Antaganden för skuggberäkningar Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRONOBER G]

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJO /KRÖNÖBÄR 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	22	07:25 (7) 07:47 (7)	05:21 20:47	04:24 21:44	04:18 22:01	05:04 21:19	06:07 20:04		07:08 18:43	31	07:52 (3) 08:23 (3)	07:14 16:25	08:16 15:33
	2	08:42 15:38	08:04 16:36	06:59 17:39			06:36 19:46	20	07:45 (7) 07:26 (7)	05:19 20:49	04:23 21:46	04:19 22:01	05:06 21:17	06:09 20:02		07:10 18:41	30	07:52 (3) 08:22 (3)	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	17	07:43 (7) 07:28 (7)	05:17 20:51	04:22 21:47	04:20 22:00	05:08 21:15	06:11 19:59		07:12 18:38	29	07:52 (3) 08:21 (3)	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	14	07:42 (7) 07:30 (7)	05:15 20:53	04:21 21:49	04:21 21:59	05:10 21:13	06:13 19:57		07:14 18:35	27	07:53 (3) 08:20 (3)	07:20 16:18	08:21 15:31
	5	08:41 15:42	07:58 16:43	06:51 17:46		07:27 (3) 07:34 (3)	06:28 19:52	8	07:30 (7) 07:38 (7)	05:12 20:55	04:20 21:50	04:22 21:59	05:12 21:11	06:15 19:54		07:16 18:33	25	07:54 (3) 08:19 (3)	07:22 16:16	08:22 15:30
	6	08:40 15:43	07:56 16:46	06:48 17:48		07:22 (3) 07:38 (3)	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	22	07:56 (3) 08:18 (3)	07:25 16:14	08:24 15:29	
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	8	08:39 15:46	07:51 16:50	06:43 17:53		07:18 (3) 07:42 (3)	06:20 19:58		05:06 21:01	04:17 21:53	04:25 21:56	05:18 21:04	06:21 19:46	14	07:22 (7) 07:36 (7)	18	07:22 (7) 18:25	07:29 16:10	08:27 15:28	
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	12	08:36 15:53	07:43 16:59	06:32 18:01		07:13 (3) 07:44 (3)	06:09 20:07		04:57 21:09	04:15 21:57	04:30 21:52	05:26 20:55	06:29 19:35	24	07:16 (7) 07:40 (7)	15	07:30 (7) 18:14	07:38 16:02	08:32 15:27	
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	14	08:34 15:57	07:38 17:04	06:27 18:05		07:12 (3) 07:44 (3)	06:04 20:11		04:53 21:13	04:14 21:59	04:33 21:50	05:30 20:50	06:33 19:30	25	07:15 (7) 07:40 (7)	13	07:35 (7) 18:09	07:42 15:58	08:34 15:26	
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	24	08:20 16:17	07:14 17:26	06:00 18:27		06:28 (7) 07:31 (3)	05:38 20:32		04:35 21:32	04:14 22:02	04:50 21:34	05:51 20:25	06:53 19:02	27	07:56 (3) 08:25 (3)	3	07:56 (7) 17:44	08:03 15:42	08:42 15:29	
	25	08:18 16:19	07:11 17:28	05:57 18:29		06:27 (7) 06:50 (7)	05:36 20:34		04:34 21:33	04:14 22:02	04:51 21:33	05:53 20:23	06:55 19:00	29	07:55 (3) 08:25 (3)	2	06:58 (7) 16:41	08:05 15:41	08:42 15:30	
	26	08:17 16:21	07:09 17:31	05:55 18:31		06:26 (7) 06:50 (7)	05:33 20:36		04:32 21:35	04:15 22:02	04:53 21:31	05:55 20:20	06:57 18:57	30	07:54 (3) 08:25 (3)	1	07:00 (7) 16:39	08:07 15:39	08:42 15:30	
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	28	08:13 16:25	07:04 17:35	05:49 18:35		06:24 (7) 06:49 (7)	05:29 20:40		04:29 21:38	04:16 22:02	04:57 21:27	05:59 20:15	07:01 18:52	32	07:53 (3) 08:25 (3)		07:05 (7) 16:34	08:10 15:37	08:43 15:32	
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	30	08:10 16:30		06:44 19:39		07:24 (7) 07:49 (7)	05:24 20:44		04:27 21:41	04:17 22:01	05:01 21:23	06:03 20:10	07:05 18:46	32	07:52 (3) 08:24 (3)		07:09 (7) 16:30	08:14 15:35	08:43 15:34	
	31	08:08 16:32		06:41 19:41		07:24 (7) 07:47 (7)			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		531	531	470	385		323			246	214
Totalt, värsta fall				741			81							639		194				
Sol reduktion				0,22			0,43							0,31		0,26				
Drifttid red.				1,00			1,00							1,00		1,00				
Vindrikt. red.				0,24			0,09							0,20		0,30				
Total reduktion				0,05			0,04							0,06		0,08				
Total, verklig				40			3							41		16				

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 7Skuggmottagare: 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

Driftl tid
0 Totalt
8 760 8 760

			Januari		Februari	Mars	April	Maj	Juni	Juli	Augusti	September	Oktober	November		December											
1	08:42		11:28 (4)	08:06	07:01	06:38	05:21	04:24	04:18	05:04	06:07	07:07	07:13	08:16	11:16 (4)												
	15:36	64	13:19 (10)	16:34	17:37	19:43	20:46	21:44	22:01	21:19	20:04	18:43	16:25	15:33	42	11:58 (4)											
2	08:42		11:29 (4)	08:04	06:58	06:35	05:19	04:23	04:18	05:06	06:09	07:09	07:16	08:17	11:16 (4)												
	15:37	64	13:20 (10)	16:36	17:39	19:45	20:49	21:46	22:00	21:17	20:02	18:40	16:23	15:32	43	11:59 (4)											
3	08:42		11:29 (4)	08:02	06:56	06:33	05:16	04:21	04:19	05:08	06:11	07:11	07:18	08:19	11:16 (4)												
	15:39	62	13:19 (10)	16:38	17:41	19:47	20:51	21:47	22:00	21:15	19:59	18:38	16:20	15:31	43	11:59 (4)											
4	08:41		11:30 (4)	08:00	06:53	06:30	05:14	04:20	04:20	05:10	06:13	07:13	07:20	08:21	11:16 (4)												
	15:40	61	13:20 (10)	16:41	17:44	19:50	20:53	21:48	21:59	21:13	19:56	18:35	16:18	15:30	51	13:01 (10)											
5	08:41		11:31 (4)	07:58	06:51	06:27	05:12	04:19	04:21	05:12	06:15	07:16	07:22	08:22	11:16 (4)												
	15:41	58	13:19 (10)	16:43	17:46	19:52	20:55	21:50	21:59	21:11	19:54	18:32	16:16	15:30	56	13:03 (10)											
6	08:40		11:31 (4)	07:56	06:48	06:25	05:10	04:19	04:22	05:14	06:17	07:18	07:24	08:24	11:17 (4)												
	15:43	57	13:19 (10)	16:45	17:48	19:54	20:57	21:51	21:58	21:08	19:51	18:30	16:14	15:29	57	13:05 (10)											
7	08:40		11:31 (4)	07:53	06:45	06:22	05:07	04:18	04:24	05:16	06:19	07:20	07:27	08:25	11:18 (4)												
	15:44	55	13:18 (10)	16:47	17:50	19:56	20:59	21:52	21:57	21:06	19:48	18:27	16:12	15:28	58	13:06 (10)											
8	08:39		11:32 (4)	07:51	06:43	06:19	05:05	04:17	04:25	05:18	06:21	07:22	07:29	08:27	11:17 (4)												
	15:46	52	13:17 (10)	16:50	17:52	19:58	21:01	21:53	21:56	21:04	19:46	18:24	16:10	15:28	61	13:07 (10)											
9	08:38		11:32 (4)	07:49	06:40	06:17	05:03	04:16	04:26	05:20	06:23	07:24	07:31	08:28	11:18 (4)												
	15:48	43	12:15 (4)	16:52	17:54	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:27	62	13:08 (10)											
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27	08:15		11:53 (4)	07:06	05:52	05:31	04:30	04:15	04:55	05:56	06:59	07:02	08:08	11:16 (4)	08:43	11:27 (4)											
	16:23	13	12:06 (4)	17:33	18:33	20:38	21:37	22:02	21:29	20:17	18:54	16:36	15:38	40	11:56 (4)	15:31	66	13:19 (10)									
28	08:13			07:04	05:49	05:28	04:29	04:16	04:56	05:58	07:01	07:05	08:10	11:16 (4)	08:43	11:27 (4)											
	16:25			17:35	18:35	20:40	21:38	22:02	21:27	20:15	18:51	16:34	15:36	40	11:56 (4)	15:32	66	13:19 (10)									
29	08:11				06:46	05:26	04:27	04:16	04:58	06:00	07:03	07:07	08:12	11:16 (4)	08:43	11:28 (4)											
	16:27				19:37	20:42	21:40	22:02	21:25	20:12	18:49	16:32	15:35	41	11:57 (4)	15:33	66	13:20 (10)									
30	08:09				06:44	05:23	04:26	04:17	05:00	06:03	07:05	07:09	08:14	11:16 (4)	08:43	11:27 (4)											
	16:29				19:39	20:44	21:41	22:01	21:23	20:10	18:46	16:29	15:34	41	11:57 (4)	15:34	66	13:19 (10)									
31	08:08				06:41		04:25		05:02	06:05		07:11		08:43		11:28 (4)											
	16:32				19:41		21:43		21:21	20:07		16:27		15:35	66	13:20 (10)											
Möjliga soltimmar	234			265		366		427		509		531		531		470		385		323		246					
Totalt, värsta fall		1122																				524				1927	
Sol reduktion		0,18																				0,17				0,13	
Drifttid red.		1,00																				1,00				1,00	
Vindrikt. red.		0,99																				1,00					

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars		April		Maj		Juni	
1	08:42	08:05	07:01		06:38		07:22 (13)	05:21	05:54 (16)	04:24
	15:36	16:34	17:37		19:43	28	07:50 (13)	20:46	06:21 (16)	21:44
2	08:42	08:04	06:58		06:35		07:22 (13)	05:19	05:54 (16)	04:23
	15:38	16:36	17:39		19:45	26	07:48 (13)	20:48	06:21 (16)	21:45
3	08:42	08:02	06:56		06:33		07:23 (13)	05:17	05:54 (16)	04:22
	15:39	16:39	17:41		19:47	23	07:46 (13)	20:50	06:21 (16)	21:47
4	08:41	08:00	06:53		06:30		07:25 (13)	05:14	05:54 (16)	04:21
	15:40	16:41	17:44		19:49	20	07:45 (13)	20:52	06:21 (16)	21:48
5	08:41	07:57	06:51		06:27		07:26 (13)	05:12	05:54 (16)	04:20
	15:42	16:43	17:46		19:52	16	07:42 (13)	20:55	06:21 (16)	21:49
6	08:40	07:55	06:48		06:25		07:28 (13)	05:10	05:54 (16)	04:19
	15:43	16:45	17:48		19:54	10	07:38 (13)	20:57	06:20 (16)	21:51
7	08:40	07:53	06:45		06:22		05:08	05:08	05:54 (16)	04:18
	15:45	16:48	17:50		19:56		20:59	26	06:20 (16)	21:52
8	08:39	07:51	06:43		06:19		05:05	05:55 (16)	04:17	05:03 (15)
	15:46	16:50	17:52		19:58		21:01	24	06:19 (16)	21:53
9	08:38	07:49	06:40		06:17		05:03	05:55 (16)	04:16	05:03 (15)
	15:48	16:52	17:54		20:00		21:03	23	06:18 (16)	21:54
10	08:37	07:47	06:37		06:14		05:01	05:56 (16)	04:16	05:02 (15)
	15:49	16:54	17:57		20:02		21:05	21	06:17 (16)	21:55
11	08:36	07:44	06:35		06:12		04:59	05:57 (16)	04:15	05:03 (15)
	15:51	16:57	17:59		20:04		21:07	19	06:16 (16)	21:56
12	08:35	07:42	06:32		06:09		04:57	05:58 (16)	04:15	05:02 (15)
	15:53	16:59	18:01		20:06		21:09	17	06:15 (16)	21:57
13	08:34	07:40	06:29		06:06		04:55	05:59 (16)	04:14	05:02 (15)
	15:55	17:01	18:03		20:08		21:11	14	06:13 (16)	21:58
14	08:33	07:38	06:27		06:04		04:53	06:01 (16)	04:14	05:02 (15)
	15:57	17:03	18:05		20:10		21:13	9	06:10 (16)	21:58
15	08:32	07:35	06:24		06:01		04:51		04:14	05:03 (15)
	15:58	17:06	18:07		20:13		21:15		21:59	05:36 (15)
16	08:31	07:33	06:21		05:58		04:49		04:13	05:03 (15)
	16:00	17:08	18:09		20:15		21:17		22:00	05:37 (15)
17	08:30	07:31	06:19		05:56		04:47		04:13	05:03 (15)
	16:02	17:10	18:12		20:17		21:19		22:00	05:37 (15)
18	08:29	07:28	06:16		05:53		04:45		04:13	05:03 (15)
	16:04	17:13	18:14		20:19		21:20		22:01	05:38 (15)
19	08:27	07:26	06:13		05:51		04:43		04:13	05:03 (15)
	16:06	17:15	18:16	7	06:46 (13)		21:22		22:01	05:38 (15)
20	08:26	07:23	06:11		06:36 (13)		05:48		04:13	05:03 (15)
	16:08	17:17	18:18	12	06:48 (13)		21:24		22:01	05:38 (15)
21	08:24	07:21	06:08		06:33 (13)		05:46		04:13	05:03 (15)
	16:10	17:19	18:20	17	06:50 (13)		21:26		22:02	05:38 (15)
22	08:23	07:18	06:05		06:31 (13)		05:43		04:13	05:03 (15)
	16:12	17:21	18:22	21	06:52 (13)		21:28		22:02	05:38 (15)
23	08:21	07:16	06:02		06:28 (13)		05:41	06:08 (16)	04:37	04:14
	16:14	17:24	18:24	24	06:52 (13)		21:29	7	06:15 (16)	21:30
24	08:20	07:14	06:00		06:25 (13)		05:38	06:05 (16)	04:35	04:14
	16:17	17:26	18:26	27	06:52 (13)		21:32	11	06:16 (16)	21:31
25	08:18	07:11	05:57		06:23 (13)		05:36	06:03 (16)	04:33	04:14
	16:19	17:28	18:28	29	06:52 (13)		21:34	15	06:18 (16)	21:33
26	08:16	07:08	05:54		06:23 (13)		05:33	06:01 (16)	04:32	04:15
	16:21	17:30	18:31	30	06:53 (13)		21:36	19	06:20 (16)	21:35
27	08:15	07:06	05:52		06:22 (13)		05:31	05:58 (16)	04:30	04:15
	16:23	17:33	18:33	30	06:52 (13)		21:38	22	06:20 (16)	21:36
28	08:13	07:03	05:49		06:21 (13)		05:28	05:56 (16)	04:29	04:16
	16:25	17:35	18:35	31	06:52 (13)		21:40	24	06:20 (16)	21:38
29	08:11		06:46		07:22 (13)		05:26	05:55 (16)	04:28	05:15 (15)
	16:27		19:37	30	07:52 (13)		21:42	26	06:21 (16)	21:40
30	08:09		06:44		07:21 (13)		05:24	05:55 (16)	04:26	05:11 (15)
	16:30		19:39	30	07:51 (13)		21:44	27	06:22 (16)	21:41
31	08:07		06:41		07:21 (13)		04:25		05:09 (15)	22:01
	16:32		19:41	29	07:50 (13)		21:43	16	05:25 (15)	05:39 (15)
Möjliga soltimmar	234	265	366		427		509		530	
Totalt, värsta fall				317		274		346		942
Sol reduktion				0,22		0,43		0,54		0,43
Drifttid red.				1,00		1,00		1,00		1,00
Vindrikt. red.				0,09		0,22		0,34		0,57
Total reduktion				0,02		0,09		0,17		0,23
Total, verklig				6		24		60		217

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	05:07 (15) 21:19	06:08 (16) 20:04		07:07 18:43	08:15 15:33
2	04:19 22:00	05:08 (15) 21:17	06:07 (16) 20:02		07:09 18:40	08:17 15:32
3	04:20 22:00	05:07 (15) 21:15	06:06 (16) 19:59		07:11 18:38	08:19 15:31
4	04:21 21:59	05:08 (15) 21:13	06:05 (16) 19:56		07:13 18:35	08:21 15:31
5	04:22 21:58	05:09 (15) 21:10	06:04 (16) 19:54		07:15 18:32	08:22 15:30
6	04:23 21:58	05:10 (15) 21:08	06:04 (16) 19:51	07:24 (13)	07:18 18:30	08:24 15:29
7	04:24 21:57	05:10 (15) 21:06	06:03 (16) 19:48	07:21 (13)	07:20 18:27	08:25 15:29
8	04:25 21:56	05:11 (15) 21:04	06:03 (16) 19:46	07:19 (13)	07:22 18:24	08:27 15:28
9	04:26 21:55	05:13 (15) 21:01	06:03 (16) 19:43	07:17 (13)	07:24 18:22	08:28 15:27
10	04:27 21:54	05:14 (15) 20:59	06:03 (16) 19:40	07:16 (13)	07:26 18:19	08:29 15:27
11	04:29 21:53	05:15 (15) 20:57	06:02 (16) 19:37	07:15 (13)	07:28 18:17	08:31 15:27
12	04:30 21:52	05:16 (15) 20:55	06:02 (16) 19:35	07:14 (13)	07:30 18:14	08:32 15:26
13	04:32 21:50	05:18 (15) 20:52	06:03 (16) 19:32	07:13 (13)	07:32 18:11	08:33 15:26
14	04:33 21:49	05:21 (15) 20:50	06:03 (16) 19:29	07:12 (13)	07:34 18:09	08:34 15:26
15	04:34 21:48	05:30 (15) 20:47	06:04 (16) 19:27	07:12 (13)	07:36 18:06	08:35 15:26
16	04:36 21:47	05:34 20:45	06:06 (16) 19:24	07:12 (13)	07:39 18:04	08:36 15:26
17	04:38 21:45	05:36 20:43	06:08 (16) 19:21	07:11 (13)	07:41 18:01	08:37 15:26
18	04:39 21:44	05:38 20:40	06:10 (16) 19:18	07:10 (13)	07:43 17:59	08:38 15:26
19	04:41 21:42	05:40 20:38	06:12 (16) 19:16	07:11 (13)	07:45 17:56	08:39 15:26
20	04:42 21:41	05:42 20:35	06:13 (16) 19:13	07:13 (13)	07:47 17:54	08:39 15:27
21	04:44 21:39	05:44 20:33	06:19 (16) 19:10	07:38 (13)	07:54 17:51	08:40 15:27
22	04:46 21:37	05:46 20:30	06:47 19:08	07:15 (13)	07:49 17:49	08:40 15:28
23	04:48 21:36	05:48 20:28	06:51 19:05	07:35 (13)	07:54 17:46	08:41 15:28
24	04:49 21:34	05:50 20:25	06:53 19:02	07:33 (13)	07:56 17:44	08:41 15:29
25	04:51 21:32	05:52 20:22	06:55 18:59	07:21 (13)	07:58 17:42	08:42 15:29
26	04:53 21:30	05:54 20:20	06:57 18:57	07:24 (13)	07:59 17:41	08:42 15:29
27	04:55 21:29	05:56 20:17	06:59 18:54	07:25 (13)	08:00 17:40	08:42 15:29
28	04:57 21:27	05:59 20:15	07:01 18:51		08:06 17:39	08:42 15:30
29	04:59 21:25	06:01 20:12	07:03 18:49		08:08 17:38	08:42 15:31
30	05:00 21:23	06:11 (16) 20:09	07:05 18:46		08:10 17:37	08:42 15:32
31	05:02 21:21	06:09 (16) 20:07			08:12 17:34	08:42 15:33
Möjliga soltimmar	531	470	385	323	246	215
Totalt, värsta fall	369	441	444			
Sol reduktion	0,39	0,36	0,31			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,55	0,32	0,09			
Total reduktion	0,20	0,11	0,03			
Total, verklig	74	47	11			

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 7Skuggmottagare: L - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (104) 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

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	19:18 (13) 19:57 (13)	04:24 21:44	04:18 22:00	05:04 21:19	19:27 (13) 20:08 (13)	07:07 18:43	07:13 16:25
2	08:42 15:37	08:03 16:36	06:58 17:39	06:35 19:45	05:19 20:48	19:18 (13) 19:57 (13)	04:23 21:45	04:19 22:00	05:06 21:17	19:27 (13) 20:08 (13)	07:09 18:40	07:15 16:22
3	08:41 15:39	08:01 16:38	06:56 17:41	06:33 19:47	05:16 20:50	19:18 (13) 19:58 (13)	04:22 21:47	04:20 21:59	05:08 21:14	19:27 (13) 20:08 (13)	06:11 18:38	07:17 16:20
4	08:41 15:40	07:59 16:41	06:53 17:43	06:30 19:49	05:14 20:52	19:17 (13) 19:58 (13)	04:21 21:48	04:20 21:59	05:10 21:12	19:26 (13) 20:08 (13)	06:13 18:35	07:13 16:18
5	08:40 15:41	07:57 16:43	06:50 17:46	06:27 19:51	05:12 20:54	19:17 (13) 19:58 (13)	04:20 21:49	04:21 21:58	05:12 21:10	19:26 (13) 20:08 (13)	06:15 18:32	07:15 16:16
6	08:40 15:43	07:55 16:45	06:48 17:48	06:25 19:53	05:10 20:56	19:17 (13) 19:58 (13)	04:19 21:50	04:23 21:57	05:14 21:08	19:26 (13) 20:08 (13)	06:17 18:30	07:17 16:14
7	08:39 15:44	07:53 16:47	06:45 17:50	06:22 19:56	05:07 20:59	19:17 (13) 19:58 (13)	04:18 21:52	04:24 21:56	05:16 21:06	19:26 (13) 20:08 (13)	06:19 18:27	07:19 16:12
8	08:39 15:46	07:51 16:50	06:42 17:52	06:19 19:58	05:05 21:01	19:17 (13) 19:58 (13)	04:17 21:53	04:25 21:56	05:18 21:04	19:27 (13) 20:08 (13)	06:21 18:45	07:22 16:10
9	08:38 15:48	07:49 16:52	06:40 17:54	06:17 20:00	05:03 21:03	19:17 (13) 19:58 (13)	04:16 21:54	04:26 21:55	05:20 21:01	19:27 (13) 20:07 (13)	06:23 18:43	07:24 16:08
10	08:37 15:49	07:47 16:54	06:37 17:56	06:14 20:02	05:01 21:05	19:17 (13) 19:58 (13)	04:16 21:55	04:27 21:54	05:22 20:59	19:26 (13) 20:06 (13)	06:25 18:40	07:26 16:06
11	08:36 15:51	07:44 16:57	06:35 17:59	06:11 20:04	04:59 21:07	19:17 (13) 19:58 (13)	04:15 21:56	04:29 21:53	05:24 20:57	19:27 (13) 20:05 (13)	06:27 18:37	07:28 16:04
12	08:35 15:53	07:42 16:59	06:32 18:01	06:09 20:06	04:57 21:09	19:17 (13) 19:57 (13)	04:15 21:57	04:30 21:51	05:26 20:54	19:27 (13) 20:05 (13)	06:29 18:35	07:30 16:02
13	08:34 15:55	07:40 17:01	06:29 18:03	06:06 20:08	04:55 21:11	19:17 (13) 19:57 (13)	04:14 21:57	04:31 21:50	05:28 19:43 (13)	19:28 (13) 20:04 (13)	06:31 18:32	07:32 16:00
14	08:33 15:56	07:37 17:03	06:27 18:05	06:03 20:10	04:53 21:13	19:17 (13) 19:57 (13)	04:14 21:58	04:33 21:49	05:30 19:42 (13)	19:28 (13) 20:03 (13)	06:33 18:29	07:34 15:58
15	08:32 15:58	07:35 17:06	06:24 18:07	06:01 20:12	04:51 21:15	19:18 (13) 19:57 (13)	04:13 21:59	04:34 21:48	05:32 19:40 (13)	19:29 (13) 20:02 (13)	06:35 18:06	07:36 15:56
16	08:31 16:00	07:33 17:08	06:21 18:09	05:58 20:15	04:49 21:16	19:18 (13) 19:56 (13)	04:13 21:59	04:36 21:46	05:34 19:38 (13)	19:30 (13) 20:01 (13)	06:37 18:24	07:38 15:54
17	08:30 16:02	07:30 17:10	06:18 18:11	05:56 20:17	04:47 21:18	19:19 (13) 19:56 (13)	04:13 22:00	04:37 21:45	05:36 19:37 (13)	19:31 (13) 20:00 (13)	06:39 18:21	07:40 15:53
18	08:28 16:04	07:28 17:12	06:16 18:14	05:53 20:19	04:45 21:20	19:20 (13) 19:56 (13)	04:13 22:00	04:39 21:44	05:38 19:36 (13)	19:32 (13) 20:02 (13)	06:41 18:18	07:43 15:51
19	08:27 16:06	07:26 17:15	06:13 18:16	05:51 20:21	04:43 21:22	19:20 (13) 19:55 (13)	04:41 22:01	05:40 21:42	05:40 19:35 (13)	20:01 (13) 20:37	06:43 18:16	07:45 15:52
20	08:26 16:08	07:23 17:17	06:10 18:18	05:48 20:23	04:42 21:24	19:21 (13) 19:54 (13)	04:13 22:01	05:42 21:41	05:42 19:34 (13)	20:02 (13) 20:35	06:45 18:13	07:47 15:48
21	08:24 16:10	07:21 17:19	06:08 18:20	05:46 20:25	04:40 21:26	19:22 (13) 19:54 (13)	04:13 22:01	05:44 21:39	05:44 20:03 (13)	20:33 (13) 20:32	06:47 19:10	07:49 15:51
22	08:23 16:12	07:18 17:21	06:05 18:22	05:43 20:27	04:38 21:28	19:22 (13) 19:52 (13)	04:13 22:02	05:46 21:37	05:46 19:32 (13)	20:03 (13) 20:30	06:49 18:07	07:51 15:44
23	08:21 16:14	07:16 17:24	06:02 18:24	05:41 20:29	04:36 21:29	19:24 (13) 19:52 (13)	04:13 22:02	05:47 21:36	05:48 20:04 (13)	20:27	06:51 18:05	07:53 15:43
24	08:20 16:16	07:13 17:26	06:00 18:26	05:38 20:31	04:35 21:31	19:25 (13) 19:50 (13)	04:14 22:02	05:49 21:34	05:50 20:04 (13)	20:25	06:53 18:02	07:56 15:42
25	08:18 16:19	07:11 17:28	05:57 18:28	05:36 20:33	04:33 21:33	19:26 (13) 19:50 (13)	04:14 22:02	05:51 21:32	05:52 20:05 (13)	20:22	06:55 18:59	06:58 16:41
26	08:16 16:21	07:08 17:30	05:54 18:30	05:33 20:36	04:32 21:35	19:27 (13) 19:50 (13)	04:15 22:02	05:53 21:30	05:54 20:06 (13)	20:20	06:57 18:57	07:00 16:39
27	08:15 16:23	07:06 17:32	05:51 18:32	05:31 20:38	04:30 21:36	19:29 (13) 19:49 (13)	04:15 22:02	05:56 21:28	05:56 20:29 (13)	20:17	06:59 18:54	07:02 16:36
28	08:13 16:25	07:03 17:35	05:49 18:35	05:28 20:40	04:29 21:38	19:30 (13) 19:48 (13)	04:16 22:01	05:57 21:27	05:58 20:07 (13)	20:15	07:01 18:51	07:04 16:34
29	08:11 16:27	07:01 17:37	05:46 18:30	05:26 20:42	04:28 21:39	19:32 (13) 19:46 (13)	04:16 22:01	05:58 21:25	06:00 20:27 (13)	20:12	07:03 18:48	07:06 16:32
30	08:09 16:29	07:00 17:39	05:43 18:39	05:23 20:44	04:26 21:41	19:33 (13) 19:44 (13)	04:17 22:01	06:00 21:23	06:02 20:08 (13)	20:09	07:05 18:46	07:09 16:29
31	08:07 16:32	07:00 17:41	05:41 18:41	05:21 20:44	04:25 21:42	19:38 (13) 19:40 (13)	05:02 21:21	06:04 21:21	06:04 20:07 (13)	20:07	07:11 16:27	07:13 15:35
Möjliga soltimmar	234	265	366	427	509	530	531	470	385	323	246	215
Totalt, värsta fall				241	1013		546	720				
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				32	168		65	79				

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 7Skuggmottagare: 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

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	32	19:28 (13) 20:00 (13)	04:24 21:44	04:18 22:00	05:04 21:19	22	19:43 (13) 20:05 (13)	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	32	19:28 (13) 20:00 (13)	04:23 21:45	04:19 22:00	05:06 21:17	24	19:42 (13) 20:06 (13)	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	32	19:28 (13) 20:00 (13)	04:22 21:47	04:20 21:59	05:08 21:14	26	19:41 (13) 20:07 (13)	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	32	19:28 (13) 20:00 (13)	04:21 21:48	04:20 21:59	05:10 21:12	28	19:39 (13) 20:07 (13)	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	31	19:28 (13) 19:59 (13)	04:20 21:49	04:21 21:58	05:12 21:10	28	19:39 (13) 20:07 (13)	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	30	19:29 (13) 19:59 (13)	04:19 21:50	04:23 21:57	05:14 21:08	30	19:38 (13) 20:08 (13)	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	30	19:29 (13) 19:59 (13)	04:18 21:52	04:24 21:56	05:16 21:06	30	19:38 (13) 20:08 (13)	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	28	19:30 (13) 19:58 (13)	04:17 21:53	04:25 21:56	05:18 21:04	31	19:38 (13) 20:09 (13)	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	27	19:30 (13) 19:57 (13)	04:16 21:54	04:26 21:55	05:20 21:01	32	19:37 (13) 20:09 (13)	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	25	19:31 (13) 19:56 (13)	04:16 21:55	04:27 21:54	05:22 20:59	32	19:36 (13) 20:08 (13)	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	23	19:32 (13) 19:55 (13)	04:15 21:56	04:29 21:53	05:24 20:57	32	19:36 (13) 20:08 (13)	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	21	19:33 (13) 19:54 (13)	04:15 21:57	04:30 21:51	05:26 20:54	32	19:36 (13) 20:08 (13)	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	19:34 (13) 19:53 (13)	04:14 21:57	04:31 21:50	05:28 20:52	32	19:36 (13) 20:08 (13)	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	16	19:35 (13) 19:51 (13)	04:14 21:58	04:33 21:49	05:30 20:50	30	19:37 (13) 20:07 (13)	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	12	19:38 (13) 19:50 (13)	04:13 21:59	04:34 21:48	05:32 20:47	30	19:37 (13) 20:07 (13)	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	4	19:42 (13) 19:46 (13)	04:13 21:59	04:36 21:46	05:34 20:45	29	19:37 (13) 20:06 (13)	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	27	19:38 (13) 20:05 (13)	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		04:45 21:20		04:13 22:00	04:39 21:44	04:39 21:44	05:38 20:40	25	19:38 (13) 20:03 (13)	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		04:43 21:22		04:13 22:01	04:41 21:42	04:41 21:42	05:40 20:37	23	19:39 (13) 20:02 (13)	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		04:42 21:24		04:13 22:01	04:42 21:40	04:42 21:40	05:42 20:35	21	19:40 (13) 20:01 (13)	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	12	04:40 19:51 (13)		04:13 22:01	04:44 21:39	04:44 21:39	05:44 20:32	16	19:42 (13) 19:58 (13)	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	17	04:38 19:37 (13)		04:13 22:02	04:46 21:37	04:46 21:37	05:46 20:30	12	19:44 (13) 19:56 (13)	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	21	04:36 19:34 (13)		04:13 22:02	04:47 21:36	04:47 21:36	05:48 20:27		06:51 19:05	06:51 17:46	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	24	04:35 19:33 (13)		04:14 22:02	04:49 21:34	04:49 21:34	05:50 20:25		06:53 19:02	06:53 17:44	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	26	04:33 19:32 (13)		04:14 22:02	04:51 21:32	04:51 21:32	05:52 20:22		06:55 18:59	06:55 16:41	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	28	04:33 19:30 (13)		04:15 22:02	04:53 21:30	04:53 21:30	05:54 20:20		06:57 18:56	06:57 16:39	07:00 16:39	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	29	04:30 19:29 (13)		04:15 22:02	04:55 21:28	04:55 21:28	05:56 20:17		06:59 18:54	06:59 16:36	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	31	04:29 20:00 (13)		04:16 22:01	04:56 21:27	04:56 21:27	05:58 20:14	8	19:50 (13) 19:58 (13)	07:01 20:12	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	31	04:28 20:00 (13)		04:16 22:01	04:58 21:25	04:58 21:25	06:00 20:12		14	20:01 (13)	06:00 16:32	08:12 15:35	08:42 15:33	
30	08:09 16:29		06:43 19:39	05:23 20:44	31	04:26 19:28 (13)		04:17 22:01	05:00 21:23	05:00 21:23	06:02 20:09			17	20:03 (13)	06:02 16:29	08:14 15:34	08:42 15:34
31	08:07 16:32		06:41 19:41			04:25 21:42			05:02 21:21	05:02 21:21	06:04 20:04 (13)				18:46 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				250		394				59		592						
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				33		66				7		66						

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	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	04:21	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	06:14	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	04:22	05:14	06:17	07:17	07:24	08:23
	15:43	16:45	17:48	19:53	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	05:07	04:18	04:24	05:16	06:19	07:19	07:26	08:25
	15:44	16:47	17:50	19:56	20:58	21:52	21:56	21:06	19:48	18:27	16:12	15:28
8	08:39	07:51	06:42	06:19	05:05	04:17	04:25	05:18	06:21	07:21	07:28	08:26
	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	16:07	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	16:05	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	21:56	21:51	20:54	19:34	18:14	16:02	15:26
13	08:34	07:40	06:29	06:06	04:55	04:14	04:31	05:28	06:31	07:32	07:39	08:33
	15:54	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
15	08:32	07:35	06:24	06:01	04:51	04:13	04:34	05:32	06:35	07:36	07:44	08:35
	15:58	17:06	18:07	20:12	21:14	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	20:14	21:16	21:59	21:46	20:45	19:24	18:03	15:54	15:26
17	08:30	07:30	06:18	05:56	04:47	04:13	04:37	05:36	06:39	07:40	07:48	08:37
	16:02	17:10	18:11	20:17	21:18	22:00	21:45	20:42	19:21	18:01	15:52	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
20	08:26	07:23	06:10	05:48	04:41	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	21:40	20:35	19:13	17:53	15:47	15:27
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
	16:12	17:21	18:22	20:27	21:28	22:02	21:37	20:30	19:07	17:48	15:44	15:27
23	08:21	07:16	06:02	05:40	04:36	04:13	04:47	05:48	06:51	07:53	08:00	08:41
	16:14	17:23	18:24	20:29	21:29	22:02	21:36	20:27	19:05	17:46	15:43	15:28
24	08:19	07:13	06:00	05:38	04:35	04:14	04:49	05:50	06:53	07:55	08:02	08:41
	16:16	17:26	18:26	20:31	21:31	22:02	21:34	20:25	19:02	17:43	15:41	15:28
25	08:18	07:11	05:57	05:35	04:33	04:14	04:51	05:52	06:55	06:58	08:04	08:42
	16:18	17:28	18:28	20:33	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	20:35	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
	16:23	17:32	18:32	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	04:56	05:58	07:01	07:04	08:10	08:42
	16:25	17:35	18:34	20:40	21:38	22:01	21:26	20:14	18:51	16:34	15:36	15:32
29	08:11		06:46	05:26	04:27	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	05:23	04:26	04:17	05:00	06:02	07:05	07:09	08:13	08:42
	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)
-------------	---------------------	---------------------	---------------------	--------------------------------------	-------------------------------------	-----------------------------------	----------------------------------

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: O - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (107)
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 24	09:35 (3) 08:06 09:59 (3) 16:34	09:41 (3) 07:01 10:14 (3) 17:37	08:19 (7) 06:38 08:37 (7) 19:43	07:44 (19) 05:21 07:58 (19) 20:47	04:24 21:44
2	08:42 15:38 26	09:35 (3) 08:04 10:01 (3) 16:36	09:42 (3) 06:59 10:13 (3) 17:39	08:21 (7) 06:36 08:33 (7) 19:45	07:49 (19) 05:19 07:52 (19) 20:49	04:23 21:46
3	08:42 15:39 26	09:35 (3) 08:02 10:01 (3) 16:39	09:43 (3) 06:56 10:12 (3) 17:42	06:33 19:48	05:17 20:51	04:22 21:47
4	08:41 15:40 28	09:35 (3) 08:00 10:03 (3) 16:41	09:44 (3) 06:53 10:11 (3) 17:44	06:30 19:50	05:14 20:53	04:21 21:49
5	08:41 15:42 29	09:35 (3) 07:58 10:04 (3) 16:43	09:46 (3) 06:51 10:09 (3) 17:46	06:28 19:52	05:12 20:55	04:20 21:50
6	08:40 15:43 29	09:35 (3) 07:56 10:04 (3) 16:45	09:49 (3) 06:48 10:08 (3) 17:48	06:25 19:54	05:10 20:57	04:19 21:51
7	08:40 15:45 30	09:35 (3) 07:54 10:05 (3) 16:48	09:51 (3) 06:45 10:04 (3) 17:50	06:22 19:56	05:08 20:59	04:18 21:52
8	08:39 15:46 31	09:35 (3) 07:51 10:06 (3) 16:50	08:26 (7) 06:43 08:32 (7) 17:52	06:20 19:58	05:06 21:01	04:17 21:53
9	08:38 15:48 32	09:35 (3) 07:49 10:07 (3) 16:52	08:23 (7) 06:40 08:37 (7) 17:55	06:17 20:00	05:03 21:03	04:17 21:54
10	08:38 15:50 33	09:35 (3) 07:47 10:08 (3) 16:55	08:20 (7) 06:38 08:39 (7) 17:57	06:14 20:02	05:01 21:05	04:16 21:55
11	08:37 15:51 34	09:35 (3) 07:45 10:09 (3) 16:57	08:18 (7) 06:35 08:41 (7) 17:59	06:12 20:04	04:59 21:07	04:15 21:56
12	08:36 15:53 35	09:35 (3) 07:43 10:10 (3) 16:59	08:16 (7) 06:32 08:42 (7) 18:01	06:09 20:07	04:57 21:09	04:15 21:57
13	08:35 15:55 35	09:35 (3) 07:40 10:10 (3) 17:01	08:16 (7) 06:30 08:43 (7) 18:03	06:06 20:09	04:55 21:11	04:14 21:58
14	08:34 15:57 36	09:35 (3) 07:38 10:11 (3) 17:04	08:14 (7) 06:27 08:44 (7) 18:05	06:04 20:11	04:53 21:13	04:14 21:59
15	08:33 15:58 37	09:35 (3) 07:36 10:12 (3) 17:06	08:14 (7) 06:24 08:45 (7) 18:08	06:55 (19) 06:01 06:59 (19) 20:13	04:51 21:15	04:14 21:59
16	08:31 16:00 37	09:35 (3) 07:33 10:12 (3) 17:08	08:13 (7) 06:22 08:45 (7) 18:10	06:50 (19) 05:59 07:03 (19) 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02 37	09:35 (3) 07:31 10:12 (3) 17:10	08:13 (7) 06:19 08:46 (7) 18:12	06:47 (19) 05:56 07:05 (19) 20:17	04:47 21:19	04:13 22:01
18	08:29 16:04 38	09:35 (3) 07:29 10:13 (3) 17:13	08:12 (7) 06:16 08:45 (7) 18:14	06:45 (19) 05:53 07:07 (19) 20:19	04:45 21:21	04:13 22:01
19	08:28 16:06 39	09:35 (3) 07:26 10:14 (3) 17:15	08:13 (7) 06:13 08:46 (7) 18:16	06:44 (19) 05:51 07:08 (19) 20:21	04:44 21:23	04:13 22:01
20	08:26 16:08 39	09:36 (3) 07:24 10:15 (3) 17:17	08:12 (7) 06:11 08:46 (7) 18:18	06:42 (19) 05:48 07:08 (19) 20:23	04:42 21:25	04:13 22:02
21	08:25 16:10 39	09:36 (3) 07:21 10:15 (3) 17:19	08:13 (7) 06:08 08:46 (7) 18:20	06:41 (19) 05:46 07:08 (19) 20:26	04:40 21:26	04:13 22:02
22	08:23 16:12 39	09:36 (3) 07:19 10:15 (3) 17:22	08:12 (7) 06:05 08:45 (7) 18:22	06:41 (19) 05:43 07:09 (19) 20:28	04:38 21:28	04:13 22:02
23	08:22 16:15 39	09:36 (3) 07:16 10:15 (3) 17:24	08:12 (7) 06:03 08:44 (7) 18:24	06:40 (19) 05:41 07:08 (19) 20:30	04:37 21:30	04:14 22:02
24	08:20 16:17 39	09:36 (3) 07:14 10:15 (3) 17:26	08:13 (7) 06:00 08:44 (7) 18:27	06:39 (19) 05:38 07:08 (19) 20:32	04:35 21:32	04:14 22:02
25	08:18 16:19 38	09:37 (3) 07:11 10:15 (3) 17:28	08:13 (7) 05:57 08:43 (7) 18:29	06:40 (19) 05:36 07:08 (19) 20:34	04:33 21:33	04:14 22:02
26	08:17 16:21 38	09:37 (3) 07:09 10:15 (3) 17:31	08:15 (7) 05:55 08:42 (7) 18:31	06:39 (19) 05:33 07:07 (19) 20:36	04:32 21:35	04:15 22:02
27	08:15 16:23 38	09:37 (3) 07:06 10:15 (3) 17:33	08:15 (7) 05:52 08:41 (7) 18:33	06:39 (19) 05:31 07:06 (19) 20:38	04:31 21:37	04:15 22:02
28	08:13 16:25 37	09:38 (3) 07:04 10:15 (3) 17:35	08:16 (7) 05:49 08:38 (7) 18:35	06:39 (19) 05:29 07:05 (19) 20:40	04:29 21:38	04:16 22:02
29	08:11 16:28 36	09:39 (3) 07:01 10:15 (3) 17:37	06:46 19:37	07:40 (19) 05:26 08:04 (19) 20:42	04:28 21:40	04:17 22:02
30	08:10 16:30 36	09:39 (3) 06:59 10:15 (3) 17:39	06:44 19:39	07:41 (19) 05:24 08:02 (19) 20:44	04:26 21:41	04:17 22:01
31	08:08 16:32 34	09:40 (3) 06:57 10:14 (3) 17:41	06:41 19:41	07:42 (19) 05:22 08:00 (19) 20:46	04:25 21:43	04:17 22:01
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1068	750	421	17		
Sol reduktion	0,18	0,16	0,22	0,43		
Drifttid red.	1,00	1,00	1,00	1,00		
Vindrikt. red.	0,85	0,63	0,19	0,16		
Total reduktion	0,17	0,11	0,05	0,07		
Total, verklig	178	83	19	1		

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	05:04	06:07	07:07	07:14	07:50 (7) 08:16
	22:01	21:19	20:04	18:43	16:25	18 08:08 (7) 15:33
2	04:19	05:06	06:09	07:10	07:16	07:52 (7) 08:18
	22:01	21:17	20:02	18:41	16:23	13 08:05 (7) 15:32
3	04:20	05:08	06:11	07:12	07:18	07:57 (7) 08:19
	22:00	21:15	19:59	18:38	16:21	4 08:01 (7) 15:32
4	04:21	05:10	06:13	07:14	07:20	09:20 (3) 08:21
	21:59	21:13	19:56	18:35	16:18	14 09:34 (3) 15:31
5	04:22	05:12	06:15	07:16	07:22	09:18 (3) 08:22
	21:59	21:11	19:54	18:33	16:16	20 09:38 (3) 15:30
6	04:23	05:14	06:17	07:18	07:25	09:16 (3) 08:24
	21:58	21:08	19:51	18:30	16:14	23 09:39 (3) 15:29
7	04:24	05:16	06:19	07:20	07:27	09:15 (3) 08:26
	21:57	21:06	19:48	18:27	16:12	27 09:42 (3) 15:29
8	04:25	05:18	06:21	07:22	07:29	09:13 (3) 08:27
	21:56	21:04	19:46	18:25	16:10	30 09:43 (3) 15:28
9	04:26	05:20	06:23	07:24	07:31	09:13 (3) 08:28
	21:55	21:02	19:43	18:22	16:08	31 09:44 (3) 15:28
10	04:28	05:22	06:25	07:26	07:33	09:12 (3) 08:30
	21:54	20:59	19:40	18:19	16:06	33 09:45 (3) 15:27
11	04:29	05:24	06:27	07:28	07:35	09:11 (3) 08:31
	21:53	20:57	19:38	18:17	16:04	34 09:45 (3) 15:27
12	04:30	05:26	06:29	07:30	07:38	09:11 (3) 08:32
	21:52	20:55	19:35	18:14	16:02	36 09:47 (3) 15:26
13	04:32	05:28	06:31	07:32	07:40	09:10 (3) 08:33
	21:51	20:52	19:32	18:12	16:00	37 09:47 (3) 15:26
14	04:33	05:30	06:33	07:35	07:42	09:11 (3) 08:34
	21:50	20:50	19:30	18:09	15:58	37 09:48 (3) 15:26
15	04:35	05:32	06:35	07:37	07:44	09:10 (3) 08:36
	21:48	20:48	19:27	18:06	15:56	38 09:48 (3) 15:26
16	04:36	05:34	06:37	07:39	07:46	09:10 (3) 08:36
	21:47	20:45	19:24	18:04	15:55	38 09:48 (3) 15:26
17	04:38	05:36	06:39	07:41	07:48	09:11 (3) 08:37
	21:46	20:43	19:21	18:01	15:53	38 09:49 (3) 15:26
18	04:39	05:38	06:41	07:43	07:50	09:10 (3) 08:38
	21:44	20:40	19:19	17:59	15:51	39 09:49 (3) 15:26
19	04:41	05:40	06:43	07:45	07:53	09:11 (3) 08:39
	21:43	20:38	19:16	17:56	15:49	39 09:50 (3) 15:26
20	04:42	05:42	06:45	07:47	07:55	09:11 (3) 08:40
	21:41	20:35	19:13	17:54	15:48	39 09:50 (3) 15:27
21	04:44	05:44	06:47	07:49	07:57	09:11 (3) 08:40
	21:39	20:33	19:10	17:51	15:46	39 09:50 (3) 15:27
22	04:46	05:46	06:49	07:52	07:59	09:12 (3) 08:41
	21:38	20:30	19:08	17:49	15:45	39 09:51 (3) 15:28
23	04:48	05:49	06:51	07:54	08:01	09:12 (3) 08:41
	21:36	20:28	19:05	17:46	15:43	39 09:51 (3) 15:28
24	04:49	05:51	06:53	07:56	08:03	09:12 (3) 08:42
	21:34	20:25	19:02	17:44	15:42	38 09:50 (3) 15:29
25	04:51	05:53	06:55	06:58	08:05	09:13 (3) 08:42
	21:33	20:23	19:00	16:41	15:40	37 09:50 (3) 15:29
26	04:53	05:55	06:57	07:00	08:07	09:13 (3) 08:42
	21:31	20:20	18:57	16:39	15:39	37 09:50 (3) 15:30
27	04:55	05:57	06:59	07:03	08:09	09:15 (3) 08:43
	21:29	20:18	18:54	16:37	15:38	36 09:51 (3) 15:31
28	04:57	05:59	07:01	07:05	08:10	09:15 (3) 08:43
	21:27	20:15	18:51	16:34	15:37	36 09:51 (3) 15:32
29	04:59	06:01	07:03	07:07	08:12	09:16 (3) 08:43
	21:25	20:12	18:49	16:32	15:36	35 09:51 (3) 15:33
30	05:01	06:03	07:05	07:09	08:14	09:16 (3) 08:43
	21:23	20:10	18:46	16:30	15:34	35 09:51 (3) 15:34
31	05:02	06:05		07:11	07:48	08:43
	21:21	20:07		16:27	08:10	22 15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			412	582	959	741
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,16	0,57	0,84	0,85
Total reduktion			0,05	0,16	0,15	0,12
Total, verklig			22	92	147	87

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42	11:15 (19) 08:06	09:21 (1) 07:01	07:55 (10) 06:38	07:23 (4) 05:21	04:24
	15:36 37	11:52 (19) 16:34 39	10:00 (1) 17:37	08:27 (10) 19:43	07:48 (4) 20:46	21:44
2	08:42	11:16 (19) 08:04	09:20 (1) 06:58	07:55 (10) 06:36	07:23 (4) 05:19	04:23
	15:38 37	11:53 (19) 16:36 41	10:01 (1) 17:39	08:27 (10) 19:45	07:47 (4) 20:49	21:46
3	08:42	11:16 (19) 08:02	09:19 (1) 06:56	07:54 (10) 06:33	07:23 (4) 05:17	04:22
	15:39 37	11:53 (19) 16:39 42	10:01 (1) 17:41	08:26 (10) 19:48	07:45 (4) 20:51	21:47
4	08:41	11:17 (19) 08:00	09:19 (1) 06:53	07:55 (10) 06:30	07:25 (4) 05:14	04:21
	15:40 37	11:54 (19) 16:41 42	10:01 (1) 17:44	08:26 (10) 19:50	07:44 (4) 20:53	21:49
5	08:41	11:18 (19) 07:58	09:19 (1) 06:51	07:55 (10) 06:28	07:26 (4) 05:12	04:20
	15:42 36	11:54 (19) 16:43 43	10:02 (1) 17:46	08:25 (10) 19:52	07:42 (4) 20:55	21:50
6	08:40	11:18 (19) 07:56	09:19 (1) 06:48	07:55 (10) 06:25	07:27 (4) 05:10	04:19
	15:43 36	11:54 (19) 16:45 44	10:03 (1) 17:48	08:24 (10) 19:54	07:39 (4) 20:57	21:51
7	08:40	11:19 (19) 07:53	09:19 (1) 06:45	07:56 (10) 06:22	05:08	04:18
	15:45 35	11:54 (19) 16:48 43	10:02 (1) 17:50	08:22 (10) 19:56	20:59	21:52
8	08:39	11:19 (19) 07:51	09:19 (1) 06:43	07:57 (10) 06:20	05:05	04:17
	15:46 35	11:54 (19) 16:50 44	10:03 (1) 17:52	08:21 (10) 19:58	21:01	21:53
9	08:38	11:20 (19) 07:49	09:18 (1) 06:40	07:58 (10) 06:17	05:03	04:16
	15:48 34	11:54 (19) 16:52 44	10:02 (1) 17:55	08:19 (10) 20:00	21:03	21:54
10	08:38	11:21 (19) 07:47	09:19 (1) 06:37	08:00 (10) 06:14	05:01	04:16
	15:49 33	11:54 (19) 16:54 44	10:03 (1) 17:57	08:16 (10) 20:02	21:05	21:55
11	08:37	11:22 (19) 07:45	09:19 (1) 06:35	08:05 (10) 06:12	04:59	04:15
	15:51 32	11:54 (19) 16:57 44	10:03 (1) 17:59	08:12 (10) 20:04	21:07	21:56
12	08:36	11:23 (19) 07:42	09:19 (1) 06:32	06:09	04:57	04:15
	15:53 31	11:54 (19) 16:59 43	10:02 (1) 18:01	20:06	21:09	21:57
13	08:35	11:23 (19) 07:40	09:20 (1) 06:30	06:06	04:55	04:14
	15:55 30	11:53 (19) 17:01 42	10:02 (1) 18:03	20:09	21:11	21:58
14	08:34	11:25 (19) 07:38	09:19 (1) 06:27	06:04	04:53	04:14
	15:56 28	11:53 (19) 17:04 42	10:01 (1) 18:05	20:11	21:13	21:59
15	08:33	11:25 (19) 07:36	09:20 (1) 06:24	06:01	04:51	04:13
	15:58 27	11:52 (19) 17:06 41	10:01 (1) 18:07	20:13	21:15	21:59
16	08:31	11:27 (19) 07:33	09:21 (1) 06:21	05:59	04:49	04:13
	16:00 25	11:52 (19) 17:08 39	10:00 (1) 18:10	20:15	21:17	22:00
17	08:30	11:28 (19) 07:31	09:22 (1) 06:19	05:56	04:47	04:13
	16:02 23	11:51 (19) 17:10 38	10:00 (1) 18:12	20:17	21:19	22:01
18	08:29	11:30 (19) 07:28	09:22 (1) 06:16	05:53	04:45	04:13
	16:04 21	11:51 (19) 17:13 36	09:58 (1) 18:14	20:19	21:21	22:01
19	08:28	11:32 (19) 07:26	08:07 (10) 06:13	05:51	04:43	04:13
	16:06 17	11:49 (19) 17:15 44	09:57 (1) 18:16	20:21	21:23	22:01
20	08:26	11:35 (19) 07:24	08:04 (10) 06:11	05:48	04:42	04:13
	16:08 11	11:46 (19) 17:17 46	09:55 (1) 18:18	20:23	21:25	22:02
21	08:25	07:21	08:02 (10) 06:08	05:46	04:40	04:13
	16:10	17:19 48	09:54 (1) 18:20	20:25	21:26	22:02
22	08:23	09:32 (1) 07:19	08:00 (10) 06:05	06:34 (4) 05:43	04:38	04:13
	16:12 12	09:44 (1) 17:22 47	09:51 (1) 18:22	10 06:44 (4) 20:28	21:28	22:02
23	08:22	09:30 (1) 07:16	07:58 (10) 06:03	06:31 (4) 05:41	04:37	04:13
	16:14 17	09:47 (1) 17:24 43	09:47 (1) 18:24	15 06:46 (4) 20:30	21:30	22:02
24	08:20	09:27 (1) 07:14	07:58 (10) 06:00	06:29 (4) 05:38	04:35	04:14
	16:17 22	09:49 (1) 17:26 28	08:26 (10) 18:26	19 06:48 (4) 20:32	21:32	22:02
25	08:18	09:26 (1) 07:11	07:56 (10) 05:57	06:27 (4) 05:36	04:33	04:14
	16:19 25	09:51 (1) 17:28 30	08:26 (10) 18:29	21 06:48 (4) 20:34	21:33	22:02
26	08:17	09:25 (1) 07:09	07:56 (10) 05:54	06:26 (4) 05:33	04:32	04:15
	16:21 28	09:53 (1) 17:30 31	08:27 (10) 18:31	23 06:49 (4) 20:36	21:35	22:02
27	08:15	09:24 (1) 07:06	07:55 (10) 05:52	06:25 (4) 05:31	04:30	04:15
	16:23 30	09:54 (1) 17:33 32	08:27 (10) 18:33	24 06:49 (4) 20:38	21:37	22:02
28	08:13	09:23 (1) 07:04	07:55 (10) 05:49	06:24 (4) 05:28	04:29	04:16
	16:25 32	09:55 (1) 17:35 32	08:27 (10) 18:35	25 06:49 (4) 20:40	21:38	22:02
29	08:11	09:22 (1) 06:46	06:46	07:24 (4) 05:26	04:28	04:16
	16:27 35	09:57 (1) 19:37	26 07:50 (4) 20:42	21:40	22:02	
30	08:10	09:21 (1) 06:44	06:44	07:23 (4) 05:24	04:26	04:17
	16:30 37	09:58 (1) 19:39	26 07:49 (4) 20:44	21:41	22:01	
31	08:08	09:21 (1) 06:41	06:41	07:23 (4) 05:24	04:25	
	16:32 38	09:59 (1) 19:41	25 07:48 (4) 20:44	21:43		
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	878	1132	494	118		
Sol reduktion	0,18	0,16	0,22	0,43		
Drifttid red.	1,00	1,00	1,00	1,00		
Vindrikt. red.	0,93	0,72	0,31	0,08		
Total reduktion	0,19	0,13	0,08	0,04		
Total, verklig	163	145	38	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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SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	08:16
	22:01	21:19	20:04	18:43	16:25	15:33
2	04:19	05:06	06:09	07:09	07:16	08:18
	22:00	21:17	20:02	18:41	16:23	15:32
3	04:20	05:08	06:11	07:11	07:18	08:19
	22:00	21:15	19:59	18:38	16:20	15:31
4	04:21	05:10	06:13	07:14	07:20	08:21
	21:59	21:13	19:56	18:35	16:18	15:31
5	04:22	05:12	06:15	07:16	07:22	08:22
	21:59	21:11	19:54	18:33	16:16	15:30
6	04:23	05:14	06:17	07:19 (4)	07:24	08:24
	21:58	21:08	19:51	18:30	16:14	15:29
7	04:24	05:16	06:19	07:21 (4)	07:27	08:25
	21:57	21:06	19:48	18:27	16:12	15:28
8	04:25	05:18	06:21	07:22	07:29	08:27
	21:56	21:04	19:46	18:25	16:10	15:28
9	04:26	05:20	06:23	07:24 (4)	07:31	08:28
	21:55	21:02	19:43	18:22	16:08	15:27
10	04:27	05:22	06:25	07:26	07:33	08:30
	21:54	20:59	19:40	18:19	16:06	15:27
11	04:29	05:24	06:27	07:28	07:35	08:31
	21:53	20:57	19:38	18:17	16:04	15:27
12	04:30	05:26	06:29	07:30	07:38	08:32
	21:52	20:55	19:35	18:14	16:02	15:26
13	04:31	05:28	06:31	07:32	07:40	08:33
	21:51	20:52	19:32	18:11	16:00	15:26
14	04:33	05:30	06:33	07:34	07:42	08:34
	21:50	20:50	19:29	18:09	15:58	15:26
15	04:34	05:32	06:35	07:37	07:44	08:35
	21:48	20:48	19:27	18:06	15:56	15:26
16	04:36	05:34	06:37	07:39	07:46	08:36
	21:47	20:45	19:24	18:04	15:54	15:26
17	04:37	05:36	06:39	07:41	07:48	08:37
	21:46	20:43	19:21	18:01	15:53	15:26
18	04:39	05:38	06:41	07:43	07:50	08:38
	21:44	20:40	19:19	17:59	15:51	15:26
19	04:41	05:40	06:43	07:45	07:53	08:39
	21:43	20:38	19:16	17:56	15:49	15:26
20	04:42	05:42	06:45	07:47	07:55	08:40
	21:41	20:35	19:13	17:54	15:48	15:27
21	04:44	05:44	06:47	07:49	07:57	08:40
	21:39	20:33	19:10	17:51	15:46	15:27
22	04:46	05:46	06:49	07:52	07:59	11:12 (19)
	21:38	20:30	19:08	17:49	15:45	15:27
23	04:48	05:48	06:51	07:54	08:01	11:09 (19)
	21:36	20:28	19:05	17:46	15:43	15:28
24	04:49	05:50	06:53	07:56	08:03	11:08 (19)
	21:34	20:25	19:02	17:44	15:42	15:29
25	04:51	05:52	06:55	07:58	08:05	11:06 (19)
	21:33	20:23	19:00	16:41	15:40	15:29
26	04:53	05:55	06:57	07:00	08:07	11:05 (19)
	21:31	20:20	18:57	16:39	15:39	15:30
27	04:55	05:57	06:59	07:02	08:09	11:06 (19)
	21:29	20:17	18:54	16:37	15:38	15:31
28	04:57	05:59	07:01	07:05	08:10	11:05 (19)
	21:27	20:15	18:51	16:34	15:37	15:32
29	04:58	06:01	07:03	07:07	08:12	11:05 (19)
	21:25	20:12	18:49	16:32	15:35	15:33
30	05:00	06:03	07:05	07:09	08:14	11:04 (19)
	21:23	20:10	18:46	16:29	15:34	15:34
31	05:02	06:05		07:11	08:19	11:04 (19)
	21:21	20:07		16:27	09:33 (1)	15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			338	1008	910	1145
Sol reduktion			0,31	0,26	0,17	0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,08	0,63	0,84	0,99
Total reduktion			0,03	0,18	0,16	0,14
Total, verklig			9	181	142	160

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars		April		Maj		Juni	
1	08:42	08:06	07:01		06:38		07:13 (15)	05:21	19:46 (3)	04:24
	15:36	16:34	17:37		19:43	24	07:37 (15)	20:46	20:11 (3)	21:44
2	08:42	08:04	06:58		06:36		07:13 (15)	05:19	19:46 (3)	04:23
	15:38	16:36	17:39		19:45	23	07:36 (15)	20:48	20:11 (3)	21:46
3	08:42	08:02	06:56		06:33		07:12 (15)	05:17	19:46 (3)	04:22
	15:39	16:39	17:41		19:47	23	07:35 (15)	20:51	20:12 (3)	21:47
4	08:41	08:00	06:53		06:30		07:13 (15)	05:14	19:46 (3)	04:21
	15:40	16:41	17:44		19:50	21	07:34 (15)	20:53	20:12 (3)	21:48
5	08:41	07:58	06:51		06:27		07:14 (15)	05:12	19:46 (3)	04:20
	15:42	16:43	17:46		19:52	18	07:32 (15)	20:55	20:12 (3)	21:50
6	08:40	07:55	06:48		06:25		07:15 (15)	05:10	19:46 (3)	04:19
	15:43	16:45	17:48		19:54	15	07:30 (15)	20:57	20:11 (3)	21:51
7	08:40	07:53	06:45		06:22		07:17 (15)	05:08	19:46 (3)	04:18
	15:45	16:48	17:50		19:56	11	07:28 (15)	20:59	20:11 (3)	21:52
8	08:39	07:51	06:43		06:19			05:05	19:47 (3)	04:17
	15:46	16:50	17:52		19:58			21:01	20:10 (3)	21:53
9	08:38	07:49	06:40		06:17			05:03	19:47 (3)	04:16
	15:48	16:52	17:54		20:00			21:03	20:10 (3)	21:54
10	08:37	07:47	06:37		06:14			05:01	19:48 (3)	04:16
	15:49	16:54	17:57		20:02			21:05	20:09 (3)	21:55
11	08:36	07:45	06:35		06:12			04:59	19:48 (3)	04:15
	15:51	16:57	17:59		20:04			21:07	20:08 (3)	21:56
12	08:36	07:42	06:32		06:09			04:57	19:49 (3)	04:15
	15:53	16:59	18:01		20:06			21:09	20:07 (3)	21:57
13	08:35	07:40	06:29		06:06			04:55	19:50 (3)	04:14
	15:55	17:01	18:03		20:08			21:11	20:06 (3)	21:58
14	08:33	07:38	06:27		06:04			04:53	19:53 (3)	04:14
	15:57	17:04	18:05		20:11			21:13	20:05 (3)	21:58
15	08:32	07:35	06:24		06:01			04:51	19:55 (3)	04:14
	15:58	17:06	18:07		20:13			21:15	20:02 (3)	21:59
16	08:31	07:33	06:21		05:59			04:49	05:20 (8)	04:13
	16:00	17:08	18:09		20:15			21:17	05:26 (8)	22:00
17	08:30	07:31	06:19		05:56			04:47	05:18 (8)	04:13
	16:02	17:10	18:12		20:17			21:19	05:28 (8)	22:00
18	08:29	07:28	06:16		05:53			04:45	05:17 (8)	04:13
	16:04	17:13	18:14		20:19			21:21	05:30 (8)	22:01
19	08:27	07:26	06:13		05:51			04:43	05:15 (8)	04:13
	16:06	17:15	18:16		20:21			21:22	05:31 (8)	22:01
20	08:26	07:23	06:11		05:48			04:42	05:14 (8)	04:13
	16:08	17:17	18:18		20:23			21:24	05:33 (8)	22:02
21	08:24	07:21	06:08		05:46			04:40	05:12 (8)	04:13
	16:10	17:19	18:20		20:25			21:26	05:33 (8)	22:02
22	08:23	07:19	06:05		05:43			04:38	05:11 (8)	04:13
	16:12	17:22	18:22		20:27			21:28	05:34 (8)	22:02
23	08:21	07:16	06:03		05:41			04:37	05:10 (8)	04:14
	16:14	17:24	18:24		20:30			21:30	05:34 (8)	22:02
24	08:20	07:14	06:00		05:38			19:56 (3)	04:35	05:10 (8)
	16:17	17:26	18:26	7	06:32 (15)	20:32	4	20:00 (3)	21:31	05:35 (8)
25	08:18	07:11	05:57		05:36			19:53 (3)	04:33	05:10 (8)
	16:19	17:28	18:28	12	06:24 (15)	20:34	9	20:02 (3)	21:33	05:36 (8)
26	08:17	07:09	05:54		05:33			19:51 (3)	04:32	05:09 (8)
	16:21	17:30	18:31	16	06:36 (15)	20:36	14	20:05 (3)	21:35	05:36 (8)
27	08:15	07:06	05:52		05:31			19:49 (3)	04:30	05:09 (8)
	16:23	17:33	18:33	20	06:37 (15)	20:38	17	20:06 (3)	21:37	05:36 (8)
28	08:13	07:03	05:49		05:28			19:48 (3)	04:29	05:10 (8)
	16:25	17:35	18:35	23	06:37 (15)	20:40	20	20:08 (3)	21:38	05:10 (8)
29	08:11		06:46		05:26			19:48 (3)	04:28	05:10 (8)
	16:27		19:37	24	07:38 (15)	20:42	22	20:10 (3)	21:40	05:10 (8)
30	08:09		06:44		05:24			19:47 (3)	04:26	05:10 (8)
	16:30		19:39	24	07:37 (15)	20:44	25	20:12 (3)	21:41	05:10 (8)
31	08:07		06:41		07:12 (15)			04:25	05:10 (8)	05:16 (8)
	16:32		19:41	25	07:37 (15)			21:43	21:05 (7)	21:16 (7)
Möjliga soltimmar	234	265	366		427			509		530
Totalt, värsta fall				151	246			719		1619
Sol reduktion				0,22	0,43			0,54		0,43
Drifttid red.				1,00	1,00			1,00		1,00
Vindrikt. red.				0,04	0,19			0,46		0,57
Total reduktion				0,01	0,08			0,24		0,24
Total, verklig				1	19			172		383

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	05:16 (8) 05:04 21:16 (7) 21:19	19:59 (3) 06:07 20:18 (3) 20:04		07:07 18:43	07:13 16:25
2	04:19 22:00	05:16 (8) 05:06 21:16 (7) 21:17	19:58 (3) 06:09 20:19 (3) 20:02		07:09 18:41	07:16 16:23
3	04:20 22:00	05:17 (8) 05:08 21:16 (7) 21:15	19:58 (3) 06:11 20:20 (3) 19:59		07:11 18:38	07:18 16:20
4	04:21 21:59	05:16 (8) 05:10 21:15 (7) 21:13	19:57 (3) 06:13 20:20 (3) 19:56		07:13 18:35	07:20 16:18
5	04:22 21:58	05:16 (8) 05:12 21:15 (7) 21:10	19:56 (3) 06:15 20:20 (3) 19:54	11 07:13 (15)	07:16 18:33	07:22 16:16
6	04:23 21:58	05:16 (8) 05:14 21:15 (7) 21:08	19:55 (3) 06:17 20:20 (3) 19:51	15 07:26 (15)	07:18 18:30	07:24 16:14
7	04:24 21:57	05:16 (8) 05:16 21:15 (7) 21:06	19:55 (3) 06:19 20:21 (3) 19:48	19 07:09 (15)	07:20 18:27	07:27 16:12
8	04:25 21:56	05:16 (8) 05:18 21:14 (7) 21:04	19:55 (3) 06:21 20:21 (3) 19:46	20 07:28 (15)	07:22 18:25	07:29 16:10
9	04:26 21:55	05:17 (8) 05:20 21:15 (7) 21:02	19:55 (3) 06:23 20:21 (3) 19:43	22 07:07 (15)	07:24 18:22	07:31 16:08
10	04:27 21:54	05:17 (8) 05:22 21:14 (7) 20:59	19:55 (3) 06:25 20:21 (3) 19:40	23 07:29 (15)	07:26 18:19	07:33 16:06
11	04:29 21:53	05:17 (8) 05:24 21:14 (7) 20:57	19:54 (3) 06:27 20:20 (3) 19:37	24 07:05 (15)	07:28 18:17	07:35 16:04
12	04:30 21:52	05:17 (8) 05:26 21:13 (7) 20:55	19:54 (3) 06:29 20:19 (3) 19:35	24 07:29 (15)	07:30 18:14	07:37 16:02
13	04:32 21:51	05:17 (8) 05:28 21:11 (7) 20:52	19:55 (3) 06:31 20:19 (3) 19:32	24 07:05 (15)	07:32 18:11	07:40 16:00
14	04:33 21:49	05:18 (8) 05:30 21:11 (7) 20:50	19:55 (3) 06:33 20:17 (3) 19:29	24 07:29 (15)	07:34 18:09	07:42 15:58
15	04:34 21:48	05:18 (8) 05:32 21:09 (7) 20:47	19:56 (3) 06:35 20:15 (3) 19:27	22 07:05 (15)	07:36 18:06	07:44 15:56
16	04:36 21:47	05:18 (8) 05:34 21:07 (7) 20:45	19:57 (3) 06:37 20:13 (3) 19:24	20 07:27 (15)	07:39 18:04	07:46 15:54
17	04:38 21:45	05:19 (8) 05:36 20:45 (8) 20:43	19:58 (3) 06:39 20:11 (3) 19:21	17 07:08 (15)	07:41 18:01	07:48 15:53
18	04:39 21:44	05:19 (8) 05:38 20:45 (8) 20:40	20:00 (3) 06:41 20:09 (3) 19:18	13 07:25 (15)	07:43 17:59	07:50 15:51
19	04:41 21:42	05:20 (8) 05:40 20:45 (8) 20:38	20:04 (3) 06:43 20:06 (3) 19:16	9 07:12 (15)	07:45 17:56	07:52 15:49
20	04:42 21:41	05:20 (8) 05:42 20:44 (8) 20:35	19:16 19:13	1 07:21 (15)	07:56 17:54	15:49 15:48
21	04:44 21:39	05:21 (8) 05:44 20:44 (8) 20:33	19:16 19:10		07:49 17:51	07:56 15:46
22	04:46 21:38	05:21 (8) 05:46 20:43 (8) 20:30	19:08 19:08		07:51 17:49	07:58 15:45
23	04:48 21:36	05:23 (8) 05:48 20:43 (8) 20:28	19:05 19:05		07:54 17:46	08:01 15:43
24	04:49 21:34	05:25 (8) 05:50 20:43 (8) 20:25	19:05 19:02		07:56 17:44	08:02 15:42
25	04:51 21:32	05:26 (8) 05:52 20:41 (8) 20:23	19:05 18:59		06:58 16:41	08:04 15:40
26	04:53 21:31	05:28 (8) 05:55 20:40 (8) 20:20	19:05 18:57		07:00 16:39	08:06 15:39
27	04:55 21:29	05:30 (8) 05:57 20:38 (8) 20:17	19:05 18:54		07:02 16:37	08:08 15:38
28	04:57 21:27	05:31 (8) 05:59 20:34 (8) 20:15	19:01 18:51		07:05 16:34	08:10 15:37
29	04:59 21:25	20:04 (3) 06:01 20:13 (3) 20:12	19:03 18:49		07:07 16:32	08:12 15:35
30	05:00 21:23	20:03 (3) 06:03 20:16 (3) 20:10	19:05 18:46		07:09 16:30	08:14 15:34
31	05:02 21:21	20:00 (3) 06:05 20:16 (3) 20:07			07:11 16:27	08:42 15:35
Möjliga soltimmar	531	470	385		323	215
Totalt, värsta fall	1041	394	288			
Sol reduktion	0,39	0,36	0,31			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,54	0,37	0,04			
Total reduktion	0,20	0,13	0,01			
Total, verklig	213	50	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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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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars		April		Maj		Juni
1	08:42	08:06	07:01		06:38		07:04 (15)	05:21	04:24
	15:36	16:34	17:37		19:43	23	07:27 (15)	20:46	21:44
2	08:42	08:04	06:58		06:36		07:02 (15)	05:19	04:23
	15:38	16:36	17:39		19:45	26	07:28 (15)	20:48	21:46
3	08:42	08:02	06:56		06:33		07:00 (15)	05:17	04:22
	15:39	16:39	17:41		19:47	28	07:28 (15)	20:50	21:47
4	08:41	08:00	06:53		06:30		07:00 (15)	05:14	04:21
	15:40	16:41	17:44		19:49	29	07:29 (15)	20:53	21:48
5	08:41	07:58	06:51		06:27		06:58 (15)	05:12	04:20
	15:42	16:43	17:46		19:52	31	07:29 (15)	20:55	21:50
6	08:40	07:55	06:48		06:25		06:57 (15)	05:10	04:19
	15:43	16:45	17:48		19:54	31	07:28 (15)	20:57	21:51
7	08:40	07:53	06:45		06:22		06:58 (15)	05:08	04:18
	15:45	16:48	17:50		19:56	31	07:29 (15)	20:59	21:52
8	08:39	07:51	06:43		06:19		06:57 (15)	05:05	04:17
	15:46	16:50	17:52		19:58	31	07:28 (15)	21:01	21:53
9	08:38	07:49	06:40		06:17		06:56 (15)	05:03	04:16
	15:48	16:52	17:54		20:00	31	07:27 (15)	21:03	21:54
10	08:37	07:47	06:37		06:14		06:57 (15)	05:01	04:16
	15:49	16:54	17:57		20:02	30	07:27 (15)	21:05	21:55
11	08:36	07:45	06:35		06:12		06:56 (15)	04:59	04:15
	15:51	16:57	17:59		20:04	30	07:26 (15)	21:07	21:56
12	08:36	07:42	06:32		06:09		06:57 (15)	04:57	04:15
	15:53	16:59	18:01		20:06	29	07:26 (15)	21:09	21:57
13	08:35	07:40	06:29		06:06		06:57 (15)	04:55	04:14
	15:55	17:01	18:03		20:08	27	07:24 (15)	21:11	21:58
14	08:33	07:38	06:27		06:04		06:59 (15)	04:53	04:14
	15:57	17:04	18:05		20:11	24	07:23 (15)	21:13	21:58
15	08:32	07:35	06:24		06:01		06:59 (15)	04:51	04:14
	15:58	17:06	18:07		20:13	22	07:21 (15)	21:15	21:59
16	08:31	07:33	06:21		05:58		07:01 (15)	04:49	04:13
	16:00	17:08	18:09		20:15	18	07:19 (15)	21:17	22:00
17	08:30	07:31	06:19		05:56		07:02 (15)	04:47	04:13
	16:02	17:10	18:12		20:17	14	07:16 (15)	21:19	22:00
18	08:29	07:28	06:16		05:53		07:07 (15)	04:45	04:13
	16:04	17:13	18:14		20:19	5	07:12 (15)	21:21	22:01
19	08:27	07:26	06:13		05:51			04:43	04:13
	16:06	17:15	18:16		20:21			21:22	22:01
20	08:26	07:23	06:11		05:48			04:42	04:13
	16:08	17:17	18:18		20:23			21:24	22:01
21	08:24	07:21	06:08		05:46			04:40	04:13
	16:10	17:19	18:20		20:25			21:26	22:02
22	08:23	07:19	06:05		05:43			04:38	04:13
	16:12	17:22	18:22		20:27			21:28	22:02
23	08:21	07:16	06:02		05:41			04:37	04:14
	16:14	17:24	18:24		20:29			21:30	22:02
24	08:20	07:14	06:00		05:38			04:35	04:14
	16:17	17:26	18:26		20:32			21:31	22:02
25	08:18	07:11	05:57		05:36			04:33	04:14
	16:19	17:28	18:28		20:34			21:33	22:02
26	08:16	07:09	05:54		05:33			04:32	04:15
	16:21	17:30	18:31		20:36			21:35	22:02
27	08:15	07:06	05:52		05:31			04:30	04:15
	16:23	17:33	18:33		20:38			21:36	22:02
28	08:13	07:03	05:49		05:28			04:29	04:16
	16:25	17:35	18:35		20:40			21:38	22:02
29	08:11		06:46		07:12 (15)			04:28	04:16
	16:27		19:37	9	07:21 (15)			21:40	22:01
30	08:09		06:44		07:09 (15)			04:26	04:17
	16:30		19:39	15	07:24 (15)			21:41	22:01
31	08:07		06:41		07:06 (15)			04:25	20:29 (7)
	16:32		19:41	19	07:25 (15)			21:43	20:54 (7)
Möjliga soltimmar	234	265	366		427			509	530
Totalt, värsta fall				43	460			359	551
Sol reduktion				0,22	0,43			0,54	0,43
Drifttid red.				1,00	1,00			1,00	1,00
Vindrikt. red.				0,03	0,03			0,54	0,54
Total reduktion				0,01	0,01			0,27	0,22
Total, verklig				0	5			98	121

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

	Juli		Augusti		September		Oktober		November		December	
1	04:18		20:38 (7)	05:04	06:07	06:55 (15)	07:07	07:13	07:13	08:16		
	22:01	19	20:57 (7)	21:19	20:04	07:25 (15)	18:43	16:25	15:33			
2	04:19		20:38 (7)	05:06	06:09	06:55 (15)	07:09	07:15	08:17			
	22:00	20	20:58 (7)	21:17	20:02	07:25 (15)	18:41	16:23	15:32			
3	04:20		20:38 (7)	05:08	06:11	06:54 (15)	07:11	07:18	08:19			
	22:00	19	20:57 (7)	21:15	19:59	07:25 (15)	18:38	16:20	15:31			
4	04:21		20:38 (7)	05:10	06:13	06:54 (15)	07:13	07:20	08:21			
	21:59	20	20:58 (7)	21:13	19:56	07:25 (15)	18:35	16:18	15:31			
5	04:22		20:37 (7)	05:12	06:15	06:54 (15)	07:16	07:22	08:22			
	21:58	21	20:58 (7)	21:10	19:54	07:25 (15)	18:32	16:16	15:30			
6	04:23		20:37 (7)	05:14	06:17	06:54 (15)	07:18	07:24	08:24			
	21:58	22	20:59 (7)	21:08	19:51	07:24 (15)	18:30	16:14	15:29			
7	04:24		20:37 (7)	05:16	06:19	06:54 (15)	07:20	07:26	08:25			
	21:57	22	20:59 (7)	21:06	19:48	07:24 (15)	18:27	16:12	15:29			
8	04:25		20:37 (7)	05:18	06:21	06:54 (15)	07:22	07:29	08:27			
	21:56	23	21:00 (7)	21:04	19:46	07:23 (15)	18:25	16:10	15:28			
9	04:26		20:38 (7)	05:20	06:23	06:54 (15)	07:24	07:31	08:28			
	21:55	23	21:01 (7)	21:02	19:43	07:22 (15)	18:22	16:08	15:27			
10	04:27		20:38 (7)	05:22	06:25	06:55 (15)	07:26	07:33	08:29			
	21:54	23	21:01 (7)	20:59	19:40	07:21 (15)	18:19	16:06	15:27			
11	04:29		20:37 (7)	05:24	06:27	06:56 (15)	07:28	07:35	08:31			
	21:53	24	21:01 (7)	20:57	19:37	07:20 (15)	18:17	16:04	15:27			
12	04:30		20:37 (7)	05:26	06:29	06:58 (15)	07:30	07:37	08:32			
	21:52	24	21:01 (7)	20:55	19:35	07:18 (15)	18:14	16:02	15:26			
13	04:32		20:37 (7)	05:28	06:31	07:00 (15)	07:32	07:40	08:33			
	21:51	24	21:01 (7)	20:52	19:32	07:15 (15)	18:11	16:00	15:26			
14	04:33		20:37 (7)	05:30	06:33	07:02 (15)	07:34	07:42	08:34			
	21:49	25	21:02 (7)	20:50	19:29	07:12 (15)	18:09	15:58	15:26			
15	04:34		20:37 (7)	05:32	06:35		07:36	07:44	08:35			
	21:48	25	21:02 (7)	20:47	19:27		18:06	15:56	15:26			
16	04:36		20:37 (7)	05:34	06:37		07:39	07:46	08:36			
	21:47	25	21:02 (7)	20:45	19:24		18:04	15:54	15:26			
17	04:38		20:37 (7)	05:36	06:39		07:41	07:48	08:37			
	21:45	26	21:03 (7)	20:43	19:21		18:01	15:53	15:26			
18	04:39		20:37 (7)	05:38	06:41		07:43	07:50	08:38			
	21:44	25	21:02 (7)	20:40	19:18		17:59	15:51	15:26			
19	04:41		20:38 (7)	05:40	06:43		07:45	07:52	08:39			
	21:42	25	21:03 (7)	20:38	19:16		17:56	15:49	15:26			
20	04:42		20:37 (7)	05:42	06:45		07:47	07:54	08:39			
	21:41	25	21:02 (7)	20:35	19:13		17:54	15:48	15:27			
21	04:44		20:38 (7)	05:44	06:47		07:49	07:56	08:40			
	21:39	24	21:02 (7)	20:33	19:10		17:51	15:46	15:27			
22	04:46		20:38 (7)	05:46	06:49		07:51	07:58	08:41			
	21:38	22	21:00 (7)	20:30	19:08		17:49	15:45	15:28			
23	04:48		20:38 (7)	05:48	06:51		07:54	08:00	08:41			
	21:36	21	20:59 (7)	20:28	19:05		17:46	15:43	15:28			
24	04:49		20:39 (7)	05:50	06:53		07:56	08:02	08:42			
	21:34	19	20:58 (7)	20:25	19:02		17:44	15:42	15:29			
25	04:51		20:39 (7)	05:52	06:55		06:58	08:04	08:42			
	21:32	17	20:56 (7)	20:22	7 07:16 (15)		16:41	15:40	15:29			
26	04:53		20:40 (7)	05:54	06:57		07:00	08:06	08:42			
	21:31	15	20:55 (7)	20:20	14 07:19 (15)		16:39	15:39	15:30			
27	04:55		20:41 (7)	05:57	06:59		07:02	08:08	08:42			
	21:29	12	20:53 (7)	20:17	18 07:21 (15)		16:36	15:38	15:31			
28	04:57		20:41 (7)	05:59	07:01 (15)		07:04	08:10	08:42			
	21:27	10	20:51 (7)	20:15	22 07:23 (15)		16:34	15:37	15:32			
29	04:59		20:43 (7)	06:01	06:59 (15)		07:07	08:12	08:42			
	21:25	6	20:49 (7)	20:12	25 07:24 (15)		16:32	15:35	15:33			
30	05:00		20:45 (7)	06:03	06:58 (15)		07:09	08:14	08:42			
	21:23	3	20:48 (7)	20:10	27 07:25 (15)		16:29	15:34	15:34			
31	05:02			06:05	06:56 (15)		07:11		08:42			
	21:21			20:07	29 07:25 (15)		16:27		15:35			
Möjliga soltimmar	531			470	385		323	246	215			
Totalt, värsta fall	609			142	365							
Sol reduktion	0,39			0,36	0,31							
Drifttid red.	1,00			1,00	1,00							
Vindrikt. red.	0,54			0,03	0,03							
Total reduktion	0,20			0,01	0,01							
Total, verklig	121			1	3							

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42	08:05	07:01	06:38	05:21	19:31 (13) 04:24
	15:36	16:34	17:37	19:43	20:46	25 19:56 (13) 21:44
2	08:42	08:03	06:58	06:35	05:19	19:32 (13) 04:23
	15:37	16:36	17:39	19:45	20:48	24 19:56 (13) 21:45
3	08:41	08:01	06:55	06:33	05:16	19:33 (13) 04:22
	15:39	16:38	17:41	19:47	20:50	22 19:55 (13) 21:47
4	08:41	07:59	06:53	06:30	05:14	19:34 (13) 04:21
	15:40	16:41	17:43	19:49	20:52	20 19:54 (13) 21:48
5	08:40	07:57	06:50	06:27	05:12	19:35 (13) 04:20
	15:41	16:43	17:46	19:51	20:54	18 19:53 (13) 21:49
6	08:40	07:55	06:48	06:25	05:10	19:37 (13) 04:19
	15:43	16:45	17:48	19:53	20:56	15 19:52 (13) 21:50
7	08:39	07:53	06:45	06:22	05:07	19:39 (13) 04:18
	15:44	16:47	17:50	19:56	20:58	11 19:50 (13) 21:52
8	08:39	07:51	06:42	06:19	05:05	19:43 (13) 04:17
	15:46	16:50	17:52	19:58	21:01	2 19:45 (13) 21:53
9	08:38	07:49	06:40	06:17	05:03	04:16
	15:48	16:52	17:54	20:00	21:03	21:54
10	08:37	07:47	06:37	06:14	05:01	04:16
	15:49	16:54	17:56	20:02	21:05	21:55
11	08:36	07:44	06:34	06:11	04:59	04:15
	15:51	16:57	17:59	20:04	21:07	21:56
12	08:35	07:42	06:32	06:09	04:57	04:15
	15:53	16:59	18:01	20:06	21:09	21:57
13	08:34	07:40	06:29	06:06	04:55	04:14
	15:55	17:01	18:03	20:08	21:11	21:57
14	08:33	07:37	06:26	06:03	04:53	04:14
	15:56	17:03	18:05	20:10	21:13	21:58
15	08:32	07:35	06:24	06:01	04:51	04:13
	15:58	17:06	18:07	20:12	21:14	21:59
16	08:31	07:33	06:21	05:58	04:49	04:13
	16:00	17:08	18:09	20:14	21:16	21:59
17	08:30	07:30	06:18	05:56	04:47	04:13
	16:02	17:10	18:11	20:17	21:18	22:00
18	08:28	07:28	06:16	05:53	19:41 (13) 04:45	04:13
	16:04	17:12	18:13	20:19	19:48 (13) 21:20	22:00
19	08:27	07:26	06:13	05:51	19:38 (13) 04:43	04:13
	16:06	17:15	18:16	20:21	19:50 (13) 21:22	22:01
20	08:26	07:23	06:10	05:48	19:37 (13) 04:42	04:13
	16:08	17:17	18:18	20:23	19:53 (13) 21:24	22:01
21	08:24	07:21	06:08	05:45	19:35 (13) 04:40	04:13
	16:10	17:19	18:20	20:25	19:54 (13) 21:26	22:01
22	08:23	07:18	06:05	05:43	19:34 (13) 04:38	04:13
	16:12	17:21	18:22	20:27	19:56 (13) 21:28	22:02
23	08:21	07:16	06:02	05:40	19:32 (13) 04:36	04:13
	16:14	17:24	18:24	20:29	19:57 (13) 21:29	22:02
24	08:20	07:13	06:00	05:38	19:32 (13) 04:35	04:14
	16:16	17:26	18:26	20:31	19:58 (13) 21:31	22:02
25	08:18	07:11	05:57	05:36	19:32 (13) 04:33	04:14
	16:19	17:28	18:28	20:33	19:58 (13) 21:33	22:02
26	08:16	07:08	05:54	05:33	19:31 (13) 04:32	04:15
	16:21	17:30	18:30	20:36	19:58 (13) 21:35	22:02
27	08:14	07:06	05:51	05:31	19:31 (13) 04:30	04:15
	16:23	17:32	18:32	20:38	19:58 (13) 21:36	22:02
28	08:13	07:03	05:49	05:28	19:31 (13) 04:29	04:16
	16:25	17:35	18:35	20:40	19:58 (13) 21:38	22:01
29	08:11		06:46	05:26	19:31 (13) 04:28	20:58 (16) 04:16
	16:27		19:37	20:42	19:58 (13) 21:39	3 21:01 (16) 22:01
30	08:09		06:43	05:23	19:31 (13) 04:26	20:55 (16) 04:17
	16:29		19:39	20:44	19:57 (13) 21:41	7 21:02 (16) 22:01
31	08:07		06:41		04:25	20:54 (16)
	16:32		19:41		21:42	10 21:04 (16)
Möjliga soltimmar	234	265	366	427	509	530
Totalt, värsta fall				287	157	653
Sol reduktion				0,43	0,54	0,43
Drifttid red.				1,00	1,00	1,00
Vindrikt. red.				0,30	0,34	0,62
Total reduktion				0,13	0,18	0,27
Total, verklig				37	29	174

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid
0 Totalt
8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18 22:00	20:56 (16) 21:19		06:06 20:04	07:07 18:43	07:13 16:25
2	04:19 22:00	20:55 (16) 21:17		06:08 20:01	07:09 18:40	07:15 16:22
3	04:20 21:59	20:56 (16) 21:18		06:10 19:59	07:11 18:38	07:17 16:20
4	04:20 21:59	20:56 (16) 21:18		06:13 19:56	07:13 18:35	07:20 16:18
5	04:21 21:58	20:57 (16) 21:10	19:50 (13) 19:57 (13)	06:15 19:53	07:15 18:32	07:22 16:16
6	04:23 21:57	20:57 (16) 21:08	19:47 (13) 20:00 (13)	06:17 19:51	07:17 18:30	07:24 16:14
7	04:24 21:56	20:58 (16) 21:17	19:45 (13) 20:02 (13)	06:19 19:48	07:19 18:27	07:26 16:12
8	04:25 21:56	20:58 (16) 21:16	19:44 (13) 20:03 (13)	06:21 19:45	07:21 18:24	07:28 16:10
9	04:26 21:55	20:59 (16) 21:15	19:43 (13) 20:04 (13)	06:23 19:43	07:24 18:22	07:31 16:08
10	04:27 21:54	21:01 (16) 21:15	19:41 (13) 20:04 (13)	06:25 19:40	07:26 18:19	07:33 16:06
11	04:29 21:53	21:01 (16) 21:14	19:40 (13) 20:04 (13)	06:27 19:37	07:28 18:16	07:35 16:04
12	04:30 21:51	21:02 (16) 21:13	19:40 (13) 20:05 (13)	06:29 19:35	07:30 18:14	07:37 16:02
13	04:31 21:50	21:03 (16) 21:11	19:39 (13) 20:05 (13)	06:31 19:32	07:32 18:11	07:39 16:00
14	04:33 21:49	21:06 (16) 21:11	19:39 (13) 20:05 (13)	06:33 19:29	07:34 18:09	07:41 15:58
15	04:34 21:48	20:50 20:47	20:05 (13) 19:39 (13)	19:29 06:35	18:09 07:36	15:58 07:44
16	04:36 21:46	05:32 20:47	19:39 (13) 20:06 (13)	06:35 19:26	07:36 18:06	08:35 15:56
17	04:37 21:45	05:34 20:42	19:38 (13) 20:05 (13)	06:37 19:21	07:38 18:01	08:36 15:52
18	04:39 21:44	05:36 20:40	19:38 (13) 20:04 (13)	06:39 19:18	07:40 17:58	08:37 15:51
19	04:41 21:42	05:40 20:37	19:38 (13) 20:03 (13)	06:43 19:15	07:45 17:56	08:38 15:49
20	04:42 21:40	05:42 20:35	19:38 (13) 20:03 (13)	06:45 19:13	07:47 17:53	08:39 15:48
21	04:44 21:39	05:44 20:32	19:39 (13) 20:01 (13)	06:47 19:10	07:49 17:51	08:40 15:46
22	04:46 21:37	05:46 20:30	19:40 (13) 19:58 (13)	06:49 19:07	07:51 17:48	08:40 15:44
23	04:47 21:36	05:48 20:27	19:41 (13) 19:56 (13)	06:51 19:05	07:53 17:46	08:41 15:43
24	04:49 21:34	05:50 20:25	19:42 (13) 19:54 (13)	06:53 19:02	07:55 17:43	08:41 15:42
25	04:51 21:32	05:52 20:22	19:45 (13) 19:51 (13)	06:55 18:59	08:04 16:41	08:42 15:40
26	04:53 21:30	05:54 20:20		06:57 18:56	08:06 16:39	08:42 15:39
27	04:55 21:28	05:56 20:17		06:59 18:54	08:08 16:36	08:42 15:38
28	04:56 21:26	05:58 20:14		07:01 18:51	08:10 16:34	08:42 15:36
29	04:58 21:25	06:00 20:12		07:03 18:48	08:12 16:32	08:42 15:35
30	05:00 21:23	06:02 20:09		07:05 18:46	08:13 16:29	08:42 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	215
Totalt, värsta fall	233	431				
Sol reduktion	0,39	0,36				
Drifttid red.	1,00	1,00				
Vindrikt. red.	0,62	0,30				
Total reduktion	0,24	0,11				
Total, verklig	56	46				

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 15:37	08:06 16:34	07:01 17:37	06:38 19:43	07:13 (3) 26 07:39 (3)	05:22 20:47	04:24 21:44	04:18 22:01	05:04 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	07:13 (3) 26 07:39 (3)	05:19 20:49	04:23 21:46	04:19 22:01	05:06 21:17	06:09 20:02	07:18 (3) 7 07:25 (3)	07:10 18:41	08:18 15:33
3	08:42 15:39	08:02 16:39	06:56 17:42	06:33 19:48	07:12 (3) 26 07:38 (3)	05:17 20:51	04:22 21:47	04:20 22:00	05:08 21:15	06:11 19:59	07:15 (3) 13 07:28 (3)	07:12 18:38	08:19 15:32
4	08:41 15:40	08:00 16:41	06:53 17:44	06:30 19:50	07:13 (3) 25 07:38 (3)	05:15 20:53	04:21 21:49	04:21 21:59	05:10 21:13	06:13 19:57	07:12 (3) 17 07:29 (3)	07:14 18:35	08:21 15:31
5	08:41 15:42	07:58 16:43	06:51 17:46	06:28 19:52	07:13 (3) 24 07:37 (3)	05:12 20:55	04:20 21:50	04:22 21:59	05:12 21:11	06:15 19:54	07:10 (3) 20 07:30 (3)	07:16 18:33	08:22 15:30
6	08:40 15:43	07:56 16:46	06:48 17:48	06:25 19:54	07:14 (3) 22 07:36 (3)	05:10 20:57	04:19 21:51	04:23 21:58	05:14 21:09	06:17 19:51	07:09 (3) 22 07:31 (3)	07:18 18:30	08:24 15:29
7	08:40 15:45	07:54 16:48	06:46 17:50	06:22 19:56	07:14 (3) 20 07:34 (3)	05:08 20:59	04:18 21:52	04:24 21:57	05:16 21:06	06:19 19:49	07:08 (3) 24 07:32 (3)	07:20 18:27	08:26 15:29
8	08:39 15:46	07:51 16:50	06:43 17:53	06:20 19:58	07:14 (3) 18 07:32 (3)	05:06 21:01	04:17 21:53	04:25 21:56	05:18 21:04	06:21 19:46	07:07 (3) 25 07:32 (3)	07:22 18:25	08:27 15:28
9	08:38 15:48	07:49 16:52	06:40 17:55	06:17 20:00	07:17 (3) 13 07:30 (3)	05:04 21:03	04:17 21:54	04:26 21:55	05:20 21:02	06:23 19:43	07:06 (3) 26 07:32 (3)	07:24 18:22	08:28 15:28
10	08:38 15:50	07:47 16:55	06:38 17:57	06:14 20:02	07:19 (3) 7 07:26 (3)	05:01 21:05	04:16 21:55	04:28 21:54	05:22 21:00	06:25 19:40	07:06 (3) 26 07:32 (3)	07:26 18:19	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	04:15 21:56	04:29 21:53	05:24 20:57	06:27 19:38	06:27 19:38	07:06 (3) 26 07:32 (3)	07:28 18:17	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	06:29 19:35	07:06 (3) 25 07:31 (3)	07:30 18:14	08:32 15:27
13	08:35 15:55	07:40 17:01	06:30 18:03	06:07 20:09	04:55 21:11	04:14 21:58	04:32 21:51	05:28 20:52	06:31 19:32	06:31 19:32	07:06 (3) 24 07:30 (3)	07:32 18:12	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	06:33 19:30	07:06 (3) 23 07:29 (3)	07:35 18:09	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	06:35 19:27	07:07 (3) 21 07:28 (3)	07:37 18:06	08:36 15:26
16	08:31 16:00	07:33 17:08	06:22 18:10	05:59 20:15	04:49 21:17	04:14 22:00	04:36 21:47	05:34 20:45	06:37 19:24	06:37 19:24	07:08 (3) 19 07:27 (3)	07:39 18:04	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	06:39 19:21	07:09 (3) 15 07:24 (3)	07:41 18:01	08:37 15:26
18	08:29 16:04	07:29 17:13	06:16 18:14	05:54 20:19	04:45 21:21	04:13 22:01	04:39 21:44	05:38 20:40	06:41 19:19	06:41 19:19	07:12 (3) 9 07:21 (3)	07:43 17:59	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	05:40 20:38	06:43 19:16	06:43 19:16	07:13 (3) 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	06:45 19:13	07:14 (3) 17:54	07:55 15:48	08:40 15:27
21	08:25 16:10	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	06:47 19:11	07:15 (3) 17:51	07:57 15:46	08:41 15:27
22	08:23 16:13	07:19 17:22	06:05 18:22	05:43 20:28	04:38 21:28	04:14 22:02	04:46 21:38	05:47 20:30	06:49 19:08	06:49 19:08	07:16 (3) 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	06:51 19:05	07:17 (3) 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	06:53 19:02	07:18 (3) 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 20:33 (3)	04:34 21:33	04:14 22:02	04:51 21:33	05:53 20:23	06:55 19:00	06:55 19:00	07:19 (3) 16:42	08:05 15:41	08:42 15:30
26	08:17 16:21	07:09 17:31	05:55 18:31	05:33 20:36	04:32 21:35	04:15 22:02	04:53 21:31	05:55 20:20	06:57 18:57	06:57 18:57	07:20 (3) 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	04:15 22:02	04:55 21:29	05:57 20:18	06:59 18:54	06:59 18:54	07:21 (3) 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	07:01 18:52	07:22 (3) 16:34	08:10 15:37	08:43 15:32
29	08:11 16:28	07:02 19:37	05:46 23 07:16 (3)	05:26 20:42	04:28 21:40	04:17 22:02	04:59 21:25	06:01 20:12	07:03 18:49	07:03 18:49	07:23 (3) 16:32	08:12 15:36	08:43 15:33
30	08:10 16:30	07:01 19:39	05:44 25 07:14 (3)	05:24 20:44	04:27 21:41	04:17 22:01	05:01 21:23	06:03 20:10	07:05 18:46	07:05 18:46	07:24 (3) 16:30	08:14 15:35	08:43 15:34
31	08:08 16:32	07:00 19:41	06:41 26 07:13 (3)	05:24 20:44	04:25 21:43	04:17 22:01	05:03 21:21	06:05 20:07	07:07 16:27	07:07 16:27	07:25 (3) 16:27	08:15 15:35	08:43 15:35
Möjliga soltimmar	234	265	366	427	509	531	531	470	385		323	246	215
Totalt, värsta fall			135	207					342				
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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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
1	08:42	08:06	07:01	06:38	05:22	04:24	04:18	05:05	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	07:10	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
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	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
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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
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	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	08:32	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	18:08	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
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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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	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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	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	17:19	18:20	20:25	21:26	22:02	21:39	20:33	19:10	17:51	15:46	15:27
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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
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
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	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	04:16	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	20:17	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
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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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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
	15:36	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	07:09	07:16	08:17
	15:38	16:36	17:39	19:45	20:48	21:46	22:00	21:17	20:02	18:41	16:23	15:32
3	08:42	08:02	06:56	06:33	05:17	04:22	04:20	05:08	06:11	07:11	07:18	08:19
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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
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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	16:45	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	06:37	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	07:37	08:32
	15:53	16:59	18:01	20:06	21:09	21:57	21:52	20:55	19:35	18:14	16:02	15:26
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
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	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	06:21	05:59	04:49	04:13	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	05:53	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	08:39
	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	05:44	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
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23	08:21	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	04:49	05:51	06:53	07:56	08:03	08:42
	16:17	17:26	18:26	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	15:40	15:29
26	08:17	07:09	05:54	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	04:26	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	15:34	15:34
31	08:08		06:41		04:25		05:02	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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 84	10:58 (17) 13:48 (9) 16:34	07:01 17:37	06:38 19:43	05:21 20:46	04:24 21:44
2	08:42 15:37 83	10:59 (17) 13:49 (9) 16:36	06:58 17:39 10	16:42 (4) 16:52 (4) 19:45	06:35 19:45 20:48	04:22 20:48 21:46
3	08:42 15:39 83	10:59 (17) 13:49 (9) 16:38	06:56 17:41 19	16:37 (4) 16:56 (4) 19:47	06:33 20:51 21:47	04:21 20:51 21:47
4	08:41 15:40 84	11:00 (17) 13:50 (9) 16:41	06:53 17:43 24	16:34 (4) 16:58 (4) 19:49	06:30 20:53 21:48	04:20 20:53 21:48
5	08:41 15:41 84	11:00 (17) 13:50 (9) 16:43	06:50 17:46 29	16:32 (4) 17:01 (4) 19:52	06:27 20:55 21:50	04:19 20:55 21:50
6	08:40 15:43 82	11:01 (17) 13:50 (9) 16:45	06:48 17:48 32	16:30 (4) 17:02 (4) 19:54	06:25 20:57 21:51	04:19 20:57 21:51
7	08:40 15:44 82	11:01 (17) 13:50 (9) 16:47	06:45 17:50 35	16:28 (4) 17:03 (4) 19:56	06:22 20:59 21:52	04:18 20:59 21:52
8	08:39 15:46 80	11:02 (17) 13:50 (9) 16:50	06:43 17:52 36	16:28 (4) 17:04 (4) 19:58	06:19 21:01 21:53	04:17 21:01 21:53
9	08:38 15:48 81	11:02 (17) 13:51 (9) 16:52	06:40 17:54 39	16:26 (4) 17:05 (4) 20:00	06:17 21:03 21:54	04:16 21:03 21:54
10	08:37 15:49 80	11:03 (17) 13:51 (9) 16:54	06:37 17:57 40	16:25 (4) 17:05 (4) 20:02	06:14 21:05 21:55	04:16 21:05 21:55
11	08:37 15:51 78	11:04 (17) 13:51 (9) 16:57	16:11 (10) 17:59 41	06:35 17:05 (4) 20:04	16:24 (4) 20:04 21:07	04:15 21:07 21:56
12	08:36 15:53 78	11:03 (17) 13:50 (9) 16:59	06:32 16:24 (10) 18:01	16:24 (4) 17:06 (4) 20:06	06:09 21:09 21:57	04:14 21:09 21:57
13	08:35 15:54 76	11:04 (17) 13:51 (9) 17:01	16:07 (10) 18:03 43	06:29 17:06 (4) 20:08	16:23 (4) 21:11 21:58	04:14 21:11 21:58
14	08:34 15:56 75	11:05 (17) 13:51 (9) 17:03	16:06 (10) 18:05 43	06:27 17:06 (4) 20:11	16:23 (4) 21:13 21:59	04:14 21:13 21:59
15	08:32 15:58 73	11:05 (17) 13:50 (9) 17:06	16:05 (10) 18:07 43	06:24 17:06 (4) 20:13	16:23 (4) 21:15 21:59	04:13 21:15 21:59
16	08:31 16:00 70	11:07 (17) 13:50 (9) 17:08	06:21 16:04 (10) 18:09	16:23 (4) 17:06 (4) 20:15	05:58 21:17 22:00	04:13 21:17 22:00
17	08:30 16:02 67	11:07 (17) 13:49 (9) 17:10	06:19 16:29 (10) 18:11	16:22 (4) 17:05 (4) 20:17	05:56 21:19 22:00	04:13 21:19 22:00
18	08:29 16:04 65	11:08 (17) 13:49 (9) 17:12	06:16 16:03 (10) 18:14	16:22 (4) 17:04 (4) 20:19	05:53 21:21 22:01	04:13 21:21 22:01
19	08:27 16:06 61	11:09 (17) 13:48 (9) 17:15	06:13 16:30 (10) 18:16	16:23 (4) 17:04 (4) 20:21	05:51 21:22 22:01	04:13 21:22 22:01
20	08:26 16:08 55	11:10 (17) 13:46 (9) 17:17	06:11 16:03 (10) 18:18	16:23 (4) 17:03 (4) 20:23	05:48 21:24 22:02	04:13 21:24 22:02
21	08:25 16:10 51	11:11 (17) 13:45 (9) 17:19	06:08 16:03 (10) 18:20	16:23 (4) 17:02 (4) 20:25	05:46 21:26 22:02	04:13 21:26 22:02
22	08:23 16:12 42	11:12 (17) 13:42 (9) 17:21	06:05 16:03 (10) 18:22	16:24 (4) 17:01 (4) 20:27	05:43 21:28 22:02	04:13 21:28 22:02
23	08:21 16:14 34	11:13 (17) 11:47 (17) 17:24	06:02 16:28 (10) 18:24	16:25 (4) 17:00 (4) 20:29	05:41 21:30 22:02	04:13 21:30 22:02
24	08:20 16:16 31	11:15 (17) 11:46 (17) 17:26	06:00 16:05 (10) 18:26	16:26 (4) 16:58 (4) 20:32	05:38 21:32 22:02	04:14 21:32 22:02
25	08:18 16:18 29	11:16 (17) 11:45 (17) 17:28	05:57 16:05 (10) 18:28	16:27 (4) 16:56 (4) 20:34	05:36 21:33 22:02	04:14 21:33 22:02
26	08:17 16:21 25	11:18 (17) 11:43 (17) 17:30	05:54 16:06 (10) 18:31	16:30 (4) 16:55 (4) 20:36	05:33 21:35 22:02	04:14 21:35 22:02
27	08:15 16:23 21	11:20 (17) 11:41 (17) 17:32	05:52 16:09 (10) 18:33	16:32 (4) 16:52 (4) 20:38	05:31 21:37 22:02	04:15 21:37 22:02
28	08:13 16:25 14	11:24 (17) 11:38 (17) 17:35	05:49 16:12 (10) 18:35	16:35 (4) 16:48 (4) 20:40	05:28 21:38 22:02	04:16 21:38 22:02
29	08:11 16:27		06:46 19:37	05:26 20:42	04:27 21:40	04:16 21:40
30	08:09 16:29		06:43 19:39	05:23 20:44	04:26 21:41	04:17 21:41
31	08:07 16:32		06:41 19:41		04:25 21:43	04:17 21:43
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1768	379	915			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,97	0,51	0,33			
Total reduktion	0,19	0,09	0,08			
Total, verklig	339	34	73			

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December				
1	04:18	05:04	06:07	07:07	17:03 (4)	07:13	08:16	10:46 (17)		
	22:01	21:19	20:04	18:43	42 17:45 (4)	16:25	15:33	78 13:33 (9)		
2	04:18	05:06	06:09	07:09	17:03 (4)	07:15	08:17	10:46 (17)		
	22:00	21:17	20:02	18:40	41 17:44 (4)	16:22	15:32	79 13:34 (9)		
3	04:19	05:08	06:11	07:11	17:03 (4)	07:18	08:19	10:46 (17)		
	22:00	21:15	19:59	18:38	40 17:43 (4)	16:20	15:31	81 13:35 (9)		
4	04:20	05:10	06:13	07:13	17:03 (4)	07:20	08:21	10:46 (17)		
	21:59	21:13	19:56	18:35	39 17:42 (4)	16:18	15:30	80 13:34 (9)		
5	04:21	05:12	06:15	07:15	17:04 (4)	07:22	08:22	10:46 (17)		
	21:58	21:10	19:54	18:32	37 17:41 (4)	16:16	15:30	82 13:35 (9)		
6	04:22	05:14	06:17	07:18	17:04 (4)	07:24	08:24	10:47 (17)		
	21:58	21:08	19:51	18:30	36 17:40 (4)	16:14	15:29	82 13:36 (9)		
7	04:24	05:16	06:19	07:20	17:06 (4)	07:27	08:25	10:47 (17)		
	21:57	21:06	19:48	18:27	33 17:39 (4)	16:12	15:28	84 13:37 (9)		
8	04:25	05:18	06:21	07:22	17:07 (4)	07:29	08:27	10:47 (17)		
	21:56	21:04	19:46	18:24	30 17:37 (4)	16:10	15:28	84 13:37 (9)		
9	04:26	05:20	06:23	07:24	17:08 (4)	07:31	08:28	10:48 (17)		
	21:55	21:02	19:43	18:22	27 17:35 (4)	16:08	15:27	84 13:38 (9)		
10	04:27	05:22	06:25	07:26	17:10 (4)	07:33	08:30	10:48 (17)		
	21:54	20:59	19:40	18:19	22 17:32 (4)	16:06	15:27	84 13:38 (9)		
11	04:28	05:24	06:27	07:28	17:12 (4)	07:35	08:31	10:49 (17)		
	21:53	20:57	19:37	18:17	16 17:28 (4)	16:04	15:26	84 13:39 (9)		
12	04:30	05:26	06:29	07:30	17:18 (4)	07:37	08:32	10:49 (17)		
	21:52	20:55	19:35	18:14	3 17:21 (4)	16:02	15:26	84 13:39 (9)		
13	04:31	05:28	06:31	07:32		07:40	08:33	10:49 (17)		
	21:51	20:52	19:32	18:11		16:00	15:26	85 13:40 (9)		
14	04:33	05:30	06:33	07:34	16:43 (10)	07:42	10:55 (17)	08:34	10:50 (17)	
	21:49	20:50	19:29	18:09	11 16:54 (10)	15:58	15 11:10 (17)	15:26	84 13:40 (9)	
15	04:34	05:32	06:35	17:26 (4)	07:36	16:40 (10)	07:44	10:53 (17)	08:35	10:50 (17)
	21:48	20:47	19:27	11 17:37 (4)	18:06	16 16:56 (10)	15:56	21 11:14 (17)	15:26	85 13:40 (9)
16	04:36	05:34	06:37	17:21 (4)	07:39	16:38 (10)	07:46	10:51 (17)	08:36	10:50 (17)
	21:47	20:45	19:24	19 17:40 (4)	18:04	19 16:57 (10)	15:54	25 11:16 (17)	15:26	85 13:41 (9)
17	04:37	05:36	06:39	17:18 (4)	07:41	16:37 (10)	07:48	10:50 (17)	08:37	10:51 (17)
	21:45	20:43	19:21	24 17:42 (4)	18:01	22 16:59 (10)	15:52	29 11:19 (17)	15:26	85 13:41 (9)
18	04:39	05:38	06:41	17:15 (4)	07:43	16:36 (10)	07:50	10:49 (17)	08:38	10:52 (17)
	21:44	20:40	19:18	28 17:43 (4)	17:58	23 16:59 (10)	15:51	31 11:20 (17)	15:26	84 13:42 (9)
19	04:40	05:40	06:43	17:13 (4)	07:45	16:34 (10)	07:52	10:47 (17)	08:39	10:52 (17)
	21:42	20:38	19:16	31 17:44 (4)	17:56	25 16:59 (10)	15:49	34 11:21 (17)	15:26	85 13:43 (9)
20	04:42	05:42	06:45	17:11 (4)	07:47	16:34 (10)	07:54	10:47 (17)	08:40	10:52 (17)
	21:41	20:35	19:13	34 17:45 (4)	17:53	25 16:59 (10)	15:47	42 13:17 (9)	15:26	85 13:42 (9)
21	04:44	05:44	06:47	17:09 (4)	07:49	16:34 (10)	07:56	10:46 (17)	08:40	10:53 (17)
	21:39	20:33	19:10	37 17:46 (4)	17:51	26 17:00 (10)	15:46	51 13:20 (9)	15:27	85 13:43 (9)
22	04:46	05:46	06:49	17:08 (4)	07:51	16:33 (10)	07:59	10:46 (17)	08:41	10:54 (17)
	21:38	20:30	19:07	38 17:46 (4)	17:48	27 17:00 (10)	15:44	55 13:22 (9)	15:27	85 13:44 (9)
23	04:47	05:48	06:51	17:07 (4)	07:54	16:33 (10)	08:01	10:46 (17)	08:41	10:54 (17)
	21:36	20:28	19:05	40 17:47 (4)	17:46	26 16:59 (10)	15:43	61 13:25 (9)	15:28	85 13:44 (9)
24	04:49	05:50	06:53	17:06 (4)	07:56	16:33 (10)	08:03	10:46 (17)	08:42	10:54 (17)
	21:34	20:25	19:02	41 17:47 (4)	17:44	27 17:00 (10)	15:41	64 13:26 (9)	15:28	85 13:45 (9)
25	04:51	05:52	06:55	17:05 (4)	06:58	15:33 (10)	08:04	10:45 (17)	08:42	10:54 (17)
	21:32	20:22	18:59	42 17:47 (4)	16:41	26 15:59 (10)	15:40	67 13:27 (9)	15:29	85 13:45 (9)
26	04:53	05:54	06:57	17:05 (4)	07:00	15:33 (10)	08:06	10:45 (17)	08:42	10:56 (17)
	21:31	20:20	18:57	43 17:48 (4)	16:39	25 15:58 (10)	15:39	70 13:28 (9)	15:30	84 13:46 (9)
27	04:55	05:56	06:59	17:04 (4)	07:02	15:35 (10)	08:08	10:45 (17)	08:42	10:56 (17)
	21:29	20:17	18:54	43 17:47 (4)	16:36	22 15:57 (10)	15:38	72 13:29 (9)	15:31	85 13:47 (9)
28	04:56	05:58	07:01	17:04 (4)	07:04	15:35 (10)	08:10	10:45 (17)	08:43	10:57 (17)
	21:27	20:15	18:51	43 17:47 (4)	16:34	21 15:56 (10)	15:36	75 13:31 (9)	15:32	84 13:47 (9)
29	04:58	06:00	07:03	17:03 (4)	07:07	15:37 (10)	08:12	10:45 (17)	08:43	10:56 (17)
	21:25	20:12	18:49	44 17:47 (4)	16:32	18 15:55 (10)	15:35	76 13:32 (9)	15:32	85 13:47 (9)
30	05:00	06:02	07:05	17:03 (4)	07:09	15:38 (10)	08:14	10:46 (17)	08:43	10:57 (17)
	21:23	20:09	18:46	43 17:46 (4)	16:29	15 15:53 (10)	15:34	76 13:32 (9)	15:34	84 13:47 (9)
31	05:02	06:04		07:11		15:41 (10)		08:42		10:58 (17)
	21:21	20:07		16:27	9 15:50 (10)			15:35	84 13:48 (9)	
Möjliga soltimmar	531	470	385	323		246		214		
Totalt, värsta fall			561	749		864		2595		
Sol reduktion			0,31	0,26		0,17		0,13		
Drifttid red.			1,00	1,00		1,00		1,00		
Vindrikt. red.			0,33	0,42		0,97		0,97		
Total reduktion			0,11	0,12		0,18		0,13		
Total, verklig			63	89		155		350		

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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		13:05 (5)	08:05	14:19 (18)	07:01	06:38		18:09 (14)	05:21	04:24	
	15:36	57	14:38 (18)	16:34	14:51 (18)	17:37	19:43	39	18:48 (14)	20:46	21:44	
2	08:42		13:06 (5)	08:03	14:21 (18)	06:58	06:35		18:10 (14)	05:19	04:22	
	15:37	58	14:40 (18)	16:36	16:00 (12)	17:39	19:45	38	18:48 (14)	20:48	21:45	
3	08:41		13:06 (5)	08:01	14:22 (18)	06:56	06:33		18:10 (14)	05:16	04:21	
	15:39	58	14:40 (18)	16:38	16:04 (12)	17:41	19:47	37	18:47 (14)	20:50	21:47	
4	08:41		13:07 (5)	07:59	14:24 (18)	06:53	06:30		18:10 (14)	05:14	04:20	
	15:40	58	14:40 (18)	16:41	16:06 (12)	17:43	19:49	35	18:45 (14)	20:52	21:48	
5	08:41		13:07 (5)	07:57	14:26 (18)	06:50	06:27		18:11 (14)	05:12	04:19	
	15:41	58	14:41 (18)	16:43	16:07 (12)	17:46	19:51	34	18:45 (14)	20:54	21:49	
6	08:40		13:09 (5)	07:55	14:29 (18)	06:48	06:25		18:11 (14)	05:10	04:18	
	15:43	58	14:43 (18)	16:45	16:09 (12)	17:48	19:53	32	18:43 (14)	20:57	21:51	
7	08:39		13:10 (5)	07:53	14:34 (18)	06:45	06:22		18:12 (14)	05:07	04:18	
	15:44	58	14:44 (18)	16:47	16:10 (12)	17:50	19:56	30	18:42 (14)	20:59	21:52	
8	08:39		13:10 (5)	07:51	15:45 (12)	06:42	06:19		18:14 (14)	05:05	04:17	
	15:46	58	14:44 (18)	16:50	16:10 (12)	17:52	19:58	27	18:41 (14)	21:01	21:53	
9	08:38		13:11 (5)	07:49	15:45 (12)	06:40	06:17		18:15 (14)	05:03	04:16	
	15:47	58	14:45 (18)	16:52	16:11 (12)	17:54	20:00	23	18:38 (14)	21:03	21:54	
10	08:37		13:13 (5)	07:47	15:45 (12)	06:37	06:14		18:18 (14)	05:01	04:15	
	15:49	57	14:46 (18)	16:54	16:12 (12)	17:56	20:02	18	18:36 (14)	21:05	21:55	
11	08:36		13:13 (5)	07:44	15:44 (12)	06:34	06:11		18:20 (14)	04:59	04:15	
	15:51	57	14:46 (18)	16:56	16:12 (12)	17:59	20:04	12	18:32 (14)	21:07	21:56	
12	08:35		13:15 (5)	07:42	15:45 (12)	06:32	06:09			04:57	04:14	
	15:53	54	14:47 (18)	16:59	16:12 (12)	18:01	20:06			21:09	21:57	
13	08:34		13:17 (5)	07:40	15:44 (12)	06:29	06:06			04:55	04:14	
	15:54	53	14:48 (18)	17:01	16:12 (12)	18:03	20:08			21:11	21:58	
14	08:33		13:18 (5)	07:38	15:45 (12)	06:26	06:03			04:53	04:14	
	15:56	51	14:48 (18)	17:03	16:12 (12)	18:05	20:10			21:13	21:58	
15	08:32		13:21 (5)	07:35	15:45 (12)	06:24	06:01			04:51	04:13	
	15:58	47	14:49 (18)	17:05	16:11 (12)	18:07	20:12			21:15	21:59	
16	08:31		14:13 (18)	07:33	15:46 (12)	06:21	05:58			04:49	04:13	
	16:00	37	14:50 (18)	17:08	16:11 (12)	18:09	20:15			21:17	22:00	
17	08:30		14:12 (18)	07:30	15:46 (12)	06:18	05:56			04:47	04:13	
	16:02	38	14:50 (18)	17:10	16:10 (12)	18:11	20:17			21:18	22:00	
18	08:28		14:12 (18)	07:28	15:48 (12)	06:16	05:53			04:45	04:13	
	16:04	38	14:50 (18)	17:12	16:10 (12)	18:13	20:19	8	17:28 (14)	21:20	22:01	
19	08:27		14:13 (18)	07:26	15:49 (12)	06:13	05:50			04:43	04:13	
	16:06	39	14:52 (18)	17:15	16:08 (12)	18:16	20:21	17	17:40 (14)	21:22	22:01	
20	08:26		14:13 (18)	07:23	15:51 (12)	06:10	05:48			04:41	04:13	
	16:08	39	14:52 (18)	17:17	16:07 (12)	18:18	20:23	22	17:43 (14)	21:24	22:01	
21	08:24		14:13 (18)	07:21	15:53 (12)	06:08	05:45			04:40	04:13	
	16:10	39	14:52 (18)	17:19	16:04 (12)	18:20	20:25	27	17:45 (14)	21:26	22:02	
22	08:23		14:14 (18)	07:18		06:05	05:43			04:38	04:13	
	16:12	39	14:53 (18)	17:21		18:22	20:27	30	17:46 (14)	21:28	22:02	
23	08:21		14:14 (18)	07:16		06:02	05:40			04:36	04:13	
	16:14	39	14:53 (18)	17:23		18:24	20:29	32	17:48 (14)	21:30	22:02	
24	08:20		14:14 (18)	07:13		06:00	05:38			04:35	04:14	
	16:16	39	14:53 (18)	17:26		18:26	20:31	34	17:48 (14)	21:31	22:02	
25	08:18		14:15 (18)	07:11		05:57	05:35			04:33	04:14	
	16:18	38	14:53 (18)	17:28		18:28	20:33	35	17:48 (14)	21:33	22:02	
26	08:16		14:15 (18)	07:08		05:54	05:33			04:32	04:14	
	16:21	38	14:53 (18)	17:30		18:30	20:36	37	17:48 (14)	21:35	22:02	
27	08:15		14:16 (18)	07:06		05:51	05:31			04:30	04:15	
	16:23	37	14:53 (18)	17:32		18:32	20:38	38	17:49 (14)	21:36	22:02	
28	08:13		14:16 (18)	07:03		05:49	05:28			04:29	04:15	
	16:25	37	14:53 (18)	17:35		18:35	20:40	39	17:49 (14)	21:38	22:02	
29	08:11		14:17 (18)			06:46	05:26			04:27	04:16	
	16:27	36	14:53 (18)			19:37	20:42	39	18:49 (14)	21:40	22:01	
30	08:09		14:18 (18)			06:43	05:23			04:26	04:17	
	16:29	35	14:53 (18)			19:39	20:44	39	18:49 (14)	21:41	22:01	
31	08:07		14:19 (18)			06:41	05:19			04:25		
	16:32	33	14:52 (18)			19:41	20:44	39	18:48 (14)	21:43		
Möjliga soltimmar	234		265		366		427		509		531	
Totalt, värsta fall	1441		584		436		325					
Sol reduktion	0,18		0,16		0,22		0,43					
Drifttid red.	1,00		1,00		1,00		1,00					
Vindrikt. red.	0,86		0,65		0,09		0,09					
Total reduktion	0,19		0,12		0,02		0,05					
Total, verklig	267		73		11		15					

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid
0 Totalt
8 760 8 760

	Juli	Augusti	September		Oktober		November		December					
1	04:18	05:04	06:06	18:19 (14)	07:07		07:13	15:15 (12)	08:15	12:55 (5)				
	22:01	21:19	20:04	12	18:31 (14)	18:43	16:25	27	15:42 (12)	15:33	57	14:28 (18)		
2	04:18	05:06	06:08	18:16 (14)	07:09		07:15	15:15 (12)	08:17	12:55 (5)				
	22:00	21:17	20:01	18	18:34 (14)	18:40	16:22	26	15:41 (12)	15:32	57	14:28 (18)		
3	04:19	05:08	06:10	18:13 (14)	07:11		07:17	15:15 (12)	08:19	12:55 (5)				
	21:59	21:15	19:59	23	18:36 (14)	18:38	16:20	25	15:40 (12)	15:31	57	14:28 (18)		
4	04:20	05:10	06:12	18:11 (14)	07:13		07:20	14:03 (18)	08:20	12:55 (5)				
	21:59	21:12	19:56	27	18:38 (14)	18:35	16:18	32	15:40 (12)	15:30	57	14:28 (18)		
5	04:21	05:12	06:14	18:09 (14)	07:15		07:22	13:58 (18)	08:22	12:55 (5)				
	21:58	21:10	19:53	30	18:39 (14)	18:32	16:16	37	15:38 (12)	15:30	58	14:29 (18)		
6	04:22	05:14	06:16	18:07 (14)	07:17		07:24	13:56 (18)	08:24	12:55 (5)				
	21:57	21:08	19:51	33	18:40 (14)	18:30	16:14	41	15:38 (12)	15:29	58	14:29 (18)		
7	04:23	05:16	06:19	18:06 (14)	07:19		07:26	13:54 (18)	08:25	12:54 (5)				
	21:57	21:06	19:48	34	18:40 (14)	18:27	16:12	41	15:36 (12)	15:28	59	14:28 (18)		
8	04:25	05:18	06:21	18:05 (14)	07:22		07:28	13:53 (18)	08:27	12:55 (5)				
	21:56	21:04	19:45	35	18:40 (14)	18:24	16:09	39	15:34 (12)	15:28	59	14:29 (18)		
9	04:26	05:20	06:23	18:04 (14)	07:24		07:31	13:51 (18)	08:28	12:54 (5)				
	21:55	21:01	19:43	37	18:41 (14)	18:22	16:07	36	15:31 (12)	15:27	58	14:28 (18)		
10	04:27	05:22	06:25	18:03 (14)	07:26		07:33	13:51 (18)	08:29	12:55 (5)				
	21:54	20:59	19:40	38	18:41 (14)	18:19	16:05	32	14:23 (18)	15:27	58	14:29 (18)		
11	04:28	05:24	06:27	18:02 (14)	07:28		07:35	13:50 (18)	08:31	12:55 (5)				
	21:53	20:57	19:37	39	18:41 (14)	18:16	16:03	33	14:23 (18)	15:26	57	14:28 (18)		
12	04:30	05:26	06:29	18:01 (14)	07:30		07:37	13:49 (18)	08:32	12:56 (5)				
	21:52	20:54	19:35	39	18:40 (14)	18:14	16:01	34	14:23 (18)	15:26	57	14:29 (18)		
13	04:31	05:28	06:31	18:00 (14)	07:32		07:39	13:49 (18)	08:33	12:56 (5)				
	21:50	20:52	19:32	39	18:39 (14)	18:11	16:00	36	14:25 (18)	15:26	57	14:29 (18)		
14	04:33	05:30	06:33	18:00 (14)	07:34		07:42	13:48 (18)	08:34	12:56 (5)				
	21:49	20:50	19:29	39	18:39 (14)	18:09	15:58	37	14:25 (18)	15:26	56	14:29 (18)		
15	04:34	05:32	06:35	18:00 (14)	07:36		07:44	13:49 (18)	08:35	12:56 (5)				
	21:48	20:47	19:26	38	18:38 (14)	18:06	15:56	37	14:26 (18)	15:26	56	14:29 (18)		
16	04:36	05:34	06:37	18:00 (14)	07:38		07:46	13:48 (18)	08:36	12:57 (5)				
	21:47	20:45	19:24	38	18:38 (14)	18:03	15:54	38	14:26 (18)	15:26	55	14:29 (18)		
17	04:37	05:36	06:39	18:00 (14)	07:40		07:48	13:48 (18)	08:37	12:57 (5)				
	21:45	20:42	19:21	37	18:37 (14)	18:01	15:52	38	14:26 (18)	15:26	55	14:29 (18)		
18	04:39	05:38	06:41	18:00 (14)	07:43		07:50	13:48 (18)	08:38	12:58 (5)				
	21:44	20:40	19:18	36	18:36 (14)	17:58	15:51	39	14:27 (18)	15:26	55	14:30 (18)		
19	04:40	05:40	06:43	18:00 (14)	07:45		07:52	13:48 (18)	08:39	12:58 (5)				
	21:42	20:37	19:15	35	18:35 (14)	17:56	15:49	39	14:27 (18)	15:26	54	14:30 (18)		
20	04:42	05:42	06:45	18:01 (14)	07:47		07:54	13:48 (18)	08:39	12:58 (5)				
	21:41	20:35	19:13	32	18:33 (14)	17:53	3	16:31 (12)	15:47	39	14:27 (18)	15:26	54	14:30 (18)
21	04:44	05:44	06:47	18:02 (14)	07:49		16:23 (12)	07:56	13:49 (18)	08:40	12:59 (5)			
	21:39	20:32	19:10	30	18:32 (14)	17:51	13	16:36 (12)	15:46	39	14:28 (18)	15:27	54	14:31 (18)
22	04:45	05:46	06:49	18:03 (14)	07:51		16:21 (12)	07:58	13:49 (18)	08:40	12:59 (5)			
	21:37	20:30	19:07	27	18:30 (14)	17:48	17	16:38 (12)	15:44	39	14:28 (18)	15:27	54	14:31 (18)
23	04:47	05:48	06:51	18:04 (14)	07:53		16:18 (12)	08:00	13:49 (18)	08:41	13:00 (5)			
	21:36	20:27	19:05	24	18:28 (14)	17:46	21	16:39 (12)	15:43	39	14:28 (18)	15:28	54	14:32 (18)
24	04:49	05:50	06:53	18:06 (14)	07:56		16:18 (12)	08:02	13:50 (18)	08:41	13:00 (5)			
	21:34	20:25	19:02	19	18:25 (14)	17:43	22	16:40 (12)	15:41	38	14:28 (18)	15:28	54	14:32 (18)
25	04:51	05:52	06:55	18:09 (14)	06:58		15:16 (12)	08:04	13:50 (18)	08:42	13:00 (5)			
	21:32	20:22	18:59	12	18:21 (14)	16:41	25	15:41 (12)	15:40	38	14:28 (18)	15:29	56	14:33 (18)
26	04:53	05:54	06:57		07:00		15:15 (12)	08:06	13:51 (18)	08:42	13:01 (5)			
	21:30	20:20	18:56		16:39	26	15:41 (12)	15:39	37	14:28 (18)	15:30	55	14:33 (18)	
27	04:54	05:56	06:59		07:02		15:15 (12)	08:08		13:00 (5)	08:42	13:01 (5)		
	21:28	20:17	18:54		16:36	27	15:42 (12)	15:37	47	14:28 (18)	15:31	56	14:34 (18)	
28	04:56	05:58	07:01		07:04		15:14 (12)	08:10		12:58 (5)	08:42	13:02 (5)		
	21:27	20:15	18:51		16:34	28	15:42 (12)	15:36	50	14:28 (18)	15:31	56	14:35 (18)	
29	04:58	06:00	07:03		07:06		15:14 (12)	08:12		12:57 (5)	08:42	13:03 (5)		
	21:25	20:12	18:48		16:32	27	15:41 (12)	15:35	53	14:28 (18)	15:32	55	14:35 (18)	
30	05:00	06:02	07:05		07:09		15:14 (12)	08:14		12:56 (5)	08:42	13:03 (5)		
	21:23	20:09	18:46		16:29	28	15:42 (12)	15:34	54	14:28 (18)	15:33	57	14:36 (18)	
31	05:02	06:04			07:11		15:14 (12)			08:42		13:04 (5)		
	21:21	20:07			16:27	27	15:41 (12)			15:35	57	14:38 (18)		
Möjliga soltimmar	531	470	385		323		246		214					
Totalt, värsta fall			771		264		1140		1742					
Sol reduktion			0,31		0,26		0,17		0,13					
Drifttid red.			1,00		1,00		1,00		1,00					
Vindrikt. red.			0,09		0,58		0,80		0,90					
Total reduktion			0,03		0,18		0,16		0,14					
Total, verklig			27		47		183		237					

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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
	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	08:08	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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 15:36	08:06 16:34	07:01 17:37	07:54 (3) 08:33 (3)	06:38 19:43	05:21 20:47
2	08:42 15:38	08:04 16:36	06:59 17:39	07:53 (3) 08:33 (3)	06:36 19:45	05:19 20:49
3	08:42 15:39	08:02 16:39	06:56 17:42	07:52 (3) 08:32 (3)	06:33 19:48	05:17 20:51
4	08:41 15:40	08:00 16:41	06:53 17:44	07:53 (3) 08:32 (3)	06:30 19:50	05:15 20:53
5	08:41 15:42	07:58 16:43	06:51 17:46	07:52 (3) 08:32 (3)	06:28 19:52	05:12 20:55
6	08:40 15:43	07:56 16:46	06:48 17:48	07:52 (3) 08:31 (3)	06:25 19:54	05:10 20:57
7	08:40 15:45	07:54 16:48	06:46 17:50	07:53 (3) 08:31 (3)	06:22 19:56	05:08 20:59
8	08:39 15:46	07:51 16:50	06:43 17:52	07:53 (3) 08:30 (3)	06:20 19:58	05:06 21:01
9	08:38 15:48	07:49 16:52	06:40 17:55	07:53 (3) 08:28 (3)	06:17 20:00	05:03 21:03
10	08:38 15:50	07:47 16:55	06:38 17:57	07:53 (3) 08:27 (3)	06:14 20:02	05:01 21:05
11	08:37 15:51	07:45 16:57	06:35 17:59	07:55 (3) 08:26 (3)	06:12 20:04	04:59 21:07
12	08:36 15:53	07:43 16:59	06:32 18:01	07:56 (3) 08:24 (3)	06:09 20:07	04:57 21:09
13	08:35 15:55	07:40 17:01	06:30 18:03	07:00 (7) 08:21 (3)	06:06 20:09	04:55 21:11
14	08:34 15:57	07:38 17:04	06:27 18:05	06:57 (7) 08:19 (3)	06:04 20:11	04:53 21:13
15	08:33 15:59	07:36 17:06	06:24 18:08	06:54 (7) 08:15 (3)	06:01 20:13	04:51 21:15
16	08:31 16:00	07:33 17:08	06:22 18:10	06:51 (7) 07:15 (7)	05:59 20:15	04:49 21:17
17	08:30 16:02	07:31 17:10	06:19 18:12	06:50 (7) 07:15 (7)	05:56 20:17	04:47 21:19
18	08:29 16:04	07:29 17:13	06:16 08:12 (3)	06:49 (7) 07:16 (7)	05:53 20:19	04:45 21:21
19	08:28 16:06	07:26 17:15	06:13 08:07 (3)	06:48 (7) 07:17 (7)	05:51 20:21	04:44 21:23
20	08:26 16:08	07:24 17:17	06:11 08:04 (3)	06:47 (7) 07:16 (7)	05:48 20:23	04:42 21:25
21	08:25 16:10	07:21 17:19	06:08 08:02 (3)	06:46 (7) 07:16 (7)	05:46 20:26	04:40 21:26
22	08:23 16:12	07:19 17:22	06:05 08:00 (3)	06:46 (7) 07:17 (7)	05:43 20:28	04:38 21:28
23	08:22 16:15	07:16 17:24	06:03 08:29 (3)	06:46 (7) 07:16 (7)	05:41 20:30	04:37 21:30
24	08:20 16:17	07:14 17:26	06:00 07:57 (3)	06:45 (7) 07:15 (7)	05:38 20:32	04:35 21:32
25	08:18 16:19	07:11 17:28	05:57 08:31 (3)	06:46 (7) 07:15 (7)	05:36 20:34	04:34 21:33
26	08:17 16:21	07:09 17:31	05:55 08:32 (3)	06:46 (7) 07:14 (7)	05:33 20:36	04:32 21:35
27	08:15 16:23	07:06 17:33	05:52 07:54 (3)	06:46 (7) 07:12 (7)	05:31 20:38	04:31 21:37
28	08:13 16:25	07:04 17:35	05:49 07:53 (3)	06:47 (7) 07:10 (7)	05:29 20:40	04:29 21:38
29	08:11 16:28		05:46 19:37	07:48 (7) 08:09 (7)	05:26 20:42	04:28 21:40
30	08:10 16:30		06:44 19:39	07:49 (7) 08:06 (7)	05:24 20:44	04:26 21:41
31	08:08 16:32		06:41 19:41	07:52 (7) 08:03 (7)		04:25 21:43
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall			948	313		
Sol reduktion		0,16	0,22	0,43		
Drifttid red.		1,00	1,00	1,00		
Vindrikt. red.		0,49	0,35	0,13		
Total reduktion		0,09	0,08	0,06		
Total, verklig		26	80	19		

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 22:01	05:04 21:19	06:07 20:04	06:40 (19) 07:02 (19)	07:07 18:43	08:35 (3) 09:02 (3)	07:14 16:25	08:16 15:33
2	04:19 22:00	05:06 21:17	06:09 20:02	06:41 (19) 07:01 (19)	07:10 18:41	08:34 (3) 09:03 (3)	07:16 16:23	08:18 15:32
3	04:20 22:00	05:08 21:15	06:11 19:59	06:41 (19) 06:58 (19)	07:12 18:38	08:32 (3) 09:04 (3)	07:18 16:21	08:19 15:32
4	04:21 21:59	05:10 21:13	06:13 19:56	06:42 (19) 06:56 (19)	07:14 18:35	08:31 (3) 09:05 (3)	07:20 16:18	08:21 15:31
5	04:22 21:59	05:12 21:11	06:15 19:54	06:45 (19) 06:53 (19)	07:16 18:33	08:30 (3) 09:06 (3)	07:22 16:16	08:22 15:30
6	04:23 21:58	05:14 21:08	06:17 19:51	07:18 18:30	07:18 18:30	08:29 (3) 09:07 (3)	07:25 16:14	08:24 15:29
7	04:24 21:57	05:16 21:06	06:19 19:48	07:20 18:27	07:20 18:27	08:28 (3) 09:07 (3)	07:27 16:12	08:26 15:29
8	04:25 21:56	05:18 21:04	06:21 19:46	07:22 18:25	07:22 18:25	08:28 (3) 09:07 (3)	07:29 16:10	08:27 15:28
9	04:26 21:55	05:20 21:02	06:23 19:43	07:24 18:22	07:24 18:22	08:27 (3) 09:07 (3)	07:31 16:08	08:28 15:28
10	04:28 21:54	05:22 20:59	06:25 19:40	07:26 18:19	07:26 18:19	08:27 (3) 09:06 (3)	07:33 16:06	08:30 15:27
11	04:29 21:53	05:24 20:57	06:27 19:38	07:28 18:17	07:28 18:17	08:26 (3) 09:06 (3)	07:35 16:04	08:31 15:27
12	04:30 21:52	05:26 20:55	06:29 19:35	07:30 18:14	07:30 18:14	08:27 (3) 09:06 (3)	07:38 16:02	08:32 15:26
13	04:32 21:51	05:28 20:52	06:31 19:32	07:32 18:12	07:32 18:12	08:27 (3) 09:06 (3)	07:40 16:00	08:33 15:26
14	04:33 21:50	05:30 20:50	06:33 19:30	07:39 18:09	07:35 18:09	08:27 (3) 09:05 (3)	07:42 15:58	08:34 15:26
15	04:35 21:48	05:32 20:48	06:35 19:27	07:37 (7) 08:01 (7)	07:37 18:06	08:27 (3) 09:04 (3)	07:44 15:56	08:35 15:26
16	04:36 21:47	05:34 20:45	06:37 19:24	07:36 (7) 08:01 (7)	07:39 18:04	08:28 (3) 09:04 (3)	07:46 15:55	08:36 15:26
17	04:38 21:46	05:36 20:43	06:39 19:21	07:35 (7) 08:02 (7)	07:41 18:01	08:28 (3) 09:03 (3)	07:48 15:53	08:37 15:26
18	04:39 21:44	05:38 20:40	06:41 19:19	07:34 (7) 08:02 (7)	07:43 17:59	08:29 (3) 09:01 (3)	07:50 15:51	08:38 15:26
19	04:41 21:43	05:40 20:38	06:43 19:16	07:33 (7) 08:02 (7)	07:45 17:56	08:29 (3) 09:00 (3)	07:53 15:49	08:39 15:27
20	04:43 21:41	05:42 20:35	06:45 19:13	07:32 (7) 08:02 (7)	07:47 17:54	08:31 (3) 08:59 (3)	07:55 15:48	08:40 15:27
21	04:44 21:39	05:44 20:33	06:48 19:10	07:32 (7) 08:02 (7)	07:49 17:51	08:33 (3) 08:57 (3)	07:57 15:46	08:40 15:27
22	04:46 21:38	05:47 20:30	06:49 19:08	07:32 (7) 08:02 (7)	07:52 17:49	08:35 (3) 08:54 (3)	07:59 15:45	08:41 15:28
23	04:48 21:36	05:49 20:28	06:51 19:05	07:31 (7) 08:01 (7)	07:54 17:46	08:38 (3) 08:51 (3)	08:01 15:43	08:41 15:28
24	04:49 21:34	05:51 20:25	06:53 19:02	07:31 (7) 08:00 (7)	07:56 17:44	08:03 15:42	08:03 15:29	08:42 15:29
25	04:51 21:33	05:53 20:23	06:55 19:00	07:32 (7) 07:59 (7)	06:58 16:41	08:05 15:40	08:05 15:40	08:42 15:29
26	04:53 21:31	05:55 20:20	06:57 18:57	07:32 (7) 07:58 (7)	07:00 16:39	08:07 15:39	08:07 15:39	08:42 15:30
27	04:55 21:29	05:57 20:18	06:59 18:54	07:33 (7) 07:57 (7)	07:03 16:37	08:09 15:38	08:09 15:38	08:43 15:31
28	04:57 21:27	05:59 20:15	07:01 18:51	07:34 (7) 08:53 (3)	07:05 16:34	08:10 15:37	08:10 15:37	08:43 15:32
29	04:59 21:25	06:01 20:12	07:03 18:49	07:36 (7) 08:58 (3)	07:07 16:32	08:12 15:36	08:12 15:36	08:43 15:33
30	05:01 21:23	06:03 20:10	07:05 18:46	07:38 (7) 09:00 (3)	07:09 16:30	08:14 15:34	08:14 15:34	08:43 15:34
31	05:02 21:21	06:05 20:07	07:07 18:44	07:11 16:27	07:11 16:27	08:14 15:35	08:14 15:35	08:43 15:35
Möjliga soltimmar	531	470	385	323	246	214		
Totalt, värsta fall		236	582	764				
Sol reduktion		0,36	0,31	0,26				
Drifttid red.		1,00	1,00	1,00				
Vindrikt. red.		0,13	0,20	0,49				
Total reduktion		0,05	0,07	0,14				
Total, verklig		12	41	105				

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid

0 Totalt

8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 50	09:22 (20) 11:23 (7) 16:34	08:06 09:47 (19) 17:37		06:38 05:21 04:24	
2	08:42 15:38 51	09:22 (20) 11:23 (7) 16:36	08:04 09:48 (19) 17:39		06:36 05:19 04:23	
3	08:42 15:39 52	09:21 (20) 11:23 (7) 16:39	08:02 09:47 (19) 17:42		06:33 05:17 04:22	
4	08:41 15:40 52	09:21 (20) 11:24 (7) 16:41	08:00 09:48 (19) 17:44		06:30 05:14 04:21	
5	08:41 15:42 52	09:21 (20) 11:24 (7) 16:43	08:00 09:48 (19) 17:46	07:33 (1)	06:28 05:12 04:20	
6	08:40 15:43 52	09:21 (20) 11:24 (7) 16:45	08:00 09:49 (19) 17:48	07:36 (1)	06:25 05:10 04:19	
7	08:40 15:45 51	09:21 (20) 11:23 (7) 16:48	08:00 09:48 (19) 17:50	07:41 (1)	06:22 05:08 04:18	
8	08:39 15:46 51	09:21 (20) 11:23 (7) 16:50	08:00 09:49 (19) 17:52	07:43 (1)	06:20 05:05 04:17	
9	08:38 15:48 49	09:22 (20) 11:23 (7) 16:52	08:00 09:49 (19) 17:55	07:46 (1)	06:17 05:03 04:16	
10	08:38 15:49 47	09:22 (20) 11:22 (7) 16:54	08:00 09:48 (19) 17:57	07:47 (1)	06:16 05:01 04:16	
11	08:37 15:51 47	09:22 (20) 11:22 (7) 16:57	08:00 09:48 (19) 17:59	07:49 (1)	06:14 05:00 04:15	
12	08:36 15:53 44	09:23 (20) 11:21 (7) 16:59	08:00 09:47 (19) 18:01	07:51 (1)	06:12 05:00 04:14	
13	08:35 15:55 41	09:22 (20) 11:19 (7) 17:01	08:00 09:47 (19) 18:03	07:54 (1)	06:10 05:00 04:14	
14	08:34 15:57 35	09:23 (20) 11:17 (7) 17:04	08:00 09:45 (19) 18:05	07:57 (1)	06:08 05:00 04:14	
15	08:33 15:58 28	09:23 (20) 09:51 (20) 17:06	08:00 09:45 (19) 18:07	07:59 (1)	06:06 05:00 04:14	
16	08:31 16:00 28	09:24 (20) 09:52 (20) 17:08	08:00 09:43 (19) 18:10	07:59 (1)	06:04 05:00 04:14	
17	08:30 16:02 28	09:24 (20) 09:52 (20) 17:10	08:00 09:42 (19) 18:12	07:59 (1)	06:04 05:00 04:14	
18	08:29 16:04 27	09:25 (20) 09:52 (20) 17:13	08:00 09:40 (19) 18:14	07:59 (1)	06:04 05:00 04:14	
19	08:28 16:06 29	09:23 (19) 09:52 (20) 17:15	08:00 09:38 (19) 18:16	07:59 (1)	06:04 05:00 04:14	
20	08:26 16:08 34	09:18 (19) 09:52 (20) 17:17	08:00 09:34 (19) 18:18	07:59 (1)	06:04 05:00 04:14	
21	08:25 16:10 37	09:16 (19) 09:53 (20) 17:19	08:00 09:29 (19) 18:20	07:59 (1)	06:04 05:00 04:14	
22	08:23 16:12 37	09:15 (19) 09:52 (20) 17:22	08:00 18:22	07:59 (1)	06:04 05:00 04:14	
23	08:22 16:14 39	09:13 (19) 09:52 (20) 17:24	08:00 18:24	07:59 (1)	06:04 05:00 04:14	
24	08:20 16:17 39	09:12 (19) 09:51 (20) 17:26	08:00 18:27	07:59 (1)	06:04 05:00 04:14	
25	08:18 16:19 40	09:11 (19) 09:51 (20) 17:28	08:00 18:29	07:59 (1)	06:04 05:00 04:14	
26	08:17 16:21 40	09:10 (19) 09:50 (20) 17:30	08:00 18:31	07:59 (1)	06:04 05:00 04:14	
27	08:15 16:23 40	09:09 (19) 09:49 (20) 17:33	08:00 18:33	07:59 (1)	06:04 05:00 04:14	
28	08:13 16:25 38	09:09 (19) 09:47 (20) 17:35	08:00 18:35	07:59 (1)	06:04 05:00 04:14	
29	08:11 16:27 36	09:08 (19) 09:44 (20) 17:37	08:00 19:37	07:59 (1)	06:04 05:00 04:14	
30	08:10 16:30 37	09:08 (19) 09:45 (19) 17:39	08:00 19:39	07:59 (1)	06:04 05:00 04:14	
31	08:08 16:32 38	09:08 (19) 09:46 (19) 17:41	08:00 19:41	07:59 (1)	06:04 05:00 04:14	
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1269	723	901			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,84	0,76	0,26			
Total reduktion	0,17	0,13	0,06			
Total, verklig	214	97	57			

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	07:55 (1)	07:13	08:37 (19)	08:16	09:04 (20)
	22:01	21:19	20:04		18:43	08:28 (1)	16:25	09:18 (19)	15:33	11:04 (7)
2	04:19	05:06	06:09		07:09	07:55 (1)	07:16	08:36 (19)	08:18	09:05 (20)
	22:00	21:17	20:02		18:41	08:27 (1)	16:23	09:17 (19)	15:32	11:06 (7)
3	04:20	05:08	06:11		07:12	07:55 (1)	07:18	08:37 (19)	08:19	09:06 (20)
	22:00	21:15	19:59		18:38	08:26 (1)	16:20	09:18 (19)	15:31	11:07 (7)
4	04:21	05:10	06:13		07:14	07:56 (1)	07:20	08:36 (19)	08:21	09:06 (20)
	21:59	21:13	19:56		18:35	08:24 (1)	16:18	09:18 (19)	15:31	11:07 (7)
5	04:22	05:12	06:15		07:16	07:57 (1)	07:22	08:37 (19)	08:22	09:06 (20)
	21:59	21:11	19:54		18:33	08:23 (1)	16:16	09:19 (19)	15:30	11:08 (7)
6	04:23	05:14	06:17		07:18	07:59 (1)	07:24	08:37 (19)	08:24	09:07 (20)
	21:58	21:08	19:51		18:30	08:21 (1)	16:14	09:18 (19)	15:29	11:10 (7)
7	04:24	05:16	06:19		07:20	08:01 (1)	07:27	08:37 (19)	08:26	09:08 (20)
	21:57	21:06	19:48		18:27	08:19 (1)	16:12	09:19 (19)	15:28	11:11 (7)
8	04:25	05:18	06:21		07:22	08:04 (1)	07:29	08:37 (19)	08:27	09:08 (20)
	21:56	21:04	19:46		18:25	08:15 (1)	16:10	09:18 (19)	15:28	11:11 (7)
9	04:26	05:20	06:23		07:24		07:31	08:37 (19)	08:28	09:10 (20)
	21:55	21:02	19:43		18:22		16:08	09:17 (19)	15:27	11:12 (7)
10	04:27	05:22	06:25		07:26		07:33	08:38 (19)	08:30	09:11 (20)
	21:54	20:59	19:40		18:19		16:06	09:18 (19)	15:27	11:13 (7)
11	04:29	05:24	06:27		07:28		07:35	08:39 (19)	08:31	09:13 (20)
	21:53	20:57	19:38		18:17		16:04	09:17 (19)	15:27	11:14 (7)
12	04:30	05:26	06:29	07:34 (10)	07:30		07:38	08:40 (19)	08:32	09:14 (20)
	21:52	20:55	19:35	9	07:43 (10)	18:14	16:02	09:17 (19)	15:26	11:14 (7)
13	04:32	05:28	06:31	07:31 (10)	07:32		07:40	08:40 (19)	08:33	09:15 (20)
	21:51	20:52	19:32	15	07:46 (10)	18:12	16:00	09:17 (20)	15:26	11:15 (7)
14	04:33	05:30	06:33	07:29 (10)	07:34		07:42	08:42 (19)	08:34	09:16 (20)
	21:50	20:50	19:29	18	07:47 (10)	18:09	15:58	09:20 (20)	15:26	11:15 (7)
15	04:34	05:32	06:35	07:28 (10)	07:37		07:44	08:42 (19)	08:35	09:17 (20)
	21:48	20:48	19:27	20	07:48 (10)	18:06	15:56	09:22 (20)	15:26	11:16 (7)
16	04:36	05:34	06:37	07:26 (10)	07:39		07:46	08:43 (19)	08:36	09:18 (20)
	21:47	20:45	19:24	23	07:49 (10)	18:04	15:54	09:23 (20)	15:26	11:16 (7)
17	04:38	05:36	06:39	07:25 (10)	07:41		07:48	08:45 (19)	08:37	09:19 (20)
	21:46	20:43	19:21	36	08:22 (1)	18:01	15:53	09:25 (20)	15:26	11:17 (7)
18	04:39	05:38	06:41	07:25 (10)	07:43		07:50	08:46 (19)	08:38	09:20 (20)
	21:44	20:40	19:19	43	08:25 (1)	17:59	15:51	09:25 (20)	15:26	11:17 (7)
19	04:41	05:40	06:43	07:24 (10)	07:45		07:53	08:48 (19)	08:39	09:21 (20)
	21:43	20:38	19:16	48	08:27 (1)	17:56	15:49	09:27 (20)	15:26	11:18 (7)
20	04:42	05:42	06:45	07:24 (10)	07:47		07:55	08:50 (19)	08:40	09:22 (20)
	21:41	20:35	19:13	51	08:28 (1)	17:54	15:48	09:27 (20)	15:27	11:19 (7)
21	04:44	05:44	06:47	07:24 (10)	07:49	09:53 (19)	07:57	08:51 (19)	08:40	09:22 (20)
	21:39	20:33	19:10	52	08:29 (1)	17:51	9	09:28 (20)	15:27	11:19 (7)
22	04:46	05:46	06:49	07:24 (10)	07:52	09:48 (19)	07:59	08:55 (19)	08:41	09:23 (20)
	21:38	20:30	19:08	54	08:30 (1)	17:49	18	09:29 (20)	15:28	11:20 (7)
23	04:48	05:48	06:51	07:24 (10)	07:54	09:46 (19)	08:01	08:59 (19)	08:41	09:23 (20)
	21:36	20:28	19:05	54	08:30 (1)	17:46	23	09:29 (20)	15:28	11:20 (7)
24	04:49	05:50	06:53	07:25 (10)	07:56	09:44 (19)	08:03	09:02 (20)	08:42	09:23 (20)
	21:34	20:25	19:02	54	08:31 (1)	17:44	27	09:30 (20)	15:29	11:20 (7)
25	04:51	05:53	06:55	07:26 (10)	06:58	08:42 (19)	08:05	09:02 (20)	08:42	09:24 (20)
	21:33	20:23	19:00	51	08:31 (1)	16:41	30	09:30 (20)	15:29	11:21 (7)
26	04:53	05:55	06:57	07:27 (10)	07:00	08:41 (19)	08:07	09:02 (20)	08:42	09:24 (20)
	21:31	20:20	18:57	49	08:31 (1)	16:39	33	09:30 (20)	15:30	11:22 (7)
27	04:55	05:57	06:59	07:30 (10)	07:02	08:40 (19)	08:09	09:03 (20)	08:43	09:24 (20)
	21:29	20:18	18:54	42	08:30 (1)	16:37	35	09:31 (20)	15:31	11:22 (7)
28	04:57	05:59	07:01	07:55 (1)	07:05	08:39 (19)	08:10	09:03 (20)	08:43	09:24 (20)
	21:27	20:15	18:51	35	08:30 (1)	16:34	36	10:57 (7)	15:32	11:22 (7)
29	04:59	06:01	07:03	07:55 (1)	07:07	08:38 (19)	08:12	09:04 (20)	08:43	09:24 (20)
	21:25	20:12	18:49	35	08:30 (1)	16:32	38	11:00 (7)	15:33	11:23 (7)
30	05:00	06:03	07:05	07:55 (1)	07:09	08:38 (19)	08:14	09:04 (20)	08:43	09:23 (20)
	21:23	20:10	18:46	34	08:29 (1)	16:30	39	09:17 (19)	15:34	11:22 (7)
31	05:02	06:05			07:11	08:38 (19)		11:02 (7)	08:43	09:23 (20)
	21:21	20:07			16:27	09:18 (19)			15:35	11:23 (7)
Möjliga soltimmar	531	470	385		323		246		214	
Totalt, värsta fall			723		529		1127		1501	
Sol reduktion			0,31		0,26		0,17		0,13	
Drifttid red.			1,00		1,00		1,00		1,00	
Vindrikt. red.			0,24		0,59		0,79		0,91	
Total reduktion			0,08		0,17		0,15		0,13	
Total, verklig			60		89		165		193	

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 35	09:48 (3) 08:06 10:23 (3) 16:34 16:34	08:41 (7) 07:01 10:19 (3) 17:37 17:37	06:38 19:43 20:47	05:21 20:47 21:44	04:24 21:44 21:44
2	08:42 15:38 35	09:49 (3) 08:04 10:24 (3) 16:36 16:36	08:38 (7) 06:59 08:55 (7) 17:39 17:39	06:36 19:45 20:49	05:19 20:49 21:46	04:23 21:46 21:46
3	08:42 15:39 35	09:49 (3) 08:02 10:24 (3) 16:39 16:39	08:36 (7) 06:56 08:56 (7) 17:42 17:42	06:33 19:48 20:51	05:17 20:51 21:47	04:22 21:47 21:47
4	08:41 15:40 36	09:50 (3) 08:00 10:26 (3) 16:41 16:41	08:35 (7) 06:53 08:58 (7) 17:44 17:44	06:30 19:50 20:53	05:14 20:53 21:49	04:21 21:49 21:49
5	08:41 15:42 36	09:50 (3) 07:58 10:26 (3) 16:43 16:43	08:34 (7) 06:51 08:59 (7) 17:46 17:46	06:28 19:52 20:55	05:12 20:55 21:50	04:20 21:50 21:50
6	08:40 15:43 36	09:50 (3) 07:56 10:26 (3) 16:45 16:45	08:33 (7) 06:48 09:01 (7) 17:48 17:48	06:25 19:54 20:57	05:10 20:57 21:51	04:19 21:51 21:51
7	08:40 15:45 37	09:50 (3) 07:54 10:27 (3) 16:48 16:48	08:32 (7) 06:45 09:01 (7) 17:50 17:50	06:22 19:56 20:59	05:08 20:59 21:52	04:18 21:52 21:52
8	08:39 15:46 37	09:50 (3) 07:51 10:27 (3) 16:50 16:50	08:31 (7) 06:43 09:02 (7) 17:52 17:52	06:20 19:58 21:01	05:06 21:01 21:53	04:17 21:53 21:53
9	08:38 15:48 37	09:51 (3) 07:49 10:28 (3) 16:52 16:52	08:31 (7) 06:40 09:03 (7) 17:55 17:55	06:17 20:00 21:03	05:03 21:03 21:54	04:17 21:54 21:54
10	08:38 15:50 37	09:51 (3) 07:47 10:28 (3) 16:55 16:55	08:30 (7) 06:38 09:03 (7) 17:57 17:57	07:07 (19) 07:16 (19) 20:02	05:01 21:05 21:55	04:16 21:55 21:55
11	08:37 15:51 37	09:52 (3) 07:45 10:29 (3) 16:57 16:57	08:30 (7) 06:35 09:04 (7) 17:59 17:59	07:04 (19) 07:20 (19) 20:04	04:59 21:07 21:56	04:15 21:56 21:56
12	08:36 15:53 38	09:52 (3) 07:43 10:30 (3) 16:59 16:59	08:30 (7) 06:32 09:03 (7) 18:01 18:01	07:01 (19) 07:22 (19) 20:07	06:09 21:09 21:57	04:15 21:57 21:57
13	08:35 15:55 38	09:52 (3) 07:40 10:30 (3) 17:01 17:01	08:30 (7) 06:30 09:04 (7) 18:03 18:03	06:59 (19) 07:22 (19) 20:09	06:06 21:11 21:58	04:14 21:58 21:58
14	08:34 15:57 37	09:53 (3) 07:38 10:30 (3) 17:04 17:04	08:30 (7) 06:27 09:03 (7) 18:05 18:05	06:59 (19) 07:24 (19) 20:11	06:04 21:13 21:59	04:14 21:59 21:59
15	08:33 15:58 38	09:53 (3) 07:36 10:31 (3) 17:06 17:06	08:30 (7) 06:24 09:03 (7) 18:07 18:07	06:57 (19) 07:24 (19) 20:13	06:01 21:15 21:59	04:14 21:59 21:59
16	08:31 16:00 38	09:53 (3) 07:33 10:31 (3) 17:08 17:08	08:30 (7) 06:22 09:03 (7) 18:10 18:10	06:56 (19) 07:24 (19) 20:15	05:59 21:17 22:00	04:13 22:00 22:00
17	08:30 16:02 38	09:53 (3) 07:31 10:31 (3) 17:10 17:10	08:31 (7) 06:19 09:03 (7) 18:12 18:12	06:55 (19) 07:24 (19) 20:17	05:56 21:19 22:01	04:13 22:01 22:01
18	08:29 16:04 37	09:54 (3) 07:29 10:31 (3) 17:13 17:13	08:31 (7) 06:16 09:02 (7) 18:14 18:14	06:55 (19) 07:25 (19) 20:19	05:53 21:21 22:01	04:13 22:01 22:01
19	08:28 16:06 37	09:54 (3) 07:26 10:31 (3) 17:15 17:15	08:32 (7) 06:13 09:01 (7) 18:16 18:16	06:55 (19) 07:24 (19) 20:21	05:51 21:23 22:01	04:13 22:01 22:01
20	08:26 16:08 36	09:56 (3) 07:24 10:32 (3) 17:17 17:17	08:32 (7) 06:11 09:00 (7) 18:18 18:18	06:54 (19) 07:23 (19) 20:23	05:48 21:25 22:02	04:13 22:02 22:02
21	08:25 16:10 36	09:56 (3) 07:21 10:32 (3) 17:19 17:19	08:34 (7) 06:08 08:59 (7) 18:20 18:20	06:54 (19) 07:22 (19) 20:25	05:46 21:26 22:02	04:13 22:02 22:02
22	08:23 16:12 35	09:56 (3) 07:19 10:31 (3) 17:22 17:22	08:35 (7) 06:05 08:57 (7) 18:22 18:22	06:55 (19) 07:22 (19) 20:28	05:43 21:28 22:02	04:13 22:02 22:02
23	08:22 16:15 34	09:57 (3) 07:16 10:31 (3) 17:24 17:24	08:37 (7) 06:03 08:54 (7) 18:24 18:24	06:55 (19) 07:21 (19) 20:30	05:41 21:30 22:02	04:14 22:02 22:02
24	08:20 16:17 33	09:58 (3) 07:14 10:31 (3) 17:26 17:26	08:40 (7) 06:00 08:51 (7) 18:27 18:27	06:55 (19) 07:19 (19) 20:32	05:38 21:32 22:02	04:14 22:02 22:02
25	08:18 16:19 32	09:58 (3) 07:11 10:30 (3) 17:28 17:28	05:57 18:29 21	06:57 (19) 07:18 (19) 20:34	05:36 21:33 22:02	04:14 22:02 22:02
26	08:17 16:21 30	09:59 (3) 07:09 10:29 (3) 17:31 17:31	05:55 18:31 18	06:58 (19) 07:16 (19) 20:36	05:33 21:35 22:02	04:15 22:02 22:02
27	08:15 16:23 29	10:00 (3) 07:06 10:29 (3) 17:33 17:33	05:52 18:33 13	07:00 (19) 07:13 (19) 20:38	05:31 21:37 22:02	04:15 22:02 22:02
28	08:13 16:25 26	10:02 (3) 07:04 10:28 (3) 17:35 17:35	05:49 18:35 1	07:05 (19) 07:06 (19) 20:40	05:29 21:38 22:02	04:16 22:02 22:02
29	08:11 16:28 24	10:03 (3) 10:27 (3)	06:46 19:37 20:42	05:26 20:42 21:40	04:17 22:02 22:02	04:17 22:02 22:02
30	08:10 16:30 20	10:05 (3) 10:25 (3)	06:44 19:39 20:44	05:24 20:44 21:41	04:17 22:01 22:01	04:17 22:01 22:01
31	08:08 16:32 15	10:08 (3) 10:23 (3)	06:41 19:41 366	04:25 21:43 531	04:17 22:02 22:02	04:17 22:02 22:02
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1049	651	424			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,89	0,64	0,23			
Total reduktion	0,17	0,11	0,05			
Total, verklig	181	72	23			

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftid

0 Totalt

8 760 8 760

	Juli	Augusti	September		Oktober		November		December	
1	04:18	05:04	06:07		07:07	07:40 (19)	07:14	08:00 (7)	08:16	09:34 (3)
	22:01	21:19	20:04		18:43	21 08:01 (19)	16:25	32 08:32 (7)	15:33	37 10:11 (3)
2	04:19	05:06	06:09		07:10	07:41 (19)	07:16	08:00 (7)	08:18	09:34 (3)
	22:01	21:17	20:02		18:41	18 07:59 (19)	16:23	32 08:32 (7)	15:32	38 10:12 (3)
3	04:20	05:08	06:11		07:12	07:43 (19)	07:18	08:01 (7)	08:19	09:35 (3)
	22:00	21:15	19:59		18:38	13 07:56 (19)	16:21	31 08:32 (7)	15:32	37 10:12 (3)
4	04:21	05:10	06:13		07:14		07:20	08:01 (7)	08:21	09:35 (3)
	21:59	21:13	19:56		18:35		16:18	29 08:30 (7)	15:31	37 10:12 (3)
5	04:22	05:12	06:15		07:16		07:22	08:03 (7)	08:22	09:35 (3)
	21:59	21:11	19:54		18:33		16:16	27 08:30 (7)	15:30	37 10:12 (3)
6	04:23	05:14	06:17		07:18		07:25	08:04 (7)	08:24	09:36 (3)
	21:58	21:08	19:51		18:30		16:14	25 08:29 (7)	15:29	36 10:12 (3)
7	04:24	05:16	06:19		07:20		07:27	08:05 (7)	08:26	09:37 (3)
	21:57	21:06	19:48		18:27		16:12	23 08:28 (7)	15:29	36 10:13 (3)
8	04:25	05:18	06:21		07:22		07:29	08:07 (7)	08:27	09:37 (3)
	21:56	21:04	19:46		18:25		16:10	19 08:26 (7)	15:28	36 10:13 (3)
9	04:26	05:20	06:23		07:24		07:31	08:09 (7)	08:28	09:38 (3)
	21:55	21:02	19:43		18:22		16:08	16 08:25 (7)	15:27	35 10:13 (3)
10	04:28	05:22	06:25		07:26		07:33	08:12 (7)	08:30	09:38 (3)
	21:54	20:59	19:40		18:19		16:06	19 09:51 (3)	15:27	35 10:13 (3)
11	04:29	05:24	06:27		07:28		07:35	09:38 (3)	08:31	09:39 (3)
	21:53	20:57	19:38		18:17		16:04	16 09:54 (3)	15:27	35 10:14 (3)
12	04:30	05:26	06:29		07:30		07:38	09:37 (3)	08:32	09:40 (3)
	21:52	20:55	19:35		18:14		16:02	20 09:57 (3)	15:26	34 10:14 (3)
13	04:32	05:28	06:31		07:32		07:40	09:35 (3)	08:33	09:40 (3)
	21:51	20:52	19:32		18:12		16:00	24 09:59 (3)	15:26	34 10:14 (3)
14	04:33	05:30	06:33		07:35		07:42	09:35 (3)	08:34	09:40 (3)
	21:50	20:50	19:30		18:09		15:58	26 10:01 (3)	15:26	34 10:14 (3)
15	04:35	05:32	06:35		07:37		07:44	09:33 (3)	08:36	09:41 (3)
	21:48	20:48	19:27		18:06		15:56	29 10:02 (3)	15:26	33 10:14 (3)
16	04:36	05:34	06:37	07:50 (19)	07:39		07:46	09:32 (3)	08:36	09:41 (3)
	21:47	20:45	19:24	11 08:01 (19)	18:04		15:54	30 10:02 (3)	15:26	34 10:15 (3)
17	04:38	05:36	06:39	07:47 (19)	07:41		07:48	09:32 (3)	08:37	09:42 (3)
	21:46	20:43	19:21	17 08:04 (19)	18:01		15:53	32 10:04 (3)	15:26	33 10:15 (3)
18	04:39	05:38	06:41	07:45 (19)	07:43	09:10 (7)	07:50	09:32 (3)	08:38	09:43 (3)
	21:44	20:40	19:19	20 08:05 (19)	17:59	13 09:23 (7)	15:51	33 10:05 (3)	15:26	33 10:16 (3)
19	04:41	05:40	06:43	07:43 (19)	07:45	09:07 (7)	07:53	09:32 (3)	08:39	09:43 (3)
	21:43	20:38	19:16	24 08:07 (19)	17:56	19 09:26 (7)	15:49	34 10:06 (3)	15:26	33 10:16 (3)
20	04:42	05:42	06:45	07:42 (19)	07:47	09:06 (7)	07:55	09:31 (3)	08:40	09:44 (3)
	21:41	20:35	19:13	25 08:07 (19)	17:54	22 09:28 (7)	15:48	35 10:06 (3)	15:27	33 10:17 (3)
21	04:44	05:44	06:47	07:40 (19)	07:49	09:04 (7)	07:57	09:31 (3)	08:40	09:44 (3)
	21:39	20:33	19:10	28 08:08 (19)	17:51	26 09:30 (7)	15:46	36 10:07 (3)	15:27	33 10:17 (3)
22	04:46	05:46	06:49	07:40 (19)	07:52	09:02 (7)	07:59	09:32 (3)	08:41	09:45 (3)
	21:38	20:30	19:08	28 08:08 (19)	17:49	28 09:30 (7)	15:45	36 10:08 (3)	15:28	33 10:18 (3)
23	04:48	05:49	06:51	07:39 (19)	07:54	09:02 (7)	08:01	09:31 (3)	08:41	09:45 (3)
	21:36	20:28	19:05	29 08:08 (19)	17:46	30 09:32 (7)	15:43	37 10:08 (3)	15:28	33 10:18 (3)
24	04:49	05:51	06:53	07:38 (19)	07:56	09:01 (7)	08:03	09:31 (3)	08:42	09:45 (3)
	21:34	20:25	19:02	30 08:08 (19)	17:44	31 09:32 (7)	15:42	37 10:08 (3)	15:29	33 10:18 (3)
25	04:51	05:53	06:55	07:38 (19)	06:58	08:00 (7)	08:05	09:31 (3)	08:42	09:47 (3)
	21:33	20:23	19:00	29 08:07 (19)	16:41	32 08:32 (7)	15:40	38 10:09 (3)	15:29	33 10:20 (3)
26	04:53	05:55	06:57	07:38 (19)	07:00	08:00 (7)	08:07	09:31 (3)	08:42	09:47 (3)
	21:31	20:20	18:57	29 08:07 (19)	16:39	33 08:33 (7)	15:39	38 10:09 (3)	15:30	33 10:20 (3)
27	04:55	05:57	06:59	07:38 (19)	07:03	08:00 (7)	08:09	09:32 (3)	08:43	09:47 (3)
	21:29	20:18	18:54	28 08:06 (19)	16:37	33 08:33 (7)	15:38	38 10:10 (3)	15:31	34 10:21 (3)
28	04:57	05:59	07:01	07:38 (19)	07:05	07:59 (7)	08:10	09:33 (3)	08:43	09:48 (3)
	21:27	20:15	18:51	27 08:05 (19)	16:34	34 08:33 (7)	15:37	37 10:10 (3)	15:32	33 10:21 (3)
29	04:59	06:01	07:03	07:38 (19)	07:07	08:00 (7)	08:12	09:33 (3)	08:43	09:48 (3)
	21:25	20:12	18:49	26 08:04 (19)	16:32	33 08:33 (7)	15:36	38 10:11 (3)	15:33	34 10:22 (3)
30	05:01	06:03	07:05	07:39 (19)	07:09	07:59 (7)	08:14	09:33 (3)	08:43	09:48 (3)
	21:23	20:10	18:46	24 08:03 (19)	16:30	34 08:33 (7)	15:34	38 10:11 (3)	15:34	34 10:22 (3)
31	05:02	06:05			07:11	08:00 (7)			08:43	09:48 (3)
	21:21	20:07			16:27	33 08:33 (7)			15:35	35 10:23 (3)
Möjliga soltimmar	531	470	385		323		246		214	
Totalt, värsta fall			375		453		905		1068	
Sol reduktion			0,31		0,26		0,17		0,13	
Drifttid red.			1,00		1,00		1,00		1,00	
Vindrikt. red.			0,23		0,59		0,82		0,89	
Total reduktion			0,08		0,16		0,15		0,12	
Total, verklig			29		74		135		130	

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: AE - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (123)
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

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		20:55 (3)	04:18	20:57 (3)	05:04	06:07	07:07	07:13	08:16
	15:36	16:34	17:37	19:43	20:46		21:44	11	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		20:55 (3)	04:19	20:58 (3)	05:06	06:09	07:09	07:16	08:17
	15:38	16:36	17:39	19:45	20:48		21:46	12	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		20:54 (3)	04:20	20:58 (3)	05:08	06:11	07:11	07:18	08:19
	15:39	16:39	17:41	19:47	20:51		21:47	14	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		20:53 (3)	04:21	20:58 (3)	05:10	06:13	07:13	07:20	08:21
	15:40	16:41	17:44	19:50	20:53		21:48	16	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		20:53 (3)	04:22	20:58 (3)	05:12	06:15	07:16	07:22	08:22
	15:42	16:43	17:46	19:52	20:55		21:50	17	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		20:53 (3)	04:23	20:59 (3)	05:14	06:17	07:18	07:24	08:24
	15:43	16:45	17:48	19:54	20:57		21:51	19	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		20:53 (3)	04:24	20:59 (3)	05:16	06:19	07:20	07:27	08:25
	15:45	16:48	17:50	19:56	20:59		21:52	19	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		20:52 (3)	04:25	21:00 (3)	05:18	06:21	07:22	07:29	08:27
	15:46	16:50	17:52	19:58	21:01		21:53	21	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		20:53 (3)	04:26	21:01 (3)	05:20	06:23	07:24	07:31	08:28
	15:48	16:52	17:55	20:00	21:03		21:54	21	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		20:52 (3)	04:28	21:02 (3)	05:22	06:25	07:26	07:33	08:29
	15:50	16:54	17:57	20:02	21:05		21:55	23	21:15 (3)	21:54	21:15 (3)	20:59	19:40	18:19	16:06	15:27
11	08:36	07:45	06:35	06:12	04:59		04:15		20:53 (3)	04:29	21:02 (3)	05:24	06:27	07:28	07:35	08:31
	15:51	16:57	17:59	20:04	21:07		21:56	23	21:16 (3)	21:53	21:14 (3)	20:57	19:38	18:17	16:04	15:27
12	08:36	07:42	06:32	06:09	04:57		04:15		20:53 (3)	04:30	21:03 (3)	05:26	06:29	07:30	07:37	08:32
	15:53	16:59	18:01	20:06	21:09		21:57	24	21:17 (3)	21:52	21:13 (3)	20:55	19:35	18:14	16:02	15:26
13	08:35	07:40	06:29	06:06	04:55		04:14		20:53 (3)	04:32	21:04 (3)	05:28	06:31	07:32	07:40	08:33
	15:55	17:01	18:03	20:08	21:11		21:58	24	21:17 (3)	21:51	21:11 (3)	20:52	19:32	18:11	16:00	15:26
14	08:33	07:38	06:27	06:04	04:53		04:14		20:53 (3)	04:33	21:06 (3)	05:30	06:33	07:34	07:42	08:34
	15:57	17:04	18:05	20:11	21:13		21:58	25	21:18 (3)	21:49	21:11 (3)	20:50	19:29	18:09	15:58	15:26
15	08:32	07:35	06:24	06:01	04:51		04:14		20:53 (3)	04:35	21:09 (3)	05:32	06:35	07:36	07:44	08:35
	15:58	17:06	18:07	20:13	21:15		21:59	25	21:18 (3)	21:48	21:10 (3)	20:47	19:27	18:06	15:56	15:26
16	08:31	07:33	06:21	05:59	04:49		04:13		20:53 (3)	04:36		05:34	06:37	07:39	07:46	08:36
	16:00	17:08	18:10	20:15	21:17		22:00	26	21:19 (3)	21:47		20:45	19:24	18:04	15:54	15:26
17	08:30	07:31	06:19	05:56	04:47		04:13		20:54 (3)	04:38		05:36	06:39	07:41	07:48	08:37
	16:02	17:10	18:12	20:17	21:19		22:00	25	21:19 (3)	21:45		20:43	19:21	18:01	15:53	15:26
18	08:29	07:28	06:16	05:53	04:45		04:13		20:54 (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	25	21:19 (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		20:54 (3)	04:41		05:40	06:43	07:45	07:52	08:39
	16:06	17:15	18:16	20:21	21:22		22:01	25	21:19 (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		20:54 (3)	04:42		05:42	06:45	07:47	07:54	08:39
	16:08	17:17	18:18	20:23	21:24		22:02	25	21:19 (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		20:54 (3)	04:44		05:44	06:47	07:49	07:56	08:40
	16:10	17:19	18:20	20:25	21:26		22:02	26	21:20 (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		20:54 (3)	04:46		05:46	06:49	07:51	07:58	08:41
	16:12	17:22	18:22	20:27	21:28		22:02	25	21:19 (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		20:55 (3)	04:48		05:48	06:51	07:54	08:00	08:41
	16:14	17:24	18:24	20:30	21:30		22:02	25	21:20 (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		20:55 (3)	04:49		05:50	06:53	07:56	08:02	08:42
	16:17	17:26	18:26	20:32	21:31		22:02	25	21:20 (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		20:55 (3)	04:51		05:53	06:55	07:58	08:04	08:42
	16:19	17:28	18:29	20:34	21:33		22:02	25	21:20 (3)	21:32		20:23	18:59	16:41	15:40	15:29
26	08:17	07:09	05:54	05:33	04:32		04:15		20:55 (3)	04:53		05:55	06:57	07:00	08:06	08:42
	16:21	17:30	18:31	20:36	21:35		22:02	26	21:21 (3)	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		20:55 (3)	04:55		05:57	06:59	07:02	08:08	08:42
	16:23	17:33	18:33	20:38	21:36		22:02	25	21:20 (3)	21:29		20:17	18:54	16:37	15:38	15:31
28	08:13	07:03	05:49	05:28	04:29		04:16		20:56 (3)	04:57		05:59	07:01	07:05	08:10	08:42
	16:25	17:35	18:35	20:40	21:38		22:02	25	21:21 (3)	21:27		20:15	18:51	16:34	15:37	15:32
29	08:11		06:46	05:26	04:28		04:17		20:57 (3)	04:59		06:01	07:03	07:07	08:12	08:43
	16:27		19:37	20:42	21:40	3	21:02 (3)	22:01	24	21:21 (3)	21:25	20:12	18:49	16:32	15:35	15:33
30	08:09		06:44	05:24	04:26		04:17		20:57 (3)	04:17		06:03	07:05	07:09	08:14	08:42
	16:30		19:39	20:44	21:41	6	21:03 (3)	22:01	24	21:20 (3)	21:23	20:10	18:46	16:30	15:34	15:34
31	08:07		06:41		04:25		20:56 (3)			05:02		06:05		07:11		08:42
	16:32		19:41		21:43	9	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					18		670		222							
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					6		182		54							

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 109	09:59 (10) 13:47 (19) 16:34	08:06 16:34 45	09:51 (10) 10:36 (10) 17:37	06:38 19:43	05:21 20:46 21:44
2	08:42 15:37 111	09:58 (10) 13:48 (19) 16:36	08:04 16:36 44	09:52 (10) 10:36 (10) 17:39	06:36 19:45	05:19 20:49 21:46
3	08:42 15:39 112	09:57 (10) 13:48 (19) 16:39	08:02 16:39 43	09:52 (10) 10:35 (10) 17:41	06:33 19:47	05:17 20:51 21:47
4	08:41 15:40 115	09:57 (10) 13:49 (19) 16:41	08:00 16:41 43	09:52 (10) 10:35 (10) 17:44	06:30 19:50	05:14 20:53 21:48
5	08:41 15:41 115	09:56 (10) 13:48 (19) 16:43	07:58 16:43 42	09:53 (10) 10:35 (10) 17:46	06:27 19:52	05:12 20:55 21:50
6	08:40 15:43 115	09:55 (10) 13:48 (19) 16:45	07:56 16:45 41	09:54 (10) 10:35 (10) 17:48	06:25 19:54	05:10 20:57 21:51
7	08:40 15:44 114	09:54 (10) 13:48 (19) 16:48	07:53 16:48 39	09:54 (10) 10:33 (10) 17:50	06:22 19:56	05:08 20:59 21:52
8	08:39 15:46 114	09:54 (10) 13:48 (19) 16:50	07:51 16:50 38	09:55 (10) 10:33 (10) 17:52	06:19 19:58	05:05 21:01 21:53
9	08:38 15:48 114	09:53 (10) 13:48 (19) 16:52	07:49 16:52 35	09:56 (10) 10:31 (10) 17:54	06:17 20:00	05:03 21:03 21:54
10	08:38 15:49 113	09:53 (10) 13:48 (19) 16:54	07:47 16:54 33	09:57 (10) 10:30 (10) 17:57	06:14 20:02	05:01 21:05 21:55
11	08:37 15:51 111	09:53 (10) 13:48 (19) 16:57	07:45 16:57 30	09:59 (10) 10:29 (10) 17:59	06:12 20:04	04:59 21:07 21:56
12	08:36 15:53 109	09:53 (10) 13:47 (19) 16:59	07:42 16:59 27	10:00 (10) 10:27 (10) 18:01	06:09 20:06	04:57 21:09 21:57
13	08:35 15:55 107	09:51 (10) 13:46 (19) 17:01	07:40 17:01 22	10:03 (10) 10:25 (10) 18:03	06:06 20:09	04:55 21:11 21:58
14	08:34 15:56 103	09:52 (10) 13:45 (19) 17:03	07:38 17:03 14	10:06 (10) 10:20 (10) 18:05	06:04 20:11	04:53 21:13 21:59
15	08:33 15:58 96	09:51 (10) 13:42 (19) 17:06	07:36 17:06	06:24 18:07	06:01 20:13	04:51 21:15 21:59
16	08:31 16:00 88	09:51 (10) 12:49 (1) 17:08	07:33 17:08	06:21 18:09	05:58 20:15	04:49 21:17 22:00
17	08:30 16:02 82	09:50 (10) 12:49 (1) 17:10	07:31 17:10	06:19 18:12	05:56 20:17	04:47 21:19 22:01
18	08:29 16:04 82	09:51 (10) 12:49 (1) 17:13	07:28 17:13	06:16 18:14	05:53 20:19	04:45 21:21 22:01
19	08:27 16:06 82	09:50 (10) 12:49 (1) 17:15	07:26 17:15	06:13 18:16	05:51 20:21	04:43 21:23 22:01
20	08:26 16:08 83	09:50 (10) 12:49 (1) 17:17	07:24 17:17	06:11 18:18	05:48 20:23	04:42 21:24 22:02
21	08:25 16:10 82	09:50 (10) 12:49 (1) 17:19	07:21 17:19	06:08 18:20	05:46 20:25	04:40 21:26 22:02
22	08:23 16:12 82	09:50 (10) 12:49 (1) 17:21	07:19 17:21	06:05 18:22	05:43 20:28	04:38 21:28 22:02
23	08:22 16:14 81	09:50 (10) 12:48 (1) 17:24	07:16 17:24	06:03 18:24	05:41 20:30	04:36 21:30 22:02
24	08:20 16:16 80	09:50 (10) 12:48 (1) 17:26	07:14 17:26	06:00 18:26	05:38 20:32	04:35 21:32 22:02
25	08:18 16:19 79	09:50 (10) 12:47 (1) 17:28	07:11 17:28	05:57 18:29	05:36 20:34	04:33 21:33 22:02
26	08:17 16:21 76	09:50 (10) 12:46 (1) 17:30	07:09 17:30	05:54 18:31	05:33 20:36	04:32 21:35 22:02
27	08:15 16:23 75	09:50 (10) 12:45 (1) 17:33	07:06 17:33	05:52 18:33	05:31 20:38	04:30 21:37 22:02
28	08:13 16:25 72	09:50 (10) 12:44 (1) 17:35	07:04 17:35	05:49 18:35	05:28 20:40	04:29 21:38 22:02
29	08:11 16:27 68	09:50 (10) 12:42 (1) 17:37	07:02 17:37	06:46 19:37	05:26 20:42	04:28 21:40 22:02
30	08:10 16:30 63	09:50 (10) 12:40 (1) 17:39	07:00 17:39	06:44 19:39	05:24 20:44	04:26 21:41 22:01
31	08:08 16:32 55	09:51 (10) 12:36 (1) 17:41	06:41 17:41	06:41 19:41	04:25 21:43	04:25 21:43
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	2888	496	841			
Sol reduktion	0,18	0,16	0,22			
Drifttid red.	1,00	1,00	1,00			
Vindrikt. red.	0,94	0,87	0,34			
Total reduktion	0,18	0,15	0,08			
Total, verklig	518	74	68			

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December						
1	04:18	05:04	06:07	07:07	08:01 (4)	07:13	09:27 (10)	08:16	09:35 (10)			
	22:01	21:19	20:04	18:43	39	08:40 (4)	16:25	33	10:00 (10)	15:33	110	13:30 (19)
2	04:19	05:06	06:09	07:09		08:01 (4)	07:16		09:25 (10)	08:17		09:36 (10)
	22:00	21:17	20:02	18:41	38	08:39 (4)	16:23	36	10:01 (10)	15:32	113	13:31 (19)
3	04:20	05:08	06:11	07:11		08:01 (4)	07:18		09:25 (10)	08:19		09:37 (10)
	22:00	21:15	19:59	18:38	37	08:38 (4)	16:20	37	10:02 (10)	15:31	113	13:32 (19)
4	04:20	05:10	06:13	07:14		08:02 (4)	07:20		09:24 (10)	08:21		09:38 (10)
	21:59	21:13	19:56	18:35	35	08:37 (4)	16:18	39	10:03 (10)	15:30	114	13:32 (19)
5	04:21	05:12	06:15	07:16		08:02 (4)	07:22		09:24 (10)	08:22		09:39 (10)
	21:59	21:11	19:54	18:33	33	08:35 (4)	16:16	40	10:04 (10)	15:30	115	13:33 (19)
6	04:23	05:14	06:17	07:18		08:04 (4)	07:24		09:23 (10)	08:24		09:41 (10)
	21:58	21:08	19:51	18:30	31	08:35 (4)	16:14	42	10:05 (10)	15:29	115	13:34 (19)
7	04:24	05:16	06:19	07:20		08:05 (4)	07:27		09:23 (10)	08:25		09:43 (10)
	21:57	21:06	19:48	18:27	27	08:32 (4)	16:12	43	10:06 (10)	15:28	115	13:36 (19)
8	04:25	05:18	06:21	07:22		08:07 (4)	07:29		09:22 (10)	08:27		09:44 (10)
	21:56	21:04	19:46	18:25	23	08:30 (4)	16:10	44	10:06 (10)	15:28	115	13:36 (19)
9	04:26	05:20	06:23	07:24		08:09 (4)	07:31		09:22 (10)	08:28		09:46 (10)
	21:55	21:02	19:43	18:22	18	08:27 (4)	16:08	44	10:06 (10)	15:27	114	13:37 (19)
10	04:27	05:22	06:25	07:26		08:14 (4)	07:33		09:22 (10)	08:30		09:47 (10)
	21:54	20:59	19:40	18:19	8	08:22 (4)	16:06	45	10:07 (10)	15:27	112	13:37 (19)
11	04:29	05:24	06:27	07:28			07:35		09:22 (10)	08:31		09:50 (10)
	21:53	20:57	19:38	18:17			16:04	55	12:08 (1)	15:27	109	13:38 (19)
12	04:30	05:26	06:29	07:30			07:38		09:22 (10)	08:32		09:52 (10)
	21:52	20:55	19:35	18:14			16:02	63	12:12 (1)	15:26	106	13:38 (19)
13	04:31	05:28	06:31	07:32			07:40		09:22 (10)	08:33		10:02 (11)
	21:51	20:52	19:32	18:11			16:00	68	12:14 (1)	15:26	102	13:39 (19)
14	04:33	05:30	06:33	07:34		08:24 (4)	07:42		09:23 (10)	08:34		10:02 (11)
	21:50	20:50	19:29	18:09	4	08:28 (4)	15:58	72	12:17 (1)	15:26	102	13:39 (19)
15	04:34	05:32	06:35	07:37		08:17 (4)	07:44		09:23 (10)	08:35		10:03 (11)
	21:48	20:48	19:27	18:06	16	08:33 (4)	15:56	74	12:18 (1)	15:26	101	13:40 (19)
16	04:36	05:34	06:37	07:39		08:14 (4)	07:46		09:23 (10)	08:36		10:03 (11)
	21:47	20:45	19:24	18:04	22	08:36 (4)	15:54	76	12:19 (1)	15:26	101	13:40 (19)
17	04:37	05:36	06:39	07:41		08:12 (4)	07:48		09:24 (10)	08:37		10:04 (11)
	21:45	20:43	19:21	18:01	26	08:38 (4)	15:53	79	12:21 (1)	15:26	101	13:41 (19)
18	04:39	05:38	06:41	07:43		08:10 (4)	07:50		09:24 (10)	08:38		10:04 (11)
	21:44	20:40	19:19	17:59	29	08:39 (4)	15:51	80	12:22 (1)	15:26	102	13:41 (19)
19	04:41	05:40	06:43	07:45		08:08 (4)	07:52		09:25 (10)	08:39		10:05 (11)
	21:43	20:38	19:16	17:56	33	08:41 (4)	15:49	81	12:23 (1)	15:26	100	13:42 (19)
20	04:42	05:42	06:45	07:47		08:07 (4)	07:55		09:25 (10)	08:40		10:06 (11)
	21:41	20:35	19:13	17:54	34	08:41 (4)	15:48	82	12:24 (1)	15:27	101	13:43 (19)
21	04:44	05:44	06:47	07:49		08:06 (4)	07:57		09:25 (10)	08:40		10:05 (11)
	21:39	20:33	19:10	17:51	36	08:42 (4)	15:46	82	12:24 (1)	15:27	103	13:43 (19)
22	04:46	05:46	06:49	07:52		08:05 (4)	07:59		09:26 (10)	08:41		10:06 (11)
	21:38	20:30	19:08	17:49	38	08:43 (4)	15:44	83	12:25 (1)	15:27	103	13:44 (19)
23	04:47	05:48	06:51	07:54		08:04 (4)	08:01		09:27 (10)	08:41		10:07 (11)
	21:36	20:28	19:05	17:46	39	08:43 (4)	15:43	82	12:26 (1)	15:28	102	13:44 (19)
24	04:49	05:50	06:53	07:56		08:03 (4)	08:03		09:28 (10)	08:42		10:07 (11)
	21:34	20:25	19:02	17:44	40	08:43 (4)	15:42	82	12:27 (1)	15:29	101	13:44 (19)
25	04:51	05:52	06:55	06:58		08:02 (4)	08:05		09:28 (10)	08:42		10:08 (11)
	21:33	20:23	18:59	16:41	41	08:43 (4)	15:40	82	12:27 (1)	15:29	102	13:45 (19)
26	04:53	05:54	06:57	07:00		08:02 (4)	08:07		09:29 (10)	08:42		10:08 (11)
	21:31	20:20	18:57	16:39	41	08:43 (4)	15:39	88	12:27 (1)	15:30	103	13:46 (19)
27	04:55	05:56	06:59	07:02		08:01 (4)	08:08		09:31 (10)	08:43		10:09 (11)
	21:29	20:17	18:54	16:36	42	08:43 (4)	09:45 (10)	96	13:22 (19)	15:31	101	13:46 (19)
28	04:57	05:59	07:01	07:05		08:01 (4)	08:10		09:32 (10)	08:43		10:09 (11)
	21:27	20:15	18:51	16:34	41	08:42 (4)	09:51 (10)	102	13:25 (19)	15:32	102	13:46 (19)
29	04:58	06:01	07:03	07:07		08:01 (4)	08:12		09:33 (10)	08:43		10:10 (11)
	21:25	20:12	18:49	16:32	23	08:42 (4)	09:55 (10)	106	13:27 (19)	15:33	102	13:47 (19)
30	05:00	06:03	07:05	07:09		08:01 (4)	08:14		09:34 (10)	08:43		10:10 (11)
	21:23	20:10	18:46	16:29	27	08:41 (4)	09:57 (10)	110	13:29 (19)	15:34	101	13:47 (19)
31	05:02	06:05		07:11		09:28 (10)				08:43		10:02 (10)
	21:21	20:07		16:27	31	09:59 (10)				15:35	103	13:47 (19)
Möjliga soltimmar	531	470	385	323			246			214		
Totalt, värsta fall			563	391			2046			3284		
Sol reduktion			0,31	0,26			0,17			0,13		
Drifttid red.			1,00	1,00			1,00			1,00		
Vindrikt. red.			0,34	0,48			0,92			0,95		
Total reduktion			0,11	0,13			0,16			0,13		
Total, verklig			64	51			336			423		

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	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	17:39	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
	15:40	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	21:00	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	07:36	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	04:15	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	22:01	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	05:48	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
	16:11	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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SRE FM Skackarp DJN 200127

Stena Skäckarp

WSP Sverige AB

SE-833 84 Strömsund

+46 31 727 25 00

Daniel Johansson

Beräknad: Daniel Johansson / daniel.d.johansson@wsp.com

2020-

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: AH - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (126)
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	Juli	Augusti	September		Oktober		November	December	
1	08:42 15:36	08:06 16:34		07:01 17:37	07:42 (3) 08:14 (3)	06:38 19:43	05:21 20:47	04:24 21:44	04:18 22:01	05:04 21:19	06:07 20:04		07:07 18:43		08:19 (3) 08:49 (3)	07:14 16:25	08:16 15:33
2	08:42 15:38	08:04 16:36		06:59 17:39	07:41 (3) 08:15 (3)	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	30	08:18 (3) 08:50 (3)	07:16 16:23	08:18 15:32
3	08:42 15:39	08:02 16:39		06:56 17:42	07:40 (3) 08:15 (3)	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	32	08:17 (3) 08:50 (3)	07:18 16:21	08:19 15:32
4	08:41 15:40	08:00 16:41		06:53 17:44	07:40 (3) 08:15 (3)	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	33	08:16 (3) 08:50 (3)	07:20 16:18	08:21 15:31
5	08:41 15:42	07:58 16:43		06:51 17:46	07:39 (3) 08:15 (3)	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	34	08:16 (3) 08:51 (3)	07:22 16:16	08:22 15:30
6	08:40 15:43	07:56 16:46		06:48 17:48	07:39 (3) 08:15 (3)	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	35	08:15 (3) 08:51 (3)	07:25 16:14	08:24 15:29
7	08:40 15:45	07:54 16:48		06:46 17:50	07:39 (3) 08:15 (3)	06:22 19:56	05:08 20:59	04:18 21:52	04:24 21:57	05:16 21:06	06:19 19:48		07:20 18:27	36	08:15 (3) 08:51 (3)	07:27 16:12	08:26 15:29
8	08:39 15:46	07:51 16:50		06:43 17:52	07:39 (3) 08:14 (3)	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	37	08:15 (3) 08:50 (3)	07:29 16:10	08:27 15:28
9	08:38 15:48	07:49 16:52		06:40 17:55	07:39 (3) 08:13 (3)	06:17 20:00	05:03 21:03	04:17 21:54	04:26 21:55	05:20 21:02	06:23 19:43		07:24 18:22	38	08:14 (3) 08:50 (3)	07:31 16:08	08:28 15:28
10	08:38 15:50	07:47 16:55		06:38 17:57	07:38 (3) 08:12 (3)	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	39	08:14 (3) 08:49 (3)	07:33 16:06	08:30 15:27
11	08:37 15:51	07:45 16:57		06:35 17:59	07:40 (3) 08:12 (3)	06:12 20:04	04:59 21:07	04:15 21:56	04:29 21:53	05:24 20:57	06:27 19:38		07:28 18:17	40	08:14 (3) 08:48 (3)	07:35 16:04	08:31 15:27
12	08:36 15:53	07:43 16:59		06:32 18:01	07:40 (3) 08:11 (3)	06:09 20:07	04:57 21:09	04:15 21:57	04:30 21:52	05:26 20:55	06:29 19:35	07:39 (7) 07:49 (7)	07:30 18:14	41	08:15 (3) 08:48 (3)	07:38 16:02	08:32 15:26
13	08:35 15:55	07:40 17:01		06:30 18:03	07:40 (3) 08:09 (3)	06:06 20:09	04:55 21:11	04:14 21:58	04:32 21:51	05:28 20:52	06:31 19:32	10 15	07:36 (7) 07:51 (7)	42	08:16 (3) 08:47 (3)	07:40 16:00	08:33 15:26
14	08:34 15:57	07:38 17:04		06:27 18:05	07:42 (3) 08:08 (3)	06:04 20:11	04:53 21:13	04:14 21:59	04:33 21:50	05:30 20:50	06:33 19:30	15 20	07:33 (7) 07:53 (7)	43	08:16 (3) 08:46 (3)	07:42 15:58	08:34 15:26
15	08:33 15:59	07:36 17:06		06:24 18:08	06:52 (7) 08:05 (3)	06:01 20:13	04:51 21:15	04:14 21	04:35 21:50	05:32 20:50	06:35 19:30	20 25	07:32 (7) 07:52 (7)	44	08:17 (3) 08:47 (3)	07:44 15:56	08:36 15:26
16	08:31 16:00	07:33 17:08		06:22 18:10	06:49 (7) 08:02 (3)	05:59 20:15	04:49 21:17	04:13 22:00	04:36 21:47	05:38 20:45	06:37 19:24	22 24	07:31 (7) 07:55 (7)	45	08:19 (3) 08:43 (3)	07:46 15:55	08:36 15:26
17	08:30 16:02	07:31 17:10		06:19 18:12	06:47 (7) 07:58 (3)	05:56 20:17	04:47 21:19	04:13 22:01	04:38 21:46	05:36 20:43	06:39 19:21	24 25	07:30 (7) 07:55 (7)	46	08:21 (3) 08:41 (3)	07:48 15:53	08:37 15:26
18	08:29 16:04	07:29 17:13		06:16 18:14	06:46 (7) 07:08 (7)	05:54 20:19	04:45 21:21	04:13 22:01	04:39 21:44	05:38 20:40	06:41 19:19	25 26	07:29 (7) 07:55 (7)	47	08:23 (3) 08:37 (3)	07:50 15:51	08:38 15:26
19	08:28 16:06	07:26 17:15		06:14 18:16	06:44 (7) 07:08 (7)	05:51 20:21	04:44 21:23	04:13 22:01	04:41 21:43	05:40 20:38	06:43 19:16	26 27	07:28 (7) 07:55 (7)	48	08:28 (3) 08:31 (3)	07:53 15:49	08:39 15:27
20	08:26 16:08	07:24 17:17		06:11 18:18	06:43 (7) 07:09 (7)	05:48 20:23	04:42 21:25	04:13 22:02	04:43 21:41	05:42 20:35	06:45 19:13	27 27	07:27 (7) 07:55 (7)	49	07:56 15:48	07:55 15:48	08:40 15:27
21	08:25 16:10	07:21 17:19		06:08 18:20	06:42 (7) 07:08 (7)	05:46 20:26	04:40 21:26	04:13 22:02	04:44 21:39	05:45 20:33	06:47 19:11	28 28	07:27 (7) 07:55 (7)	50	07:57 15:46	07:57 15:46	08:40 15:27
22	08:23 16:12	07:19 17:22		06:05 18:22	06:42 (7) 07:09 (7)	05:43 20:28	04:38 21:28	04:13 22:02	04:46 21:38	05:47 20:30	06:49 19:08	29 27	07:27 (7) 07:54 (7)	51	07:58 15:45	07:59 15:45	08:41 15:28
23	08:22 16:15	07:16 17:24	07:54 (3) 08:03 (3)	06:03 18:24	06:41 (7) 07:09 (7)	05:41 20:30	04:37 21:30	04:14 22:02	04:48 21:36	05:49 20:28	06:51 19:05	27 26	07:27 (7) 07:53 (7)	52	07:59 15:43	08:01 15:43	08:41 15:28
24	08:20 16:17	07:14 17:26	07:51 (3) 08:07 (3)	06:00 18:27	06:40 (7) 07:08 (7)	05:38 20:32	04:35 21:32	04:14 22:02	04:49 21:34	05:51 20:25	06:53 19:02	25 25	07:27 (7) 07:52 (7)	53	08:03 15:42	08:03 15:42	08:42 15:29
25	08:18 16:19	07:11 17:28	07:48 (3) 08:09 (3)	05:57 18:29	06:41 (7) 07:08 (7)	05:36 20:34	04:34 21:33	04:14 22:02	04:51 21:33	05:53 20:23	06:55 19:00	23 23	07:28 (7) 07:51 (7)	54	08:05 15:40	08:05 15:40	08:42 15:29
26	08:17 16:21	07:09 17:31	07:47 (3) 08:12 (3)	05:55 18:31	06:41 (7) 07:07 (7)	05:33 20:36	04:32 21:35	04:15 22:02	04:53 21:31	05:55 20:20	06:57 18:57	22 26	07:29 (7) 08:38 (3)	55	08:07 15:39	08:07 15:39	08:42 15:30
27	08:15 16:23	07:06 17:33	07:45 (3) 08:12 (3)	05:52 18:33	06:41 (7) 07:05 (7)	05:31 20:38	04:31 21:37	04:15 22:02	04:55 21:29	05:57 20:18	06:59 18:54	21 33	07:30 (7) 08:43 (3)	56	08:09 15:38	08:09 15:38	08:43 15:31
28	08:13 16:25	07:04 17:35	07:43 (3) 08:13 (3)	05:49 18:35	06:41 (7) 07:04 (7)	05:29 20:40	04:29 21:38	04:16 22:02	04:57 21:27	05:59 20:15	07:01 18:52	20 33	07:32 (7) 08:45 (3)	57	08:10 15:37	08:10 15:37	08:43 15:32
29	08:11 16:28			06:46 19:37	07:43 (7) 08:03 (7)	05:26 20:42	04:28 21:40	04:17 22:02	04:59 21:25	06:01 20:12	07:03 18:49	19 27	07:37 (7) 08:47 (3)	58	08:12 15:36	08:12 15:36	08:43 15:33
30	08:10 16:30			06:44 19:39	07:44 (7) 08:00 (7)	05:24 20:44	04:26 21:41	04:17 22:01	05:01 21:23	06:03 20:10	07:05 18:46	18 27	08:21 (3) 08:48 (3)	59	08:13 15:34	08:13 15:34	08:43 15:34
31	08:08 16:32			06:41 19:41	07:46 (7) 07:57 (7)	05:23 20:44	04:25 21:43	05:02 21:21	06:05 20:07			17 20	07:11 16:27	60	08:14 15:35	08:14 15:35	08:43 15:35
Möjliga sötimmor	234	265		366		427	509	531	531	470	385		323		246	214	
Totalt, värsta fall		128		888							471		558				
Sol reduktion		0,16		0,22							0,31		0,26				
Driftned. red.		1,00		1,00							1,00		1,00				
Vindrikt. red.		0,43		0,32							0,22		0,43				
Total reduktion		0,07		0,07							0,07		0,11				
Total, verklig		9		64							33		63				

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: AI - Skuggmottagare: 5,0 × 5,0 Azimuth: 0,0° Lutning: 0,0° (127)
Antaganden för skuggberäkningar

Solsken sannolikhet S (Medelvärde soltimmar per dag) [VAXJÖ /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

Drifftid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36	08:06 16:34	09:26 (3) 07:01 10:03 (3) 17:37	08:04 (7) 06:38 08:32 (7) 19:43	07:35 (19) 05:21 07:55 (19) 20:47	04:24 21:44
2	08:42 15:38	08:04 16:36	09:27 (3) 06:59 10:03 (3) 17:39	08:05 (7) 06:36 08:30 (7) 19:45	07:36 (19) 05:19 07:53 (19) 20:49	04:23 21:46
3	08:42 15:39	09:34 (3) 08:02 09:37 (3) 16:39	09:27 (3) 06:56 10:02 (3) 17:42	08:06 (7) 06:33 08:28 (7) 19:48	07:38 (19) 05:17 07:49 (19) 20:51	04:22 21:47
4	08:41 15:40	09:32 (3) 08:00 09:41 (3) 16:41	09:28 (3) 06:53 10:02 (3) 17:44	08:08 (7) 06:30 08:26 (7) 19:50	05:14 20:53	04:21 21:49
5	08:41 15:42	09:31 (3) 07:58 09:43 (3) 16:43	09:29 (3) 06:51 10:01 (3) 17:46	08:11 (7) 06:28 08:22 (7) 19:52	05:12 20:55	04:20 21:50
6	08:40 15:43	09:29 (3) 07:56 09:44 (3) 16:45	09:30 (3) 06:48 10:01 (3) 17:48	06:25 19:54	05:10 20:57	04:19 21:51
7	08:40 15:45	09:29 (3) 07:54 09:46 (3) 16:48	09:31 (3) 06:46 09:59 (3) 17:50	06:22 19:56	05:08 20:59	04:18 21:52
8	08:39 15:46	09:28 (3) 07:51 09:47 (3) 16:50	09:32 (3) 06:43 09:58 (3) 17:52	06:20 19:58	05:06 21:01	04:17 21:53
9	08:38 15:48	09:27 (3) 07:49 09:49 (3) 16:52	09:34 (3) 06:40 09:56 (3) 17:55	06:17 20:00	05:03 21:03	04:17 21:54
10	08:38 15:50	09:27 (3) 07:47 09:50 (3) 16:55	09:36 (3) 06:38 09:53 (3) 17:57	06:14 20:02	05:01 21:05	04:16 21:55
11	08:37 15:51	09:26 (3) 07:45 09:51 (3) 16:57	09:40 (3) 06:35 09:50 (3) 17:59	06:12 20:04	04:59 21:07	04:15 21:56
12	08:36 15:53	09:26 (3) 07:43 09:53 (3) 16:59	08:16 (7) 06:32 08:22 (7) 18:01	06:09 20:07	04:57 21:09	04:15 21:57
13	08:35 15:55	09:25 (3) 07:40 09:53 (3) 17:01	08:13 (7) 06:30 08:27 (7) 18:03	06:06 20:09	04:55 21:11	04:14 21:58
14	08:34 15:57	09:25 (3) 07:38 09:55 (3) 17:04	08:10 (7) 06:27 08:29 (7) 18:05	06:04 20:11	04:53 21:13	04:14 21:59
15	08:33 15:58	09:25 (3) 07:36 09:56 (3) 17:06	08:08 (7) 06:24 08:31 (7) 18:08	06:01 20:13	04:51 21:15	04:14 21:59
16	08:31 16:00	09:25 (3) 07:33 09:56 (3) 17:08	08:06 (7) 06:22 08:32 (7) 18:10	05:59 20:15	04:49 21:17	04:13 22:00
17	08:30 16:02	09:24 (3) 07:31 09:57 (3) 17:10	08:06 (7) 06:19 08:33 (7) 18:12	05:56 20:17	04:47 21:19	04:13 22:01
18	08:29 16:04	09:24 (3) 07:29 09:58 (3) 17:13	08:04 (7) 06:16 08:34 (7) 18:14	05:53 20:19	04:45 21:21	04:13 22:01
19	08:28 16:06	09:24 (3) 07:26 09:59 (3) 17:15	08:04 (7) 06:13 08:35 (7) 18:16	05:51 20:21	04:44 21:23	04:13 22:01
20	08:26 16:08	09:24 (3) 07:24 10:00 (3) 17:17	08:03 (7) 06:11 08:35 (7) 18:18	05:48 20:23	04:42 21:25	04:13 22:02
21	08:25 16:10	09:24 (3) 07:21 10:01 (3) 17:19	08:03 (7) 06:08 08:36 (7) 18:20	05:46 20:26	04:40 21:26	04:13 22:02
22	08:23 16:12	09:24 (3) 07:19 10:01 (3) 17:22	08:03 (7) 06:05 08:35 (7) 18:22	05:43 20:28	04:38 21:28	04:13 22:02
23	08:22 16:15	09:24 (3) 07:16 10:01 (3) 17:24	08:02 (7) 06:03 08:35 (7) 18:24	05:41 20:30	04:37 21:30	04:14 22:02
24	08:20 16:17	09:24 (3) 07:14 10:02 (3) 17:26	08:02 (7) 06:00 08:35 (7) 18:27	05:38 20:32	04:35 21:32	04:14 22:02
25	08:18 16:19	09:24 (3) 07:11 10:02 (3) 17:28	08:02 (7) 05:57 08:34 (7) 18:29	05:36 20:34	04:34 21:33	04:14 22:02
26	08:17 16:21	09:24 (3) 07:09 10:02 (3) 17:31	08:03 (7) 05:55 08:35 (7) 18:31	05:33 20:36	04:32 21:35	04:15 22:02
27	08:15 16:23	09:24 (3) 07:06 10:03 (3) 17:33	08:03 (7) 05:52 08:33 (7) 18:33	05:31 20:38	04:31 21:37	04:15 22:02
28	08:13 16:25	09:24 (3) 07:04 10:03 (3) 17:35	08:03 (7) 05:49 08:32 (7) 18:35	05:29 20:40	04:29 21:38	04:16 22:02
29	08:11 16:28	09:25 (3) 07:00 10:03 (3) 17:37	06:46 19:37	05:26 20:42	04:28 21:40	04:17 22:02
30	08:10 16:30	09:25 (3) 06:58 10:03 (3) 17:39	06:44 19:39	05:24 20:44	04:26 21:41	04:17 22:01
31	08:08 16:32	09:25 (3) 06:56 10:03 (3) 17:41	06:41 19:41	05:22 20:46	04:25 21:43	04:17 22:01
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	847	770	437	48		
Sol reduktion	0,18	0,16	0,22	0,43		
Drifftid red.	1,00	1,00	1,00	1,00		
Vindrikt. red.	0,81	0,64	0,22	0,13		
Total reduktion	0,16	0,11	0,05	0,06		
Total, verklig	136	87	24	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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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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftid

0 Totalt

8 760 8 760

	Juli	Augusti	September		Oktober		November		December				
1	04:18	05:04	06:07		07:07		07:14	09:05 (3)	08:16	09:09 (3)			
	22:01	21:19	20:04		18:43		16:25	18	09:23 (3)	15:33	25	09:34 (3)	
2	04:19	05:06	06:09		07:10		07:16		09:03 (3)	08:18		09:10 (3)	
	22:01	21:17	20:02		18:41		16:23	22	09:25 (3)	15:32	23	09:33 (3)	
3	04:20	05:08	06:11		07:12		07:18		09:02 (3)	08:19		09:11 (3)	
	22:00	21:15	19:59		18:38		16:21	26	09:28 (3)	15:32	22	09:33 (3)	
4	04:21	05:10	06:13		07:14		07:20		09:00 (3)	08:21		09:13 (3)	
	21:59	21:13	19:56		18:35		16:18	29	09:29 (3)	15:31	19	09:32 (3)	
5	04:22	05:12	06:15		07:16		07:22		09:00 (3)	08:22		09:14 (3)	
	21:59	21:11	19:54		18:33		16:16	31	09:31 (3)	15:30	17	09:31 (3)	
6	04:23	05:14	06:17		07:18		07:25		08:58 (3)	08:24		09:15 (3)	
	21:58	21:08	19:51		18:30		16:14	33	09:31 (3)	15:29	15	09:30 (3)	
7	04:24	05:16	06:19		07:20		07:27		08:58 (3)	08:26		09:18 (3)	
	21:57	21:06	19:48		18:27		16:12	35	09:33 (3)	15:29	12	09:30 (3)	
8	04:25	05:18	06:21		07:22		07:29	08:49 (7)	08:57 (3)	08:27		09:19 (3)	
	21:56	21:04	19:46		18:25	6	08:55 (7)	16:10	09:33 (3)	15:28	9	09:28 (3)	
9	04:26	05:20	06:23		07:24		08:44	(7)	07:31	08:58 (3)	08:28	09:22 (3)	
	21:55	21:02	19:43	11	07:43 (19)	15	08:59	(7)	16:08	09:34 (3)	15:28	5	09:27 (3)
10	04:28	05:22	06:25		07:26		08:41	(7)	07:33	08:57 (3)	08:30		
	21:54	20:59	19:40	17	07:46 (19)	18:19	09:01	(7)	16:06	37	09:34 (3)	15:27	
11	04:29	05:24	06:27		07:27 (19)	07:28	08:39	(7)	07:35	08:56 (3)	08:31		
	21:53	20:57	19:38	20	07:47 (19)	18:17	09:03	(7)	16:04	38	09:34 (3)	15:27	
12	04:30	05:26	06:29		07:26 (19)	07:30	08:38	(7)	07:38	08:57 (3)	08:32		
	21:52	20:55	19:35	22	07:48 (19)	18:14	09:04	(7)	16:02	38	09:35 (3)	15:26	
13	04:32	05:28	06:31		07:25 (19)	07:32	08:37	(7)	07:40	08:56 (3)	08:33		
	21:51	20:52	19:32	24	07:49 (19)	18:12	09:05	(7)	16:00	39	09:35 (3)	15:26	
14	04:33	05:30	06:33		07:24 (19)	07:35	08:36	(7)	07:42	08:57 (3)	08:34		
	21:50	20:50	19:30	25	07:49 (19)	18:09	09:06	(7)	15:58	39	09:36 (3)	15:26	
15	04:35	05:32	06:35		07:23 (19)	07:37	08:35	(7)	07:44	08:57 (3)	08:36		
	21:48	20:48	19:27	27	07:50 (19)	18:06	09:06	(7)	15:56	39	09:36 (3)	15:26	
16	04:36	05:34	06:37		07:22 (19)	07:39	08:35	(7)	07:46	08:57 (3)	08:36		
	21:47	20:45	19:24	28	07:50 (19)	18:04	09:07	(7)	15:55	38	09:35 (3)	15:26	
17	04:38	05:36	06:39		07:22 (19)	07:41	08:34	(7)	07:48	08:58 (3)	08:37		
	21:46	20:43	19:21	28	07:50 (19)	18:01	09:07	(7)	15:53	38	09:36 (3)	15:26	
18	04:39	05:38	06:41		07:21 (19)	07:43	08:34	(7)	07:50	08:58 (3)	08:38		
	21:44	20:40	19:19	28	07:49 (19)	17:59	09:06	(7)	15:51	38	09:36 (3)	15:26	
19	04:41	05:40	06:43		07:21 (19)	07:45	08:33	(7)	07:53	08:59 (3)	08:39		
	21:43	20:38	19:16	28	07:49 (19)	17:56	09:06	(7)	15:49	37	09:36 (3)	15:26	
20	04:43	05:42	06:45		07:21 (19)	07:47	08:34	(7)	07:55	08:59 (3)	08:40		
	21:41	20:35	19:13	27	07:48 (19)	17:54	09:06	(7)	15:48	37	09:36 (3)	15:27	
21	04:44	05:44	06:47		07:22 (19)	07:49	08:34	(7)	07:57	08:59 (3)	08:40		
	21:39	20:33	19:10	25	07:47 (19)	17:51	09:06	(7)	15:46	37	09:36 (3)	15:27	
22	04:46	05:46	06:49		07:22 (19)	07:52	08:34	(7)	07:59	09:01 (3)	08:41		
	21:38	20:30	19:08	24	07:46 (19)	17:49	09:05	(7)	15:45	35	09:36 (3)	15:28	
23	04:48	05:49	06:51		07:23 (19)	07:54	08:35	(7)	08:01	09:01 (3)	08:41		
	21:36	20:28	19:05	21	07:44 (19)	17:46	09:05	(7)	15:43	35	09:36 (3)	15:28	
24	04:49	05:51	06:53		07:24 (19)	07:56	08:35	(7)	08:03	09:01 (3)	08:42		
	21:34	20:25	19:02	18	07:42 (19)	17:44	09:04	(7)	15:42	34	09:35 (3)	15:29	
25	04:51	05:53	06:55		07:26 (19)	06:58	07:35	(7)	08:05	09:02 (3)	08:42		
	21:33	20:23	19:00	13	07:39 (19)	16:41	08:02	(7)	15:40	33	09:35 (3)	15:29	
26	04:53	05:55	06:57		07:31 (19)	07:00	07:37	(7)	08:07	09:03 (3)	08:42		
	21:31	20:20	18:57	3	07:34 (19)	16:39	08:02	(7)	15:39	32	09:35 (3)	15:30	
27	04:55	05:57	06:59		07:03		07:38	(7)	08:09	09:04 (3)	08:43		
	21:29	20:18	18:54		16:37		08:00	(7)	15:38	31	09:35 (3)	15:31	
28	04:57	05:59	07:01		07:05		07:40	(7)	08:10	09:05 (3)	08:43		
	21:27	20:15	18:51		16:34		07:58	(7)	15:37	30	09:35 (3)	15:32	
29	04:59	06:01	07:03		07:07		07:43	(7)	08:12	09:06 (3)	08:43		
	21:25	20:12	18:49		16:32		07:56	(7)	15:36	28	09:34 (3)	15:33	
30	05:01	06:03	07:05		07:09		07:48	(7)	08:14	09:07 (3)	08:43		
	21:23	20:10	18:46		16:30		07:49	(7)	15:34	27	09:34 (3)	15:34	
31	05:02	06:05			07:11		09:09	(3)			08:43		
	21:21	20:07			16:27		09:20	(3)			15:35		
Möjliga soltimmar	531	470	385		323		246			214			
Totalt, värsta fall			389		581		1006			147			
Sol reduktion			0,31		0,26		0,17			0,13			
Drifftid red.			1,00		1,00		1,00			1,00			
Vindrikt. red.			0,13		0,53		0,81			0,81			
Total reduktion			0,04		0,15		0,15			0,11			
Total, verklig			17		87		151			17			

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftid
0 Totalt
8 760 8 760

	Januari	Februari	Mars		April		Maj		Juni	
1	08:42	08:06	07:01		06:38		07:25 (15)	05:21		04:24
	15:36	16:34	17:37		19:43	34	07:59 (15)	20:46	18	21:05 (20)
2	08:42	08:04	06:58		06:35		07:24 (15)	05:19		04:23
	15:38	16:36	17:39		19:45	34	07:58 (15)	20:48	20	21:06 (20)
3	08:42	08:02	06:56		06:33		07:24 (15)	05:17		04:22
	15:39	16:39	17:41		19:47	33	07:57 (15)	20:50	22	21:07 (20)
4	08:41	08:00	06:53		06:30		07:25 (15)	05:14		04:21
	15:40	16:41	17:44		19:49	32	07:57 (15)	20:53	23	21:08 (20)
5	08:41	07:58	06:51		06:27		07:25 (15)	05:12		04:20
	15:42	16:43	17:46		19:52	30	07:55 (15)	20:55	24	21:08 (20)
6	08:40	07:55	06:48		06:25		07:25 (15)	05:10		04:19
	15:43	16:45	17:48		19:54	29	07:54 (15)	20:57	26	21:09 (20)
7	08:40	07:53	06:45		06:22		07:26 (15)	05:08		04:18
	15:45	16:48	17:50		19:56	27	07:53 (15)	20:59	26	21:10 (20)
8	08:39	07:51	06:43		06:19		07:27 (15)	05:05		04:17
	15:46	16:50	17:52		19:58	24	07:51 (15)	21:01	27	21:10 (20)
9	08:38	07:49	06:40		06:17		07:28 (15)	05:03		04:16
	15:48	16:52	17:54		20:00	20	07:48 (15)	21:03	27	21:11 (20)
10	08:37	07:47	06:37		06:14		07:30 (15)	05:01		04:16
	15:49	16:54	17:57		20:02	16	07:46 (15)	21:05	28	21:11 (20)
11	08:36	07:45	06:35		06:12		07:34 (15)	04:59		04:15
	15:51	16:57	17:59		20:04	7	07:41 (15)	21:07	29	21:12 (20)
12	08:36	07:42	06:32		06:09			04:57		04:15
	15:53	16:59	18:01		20:06			21:09	29	21:12 (20)
13	08:35	07:40	06:29		06:06			04:55		04:14
	15:55	17:01	18:03		20:08			21:11	30	21:13 (20)
14	08:33	07:38	06:27		06:04			04:53		04:14
	15:57	17:04	18:05		20:11			21:13	30	21:13 (20)
15	08:32	07:35	06:24		06:01			04:51		04:14
	15:58	17:06	18:07		20:13			21:15	31	21:14 (20)
16	08:31	07:33	06:21		05:58			04:49		04:13
	16:00	17:08	18:09		20:15			21:17	30	21:14 (20)
17	08:30	07:31	06:19		05:56			04:47		04:13
	16:02	17:10	18:12		20:17			21:19	31	21:15 (20)
18	08:29	07:28	06:16		05:53			04:45		04:13
	16:04	17:13	18:14		20:19			21:21	31	21:15 (20)
19	08:27	07:26	06:13		05:51			04:43		04:13
	16:06	17:15	18:16		20:21			21:22	31	21:15 (20)
20	08:26	07:23	06:11		05:48			04:42		04:13
	16:08	17:17	18:18		20:23			21:24	31	21:15 (20)
21	08:24	07:21	06:08	12	06:39 (15)			04:40		04:13
	16:10	17:19	18:20		20:25			21:26	31	21:15 (20)
22	08:23	07:19	06:05		06:36 (15)	05:43		04:38		04:13
	16:12	17:22	18:22	19	06:55 (15)	20:27		21:28	31	21:15 (20)
23	08:21	07:16	06:02		06:33 (15)	05:41		04:37		04:14
	16:14	17:24	18:24	23	06:56 (15)	20:29		21:30	31	21:15 (20)
24	08:20	07:14	06:00		06:31 (15)	05:38		04:35		04:14
	16:17	17:26	18:26	26	06:57 (15)	20:32		21:31	31	21:16 (20)
25	08:18	07:11	05:57		06:29 (15)	05:36		04:33		04:14
	16:19	17:28	18:28	29	06:58 (15)	20:34		21:33	31	21:16 (20)
26	08:16	07:09	05:54		06:29 (15)	05:33		04:32		04:15
	16:21	17:30	18:31	30	06:59 (15)	20:36		21:35	30	21:16 (20)
27	08:15	07:06	05:52		06:27 (15)	05:31		04:30		04:15
	16:23	17:33	18:33	32	06:59 (15)	20:38		21:36	30	21:16 (20)
28	08:13	07:03	05:49		06:26 (15)	05:28		04:29		04:16
	16:25	17:35	18:35	33	06:59 (15)	20:40		21:38	31	21:17 (20)
29	08:11		06:46		07:26 (15)	05:26		04:28		04:16
	16:27		19:37	34	08:00 (15)	20:42		21:40	9	21:00 (20)
30	08:09		06:44		07:25 (15)	05:24		04:26		20:49 (20)
	16:30		19:39	34	07:59 (15)	20:44		21:41	13	21:02 (20)
31	08:07		06:41					04:25		20:48 (20)
	16:32		19:41	35	07:59 (15)			21:43	16	21:04 (20)
Möjliga soltimmar	234	265	366		427			509		530
Totalt, värsta fall			307		286			38		849
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			6		11			11		205

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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	20:47 (20) 21:16 (20)	05:04 21:19	06:07 20:04	07:33 (15) 07:40 (15)	07:07 18:43	07:13 16:25
2	04:19 22:00	20:48 (20) 21:17 (20)	05:06 21:17	06:09 20:02	07:28 (15) 07:44 (15)	07:09 18:41	07:15 16:23
3	04:20 22:00	20:48 (20) 21:16 (20)	05:08 21:15	06:11 19:59	07:26 (15) 07:46 (15)	07:11 18:38	07:18 16:20
4	04:21 21:59	20:48 (20) 21:16 (20)	05:10 21:13	06:13 19:56	07:24 (15) 07:48 (15)	07:13 18:35	07:20 16:18
5	04:22 21:58	20:49 (20) 21:16 (20)	05:12 21:10	06:15 19:54	07:22 (15) 07:49 (15)	07:16 18:32	07:22 16:16
6	04:23 21:58	20:50 (20) 21:15 (20)	05:14 21:08	06:17 19:51	07:21 (15) 07:50 (15)	07:18 18:30	07:24 16:14
7	04:24 21:57	20:50 (20) 21:15 (20)	05:16 21:06	06:19 19:48	07:20 (15) 07:50 (15)	07:20 18:27	07:26 16:12
8	04:25 21:56	20:51 (20) 21:14 (20)	05:18 21:04	06:21 19:46	07:19 (15) 07:51 (15)	07:22 18:25	07:29 16:10
9	04:26 21:55	20:53 (20) 21:15 (20)	05:20 21:02	06:23 19:43	07:18 (15) 07:51 (15)	07:24 18:22	07:31 16:08
10	04:27 21:54	20:53 (20) 21:14 (20)	05:22 20:59	06:25 19:40	07:17 (15) 07:51 (15)	07:26 18:19	07:33 16:06
11	04:29 21:53	20:54 (20) 21:13 (20)	05:24 20:57	06:27 19:37	07:17 (15) 07:51 (15)	07:28 18:17	07:35 16:04
12	04:30 21:52	20:55 (20) 21:12 (20)	05:26 20:55	06:29 19:35	07:17 (15) 07:51 (15)	07:30 18:14	07:37 16:02
13	04:32 21:51	20:56 (20) 21:10 (20)	05:28 20:52	06:31 19:32	07:16 (15) 07:51 (15)	07:32 18:11	07:40 16:00
14	04:33 21:49	20:59 (20) 21:09 (20)	05:30 20:50	06:33 19:29	07:16 (15) 07:50 (15)	07:34 18:09	07:42 15:58
15	04:34 21:48	21:02 (20) 21:06 (20)	05:32 20:47	06:35 19:27	07:16 (15) 07:49 (15)	07:36 18:06	07:44 15:56
16	04:36 21:47		05:34 20:45	06:37 19:24	07:16 (15) 07:49 (15)	07:39 18:04	07:46 15:54
17	04:38 21:45		05:36 20:43	06:39 19:21	07:17 (15) 07:48 (15)	07:41 18:01	07:48 15:53
18	04:39 21:44		05:38 20:40	06:41 19:18	07:17 (15) 07:46 (15)	07:50 17:59	07:50 15:51
19	04:41 21:42		05:40 20:38	06:43 19:16	07:17 (15) 07:44 (15)	07:52 17:56	07:52 15:49
20	04:42 21:41		05:42 20:35	06:45 19:13	07:18 (15) 07:42 (15)	07:47 17:54	07:54 15:48
21	04:44 21:39		05:44 20:33	06:47 19:10	07:20 (15) 07:40 (15)	07:49 17:51	07:56 15:46
22	04:46 21:38		05:46 20:30	06:49 19:08	07:22 (15) 07:37 (15)	07:51 17:49	07:58 15:45
23	04:48 21:36		05:48 20:28	06:51 19:05	07:29 (15) 07:32 (15)	07:54 17:46	08:00 15:43
24	04:49 21:34		05:50 20:25	06:53 19:02		07:56 17:44	08:02 15:42
25	04:51 21:32		05:52 20:22	06:55 18:59		06:58 16:41	08:04 15:40
26	04:53 21:31		05:54 20:20	06:57 18:57		07:00 16:39	08:06 15:39
27	04:55 21:29		05:57 20:17	06:59 18:54		07:02 16:36	08:08 15:38
28	04:57 21:27		05:59 20:15	07:01 18:51		07:04 16:34	08:10 15:37
29	04:59 21:25		06:01 20:12	07:03 18:49		07:07 16:32	08:12 15:35
30	05:00 21:23		06:03 20:10	07:05 18:46		07:09 16:29	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	321		604				
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	70		17				

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 7Skuggmottagare: 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	14:59 (4) 15:31 (4)	07:01 17:37	06:38 19:43	05:21 20:46	04:24 21:44	04:18 22:01	05:04 21:19	06:06 20:04	07:07 18:43	07:13 16:25	14:34 (4) 14:57 (4)	08:16 15:33
2	08:42 15:37	08:04 16:36	14:58 (4) 15:30 (4)	06:58 17:39	06:35 19:45	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	14:33 (4) 14:57 (4)	08:17 15:32
3	08:42 15:39	08:02 16:38	14:59 (4) 15:30 (4)	06:56 17:41	06:33 19:47	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	14:32 (4) 14:59 (4)	08:19 15:31
4	08:41 15:40	08:00 16:41	15:00 (4) 15:31 (4)	06:53 17:43	06:30 19:49	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	14:31 (4) 14:59 (4)	08:21 15:30
5	08:41 15:41	07:58 16:43	15:00 (4) 15:31 (4)	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	14:31 (4) 15:00 (4)	08:22 15:30
6	08:40 15:43	07:55 16:45	15:00 (4) 15:30 (4)	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	14:30 (4) 15:00 (4)	08:24 15:29
7	08:40 15:44	07:53 16:47	15:01 (4) 15:29 (4)	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	14:29 (4) 15:00 (4)	08:25 15:28
8	08:39 15:46	07:51 16:50	15:03 (4) 15:29 (4)	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	14:30 (4) 15:01 (4)	08:27 15:28
9	08:38 15:47	07:49 16:52	15:03 (4) 15:28 (4)	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	14:29 (4) 15:01 (4)	08:28 15:27
10	08:37 15:49	07:47 16:54	15:05 (4) 15:27 (4)	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	14:30 (4) 15:02 (4)	08:30 15:27
11	08:37 15:51	07:45 16:57	15:07 (4) 15:26 (4)	06:35 17:59	06:11 20:04	04:59 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	14:29 (4) 15:01 (4)	08:31 15:26
12	08:36 15:53	07:42 16:59	15:10 (4) 15:23 (4)	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	14:30 (4) 15:02 (4)	08:32 15:26
13	08:35 15:54	07:40 17:01	15:16 (4) 15:17 (4)	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	14:30 (4) 15:01 (4)	08:33 15:26
14	08:34 15:56	07:38 17:03		06:27 18:05	06:04 20:11	04:53 21:13	04:14 21:59	04:33 21:49	05:30 20:50	06:33 19:29	07:34 18:09	07:42 15:58	14:31 (4) 15:02 (4)	08:34 15:26
15	08:32 15:58	07:35 17:06		06:24 18:07	06:01 20:13	04:51 21:15	04:13 21:59	04:34 21:48	05:32 20:47	06:35 19:27	07:36 18:06	07:44 15:56	14:31 (4) 15:01 (4)	08:35 15:26
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	04:36 21:47	05:34 20:45	06:37 19:24	07:39 18:04	07:46 15:54	14:32 (4) 15:00 (4)	08:36 15:26
17	08:30 16:02	15:07 (4) 15:14 (4)	07:31 17:10	06:19 18:11	05:56 20:17	04:47 21:19	04:13 22:00	04:37 21:45	05:36 20:43	06:39 19:21	07:41 18:01	07:48 15:52	14:33 (4) 15:01 (4)	08:37 15:26
18	08:29 16:04	15:05 (4) 15:17 (4)	07:28 17:12	06:16 18:14	05:53 20:19	04:45 21:21	04:13 22:01	04:39 21:44	05:38 20:40	06:41 19:18	07:43 17:58	07:50 15:51	14:33 (4) 15:00 (4)	08:38 15:26
19	08:27 16:06	15:03 (4) 15:19 (4)	07:26 17:15	06:13 18:16	05:51 20:21	04:43 21:23	04:13 22:01	04:40 21:42	05:40 20:38	06:43 19:16	07:45 17:56	07:52 15:49	14:34 (4) 14:59 (4)	08:39 15:26
20	08:26 16:08	15:02 (4) 15:21 (4)	07:23 17:17	06:11 18:18	05:48 20:23	04:41 21:24	04:13 22:02	04:42 21:41	05:42 20:35	06:45 19:13	07:47 17:53	07:54 15:47	14:36 (4) 14:59 (4)	08:40 15:26
21	08:25 16:10	15:02 (4) 15:23 (4)	07:21 17:19	06:08 18:20	05:46 20:25	04:40 21:26	04:13 22:02	04:44 21:39	05:44 20:33	06:47 19:10	07:49 17:51	07:57 15:46	14:37 (4) 14:58 (4)	08:40 15:27
22	08:23 16:12	15:01 (4) 15:24 (4)	07:19 17:21	06:05 18:22	05:43 20:27	04:38 21:28	04:13 22:02	04:46 21:38	05:46 20:30	06:49 19:07	07:51 17:48	07:59 15:44	14:38 (4) 14:57 (4)	08:41 15:27
23	08:21 16:14	15:00 (4) 15:25 (4)	07:16 17:24	06:02 18:24	05:40 20:30	04:36 21:30	04:13 22:02	04:47 21:36	05:48 20:28	06:51 19:05	07:54 17:46	08:01 15:43	14:40 (4) 14:56 (4)	08:41 15:28
24	08:20 16:16	14:59 (4) 15:26 (4)	07:14 17:26	06:00 18:26	05:38 20:32	04:35 21:32	04:14 22:02	04:49 21:34	05:50 20:25	06:53 19:02	07:56 17:44	08:03 15:41	14:42 (4) 14:54 (4)	08:42 15:28
25	08:18 16:18	14:59 (4) 15:27 (4)	07:11 17:28	05:57 18:28	05:36 20:34	04:33 21:33	04:14 22:02	04:51 21:32	05:52 20:23	06:55 18:59	06:58 16:41	08:05 15:40	14:44 (4) 14:52 (4)	08:42 15:29
26	08:17 16:21	14:59 (4) 15:27 (4)	07:09 17:30	05:54 18:31	05:33 20:36	04:32 21:35	04:14 22:02	04:53 21:31	05:54 20:20	06:57 18:57	07:00 16:39	08:06 15:39		08:42 15:30
27	08:15 16:23	14:58 (4) 15:28 (4)	07:06 17:32	05:52 18:33	05:31 20:38	04:30 21:37	04:15 22:02	04:55 21:29	05:56 20:17	06:59 18:54	07:02 16:36	08:08 15:37		08:42 15:31
28	08:13 16:25	14:58 (4) 15:29 (4)	07:03 17:35	05:49 18:35	05:28 20:40	04:29 21:38	04:15 22:02	04:56 21:27	05:58 20:15	07:01 18:51	07:05 16:34	08:10 15:36		08:43 15:31
29	08:11 16:27	14:58 (4) 15:29 (4)		06:46 19:37	05:26 20:42	04:27 21:40	04:16 22:02	04:58 21:25	06:00 20:12	07:03 18:48	07:07 16:32	08:12 15:35	14:43 (4) 14:38 (4)	08:43 15:32
30	08:09 16:29	14:58 (4) 15:30 (4)		06:43 19:39	05:23 20:44	04:26 21:41	04:17 22:01	05:00 21:23	06:02 20:10	07:05 18:46	07:09 16:29	08:14 15:34	14:38 (4) 14:53 (4)	08:43 15:33
31	08:08 16:32	14:59 (4) 15:30 (4)		06:41 19:41		04:25 21:43	05:02 21:21	06:04 20:07	07:11 16:27	07:11 14:54 (4)	07:11 15:35			08:43 15:35
Möjliga soltimmar	234	265	366	427	509	531	531	470	385	323	246			214
Totalt, värsta fall	361	321									39	650		
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	47	37									7	80		

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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		10:40 (14)	08:05		15:07 (2)	07:01		16:31 (17)	06:38		05:21		04:24			
		15:36	70	13:35 (6)	16:34	33	15:40 (2)	17:37	32	17:03 (9)	19:43		20:46		21:44			
	2	08:42		10:41 (14)	08:04		15:06 (2)	06:58		16:30 (17)	06:35		05:19		04:22			
		15:37	70	13:36 (6)	16:36	33	15:39 (2)	17:39	34	17:04 (9)	19:45		20:48		21:46			
	3	08:42		10:41 (14)	08:02		15:06 (2)	06:56		16:28 (17)	06:33		05:16		04:21			
		15:39	69	13:36 (6)	16:38	34	15:40 (2)	17:41	36	17:04 (9)	19:47		20:50		21:47			
	4	08:41		10:41 (14)	07:59		15:06 (2)	06:53		16:27 (17)	06:30		05:14		04:20			
		15:40	68	13:35 (6)	16:41	34	15:40 (2)	17:43	36	17:03 (9)	19:49		20:52		21:48			
	5	08:41		10:42 (14)	07:57		15:07 (2)	06:50		16:26 (17)	06:27		05:12		04:19			
		15:41	67	13:36 (6)	16:43	34	15:41 (2)	17:46	38	17:04 (9)	19:51		20:55		21:50			
	6	08:40		10:43 (14)	07:55		15:06 (2)	06:48		16:25 (17)	06:25		05:10		04:18			
		15:43	65	13:36 (6)	16:45	34	15:40 (2)	17:48	38	17:03 (9)	19:54		20:57		21:51			
	7	08:40		10:43 (14)	07:53		15:07 (2)	06:45		16:24 (17)	06:22		05:07		04:18			
		15:44	65	13:36 (6)	16:47	33	15:40 (2)	17:50	38	17:02 (17)	19:56		20:59		21:52			
	8	08:39		10:44 (14)	07:51		15:08 (2)	06:43		16:24 (17)	06:19		05:05		04:17			
		15:46	62	13:35 (6)	16:50	32	15:40 (2)	17:52	39	17:03 (17)	19:58		21:01		21:53			
	9	08:38		10:44 (14)	07:49		15:08 (2)	06:40		16:23 (17)	06:17		05:03		04:16			
		15:47	61	13:35 (6)	16:52	31	15:39 (2)	17:54	40	17:03 (17)	20:00		21:03		21:54			
	10	08:37		10:45 (14)	07:47		15:09 (2)	06:37		16:22 (17)	06:14		05:01		04:15			
		15:49	58	13:34 (6)	16:54	30	15:39 (2)	17:56	41	17:03 (17)	20:02		21:05		21:55			
	11	08:36		10:46 (14)	07:44		15:09 (2)	06:35		16:22 (17)	06:11		04:59		04:15			
		15:51	54	13:33 (6)	16:56	29	15:38 (2)	17:59	40	17:02 (17)	20:04		21:07		21:56			
	12	08:36		10:45 (14)	07:42		15:11 (2)	06:32		16:22 (17)	06:09		04:57		04:14			
		15:53	48	13:30 (6)	16:59	26	15:37 (2)	18:01	41	17:03 (17)	20:06		21:09		21:57			
	13	08:34		10:46 (14)	07:40		15:13 (2)	06:29		16:22 (17)	06:06		04:55		04:14			
		15:54	43	11:29 (14)	17:01	24	15:37 (2)	18:03	40	17:02 (17)	20:08		21:11		21:58			
	14	08:33		10:47 (14)	07:38		15:14 (2)	06:27		16:22 (17)	06:03		04:53		04:14			
		15:56	42	11:29 (14)	17:03	20	15:34 (2)	18:05	39	17:01 (17)	20:10		21:13		21:58			
	15	08:32		10:48 (14)	07:35		15:17 (2)	06:24		16:22 (17)	06:01		04:51		04:13			
		15:58	41	11:29 (14)	17:06	16	15:33 (2)	18:07	38	17:00 (17)	20:13		21:15		21:59			
	16	08:31		10:49 (14)	07:33		15:20 (2)	06:21		16:23 (17)	05:58		04:49		04:13			
		16:00	40	11:29 (14)	17:08	9	15:29 (2)	18:09	37	17:00 (17)	20:15		21:17		22:00			
	17	08:30		10:49 (14)	07:31			06:19		16:23 (17)	05:56		04:47		04:13			
		16:02	39	11:28 (14)	17:10			18:11	36	16:59 (17)	20:17		21:19		22:00			
	18	08:29		10:51 (14)	07:28			06:16		16:24 (17)	05:53		04:45		04:13			
		16:04	38	11:29 (14)	17:12			18:14	33	16:57 (17)	20:19		21:21		22:01			
	19	08:27		10:51 (14)	07:26			06:13		16:26 (17)	05:51		04:43		04:13			
		16:06	37	11:28 (14)	17:15			18:16	31	16:57 (17)	20:21		21:22		22:01			
	20	08:26		10:52 (14)	07:23			06:10		16:27 (17)	05:48		04:41		04:13			
		16:08	41	15:22 (2)	17:17			18:18	28	16:55 (17)	20:23		21:24		22:02			
	21	08:24		10:53 (14)	07:21			06:08		16:28 (17)	05:45		04:40		04:13			
		16:10	46	15:25 (2)	17:19			18:20	24	16:52 (17)	20:25		21:26		22:02			
	22	08:23		10:55 (14)	07:18			06:05		16:30 (17)	05:43		04:38		04:13			
		16:12	49	15:29 (2)	17:21			18:22	19	16:49 (17)	20:27		21:28		22:02			
	23	08:21		10:56 (14)	07:16			06:02		16:34 (17)	05:40		04:36		04:13			
		16:14	49	15:30 (2)	17:24			18:24	12	16:46 (17)	20:29		21:30		22:02			
	24	08:20		10:57 (14)	07:13		16:48 (9)	06:00			05:38		04:35		04:14			
		16:16	49	15:32 (2)	17:26	8	16:56 (9)	18:26			20:32		21:31		22:02			
	25	08:18		10:59 (14)	07:11		16:45 (9)	05:57			05:35		04:33		04:14			
		16:18	48	15:33 (2)	17:28	13	16:58 (9)	18:28			20:34		21:33		22:02			
	26	08:16		11:01 (14)	07:08		16:43 (9)	05:54			05:33		04:32		04:14			
		16:21	46	15:34 (2)	17:30	17	17:00 (9)	18:30			20:36		21:35		22:02			
	27	08:15		11:05 (14)	07:06		16:38 (17)	05:52			05:31		04:30		04:15			
		16:23	41	15:36 (2)	17:32	24	17:02 (9)	18:33			20:38		21:36		22:02			
	28	08:13		15:07 (2)	07:03		16:34 (17)	05:49			05:28		04:29		04:15			
		16:25	29	15:36 (2)	17:35	29	17:03 (9)	18:35			20:40		21:38		22:02			
	29	08:11		15:07 (2)				06:46			05:26		04:27		04:16			
		16:27	30	15:37 (2)				19:37			20:42		21:40		22:01			
	30	08:09		15:07 (2)				06:43			05:23		04:26		04:17			
		16:29	31	15:38 (2)				19:39			20:44		21:41		22:01			
	31	08:07		15:07 (2)				06:41					04:25					
		16:32	32	15:39 (2)				19:41					21:43					
Möjliga soltimmar		234			265			366			427		509		531			
Totalt, värsta fall			1528			543			790									
Sol reduktion			0,18			0,16			0,22									
Drifttid red.			1,00			1,00			1,00									
Vindrikt. red.			0,92			0,64			0,35									
Total reduktion			0,18			0,11			0,08									
Total, verklig			273			60			67									

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid

0 Totalt

8 760 8 760

	Juli	Augusti	September		Oktober		November		December			
	1 04:18	05:04	06:06		07:07	17:02 (17)	07:13	14:38 (2)	08:16	10:28 (14)		
	22:01	21:19	20:04		18:43	40 17:42 (17)	16:25	31 15:09 (2)	15:33	53 13:15 (6)		
2	04:18	05:06	06:08		07:09	17:01 (17)	07:15	14:37 (2)	08:17	10:27 (14)		
	22:00	21:17	20:01		18:40	40 17:41 (17)	16:22	32 15:09 (2)	15:32	58 13:16 (6)		
3	04:19	05:08	06:10		07:11	17:01 (17)	07:18	14:37 (2)	08:19	10:27 (14)		
	22:00	21:15	19:59		18:38	40 17:41 (17)	16:20	33 15:10 (2)	15:31	60 13:18 (6)		
4	04:20	05:10	06:13		07:13	17:00 (17)	07:20	14:37 (2)	08:21	10:28 (14)		
	21:59	21:13	19:56		18:35	40 17:40 (17)	16:18	33 15:10 (2)	15:30	62 13:19 (6)		
5	04:21	05:12	06:15		07:15	17:00 (17)	07:22	14:36 (2)	08:22	10:28 (14)		
	21:58	21:10	19:53		18:32	40 17:40 (17)	16:16	34 15:10 (2)	15:30	65 13:21 (6)		
6	04:22	05:14	06:17		07:17	17:00 (17)	07:24	14:36 (2)	08:24	10:29 (14)		
	21:58	21:08	19:51		18:30	39 17:39 (17)	16:14	34 15:10 (2)	15:29	66 13:22 (6)		
7	04:23	05:16	06:19		07:20	17:00 (17)	07:26	14:36 (2)	08:25	10:28 (14)		
	21:57	21:06	19:48		18:27	38 17:38 (17)	16:12	34 15:10 (2)	15:28	67 13:22 (6)		
8	04:25	05:18	06:21		07:22	17:01 (17)	07:29	14:37 (2)	08:27	10:29 (14)		
	21:56	21:04	19:45		18:24	38 17:39 (9)	16:10	34 15:11 (2)	15:28	68 13:24 (6)		
9	04:26	05:20	06:23		07:24	17:01 (17)	07:31	14:37 (2)	08:28	10:30 (14)		
	21:55	21:01	19:43		18:22	38 17:39 (9)	16:07	33 15:10 (2)	15:27	69 13:25 (6)		
10	04:27	05:22	06:25		07:26	17:02 (17)	07:33	14:37 (2)	08:29	10:30 (14)		
	21:54	20:59	19:40		18:19	36 17:38 (9)	16:05	33 15:10 (2)	15:27	69 13:25 (6)		
11	04:28	05:24	06:27		07:28	17:03 (17)	07:35	14:37 (2)	08:31	10:30 (14)		
	21:53	20:57	19:37		18:16	35 17:38 (9)	16:03	33 15:10 (2)	15:26	70 13:25 (6)		
12	04:30	05:26	06:29		07:30	17:04 (17)	07:37	14:38 (2)	08:32	10:31 (14)		
	21:52	20:55	19:35		18:14	33 17:37 (9)	16:02	32 15:10 (2)	15:26	71 13:27 (6)		
13	04:31	05:28	06:31		07:32	17:06 (17)	07:39	14:39 (2)	08:33	10:31 (14)		
	21:51	20:52	19:32		18:11	31 17:37 (9)	16:00	30 15:09 (2)	15:26	72 13:27 (6)		
14	04:33	05:30	06:33		07:34	17:08 (17)	07:42	14:39 (2)	08:34	10:32 (14)		
	21:49	20:50	19:29		18:09	28 17:36 (9)	15:58	29 15:08 (2)	15:26	72 13:28 (6)		
15	04:34	05:32	06:35		07:36	17:11 (17)	07:44	10:37 (14)	08:35	10:32 (14)		
	21:48	20:47	19:26		18:06	23 17:34 (9)	15:56	42 15:08 (2)	15:26	72 13:28 (6)		
16	04:36	05:34	06:37		07:38	17:15 (9)	07:46	10:34 (14)	08:36	10:32 (14)		
	21:47	20:45	19:24		18:03	16 17:31 (9)	15:54	46 15:07 (2)	15:26	73 13:29 (6)		
17	04:37	05:36	06:39		07:41	17:18 (9)	07:48	10:33 (14)	08:37	10:33 (14)		
	21:45	20:42	19:21		18:01	11 17:29 (9)	15:52	48 15:07 (2)	15:26	72 13:29 (6)		
18	04:39	05:38	06:41		07:43	17:22 (9)	07:50	10:31 (14)	08:38	10:34 (14)		
	21:44	20:40	19:18		17:58	4 17:26 (9)	15:51	49 15:06 (2)	15:26	72 13:30 (6)		
19	04:40	05:40	06:43		07:45		07:52	10:30 (14)	08:39	10:34 (14)		
	21:42	20:38	19:16		17:56		15:49	49 15:04 (2)	15:26	74 13:31 (6)		
20	04:42	05:42	06:45		07:47		07:54	10:30 (14)	08:39	10:34 (14)		
	21:41	20:35	19:13	8	17:30 (17)		15:47	49 15:04 (2)	15:26	73 13:31 (6)		
21	04:44	05:44	06:47		17:17 (17)	07:49	07:56	10:29 (14)	08:40	10:35 (14)		
	21:39	20:33	19:10	17	17:34 (17)	17:51	15:46	46 15:01 (2)	15:27	73 13:32 (6)		
22	04:46	05:46	06:49		17:14 (17)	07:51	07:58	10:28 (14)	08:41	10:35 (14)		
	21:37	20:30	19:07	22	17:36 (17)	17:48	15:44	41 14:58 (2)	15:27	73 13:32 (6)		
23	04:47	05:48	06:51		17:11 (17)	07:53	08:00	10:28 (14)	08:41	10:36 (14)		
	21:36	20:28	19:05	27	17:38 (17)	17:46	15:43	37 11:05 (14)	15:28	73 13:33 (6)		
24	04:49	05:50	06:53		17:09 (17)	07:56	08:02	10:28 (14)	08:42	10:36 (14)		
	21:34	20:25	19:02	30	17:39 (17)	17:43	15:41	38 11:06 (14)	15:28	73 13:33 (6)		
25	04:51	05:52	06:55		17:07 (17)	06:58	08:04	10:27 (14)	08:42	10:36 (14)		
	21:32	20:22	18:59	33	17:40 (17)	16:41	15:40	40 11:07 (14)	15:29	73 13:33 (6)		
26	04:53	05:54	06:57		17:06 (17)	07:00	14:48 (2)	08:06	10:27 (14)	08:42	10:37 (14)	
	21:30	20:20	18:57	34	17:40 (17)	16:39	11	14:59 (2)	15:39	40 11:07 (14)	15:30	72 13:33 (6)
27	04:55	05:56	06:59		17:04 (17)	07:02	14:46 (2)	08:08	10:27 (14)	08:42	10:37 (14)	
	21:29	20:17	18:54	37	17:41 (17)	16:36	17	15:03 (2)	15:37	41 11:08 (14)	15:31	73 13:34 (6)
28	04:56	05:58	07:01		17:04 (17)	07:04	14:43 (2)	08:10	10:27 (14)	08:42	10:38 (14)	
	21:27	20:15	18:51	38	17:42 (17)	16:34	21	15:04 (2)	15:36	41 11:08 (14)	15:31	72 13:34 (6)
29	04:58	06:00	07:03		17:03 (17)	07:07	14:42 (2)	08:12	10:28 (14)	08:42	10:38 (14)	
	21:25	20:12	18:48	39	17:42 (17)	16:32	24	15:06 (2)	15:35	42 11:10 (14)	15:32	72 13:34 (6)
30	05:00	06:02	07:05		17:02 (17)	07:09	14:40 (2)	08:14	10:28 (14)	08:42	10:39 (14)	
	21:23	20:09	18:46	40	17:42 (17)	16:29	27	15:07 (2)	15:34	47 13:12 (6)	15:33	71 13:35 (6)
31	05:02	06:04			07:11	14:39 (2)			10:28 (14)	08:42	10:40 (14)	
	21:21	20:07			16:27	28 15:07 (2)			15:35	71 13:36 (6)		
Möjliga soltimmar	531	470	385		323		246		214			
Totalt, värsta fall			325		698		1151		2154			
Sol reduktion			0,31		0,26		0,17		0,13			
Drifttid red.			1,00		1,00		1,00		1,00			
Vindrikt. red.			0,35		0,42		0,83		0,96			
Total reduktion			0,12		0,12		0,15		0,13			
Total, verklig			39		81		173		285			

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

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	21	18:49 (18) 19:10 (18)	05:21 20:46	04:24 21:44
2	08:42 15:37	08:03 16:36	06:58 17:39		06:35 19:45	26	18:47 (18) 19:13 (18)	05:19 20:48	04:22 21:45
3	08:41 15:39	08:01 16:38	06:55 17:41		06:33 19:47	27	18:46 (18) 19:13 (18)	05:16 20:50	04:21 21:47
4	08:41 15:40	07:59 16:41	06:53 17:43		06:30 19:49	30	18:44 (18) 19:14 (18)	05:14 20:52	04:20 21:48
5	08:40 15:41	07:57 16:43	06:50 17:45		06:27 19:51	32	18:43 (18) 19:15 (18)	05:12 20:54	04:19 21:49
6	08:40 15:43	07:55 16:45	06:48 17:48		06:24 19:53	33	18:42 (18) 19:15 (18)	05:10 20:56	04:18 21:50
7	08:39 15:44	07:53 16:47	06:45 17:50	13	16:58 (5) 17:11 (5)	34	18:41 (18) 19:15 (18)	05:07 20:58	04:18 21:52
8	08:39 15:46	07:51 16:50	06:42 17:52	20	16:54 (5) 17:14 (5)	34	18:41 (18) 19:15 (18)	05:05 21:01	04:17 21:53
9	08:38 15:47	07:49 16:52	06:40 17:54	25	16:52 (5) 17:17 (5)	35	18:40 (18) 19:15 (18)	05:03 21:03	04:16 21:54
10	08:37 15:49	07:46 16:54	06:37 17:56	28	16:50 (5) 17:18 (5)	34	18:41 (18) 19:15 (18)	05:01 21:05	04:15 21:55
11	08:36 15:51	07:44 16:56	06:34 17:58	31	16:48 (5) 17:19 (5)	34	18:40 (18) 19:14 (18)	04:59 21:07	04:15 21:56
12	08:35 15:53	07:42 16:59	06:32 18:01	34	16:46 (5) 17:20 (5)	33	18:40 (18) 19:13 (18)	04:57 21:09	04:14 21:57
13	08:34 15:54	07:40 17:01	06:29 18:03	35	16:46 (5) 17:21 (5)	32	18:41 (18) 19:13 (18)	04:55 21:11	04:14 21:57
14	08:33 15:56	07:37 17:03	06:26 18:05	37	16:45 (5) 17:22 (5)	32	18:40 (18) 19:12 (18)	04:53 21:13	04:14 21:58
15	08:32 15:58	07:35 17:05	06:24 18:07	38	16:44 (5) 17:22 (5)	30	18:41 (18) 19:11 (18)	04:51 21:15	04:13 21:59
16	08:31 16:00	07:33 17:08	06:21 18:09	39	16:44 (5) 17:23 (5)	28	18:42 (18) 19:10 (18)	04:49 21:16	04:13 21:59
17	08:30 16:02	07:30 17:10	06:18 18:11	39	16:43 (5) 17:22 (5)	26	18:43 (18) 19:09 (18)	04:47 21:18	04:13 22:00
18	08:28 16:04	07:28 17:12	06:16 18:13	40	16:42 (5) 17:22 (5)	23	18:44 (18) 19:07 (18)	04:45 21:20	04:13 22:00
19	08:27 16:06	07:26 17:14	06:13 18:16	41	16:41 (5) 17:22 (5)	19	18:46 (18) 19:05 (18)	04:43 21:22	04:13 22:01
20	08:26 16:08	07:23 17:17	06:10 18:18	40	16:42 (5) 17:22 (5)	14	18:48 (18) 19:02 (18)	04:41 21:24	04:13 22:01
21	08:24 16:10	07:21 17:19	06:08 18:20	39	16:42 (5) 17:21 (5)	6	18:52 (18) 18:58 (18)	04:40 21:26	04:13 22:01
22	08:23 16:12	07:18 17:21	06:05 18:22	38	16:42 (5) 17:20 (5)			04:38 21:28	04:13 22:02
23	08:21 16:14	07:16 17:23	06:02 18:24	37	16:43 (5) 17:20 (5)			04:36 21:29	04:13 22:02
24	08:20 16:16	07:13 17:26	05:59 18:26	36	16:43 (5) 17:19 (5)			04:35 21:31	04:14 22:02
25	08:18 16:18	07:11 17:28	05:57 18:28	35	16:43 (5) 17:18 (5)			04:33 21:33	04:14 22:02
26	08:16 16:21	07:08 17:30	05:54 18:30	33	16:43 (5) 17:16 (5)			04:32 21:35	04:14 22:02
27	08:14 16:23	07:06 17:32	05:51 18:32	31	16:45 (5) 17:16 (5)			04:30 21:36	04:15 22:02
28	08:13 16:25	07:03 17:35	05:49 18:34	27	16:46 (5) 17:13 (5)			04:29 21:38	04:15 22:01
29	08:11 16:27		06:46 19:37	23	17:48 (5) 18:11 (5)			04:27 21:39	04:16 22:01
30	08:09 16:29		06:43 19:39	28	17:51 (5) 19:06 (18)			04:26 21:41	04:17 22:01
31	08:07 16:32		06:41 19:41	27	17:54 (5) 19:09 (18)			04:25 21:42	
Möjliga soltimmar	234	265	366		427		509		531
Totalt, värsta fall			814		583				
Sol reduktion			0,22		0,43				
Drifttid red.			1,00		1,00				
Vindrikt. red.			0,24		0,06				
Total reduktion			0,06		0,03				
Total, verklig			48		17				

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December		
1	04:18 22:00	05:04 21:19	06:06 20:04	18:39 (18) 19:13 (18)	07:07 18:43	17:26 (5) 18:00 (5)	07:13 16:25	08:15 15:33
2	04:18 22:00	05:06 21:17	06:08 20:01	18:39 (18) 19:13 (18)	07:09 18:40	17:27 (5) 17:59 (5)	07:15 16:22	08:17 15:32
3	04:19 21:59	05:08 21:14	06:10 19:59	18:38 (18) 19:13 (18)	07:11 18:38	17:28 (5) 17:57 (5)	07:17 16:20	08:19 15:31
4	04:20 21:59	05:10 21:12	06:12 19:56	18:38 (18) 19:12 (18)	07:13 18:35	17:29 (5) 17:55 (5)	07:20 16:18	08:20 15:30
5	04:21 21:58	05:12 21:10	06:14 19:53	18:38 (18) 19:12 (18)	07:15 18:32	17:30 (5) 17:53 (5)	07:22 16:16	08:22 15:30
6	04:22 21:57	05:14 21:08	06:16 19:51	18:38 (18) 19:11 (18)	07:17 18:30	17:32 (5) 17:49 (5)	07:24 16:14	08:23 15:29
7	04:23 21:56	05:16 21:06	06:18 19:48	18:39 (18) 19:10 (18)	07:19 18:27	17:37 (5) 17:44 (5)	07:26 16:12	08:25 15:28
8	04:25 21:56	05:18 21:04	06:20 19:45	18:39 (18) 19:09 (18)	07:21 18:24		07:28 16:09	08:26 15:28
9	04:26 21:55	05:20 21:01	06:23 19:43	18:40 (18) 19:08 (18)	07:24 18:22		07:31 16:07	08:28 15:27
10	04:27 21:54	05:22 20:59	06:25 19:40	18:41 (18) 19:06 (18)	07:26 18:19		07:33 16:05	08:29 15:27
11	04:28 21:53	05:24 20:57	06:27 19:37	18:41 (18) 19:03 (18)	07:28 18:16		07:35 16:03	08:30 15:26
12	04:30 21:51	05:26 20:54	06:29 19:34	17:46 (5) 19:00 (18)	07:30 18:14		07:37 16:01	08:32 15:26
13	04:31 21:50	05:28 20:52	06:31 19:32	17:42 (5) 18:57 (18)	07:32 18:11		07:39 16:00	08:33 15:26
14	04:33 21:49	05:30 20:50	06:33 19:29	17:38 (5) 18:01 (5)	07:34 18:09		07:41 15:58	08:34 15:26
15	04:34 21:48	05:32 20:47	06:35 19:26	17:36 (5) 18:03 (5)	07:36 18:06		07:44 15:56	08:35 15:26
16	04:36 21:46	05:34 20:45	06:37 19:24	17:34 (5) 18:04 (5)	07:38 18:03		07:46 15:54	08:36 15:26
17	04:37 21:45	05:36 20:42	06:39 19:21	17:32 (5) 18:05 (5)	07:40 18:01		07:48 15:52	08:37 15:26
18	04:39 21:44	05:38 20:40	06:41 19:18	17:31 (5) 18:05 (5)	07:43 17:58		07:50 15:51	08:38 15:26
19	04:40 21:42	05:40 20:37	06:43 19:15	17:29 (5) 18:06 (5)	07:45 17:56		07:52 15:49	08:38 15:26
20	04:42 21:40	05:42 20:35	06:45 19:13	17:28 (5) 18:06 (5)	07:47 17:53		07:54 15:47	08:39 15:26
21	04:44 21:39	05:44 20:32	06:47 19:10	17:27 (5) 18:06 (5)	07:49 17:51		07:56 15:46	08:40 15:27
22	04:46 21:37	05:46 20:30	8 18:56 (18) 19:04 (18)	06:49 19:07	17:27 (5) 18:06 (5)		07:58 15:44	08:40 15:27
23	04:47 21:36	05:48 20:27	15 18:52 (18) 19:07 (18)	06:51 19:05	17:26 (5) 18:06 (5)		08:00 15:43	08:41 15:28
24	04:49 21:34	05:50 20:25	20 18:49 (18) 19:09 (18)	06:53 19:02	17:25 (5) 18:05 (5)		08:02 15:41	08:41 15:28
25	04:51 21:32	05:52 20:22	24 18:47 (18) 19:11 (18)	06:55 18:59	17:25 (5) 18:05 (5)		08:04 15:40	08:42 15:29
26	04:53 21:30	05:54 20:20	26 18:46 (18) 19:12 (18)	06:57 18:56	17:25 (5) 18:04 (5)		08:06 15:39	08:42 15:30
27	04:54 21:28	05:56 20:17	29 18:44 (18) 19:13 (18)	06:59 18:54	17:24 (5) 18:04 (5)		08:08 15:37	08:42 15:31
28	04:56 21:27	05:58 20:14	30 18:42 (18) 19:12 (18)	07:01 18:51	17:24 (5) 18:03 (5)		08:10 15:36	08:42 15:31
29	04:58 21:25	06:00 20:12	32 18:41 (18) 19:13 (18)	07:03 18:48	17:24 (5) 18:02 (5)		08:12 15:35	08:42 15:32
30	05:00 21:23	06:02 20:09	33 18:40 (18) 19:13 (18)	07:05 18:46	17:26 (5) 18:02 (5)		08:14 15:34	08:42 15:33
31	05:02 21:21	06:04 20:07	33 18:40 (18) 19:13 (18)		07:11 16:27			08:42 15:35
Möjliga soltimmar	531	470	385	323		246	215	
Totalt, värsta fall		250	1008	168				
Sol reduktion		0,36	0,31	0,26				
Drifttid red.		1,00	1,00	1,00				
Vindrikt. red.		0,06	0,18	0,25				
Total reduktion		0,02	0,06	0,07				
Total, verklig		6	63	12				

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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 15:37	08:06 16:34	07:01 17:37	06:38 19:43	05:22 20:46	04:24 21:44	04:18 22:01	05:05 21:19	06:07 20:04	07:08 18:43	07:13 16:25	08:16 15:34
2	08:42 15:38	08:04 16:37	06:59 17:39	06:36 19:45	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 19:56	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 21:58	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	07:24 16:14	08:24 15:29
7	08:40 15:45	07:53 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 19:48	07:20 18:27	07:27 16:12	08:25 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 20:59	06:25 19:40	07:26 18:19	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	07:35 16:04	08:31 15:27
12	08:36 15:53	07:42 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 17:01	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 21:49	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 18:06	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 22:00	04:38 21:45	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	07:28 17:13	06:16 18:14	05:54 20:19	04:46 21:21	04:13 22:01	04:39 21:44	05:38 20:40	06:41 19:19	07:43 17:59	07:50 15:51	08:38 15:26
19	08:27 16:06	07:26 17:15	06:14 18:16	05:51 20:21	04:44 21:23	04:13 22:01	04:41 21:42	05:41 20:38	06:43 19:16	07:45 17:56	07:52 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 21:24	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 20:25	04:40 21:26	04:13 22:02	04:44 21:39	05:45 20:33	06:47 19:11	07:49 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 18:24	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	07:02 16:37	08:08 15:38	08:42 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	07:05 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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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
	15:48	16:52	17:55	20:00	21:03	21:54	21:55	21:02	19:43	18:22	16:08	15:28
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	16:02	17:10	18:12	20:17	21:19	22:00	21:45	20:43	19:21	18:01	15:53	15:26
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	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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	16:06	17:15	18:16	20:21	21:23	22:01	21:42	20:38	19:16	17:56	15:49	15:27
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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
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)
-------------	---------------------	---------------------	---------------------	--------------------------------------	-------------------------------------	-----------------------------------	----------------------------------

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 35	10:35 (3) 08:06 11:10 (3) 16:34 10:36 (3) 08:04	09:13 (7) 07:01 09:48 (7) 17:37 09:14 (7) 06:59	07:37 (19) 06:38 08:00 (19) 19:43 07:35 (19) 06:36	07:17 (1) 05:21 07:42 (1) 20:47 07:16 (1) 05:19	04:24 21:44 04:23
2	08:42 15:38 35	10:37 (3) 08:02 11:11 (3) 16:36 10:37 (3) 08:02	09:13 (7) 06:56 09:48 (7) 17:39 09:13 (7) 06:56	07:33 (19) 06:33 08:01 (19) 19:45 07:33 (19) 06:33	07:16 (1) 05:17 07:42 (1) 20:49 07:16 (1) 05:17	04:22 21:46 04:22
3	08:42 15:39 33	10:38 (3) 08:00 11:10 (3) 16:39 10:38 (3) 08:00	09:14 (7) 06:53 09:47 (7) 17:42 09:14 (7) 06:53	07:33 (19) 06:30 08:01 (19) 19:48 07:33 (19) 06:30	07:16 (1) 05:14 07:41 (1) 20:51 07:16 (1) 05:14	04:21 21:47 04:21
4	08:41 15:40 33	10:38 (3) 07:58 11:11 (3) 16:41 10:38 (3) 07:58	08:28 (20) 06:51 09:47 (7) 17:44 08:28 (20) 06:51	07:32 (19) 06:28 08:02 (19) 19:50 07:32 (19) 06:28	07:16 (1) 05:12 07:41 (1) 20:53 07:16 (1) 05:12	04:20 21:49 04:20
5	08:41 15:42 33	10:38 (3) 07:58 11:11 (3) 16:43 10:39 (3) 07:56	08:26 (20) 06:48 09:46 (7) 17:46 08:26 (20) 06:48	07:31 (19) 06:25 08:03 (19) 19:52 07:31 (19) 06:25	07:17 (1) 05:10 07:39 (1) 20:55 07:17 (1) 05:10	04:19 21:50 04:19
6	08:40 15:43 32	10:39 (3) 07:56 11:11 (3) 16:45 10:39 (3) 07:54	08:21 (20) 06:43 09:46 (7) 17:48 08:21 (20) 06:43	07:30 (19) 06:20 08:02 (19) 19:54 07:30 (19) 06:22	07:18 (1) 05:08 07:37 (1) 20:59 07:18 (1) 05:08	04:18 21:51 04:18
7	08:40 15:45 32	10:39 (3) 07:54 11:11 (3) 16:48 10:40 (3) 07:51	08:23 (20) 06:45 09:44 (7) 17:50 08:23 (20) 06:45	07:31 (19) 06:22 08:03 (19) 19:56 07:31 (19) 06:22	07:18 (1) 05:08 07:37 (1) 20:59 07:18 (1) 05:08	04:18 21:52 04:18
8	08:39 15:46 31	10:40 (3) 07:51 11:11 (3) 16:50 10:40 (3) 07:51	08:21 (20) 06:43 09:44 (7) 17:52 08:21 (20) 06:43	07:30 (19) 06:20 08:03 (19) 19:58 07:30 (19) 06:20	07:19 (1) 05:06 07:34 (1) 21:01 07:19 (1) 05:06	04:17 21:53 04:17
9	08:38 15:48 31	10:41 (3) 07:49 11:12 (3) 16:52 10:42 (3) 07:47	08:19 (20) 06:40 09:43 (7) 17:55 08:19 (20) 06:40	07:30 (19) 06:17 08:02 (19) 20:00 07:30 (19) 06:17	07:22 (1) 05:03 07:32 (1) 21:03 07:22 (1) 05:03	04:16 21:54 04:16
10	08:38 15:49 30	10:42 (3) 07:47 11:12 (3) 16:55 10:42 (3) 07:47	08:16 (20) 06:38 09:40 (7) 17:57 08:16 (20) 06:38	07:29 (19) 06:14 08:01 (19) 20:02 07:29 (19) 06:14	05:01 21:05 05:01	04:16 21:55 04:16
11	08:37 15:51 32	09:23 (7) 07:45 11:12 (3) 16:57 09:23 (7) 07:45	08:16 (20) 06:35 09:38 (7) 17:59 08:16 (20) 06:35	07:30 (19) 06:12 08:01 (19) 20:04 07:30 (19) 06:12	04:59 21:07 04:59	04:15 21:56 04:15
12	08:36 15:53 38	09:20 (7) 07:43 11:12 (3) 16:59 09:20 (7) 07:43	08:16 (20) 06:32 09:32 (7) 18:01 08:16 (20) 06:32	07:30 (19) 06:09 08:00 (19) 20:07 07:30 (19) 06:09	04:57 21:09 04:57	04:15 21:57 04:15
13	08:35 15:55 41	09:18 (7) 07:40 11:11 (3) 17:01 09:18 (7) 07:40	08:16 (20) 06:30 08:41 (20) 18:03 08:16 (20) 06:30	07:30 (19) 06:06 07:59 (19) 20:09 07:30 (19) 06:06	04:55 21:11 04:55	04:14 21:58 04:14
14	08:34 15:57 42	09:17 (7) 07:38 11:11 (3) 17:04 09:17 (7) 07:38	08:16 (20) 06:27 08:40 (20) 18:05 08:16 (20) 06:27	07:31 (19) 06:04 07:58 (19) 20:11 07:31 (19) 06:04	04:53 21:13 04:53	04:14 21:59 04:14
15	08:33 15:58 42	09:17 (7) 07:36 11:11 (3) 17:06 09:17 (7) 07:36	08:16 (20) 06:24 08:40 (20) 18:07 08:16 (20) 06:24	07:32 (19) 06:01 07:56 (19) 20:13 07:32 (19) 06:01	04:51 21:15 04:51	04:14 21:59 04:14
16	08:31 16:00 43	09:15 (7) 07:33 11:09 (3) 17:08 09:15 (7) 07:33	08:16 (20) 06:22 08:39 (20) 18:10 08:16 (20) 06:22	07:33 (19) 05:59 07:54 (19) 20:15 07:33 (19) 05:59	04:49 21:17 04:49	04:13 22:00 04:13
17	08:30 16:02 42	09:14 (7) 07:31 11:08 (3) 17:10 09:14 (7) 07:31	08:17 (20) 06:19 08:39 (20) 18:12 08:17 (20) 06:19	07:35 (19) 05:56 07:51 (19) 20:17 07:35 (19) 05:56	04:47 21:19 04:47	04:13 22:01 04:13
18	08:29 16:04 41	09:14 (7) 07:28 11:07 (3) 17:13 09:14 (7) 07:28	08:17 (20) 06:16 08:38 (20) 18:14 08:17 (20) 06:16	07:39 (19) 05:53 07:48 (19) 20:19 07:39 (19) 05:53	04:45 21:21 04:45	04:13 22:01 04:13
19	08:28 16:06 37	09:13 (7) 07:26 11:04 (3) 17:15 09:13 (7) 07:26	08:19 (20) 06:13 08:37 (20) 18:16 08:19 (20) 06:13	05:51 20:21 05:51	04:44 21:23 04:44	04:13 22:01 04:13
20	08:26 16:08 28	09:14 (7) 07:24 09:42 (7) 17:17 09:14 (7) 07:24	08:20 (20) 06:11 08:35 (20) 18:18 08:20 (20) 06:11	05:48 20:23 05:48	04:42 21:25 04:42	04:13 22:02 04:13
21	08:25 16:10 30	09:13 (7) 07:21 09:43 (7) 17:19 09:13 (7) 07:21	08:23 (20) 06:08 08:32 (20) 18:20 08:23 (20) 06:08	05:46 20:25 05:46	04:40 21:26 04:40	04:13 22:02 04:13
22	08:23 16:12 31	09:13 (7) 07:19 09:44 (7) 17:22 09:13 (7) 07:19	06:05 18:22 06:05	05:43 20:28 05:43	04:38 21:28 04:38	04:13 22:02 04:13
23	08:22 16:15 32	09:12 (7) 07:16 09:44 (7) 17:24 09:12 (7) 07:16	06:03 18:24 06:03	05:41 20:30 05:41	04:37 21:30 04:37	04:14 22:02 04:14
24	08:20 16:17 33	09:12 (7) 07:14 09:45 (7) 17:26 09:12 (7) 07:14	06:00 18:27 06:00	05:38 20:32 05:38	04:35 21:32 04:35	04:14 22:02 04:14
25	08:18 16:19 33	09:12 (7) 07:11 09:45 (7) 17:28 09:12 (7) 07:11	05:57 18:29 05:57	05:36 20:34 05:36	04:33 21:33 04:33	04:14 22:02 04:14
26	08:17 16:21 34	09:12 (7) 07:09 09:46 (7) 17:31 09:12 (7) 07:09	07:45 (19) 05:55 07:52 (19) 18:31 07:45 (19) 05:55	06:24 (1) 05:33 06:39 (1) 20:36 06:24 (1) 05:33	04:32 21:35 04:32	04:15 22:02 04:15
27	08:15 16:23 34	09:12 (7) 07:06 09:46 (7) 17:33 09:12 (7) 07:06	07:41 (19) 05:52 07:56 (19) 18:33 07:41 (19) 05:52	06:21 (1) 05:31 06:41 (1) 20:38 06:21 (1) 05:31	04:30 21:37 04:30	04:15 22:02 04:15
28	08:13 16:25 35	09:12 (7) 07:04 09:47 (7) 17:35 09:12 (7) 07:04	07:38 (19) 05:49 07:58 (19) 18:35 07:38 (19) 05:49	06:20 (1) 05:29 06:41 (1) 20:40 06:20 (1) 05:29	04:29 21:38 04:29	04:16 22:02 04:16
29	08:11 16:27 35	09:12 (7) 07:00 09:47 (7) 17:37 09:12 (7) 07:00	06:46 19:37 06:46	07:19 (1) 05:26 07:42 (1) 20:42 07:19 (1) 05:26	04:28 21:40 04:28	04:16 22:02 04:16
30	08:10 16:30 35	09:12 (7) 07:00 09:47 (7) 17:37 09:12 (7) 07:00	06:44 19:39 06:44	07:18 (1) 05:24 07:42 (1) 20:44 07:18 (1) 05:24	04:26 21:41 04:26	04:17 22:01 04:17
31	08:08 16:32 34	09:13 (7) 07:00 09:47 (7) 17:37 09:13 (7) 07:00	06:41 19:41 06:41	07:17 (1) 05:23 07:42 (1) 20:45 07:17 (1) 05:23	04:25 21:43 04:25	04:17 22:01 04:17
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1077	672	622	189		
Sol reduktion	0,18	0,16	0,22	0,43		
Drifttid red.	1,00	1,00	1,00	1,00		
Vindrikt. red.	0,87	0,66	0,31	0,05		
Total reduktion	0,18	0,12	0,08	0,02		
Total, verklig	193	81	49	4		

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid

0 Totalt

8 760 8 760

	Juli	Augusti	September		Oktober		November		December	
1	04:18	05:04	06:07		07:07		08:09 (19)	07:13	07:46 (20)	08:16
	22:01	21:19	20:04		18:43	30	08:39 (19)	16:25	09:10 (7)	15:33
2	04:19	05:06	06:09		07:10		08:08 (19)	07:16	07:48 (20)	08:18
	22:01	21:17	20:02		18:41	31	08:39 (19)	16:23	09:12 (7)	15:32
3	04:20	05:08	06:11		07:12		08:07 (19)	07:18	07:51 (20)	08:19
	22:00	21:15	19:59	10	07:29 (1)	32	08:39 (19)	16:21	09:14 (7)	15:31
4	04:21	05:10	06:13		07:16 (1)		08:07 (19)	07:20	07:53 (20)	08:21
	21:59	21:13	19:56	15	07:31 (1)	32	08:39 (19)	16:18	09:14 (7)	15:31
5	04:22	05:12	06:15		07:14 (1)		08:06 (19)	07:22	07:56 (20)	08:22
	21:59	21:11	19:54	19	07:33 (1)	33	08:39 (19)	16:16	09:16 (7)	15:30
6	04:23	05:14	06:17		07:13 (1)		08:07 (19)	07:25	07:58 (20)	08:24
	21:58	21:08	19:51	21	07:34 (1)	32	08:39 (19)	16:14	09:16 (7)	15:29
7	04:24	05:16	06:19		07:12 (1)		08:07 (19)	07:27	08:45 (7)	08:26
	21:57	21:06	19:48	23	07:35 (1)	32	08:39 (19)	16:12	09:17 (7)	15:29
8	04:25	05:18	06:21		07:11 (1)		08:07 (19)	07:29	08:44 (7)	08:27
	21:56	21:04	19:46	24	07:35 (1)	31	08:38 (19)	16:10	09:17 (7)	15:28
9	04:26	05:20	06:23		07:10 (1)		08:07 (19)	07:31	08:44 (7)	08:28
	21:55	21:02	19:43	25	07:35 (1)	30	08:37 (19)	16:08	09:18 (7)	15:27
10	04:27	05:22	06:25		07:10 (1)		08:07 (19)	07:33	08:44 (7)	08:30
	21:54	20:59	19:40	25	07:35 (1)	29	08:36 (19)	16:06	09:18 (7)	15:27
11	04:29	05:24	06:27		07:09 (1)		08:07 (19)	07:35	08:43 (7)	08:31
	21:53	20:57	19:38	26	07:35 (1)	28	08:35 (19)	16:04	09:18 (7)	15:27
12	04:30	05:26	06:29		07:09 (1)		08:09 (19)	07:38	08:44 (7)	08:32
	21:52	20:55	19:35	25	07:34 (1)	25	08:34 (19)	16:02	09:19 (7)	15:26
13	04:32	05:28	06:31		07:09 (1)		08:10 (19)	07:40	08:44 (7)	08:33
	21:51	20:52	19:32	25	07:34 (1)	22	08:32 (19)	16:00	09:19 (7)	15:26
14	04:33	05:30	06:33		07:09 (1)		08:12 (19)	07:42	08:45 (7)	08:34
	21:50	20:50	19:30	24	07:33 (1)	18	08:30 (19)	15:58	09:19 (7)	15:26
15	04:34	05:32	06:35		07:10 (1)		08:14 (19)	07:44	08:45 (7)	08:36
	21:48	20:48	19:27	22	07:32 (1)	13	08:27 (19)	15:56	09:19 (7)	15:26
16	04:36	05:34	06:37		07:11 (1)			07:46	08:45 (7)	08:36
	21:47	20:45	19:24	19	07:30 (1)			15:54	09:19 (7)	15:26
17	04:38	05:36	06:39		07:12 (1)			07:48	08:46 (7)	08:37
	21:46	20:43	19:21	16	07:28 (1)			15:53	09:19 (7)	15:26
18	04:39	05:38	06:41		07:14 (1)			07:50	08:46 (7)	08:38
	21:44	20:40	19:19	12	07:26 (1)			15:51	09:19 (7)	15:26
19	04:41	05:40	06:43					07:53	08:47 (7)	08:39
	21:43	20:38	19:16					15:49	09:19 (7)	15:26
20	04:42	05:42	06:45					07:55	08:48 (7)	08:40
	21:41	20:35	19:13					15:48	09:19 (7)	15:27
21	04:44	05:44	06:47				08:53 (20)	07:57	08:48 (7)	08:40
	21:39	20:33	19:10			11	09:04 (20)	15:46	09:18 (7)	15:27
22	04:46	05:46	06:49				08:50 (20)	07:59	08:50 (7)	08:41
	21:38	20:30	19:08			15	09:05 (20)	15:45	09:18 (7)	15:28
23	04:48	05:48	06:51				08:49 (20)	08:01	08:50 (7)	08:41
	21:36	20:28	19:05			19	09:08 (20)	15:43	10:41 (3)	15:28
24	04:49	05:51	06:53				08:48 (20)	08:03	08:51 (7)	08:42
	21:34	20:25	19:02			20	09:08 (20)	15:42	10:44 (3)	15:29
25	04:51	05:53	06:55		08:24 (19)		07:46 (20)	08:05	08:52 (7)	08:42
	21:33	20:23	19:00	4	08:28 (19)	23	08:09 (20)	15:40	10:46 (3)	15:29
26	04:53	05:55	06:57		08:18 (19)		07:46 (20)	08:07	08:53 (7)	08:42
	21:31	20:20	18:57	15	08:33 (19)	24	08:10 (20)	15:39	10:47 (3)	15:30
27	04:55	05:57	06:59		08:16 (19)		07:46 (20)	08:09	08:56 (7)	08:43
	21:29	20:18	18:54	19	08:35 (19)	24	08:10 (20)	15:38	10:50 (3)	15:31
28	04:57	05:59	07:01		08:13 (19)		07:45 (20)	08:10	08:57 (7)	08:43
	21:27	20:15	18:51	24	08:37 (19)	24	08:09 (20)	15:37	10:51 (3)	15:32
29	04:59	06:01	07:03		08:12 (19)		07:45 (20)	08:12	08:59 (7)	08:43
	21:25	20:12	18:49	26	08:38 (19)	25	08:10 (20)	15:35	10:52 (3)	15:33
30	05:00	06:03	07:05		08:10 (19)		07:45 (20)	08:14	09:01 (7)	08:43
	21:23	20:10	18:46	28	08:38 (19)	32	09:03 (7)	15:34	10:53 (3)	15:34
31	05:02	06:05					07:46 (20)			08:43
	21:21	20:07			16:27	39	09:08 (7)		15:35	11:10 (3)
Möjliga soltimmar	531	470	385		323		246		214	
Totalt, värsta fall			447		674		1099		1057	
Sol reduktion			0,31		0,26		0,17		0,13	
Drifttid red.			1,00		1,00		1,00		1,00	
Vindrikt. red.			0,14		0,47		0,79		0,96	
Total reduktion			0,05		0,14		0,15		0,14	
Total, verklig			22		93		168		148	

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Drift tid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 33	10:43 (3) 08:06 11:16 (3) 16:34 10:44 (3) 08:04	09:21 (7) 07:01 09:54 (7) 17:37 09:22 (7) 06:59	07:40 (19) 06:38 08:09 (19) 19:43 07:39 (19) 06:36	07:21 (1) 05:21 07:47 (1) 20:47 07:20 (1) 05:19	04:24 21:44 04:23
2	08:42 15:38 33	10:44 (3) 08:04 11:17 (3) 16:36 10:45 (3) 08:02	09:22 (7) 06:59 09:54 (7) 17:39 08:32 (20) 06:56	07:39 (19) 06:36 08:09 (19) 19:45 07:38 (19) 06:33	07:20 (1) 05:19 07:46 (1) 20:49 07:20 (1) 05:17	04:23 21:46 04:22
3	08:42 15:39 31	10:45 (3) 08:02 11:16 (3) 16:39 10:46 (3) 08:00	09:23 (7) 06:57 09:53 (7) 17:42 08:30 (20) 06:53	07:38 (19) 06:30 08:09 (19) 19:48 07:38 (19) 06:30	07:21 (1) 05:14 07:44 (1) 20:51 07:21 (1) 05:14	04:21 21:47 04:21
4	08:41 15:40 31	10:46 (3) 08:00 11:17 (3) 16:41 10:46 (3) 07:58	09:24 (7) 06:51 09:52 (7) 17:44 08:28 (20) 06:51	07:37 (19) 06:28 08:10 (19) 19:50 07:37 (19) 06:28	07:21 (1) 05:12 07:42 (1) 20:55 07:22 (1) 05:10	04:20 21:49 04:20
5	08:41 15:42 31	10:46 (3) 07:58 11:17 (3) 16:43 10:47 (3) 07:56	09:25 (7) 06:48 09:51 (7) 17:48 08:23 (20) 06:45	07:36 (19) 06:25 08:09 (19) 19:54 07:37 (19) 06:22	07:21 (1) 05:08 07:42 (1) 20:59 07:26 (1) 05:06	04:19 21:51 04:18
6	08:40 15:43 30	10:47 (3) 07:56 11:17 (3) 16:45 09:26 (7) 07:54	09:26 (7) 06:43 09:49 (7) 17:50 08:22 (20) 06:43	07:36 (19) 06:20 08:10 (19) 19:56 07:36 (19) 06:20	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
7	08:40 15:45 37	10:47 (3) 07:56 11:17 (3) 16:48 09:25 (7) 07:51	09:27 (7) 06:41 09:47 (7) 17:52 08:22 (20) 06:40	07:36 (19) 06:17 08:09 (19) 19:58 07:36 (19) 06:17	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
8	08:39 15:46 40	10:47 (3) 07:56 11:17 (3) 16:50 09:24 (7) 07:49	09:28 (7) 06:38 09:45 (7) 17:55 08:22 (20) 06:38	07:36 (19) 06:14 08:09 (19) 19:58 07:36 (19) 06:14	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
9	08:38 15:48 42	10:47 (3) 07:56 11:17 (3) 16:52 09:23 (7) 07:47	09:29 (7) 06:35 09:45 (7) 17:55 08:22 (20) 06:35	07:36 (19) 06:12 08:09 (19) 19:58 07:36 (19) 06:12	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
10	08:37 15:49 44	10:47 (3) 07:56 11:17 (3) 16:55 09:22 (7) 07:45	09:30 (7) 06:32 09:45 (7) 17:55 08:22 (20) 06:32	07:36 (19) 06:10 08:09 (19) 19:58 07:36 (19) 06:10	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
11	08:37 15:51 45	10:47 (3) 07:56 11:17 (3) 16:57 09:22 (7) 07:43	09:31 (7) 06:30 09:45 (7) 17:55 08:22 (20) 06:30	07:36 (19) 06:09 08:09 (19) 19:58 07:36 (19) 06:09	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
12	08:36 15:53 45	10:47 (3) 07:56 11:17 (3) 16:59 09:21 (7) 07:40	09:32 (7) 06:27 09:45 (7) 17:55 08:22 (20) 06:27	07:36 (19) 06:07 08:09 (19) 19:58 07:36 (19) 06:07	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
13	08:35 15:55 46	10:47 (3) 07:56 11:17 (3) 17:01 09:21 (7) 07:38	09:33 (7) 06:24 09:45 (7) 17:55 08:22 (20) 06:24	07:36 (19) 06:06 08:09 (19) 19:58 07:36 (19) 06:06	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
14	08:34 15:57 44	10:47 (3) 07:56 11:17 (3) 17:04 09:21 (7) 07:36	09:34 (7) 06:21 09:45 (7) 17:55 08:22 (20) 06:21	07:36 (19) 06:04 08:09 (19) 19:58 07:36 (19) 06:04	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
15	08:33 15:58 44	10:47 (3) 07:56 11:17 (3) 17:06 09:21 (7) 07:34	09:35 (7) 06:18 09:45 (7) 17:55 08:22 (20) 06:18	07:36 (19) 06:03 08:09 (19) 19:58 07:36 (19) 06:03	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
16	08:31 16:00 41	10:47 (3) 07:56 11:17 (3) 17:08 09:20 (7) 07:33	09:36 (7) 06:15 09:45 (7) 17:55 08:22 (20) 06:15	07:36 (19) 06:02 08:09 (19) 19:58 07:36 (19) 06:02	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
17	08:30 16:02 38	10:47 (3) 07:56 11:17 (3) 17:10 09:19 (7) 07:31	09:37 (7) 06:12 09:45 (7) 17:55 08:22 (20) 06:12	07:36 (19) 06:01 08:09 (19) 19:58 07:36 (19) 06:01	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
18	08:29 16:04 30	10:47 (3) 07:56 11:17 (3) 17:13 09:19 (7) 07:28	09:38 (7) 06:09 09:45 (7) 17:55 08:22 (20) 06:09	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
19	08:28 16:06 31	10:47 (3) 07:56 11:17 (3) 17:15 09:19 (7) 07:26	09:39 (7) 06:06 09:45 (7) 17:55 08:22 (20) 06:06	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
20	08:26 16:08 32	10:47 (3) 07:56 11:17 (3) 17:17 09:19 (7) 07:24	09:40 (7) 06:03 09:45 (7) 17:55 08:22 (20) 06:03	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
21	08:25 16:10 33	10:47 (3) 07:56 11:17 (3) 17:19 09:19 (7) 07:21	09:41 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
22	08:23 16:12 33	10:47 (3) 07:56 11:17 (3) 17:22 09:19 (7) 07:19	09:42 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
23	08:22 16:14 33	10:47 (3) 07:56 11:17 (3) 17:24 09:19 (7) 07:16	09:43 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
24	08:20 16:17 34	10:47 (3) 07:56 11:17 (3) 17:26 09:19 (7) 07:14	09:44 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
25	08:18 16:19 34	10:47 (3) 07:56 11:17 (3) 17:28 09:19 (7) 07:11	09:45 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
26	08:17 16:21 34	10:47 (3) 07:56 11:17 (3) 17:31 09:19 (7) 07:09	09:46 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
27	08:15 16:23 35	10:47 (3) 07:56 11:17 (3) 17:33 09:19 (7) 07:06	09:47 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
28	08:13 16:25 35	10:47 (3) 07:56 11:17 (3) 17:35 09:19 (7) 07:04	09:48 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
29	08:11 16:27 35	10:47 (3) 07:56 11:17 (3) 17:37 09:19 (7) 07:02	09:49 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
30	08:10 16:30 34	10:47 (3) 07:56 11:17 (3) 17:39 09:19 (7) 07:00	09:50 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
31	08:08 16:32 33	10:47 (3) 07:56 11:17 (3) 17:41 09:19 (7) 06:58	09:51 (7) 06:00 09:45 (7) 17:55 08:22 (20) 06:00	07:36 (19) 06:00 08:09 (19) 19:58 07:36 (19) 06:00	07:22 (1) 05:06 07:40 (1) 20:57 07:24 (1) 05:08	04:19 21:52 04:18
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1121	653	624	162		
Sol reduktion	0,18	0,16	0,22	0,43		
Drifttid red.	1,00	1,00	1,00	1,00		
Vindrikt. red.	0,86	0,64	0,32	0,07		
Total reduktion	0,18	0,12	0,08	0,03		
Total, verklig	199	76	50	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

SE-833 84 Strömsund

+46 31 727 25 00

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

Beräknad:

2020-01-29 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftid tid

0 Totalt

8 760 8 760

	Juli	Augusti	September		Oktober		November		December	
1	04:18	05:04	06:07		07:07		08:17 (19)	07:13	07:50 (20)	08:16
	22:01	21:19	20:04		18:43	26	08:43 (19)	16:25	09:09 (7)	15:33
2	04:19	05:06	06:09		07:10		08:16 (19)	07:16	07:50 (20)	08:18
	22:01	21:17	20:02		18:41	28	08:44 (19)	16:23	09:14 (7)	15:32
3	04:20	05:08	06:11		07:12		08:14 (19)	07:18	07:51 (20)	08:19
	22:00	21:15	19:59		18:38	31	08:45 (19)	16:21	09:17 (7)	15:31
4	04:21	05:10	06:13		07:14		08:13 (19)	07:20	07:53 (20)	08:21
	21:59	21:13	19:56	9	07:32 (1)	32	08:45 (19)	16:18	09:19 (7)	15:31
5	04:22	05:12	06:15		07:20 (1)		08:13 (19)	07:22	07:56 (20)	08:22
	21:59	21:11	19:54	15	07:35 (1)	32	08:45 (19)	16:16	09:21 (7)	15:30
6	04:23	05:14	06:17		07:18 (1)		08:13 (19)	07:25	07:58 (20)	08:24
	21:58	21:08	19:51	18	07:36 (1)	33	08:46 (19)	16:14	09:22 (7)	15:29
7	04:24	05:16	06:19		07:16 (1)		08:12 (19)	07:27	08:01 (20)	08:26
	21:57	21:06	19:48	21	07:37 (1)	33	08:45 (19)	16:12	09:23 (7)	15:29
8	04:25	05:18	06:21		07:15 (1)		08:12 (19)	07:29	08:03 (20)	08:27
	21:56	21:04	19:46	23	07:38 (1)	33	08:45 (19)	16:10	09:24 (7)	15:28
9	04:26	05:20	06:23		07:14 (1)		08:12 (19)	07:31	08:53 (7)	08:28
	21:55	21:02	19:43	25	07:39 (1)	32	08:44 (19)	16:08	09:25 (7)	15:27
10	04:27	05:22	06:25		07:14 (1)		08:12 (19)	07:33	08:52 (7)	08:30
	21:54	20:59	19:40	25	07:39 (1)	32	08:44 (19)	16:06	09:25 (7)	15:27
11	04:29	05:24	06:27		07:13 (1)		08:12 (19)	07:35	08:51 (7)	08:31
	21:53	20:57	19:38	26	07:39 (1)	31	08:43 (19)	16:04	09:25 (7)	15:27
12	04:30	05:26	06:29		07:13 (1)		08:13 (19)	07:38	08:52 (7)	08:32
	21:52	20:55	19:35	26	07:39 (1)	30	08:43 (19)	16:02	09:26 (7)	15:26
13	04:32	05:28	06:31		07:12 (1)		08:13 (19)	07:40	08:51 (7)	08:33
	21:51	20:52	19:32	26	07:38 (1)	28	08:41 (19)	16:00	09:26 (7)	15:26
14	04:33	05:30	06:33		07:12 (1)		08:14 (19)	07:42	08:52 (7)	08:34
	21:50	20:50	19:30	26	07:38 (1)	26	08:40 (19)	15:58	09:27 (7)	15:26
15	04:34	05:32	06:35		07:13 (1)		08:15 (19)	07:44	08:52 (7)	08:36
	21:48	20:48	19:27	24	07:37 (1)	23	08:38 (19)	15:56	09:27 (7)	15:26
16	04:36	05:34	06:37		07:13 (1)		08:17 (19)	07:46	08:52 (7)	08:36
	21:47	20:45	19:24	23	07:36 (1)	20	08:37 (19)	15:54	09:26 (7)	15:26
17	04:38	05:36	06:39		07:14 (1)		08:20 (19)	07:48	08:52 (7)	08:37
	21:46	20:43	19:21	20	07:34 (1)	14	08:34 (19)	15:53	09:27 (7)	15:26
18	04:39	05:38	06:41		07:15 (1)		08:24 (19)	07:50	08:53 (7)	08:38
	21:44	20:40	19:19	18	07:33 (1)	5	08:29 (19)	15:51	09:27 (7)	15:26
19	04:41	05:40	06:43		07:17 (1)			07:53	08:54 (7)	08:39
	21:43	20:38	19:16	13	07:30 (1)			15:49	09:27 (7)	15:26
20	04:42	05:42	06:45		07:19 (1)			07:55	08:54 (7)	08:40
	21:41	20:35	19:13	8	07:27 (1)			15:48	09:27 (7)	15:27
21	04:44	05:44	06:47		07:49			07:57	08:54 (7)	08:40
	21:39	20:33	19:10		17:51			15:46	09:27 (7)	15:27
22	04:46	05:46	06:49		07:52		09:00 (20)	07:59	08:55 (7)	08:41
	21:38	20:30	19:08		17:49	6	09:06 (20)	15:45	09:27 (7)	15:28
23	04:48	05:48	06:51		07:54		08:57 (20)	08:01	08:56 (7)	08:41
	21:36	20:28	19:05		17:46	13	09:10 (20)	15:43	09:27 (7)	15:28
24	04:49	05:51	06:53		07:56		08:54 (20)	08:03	08:56 (7)	08:42
	21:34	20:25	19:02		17:44	17	09:11 (20)	15:42	09:26 (7)	15:29
25	04:51	05:53	06:55		06:58		07:53 (20)	08:05	08:57 (7)	08:42
	21:33	20:23	19:00		16:41	19	08:12 (20)	15:40	10:48 (3)	15:29
26	04:53	05:55	06:57		07:00		07:52 (20)	08:07	08:58 (7)	08:42
	21:31	20:20	18:57		16:39	22	08:14 (20)	15:39	10:51 (3)	15:30
27	04:55	05:57	06:59		08:28 (19)		07:51 (20)	08:09	09:00 (7)	08:43
	21:29	20:18	18:54	7	08:35 (19)	23	08:14 (20)	15:38	10:54 (3)	15:31
28	04:57	05:59	07:01		08:23 (19)		07:50 (20)	08:10	09:01 (7)	08:43
	21:27	20:15	18:51	16	08:39 (19)	24	08:14 (20)	15:37	10:55 (3)	15:32
29	04:59	06:01	07:03		08:21 (19)		07:51 (20)	08:12	09:02 (7)	08:43
	21:25	20:12	18:49	20	08:41 (19)	24	08:15 (20)	15:35	10:57 (3)	15:33
30	05:00	06:03	07:05		08:19 (19)		07:50 (20)	08:14	09:03 (7)	08:43
	21:23	20:10	18:46	23	08:42 (19)	25	08:15 (20)	15:34	10:58 (3)	15:34
31	05:02	06:05			07:11		07:51 (20)		08:43	10:43 (3)
	21:21	20:07			16:27	24	08:15 (20)		15:35	11:16 (3)
Möjliga soltimmar	531	470	385		323		246		214	
Totalt, värsta fall			412		686		1101		1074	
Sol reduktion			0,31		0,26		0,17		0,13	
Drifttid red.			1,00		1,00		1,00		1,00	
Vindrikt. red.			0,12		0,47		0,79		0,96	
Total reduktion			0,04		0,14		0,15		0,14	
Total, verklig			18		94		166		149	

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftid

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												
Driftid 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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftid
0 Totalt
8 760 8 760

	Januari	Februari	Mars	April	Maj	Juni
1	08:42 15:36 54	10:15 (14) 14:02 (2) 16:34	08:06 15:55 (9) 17:37	06:38 19:43 20:46	05:21 20:46 21:44	04:24 21:44 22:42
2	08:42 15:37 54	10:16 (14) 14:03 (2) 16:36	08:04 15:55 (9) 17:39	06:35 19:45 20:48	05:19 20:48 21:46	04:22 21:46 22:44
3	08:42 15:39 54	10:16 (14) 14:03 (2) 16:38	08:02 15:56 (9) 17:41	06:33 19:47 20:50	05:16 20:50 21:47	04:21 21:47 22:45
4	08:41 15:40 53	10:17 (14) 14:03 (2) 16:41	08:00 15:57 (9) 17:43	06:30 19:49 20:53	05:14 20:53 21:48	04:20 21:48 22:46
5	08:41 15:41 52	10:18 (14) 14:04 (2) 16:43	07:57 15:57 (9) 17:46	06:27 19:51 20:55	05:12 20:55 21:50	04:19 21:50 22:47
6	08:40 15:43 50	10:19 (14) 14:04 (2) 16:45	07:55 15:57 (9) 17:48	06:25 19:54 20:57	05:10 20:57 21:51	04:18 21:51 22:48
7	08:40 15:44 48	10:20 (14) 14:04 (2) 16:47	07:53 15:57 (9) 17:50	06:22 19:56 20:59	05:07 20:59 21:52	04:18 21:52 22:49
8	08:39 15:46 47	10:21 (14) 14:04 (2) 16:50	07:51 15:57 (9) 17:52	06:19 19:58 21:01	05:05 21:01 21:53	04:17 21:53 22:50
9	08:38 15:47 46	10:22 (14) 14:49 (17) 16:52	07:49 15:57 (9) 17:54	06:17 20:00 21:03	05:03 21:03 21:54	04:16 21:54 22:51
10	08:37 15:49 54	10:23 (14) 14:53 (17) 16:54	07:47 15:57 (9) 17:56	06:14 20:02 21:05	05:01 21:05 21:55	04:15 21:55 22:52
11	08:36 15:51 54	10:25 (14) 14:56 (17) 16:56	07:45 15:56 (9) 17:59	06:11 20:04 21:07	04:59 21:07 21:56	04:15 21:56 22:53
12	08:36 15:53 52	10:26 (14) 14:57 (17) 16:59	07:42 15:55 (9) 18:01	06:09 20:06 21:09	04:57 21:09 21:57	04:14 21:57 22:54
13	08:35 15:54 49	10:29 (14) 14:59 (17) 17:01	07:40 15:55 (9) 18:03	06:06 20:08 21:11	04:55 21:11 21:58	04:14 21:58 22:55
14	08:33 15:56 43	13:44 (2) 15:01 (17) 17:03	07:38 15:53 (9) 18:05	06:03 20:10 21:13	04:53 21:13 21:58	04:14 21:58 22:56
15	08:32 15:58 43	13:45 (2) 15:02 (17) 17:06	07:35 15:51 (9) 18:07	06:01 20:13 21:15	04:51 21:15 21:59	04:13 21:59 22:57
16	08:31 16:00 43	13:47 (2) 15:04 (17) 17:08	07:33 15:47 (9) 18:09	06:21 17:36 (4) 17:39 (4)	04:49 05:58 20:15	04:13 20:15 21:17
17	08:30 16:02 41	13:49 (2) 15:05 (17) 17:10	07:31 18:11 18:13	06:19 17:30 (4) 17:43 (4)	04:47 05:56 20:17	04:13 20:17 21:19
18	08:29 16:04 36	13:53 (2) 15:07 (17) 17:12	07:28 18:14 18:16	06:16 17:28 (4) 17:44 (4)	05:53 20:19 21:21	04:13 21:21 22:01
19	08:27 16:06 32	14:35 (17) 15:07 (17) 17:15	07:26 18:16 18:18	06:13 17:27 (4) 17:46 (4)	05:51 20:21 21:22	04:13 21:22 22:01
20	08:26 16:08 34	14:34 (17) 15:08 (17) 17:17	07:23 18:10 18:18	06:10 17:25 (4) 17:47 (4)	05:48 20:23 21:24	04:13 21:24 22:02
21	08:24 16:10 36	14:34 (17) 15:10 (17) 17:19	07:21 18:20 18:22	06:08 17:24 (4) 17:47 (4)	05:45 20:25 21:26	04:13 21:26 22:02
22	08:23 16:12 36	14:34 (17) 15:10 (17) 17:21	07:18 18:22 18:24	06:05 17:23 (4) 17:47 (4)	05:43 20:27 21:28	04:13 21:28 22:02
23	08:21 16:14 38	14:33 (17) 15:11 (17) 17:24	07:16 18:24 18:26	06:02 17:23 (4) 17:48 (4)	05:40 20:29 21:30	04:13 21:30 22:02
24	08:20 16:16 39	14:33 (17) 15:12 (17) 17:26	07:13 18:26 18:28	06:00 17:23 (4) 17:47 (4)	05:38 20:32 21:31	04:14 21:31 22:02
25	08:18 16:18 39	14:33 (17) 15:12 (17) 17:28	07:11 18:28 18:30	05:57 17:22 (4) 17:46 (4)	05:35 20:34 21:33	04:14 21:33 22:02
26	08:16 16:21 41	14:33 (17) 15:42 (9) 17:30	07:08 18:30 18:32	05:54 17:23 (4) 17:46 (4)	05:33 20:36 21:35	04:14 21:35 22:02
27	08:15 16:23 51	14:33 (17) 15:46 (9) 17:32	07:06 18:33 18:35	05:52 17:23 (4) 17:45 (4)	05:31 20:38 21:37	04:15 21:37 22:02
28	08:13 16:25 56	14:33 (17) 15:49 (9) 17:35	07:03 18:35 18:37	05:49 17:24 (4) 17:43 (4)	05:28 20:40 21:38	04:15 21:38 22:02
29	08:11 16:27 60	14:33 (17) 15:51 (9) 17:37	07:01 18:37 18:39	06:46 18:24 (4) 18:42 (4)	05:26 20:42 21:40	04:16 21:40 22:02
30	08:09 16:29 62	14:33 (17) 15:52 (9) 17:39	06:43 18:39 18:41	06:43 18:27 (4) 18:40 (4)	05:23 20:44 21:41	04:17 21:41 22:01
31	08:07 16:32 64	14:33 (17) 15:54 (9) 17:41	06:41 18:41 18:43	06:41 18:30 (4) 18:36 (4)	05:21 20:46 21:43	04:17 21:43 22:01
Möjliga soltimmar	234	265	366	427	509	531
Totalt, värsta fall	1463	898	294			
Sol reduktion	0,18	0,16	0,22			
Driftid red.	1,00	1,00	1,00			
Vindrikt. red.	0,84	0,72	0,10			
Total reduktion	0,16	0,12	0,02			
Total, verklig	234	111	7			

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 12:24/3.2.737

SHADOW - Kalender

Beräkning: Skuggberäkning Skäckarp layout 7Skuggmottagare: 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

Driftl tid

0 Totalt

8 760 8 760

	Juli	Augusti	September	Oktober	November	December
1	04:18	05:04	06:06	07:07	07:13	14:08 (17)
	22:01	21:19	20:04	18:43	16:25	15:26 (9)
2	04:18	05:06	06:08	07:09	07:15	14:06 (17)
	22:00	21:17	20:02	18:40	16:22	15:26 (9)
3	04:19	05:08	06:11	07:11	07:18	14:06 (17)
	22:00	21:15	19:59	18:38	16:20	15:27 (9)
4	04:20	05:10	06:13	07:13	07:20	14:05 (17)
	21:59	21:13	19:56	18:35	16:18	15:27 (9)
5	04:21	05:12	06:15	07:15	07:22	14:04 (17)
	21:58	21:10	19:54	18:32	16:16	15:26 (9)
6	04:22	05:14	06:17	07:17	07:24	14:05 (17)
	21:58	21:08	19:51	18:30	16:14	15:27 (9)
7	04:23	05:16	06:19	07:20	07:26	14:04 (17)
	21:57	21:06	19:48	18:27	16:12	15:26 (9)
8	04:25	05:18	06:21	07:22	07:29	14:04 (17)
	21:56	21:04	19:45	18:24	16:10	15:26 (9)
9	04:26	05:20	06:23	07:24	07:31	14:04 (17)
	21:55	21:01	19:43	18:22	16:07	15:26 (9)
10	04:27	05:22	06:25	07:26	07:33	14:04 (17)
	21:54	20:59	19:40	18:19	16:05	15:26 (9)
11	04:28	05:24	06:27	07:28	07:35	14:04 (17)
	21:53	20:57	19:37	18:16	16:03	15:25 (9)
12	04:30	05:26	06:29	18:23 (4)	07:30	14:05 (17)
	21:52	20:55	19:35	18:27 (4)	16:02	15:24 (9)
13	04:31	05:28	06:31	18:19 (4)	07:32	14:05 (17)
	21:51	20:52	19:32	18:31 (4)	16:00	15:23 (9)
14	04:33	05:30	06:33	18:15 (4)	07:34	14:04 (17)
	21:49	20:50	19:29	18:32 (4)	15:58	15:20 (9)
15	04:34	05:32	06:35	18:13 (4)	07:36	14:06 (17)
	21:48	20:47	19:26	18:33 (4)	15:56	15:19 (9)
16	04:36	05:34	06:37	18:12 (4)	07:38	14:06 (17)
	21:47	20:45	19:24	18:33 (4)	15:54	14:46 (17)
17	04:37	05:36	06:39	18:11 (4)	07:41	14:07 (17)
	21:45	20:43	19:21	18:34 (4)	15:52	14:46 (17)
18	04:39	05:38	06:41	18:10 (4)	07:43	14:07 (17)
	21:44	20:40	19:18	18:34 (4)	15:51	14:46 (17)
19	04:40	05:40	06:43	18:09 (4)	07:45	14:07 (17)
	21:42	20:38	19:16	18:34 (4)	15:49	14:45 (17)
20	04:42	05:42	06:45	18:09 (4)	07:47	14:09 (17)
	21:41	20:35	19:13	18:33 (4)	15:47	14:45 (17)
21	04:44	05:44	06:47	18:09 (4)	07:49	14:09 (17)
	21:39	20:33	19:10	18:33 (4)	15:46	14:45 (17)
22	04:46	05:46	06:49	18:09 (4)	07:51	14:10 (17)
	21:38	20:30	19:07	18:32 (4)	15:44	14:44 (17)
23	04:47	05:48	06:51	18:09 (4)	07:54	14:12 (17)
	21:36	20:28	19:05	18:31 (4)	15:43	14:44 (17)
24	04:49	05:50	06:53	18:09 (4)	07:56	13:31 (2)
	21:34	20:25	19:02	18:29 (4)	15:41	14:44 (17)
25	04:51	05:52	06:55	18:10 (4)	08:04	13:27 (2)
	21:32	20:22	18:59	18:28 (4)	15:40	14:43 (17)
26	04:53	05:54	06:57	18:11 (4)	08:06	13:25 (2)
	21:31	20:20	18:57	18:25 (4)	15:39	14:42 (17)
27	04:55	05:56	06:59	18:15 (4)	08:08	13:24 (2)
	21:29	20:17	18:54	18:23 (4)	15:37	14:41 (17)
28	04:56	05:58	07:01	07:04	14:14 (17)	13:23 (2)
	21:27	20:15	18:51	16:34	15:23 (9)	15:36
29	04:58	06:00	07:03	07:07	14:12 (17)	08:12
	21:25	20:12	18:48	16:32	15:24 (9)	15:35
30	05:00	06:02	07:05	07:09	14:10 (17)	08:14
	21:23	20:09	18:46	16:29	15:25 (9)	15:33
31	05:02	06:04		07:11	14:08 (17)	08:42
	21:21	20:07		16:27	15:25 (9)	15:35
Möjliga soltimmar	531	470	385	323	246	214
Totalt, värsta fall			299	251	1546	1733
Sol reduktion			0,31	0,26		0,13
Drifttid red.			1,00	1,00	1,00	1,00
Vindrikt. red.			0,10	0,72	0,76	0,92
Total reduktion			0,03	0,20	0,14	0,12
Total, verklig			10	49	210	215

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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