

Photometric test report

Family
Silica® 21

Order number: **51MX24DB35BB**
EAN: **4058352905357**

LP number
59270_85

serial
documentation
02.08.2023

siteco



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

Lamps LED 3000 K | CRI ≥ 80

Controlgear ECG-DALI

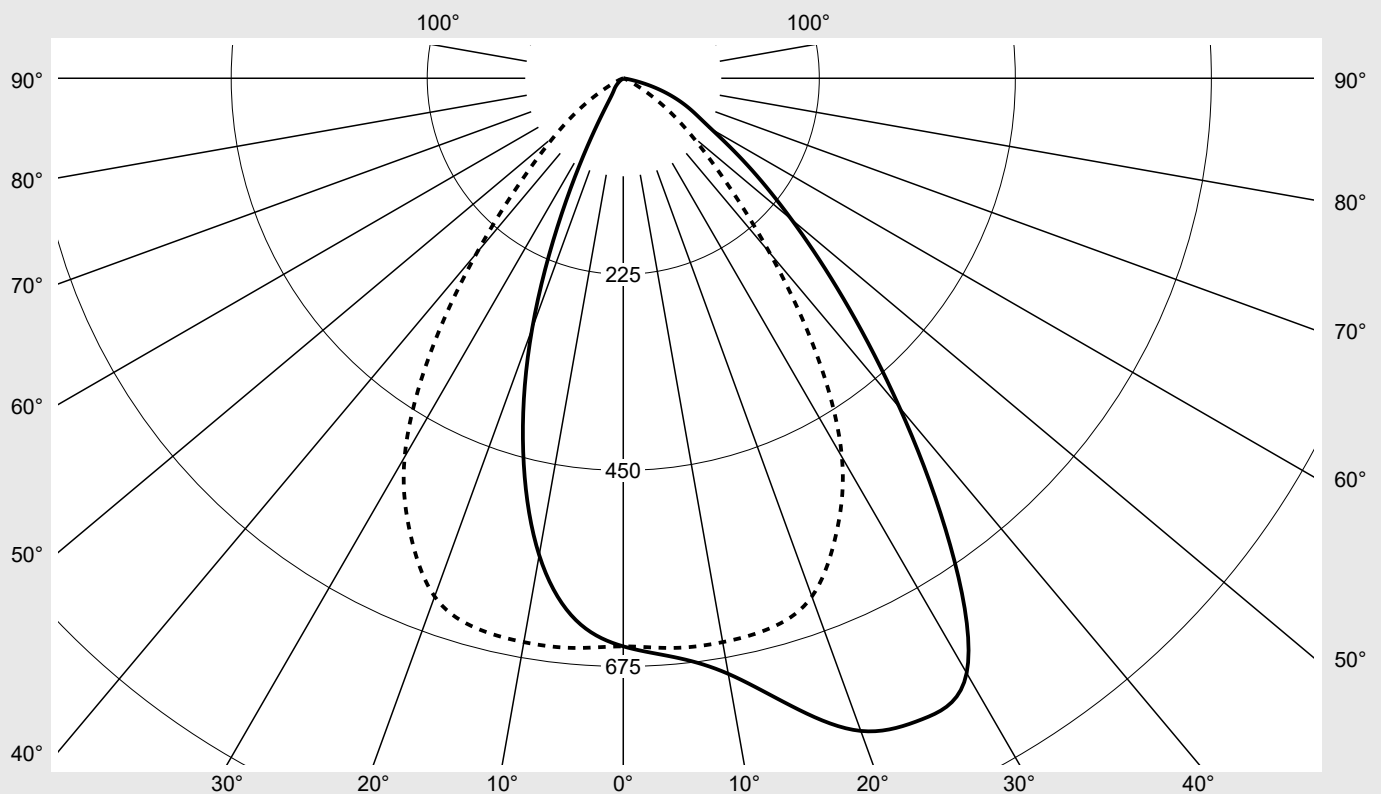
Rated values Net luminous flux = 5400 lm
Power consumption = 40.3 W
Luminous efficacy = 134 lm/W

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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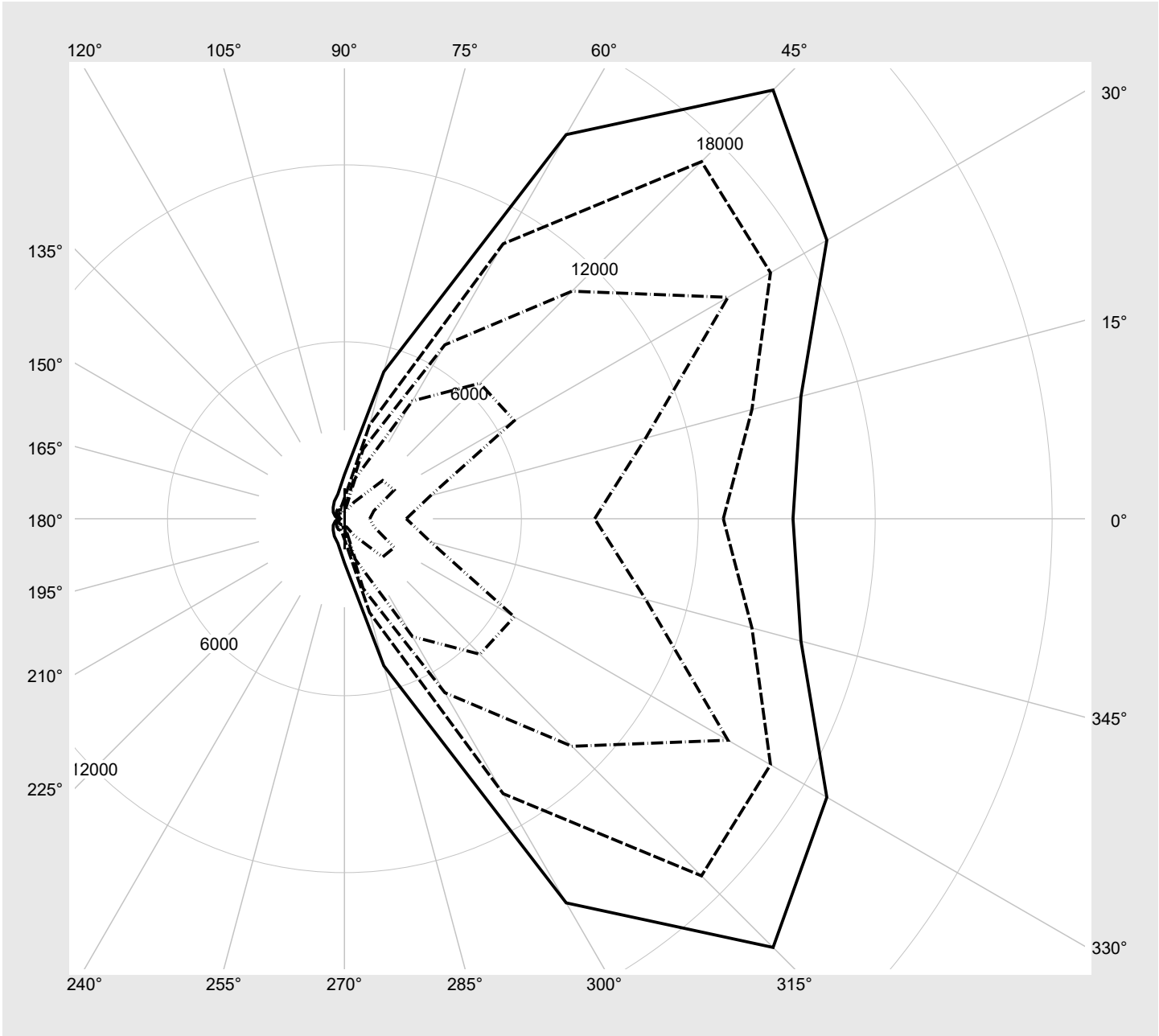
UGR-Table		Standard room									siteco	
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3		
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3		
Reflection factor of floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
Room dimensions		View crosswise (C0)					View endwise (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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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	40.3
95	240	252	5125	38.0
90	227	250	4867	35.9
85	213	248	4588	33.7
80	200	245	4324	31.8
75	187	243	4057	29.8
70	174	240	3789	27.8
65	161	237	3520	25.7
60	148	234	3247	23.7
55	135	231	2972	21.8
50	122	227	2695	19.8
45	110	223	2436	17.9
40	97	219	2155	15.9
35	85	214	1893	14.2
30	73	208	1630	12.3
25	60	201	1342	10.4
20	48	193	1075	8.7
15	36	182	805	6.8
10	24	168	535	5.1
5	12	142	264	3.3
2	4	102	81	2.1