

Photometric test report

Family
Silica® 21

Order number: 51MX37DA47WB
EAN: 4058352885499

LP number
59284_74

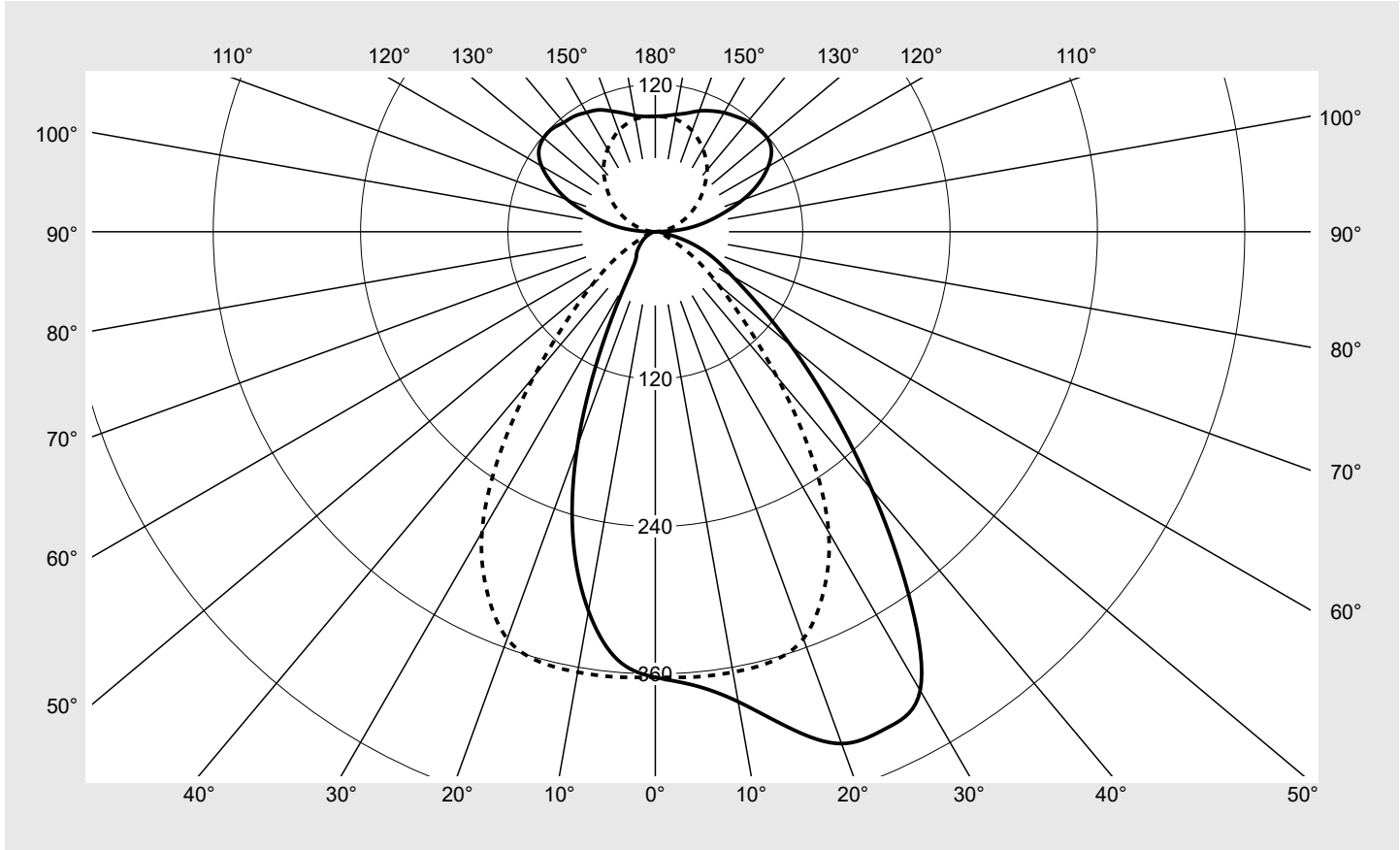


Version Suspended luminaire, reflector, white, direct-/indirect distribution, asymmetric distribution
Lamps LED 4000 K | CRI ≥ 80
Controlgear ECG-DALI
Rated values Net luminous flux = 7300 lm
 Power consumption = 44.0 W
 Luminous efficacy = 165.9 lm/W

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

η_{LB}	100.0%
ϕ_u	59.0%
ϕ_o	41.0%

Measurement conditions
DIN EN 13032 and DIN 5032

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Table of values for luminous intensities	Maximum luminous intensity	siteco
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C-planes	0°	15° 345°	30° 330°	45° 315°	60° 300°	75° 285°	90° 270°
γ	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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Table of values for luminous intensities		Maximum luminous intensity
		sITeco

C-planes	105° 255°	120° 240°	135° 225°	150° 210°	165° 195°	180°	Phi-zone	Total Phi-zone
γ	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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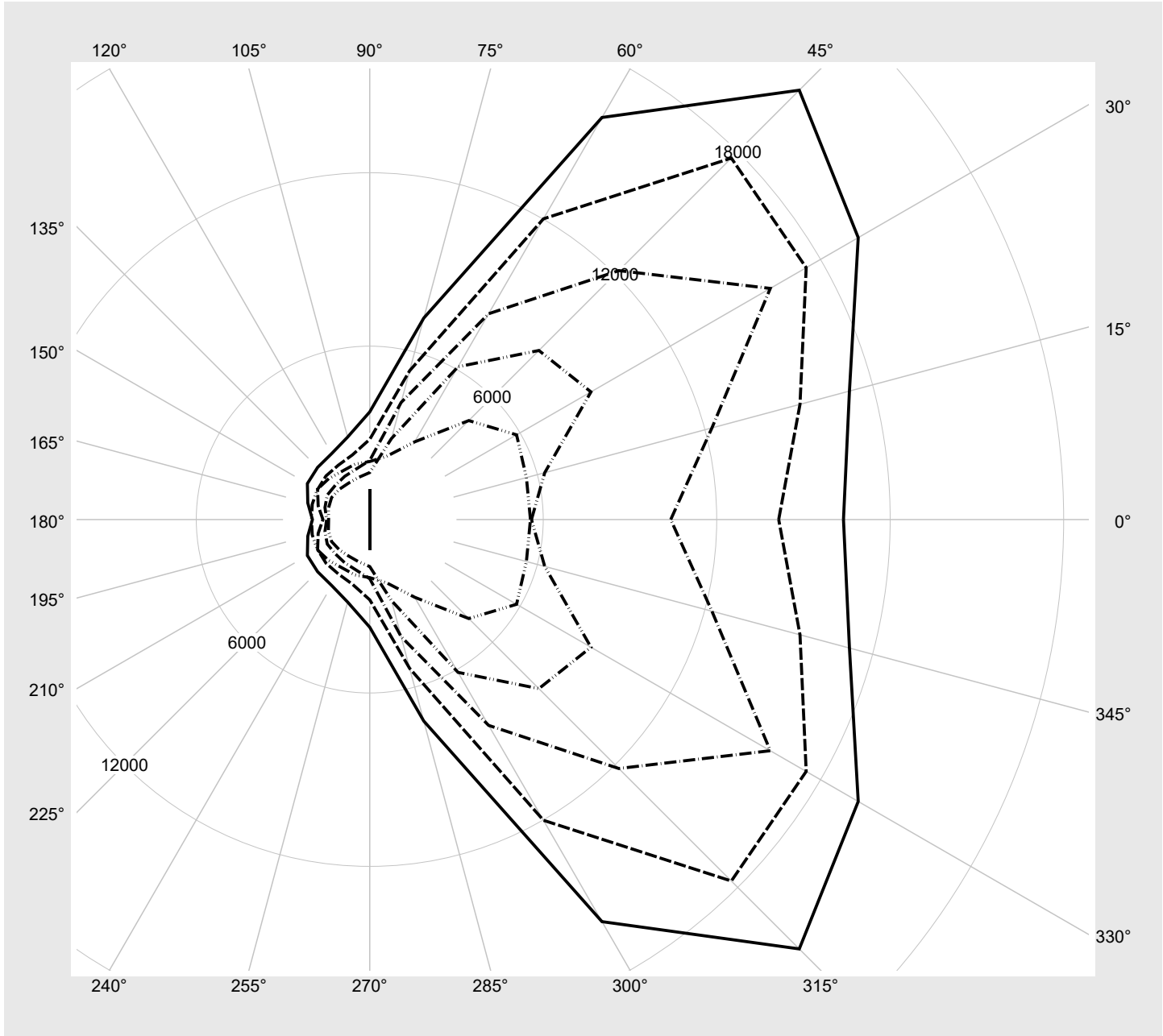
UGR-Table		Standard room									
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Reflection factor of floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		View crosswise (C0)					View endwise (C90)				
x	y										
2H	2H	22.1	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	18.4	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	23.1	23.8	24.1	24.7	25.8	18.7	19.4	19.6	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	24.3	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 = 1176 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°
γ	Luminance in cd/m ²												
45°	36167.6	37298.2	39954.9	38741.3	32183.1	22646.4	18101.2	13762.7	8557.3	4643.4	3949.7	3661.3	3576.3
50°	28456.0	30086.1	32854.7	32413.9	26488.3	17427.4	13217.7	9834.5	5723.3	3866.2	3564.1	3264.9	3143.5
55°	22288.0	24363.2	27699.2	27181.9	22479.5	13655.2	9577.6	7001.4	4200.6	3393.8	3203.4	2911.7	2796.4
60°	18374.9	19821.1	23312.8	23681.2	19727.4	10120.7	6099.3	4340.9	3250.4	2933.0	2833.9	2577.8	2425.2
65°	16384.5	17176.1	19508.3	21009.2	16064.0	7217.3	3725.4	2955.0	2634.9	2551.2	2491.0	2219.1	1982.3
70°	14144.0	15405.6	17430.2	17686.5	12015.3	5331.5	2776.9	2316.1	2172.8	2137.6	2082.4	1847.5	1619.0
75°	10410.0	12252.3	15995.8	12181.4	8223.0	4195.2	2047.0	1810.5	1728.3	1681.3	1697.0	1604.0	1489.9
80°	5592.7	6265.3	8834.0	8273.0	6104.8	2902.8	1626.9	1508.0	1458.4	1484.6	1524.0	1481.7	1423.3
85°	5558.3	5609.2	5863.5	4843.2	3103.3	2267.5	2008.8	1982.6	1925.9	2004.4	2093.1	2058.2	2017.5

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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	sITeco
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	7300	44.0
95	241	252	6946	41.8
90	227	250	6563	39.4
85	214	248	6204	37.2
80	201	245	5842	35.0
75	188	243	5479	32.8
70	175	240	5114	30.6
65	162	238	4746	28.5
60	149	234	4376	26.2
55	136	231	4003	24.1
50	124	228	3658	22.1
45	111	224	3282	20.0
40	99	219	2933	18.0
35	86	214	2552	15.9
30	74	209	2198	14.0
25	61	202	1812	11.8
20	49	194	1456	9.7
15	37	183	1097	7.8
10	25	169	738	5.9
5	13	145	377	4.0
2	6	117	166	3.4