

## Photometric test report

Family  
**Silica® 21**

Order number: **51MX23TAT4W**  
EAN: **4058352683798**

LP number  
**59330\_99**



**Version** surface-mounted luminaire, with homogeneous illumination, prismatic cover, direct distribution, extremely wide distribution,  $UGR \leq 19$  ( $L65 \leq 3000 \text{ cd/m}^2$ ), tunable white

**Lamps** LED 2700 K | CRI  $\geq 80$

**Controlgear** ECG-DALI

**Setting** individual position

**Rated values** Net luminous flux = 3230 lm  
Power consumption = 36.9 W  
Luminous efficacy = 87.5 lm/W

serial  
documentation  
**03.05.2023**

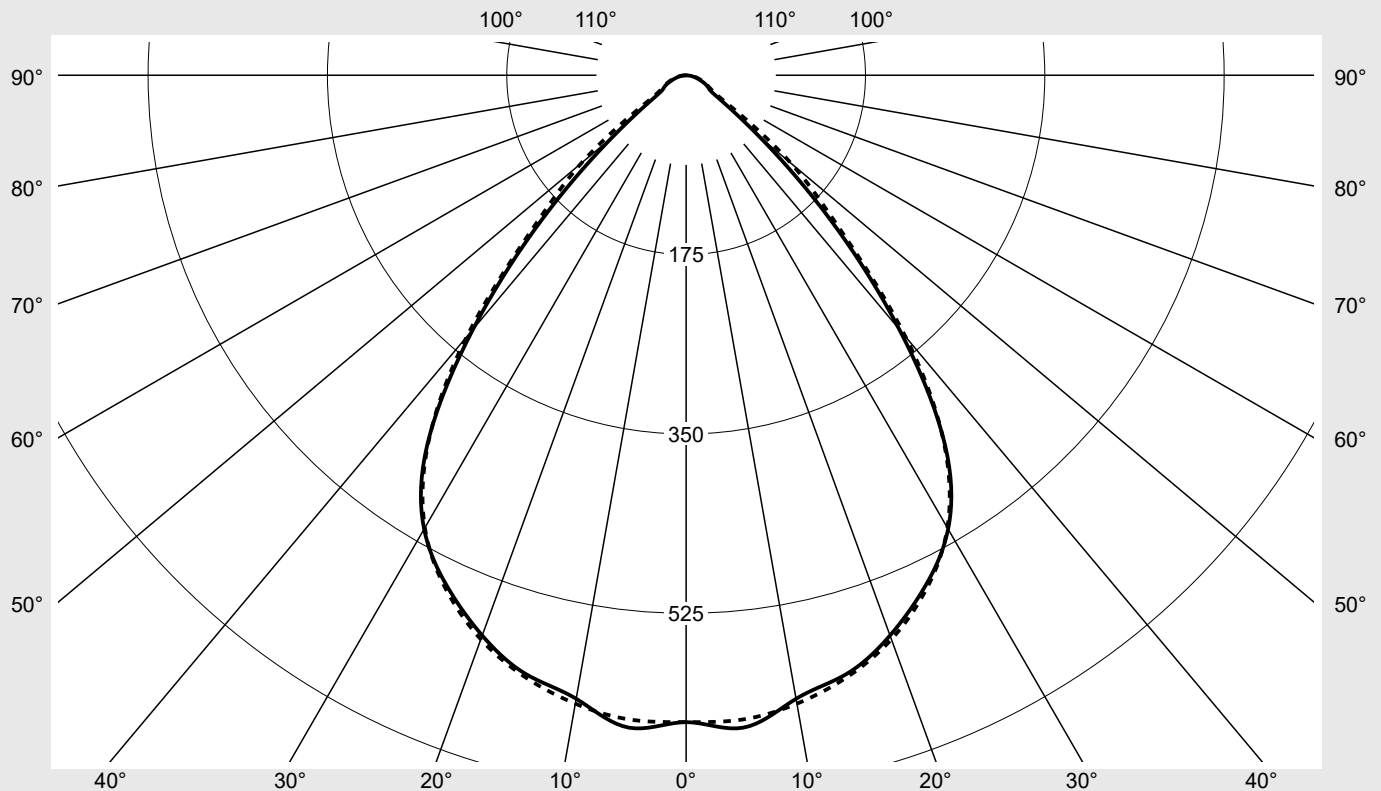
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 642 cd/klm



### Classifications

DIN 5040 A 6 0  
CIE N1=78 N2=96 N3=99  
N4=100 N5=100

### Luminaire light output ratios

$\eta_{LB}$  100.0%  
 $\phi_u$  100.0%  
 $\phi_o$  0.0%

### 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   |
|  |   | <b>siteco</b>                |

| 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°                           | 631.2      | 631.2                | 631.2                | 631.2                | 631.2                | 631.2                | 631.2       | 3.8                     | 3.8               |
| 5°                           | 639.0      | 636.9                | 635.8                | 640.8                | 642.0                | 634.8                | 631.1       | 30.5                    | 34.2              |
| 10°                          | 617.8      | 615.8                | 612.2                | 616.7                | 624.6                | 629.4                | 622.7       | 59.0                    | 93.2              |
| 15°                          | 604.8      | 603.1                | 597.6                | 597.0                | 601.6                | 607.9                | 607.8       | 85.4                    | 178.7             |
| 20°                          | 581.7      | 581.2                | 575.6                | 575.6                | 576.2                | 579.7                | 585.7       | 108.5                   | 287.2             |
| 25°                          | 550.9      | 551.4                | 546.3                | 545.8                | 546.2                | 547.0                | 553.9       | 127.0                   | 414.1             |
| 30°                          | 511.3      | 512.1                | 506.5                | 506.8                | 506.5                | 506.0                | 509.9       | 139.2                   | 553.4             |
| 35°                          | 440.5      | 440.8                | 437.0                | 438.8                | 441.2                | 438.6                | 439.0       | 138.1                   | 691.5             |
| 40°                          | 323.4      | 324.8                | 326.1                | 329.4                | 332.6                | 332.8                | 333.0       | 115.9                   | 807.4             |
| 45°                          | 198.4      | 199.0                | 200.7                | 203.5                | 206.3                | 209.2                | 212.1       | 79.1                    | 886.5             |
| 50°                          | 93.9       | 108.5                | 122.0                | 111.2                | 100.2                | 119.3                | 133.6       | 47.2                    | 933.7             |
| 55°                          | 37.7       | 51.0                 | 48.2                 | 55.0                 | 41.5                 | 57.5                 | 53.4        | 22.4                    | 956.1             |
| 60°                          | 25.5       | 26.5                 | 28.2                 | 26.2                 | 26.1                 | 27.8                 | 29.0        | 12.8                    | 968.9             |
| 65°                          | 21.0       | 20.8                 | 21.7                 | 21.1                 | 22.1                 | 22.0                 | 22.3        | 10.7                    | 979.6             |
| 70°                          | 15.2       | 15.5                 | 16.2                 | 16.1                 | 16.4                 | 16.6                 | 17.4        | 8.3                     | 987.9             |
| 75°                          | 10.6       | 11.0                 | 12.1                 | 11.5                 | 11.8                 | 12.4                 | 12.4        | 6.2                     | 994.1             |
| 80°                          | 6.4        | 6.8                  | 7.5                  | 8.1                  | 7.5                  | 8.4                  | 8.5         | 4.1                     | 998.3             |
| 85°                          | 2.4        | 2.5                  | 2.6                  | 3.2                  | 3.5                  | 4.1                  | 4.3         | 1.7                     | 1000.0            |
| 90°                          | 0.0        | 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         | 0.0                     | 1000.0            |
| 100°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 110°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 120°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 130°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 140°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 150°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 160°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 170°                         | 0.0        | 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         | 0.0                     | 1000.0            |
| 180°                         | 0.0        | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0         | 0.0                     | 1000.0            |

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|                             |   |                              |
|-----------------------------|---|------------------------------|
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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  | 18.4                | 19.7 | 18.7 | 20.1 | 20.4 | 18.6               | 20.0 | 18.9 | 20.3 | 20.6 |
|                              | 3H  | 18.4                | 19.7 | 18.8 | 20.0 | 20.3 | 18.7               | 19.9 | 19.1 | 20.2 | 20.6 |
|                              | 4H  | 18.5                | 19.6 | 18.9 | 20.0 | 20.3 | 18.7               | 19.9 | 19.1 | 20.2 | 20.6 |
|                              | 6H  | 18.5                | 19.5 | 18.9 | 19.9 | 20.3 | 18.8               | 19.8 | 19.2 | 20.2 | 20.6 |
|                              | 8H  | 18.6                | 19.5 | 19.0 | 19.9 | 20.3 | 18.9               | 19.8 | 19.3 | 20.2 | 20.6 |
|                              | 12H | 18.6                | 19.4 | 19.0 | 19.8 | 20.2 | 18.9               | 19.8 | 19.4 | 20.2 | 20.6 |
| 4H                           | 2H  | 18.3                | 19.4 | 18.7 | 19.8 | 20.1 | 18.5               | 19.6 | 18.9 | 20.0 | 20.4 |
|                              | 3H  | 18.4                | 19.4 | 18.9 | 19.8 | 20.2 | 18.7               | 19.6 | 19.1 | 20.0 | 20.4 |
|                              | 4H  | 18.5                | 19.4 | 19.0 | 19.8 | 20.2 | 18.8               | 19.6 | 19.2 | 20.0 | 20.5 |
|                              | 6H  | 18.6                | 19.3 | 19.1 | 19.8 | 20.2 | 18.9               | 19.6 | 19.4 | 20.1 | 20.5 |
|                              | 8H  | 18.6                | 19.3 | 19.1 | 19.7 | 20.2 | 19.0               | 19.6 | 19.5 | 20.1 | 20.6 |
|                              | 12H | 18.7                | 19.2 | 19.2 | 19.7 | 20.2 | 19.1               | 19.6 | 19.6 | 20.1 | 20.6 |
| 8H                           | 4H  | 18.5                | 19.2 | 19.0 | 19.6 | 20.1 | 18.8               | 19.4 | 19.3 | 19.9 | 20.3 |
|                              | 6H  | 18.7                | 19.2 | 19.2 | 19.7 | 20.2 | 19.0               | 19.5 | 19.5 | 20.0 | 20.5 |
|                              | 8H  | 18.7                | 19.2 | 19.2 | 19.7 | 20.2 | 19.1               | 19.5 | 19.6 | 20.0 | 20.5 |
|                              | 12H | 18.7                | 19.1 | 19.3 | 19.6 | 20.2 | 19.2               | 19.5 | 19.7 | 20.0 | 20.6 |
| 12H                          | 4H  | 18.5                | 19.1 | 19.0 | 19.5 | 20.0 | 18.8               | 19.3 | 19.3 | 19.8 | 20.3 |
|                              | 6H  | 18.7                | 19.1 | 19.2 | 19.6 | 20.1 | 19.0               | 19.4 | 19.5 | 19.9 | 20.4 |
|                              | 8H  | 18.7                | 19.1 | 19.3 | 19.6 | 20.2 | 19.1               | 19.5 | 19.6 | 20.0 | 20.5 |

| Luminance table |          | Max. for $\gamma \geq 65^\circ$ |                             | Photometric dimensions in mm: |                             | L = 1200<br>B = 50          |                             |             |
|-----------------|----------|---------------------------------|-----------------------------|-------------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
| 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°             |          | 15103.3                         | 15152.2                     | 15280.3                       | 15493.5                     | 15704.6                     | 15929.7                     | 16146.3     |
| 50°             |          | 7863.9                          | 9084.5                      | 10219.2                       | 9316.7                      | 8395.1                      | 9990.0                      | 11187.5     |
| 55°             |          | 3538.7                          | 4785.7                      | 4525.4                        | 5159.6                      | 3891.9                      | 5393.0                      | 5015.7      |
| 60°             |          | 2744.2                          | 2856.9                      | 3031.1                        | 2815.5                      | 2807.8                      | 2995.8                      | 3120.2      |
| 65°             |          | 2671.0                          | 2653.7                      | 2764.5                        | 2687.3                      | 2814.5                      | 2800.8                      | 2839.9      |
| 70°             |          | 2391.8                          | 2442.2                      | 2542.1                        | 2530.8                      | 2576.9                      | 2607.1                      | 2739.5      |
| 75°             |          | 2200.0                          | 2280.1                      | 2509.9                        | 2401.5                      | 2455.0                      | 2575.0                      | 2579.4      |
| 80°             |          | 1979.7                          | 2103.4                      | 2322.3                        | 2525.7                      | 2337.8                      | 2614.0                      | 2619.9      |
| 85°             |          | 1496.6                          | 1518.8                      | 1620.1                        | 1980.9                      | 2135.3                      | 2509.6                      | 2632.5      |

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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°

