

Photometric test report

Family
Silica® 21



Order number: **51MX34DC3DWB**
EAN: **4058352893739**

LP number
59283_63

Version Suspended luminaire, reflector, black, direct-/indirect distribution, asymmetric distribution
Lamps LED 3000 K | CRI ≥ 80
Controlgear ECG-DALI
Rated values Net luminous flux = 19200 lm
Power consumption = 129.1 W
Luminous efficacy = 148.7 lm/W

serial
documentation
02.08.2023

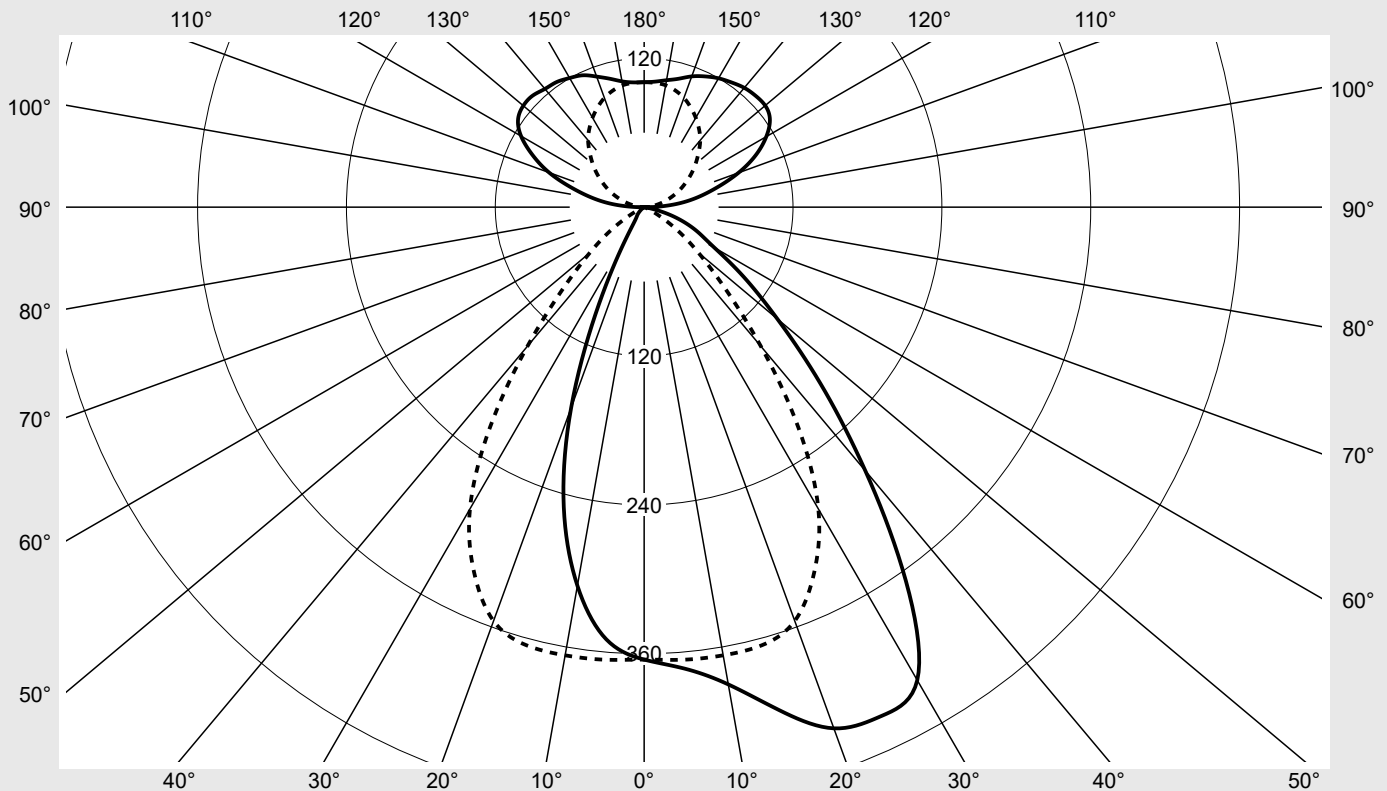
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 461 cd/klm



Classifications

DIN 5040 C 6 2
CIE N1=74 N2=94 N3=99
N4=56 N5=100

Luminaire light output ratios

η_{LB} 100.0%
 ϕ_u 56.1%
 ϕ_o 43.9%

Measurement conditions

DIN EN 13032 and DIN 5032

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Table of values for luminous intensities		Maximum luminous intensity
		sITeco

C-planes	0°	15° 345°	30° 330°	45° 315°	60° 300°	75° 285°	90° 270°
γ	Luminous intensity in cd/klm						
0°	364.7	364.7	364.7	364.7	364.7	364.7	364.7
5°	373.4	374.2	373.9	372.4	372.0	370.0	366.2
10°	390.7	390.9	390.3	389.7	385.4	375.2	366.9
15°	419.6	426.1	426.0	420.4	403.3	382.3	365.7
20°	447.1	456.4	458.5	446.1	411.0	376.9	355.0
25°	452.6	460.6	453.6	431.0	395.6	351.4	324.5
30°	440.3	439.8	430.3	390.5	349.9	308.3	280.9
35°	367.9	364.8	361.9	334.1	285.8	241.7	216.7
40°	277.4	282.5	289.0	275.8	227.9	175.0	146.3
45°	200.8	207.3	222.4	214.2	174.3	117.9	91.5
50°	140.2	148.6	163.4	159.9	127.4	79.2	57.1
55°	98.0	104.1	120.3	117.5	94.9	52.4	33.6
60°	65.5	71.2	86.2	87.8	71.3	30.8	14.6
65°	48.2	50.7	59.5	65.1	47.4	16.3	4.7
70°	32.8	36.4	42.5	43.7	27.4	8.4	1.8
75°	16.4	20.5	29.1	21.1	13.2	4.7	0.6
80°	2.7	3.9	8.6	8.4	6.0	1.9	0.3
85°	1.0	1.1	1.6	1.5	0.7	0.5	0.5
90°	5.1	4.9	5.2	5.1	3.1	1.0	0.4
95°	23.6	24.1	25.8	24.5	15.6	8.0	4.1
100°	42.3	43.3	43.7	38.5	25.8	14.5	9.5
105°	60.4	61.7	60.5	51.6	35.4	21.8	16.0
110°	80.9	81.7	76.3	63.6	45.4	29.6	23.0
115°	99.3	98.4	90.6	74.6	54.9	37.4	30.6
120°	113.7	112.0	102.2	83.3	64.1	44.9	38.1
125°	123.7	120.5	109.6	92.0	71.5	52.1	46.1
130°	127.4	124.7	113.0	96.3	77.5	59.5	54.0
135°	127.0	124.4	114.1	99.9	82.2	66.6	62.0
140°	125.6	123.2	114.1	102.3	86.1	73.2	70.3
145°	122.8	121.6	114.6	103.4	89.6	79.2	77.1
150°	119.9	119.3	113.7	103.5	92.3	85.0	83.2
155°	116.3	116.3	110.3	102.8	94.6	90.3	88.8
160°	112.2	112.1	106.9	101.9	96.9	93.8	93.7
165°	107.2	106.8	103.8	100.5	98.5	97.0	97.3
170°	103.9	102.9	102.2	100.5	99.8	99.7	99.8
175°	101.6	101.2	100.4	100.2	100.5	100.4	100.5
180°	100.7	100.7	100.7	100.7	100.7	100.7	100.7

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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°	364.7	364.7	364.7	364.7	364.7	364.7	2.2	2.2
5°	362.9	358.9	355.8	351.9	350.5	349.8	17.4	19.6
10°	356.4	346.7	334.3	322.3	312.5	309.9	34.3	53.9
15°	351.5	329.8	301.2	272.8	255.4	250.3	50.5	104.3
20°	332.5	299.0	251.5	205.7	180.6	172.0	63.8	168.1
25°	300.5	247.9	184.7	134.5	99.3	86.1	70.5	238.6
30°	246.1	187.5	119.2	65.0	36.4	29.2	70.5	309.2
35°	174.7	119.3	62.2	24.9	14.0	12.2	62.6	371.8
40°	109.6	67.1	27.5	12.3	9.3	8.7	51.8	423.6
45°	65.7	34.8	12.8	8.3	6.4	5.9	40.7	464.3
50°	38.9	17.2	7.5	5.5	3.9	3.3	30.8	495.1
55°	21.5	8.7	4.7	3.3	2.1	1.8	22.9	518.0
60°	8.2	4.3	2.8	2.0	1.5	1.3	16.4	534.4
65°	2.7	2.1	1.7	1.4	1.0	0.7	11.5	545.9
70°	1.1	1.1	0.9	0.8	0.6	0.3	7.8	553.7
75°	0.4	0.5	0.5	0.4	0.4	0.3	4.4	558.1
80°	0.2	0.3	0.3	0.3	0.2	0.2	1.4	559.5
85°	0.5	0.5	0.6	0.6	0.6	0.6	0.4	559.9
90°	1.0	3.1	5.1	5.2	4.9	5.1	2.0	562.0
95°	8.1	15.6	24.4	25.8	24.1	23.5	10.2	572.1
100°	14.5	25.6	38.0	43.6	43.3	41.9	17.2	589.3
105°	21.9	35.3	51.6	60.4	61.7	60.5	23.8	613.1
110°	29.6	45.2	63.5	76.5	81.3	81.5	29.9	643.0
115°	37.4	55.0	74.7	90.7	98.3	99.2	34.9	677.9
120°	45.0	63.8	83.7	102.6	112.6	114.6	38.2	716.1
125°	52.1	71.5	91.4	109.3	120.5	124.0	39.7	755.8
130°	59.5	77.1	96.8	112.7	124.3	127.2	39.3	795.1
135°	66.2	81.6	99.7	114.1	124.5	127.1	37.5	832.6
140°	72.6	85.5	102.0	114.8	123.0	124.4	35.0	867.6
145°	78.7	89.2	103.4	114.2	121.7	123.1	31.9	899.4
150°	84.6	92.4	103.1	112.6	119.8	120.2	28.1	927.5
155°	89.7	94.6	103.0	110.2	116.6	117.3	23.8	951.3
160°	94.2	96.3	102.1	107.0	111.6	112.0	19.2	970.5
165°	97.4	98.7	101.2	104.4	106.4	107.2	14.4	985.0
170°	99.8	100.1	101.3	102.3	102.9	103.0	9.6	994.6
175°	100.7	100.4	100.7	100.9	101.1	101.0	4.8	999.4
180°	100.7	100.7	100.7	100.7	100.7	100.7	0.6	1000.0

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UGR-Table	Standard room	siteco
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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	22.1	23.0	22.9	23.8	24.9	17.5	18.4	18.3	19.2	20.3
	3H	22.4	23.2	23.3	24.1	25.3	17.3	18.1	18.2	19.0	20.1
	4H	22.5	23.2	23.4	24.1	25.3	17.2	17.9	18.1	18.8	20.0
	6H	22.4	23.0	23.3	23.9	25.1	17.0	17.7	17.9	18.6	19.8
	8H	22.3	22.9	23.2	23.8	25.0	16.9	17.6	17.9	18.5	19.7
	12H	22.2	22.7	23.1	23.7	24.9	16.8	17.4	17.8	18.3	19.5
4H	2H	22.3	23.0	23.2	23.9	25.0	18.1	18.8	19.0	19.7	20.9
	3H	22.9	23.5	23.8	24.4	25.6	18.1	18.7	19.1	19.7	20.9
	4H	23.0	23.6	24.0	24.5	25.7	18.1	18.6	19.0	19.5	20.7
	6H	22.9	23.4	23.9	24.3	25.6	17.9	18.4	18.9	19.3	20.6
	8H	22.8	23.3	23.8	24.2	25.5	17.8	18.2	18.8	19.2	20.5
	12H	22.7	23.1	23.7	24.1	25.4	17.7	18.1	18.7	19.1	20.3
8H	4H	23.0	23.4	23.9	24.3	25.6	18.1	18.5	19.1	19.5	20.8
	6H	22.9	23.3	23.9	24.3	25.5	18.1	18.4	19.1	19.4	20.7
	8H	22.8	23.2	23.9	24.1	25.4	18.0	18.3	19.0	19.3	20.6
	12H	22.8	23.0	23.8	24.0	25.3	17.9	18.2	18.9	19.2	20.5
12H	4H	22.9	23.2	23.8	24.2	25.5	18.1	18.4	19.0	19.4	20.7
	6H	22.8	23.1	23.8	24.1	25.4	18.0	18.3	19.0	19.3	20.6
	8H	22.8	23.0	23.8	24.0	25.3	17.9	18.2	19.0	19.2	20.5

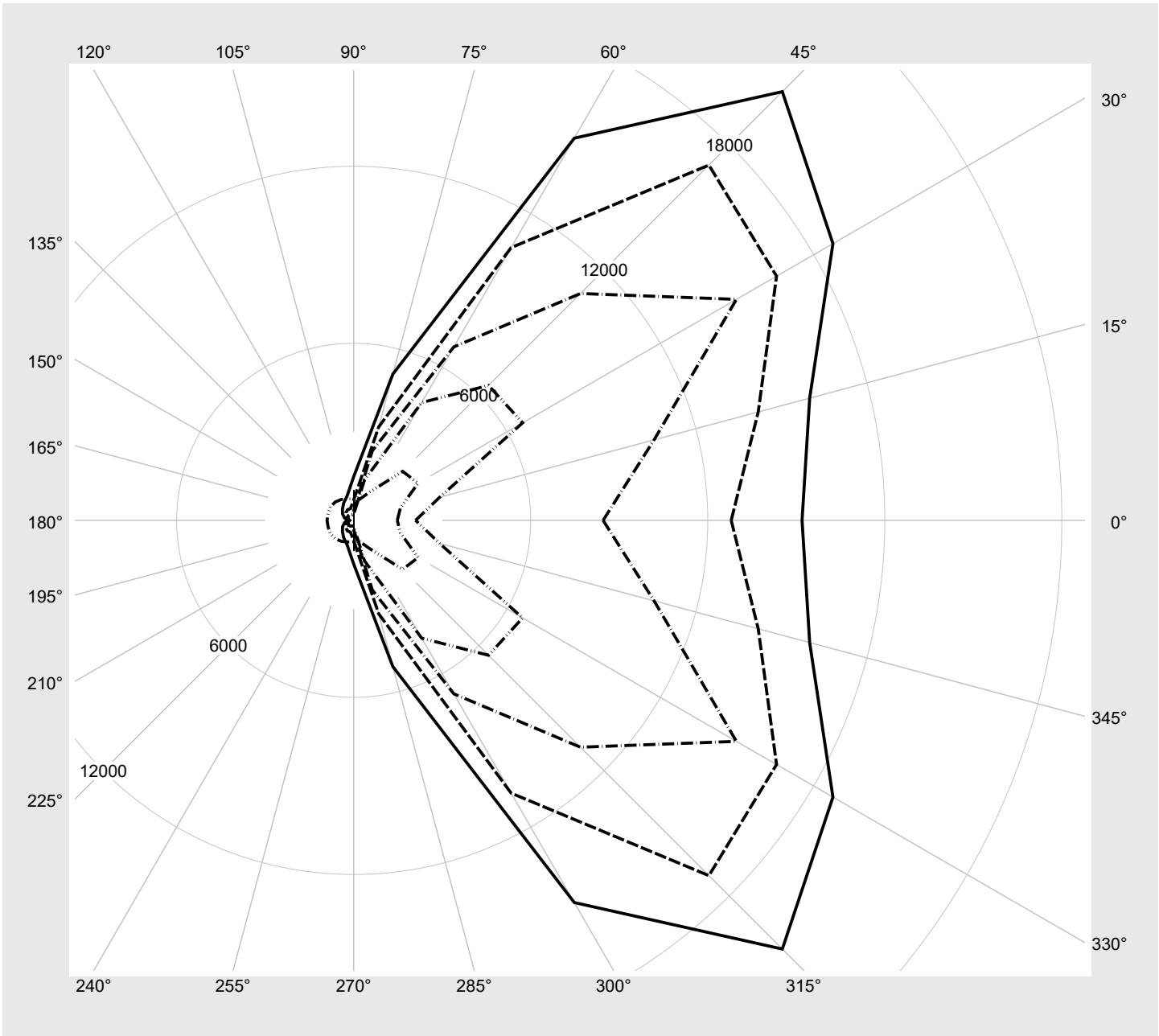
Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 2940
			B = 49

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/m²												
45°	37847.1	39066.6	41924.1	40365.0	32848.9	22219.0	17240.8	12382.6	6567.9	2406.2	1567.6	1215.3	1109.8
50°	29067.9	30810.4	33888.8	33146.8	26408.9	16415.6	11845.9	8064.2	3571.3	1552.6	1140.8	806.4	677.6
55°	22763.6	24190.8	27955.8	27307.0	22040.1	12165.8	7803.0	5001.4	2028.8	1096.5	776.1	479.4	412.9
60°	17451.9	18977.7	22985.1	23414.0	18995.8	8209.6	3899.2	2185.5	1136.6	756.0	524.0	408.9	347.9
65°	15195.7	15999.0	18754.9	20544.0	14954.8	5133.1	1478.7	858.1	677.7	537.7	435.2	322.6	214.1
70°	12794.7	14194.0	16548.5	17025.4	10672.5	3279.9	694.4	413.8	416.2	369.4	305.5	220.6	135.2
75°	8452.8	10540.4	14977.7	10871.5	6786.5	2443.9	319.3	210.1	256.4	244.6	225.5	182.3	147.3
80°	2097.6	3013.3	6611.4	6464.8	4610.5	1421.4	202.6	191.1	225.6	231.8	220.3	191.1	174.2
85°	1477.2	1640.8	2520.1	2347.3	1120.9	731.0	721.8	756.9	822.7	880.8	912.9	896.1	902.2

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Luminance values in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85°



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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	19200	129.1
95	240	252	18218	122.1
90	227	250	17299	115.7
85	213	248	16297	108.5
80	200	245	15354	101.8
75	187	243	14410	95.5
70	174	240	13457	89.1
65	161	237	12497	82.9
60	148	234	11528	76.2
55	135	231	10553	69.9
50	122	227	9564	63.2
45	110	223	8647	57.4
40	97	219	7648	50.8
35	85	214	6718	45.1
30	73	208	5782	39.4
25	60	201	4761	33.1
20	48	193	3815	26.9
15	36	182	2857	20.9
10	24	168	1899	14.9
5	12	142	935	8.8
2	5	110	370	4.6