

Photometric test report

Family
Silica® 21

Order number: **51MX12DN49WB**
EAN: **4069025105127**

LP number
59266_232

serial
documentation
19.03.2024

siteco

Version recessed luminaire, reflector, black, direct
distribution, wide distribution, UGR≤19
($L65 \leq 1000 \text{ cd/m}^2$)

Lamps LED 4000 K | CRI ≥ 80

Controlgear ECG-DALI

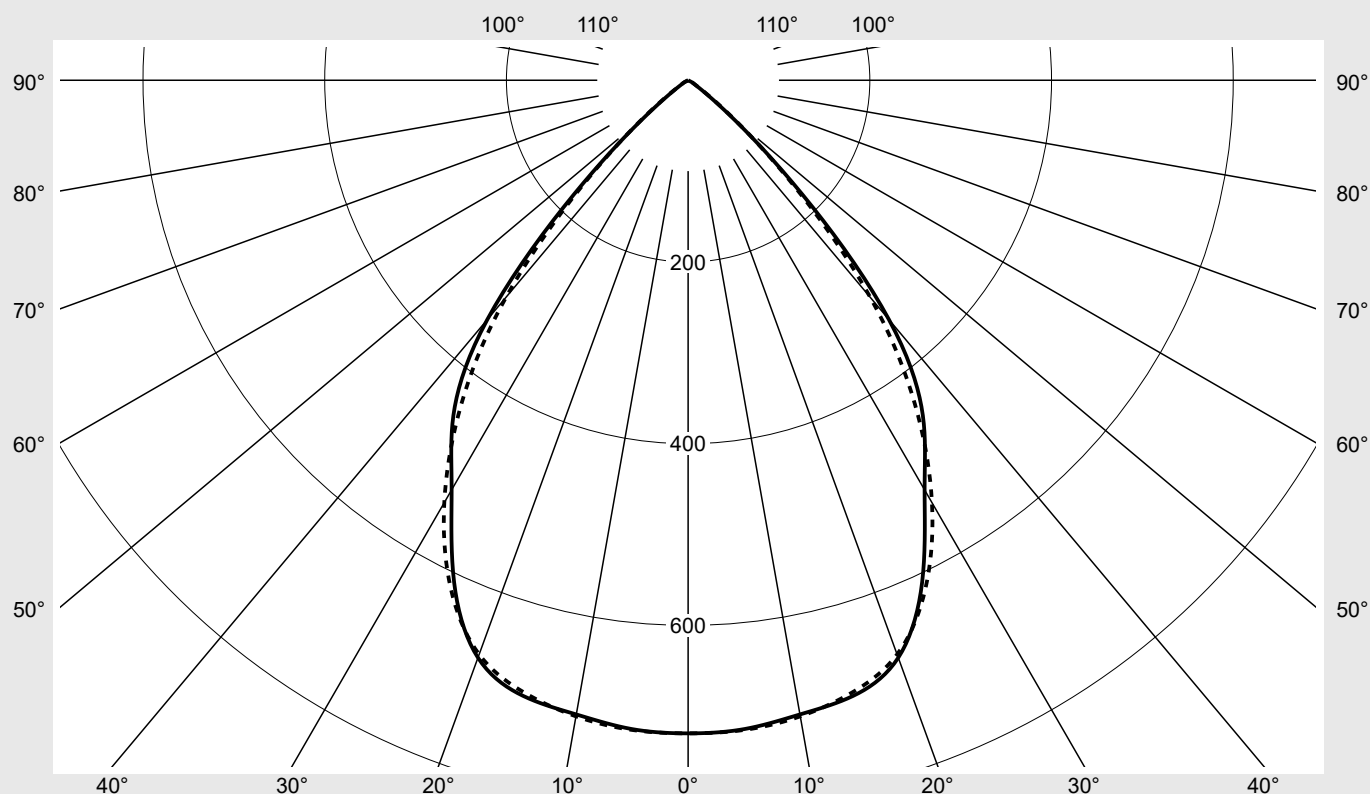
Rated values Net luminous flux = 9720 lm
Power consumption = 57.9 W
Luminous efficacy = 167.9 lm/W

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 719 cd/klm



Classifications

DIN 5040 A 6 0
CIE N1=86 N2=100 N3=100
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° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm							Luminous flux in lm/klm	
0°	718.8	718.8	718.8	718.8	718.8	718.8	718.8	4.3	4.3
5°	716.8	715.7	712.2	716.2	717.8	715.2	717.7	34.2	38.5
10°	708.8	709.0	703.3	708.6	709.9	707.6	710.9	67.4	105.9
15°	701.5	704.3	697.3	698.3	698.8	696.7	697.6	99.2	205.1
20°	676.3	682.5	681.1	681.0	677.6	673.2	672.5	127.2	332.2
25°	609.5	618.9	627.5	636.4	634.5	625.9	617.8	145.0	477.3
30°	520.6	528.9	533.1	542.9	550.7	541.7	536.8	147.4	624.6
35°	450.5	455.7	444.2	436.3	445.0	443.0	435.2	139.8	764.4
40°	343.9	350.9	343.2	332.9	329.4	321.5	312.0	117.8	882.2
45°	178.2	185.2	190.8	192.2	186.9	176.3	167.1	71.3	953.5
50°	59.7	64.4	73.8	78.7	75.2	68.1	63.7	29.5	983.0
55°	15.6	18.5	24.7	31.2	26.2	20.2	17.4	10.3	993.3
60°	6.1	6.8	9.1	12.2	9.8	7.7	7.0	4.1	997.4
65°	2.1	2.4	3.4	4.3	3.8	3.0	2.8	1.6	999.0
70°	1.4	1.4	1.0	1.0	1.2	1.5	1.5	0.7	999.7
75°	0.3	0.4	0.3	0.4	0.4	0.5	0.4	0.2	999.9
80°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	999.9
85°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	1000.0
90°	0.0	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	0.0	1000.0
100°	0.0	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	0.0	1000.0
110°	0.0	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	0.0	1000.0
120°	0.0	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	0.0	1000.0
130°	0.0	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	0.0	1000.0
140°	0.0	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	0.0	1000.0
150°	0.0	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	0.0	1000.0
160°	0.0	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	0.0	1000.0
170°	0.0	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	0.0	1000.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0

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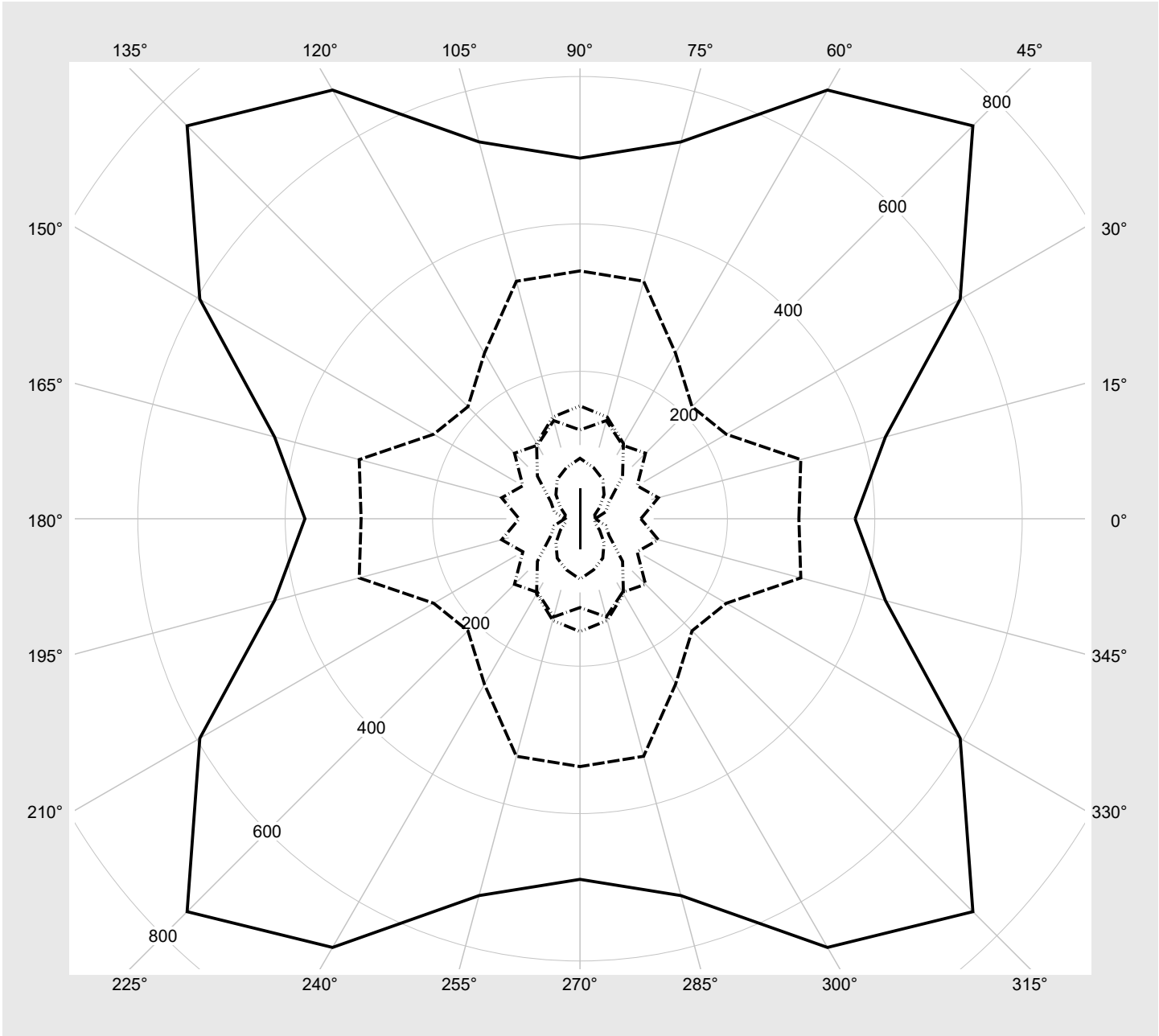
Family Silica® 21			Order number: 51MX12DN49WB EAN: 4069025105127							LP number 59266_232	
UGR-Table			Standard room							siteco	
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Reflection factor of floor	0.2	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	19.0	20.3	19.4	20.6	21.0	18.9	20.2	19.2	20.5	20.8
	3H	18.9	20.0	19.3	20.4	20.7	18.7	19.9	19.1	20.2	20.6
	4H	18.8	19.9	19.2	20.2	20.6	18.7	19.7	19.1	20.1	20.4
	6H	18.8	19.7	19.2	20.1	20.5	18.6	19.5	19.0	19.9	20.3
	8H	18.8	19.6	19.2	20.0	20.4	18.6	19.4	19.1	19.8	20.2
	12H	18.8	19.5	19.2	19.9	20.3	18.6	19.4	19.0	19.7	20.2
4H	2H	18.9	19.9	19.3	20.2	20.6	18.7	19.7	19.1	20.1	20.4
	3H	18.7	19.5	19.1	19.9	20.4	18.5	19.4	19.0	19.8	20.2
	4H	18.6	19.4	19.1	19.8	20.2	18.4	19.2	18.9	19.6	20.0
	6H	18.5	19.2	19.0	19.6	20.1	18.4	19.0	18.8	19.4	19.9
	8H	18.5	19.1	19.0	19.5	20.0	18.3	18.9	18.8	19.3	19.8
	12H	18.5	19.0	19.0	19.4	19.9	18.3	18.8	18.8	19.2	19.7
8H	4H	18.5	19.1	19.0	19.5	20.0	18.3	18.9	18.8	19.3	19.8
	6H	18.4	18.8	18.9	19.3	19.8	18.2	18.7	18.7	19.2	19.7
	8H	18.3	18.7	18.8	19.2	19.8	18.2	18.6	18.7	19.1	19.6
	12H	18.3	18.6	18.8	19.1	19.7	18.1	18.5	18.7	19.0	19.5
12H	4H	18.5	19.0	19.0	19.4	19.9	18.3	18.8	18.8	19.2	19.7
	6H	18.4	18.7	18.9	19.2	19.8	18.2	18.6	18.7	19.1	19.6
	8H	18.3	18.6	18.8	19.1	19.7	18.1	18.5	18.7	19.0	19.5

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 2646 B = 49	
C-planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°
γ	Luminance in cd/m²						
45°	18893.8	19639.4	20224.8	20378.7	19816.4	18686.5	17719.1
50°	6967.4	7515.8	8602.9	9174.9	8765.7	7944.9	7434.7
55°	2040.2	2416.2	3223.4	4082.0	3422.4	2643.9	2274.9
60°	914.5	1022.3	1370.7	1828.8	1475.1	1154.2	1044.6
65°	373.2	429.1	595.7	753.9	671.6	529.3	489.2
70°	297.0	310.2	229.3	215.0	259.3	333.6	336.2
75°	82.6	110.1	89.5	125.7	115.3	137.9	120.5
80°	20.7	20.7	30.7	46.2	61.7	71.7	82.0
85°	20.6	36.1	45.6	81.7	117.8	142.8	153.1

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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		

Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	9720	57.9
95	241	252	9250	55.0
90	227	250	8737	51.9
85	214	248	8261	48.9
80	201	245	7782	46.1
75	188	243	7299	43.3
70	175	240	6814	40.4
65	162	238	6324	37.5
60	149	234	5831	34.6
55	136	231	5333	31.7
50	124	228	4873	29.2
45	111	224	4372	26.5
40	99	219	3906	23.9
35	86	214	3399	21.0
30	74	209	2929	18.3
25	61	202	2417	15.4
20	49	194	1942	12.6
15	37	183	1463	9.8
10	25	169	983	7.0
5	13	145	502	4.4
2	5	110	180	2.8