
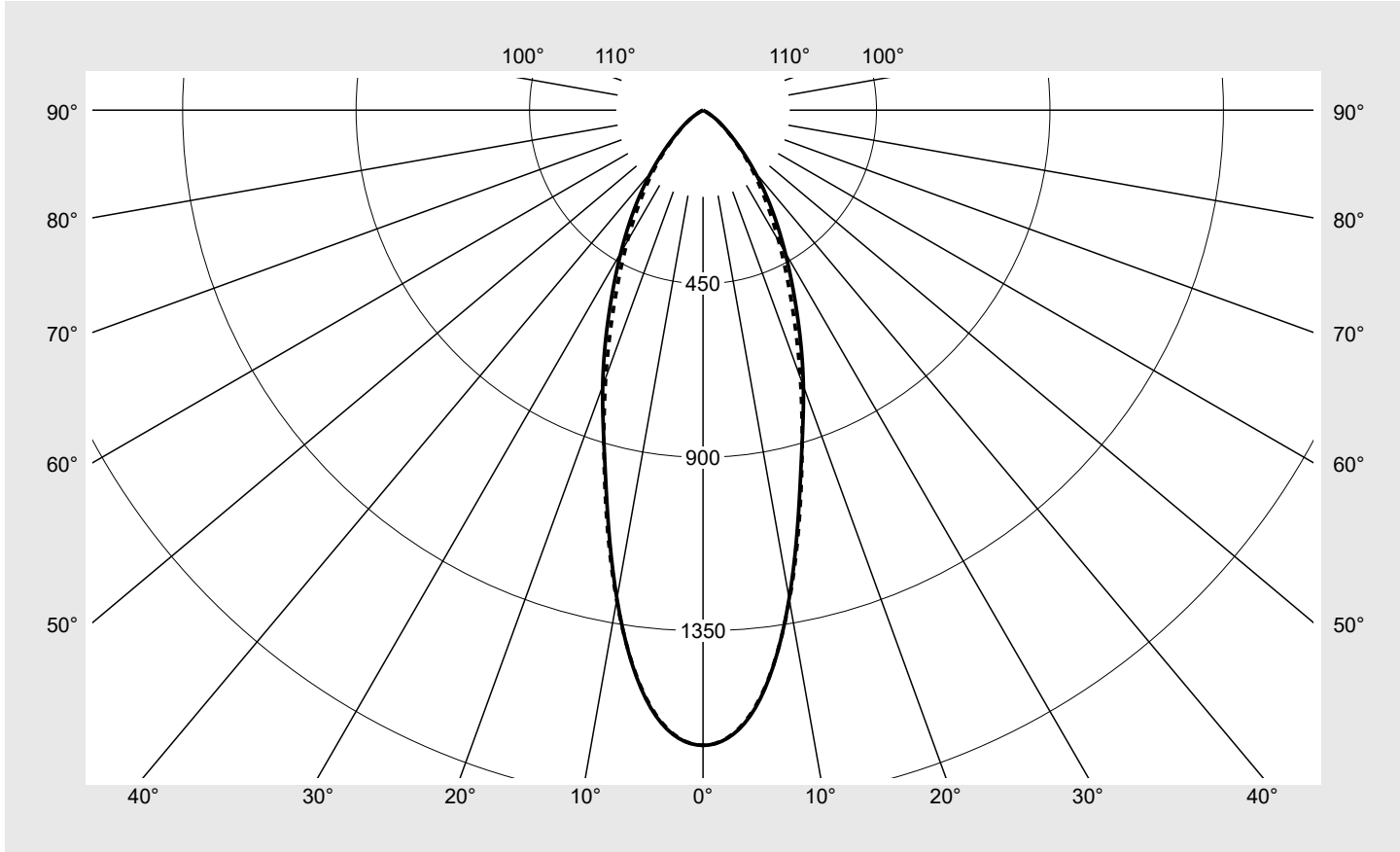


# Photometric test report

<b>Family</b> <b>Silica® 21</b>	<b>Order number: 51MX21DC4ABB</b> <b>EAN: 4058352900031</b>	<b>LP number</b> <b>59268_84</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 = 10800 lm Power consumption = 64.8 W Luminous efficacy = 166.7 lm/W	

Luminous intensity in cd/klm C180-0 C270-90 **Imax: 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

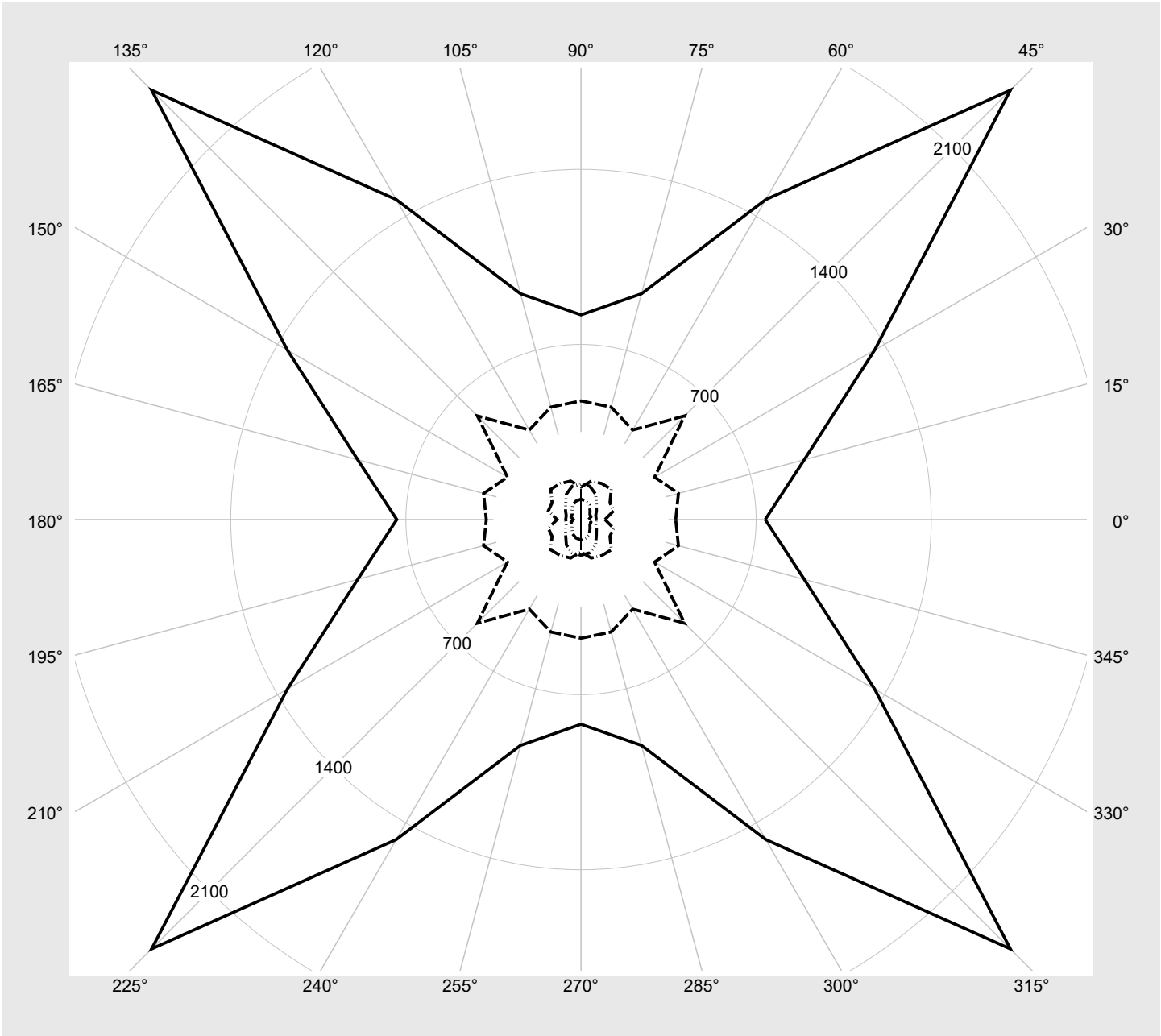
<b>Luminance table</b>	<b>Max. for <math>\gamma \geq 65^\circ</math></b>	<b>Photometric dimensions in mm:</b>	<b>L = 2940</b> <b>B = 49</b>
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C-planes	$\gamma$	Luminance in cd/m <sup>2</sup>							
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 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	10800	64.8
95	241	252	10278	61.6
90	227	250	9708	58.1
85	214	248	9179	55.0
80	201	245	8646	51.7
75	188	243	8110	48.5
70	175	240	7571	45.3
65	162	238	7026	42.2
60	149	234	6479	39.1
55	136	231	5926	35.9
50	124	228	5414	33.0
45	111	224	4857	29.9
40	99	219	4340	27.0
35	86	214	3777	23.9
30	74	209	3254	21.1
25	61	202	2686	18.0
20	49	194	2158	15.2
15	37	183	1625	12.2
10	25	169	1093	9.3
5	13	145	558	5.9
3	8	127	335	4.1