

# Photometric test report

**Family**  
Silica® 21

**Order number: 51MX32DC4DWB**  
**EAN: 4058352893524**

**LP number**  
**59279\_91**

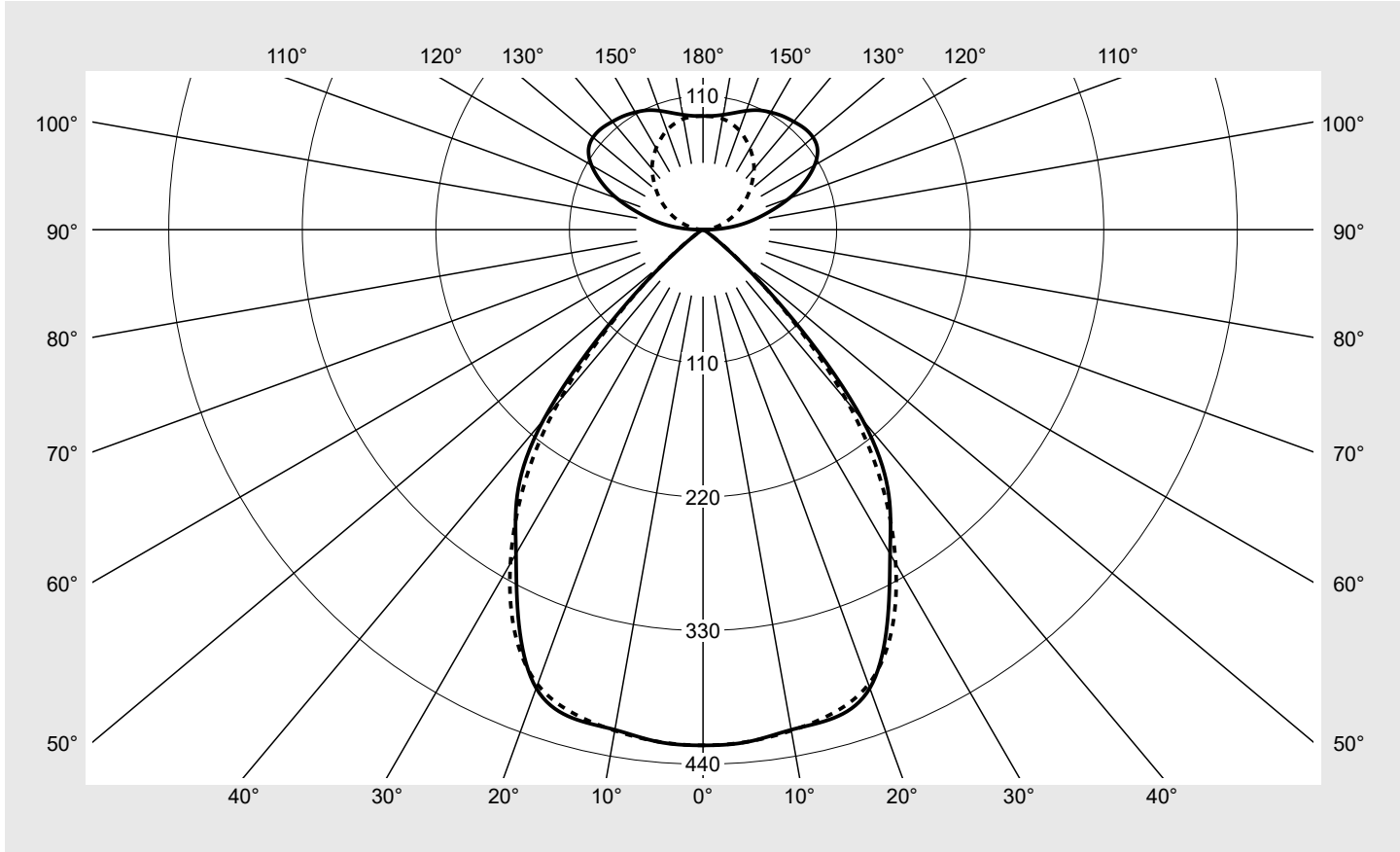


**Version** Suspended luminaire, reflector, black, direct-/indirect distribution, wide distribution, UGR≤16 (L65≤1000cd/m²)  
**Lamps** LED 4000 K | CRI ≥ 80  
**Controlgear** ECG-DALI  
**Rated values** Net luminous flux = 18230 lm  
 Power consumption = 105.8 W  
 Luminous efficacy = 172.3 lm/W

**serial documentation**  
02.08.2023



**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 425 cd/klm**



**Classifications**

DIN 5040	C 6 2
CIE	N1=86 N2=99 N3=100 N4=59 N5=100

**Luminaire light output ratios**

$\eta_{LB}$	100.0%
$\phi_u$	59.2%
$\phi_o$	40.8%

**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>



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°	424.5	424.5	424.5	424.5	424.5	424.5	424.5	2.5	2.5
5°	423.2	423.7	423.1	423.1	423.3	423.7	423.1	20.2	22.8
10°	418.0	417.2	417.3	418.4	419.3	417.7	418.7	39.8	62.6
15°	416.1	416.5	413.5	413.8	413.5	412.7	412.2	58.7	121.3
20°	401.6	404.7	402.8	404.0	399.5	397.4	398.3	75.3	196.5
25°	358.7	364.9	370.6	376.3	375.4	369.4	366.5	85.7	282.2
30°	308.1	312.2	314.3	321.5	326.7	320.5	317.3	87.1	369.4
35°	266.7	269.2	262.0	257.7	262.2	261.4	257.3	82.5	451.9
40°	204.3	207.3	203.4	196.7	194.2	189.2	184.5	69.6	521.5
45°	105.6	109.2	112.9	113.5	110.1	103.6	98.8	42.1	563.6
50°	35.1	38.0	43.5	46.6	44.5	40.2	37.5	17.4	581.0
55°	9.3	10.9	14.6	18.5	15.5	12.0	10.3	6.1	587.1
60°	3.6	4.0	5.4	7.2	5.8	4.5	4.1	2.4	589.5
65°	1.2	1.4	2.0	2.5	2.2	1.8	1.6	0.9	590.5
70°	0.8	0.8	0.6	0.6	0.7	0.9	0.9	0.4	590.8
75°	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.1	591.0
80°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	591.0
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	591.2
90°	4.7	4.5	4.8	4.8	2.8	1.0	0.4	1.9	593.1
95°	21.9	22.4	24.0	22.7	14.5	7.5	3.9	9.5	602.5
100°	39.1	40.2	40.5	35.5	23.8	13.4	8.9	16.0	618.5
105°	56.1	57.3	56.2	48.0	32.8	20.3	14.9	22.1	640.6
110°	75.4	75.7	70.9	59.1	42.1	27.5	21.3	27.8	668.4
115°	92.2	91.4	84.2	69.3	51.0	34.7	28.4	32.4	700.7
120°	106.0	104.3	95.1	77.6	59.4	41.8	35.4	35.5	736.3
125°	115.1	111.9	101.7	85.2	66.4	48.4	42.8	36.9	773.1
130°	118.2	115.6	104.8	89.7	71.8	55.3	50.2	36.5	809.6
135°	118.0	115.6	106.0	92.7	76.1	61.7	57.6	34.9	844.5
140°	116.1	114.4	106.3	94.9	79.7	67.7	65.3	32.5	877.0
145°	114.2	113.0	106.3	96.1	83.1	73.4	71.6	29.6	906.6
150°	111.5	111.1	105.1	96.0	85.8	78.8	77.3	26.1	932.7
155°	108.5	108.2	102.4	95.6	87.9	83.6	82.4	22.1	954.8
160°	104.1	103.9	99.3	94.8	89.7	87.3	87.1	17.8	972.6
165°	99.5	99.0	96.7	93.7	91.6	90.3	90.4	13.4	986.0
170°	96.1	95.6	95.0	93.7	92.8	92.7	92.7	9.0	995.0
175°	94.1	94.0	93.5	93.3	93.3	93.4	93.4	4.5	999.4
180°	93.6	93.6	93.6	93.6	93.6	93.6	93.6	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	16.3	17.1	17.1	18.0	19.0	16.1	17.0	16.9	17.8	18.8
	3H	16.0	16.7	16.9	17.6	18.7	15.8	16.6	16.7	17.5	18.5
	4H	15.8	16.5	16.7	17.4	18.5	15.7	16.4	16.6	17.3	18.4
	6H	15.7	16.3	16.6	17.2	18.3	15.5	16.2	16.5	17.1	18.2
	8H	15.6	16.1	16.5	17.1	18.2	15.4	15.9	16.3	16.9	18.0
	12H	15.5	16.0	16.4	16.9	18.1	15.4	15.9	16.3	16.8	18.0
4H	2H	15.9	16.6	16.8	17.5	18.6	15.7	16.4	16.6	17.3	18.4
	3H	15.6	16.2	16.5	17.1	18.3	15.4	16.0	16.3	16.9	18.1
	4H	15.5	16.0	16.4	16.9	18.1	15.3	15.8	16.2	16.7	17.9
	6H	15.3	15.7	16.3	16.7	17.9	15.1	15.6	16.1	16.5	17.7
	8H	15.2	15.6	16.2	16.5	17.8	15.0	15.4	16.0	16.4	17.6
	12H	15.1	15.4	16.1	16.4	17.6	14.9	15.3	15.9	16.2	17.5
8H	4H	15.2	15.6	16.2	16.6	17.8	15.0	15.4	16.0	16.4	17.6
	6H	15.1	15.4	16.1	16.4	17.6	14.9	15.2	15.8	16.1	17.4
	8H	15.0	15.3	16.0	16.3	17.5	14.8	15.1	15.8	16.1	17.3
	12H	14.9	15.1	15.9	16.1	17.4	14.7	15.0	15.7	15.9	17.2
12H	4H	15.1	15.5	16.1	16.4	17.7	14.9	15.3	15.9	16.2	17.5
	6H	15.0	15.3	16.0	16.2	17.5	14.8	15.1	15.8	16.0	17.3
	8H	14.9	15.1	15.9	16.1	17.4	14.7	14.9	15.7	15.9	17.2

<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°		18904.5	19539.9	20204.2	20318.2	19707.0	18548.2	17688.3	
50°		6915.0	7479.4	8561.8	9165.0	8758.5	7920.4	7389.8	
55°		2045.2	2413.6	3215.8	4081.5	3425.2	2637.8	2268.0	
60°		914.7	1019.4	1361.9	1812.9	1471.7	1148.0	1042.7	
65°		372.8	428.2	593.2	753.1	668.0	528.5	485.1	
70°		296.4	308.9	228.3	215.0	258.6	332.6	335.6	
75°		82.1	110.0	89.5	125.2	114.9	137.9	120.3	
80°		21.1	21.1	30.6	45.9	61.9	71.4	81.6	
85°		572.1	572.1	556.1	543.0	535.8	534.3	545.9	

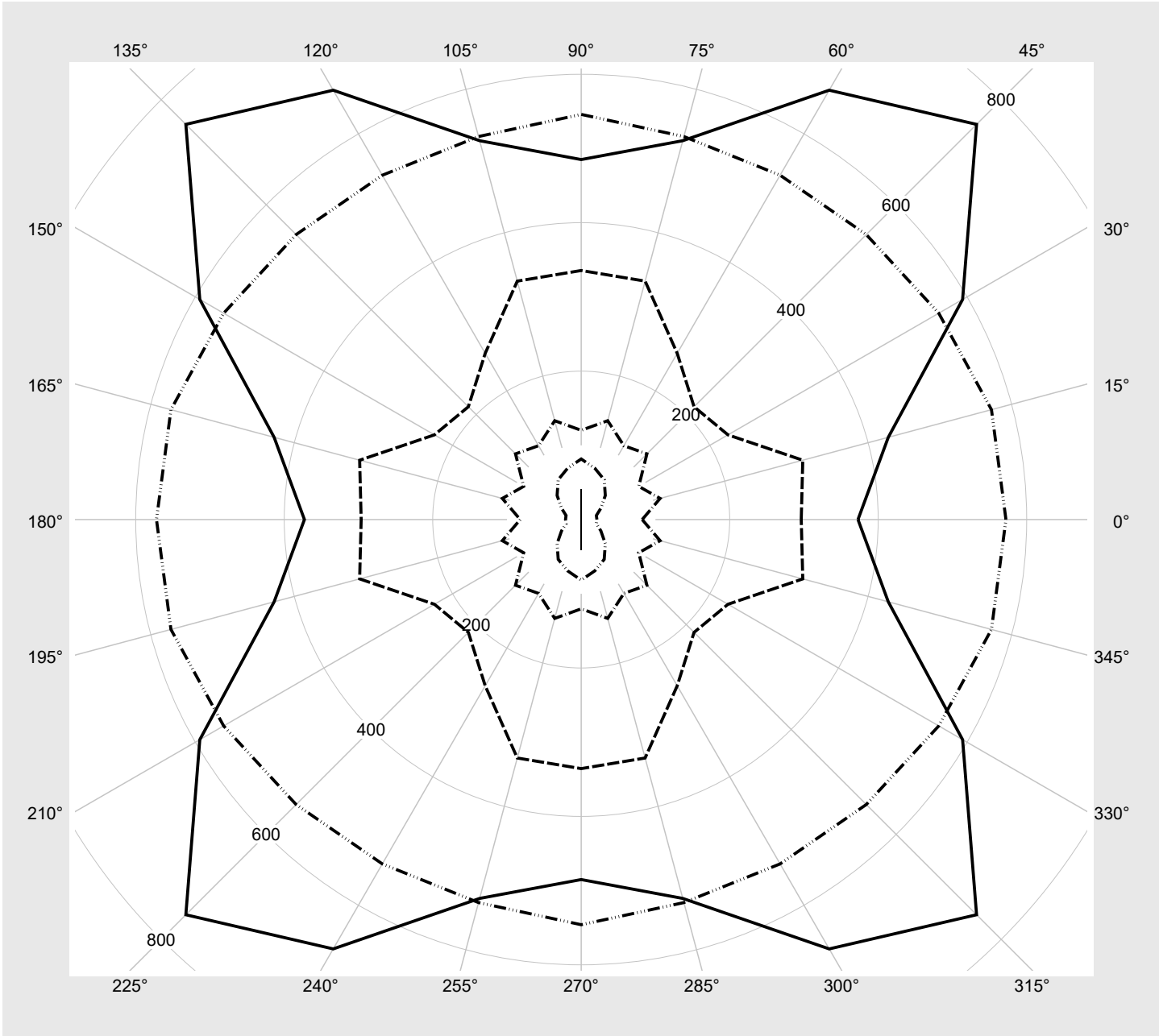
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**Luminance values in cd/m<sup>2</sup>**

$\gamma$  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	18230	105.8
95	241	252	17346	100.2
90	227	250	16389	95.0
85	214	248	15494	89.6
80	201	245	14593	84.2
75	188	243	13687	78.8
70	175	240	12775	73.8
65	162	238	11858	68.5
60	149	234	10929	63.2
55	136	231	9998	58.0
50	124	228	9135	53.1
45	111	224	8194	48.1
40	99	219	7321	43.2
35	86	214	6371	38.0
30	74	209	5489	33.3
25	61	202	4529	27.8
20	49	194	3634	22.9
15	37	183	2741	18.1
10	25	169	1843	13.1
5	13	145	942	8.0
2	5	110	338	3.9