

# Photometric test report

**Family**  
Silica® 21

**Order number: 51MX33TAT7B**  
**EAN: 4058352685563**

**LP number**  
**59332\_57**



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

**Lamps** LED 4000 K | CRI ≥ 80

**Controlgear** ECG-DALI

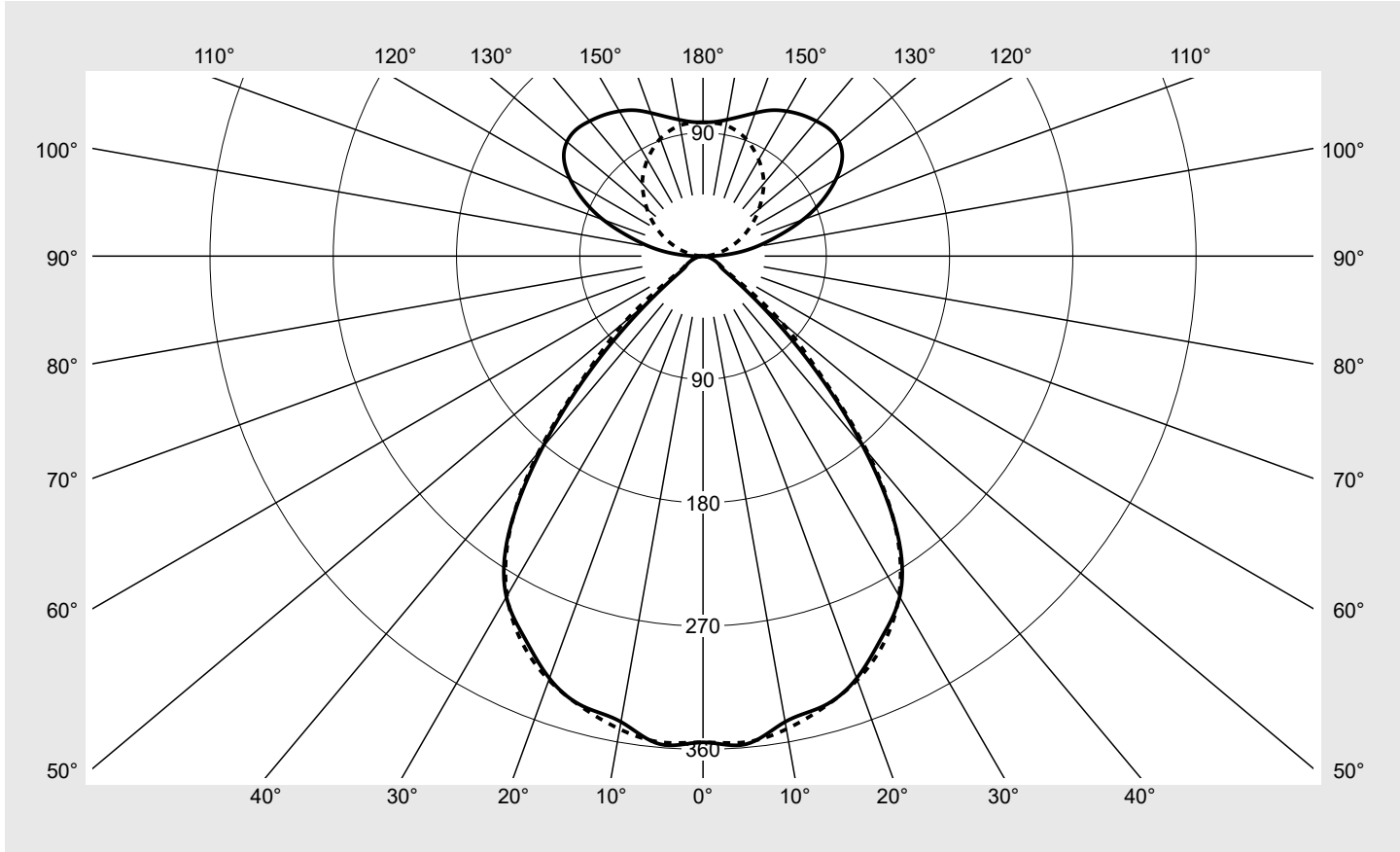
**Setting** factory setting

**Rated values** Net luminous flux = 5740 lm  
Power consumption = 56.5 W  
Luminous efficacy = 101.6 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<br>N4=56 N5=100 |

**Luminaire light output ratios**

|             |        |
|-------------|--------|
| $\eta_{LB}$ | 100.0% |
| $\phi_u$    | 56.2%  |
| $\phi_o$    | 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<br>$\gamma$         | 0°<br>180° | 15°                  | 30°                  | 45°                  | 60°                  | 75°                  | 90°<br>270° | Phi-zone                | Total<br>Phi-zone |
|------------------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------|-------------------------|-------------------|
|                              |            | 165°<br>195°<br>345° | 150°<br>210°<br>330° | 135°<br>225°<br>315° | 120°<br>240°<br>300° | 105°<br>255°<br>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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|-----------------------------|---|------------------------------|

|                  |                      |               |
|------------------|----------------------|---------------|
| <b>UGR-Table</b> | <b>Standard room</b> | <b>siteco</b> |
|------------------|----------------------|---------------|

|                              |                     |      |      |      |      |                    |      |      |      |      |      |
|------------------------------|---------------------|------|------|------|------|--------------------|------|------|------|------|------|
| 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 | 16.1 | 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 |

|                        |   |                                      |                                  |
|------------------------|---|--------------------------------------|----------------------------------|
| <b>Luminance table</b> | <b>Max. for <math>\gamma \geq 65^\circ</math></b> | <b>Photometric dimensions in mm:</b> | <b>L = 1200</b><br><b>B = 50</b> |
|------------------------|---|--------------------------------------|----------------------------------|

| C-planes | $\gamma$ | Luminance in cd/m <sup>2</sup> |                             |                             |                             |                             |                             |             |  |
|----------|----------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|--|
|          |          | 0°<br>180°                     | 15°<br>165°<br>195°<br>345° | 30°<br>150°<br>210°<br>330° | 45°<br>135°<br>225°<br>315° | 60°<br>120°<br>240°<br>300° | 75°<br>105°<br>255°<br>285° | 90°<br>270° |  |
| 45°      |          | 15106.7                        | 15074.0                     | 15263.2                     | 15443.0                     | 15610.3                     | 15809.5                     | 16118.8     |  |
| 50°      |          | 7801.6                         | 9038.1                      | 10164.1                     | 9302.1                      | 8383.0                      | 9956.2                      | 11114.7     |  |
| 55°      |          | 3547.1                         | 4778.0                      | 4513.3                      | 5156.1                      | 3894.2                      | 5377.3                      | 4998.2      |  |
| 60°      |          | 2745.3                         | 2849.0                      | 3011.4                      | 2791.4                      | 2801.7                      | 2979.6                      | 3114.3      |  |
| 65°      |          | 2667.1                         | 2646.2                      | 2752.2                      | 2684.9                      | 2798.8                      | 2794.5                      | 2815.1      |  |
| 70°      |          | 2385.9                         | 2430.7                      | 2529.1                      | 2528.9                      | 2568.9                      | 2598.2                      | 2732.2      |  |
| 75°      |          | 2190.8                         | 2273.9                      | 2505.7                      | 2393.0                      | 2448.4                      | 2573.3                      | 2635.4      |  |
| 80°      |          | 1978.9                         | 2096.3                      | 2312.2                      | 2516.6                      | 2334.3                      | 2604.2                      | 2666.5      |  |
| 85°      |          | 1924.2                         | 1950.5                      | 2027.4                      | 2346.8                      | 2464.2                      | 2819.9                      | 2939.5      |  |

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|                                    |   |                                     |
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|------------------------------------|---|-------------------------------------|



**Luminance values in cd/m<sup>2</sup>**

|              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|
| $\gamma$ 65° | $\gamma$ 70° | $\gamma$ 75° | $\gamma$ 80° | $\gamma$ 85° |
|--------------|--------------|--------------|--------------|--------------|

