


# Photometric test report

<b>Family</b> <b>Silica® 21</b>	<b>Order number: 51MX23DB45SB</b> <b>EAN: 4058352905197</b>	<b>LP number</b> <b>59330_250</b>
	<b>Version</b> surface-mounted luminaire, with homogeneous illumination, prismatic cover, direct distribution, extremely wide 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 = 4100 lm Power consumption = 28.1 W Luminous efficacy = 145.9 lm/W		

**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 642 cd/klm**



Classifications	
DIN 5040	A 6 0
CIE	N1=78 N2=96 N3=99 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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Table of values for luminous intensities		Maximum luminous intensity
		<b>siteco</b>

C-planes $\gamma$	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°	631.2	631.2	631.2	631.2	631.2	631.2	631.2	3.8	3.8
5°	639.0	636.9	635.8	640.8	642.0	634.8	631.1	30.5	34.2
10°	617.8	615.8	612.2	616.7	624.6	629.4	622.7	59.0	93.2
15°	604.8	603.1	597.6	597.0	601.6	607.9	607.8	85.4	178.7
20°	581.7	581.2	575.6	575.6	576.2	579.7	585.7	108.5	287.2
25°	550.9	551.4	546.3	545.8	546.2	547.0	553.9	127.0	414.1
30°	511.3	512.1	506.5	506.8	506.5	506.0	509.9	139.2	553.4
35°	440.5	440.8	437.0	438.8	441.2	438.6	439.0	138.1	691.5
40°	323.4	324.8	326.1	329.4	332.6	332.8	333.0	115.9	807.4
45°	198.4	199.0	200.7	203.5	206.3	209.2	212.1	79.1	886.5
50°	93.9	108.5	122.0	111.2	100.2	119.3	133.6	47.2	933.7
55°	37.7	51.0	48.2	55.0	41.5	57.5	53.4	22.4	956.1
60°	25.5	26.5	28.2	26.2	26.1	27.8	29.0	12.8	968.9
65°	21.0	20.8	21.7	21.1	22.1	22.0	22.3	10.7	979.6
70°	15.2	15.5	16.2	16.1	16.4	16.6	17.4	8.3	987.9
75°	10.6	11.0	12.1	11.5	11.8	12.4	12.4	6.2	994.1
80°	6.4	6.8	7.5	8.1	7.5	8.4	8.5	4.1	998.3
85°	2.4	2.5	2.6	3.2	3.5	4.1	4.3	1.7	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	18.4	19.8	18.8	20.1	20.4	18.6	20.0	19.0	20.3	20.6
	3H	18.5	19.7	18.9	20.0	20.4	18.7	19.9	19.1	20.3	20.6
	4H	18.5	19.7	18.9	20.0	20.4	18.8	19.9	19.2	20.3	20.6
	6H	18.6	19.6	19.0	19.9	20.3	18.9	19.9	19.3	20.2	20.6
	8H	18.6	19.5	19.1	19.9	20.3	19.0	19.9	19.4	20.2	20.6
	12H	18.6	19.5	19.1	19.9	20.3	19.0	19.8	19.4	20.2	20.6
4H	2H	18.4	19.5	18.8	19.8	20.2	18.6	19.7	19.0	20.0	20.4
	3H	18.5	19.4	18.9	19.8	20.2	18.7	19.7	19.2	20.0	20.5
	4H	18.6	19.4	19.0	19.8	20.3	18.8	19.7	19.3	20.1	20.5
	6H	18.7	19.4	19.1	19.8	20.3	19.0	19.7	19.4	20.1	20.6
	8H	18.7	19.3	19.2	19.8	20.3	19.0	19.7	19.5	20.1	20.6
	12H	18.7	19.3	19.2	19.7	20.2	19.1	19.7	19.6	20.1	20.6
8H	4H	18.6	19.2	19.1	19.7	20.2	18.8	19.5	19.3	19.9	20.4
	6H	18.7	19.2	19.2	19.7	20.2	19.0	19.5	19.5	20.0	20.5
	8H	18.8	19.2	19.3	19.7	20.2	19.1	19.6	19.6	20.1	20.6
	12H	18.8	19.2	19.3	19.7	20.2	19.2	19.6	19.7	20.1	20.6
12H	4H	18.6	19.1	19.1	19.6	20.1	18.8	19.4	19.3	19.8	20.3
	6H	18.7	19.2	19.3	19.7	20.2	19.0	19.5	19.5	20.0	20.5
	8H	18.8	19.2	19.3	19.7	20.2	19.1	19.5	19.7	20.0	20.6

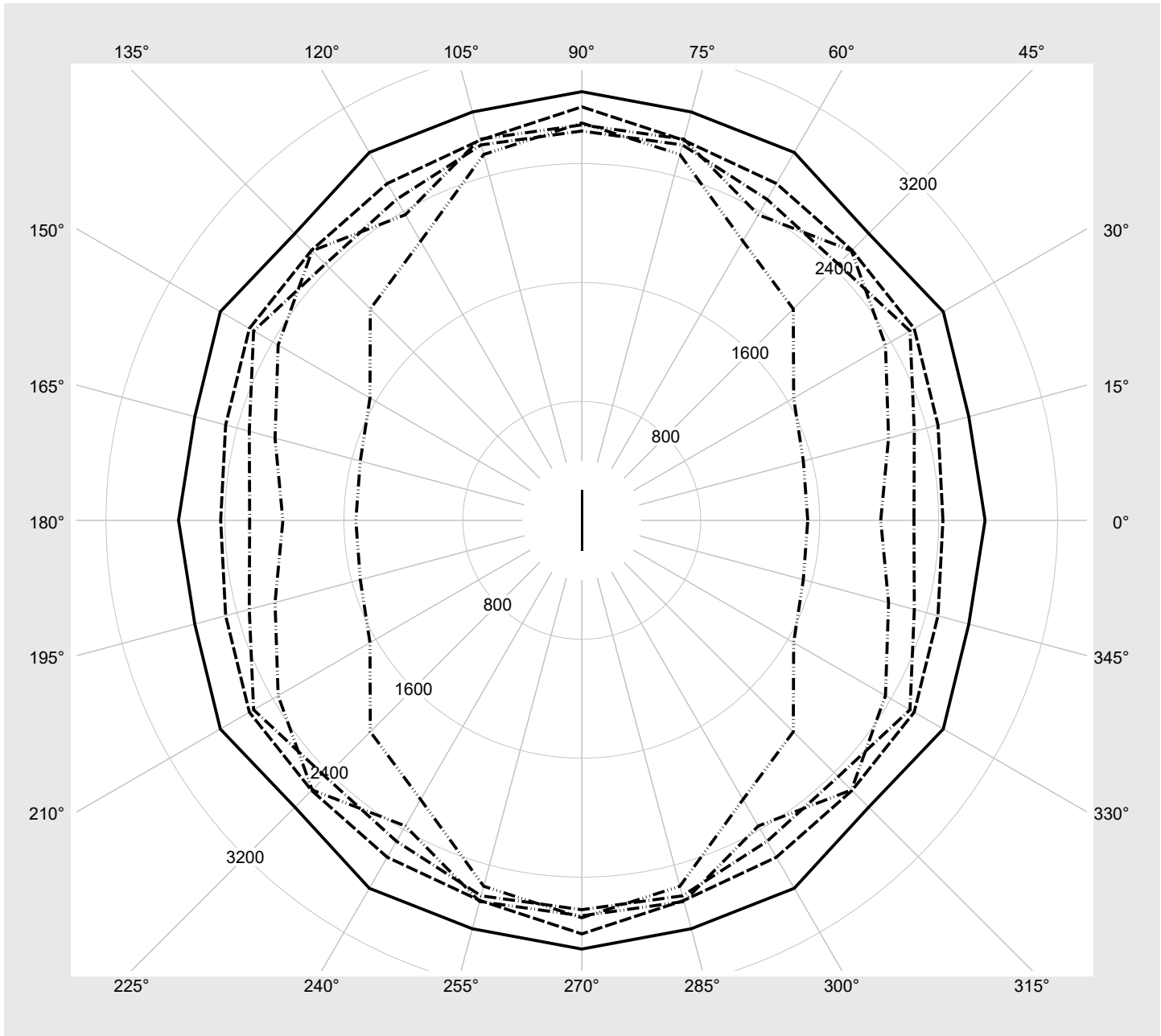
<b>Luminance table</b>	<b>Max. for <math>\gamma \geq 65^\circ</math></b>	<b>Photometric dimensions in mm:</b>	<b>L = 1500</b> <b>B = 50</b>
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C-planes	$\gamma$	Luminance in cd/m <sup>2</sup>							
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	
45°		15337.1	15386.8	15516.8	15733.4	15947.7	16176.3	16396.2	
50°		7985.6	9225.1	10377.4	9461.0	8525.0	10144.7	11360.6	
55°		3593.5	4859.8	4595.5	5239.5	3952.2	5476.5	5093.4	
60°		2786.7	2901.2	3078.1	2859.1	2851.3	3042.2	3168.5	
65°		2712.4	2694.8	2807.3	2728.9	2858.0	2844.2	2883.9	
70°		2428.8	2480.0	2581.5	2570.0	2616.8	2647.5	2781.9	
75°		2234.0	2315.3	2548.7	2438.7	2493.0	2614.9	2619.3	
80°		2010.4	2136.0	2358.3	2564.8	2374.0	2654.5	2660.5	
85°		1519.8	1542.4	1645.2	2011.5	2168.3	2548.4	2673.3	

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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	4100	28.1
95	241	252	3900	26.6
90	227	250	3684	25.0
85	214	248	3482	23.6
80	201	245	3278	22.2
75	188	243	3073	20.7
70	175	240	2867	19.3
65	162	238	2659	17.9
60	150	235	2467	16.6
55	137	231	2258	15.2
50	124	228	2047	13.8
45	112	224	1852	12.5
40	99	219	1640	11.2
35	87	215	1442	10.0
30	74	209	1229	8.6
25	62	202	1030	7.4
20	49	194	812	6.0
15	37	183	612	4.9
10	25	169	411	3.6
5	13	145	209	2.2
3	9	132	142	1.5