

Photometric test report

Family
Silica® 21

Order number: **51MX23DB45BB**
EAN: **4058352905173**

LP number
59330_244

serial
documentation
02.08.2023



Version surface-mounted luminaire, with homogeneous illumination, prismatic cover, direct distribution, extremely wide distribution, $UGR \leq 19$ ($L65 \leq 3000 \text{ cd/m}^2$)

Lamps LED 4000 K | CRI ≥ 80

Controlgear ECG-DALI

Rated values Net luminous flux = 4100 lm
Power consumption = 28.1 W
Luminous efficacy = 145.9 lm/W

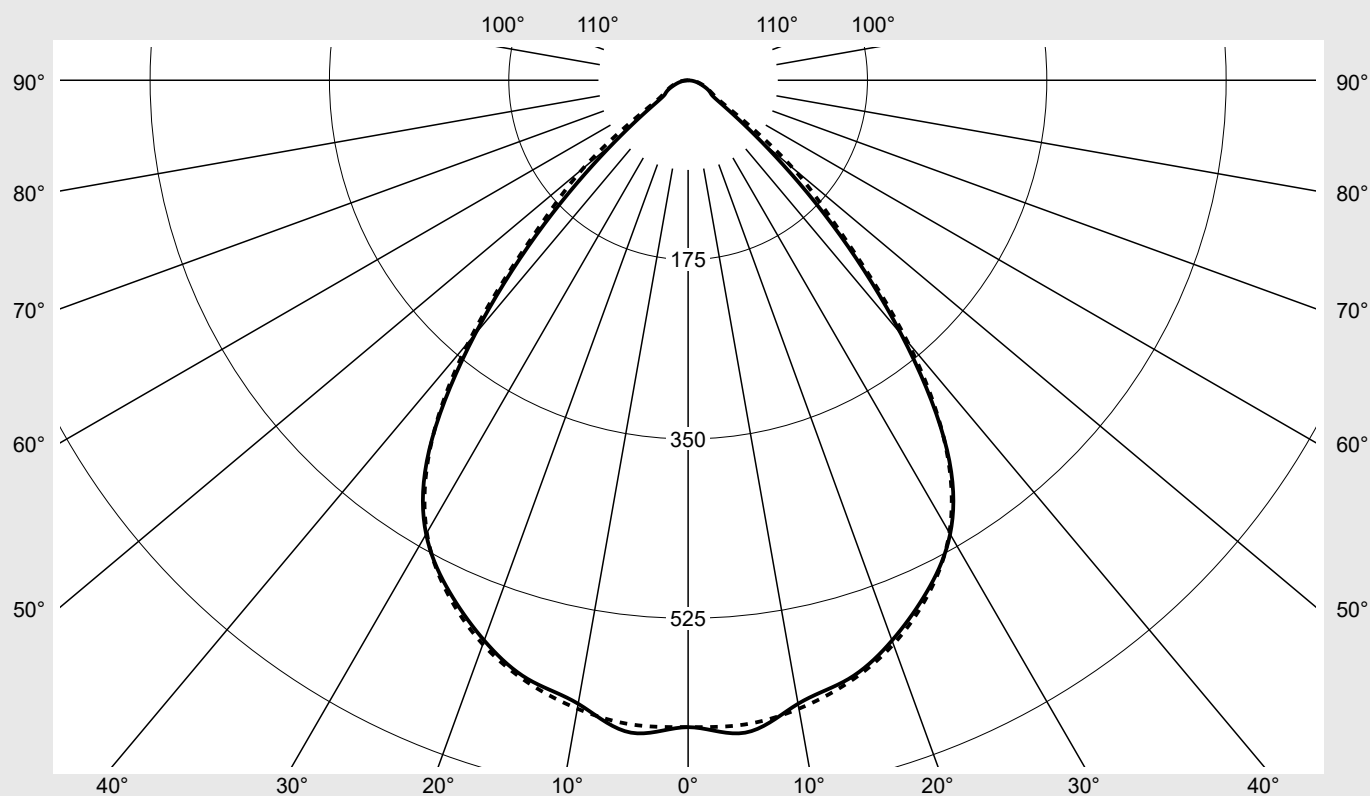
siteco

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

η_{LB} 100.0%
 ϕ_u 100.0%
 ϕ_o 0.0%

Measurement conditions

DIN EN 13032 and DIN 5032

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Table of values for luminous intensities		Maximum luminous intensity
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C- planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Phi-zone	Total Phi-zone
γ	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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UGR-Table		Standard room							siteco		
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

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 1500 B = 50	
C-planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°
γ	Luminance in cd/m²						
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/m²

γ 65°

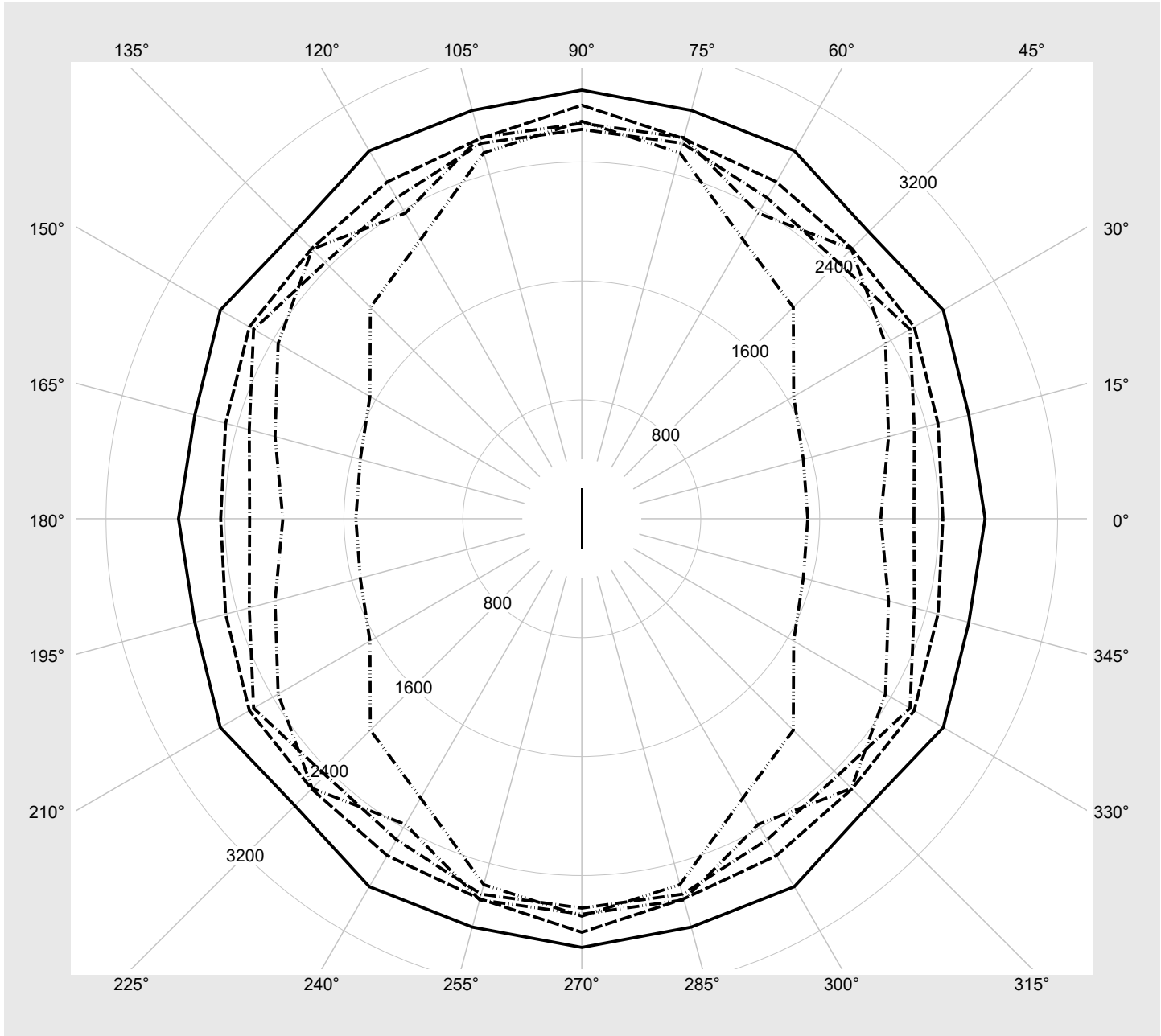
γ 70°

γ 75°

γ 80°

γ 85°

siteco



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Dimming levels table		environmental temperature: 25°C
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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