

Photometric test report

Family
Silica® 21



Order number: 51MX30DC39SB
EAN: 4058352892688

LP number
59413_67

serial
documentation
02.08.2023

Version Suspended luminaire, with homogeneous illumination, cover, opal, direct-/ indirect distribution, extremely wide distribution, $UGR \leq 25$

Lamps LED 3000 K | CRI ≥ 80

Controlgear ECG-DALI

Rated values Net luminous flux = 10520 lm
Power consumption = 68.3 W
Luminous efficacy = 154 lm/W

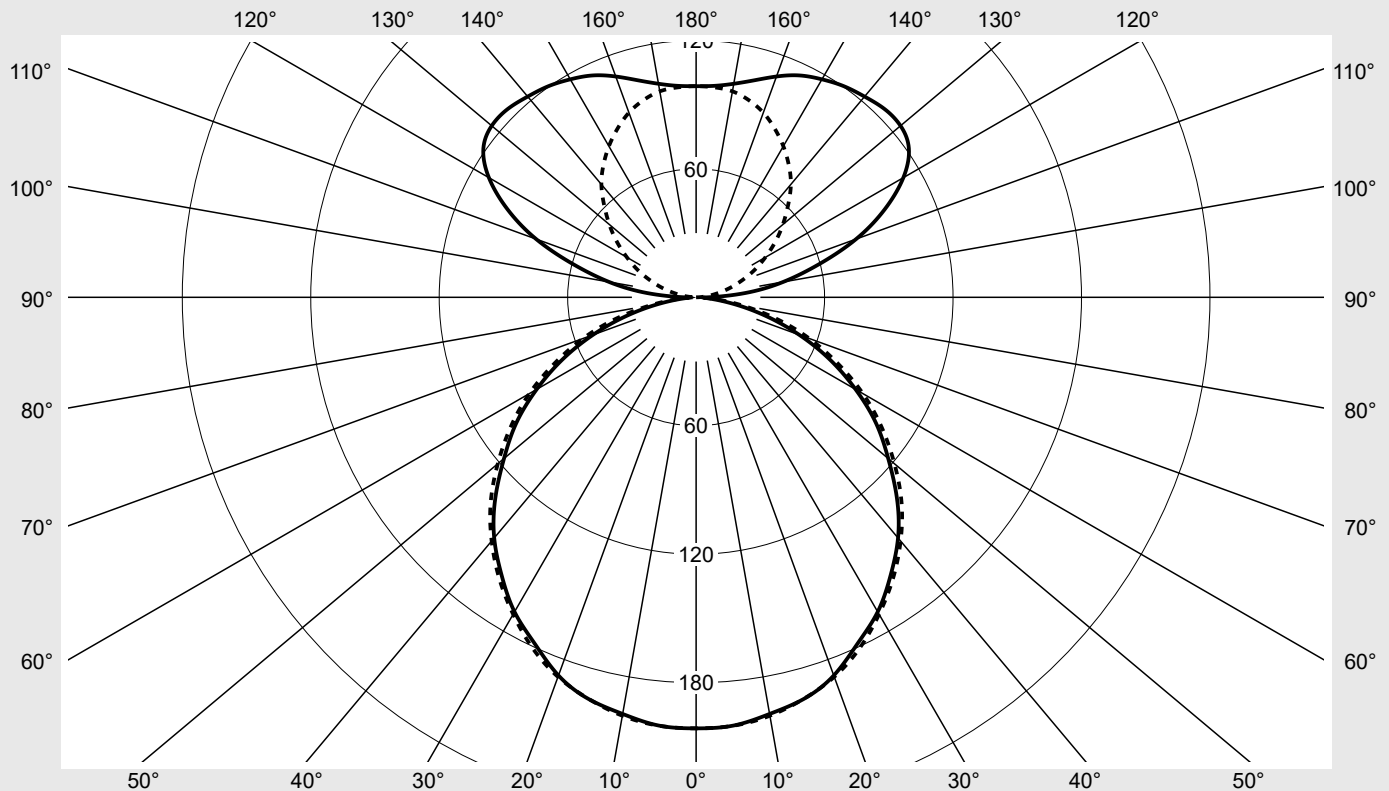
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 201 cd/klm



Classifications

DIN 5040 C 4 2
CIE N1=47 N2=79 N3=96
N4=57 N5=100

Luminaire light output ratios

η_{LB} 100.0%
 ϕ_u 57.0%
 ϕ_o 43.0%

Measurement conditions

DIN EN 13032 and DIN 5032

Photometric test report

| | | |
|---|--|-----------------------------------|
| Family Silica® 21 | Order number: 51MX30DC39SB EAN: 4058352892688 | LP number 59413_67 |
| 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° | 201.3 | 201.3 | 201.3 | 201.3 | 201.3 | 201.3 | 201.3 | 1.2 | 1.2 |
| 5° | 200.8 | 201.1 | 200.5 | 200.6 | 200.7 | 201.0 | 200.8 | 9.6 | 10.8 |
| 10° | 197.6 | 197.2 | 197.1 | 197.6 | 198.5 | 197.9 | 198.4 | 18.8 | 29.6 |
| 15° | 194.2 | 193.6 | 192.5 | 193.4 | 194.0 | 194.3 | 194.2 | 27.5 | 57.1 |
| 20° | 188.0 | 187.6 | 186.2 | 187.1 | 187.3 | 187.7 | 188.7 | 35.1 | 92.2 |
| 25° | 178.4 | 178.6 | 177.9 | 178.8 | 179.9 | 179.8 | 180.8 | 41.5 | 133.7 |
| 30° | 169.6 | 169.4 | 168.2 | 169.6 | 170.9 | 170.8 | 170.9 | 46.6 | 180.3 |
| 35° | 158.4 | 158.6 | 157.6 | 158.2 | 158.8 | 159.6 | 160.3 | 49.9 | 230.1 |
| 40° | 146.7 | 146.4 | 146.5 | 146.2 | 147.1 | 147.3 | 148.6 | 51.7 | 281.9 |
| 45° | 132.6 | 132.7 | 133.0 | 133.0 | 133.6 | 133.9 | 135.7 | 51.7 | 333.6 |
| 50° | 117.1 | 118.0 | 118.4 | 118.9 | 120.0 | 120.2 | 120.9 | 50.0 | 383.6 |
| 55° | 102.6 | 102.7 | 103.4 | 103.9 | 104.8 | 104.8 | 105.8 | 46.7 | 430.3 |
| 60° | 86.0 | 86.4 | 86.9 | 87.2 | 88.6 | 88.7 | 90.0 | 41.6 | 471.9 |
| 65° | 69.1 | 69.7 | 70.6 | 71.5 | 72.2 | 72.9 | 72.9 | 35.4 | 507.3 |
| 70° | 51.3 | 52.3 | 52.8 | 54.1 | 55.2 | 55.9 | 56.2 | 27.8 | 535.1 |
| 75° | 33.8 | 34.6 | 35.2 | 36.4 | 37.6 | 38.6 | 38.9 | 19.3 | 554.4 |
| 80° | 17.8 | 18.1 | 18.7 | 19.5 | 20.7 | 21.6 | 21.9 | 10.7 | 565.1 |
| 85° | 5.8 | 6.0 | 6.3 | 6.7 | 7.3 | 8.0 | 8.2 | 3.8 | 568.8 |
| 90° | 5.3 | 5.2 | 5.5 | 5.5 | 3.6 | 1.7 | 1.1 | 2.3 | 571.1 |
| 95° | 23.1 | 23.6 | 25.3 | 23.9 | 15.3 | 7.9 | 4.1 | 10.0 | 581.1 |
| 100° | 41.3 | 42.4 | 42.7 | 37.4 | 25.1 | 14.2 | 9.3 | 16.8 | 597.9 |
| 105° | 59.2 | 60.4 | 59.2 | 50.6 | 34.6 | 21.4 | 15.7 | 23.3 | 621.2 |
| 110° | 79.5 | 79.8 | 74.8 | 62.3 | 44.4 | 29.0 | 22.5 | 29.3 | 650.4 |
| 115° | 97.2 | 96.3 | 88.8 | 73.1 | 53.8 | 36.6 | 30.0 | 34.1 | 684.6 |
| 120° | 111.8 | 110.0 | 100.3 | 81.8 | 62.6 | 44.0 | 37.3 | 37.4 | 722.0 |
| 125° | 121.3 | 118.0 | 107.2 | 89.8 | 70.0 | 51.0 | 45.1 | 38.9 | 760.9 |
| 130° | 124.6 | 121.9 | 110.5 | 94.5 | 75.7 | 58.3 | 52.9 | 38.5 | 799.3 |
| 135° | 124.4 | 121.9 | 111.7 | 97.7 | 80.2 | 65.0 | 60.7 | 36.8 | 836.1 |
| 140° | 122.4 | 120.5 | 112.1 | 100.0 | 84.0 | 71.4 | 68.8 | 34.3 | 870.4 |
| 145° | 120.4 | 119.1 | 112.0 | 101.3 | 87.5 | 77.3 | 75.5 | 31.2 | 901.5 |
| 150° | 117.6 | 117.1 | 110.8 | 101.2 | 90.4 | 83.0 | 81.5 | 27.5 | 929.0 |
| 155° | 114.3 | 114.0 | 108.0 | 100.7 | 92.6 | 88.1 | 86.9 | 23.3 | 952.4 |
| 160° | 109.8 | 109.5 | 104.7 | 99.9 | 94.6 | 92.0 | 91.8 | 18.8 | 971.2 |
| 165° | 104.9 | 104.4 | 101.9 | 98.7 | 96.5 | 95.2 | 95.3 | 14.1 | 985.3 |
| 170° | 101.3 | 100.8 | 100.1 | 98.8 | 97.8 | 97.7 | 97.7 | 9.4 | 994.7 |
| 175° | 99.2 | 99.0 | 98.5 | 98.3 | 98.4 | 98.4 | 98.4 | 4.7 | 999.4 |
| 180° | 98.6 | 98.6 | 98.6 | 98.6 | 98.6 | 98.6 | 98.6 | 0.6 | 1000.0 |

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| UGR-Table | Standard room | siteco |
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| | | | | | | | | | | | |
|------------------------------|---------------------|------|------|------|------|--------------------|------|------|------|------|------|
| 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 | 18.5 | 19.5 | 19.3 | 20.4 | 21.5 | 18.7 | 19.7 | 19.5 | 20.5 | 21.6 |
| | 3H | 19.9 | 20.8 | 20.7 | 21.7 | 22.8 | 20.2 | 21.1 | 21.0 | 22.0 | 23.1 |
| | 4H | 20.4 | 21.2 | 21.2 | 22.1 | 23.2 | 20.8 | 21.6 | 21.6 | 22.5 | 23.6 |
| | 6H | 20.6 | 21.4 | 21.5 | 22.3 | 23.4 | 21.1 | 21.9 | 22.0 | 22.8 | 24.0 |
| | 8H | 20.6 | 21.3 | 21.5 | 22.3 | 23.4 | 21.1 | 21.8 | 22.0 | 22.8 | 23.9 |
| | 12H | 20.6 | 21.2 | 21.5 | 22.2 | 23.4 | 21.2 | 21.8 | 22.1 | 22.8 | 24.0 |
| 4H | 2H | 19.1 | 20.0 | 20.0 | 20.8 | 22.0 | 19.2 | 20.0 | 20.0 | 20.9 | 22.0 |
| | 3H | 20.7 | 21.4 | 21.6 | 22.3 | 23.5 | 20.9 | 21.6 | 21.8 | 22.5 | 23.7 |
| | 4H | 21.2 | 21.9 | 22.2 | 22.8 | 24.0 | 21.6 | 22.2 | 22.5 | 23.2 | 24.3 |
| | 6H | 21.6 | 22.1 | 22.5 | 23.1 | 24.3 | 22.0 | 22.6 | 23.0 | 23.5 | 24.7 |
| | 8H | 21.6 | 22.1 | 22.6 | 23.1 | 24.3 | 22.1 | 22.7 | 23.1 | 23.6 | 24.8 |
| | 12H | 21.6 | 22.0 | 22.6 | 23.0 | 24.3 | 22.2 | 22.6 | 23.1 | 23.6 | 24.8 |
| 8H | 4H | 21.4 | 21.9 | 22.4 | 22.9 | 24.1 | 21.7 | 22.2 | 22.6 | 23.2 | 24.4 |
| | 6H | 21.9 | 22.3 | 22.8 | 23.3 | 24.5 | 22.3 | 22.7 | 23.2 | 23.6 | 24.9 |
| | 8H | 22.0 | 22.3 | 23.0 | 23.3 | 24.6 | 22.5 | 22.8 | 23.5 | 23.8 | 25.1 |
| | 12H | 22.0 | 22.3 | 23.0 | 23.3 | 24.6 | 22.6 | 22.9 | 23.6 | 23.9 | 25.1 |
| 12H | 4H | 21.4 | 21.8 | 22.3 | 22.8 | 24.0 | 21.6 | 22.1 | 22.6 | 23.0 | 24.3 |
| | 6H | 21.9 | 22.2 | 22.8 | 23.2 | 24.5 | 22.3 | 22.6 | 23.2 | 23.6 | 24.9 |
| | 8H | 22.0 | 22.3 | 23.0 | 23.3 | 24.6 | 22.5 | 22.8 | 23.5 | 23.8 | 25.1 |

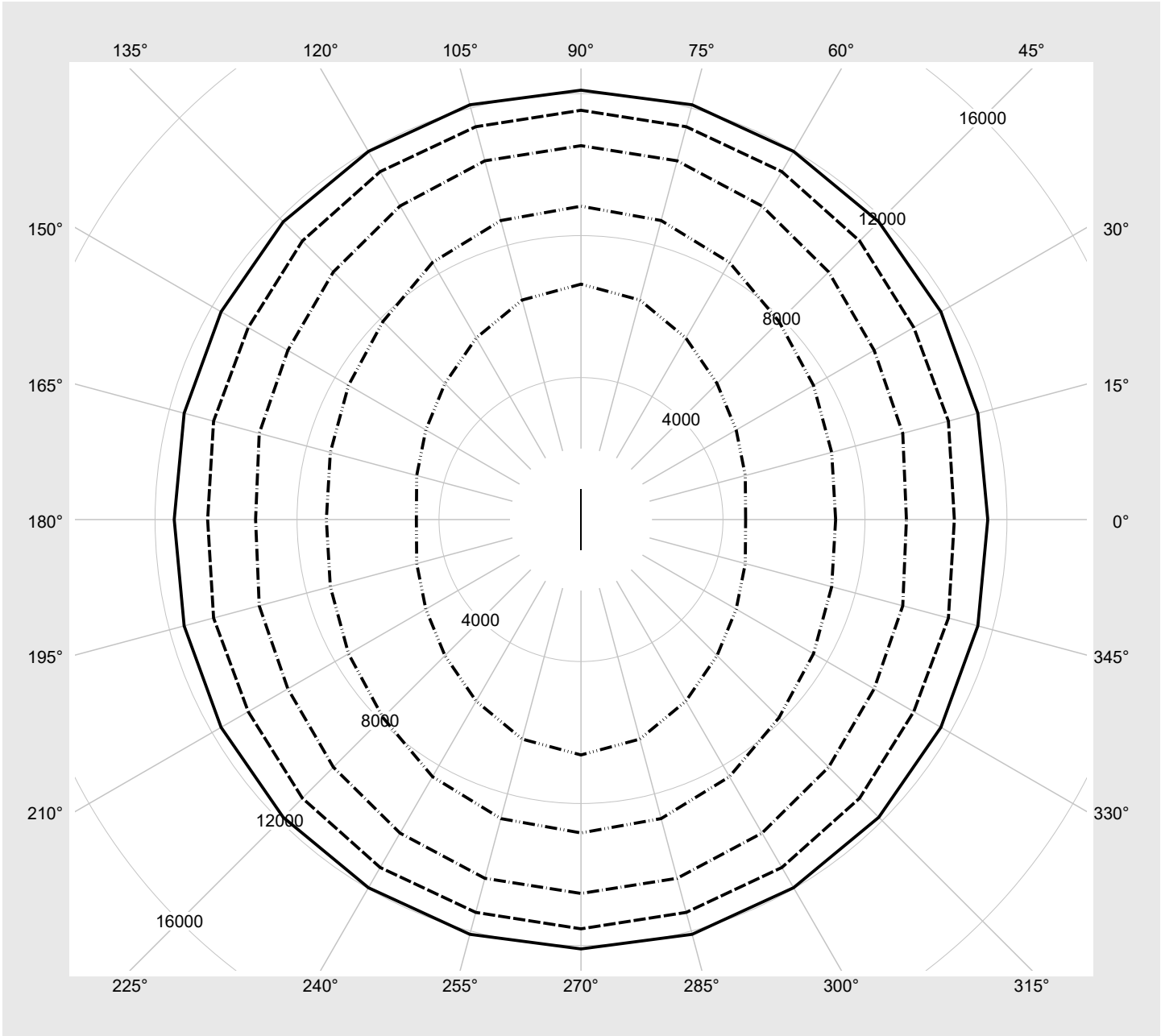
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|------------------------|---|--------------------------------------|----------------------------------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: | L = 3000 B = 50 |
|------------------------|---|--------------------------------------|----------------------------------|

| 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° | | 13156.1 | 13164.1 | 13188.9 | 13190.6 | 13249.1 | 13284.1 | 13460.3 | |
| 50° | | 12780.6 | 12877.8 | 12914.4 | 12969.0 | 13089.2 | 13112.0 | 13193.9 | |
| 55° | | 12549.0 | 12562.9 | 12638.5 | 12701.4 | 12818.4 | 12819.4 | 12936.6 | |
| 60° | | 12066.4 | 12114.6 | 12184.8 | 12232.9 | 12427.8 | 12444.3 | 12617.4 | |
| 65° | | 11460.1 | 11574.8 | 11708.2 | 11863.9 | 11977.2 | 12097.6 | 12096.9 | |
| 70° | | 10518.8 | 10716.2 | 10825.3 | 11101.1 | 11318.7 | 11458.1 | 11530.9 | |
| 75° | | 9167.9 | 9384.9 | 9536.9 | 9866.7 | 10199.5 | 10464.2 | 10534.1 | |
| 80° | | 7174.2 | 7311.5 | 7563.1 | 7890.6 | 8365.6 | 8722.2 | 8828.9 | |
| 85° | | 4638.2 | 4791.9 | 5048.6 | 5421.2 | 5907.2 | 6403.7 | 6632.3 | |

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



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| Dimming levels table | environmental temperature: 25°C | sITeco |
|-----------------------------|---------------------------------|---------------|

| Luminous flux % | Dimming level linear | Dimming level logarithmic | Luminous flux [lm] | Power consumption [W] |
|-----------------|----------------------|---------------------------|--------------------|-----------------------|
| 100 | 254 | 254 | 10520 | 68.3 |
| 95 | 241 | 252 | 9994 | 64.6 |
| 90 | 228 | 250 | 9471 | 61.4 |
| 85 | 215 | 248 | 8945 | 58.2 |
| 80 | 202 | 246 | 8417 | 55.0 |
| 75 | 189 | 243 | 7887 | 51.5 |
| 70 | 176 | 241 | 7355 | 48.4 |
| 65 | 163 | 238 | 6821 | 45.0 |
| 60 | 151 | 235 | 6326 | 42.0 |
| 55 | 138 | 232 | 5788 | 38.8 |
| 50 | 125 | 228 | 5248 | 35.4 |
| 45 | 113 | 224 | 4748 | 32.5 |
| 40 | 100 | 220 | 4206 | 28.8 |
| 35 | 87 | 215 | 3661 | 25.6 |
| 30 | 75 | 209 | 3152 | 22.4 |
| 25 | 63 | 203 | 2646 | 19.3 |
| 20 | 50 | 194 | 2096 | 16.0 |
| 15 | 38 | 184 | 1587 | 12.8 |
| 10 | 25 | 169 | 1034 | 9.3 |
| 5 | 13 | 145 | 521 | 5.9 |
| 3 | 8 | 127 | 307 | 4.0 |