

Photometric test report

Family
Silica® 21

Order number: **51MX31TBT9W**
EAN: **4058352685426**

LP number
59310_38



Version Suspended luminaire, reflector, black, direct-/indirect distribution, narrow distribution, $UGR \leq 16$ ($L65 \leq 3000 \text{cd/m}^2$), tunable white

Lamps LED 2700 K | CRI ≥ 80

Controlgear ECG-DALI

Setting individual position

Rated values Net luminous flux = 7770 lm
Power consumption = 75.9 W
Luminous efficacy = 102.4 lm/W

serial
documentation
03.05.2023

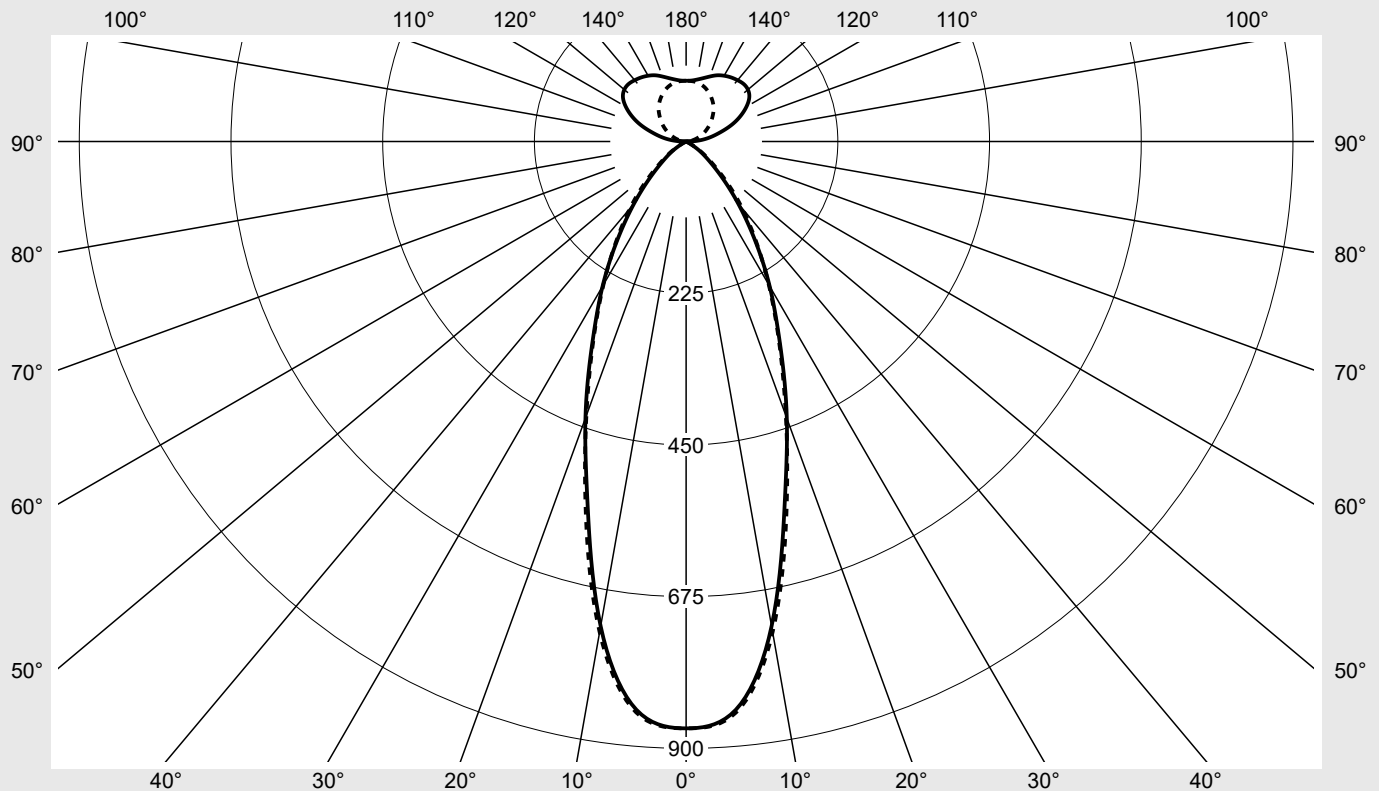
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 870 cd/klm



Classifications

DIN 5040 C 7 2
CIE N1=85 N2=99 N3=100
N4=60 N5=100

Luminaire light output ratios

η_{LB} 100.0%
 ϕ_u 59.6%
 ϕ_o 40.4%

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 γ	0° 180°	15°	30°	45°	60°	75°	90° 270°	Phi-zone	Total Phi-zone
		165° 195° 345°	150° 210° 330°	135° 225° 315°	120° 240° 300°	105° 255° 285°			
Luminous intensity in cd/klm								Luminous flux in lm/klm	
0°	870.3	870.3	870.3	870.3	870.3	870.3	870.3	5.2	5.2
5°	846.0	847.0	846.3	847.4	849.1	850.7	849.9	40.5	45.7
10°	729.9	730.5	735.4	740.2	741.6	737.5	738.7	70.1	115.8
15°	563.5	566.8	573.7	583.4	582.7	575.8	574.3	81.6	197.4
20°	436.6	435.3	429.7	429.7	431.1	427.8	432.4	80.9	278.3
25°	328.9	328.2	319.1	311.5	316.6	319.6	325.6	74.2	352.5
30°	247.8	246.0	233.3	230.7	239.5	241.8	245.2	65.7	418.2
35°	177.2	177.8	169.0	168.0	180.3	183.5	180.9	55.4	473.6
40°	120.1	121.7	120.2	121.8	131.6	132.5	129.5	44.2	517.8
45°	75.2	76.8	78.8	83.5	89.3	88.1	85.7	32.1	549.9
50°	44.3	46.1	49.1	53.4	57.3	54.4	51.5	21.6	571.5
55°	25.2	26.5	29.2	32.4	34.1	31.0	29.0	13.5	585.0
60°	8.3	10.2	15.9	18.3	18.2	12.9	10.8	6.7	591.7
65°	2.5	3.2	5.0	9.4	5.8	3.6	3.2	2.5	594.2
70°	1.1	1.1	1.0	1.8	1.2	1.4	1.5	0.7	594.9
75°	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.2	595.0
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	595.1
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	595.3
90°	5.7	5.5	5.8	5.6	3.2	1.1	0.4	2.2	597.5
95°	20.7	21.1	22.8	21.9	14.5	7.6	3.9	9.1	606.6
100°	36.3	37.4	38.2	34.3	23.7	13.6	9.0	15.3	621.9
105°	52.3	53.6	53.5	47.0	32.7	20.5	15.0	21.3	643.2
110°	71.5	72.2	68.8	58.2	41.9	27.5	21.3	27.0	670.2
115°	88.7	88.3	82.4	68.5	50.8	34.7	28.2	31.7	701.9
120°	103.3	102.0	94.0	77.2	59.3	41.7	35.0	35.1	737.0
125°	114.4	111.6	102.0	85.5	66.7	48.3	42.1	36.8	773.8
130°	119.7	117.2	106.2	90.6	72.3	55.0	49.2	36.8	810.6
135°	120.6	118.1	107.9	93.8	76.4	61.1	56.3	35.3	845.9
140°	118.7	116.7	108.1	95.8	79.5	66.7	63.6	32.8	878.7
145°	116.0	114.8	107.5	96.4	82.4	71.9	69.6	29.6	908.3
150°	112.6	112.0	105.4	95.3	84.5	76.9	75.0	25.9	934.3
155°	108.3	107.8	101.5	94.1	86.0	81.3	79.8	21.8	956.1
160°	102.5	102.2	97.5	92.7	87.4	84.6	84.2	17.4	973.5
165°	97.2	96.6	94.2	91.1	88.8	87.3	87.2	13.0	986.5
170°	93.2	92.7	92.0	90.7	89.7	89.4	89.3	8.7	995.2
175°	90.7	90.6	90.1	89.9	89.9	89.9	89.9	4.3	999.5
180°	90.1	90.1	90.1	90.1	90.1	90.1	90.1	0.5	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	13.9	14.7	14.7	15.5	16.6	14.5	15.3	15.3	16.1	17.2
	3H	13.6	14.3	14.5	15.2	16.3	14.2	15.0	15.1	15.8	16.9
	4H	13.4	14.1	14.3	15.0	16.1	14.1	14.8	15.0	15.6	16.7
	6H	13.2	13.8	14.2	14.7	15.9	13.9	14.5	14.8	15.4	16.5
	8H	13.2	13.7	14.1	14.6	15.8	13.8	14.3	14.7	15.2	16.4
	12H	13.0	13.5	14.0	14.5	15.6	13.7	14.2	14.7	15.1	16.3
4H	2H	13.7	14.3	14.5	15.2	16.3	14.2	14.8	15.1	15.7	16.8
	3H	13.4	13.9	14.3	14.8	16.0	13.9	14.5	14.8	15.4	16.5
	4H	13.2	13.7	14.2	14.6	15.8	13.8	14.3	14.7	15.2	16.4
	6H	13.0	13.5	14.0	14.4	15.6	13.6	14.1	14.6	15.0	16.2
	8H	13.0	13.3	13.9	14.3	15.5	13.6	13.9	14.5	14.9	16.1
	12H	12.8	13.2	13.8	14.1	15.4	13.4	13.8	14.4	14.7	16.0
8H	4H	13.0	13.4	13.9	14.3	15.5	13.5	13.9	14.5	14.9	16.1
	6H	12.8	13.2	13.8	14.1	15.3	13.4	13.7	14.3	14.6	15.9
	8H	12.7	13.0	13.7	14.0	15.2	13.3	13.6	14.3	14.6	15.8
	12H	12.6	12.9	13.6	13.9	15.1	13.2	13.4	14.2	14.4	15.7
12H	4H	12.9	13.2	13.9	14.2	15.4	13.4	13.7	14.4	14.7	15.9
	6H	12.7	13.0	13.7	14.0	15.2	13.3	13.5	14.3	14.5	15.8
	8H	12.6	12.9	13.6	13.9	15.1	13.2	13.4	14.2	14.4	15.7

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 1470 B = 49		
C-planes	γ	Luminance in cd/m ²						
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°
45°		11474.0	11721.3	12017.3	12739.6	13620.0	13445.3	13076.3
50°		7438.9	7736.1	8247.4	8962.0	9607.6	9129.8	8639.8
55°		4739.9	4991.3	5489.7	6088.3	6405.1	5836.1	5459.3
60°		1793.9	2204.9	3435.3	3941.0	3927.6	2792.4	2335.6
65°		638.4	807.6	1266.0	2392.9	1473.3	918.4	827.0
70°		338.4	360.2	305.3	579.4	393.0	455.4	474.4
75°		89.6	125.5	123.4	163.4	163.4	162.5	133.0
80°		32.3	35.4	42.2	50.9	64.0	77.7	77.7
85°		505.0	506.2	500.0	476.5	459.2	465.4	474.0

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

