

Photometric test report

Family
Silica® 21

Order number: 51MX33TBT9B
EAN: 4058352685624

LP number
59332_65



Version Suspended luminaire, with homogeneous illumination, prismatic cover, direct-/ indirect distribution, extremely wide distribution, UGR≤16 (L65≤3000cd/m²), tunable white

Lamps LED 2700 K | CRI ≥ 80

Controlgear ECG-DALI

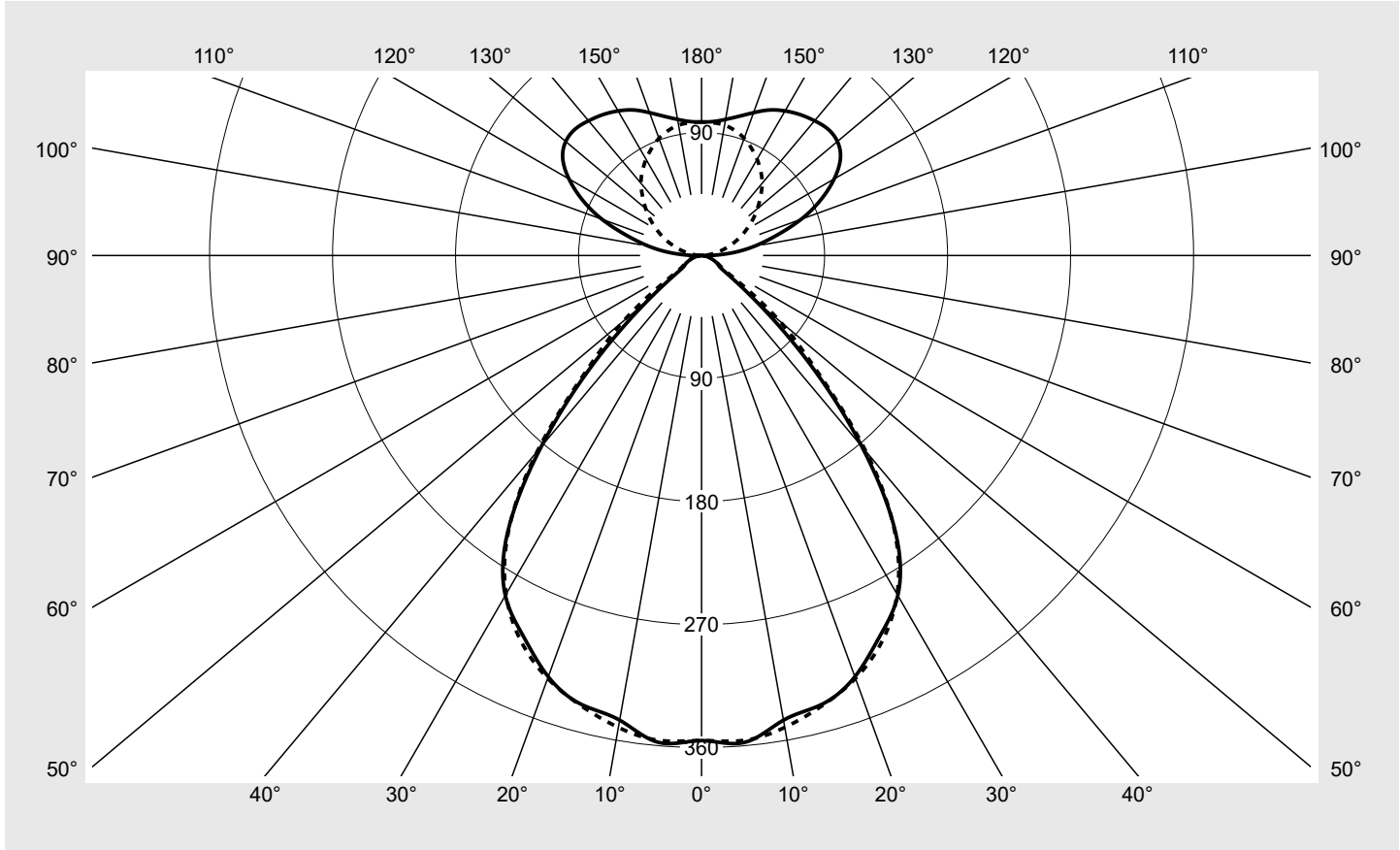
Setting individual position

Rated values Net luminous flux = 7170 lm
Power consumption = 76.3 W
Luminous efficacy = 94 lm/W

serial documentation
03.05.2023



Luminous intensity in cd/klm C180-0 C270-90 **Imax: 358 cd/klm**



Classifications


| | |
|----------|-----------------------------------|
| DIN 5040 | C 6 2 |
| CIE | N1=78 N2=96 N3=99 N4=56 N5=100 |

Luminaire light output ratios

| | |
|-------------|--------|
| η_{LB} | 100.0% |
| ϕ_u | 56.2% |
| ϕ_o | 43.8% |

Measurement conditions
DIN EN 13032 and DIN 5032

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|--|---|---|
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| Table of values for luminous intensities | |  |
| Maximum luminous intensity | | |

| 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° | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 354.9 | 2.1 | 2.1 |
| 5° | 357.6 | 358.3 | 358.1 | 358.3 | 357.8 | 357.0 | 356.1 | 17.1 | 19.2 |
| 10° | 345.2 | 344.3 | 344.5 | 346.4 | 350.1 | 350.3 | 350.6 | 33.1 | 52.3 |
| 15° | 340.0 | 338.8 | 336.2 | 336.1 | 338.1 | 341.2 | 341.0 | 48.0 | 100.3 |
| 20° | 328.0 | 327.2 | 323.2 | 324.1 | 322.5 | 324.8 | 329.3 | 60.9 | 161.2 |
| 25° | 307.9 | 308.7 | 306.4 | 306.5 | 306.8 | 306.6 | 312.0 | 71.2 | 232.5 |
| 30° | 287.2 | 287.0 | 283.4 | 284.9 | 285.2 | 284.2 | 286.2 | 78.2 | 310.6 |
| 35° | 247.5 | 247.0 | 244.6 | 246.0 | 246.7 | 245.6 | 246.4 | 77.4 | 388.0 |
| 40° | 182.5 | 182.1 | 183.5 | 184.7 | 186.1 | 185.9 | 187.0 | 65.0 | 453.0 |
| 45° | 111.7 | 111.4 | 112.8 | 114.1 | 115.4 | 116.9 | 119.1 | 44.3 | 497.3 |
| 50° | 52.4 | 60.7 | 68.3 | 62.5 | 56.3 | 66.9 | 74.7 | 26.5 | 523.8 |
| 55° | 21.3 | 28.6 | 27.1 | 30.9 | 23.3 | 32.2 | 30.0 | 12.6 | 536.4 |
| 60° | 14.3 | 14.9 | 15.7 | 14.6 | 14.6 | 15.6 | 16.3 | 7.2 | 543.6 |
| 65° | 11.8 | 11.7 | 12.2 | 11.9 | 12.4 | 12.3 | 12.4 | 6.0 | 549.6 |
| 70° | 8.5 | 8.7 | 9.0 | 9.0 | 9.2 | 9.3 | 9.8 | 4.7 | 554.2 |
| 75° | 5.9 | 6.2 | 6.8 | 6.5 | 6.6 | 7.0 | 7.1 | 3.5 | 557.7 |
| 80° | 3.6 | 3.8 | 4.2 | 4.6 | 4.2 | 4.7 | 4.8 | 2.3 | 560.0 |
| 85° | 1.8 | 1.8 | 1.8 | 2.1 | 2.2 | 2.6 | 2.7 | 1.2 | 561.2 |
| 90° | 6.2 | 6.0 | 6.3 | 6.0 | 3.5 | 1.2 | 0.4 | 2.4 | 563.6 |
| 95° | 22.4 | 22.9 | 24.7 | 23.8 | 15.7 | 8.2 | 4.2 | 9.9 | 573.5 |
| 100° | 39.4 | 40.6 | 41.5 | 37.2 | 25.7 | 14.7 | 9.7 | 16.6 | 590.1 |
| 105° | 56.7 | 58.1 | 58.0 | 51.0 | 35.4 | 22.2 | 16.2 | 23.0 | 613.1 |
| 110° | 77.6 | 78.3 | 74.6 | 63.1 | 45.4 | 29.8 | 23.1 | 29.3 | 642.4 |
| 115° | 96.2 | 95.7 | 89.3 | 74.3 | 55.1 | 37.6 | 30.6 | 34.4 | 676.8 |
| 120° | 112.0 | 110.6 | 101.9 | 83.7 | 64.3 | 45.2 | 37.9 | 38.0 | 714.8 |
| 125° | 124.0 | 121.0 | 110.5 | 92.7 | 72.3 | 52.4 | 45.6 | 39.9 | 754.8 |
| 130° | 129.8 | 127.1 | 115.2 | 98.2 | 78.4 | 59.6 | 53.3 | 39.9 | 794.7 |
| 135° | 130.8 | 128.1 | 117.0 | 101.7 | 82.9 | 66.3 | 61.0 | 38.2 | 832.9 |
| 140° | 128.7 | 126.6 | 117.2 | 103.9 | 86.2 | 72.4 | 69.0 | 35.5 | 868.4 |
| 145° | 125.8 | 124.5 | 116.6 | 104.5 | 89.3 | 78.0 | 75.4 | 32.1 | 900.6 |
| 150° | 122.1 | 121.5 | 114.3 | 103.4 | 91.6 | 83.4 | 81.3 | 28.1 | 928.7 |
| 155° | 117.5 | 116.9 | 110.1 | 102.0 | 93.3 | 88.1 | 86.5 | 23.6 | 952.4 |
| 160° | 111.2 | 110.8 | 105.7 | 100.5 | 94.8 | 91.7 | 91.2 | 18.9 | 971.3 |
| 165° | 105.4 | 104.8 | 102.1 | 98.7 | 96.3 | 94.6 | 94.6 | 14.1 | 985.4 |
| 170° | 101.1 | 100.5 | 99.8 | 98.3 | 97.2 | 96.9 | 96.9 | 9.4 | 994.7 |
| 175° | 98.4 | 98.3 | 97.7 | 97.5 | 97.5 | 97.5 | 97.5 | 4.7 | 999.4 |
| 180° | 97.7 | 97.7 | 97.7 | 97.7 | 97.7 | 97.7 | 97.7 | 0.6 | 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 | 15.4 | 16.3 | 16.3 | 17.2 | 18.3 | 15.6 | 16.5 | 16.5 | 17.4 | 18.5 |
| | 3H | 15.3 | 16.1 | 16.2 | 17.0 | 18.1 | 15.6 | 16.4 | 16.5 | 17.3 | 18.4 |
| | 4H | 15.3 | 16.0 | 16.2 | 16.9 | 18.1 | 15.6 | 16.3 | 16.5 | 17.2 | 18.4 |
| | 6H | 15.2 | 15.8 | 16.1 | 16.8 | 17.9 | 15.6 | 16.2 | 16.5 | 17.1 | 18.3 |
| | 8H | 15.1 | 15.7 | 16.1 | 16.7 | 17.9 | 15.5 | 16.0 | 16.4 | 17.0 | 18.2 |
| | 12H | 15.0 | 15.6 | 16.0 | 16.5 | 17.8 | 15.5 | 16.0 | 16.4 | 17.0 | 18.2 |
| 4H | 2H | 15.2 | 15.9 | 16.1 | 16.8 | 17.9 | 15.3 | 16.0 | 16.2 | 16.9 | 18.1 |
| | 3H | 15.2 | 15.8 | 16.1 | 16.7 | 17.9 | 15.4 | 16.0 | 16.3 | 16.9 | 18.1 |
| | 4H | 15.2 | 15.7 | 16.1 | 16.7 | 17.9 | 15.4 | 16.0 | 16.4 | 16.9 | 18.1 |
| | 6H | 15.2 | 15.6 | 16.1 | 16.6 | 17.8 | 15.5 | 15.9 | 16.5 | 16.9 | 18.1 |
| | 8H | 15.1 | 15.5 | 16.1 | 16.5 | 17.8 | 15.5 | 15.9 | 16.5 | 16.9 | 18.1 |
| | 12H | 15.1 | 15.4 | 16.0 | 16.4 | 17.7 | 15.5 | 15.9 | 16.5 | 16.8 | 18.1 |
| 8H | 4H | 15.1 | 15.5 | 16.0 | 16.4 | 17.7 | 15.3 | 15.7 | 16.2 | 16.6 | 17.9 |
| | 6H | 15.1 | 15.5 | 16.1 | 16.5 | 17.7 | 15.4 | 15.7 | 16.4 | 16.7 | 18.0 |
| | 8H | 15.1 | 15.4 | 16.1 | 16.4 | 17.7 | 15.5 | 15.8 | 16.5 | 16.8 | 18.1 |
| | 12H | 15.1 | 15.3 | 16.1 | 16.3 | 17.6 | 15.6 | 15.8 | 16.6 | 16.8 | 18.1 |
| 12H | 4H | 15.0 | 15.3 | 16.0 | 16.3 | 17.6 | 15.2 | 15.5 | 16.2 | 16.5 | 17.8 |
| | 6H | 15.1 | 15.3 | 16.1 | 16.3 | 17.6 | 15.3 | 15.6 | 16.4 | 16.6 | 17.9 |
| | 8H | 15.1 | 15.3 | 16.1 | 16.3 | 17.6 | 15.4 | 15.7 | 16.5 | 16.7 | 18.0 |

| | | | |
|------------------------|---|--------------------------------------|----------------------------------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: | L = 1500 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° | | 15096.2 | 15063.4 | 15252.6 | 15432.3 | 15599.4 | 15798.5 | 16107.6 | |
| 50° | | 7796.1 | 9031.8 | 10157.0 | 9295.6 | 8377.2 | 9949.3 | 11106.9 | |
| 55° | | 3544.6 | 4774.7 | 4510.2 | 5152.5 | 3891.5 | 5373.6 | 4994.7 | |
| 60° | | 2743.3 | 2847.0 | 3009.3 | 2789.4 | 2799.7 | 2977.6 | 3112.2 | |
| 65° | | 2665.2 | 2644.4 | 2750.2 | 2683.1 | 2796.8 | 2792.5 | 2813.1 | |
| 70° | | 2384.3 | 2429.0 | 2527.4 | 2527.1 | 2567.1 | 2596.4 | 2730.3 | |
| 75° | | 2189.3 | 2272.4 | 2504.0 | 2391.3 | 2446.7 | 2571.6 | 2633.6 | |
| 80° | | 1977.5 | 2094.8 | 2310.6 | 2514.9 | 2332.6 | 2602.4 | 2664.6 | |
| 85° | | 1922.8 | 1949.2 | 2026.0 | 2345.1 | 2462.5 | 2817.9 | 2937.5 | |

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Luminance values in cd/m²

γ 65°
 γ 70°
 γ 75°
 γ 80°
 γ 85°

