

Gesamtbeschickung in Winkelminuten für den Kimmabstand des Sonnenunterrandes

Kimm- abstand	Augeshöhe in Meter																					
	in Grad	0	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24	26	28	30
°	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'
3	1.9	0.0	-0.7	-1.3	-1.8	-2.3	-2.7	-3.0	-3.4	-3.7	-4.0	-4.5	-5.1	-5.5	-6.0	-6.4	-6.8	-7.2	-7.6	-7.9	-8.3	
3.5	3.2	1.3	0.6	0.0	-0.5	-1.0	-1.3	-1.7	-2.1	-2.4	-2.7	-3.2	-3.7	-4.2	-4.7	-5.1	-5.5	-5.9	-6.3	-6.6	-7.0	
4	4.3	2.5	1.7	1.2	0.7	0.2	-0.2	-0.5	-0.9	-1.2	-1.5	-2.0	-2.6	-3.0	-3.5	-3.9	-4.3	-4.7	-5.1	-5.4	-5.8	
4.5	5.4	3.5	2.8	2.2	1.7	1.3	0.9	0.5	0.2	-0.2	-0.4	-1.0	-1.5	-2.0	-2.4	-2.9	-3.3	-3.6	-4.0	-4.4	-4.7	
5	6.2	4.4	3.6	3.1	2.6	2.1	1.8	1.4	1.1	0.7	0.5	-0.1	-0.6	-1.1	-1.5	-1.9	-2.3	-2.7	-3.1	-3.4	-3.8	
5.5	7.0	5.2	4.4	3.8	3.4	2.9	2.5	2.2	1.8	1.5	1.2	0.7	0.2	-0.3	-0.7	-1.2	-1.6	-1.9	-2.3	-2.6	-3.0	
6	7.7	5.8	5.1	4.5	4.0	3.6	3.2	2.9	2.5	2.2	1.9	1.4	0.9	0.4	0.0	-0.5	-0.9	-1.2	-1.6	-2.0	-2.3	
6.5	8.2	6.4	5.7	5.1	4.6	4.2	3.8	3.4	3.1	2.8	2.5	2.0	1.5	1.0	0.6	0.1	-0.3	-0.6	-1.0	-1.3	-1.7	
7	8.8	6.9	6.2	5.6	5.1	4.7	4.3	4.0	3.6	3.3	3.0	2.5	2.0	1.5	1.1	0.7	0.3	-0.1	-0.5	-0.8	-1.2	
7.5	9.2	7.4	6.7	6.1	5.6	5.2	4.8	4.4	4.1	3.8	3.5	3.0	2.5	2.0	1.6	1.1	0.7	0.4	0.0	-0.3	-0.7	
8	9.6	7.8	7.1	6.5	6.0	5.6	5.2	4.8	4.5	4.2	3.9	3.4	2.9	2.4	2.0	1.6	1.2	0.8	0.4	0.1	-0.3	
8.5	10.0	8.2	7.4	6.9	6.4	6.0	5.6	5.2	4.9	4.6	4.3	3.7	3.2	2.8	2.3	1.9	1.5	1.2	0.8	0.5	0.1	
9	10.3	8.5	7.8	7.2	6.7	6.3	5.9	5.5	5.2	4.9	4.6	4.1	3.6	3.1	2.7	2.3	1.9	1.5	1.1	0.8	0.5	
9.5	10.6	8.8	8.1	7.5	7.0	6.6	6.2	5.8	5.5	5.2	4.9	4.4	3.9	3.4	3.0	2.6	2.2	1.8	1.4	1.1	0.8	
10	10.9	9.1	8.3	7.8	7.3	6.9	6.5	6.1	5.8	5.5	5.2	4.7	4.2	3.7	3.3	2.8	2.5	2.1	1.7	1.4	1.0	
11	11.3	9.5	8.8	8.2	7.8	7.3	6.9	6.6	6.3	6.0	5.7	5.1	4.6	4.2	3.7	3.3	2.9	2.6	2.2	1.9	1.5	
12	11.7	9.9	9.2	8.6	8.2	7.7	7.4	7.0	6.7	6.4	6.1	5.5	5.0	4.6	4.1	3.7	3.3	3.0	2.6	2.3	1.9	
13	12.1	10.3	9.5	9.0	8.5	8.1	7.7	7.3	7.0	6.7	6.4	5.9	5.4	4.9	4.5	4.1	3.7	3.3	3.0	2.6	2.3	
14	12.4	10.6	9.8	9.3	8.8	8.4	8.0	7.6	7.3	7.0	6.7	6.2	5.7	5.2	4.8	4.4	4.0	3.6	3.3	2.9	2.6	
15	12.6	10.8	10.1	9.5	9.1	8.6	8.3	7.9	7.6	7.3	7.0	6.4	5.9	5.5	5.0	4.6	4.2	3.9	3.5	3.2	2.8	
16	12.9	11.1	10.3	9.8	9.3	8.9	8.5	8.1	7.8	7.5	7.2	6.7	6.2	5.7	5.3	4.9	4.5	4.1	3.7	3.4	3.1	
17	13.1	11.3	10.5	10.0	9.5	9.1	8.7	8.3	8.0	7.7	7.4	6.9	6.4	5.9	5.5	5.1	4.7	4.3	4.0	3.6	3.3	
18	13.2	11.5	10.7	10.1	9.7	9.2	8.9	8.5	8.2	7.9	7.6	7.1	6.6	6.1	5.7	5.3	4.9	4.5	4.1	3.8	3.5	
19	13.4	11.6	10.9	10.3	9.8	9.4	9.0	8.7	8.4	8.0	7.8	7.2	6.7	6.3	5.8	5.4	5.0	4.7	4.3	4.0	3.6	
20	13.5	11.8	11.0	10.5	10.0	9.6	9.2	8.8	8.5	8.2	7.9	7.4	6.9	6.4	6.0	5.6	5.2	4.8	4.5	4.1	3.8	
22	13.8	12.0	11.3	10.7	10.2	9.8	9.4	9.1	8.8	8.5	8.2	7.6	7.1	6.7	6.2	5.8	5.4	5.1	4.7	4.4	4.0	
24	14.0	12.2	11.5	10.9	10.5	10.0	9.7	9.3	9.0	8.7	8.4	7.8	7.3	6.9	6.5	6.0	5.7	5.3	4.9	4.6	4.3	
26	14.2	12.4	11.7	11.1	10.6	10.2	9.8	9.5	9.2	8.9	8.6	8.0	7.5	7.1	6.6	6.2	5.8	5.5	5.1	4.8	4.4	
28	14.4	12.6	11.8	11.3	10.8	10.4	10.0	9.6	9.3	9.0	8.7	8.2	7.7	7.2	6.8	6.4	6.0	5.6	5.3	4.9	4.6	
30	14.5	12.7	12.0	11.4	10.9	10.5	10.1	9.8	9.5	9.2	8.9	8.3	7.8	7.4	6.9	6.5	6.1	5.8	5.4	5.1	4.7	
32	14.6	12.8	12.1	11.5	11.1	10.6	10.3	9.9	9.6	9.3	9.0	8.5	8.0	7.5	7.1	6.7	6.3	5.9	5.5	5.2	4.9	
34	14.7	13.0	12.2	11.7	11.2	10.8	10.4	10.0	9.7	9.4	9.1	8.6	8.1	7.6	7.2	6.8	6.4	6.0	5.7	5.3	5.0	
36	14.8	13.1	12.3	11.8	11.3	10.9	10.5	10.1	9.8	9.5	9.2	8.7	8.2	7.7	7.3	6.9	6.5	6.1	5.8	5.4	5.1	
38	14.9	13.2	12.4	11.8	11.4	10.9	10.6	10.2	9.9	9.6	9.3	8.8	8.3	7.8	7.4	7.0	6.6	6.2	5.9	5.5	5.2	
40	15.0	13.2	12.5	11.9	11.5	11.0	10.7	10.3	10.0	9.7	9.4	8.8	8.4	7.9	7.5	7.1	6.7	6.3	5.9	5.6	5.3	
42	15.1	13.3	12.6	12.0	11.5	11.1	10.7	10.4	10.1	9.8	9.5	8.9	8.4	8.0	7.5	7.1	6.7	6.4	6.0	5.7	5.3	
44	15.2	13.4	12.6	12.1	11.6	11.2	10.8	10.5	10.1	9.8	9.5	9.0	8.5	8.0	7.6	7.2	6.8	6.4	6.1	5.7	5.4	
46	15.2	13.4	12.7	12.1	11.7	11.2	10.9	10.5	10.2	9.9	9.6	9.1	8.6	8.1	7.7	7.3	6.9	6.5	6.2	5.8	5.5	
48	15.3	13.5	12.8	12.2	11.7	11.3	10.9	10.6	10.3	10.0	9.7	9.1	8.6	8.2	7.7	7.3	6.9	6.6	6.2	5.9	5.5	
50	15.4	13.6	12.8	12.3	11.8	11.4	11.0	10.6	10.3	10.0	9.7	9.2	8.7	8.2	7.8	7.4	7.0	6.6	6.3	5.9	5.6	
55	15.5	13.7	13.0	12.4	11.9	11.5	11.1	10.8	10.4	10.1	9.9	9.3	8.8	8.4	7.9	7.5	7.1	6.8	6.4	6.1	5.7	
60	15.6	13.8	13.1	12.5	12.0	11.6	11.2	10.9	10.6	10.3	10.0	9.4	8.9	8.5	8.0	7.6	7.3	6.9	6.5	6.2	5.9	
65	15.7	13.9	13.2	12.6	12.1	11.7	11.3	11.0	10.7	10.4	10.1	9.5	9.0	8.6	8.2	7.7	7.4	7.0	6.6	6.3	6.0	
70	15.8	14.0	13.3	12.7	12.2	11.8	11.4	11.1	10.8	10.5	10.2	9.6	9.1	8.7	8.3	7.8	7.5	7.1	6.7	6.4	6.1	
75	15.9	14.1	13.4	12.8	12.3	11.9	11.5	11.2	10.9	10.6	10.3	9.7	9.2	8.8	8.3	7.9	7.5	7.2	6.8	6.5	6.1	
80	16.0	14.2	13.5	12.9	12.4	12.0	11.6	11.3	10.9	10.6	10.4	9.8	9.3	8.9	8.4	8.0	7.6	7.3	6.9	6.6	6.2	
85	16.1	14.3	13.6	13.0	12.5	12.1	11.7	11.4	11.0	10.7	10.4	9.9	9.4	8.9	8.5	8.1	7.7	7.3	7.0	6.7	6.3	
90	16.2	14.4	13.6	13.1	12.6	12.2	11.8	11.4	11.1	10.8	10.5	10.0	9.5	9.0	8.6	8.2	7.8	7.4	7.1	6.7	6.4	