

# Photometric test report

<b>Family</b> <b>Silica® 21</b>	<b>Order number: 51MX21DA44BB</b> <b>EAN: 4058352894996</b>	<b>LP number</b> <b>59268_80</b>
	<b>Version</b> surface-mounted luminaire, reflector, black, direct distribution, narrow distribution, UGR≤19 (L65≤3000cd/m²)	<b>serial documentation</b> <b>02.08.2023</b>
	<b>Lamps</b> LED 4000 K   CRI ≥ 80 <b>Controlgear</b> ECG-DALI <b>Rated values</b> Net luminous flux = 4320 lm Power consumption = 25.6 W Luminous efficacy = 168.8 lm/W	

Luminous intensity in cd/klm C180-0 C270-90 I<sub>max</sub>: 1647 cd/klm



Classifications	
DIN 5040	A 7 0
CIE	N1=87 N2=99 N3=100 N4=100 N5=100

Luminaire light output ratios	
$\eta_{LB}$	100.0%
$\phi_u$	100.0%
$\phi_o$	0.0%

Measurement conditions
DIN EN 13032 and DIN 5032

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<b>Table of values for luminous intensities</b>		<b>Maximum luminous intensity</b>
		<b>siteco</b>

C-planes γ	0° 180°	15°	30°	45°	60°	75°	90° 270°	Phi-zone	Total Phi-zone
		165° 195° 345°	150° 210° 330°	135° 225° 315°	120° 240° 300°	105° 255° 285°			
Luminous intensity in cd/klm								Luminous flux in lm/klm	
0°	1647.1	1647.1	1647.1	1647.1	1647.1	1647.1	1647.1	9.9	9.9
5°	1556.0	1552.2	1545.4	1552.7	1555.3	1549.6	1552.8	74.1	84.0
10°	1286.3	1288.4	1295.0	1311.1	1307.0	1291.2	1290.4	123.4	207.4
15°	978.4	985.5	998.6	1011.3	1007.8	991.2	986.9	141.3	348.7
20°	761.0	758.1	743.8	731.7	736.2	737.5	737.7	139.2	488.0
25°	575.0	565.5	534.1	513.6	528.8	542.8	539.9	125.2	613.2
30°	426.0	419.2	386.1	366.4	385.1	401.9	392.9	108.2	721.3
35°	308.0	307.0	281.1	264.9	280.7	295.5	280.0	90.3	811.6
40°	209.2	211.1	196.7	188.3	198.2	205.5	193.0	70.5	882.1
45°	130.5	131.9	127.1	124.8	130.2	130.3	123.1	49.8	932.0
50°	76.5	78.3	78.7	78.6	80.6	77.5	73.2	32.8	964.8
55°	42.1	44.0	46.1	47.2	47.6	43.6	40.6	20.2	985.0
60°	13.4	16.3	24.8	26.9	25.6	18.0	14.5	9.9	994.9
65°	4.2	5.2	7.6	13.7	8.3	5.3	4.6	3.7	998.6
70°	1.7	1.8	1.5	2.7	1.9	2.1	2.2	1.0	999.6
75°	0.3	0.5	0.5	0.6	0.6	0.6	0.4	0.3	999.9
80°	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	999.9
85°	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	1000.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0

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<b>UGR-Table</b>	<b>Standard room</b>	<b>siteco</b>
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Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Reflection factor of floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions	View crosswise (C0)					View endwise (C90)					
x	y										
2H	2H	17.1	18.3	17.5	18.6	18.9	17.0	18.2	17.4	18.5	18.8
	3H	17.0	18.0	17.3	18.4	18.7	16.9	17.9	17.2	18.3	18.6
	4H	16.9	17.9	17.3	18.2	18.6	16.8	17.8	17.2	18.1	18.5
	6H	16.8	17.7	17.3	18.1	18.5	16.7	17.6	17.2	18.0	18.4
	8H	16.9	17.6	17.3	18.0	18.4	16.8	17.5	17.2	17.9	18.3
	12H	16.9	17.5	17.3	17.9	18.3	16.8	17.4	17.2	17.8	18.2
4H	2H	17.0	18.0	17.4	18.4	18.7	16.9	17.9	17.3	18.3	18.6
	3H	16.9	17.7	17.3	18.1	18.5	16.8	17.6	17.2	18.0	18.4
	4H	16.8	17.5	17.2	17.9	18.3	16.7	17.4	17.1	17.8	18.2
	6H	16.7	17.3	17.2	17.7	18.2	16.6	17.2	17.1	17.6	18.1
	8H	16.6	17.2	17.1	17.6	18.1	16.6	17.1	17.0	17.5	18.0
	12H	16.6	17.1	17.1	17.5	18.0	16.5	17.0	17.0	17.4	17.9
8H	4H	16.6	17.2	17.1	17.6	18.1	16.6	17.1	17.0	17.5	18.0
	6H	16.5	17.0	17.0	17.4	18.0	16.4	16.9	16.9	17.3	17.9
	8H	16.5	16.8	17.0	17.3	17.9	16.4	16.8	16.9	17.2	17.8
	12H	16.5	16.7	17.0	17.2	17.8	16.4	16.6	16.9	17.1	17.7
12H	4H	16.6	17.1	17.1	17.5	18.0	16.6	17.0	17.0	17.4	17.9
	6H	16.5	16.8	17.0	17.3	17.9	16.4	16.8	16.9	17.2	17.8
	8H	16.5	16.7	17.0	17.2	17.8	16.4	16.6	16.9	17.1	17.7

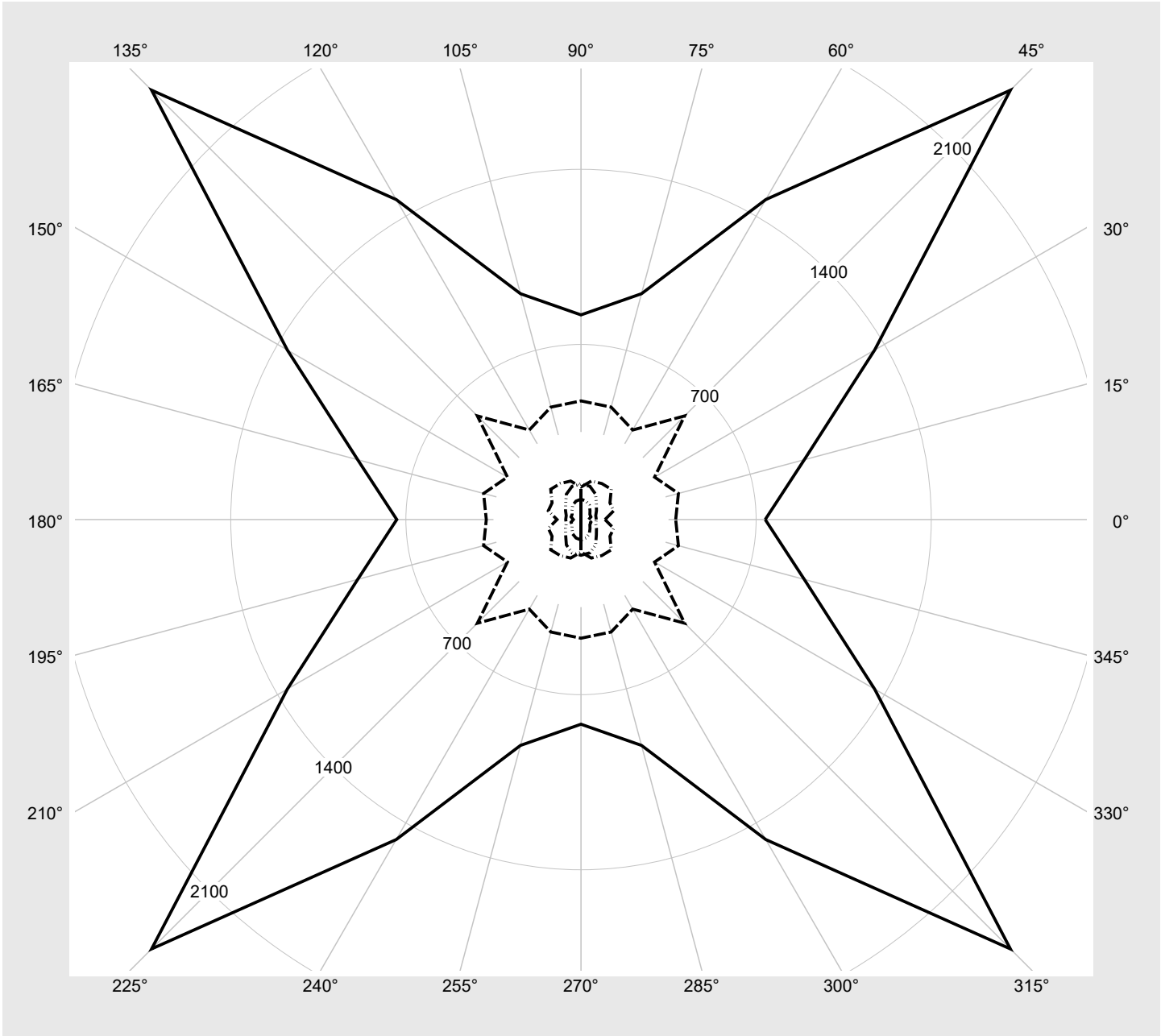
<b>Luminance table</b>	<b>Max. for <math>\gamma \geq 65^\circ</math></b>	<b>Photometric dimensions in mm:</b>	<b>L = 1176</b> <b>B = 49</b>
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C-planes	$\gamma$	Luminance in cd/m <sup>2</sup>							
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	
45°		13837.3	13986.0	13475.6	13233.6	13804.1	13819.2	13053.7	
50°		8925.4	9130.3	9184.1	9166.8	9400.7	9037.8	8535.2	
55°		5509.0	5751.6	6021.4	6172.9	6227.0	5700.7	5312.7	
60°		2003.8	2439.0	3713.1	4029.6	3843.3	2697.1	2177.5	
65°		736.4	924.0	1355.3	2427.2	1477.0	934.7	818.1	
70°		378.5	403.1	339.5	585.9	413.4	465.3	474.3	
75°		95.9	135.3	133.5	171.2	166.3	159.3	130.1	
80°		30.7	41.0	41.0	50.9	66.5	76.4	81.6	
85°		61.1	61.1	71.4	86.9	117.0	137.6	142.8	

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**Luminance values in cd/m<sup>2</sup>**     γ 65°   γ 70°   γ 75°   γ 80°   γ 85°     **siteco**



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<b>Dimming levels table</b>	environmental temperature: 25°C	<b>sITeco</b>
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	4320	25.6
95	240	252	4096	24.2
90	227	250	3884	22.8
85	214	248	3673	21.5
80	201	245	3461	20.2
75	188	243	3246	18.9
70	175	240	3031	17.5
65	162	238	2813	16.2
60	149	234	2594	15.0
55	136	231	2373	13.7
50	124	228	2168	12.5
45	111	224	1945	11.2
40	98	219	1721	10.0
35	86	214	1513	8.8
30	74	209	1304	7.7
25	61	202	1076	6.5
20	49	194	865	5.4
15	37	183	651	4.3
10	25	169	437	3.2
5	13	145	224	1.9
3	8	127	134	1.2