

Photometric test report

Family
Silica® 21



Order number: **51MX34DB39SB**
EAN: **4058352889169**

LP number
59283_71

Version

Suspended luminaire, reflector, black, direct-/indirect distribution, asymmetric distribution

Lamps

LED 3000 K | CRI ≥ 80

Controlgear

ECG-DALI

Rated values

Net luminous flux = 9600 lm

Power consumption = 65.6 W

Luminous efficacy = 146.3 lm/W

serial
documentation
02.08.2023

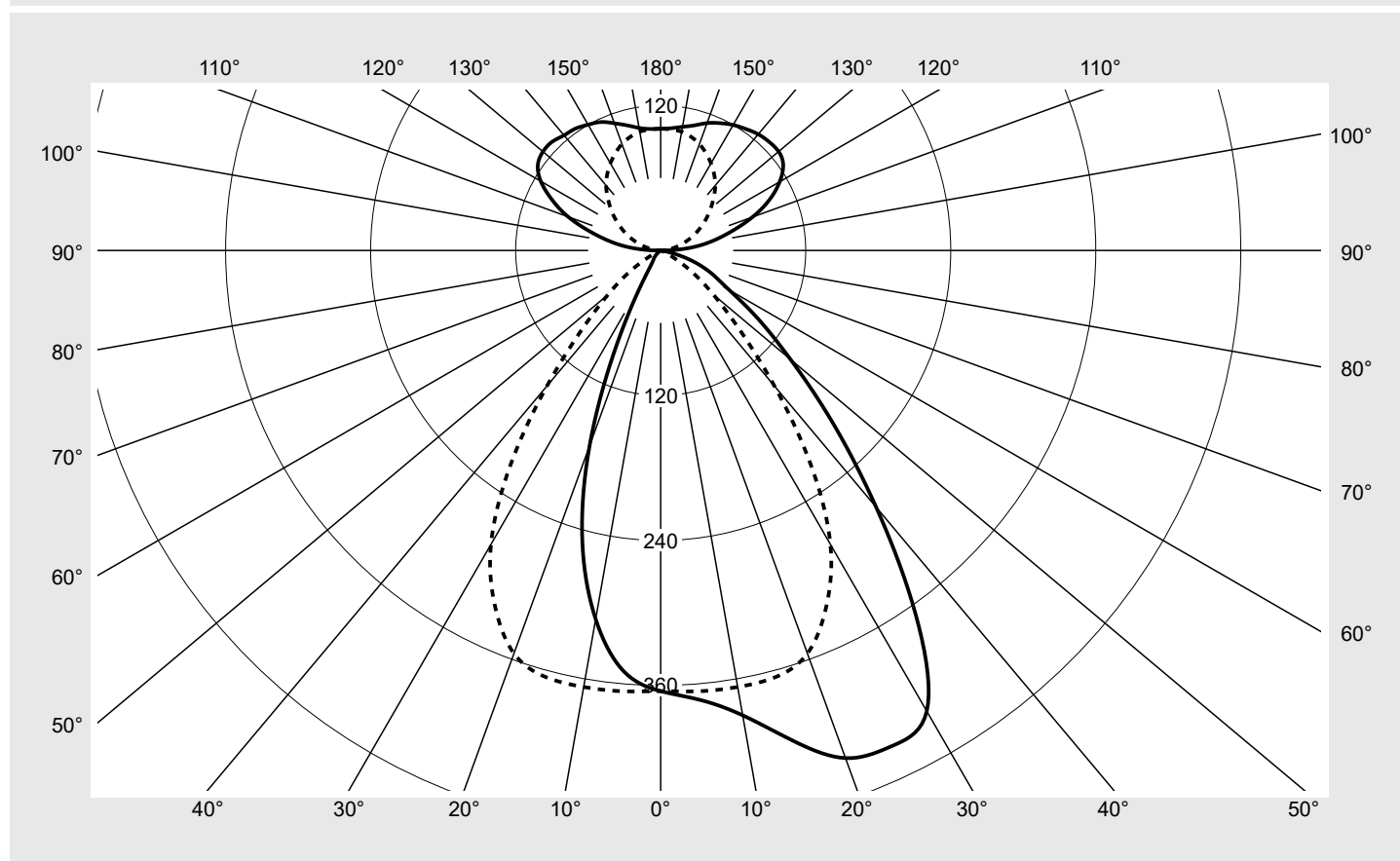
siteco

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	
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 = 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°
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°

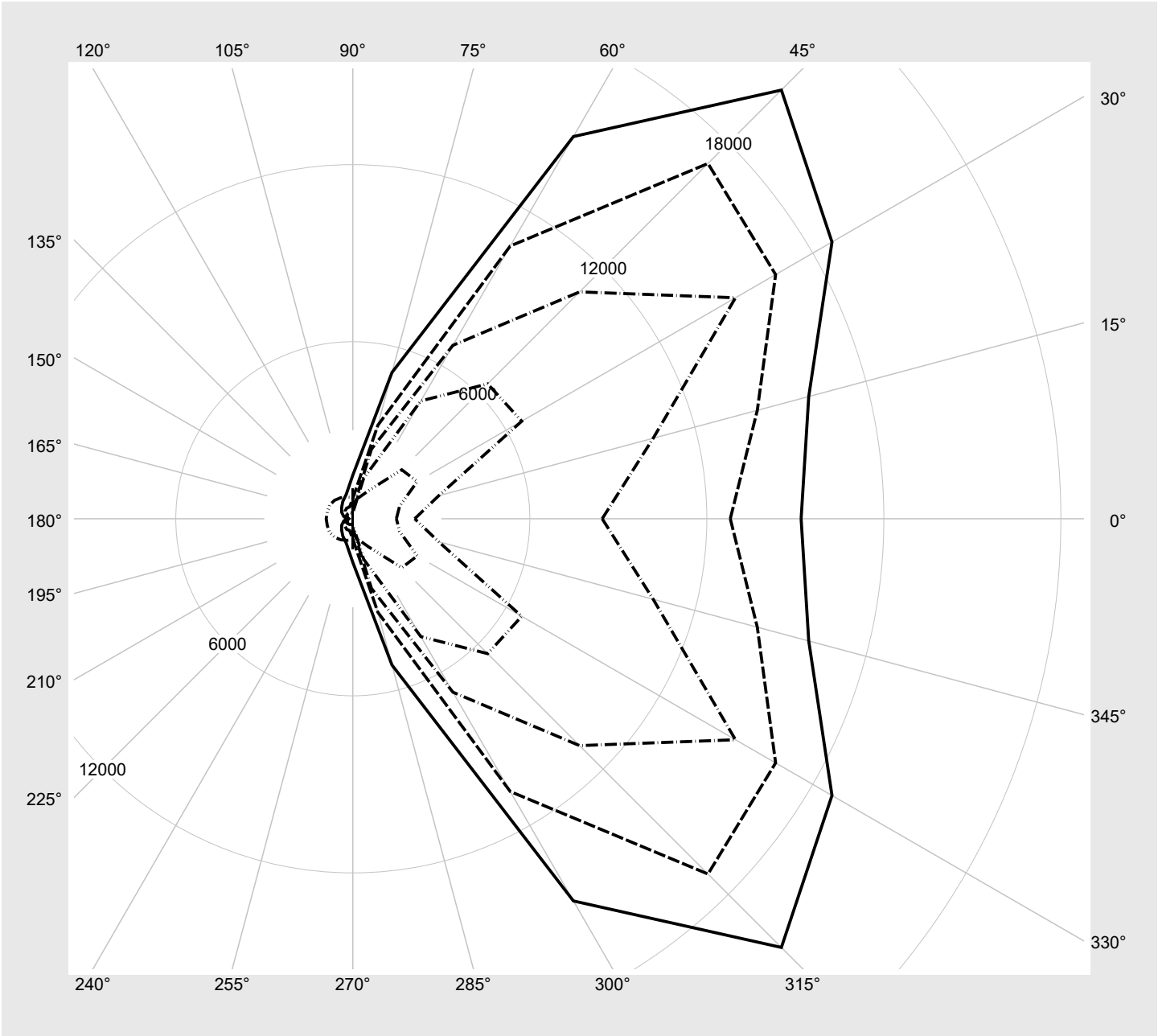
γ 70°

γ 75°

γ 80°

γ 85°

siteco



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Dimming levels table		environmental temperature: 25°C

siteco

Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	9600	65.6
95	240	252	9109	62.0
90	227	250	8649	58.7
85	213	248	8149	55.1
80	200	245	7680	51.9
75	187	243	7207	48.6
70	174	240	6730	45.2
65	161	237	6248	41.9
60	148	234	5763	38.7
55	135	231	5275	35.3
50	122	227	4782	32.1
45	110	223	4324	29.2
40	97	219	3824	26.0
35	85	214	3360	23.1
30	73	208	2892	20.2
25	60	201	2381	17.1
20	48	193	1906	14.0
15	36	182	1429	11.1
10	24	168	949	8.3
5	12	142	468	5.3
2	5	110	185	3.8