

# Photometric test report

**Family**  
**Silica® 21**

**Order number: 51MX37DB49WB**  
**EAN: 4058352892923**

**LP number**  
**59284\_76**

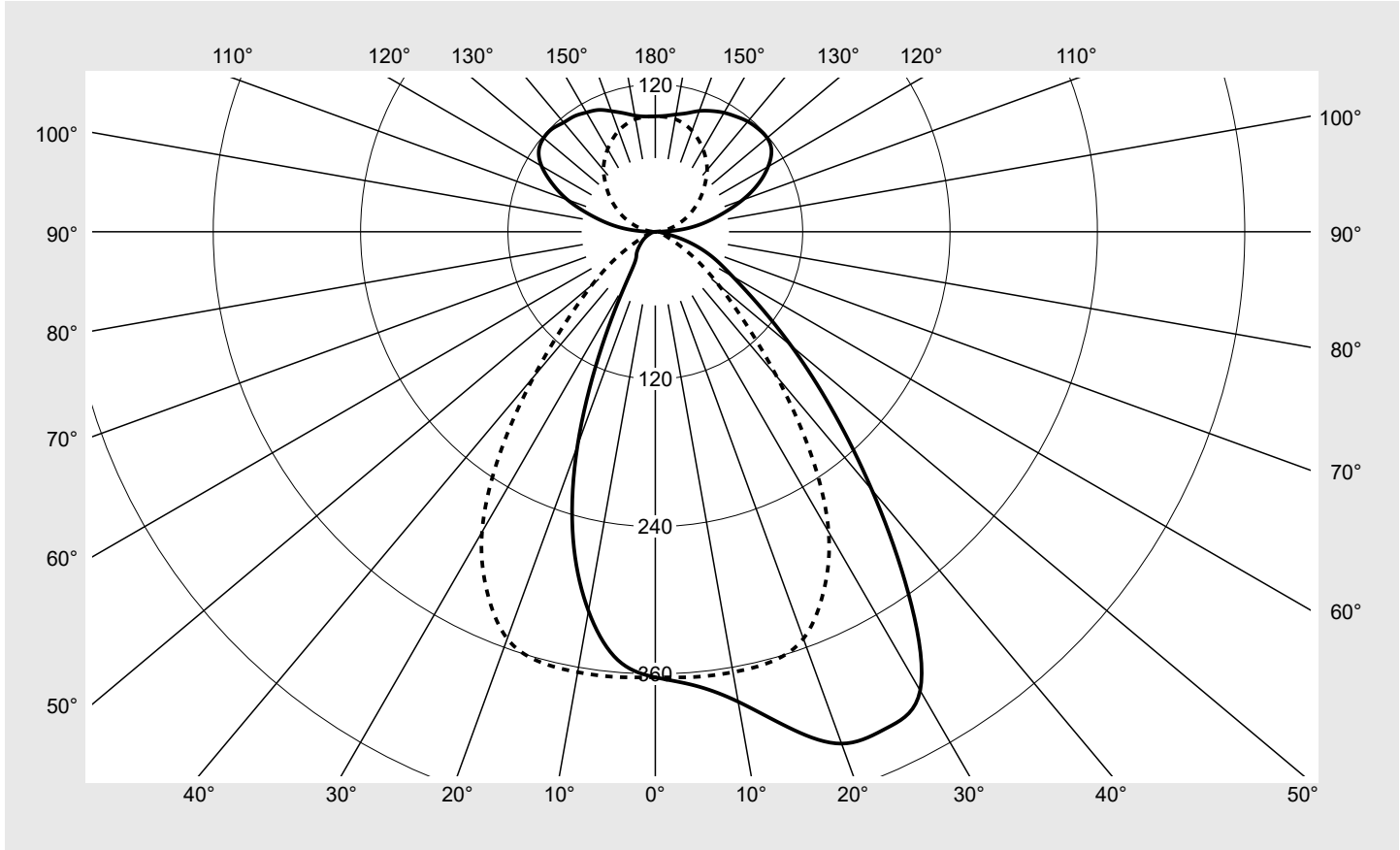


**Version**                   Suspended luminaire, reflector, white, direct-/indirect distribution, asymmetric distribution  
**Lamps**                     LED 4000 K | CRI ≥ 80  
**Controlgear**               ECG-DALI  
**Rated values**             Net luminous flux = 9130 lm  
Power consumption = 55.0 W  
Luminous efficacy = 166 lm/W

**serial documentation**  
**02.08.2023**



**Luminous intensity in cd/klm**    **C180-0**    **C270-90**    **Imax: 452 cd/klm**



**Classifications**

DIN 5040	C 5 2
CIE	N1=71 N2=92 N3=99 N4=59 N5=100

**Luminaire light output ratios**

$\eta_{LB}$	100.0%
$\phi_u$	59.0%
$\phi_o$	41.0%

**Measurement conditions**  
DIN EN 13032 and DIN 5032

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Family <b>Silica® 21</b>	Order number: <b>51MX37DB49WB</b> EAN: <b>4058352892923</b>	LP number <b>59284_76</b>
Table of values for luminous intensities		Maximum luminous intensity
		<b>siteco</b>

C-planes	0°	15° 345°	30° 330°	45° 315°	60° 300°	75° 285°	90° 270°
$\gamma$	Luminous intensity in cd/klm						
0°	362.8	362.8	362.8	362.8	362.8	362.8	362.8
5°	370.9	371.6	370.9	369.3	368.9	367.2	363.9
10°	388.6	388.5	387.1	385.7	381.5	371.9	364.1
15°	417.6	422.5	420.8	414.5	399.0	379.0	362.6
20°	443.5	449.9	449.8	438.4	406.1	374.1	352.6
25°	445.9	451.8	444.0	423.3	391.5	349.7	323.9
30°	431.3	429.9	420.1	385.1	347.8	308.2	282.3
35°	359.2	357.5	355.5	331.7	286.9	244.3	220.9
40°	274.3	279.4	286.0	275.4	231.4	180.4	153.7
45°	201.9	208.2	223.0	216.2	179.6	126.4	101.0
50°	144.4	152.7	166.7	164.5	134.4	88.4	67.1
55°	100.9	110.3	125.4	123.1	101.8	61.8	43.4
60°	72.5	78.2	92.0	93.5	77.9	39.9	24.1
65°	54.7	57.3	65.1	70.1	53.6	24.1	12.4
70°	38.2	41.6	47.1	47.8	32.4	14.4	7.5
75°	21.3	25.0	32.7	24.9	16.8	8.6	4.2
80°	7.7	8.6	12.1	11.3	8.4	4.0	2.2
85°	3.8	3.9	4.0	3.3	2.1	1.6	1.4
90°	4.7	4.6	4.9	4.8	2.9	1.0	0.4
95°	22.0	22.5	24.1	22.9	14.6	7.5	3.9
100°	39.5	40.4	40.7	35.9	24.0	13.5	8.9
105°	56.3	57.6	56.5	48.2	33.0	20.4	15.0
110°	75.5	76.2	71.2	59.4	42.4	27.6	21.4
115°	92.7	91.8	84.6	69.6	51.2	34.9	28.6
120°	106.1	104.5	95.4	77.8	59.8	41.9	35.6
125°	115.5	112.5	102.3	85.9	66.7	48.6	43.0
130°	118.9	116.4	105.4	89.8	72.4	55.5	50.4
135°	118.5	116.1	106.5	93.2	76.8	62.2	57.9
140°	117.2	115.0	106.5	95.4	80.4	68.3	65.6
145°	114.6	113.5	107.0	96.5	83.7	73.9	71.9
150°	111.9	111.4	106.1	96.6	86.1	79.3	77.7
155°	108.5	108.5	103.0	95.9	88.2	84.3	82.8
160°	104.7	104.6	99.8	95.1	90.4	87.6	87.5
165°	100.0	99.6	96.8	93.8	91.9	90.5	90.8
170°	97.0	96.1	95.3	93.8	93.1	93.1	93.1
175°	94.8	94.4	93.7	93.5	93.8	93.7	93.8
180°	94.0	94.0	94.0	94.0	94.0	94.0	94.0

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<b>Table of values for luminous intensities</b>		<b>Maximum luminous intensity</b>
		<b>sITeco</b>

C-planes	105° 255°	120° 240°	135° 225°	150° 210°	165° 195°	180°	Phi-zone	Total Phi-zone
$\gamma$	Luminous intensity in cd/klm						Luminous flux in lm/klm	
0°	362.8	362.8	362.8	362.8	362.8	362.8	2.2	2.2
5°	361.1	357.7	355.2	351.7	350.7	350.1	17.3	19.5
10°	354.6	345.8	334.7	324.3	315.6	313.4	34.1	53.6
15°	349.2	329.3	304.2	278.4	262.9	258.7	50.4	104.0
20°	331.4	301.7	258.1	215.5	192.6	185.2	63.8	167.8
25°	301.5	254.0	195.2	148.3	115.3	102.8	70.9	238.7
30°	250.8	197.1	132.9	80.9	53.4	46.2	71.4	310.1
35°	183.1	132.2	77.3	40.6	29.9	28.0	64.3	374.4
40°	120.2	80.2	41.8	27.0	24.2	23.8	54.3	428.7
45°	76.8	47.8	25.9	22.0	20.4	20.0	43.9	472.6
50°	49.9	29.0	19.6	18.1	16.6	16.0	34.5	507.1
55°	31.7	19.0	15.4	14.5	13.2	12.7	26.8	533.9
60°	17.1	12.8	11.6	11.2	10.2	9.6	20.2	554.1
65°	9.9	8.8	8.5	8.3	7.4	6.6	14.7	568.8
70°	6.3	5.9	5.8	5.6	5.0	4.4	10.3	579.1
75°	3.7	3.5	3.4	3.5	3.3	3.0	6.3	585.4
80°	2.1	2.0	2.0	2.1	2.0	2.0	2.8	588.2
85°	1.4	1.3	1.4	1.4	1.4	1.4	1.2	589.3
90°	1.0	2.9	4.8	4.8	4.6	4.7	1.9	591.2
95°	7.5	14.6	22.8	24.1	22.5	22.0	9.5	600.7
100°	13.5	23.9	35.5	40.7	40.4	39.1	16.0	616.8
105°	20.5	32.9	48.2	56.4	57.6	56.5	22.2	638.9
110°	27.6	42.2	59.3	71.4	75.9	76.1	27.9	666.9
115°	34.9	51.3	69.7	84.7	91.8	92.6	32.5	699.4
120°	42.0	59.5	78.1	95.7	105.1	106.9	35.7	735.1
125°	48.7	66.8	85.3	102.0	112.4	115.8	37.0	772.1
130°	55.5	71.9	90.3	105.2	115.9	118.7	36.7	808.7
135°	61.7	76.2	93.0	106.5	116.2	118.6	35.0	843.8
140°	67.8	79.8	95.1	107.1	114.8	116.1	32.7	876.4
145°	73.5	83.2	96.5	106.6	113.5	114.9	29.7	906.2
150°	78.9	86.2	96.2	105.0	111.8	112.2	26.2	932.4
155°	83.7	88.3	96.1	102.8	108.8	109.4	22.2	954.6
160°	87.9	89.8	95.3	99.8	104.2	104.5	17.9	972.5
165°	90.9	92.1	94.4	97.4	99.3	100.0	13.4	986.0
170°	93.1	93.4	94.5	95.5	96.0	96.1	9.0	994.9
175°	93.9	93.7	94.0	94.2	94.4	94.2	4.5	999.4
180°	94.0	94.0	94.0	94.0	94.0	94.0	0.6	1000.0

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UGR-Table		Standard room									
Room dimensions		View crosswise (C0)					View endwise (C90)				
x	y										
2H	2H	22.2	23.1	23.0	23.9	25.0	17.9	18.9	18.8	19.7	20.8
	3H	22.7	23.5	23.5	24.3	25.4	17.9	18.7	18.8	19.6	20.7
	4H	22.8	23.5	23.7	24.4	25.5	17.8	18.6	18.7	19.5	20.6
	6H	22.7	23.4	23.6	24.3	25.4	17.7	18.4	18.6	19.3	20.4
	8H	22.6	23.3	23.6	24.2	25.4	17.6	18.3	18.5	19.2	20.3
	12H	22.6	23.1	23.5	24.1	25.2	17.5	18.1	18.5	19.0	20.2
4H	2H	22.4	23.2	23.3	24.0	25.1	18.5	19.3	19.4	20.2	21.3
	3H	23.2	23.8	24.1	24.7	25.8	18.7	19.4	19.7	20.3	21.4
	4H	23.4	24.0	24.3	24.9	26.1	18.7	19.3	19.6	20.2	21.4
	6H	23.4	23.9	24.3	24.8	26.0	18.6	19.1	19.6	20.0	21.2
	8H	23.3	23.8	24.3	24.7	25.9	18.6	19.0	19.5	19.9	21.2
	12H	23.3	23.6	24.2	24.6	25.8	18.5	18.9	19.4	19.8	21.0
8H	4H	23.4	23.8	24.3	24.8	26.0	18.9	19.3	19.8	20.2	21.4
	6H	23.4	23.8	24.4	24.8	26.0	18.8	19.2	19.8	20.2	21.4
	8H	23.4	23.7	24.4	24.7	25.9	18.8	19.1	19.8	20.1	21.3
	12H	23.4	23.6	24.4	24.6	25.9	18.7	19.0	19.7	20.0	21.3
12H	4H	23.3	23.7	24.2	24.6	25.8	18.8	19.2	19.8	20.1	21.4
	6H	23.4	23.7	24.4	24.7	25.9	18.8	19.1	19.8	20.1	21.3
	8H	23.4	23.6	24.4	24.6	25.9	18.8	19.0	19.8	20.0	21.3

Luminance table		Max. for $\gamma \geq 65^\circ$											
		Photometric dimensions in mm: L = 1470 B = 49											
C-planes	0°	15° 345°	30° 330°	45° 315°	60° 300°	75° 285°	90° 270°	105° 255°	120° 240°	135° 225°	150° 210°	165° 195°	180°
$\gamma$	Luminance in cd/m <sup>2</sup>												
45°	36187.4	37318.7	39976.8	38762.6	32200.7	22658.8	18111.1	13770.2	8562.0	4645.9	3951.9	3663.3	3578.3
50°	28471.6	30102.6	32872.7	32431.6	26502.8	17436.9	13224.9	9839.9	5726.5	3868.3	3566.0	3266.7	3145.2
55°	22300.2	24376.6	27714.4	27196.8	22491.8	13662.7	9582.9	7005.3	4202.9	3395.7	3205.2	2913.3	2797.9
60°	18385.0	19832.0	23325.5	23694.1	19738.2	10126.3	6102.6	4343.3	3252.2	2934.6	2835.5	2579.2	2426.6
65°	16393.5	17185.6	19519.0	21020.7	16072.8	7221.2	3727.4	2956.6	2636.3	2552.6	2492.4	2220.3	1983.4
70°	14151.7	15414.0	17439.7	17696.2	12021.9	5334.4	2778.4	2317.4	2173.9	2138.7	2083.5	1848.6	1619.9
75°	10415.7	12259.0	16004.5	12188.0	8227.5	4197.5	2048.1	1811.5	1729.3	1682.2	1697.9	1604.9	1490.8
80°	5595.7	6268.7	8838.8	8277.5	6108.1	2904.4	1627.8	1508.8	1459.1	1485.4	1524.8	1482.5	1424.1
85°	5561.3	5612.2	5866.7	4845.8	3105.0	2268.7	2009.9	1983.7	1927.0	2005.5	2094.2	2059.3	2018.6

**Photometric test report**

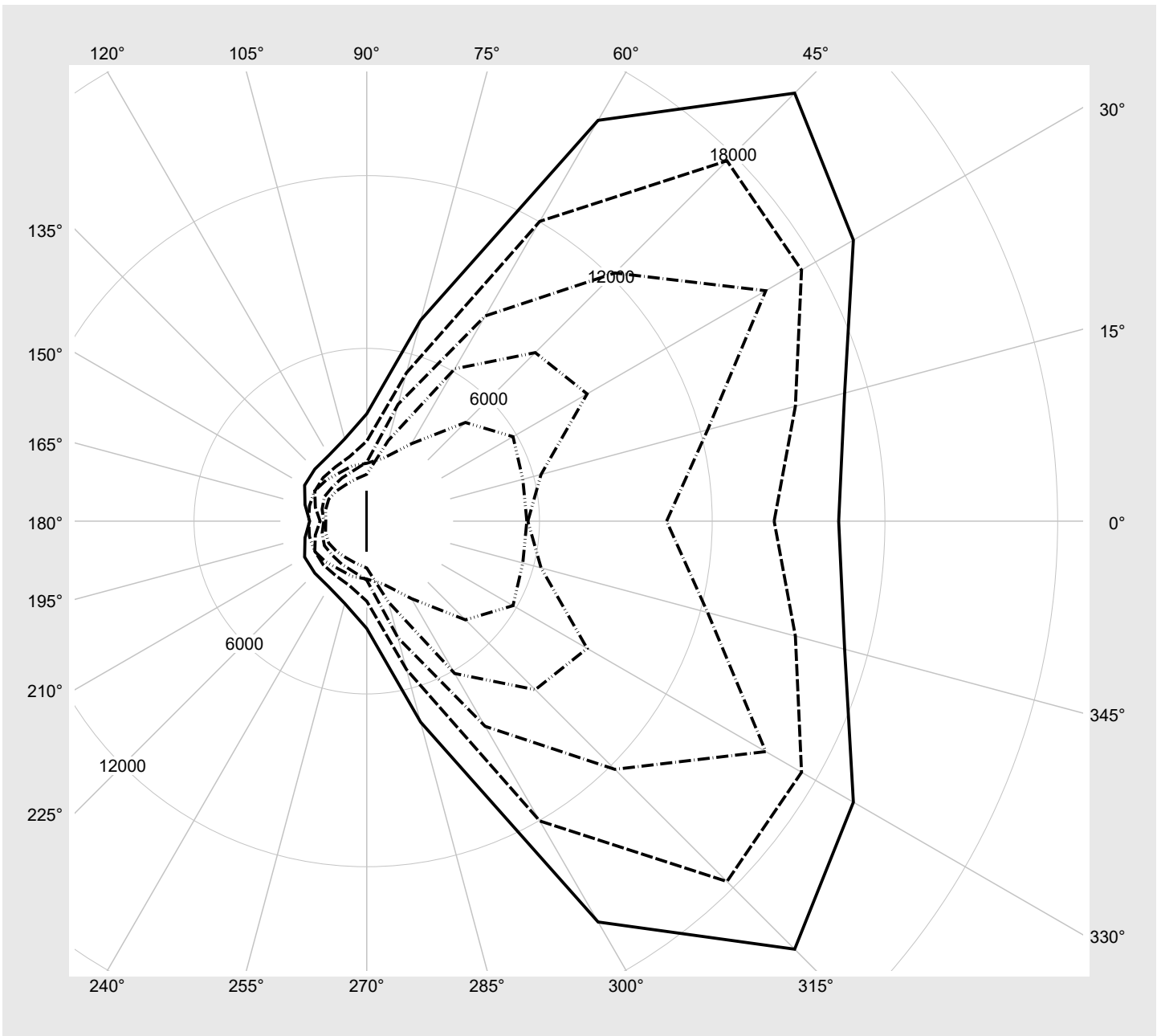
**Family**  
Silica® 21

**Order number: 51MX37DB49WB**  
**EAN: 4058352892923**

**LP number**  
59284\_76

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

γ 65°    γ 70°    γ 75°    γ 80°    γ 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	9130	55.0
95	241	252	8688	52.3
90	227	250	8208	49.2
85	214	248	7760	46.4
80	201	245	7307	43.8
75	188	243	6853	41.0
70	175	240	6396	38.3
65	162	238	5936	35.6
60	149	234	5473	32.8
55	136	231	5007	30.2
50	124	228	4575	27.7
45	111	224	4105	25.0
40	99	219	3667	22.5
35	86	214	3191	19.8
30	74	209	2749	17.4
25	61	202	2267	14.7
20	49	194	1820	12.1
15	37	183	1373	9.7
10	25	169	923	7.3
5	13	145	472	5.1
2	6	117	207	4.2