

# Photometric test report

**Family**  
Silica® 21

**Order number: 51MX33DB39BB**  
**EAN: 4058352888988**

**LP number**  
**59331\_98**



**Version** Suspended luminaire, with homogeneous illumination, prismatic cover, direct-/ indirect distribution, extremely wide distribution, UGR≤16 (L65≤3000cd/m²)

**Lamps** LED 3000 K | CRI ≥ 80

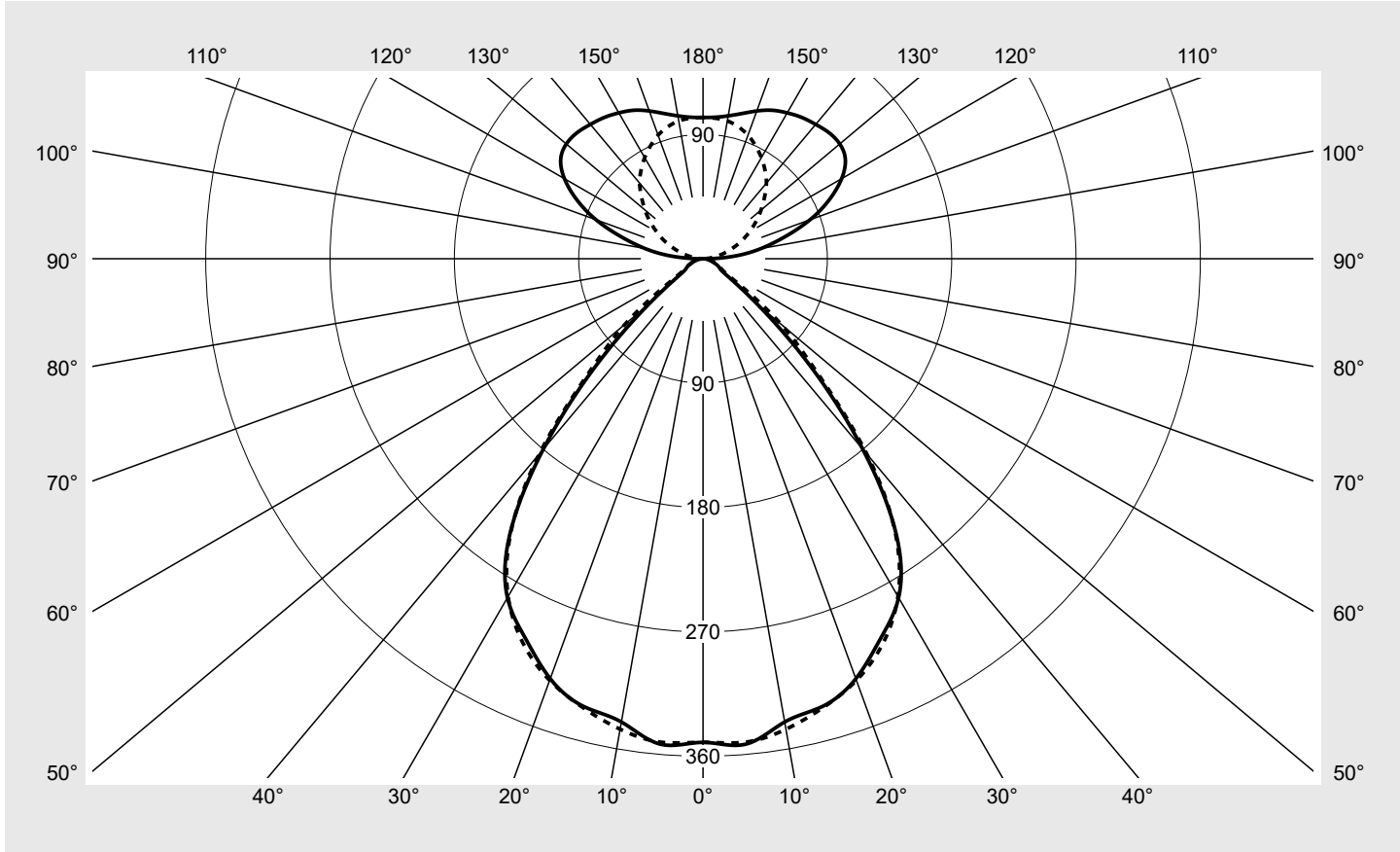
**Controlgear** ECG-DALI

**Rated values** Net luminous flux = 7390 lm  
Power consumption = 51.6 W  
Luminous efficacy = 143.2 lm/W

**serial documentation**  
**02.08.2023**



**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 353 cd/klm**



**Classifications**

DIN 5040	C 6 2
CIE	N1=78 N2=96 N3=99 N4=55 N5=100

**Luminaire light output ratios**

$\eta_{LB}$	100.0%
$\phi_u$	55.4%
$\phi_o$	44.6%

**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°	349.9	349.9	349.9	349.9	349.9	349.9	349.9	2.1	2.1
5°	352.7	353.3	353.1	353.3	352.9	352.0	351.1	16.9	18.9
10°	340.4	339.5	339.7	341.6	345.2	345.5	345.7	32.6	51.5
15°	335.2	334.1	331.5	331.4	333.4	336.4	336.2	47.3	98.9
20°	323.4	322.7	318.7	319.6	318.0	320.3	324.7	60.1	159.0
25°	303.6	304.4	302.2	302.2	302.6	302.3	307.6	70.2	229.2
30°	283.2	283.0	279.5	280.9	281.3	280.3	282.2	77.1	306.3
35°	244.1	243.6	241.2	242.6	243.2	242.2	242.9	76.3	382.6
40°	179.9	179.6	180.9	182.1	183.5	183.3	184.4	64.1	446.7
45°	110.1	109.9	111.2	112.6	113.8	115.2	117.5	43.7	490.4
50°	51.7	59.9	67.3	61.6	55.5	66.0	73.6	26.1	516.5
55°	21.0	28.2	26.7	30.5	23.0	31.8	29.6	12.4	528.9
60°	14.1	14.7	15.5	14.4	14.4	15.4	16.1	7.1	536.0
65°	11.6	11.5	12.0	11.7	12.2	12.2	12.1	5.9	541.9
70°	8.4	8.6	8.9	8.9	9.1	9.2	9.2	4.6	546.5
75°	5.8	6.1	6.7	6.4	6.5	6.9	6.6	3.4	549.9
80°	3.5	3.8	4.1	4.5	4.2	4.7	4.7	2.3	552.2
85°	1.8	1.8	1.8	2.1	2.2	2.5	2.7	1.2	553.3
90°	5.2	5.0	5.3	5.2	3.1	1.1	0.4	2.0	555.4
95°	23.9	24.4	26.2	24.8	15.9	8.2	4.2	10.3	565.7
100°	42.8	43.9	44.3	38.8	26.0	14.7	9.7	17.5	583.2
105°	61.3	62.6	61.4	52.4	35.9	22.2	16.3	24.1	607.3
110°	82.4	82.7	77.5	64.5	46.0	30.0	23.3	30.4	637.7
115°	100.7	99.8	92.0	75.7	55.8	37.9	31.1	35.4	673.0
120°	115.9	114.0	103.9	84.8	64.9	45.6	38.7	38.8	711.8
125°	125.7	122.3	111.1	93.1	72.6	52.9	46.8	40.3	752.1
130°	129.2	126.3	114.5	98.0	78.5	60.4	54.8	39.9	792.0
135°	129.0	126.3	115.8	101.3	83.2	67.4	62.9	38.1	830.1
140°	126.9	124.9	116.2	103.6	87.1	74.0	71.4	35.5	865.6
145°	124.8	123.4	116.1	105.0	90.7	80.2	78.2	32.3	897.9
150°	121.9	121.3	114.8	104.9	93.7	86.1	84.5	28.5	926.4
155°	118.5	118.2	111.9	104.4	96.0	91.3	90.1	24.2	950.6
160°	113.8	113.5	108.5	103.6	98.0	95.4	95.1	19.5	970.1
165°	108.8	108.2	105.6	102.3	100.0	98.6	98.8	14.6	984.7
170°	105.0	104.5	103.8	102.4	101.4	101.2	101.3	9.8	994.5
175°	102.8	102.7	102.1	101.9	102.0	102.0	102.0	4.9	999.4
180°	102.2	102.2	102.2	102.2	102.2	102.2	102.2	0.6	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	15.4	16.3	16.3	17.2	18.3	15.6	16.5	16.5	17.4	18.5
	3H	15.3	16.1	16.2	17.0	18.1	15.6	16.3	16.5	17.2	18.4
	4H	15.3	16.0	16.2	16.9	18.1	15.6	16.3	16.5	17.2	18.4
	6H	15.2	15.8	16.1	16.8	18.0	15.5	16.2	16.5	17.1	18.3
	8H	15.1	15.7	16.1	16.7	17.9	15.4	16.0	16.4	17.0	18.2
	12H	15.0	15.6	16.0	16.5	17.8	15.5	16.0	16.4	16.9	18.2
4H	2H	15.2	15.9	16.1	16.8	17.9	15.3	16.0	16.2	16.9	18.1
	3H	15.2	15.7	16.1	16.7	17.9	15.4	15.9	16.3	16.9	18.1
	4H	15.2	15.7	16.1	16.6	17.9	15.4	15.9	16.4	16.9	18.1
	6H	15.2	15.6	16.1	16.6	17.8	15.5	15.9	16.4	16.9	18.1
	8H	15.1	15.5	16.1	16.5	17.8	15.5	15.9	16.5	16.9	18.1
	12H	15.0	15.4	16.1	16.4	17.7	15.5	15.8	16.5	16.8	18.1
8H	4H	15.0	15.4	16.0	16.4	17.7	15.2	15.6	16.2	16.6	17.9
	6H	15.1	15.5	16.1	16.5	17.7	15.4	15.7	16.4	16.7	18.0
	8H	15.1	15.4	16.1	16.4	17.7	15.5	15.8	16.5	16.8	18.1
	12H	15.1	15.3	16.1	16.3	17.7	15.5	15.8	16.6	16.8	18.1
12H	4H	15.0	15.3	16.0	16.3	17.6	15.1	15.5	16.2	16.5	17.8
	6H	15.1	15.3	16.1	16.3	17.6	15.3	15.6	16.3	16.6	17.9
	8H	15.1	15.3	16.1	16.3	17.7	15.4	15.7	16.4	16.7	18.0

<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°	45°	15342.7	15309.5	15501.5	15684.2	15853.9	16056.6	16370.6	
50°	50°	7923.4	9179.4	10322.9	9447.5	8514.1	10111.8	11288.5	
55°	55°	3602.6	4852.8	4584.0	5236.6	3955.1	5461.3	5076.3	
60°	60°	2788.1	2893.3	3058.5	2835.0	2845.4	3026.2	3163.1	
65°	65°	2708.7	2687.5	2795.5	2726.9	2842.6	2838.4	2826.0	
70°	70°	2423.4	2468.7	2568.6	2568.6	2609.0	2638.9	2642.1	
75°	75°	2225.2	2309.7	2545.4	2430.8	2486.8	2613.9	2528.3	
80°	80°	2009.8	2129.0	2348.0	2555.7	2370.7	2644.8	2655.6	
85°	85°	1985.2	1997.7	2073.4	2396.8	2520.0	2873.8	2995.9	

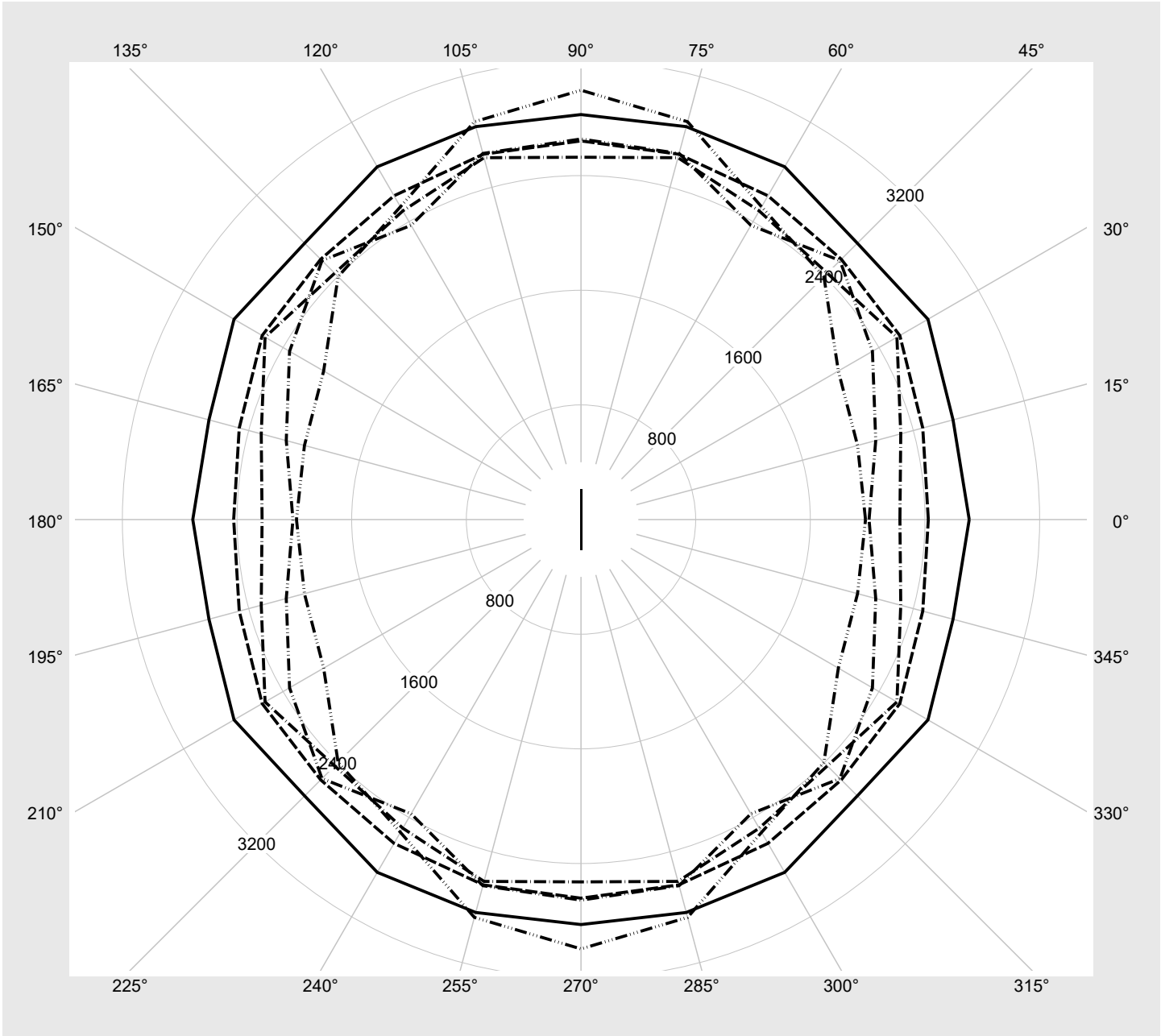
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**Luminance values in cd/m²**

$\gamma$  65°   
   $\gamma$  70°   
   $\gamma$  75°   
   $\gamma$  80°   
   $\gamma$  85°



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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	7390	51.6
95	241	252	7031	49.0
90	227	250	6642	46.2
85	214	248	6278	43.7
80	201	245	5913	41.1
75	188	243	5545	38.6
70	175	240	5175	36.0
65	162	238	4802	33.5
60	149	234	4428	30.9
55	136	231	4050	28.4
50	124	228	3700	26.1
45	111	224	3320	23.5
40	99	219	2966	21.2
35	86	214	2581	18.7
30	74	209	2223	16.4
25	61	202	1833	13.8
20	49	194	1472	11.5
15	37	183	1109	9.2
10	25	169	746	7.0
5	13	145	381	4.9
2	6	117	167	4.2