

Photometric test report

Family
Silica® 21

Order number: **51MX24DB45BB**
EAN: **4058352905418**

LP number
59270_84

serial
documentation
02.08.2023

siteco



Version surface-mounted luminaire, reflector, black,
direct distribution, asymmetric distribution

Lamps LED 4000 K | CRI ≥ 80

Controlgear ECG-DALI

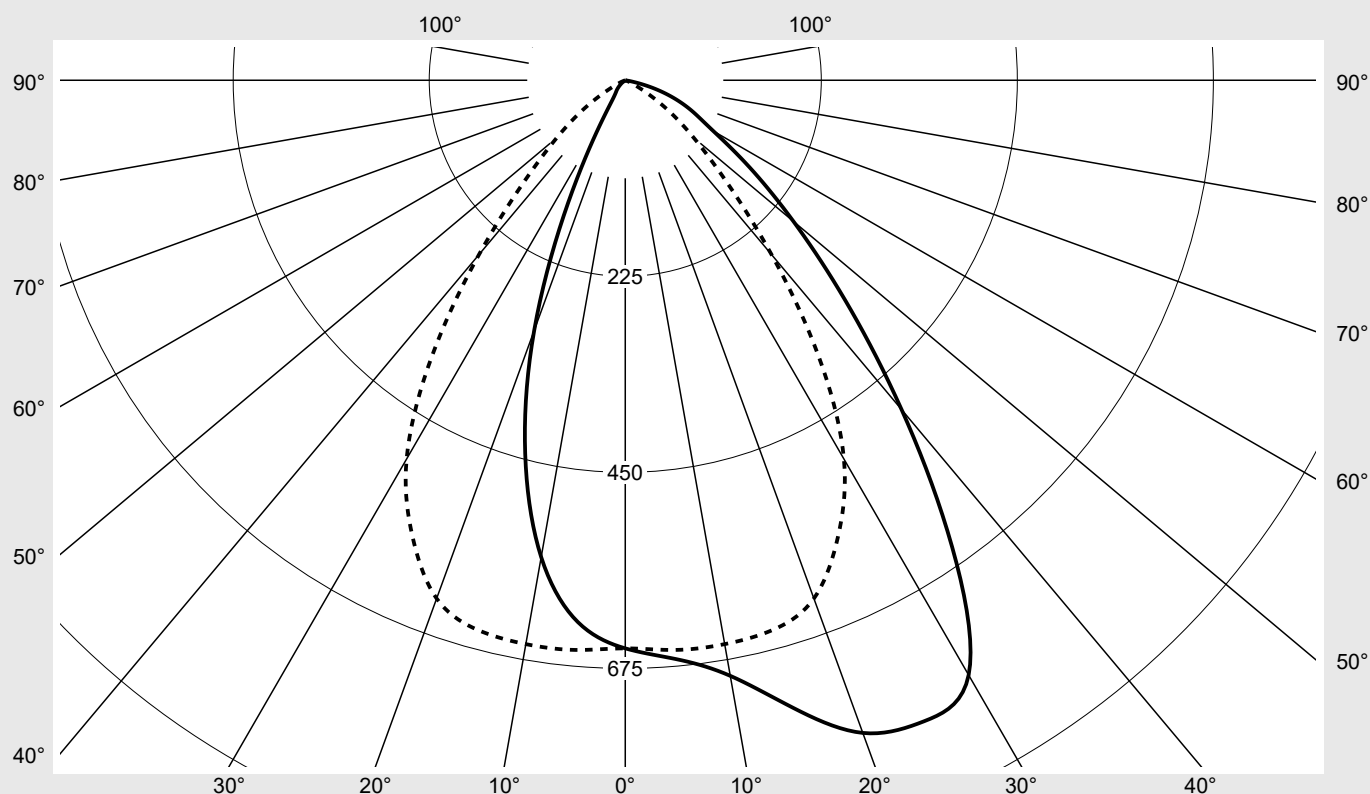
Rated values Net luminous flux = 5400 lm
Power consumption = 37.6 W
Luminous efficacy = 143.6 lm/W

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 826 cd/klm



Classifications

DIN 5040 A 6 0
CIE N1=74 N2=94 N3=99
N4=100 N5=100

Luminaire light output ratios

η_{LB} 100.0%
 ϕ_u 100.0%
 ϕ_o 0.0%

Measurement conditions

DIN EN 13032 and DIN 5032

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Table of values for luminous intensities		Maximum luminous intensity
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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°	652.0	652.0	652.0	652.0	652.0	652.0	652.0
5°	666.9	669.0	664.7	668.1	665.8	658.5	656.3
10°	694.1	699.5	694.9	697.8	687.8	669.7	657.2
15°	745.9	757.8	758.6	751.7	720.3	681.6	653.2
20°	797.2	810.9	815.9	795.0	737.5	674.0	633.0
25°	811.7	825.8	812.3	769.4	703.1	631.1	577.8
30°	788.3	790.4	769.6	695.9	622.5	550.2	501.9
35°	654.2	653.0	648.0	598.2	512.7	433.1	387.1
40°	493.4	503.0	513.6	491.7	407.8	312.4	261.1
45°	356.9	371.2	396.6	382.3	311.7	212.0	163.2
50°	252.0	264.9	292.8	285.3	227.0	141.1	102.4
55°	174.1	185.5	214.4	210.2	168.5	93.5	60.0
60°	116.9	126.6	154.3	157.4	127.4	55.1	26.1
65°	85.8	90.4	106.5	115.9	84.8	29.1	8.4
70°	58.6	65.3	76.1	78.1	49.1	15.0	3.2
75°	29.3	36.5	51.8	37.7	23.5	8.4	1.1
80°	4.9	7.0	15.4	15.1	10.7	3.3	0.5
85°	1.0	1.2	2.3	2.1	0.8	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Table of values for luminous intensities		Maximum luminous intensity
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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°	652.0	652.0	652.0	652.0	652.0	652.0	3.9	3.9
5°	648.8	644.3	634.4	624.8	623.0	624.2	31.1	35.0
10°	640.2	622.4	598.9	573.5	560.8	555.7	61.3	96.3
15°	627.5	590.3	536.8	485.9	456.2	443.8	90.0	186.3
20°	595.4	535.2	448.1	369.0	322.8	305.6	113.9	300.1
25°	535.8	444.7	330.5	240.5	178.2	155.1	126.1	426.3
30°	439.6	334.4	213.1	117.0	65.0	52.1	126.1	552.3
35°	312.5	213.9	111.2	44.6	25.1	21.7	112.1	664.4
40°	197.6	120.2	49.4	22.0	16.7	15.5	92.5	756.9
45°	117.6	62.5	22.8	14.8	11.5	10.5	72.7	829.5
50°	69.7	30.7	13.3	9.8	7.0	5.9	55.0	884.6
55°	38.5	15.6	8.4	6.0	3.7	3.2	40.9	925.5
60°	14.7	7.6	5.1	3.5	2.8	2.3	29.3	954.8
65°	4.9	3.9	3.0	2.5	1.8	1.2	20.5	975.2
70°	1.9	1.9	1.7	1.4	1.0	0.6	13.9	989.2
75°	0.7	0.9	0.9	0.8	0.6	0.5	7.8	997.0
80°	0.4	0.5	0.5	0.5	0.4	0.4	2.6	999.6
85°	0.4	0.4	0.4	0.4	0.3	0.3	0.4	1000.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	25.0	26.4	25.4	26.7	27.0	20.4	21.8	20.8	22.1	22.4	
	3H	25.5	26.8	25.9	27.1	27.5	20.4	21.6	20.7	21.9	22.3	
	4H	25.7	26.8	26.1	27.2	27.5	20.3	21.5	20.7	21.8	22.2	
	6H	25.7	26.7	26.1	27.1	27.5	20.2	21.3	20.7	21.7	22.1	
	8H	25.6	26.6	26.1	27.0	27.4	20.2	21.2	20.7	21.6	22.0	
	12H	25.7	26.5	26.1	26.9	27.3	20.3	21.1	20.7	21.5	21.9	
4H	2H	25.4	26.5	25.8	26.9	27.3	21.2	22.4	21.6	22.8	23.1	
	3H	26.1	27.1	26.5	27.5	27.9	21.4	22.4	21.8	22.8	23.2	
	4H	26.4	27.2	26.8	27.6	28.1	21.4	22.2	21.8	22.7	23.1	
	6H	26.4	27.1	26.8	27.5	28.0	21.3	22.1	21.8	22.5	23.0	
	8H	26.3	27.0	26.8	27.4	27.9	21.3	22.0	21.8	22.4	22.9	
	12H	26.3	26.9	26.8	27.4	27.9	21.3	21.9	21.8	22.3	22.8	
8H	4H	26.4	27.1	26.9	27.5	28.0	21.6	22.3	22.1	22.7	23.2	
	6H	26.5	27.0	26.9	27.5	28.0	21.6	22.1	22.1	22.6	23.1	
	8H	26.4	26.9	26.9	27.4	27.9	21.6	22.0	22.1	22.5	23.1	
	12H	26.4	26.8	26.9	27.3	27.8	21.5	21.9	22.1	22.4	23.0	
12H	4H	26.4	27.0	26.9	27.4	27.9	21.7	22.2	22.2	22.7	23.2	
	6H	26.5	26.9	27.0	27.4	27.9	21.6	22.1	22.1	22.6	23.1	
	8H	26.4	26.8	26.9	27.3	27.8	21.6	22.0	22.1	22.5	23.0	

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°		37839.4	39355.2	42043.7	40527.9	33048.7	22474.8	17303.7	12471.6	6626.9	2419.6	1571.7	1222.7	1112.6	
50°		29386.5	30896.8	34153.2	33272.3	26476.2	16458.3	11940.3	8123.8	3582.1	1555.9	1146.8	814.9	682.8	
55°		22760.1	24248.1	28024.4	27469.0	22017.9	12219.3	7847.1	5028.1	2036.2	1094.8	781.0	481.3	412.5	
60°		17526.2	18986.4	23128.3	23597.5	19103.7	8263.5	3917.4	2206.5	1140.6	766.5	529.9	412.6	347.9	
65°		15212.9	16028.7	18890.4	20558.2	15040.6	5161.0	1495.4	861.4	684.4	540.7	437.8	325.3	215.4	
70°		12849.2	14306.8	16684.0	17124.5	10764.8	3293.6	697.7	416.9	416.9	369.6	307.5	221.8	135.9	
75°		8486.1	10576.2	15018.4	10912.3	6809.8	2445.9	320.4	210.9	257.8	246.2	226.5	183.6	148.6	
80°		2096.5	3022.1	6650.3	6498.8	4612.1	1426.9	203.8	192.1	227.1	233.1	221.5	192.1	174.8	
85°		858.4	1032.2	1949.1	1833.0	649.4	289.9	278.7	313.1	348.4	359.6	336.3	289.9	278.7	

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LP number
59270_84

Luminance values in cd/m²

γ 65°

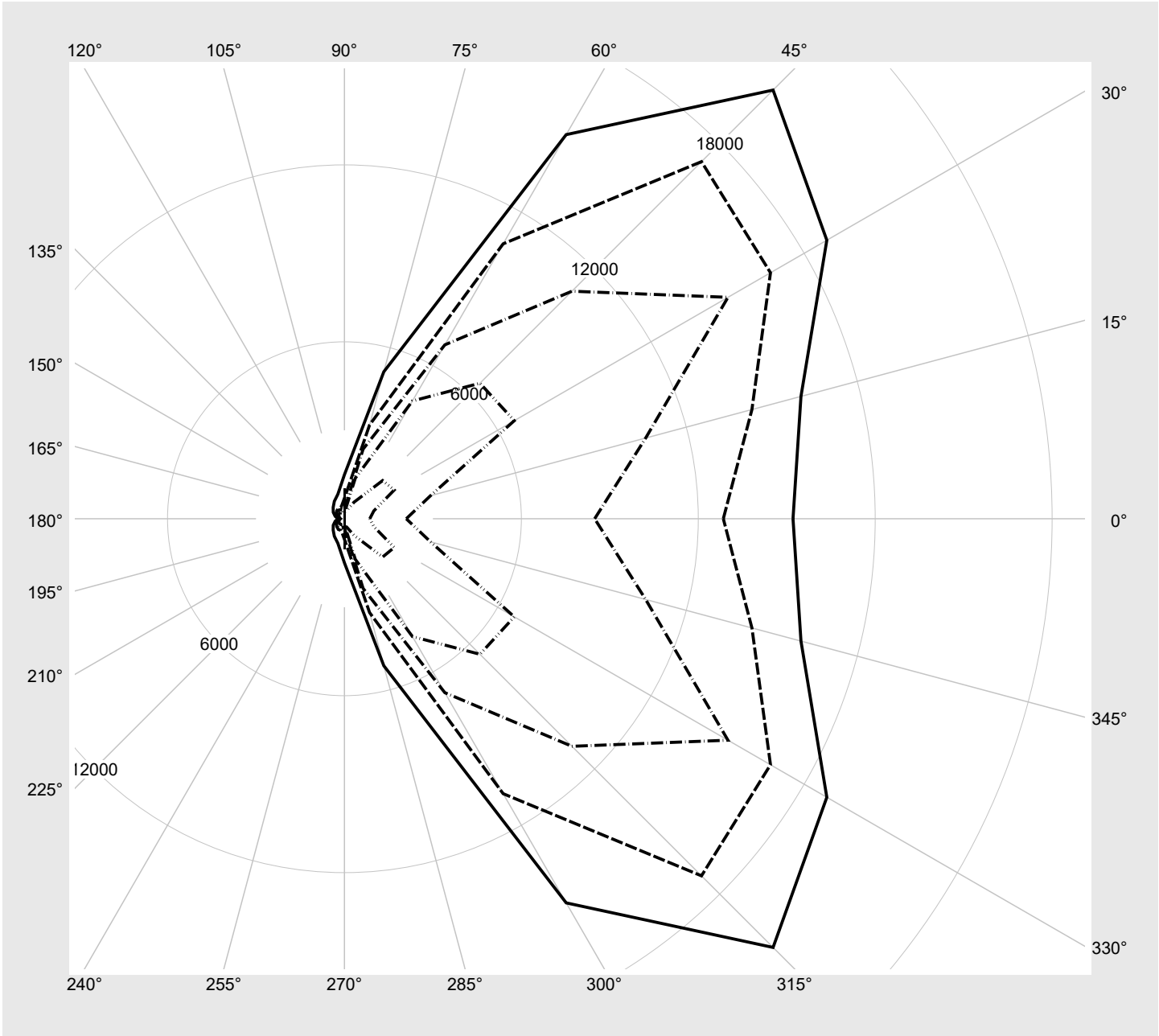
γ 70°

γ 75°

γ 80°

γ 85°

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Dimming levels table		environmental temperature: 25°C

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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	5400	37.6
95	240	252	5123	35.5
90	227	250	4863	33.6
85	214	248	4599	31.8
80	200	245	4313	29.7
75	187	243	4046	27.8
70	174	240	3777	26.0
65	161	237	3506	24.1
60	148	234	3233	22.3
55	136	231	2979	20.5
50	123	227	2700	18.7
45	110	223	2422	16.8
40	98	219	2163	15.1
35	85	214	1880	13.3
30	73	208	1618	11.6
25	61	202	1354	9.9
20	49	194	1088	8.4
15	37	183	820	6.6
10	24	168	530	4.8
5	12	142	260	3.2
2	5	110	102	2.2