

Photometric test report

Family Silica® 21	Order number: 51MX24TBT5S EAN: 4058352687413	LP number 59276_129
	Version surface-mounted luminaire, reflector, black, direct distribution, asymmetric distribution, tunable white	serial documentation 03.05.2023
	Lamps LED 4000 K CRI ≥ 80 Controlgear ECG-DALI Setting factory setting Rated values Net luminous flux = 4100 lm Power consumption = 42.6 W Luminous efficacy = 96.2 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
		sITeco

C-planes	0°	15° 345°	30° 330°	45° 315°	60° 300°	75° 285°	90° 270°
γ	Luminous intensity in cd/klm						
0°	661.7	661.7	661.7	661.7	661.7	661.7	661.7
5°	707.6	708.8	701.1	699.3	690.5	675.5	665.7
10°	753.6	757.8	748.0	742.6	724.7	696.1	669.4
15°	787.1	797.8	794.5	785.9	757.5	712.8	665.2
20°	806.6	820.5	826.5	809.8	762.2	699.9	638.5
25°	788.4	808.5	803.3	771.2	718.7	652.8	578.2
30°	753.6	764.4	743.7	689.2	630.6	560.4	502.1
35°	647.7	641.5	628.6	587.6	522.2	450.6	386.5
40°	481.1	487.8	495.5	479.3	412.9	335.0	271.3
45°	342.4	353.2	375.0	376.0	318.8	233.5	172.1
50°	244.7	248.8	274.8	282.8	235.7	157.9	107.9
55°	171.3	177.5	199.4	208.0	176.1	105.7	63.9
60°	115.1	122.4	144.6	155.8	127.0	61.7	29.2
65°	81.5	86.1	102.4	113.9	84.3	29.7	9.5
70°	56.7	63.4	75.3	76.6	47.3	14.7	3.6
75°	29.5	36.2	51.5	39.1	25.8	8.2	1.2
80°	5.4	7.7	15.3	17.0	11.4	3.4	0.5
85°	1.1	1.3	2.4	2.3	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
		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°	661.7	661.7	661.7	661.7	661.7	661.7	4.0	4.0
5°	650.2	639.3	625.2	613.2	610.8	611.4	31.6	35.6
10°	635.2	606.4	576.8	550.6	537.8	533.0	62.6	98.1
15°	612.2	559.4	505.1	459.9	436.0	425.6	90.9	189.1
20°	565.1	489.6	412.9	351.3	314.5	302.5	113.2	302.3
25°	497.5	409.8	322.4	247.7	191.9	168.1	125.1	427.4
30°	412.4	312.9	216.8	129.1	80.3	67.5	124.5	551.9
35°	304.3	218.0	125.8	57.5	28.2	23.1	112.3	664.2
40°	195.6	132.8	62.5	24.4	17.4	16.1	92.9	757.1
45°	117.9	72.0	27.4	15.9	12.0	11.0	72.7	829.8
50°	70.5	38.1	14.7	10.4	7.3	6.2	55.1	884.8
55°	41.0	19.6	9.0	6.3	3.7	3.2	41.1	925.9
60°	17.5	9.3	5.4	3.7	2.8	2.3	29.2	955.1
65°	5.6	4.4	3.2	2.6	1.9	1.3	20.1	975.2
70°	2.1	2.0	1.8	1.4	1.0	0.6	13.6	988.8
75°	0.8	0.9	0.9	0.8	0.6	0.5	8.0	996.8
80°	0.5	0.5	0.5	0.5	0.4	0.4	2.7	999.5
85°	0.4	0.4	0.4	0.4	0.3	0.3	0.5	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									
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	23.8	25.2	24.1	25.5	25.8	19.7	21.1	20.0	21.4	21.7
	3H	24.3	25.5	24.7	25.9	26.2	19.6	20.9	20.0	21.2	21.6
	4H	24.4	25.6	24.8	25.9	26.3	19.6	20.7	20.0	21.1	21.4
	6H	24.4	25.5	24.8	25.8	26.2	19.5	20.5	19.9	20.9	21.3
	8H	24.4	25.4	24.8	25.8	26.2	19.5	20.5	19.9	20.8	21.2
	12H	24.4	25.3	24.9	25.7	26.1	19.5	20.4	19.9	20.8	21.2
4H	2H	24.2	25.3	24.6	25.7	26.0	20.4	21.6	20.8	21.9	22.3
	3H	24.9	25.9	25.4	26.3	26.7	20.6	21.5	21.0	21.9	22.3
	4H	25.2	26.0	25.6	26.4	26.9	20.5	21.4	21.0	21.8	22.2
	6H	25.2	25.9	25.7	26.4	26.8	20.5	21.2	20.9	21.6	22.1
	8H	25.2	25.8	25.6	26.3	26.8	20.5	21.1	20.9	21.6	22.0
	12H	25.2	25.7	25.7	26.2	26.7	20.4	21.0	20.9	21.5	22.0
8H	4H	25.3	25.9	25.7	26.4	26.8	20.8	21.4	21.3	21.9	22.4
	6H	25.3	25.8	25.8	26.3	26.8	20.8	21.3	21.3	21.8	22.3
	8H	25.3	25.7	25.8	26.2	26.7	20.7	21.2	21.2	21.7	22.2
	12H	25.2	25.6	25.8	26.1	26.7	20.7	21.1	21.2	21.6	22.1
12H	4H	25.3	25.8	25.8	26.3	26.8	20.8	21.4	21.3	21.8	22.3
	6H	25.3	25.7	25.8	26.2	26.8	20.8	21.2	21.3	21.7	22.2
	8H	25.3	25.6	25.8	26.1	26.7	20.8	21.1	21.3	21.6	22.2

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/m ²												
45°	27562.9	28428.1	30184.7	30263.3	25666.6	18797.7	13852.3	9489.8	5799.2	2204.0	1276.8	969.2	887.9
50°	21668.8	22034.2	24331.8	25043.2	20871.0	13979.9	9555.8	6242.1	3377.2	1298.8	921.0	647.9	548.0
55°	17000.6	17614.7	19791.0	20642.1	17474.7	10488.0	6337.0	4073.4	1945.7	894.2	625.9	371.6	316.8
60°	13100.4	13932.1	16460.8	17732.5	14462.4	7018.7	3324.5	1989.8	1061.7	617.9	418.9	315.1	267.0
65°	10972.2	11595.1	13794.3	15339.8	11352.4	3997.6	1276.4	758.8	589.3	437.2	343.6	252.9	172.5
70°	9442.1	10551.3	12528.0	12744.8	7864.7	2441.0	596.3	348.7	337.8	298.1	236.7	168.1	101.2
75°	6479.9	7957.8	11329.0	8595.1	5684.8	1807.3	269.8	169.6	200.6	190.9	169.6	141.0	109.7
80°	1765.2	2519.4	5028.4	5576.4	3743.7	1121.1	167.2	149.5	167.2	174.4	167.2	142.3	128.2
85°	709.3	871.9	1595.5	1509.9	510.7	226.6	205.7	241.0	262.5	269.7	255.4	220.1	198.5

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

