

## Lichttechnischer Prüfbefund

Familie  
Silica® 21

Bestell-Nr.: 51MX33DA47SB  
EAN: 4058352888940

LP-Nummer  
59331\_93



**Ausführung** Pendelleuchte, homogen leuchtend,  
Prismenabdeckung, direkt-/ indirekt strahlend,  
extrem breit strahlend,  $UGR \leq 16$   
( $L65 \leq 3000 \text{ cd/m}^2$ )

**Bestückung** LED 4000 K | CRI  $\geq 80$

**Betriebsgerät** EVG-DALI

**Bemessungswerte** Nettolichtstrom = 5910 lm  
Systemleistung = 38.4 W  
Lichtausbeute = 153.9 lm/W

Seriendokumentation  
02.08.2023

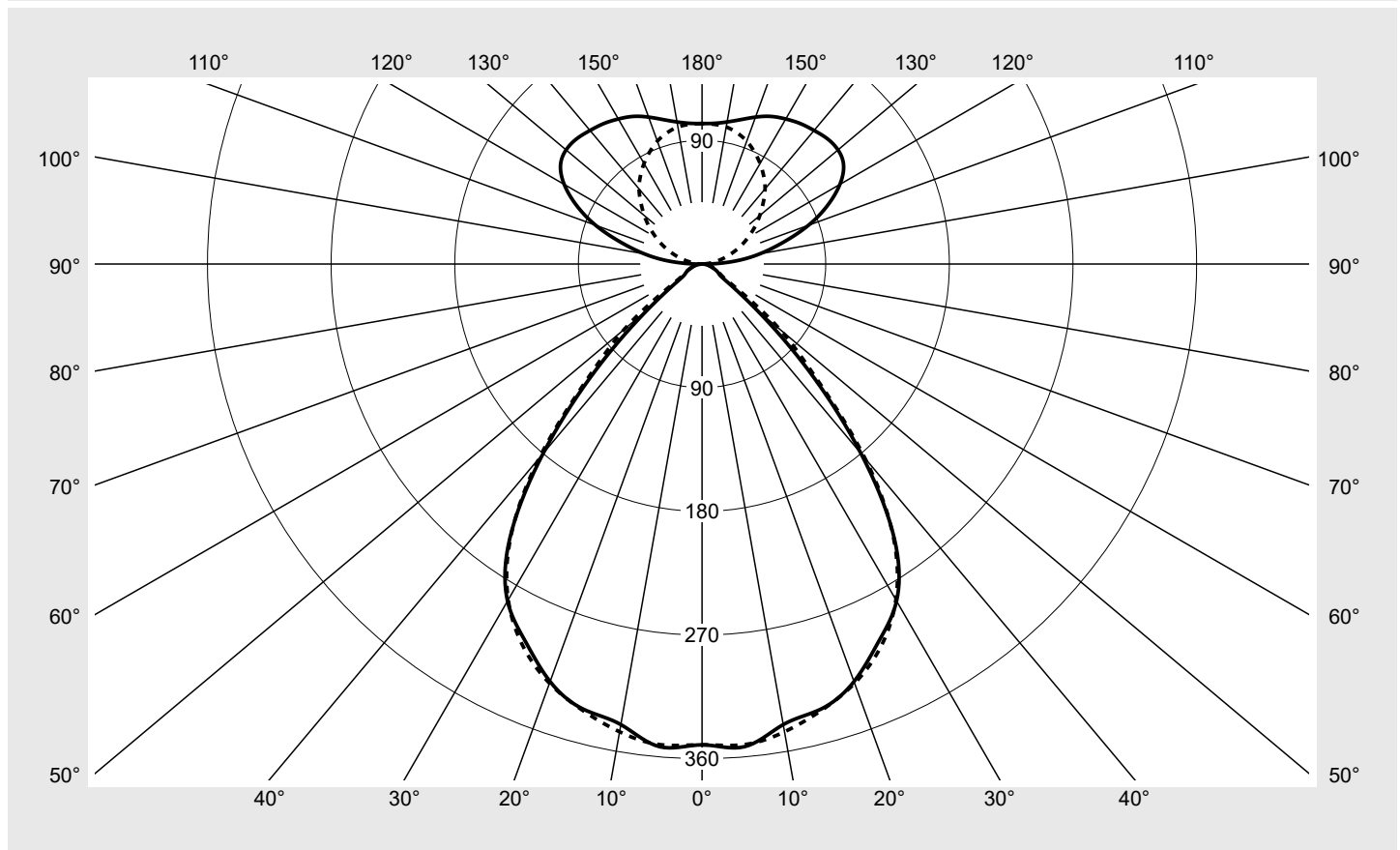
siteco

Lichtstärke in cd/klm

C180-0

C270-90

Imax: 353 cd/klm



## Klassifizierungen

DIN 5040 C 6 2  
CIE N1=78 N2=96 N3=99  
N4=55 N5=100

## Leuchtenbetriebswirkungsgrade

$\eta_{LB}$  100,0%  
 $\phi_u$  55,4%  
 $\phi_o$  44,6%

## Messbedingungen

DIN EN 13032 und DIN 5032

## Lichttechnischer Prüfbefund

|  |   |                                     |
|--|---|-------------------------------------|
| <b>Familie</b><br><b>Silica® 21</b>    | <b>Bestell-Nr.: 51MX33DA47SB</b><br><b>EAN: 4058352888940</b> | <b>LP-Nummer</b><br><b>59331_93</b> |
| <b>Wertetabelle Lichtstärkemessung</b> |   | <b>Maximale Lichtstärke</b>         |
|  |   | <b>siteco</b>                       |

| C-<br>Ebenen          | 0°<br>180° | 15°                  | 30°                  | 45°                  | 60°                  | 75°                  | 90°<br>270° | Phi-Zone             | Summe<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° |             |                      |                   |  |
| Lichtstärke in cd/klm |            |                      |                      |                      |                      |                      |             | Lichtstrom in lm/klm |                   |  |
| γ                     |            |                      |                      |                      |                      |                      |             |                      |                   |  |
| 0°                    | 349.9      | 349.9                | 349.9                | 349.9                | 349.9                | 349.9                | 349.9       | 2.1                  | 2.1               |  |
| 5°                    | 352.7      | 353.3                | 353.1                | 353.3                | 352.9                | 352.0                | 351.1       | 16.9                 | 18.9              |  |
| 10°                   | 340.4      | 339.5                | 339.7                | 341.6                | 345.2                | 345.5                | 345.7       | 32.6                 | 51.5              |  |
| 15°                   | 335.2      | 334.1                | 331.5                | 331.4                | 333.4                | 336.4                | 336.2       | 47.3                 | 98.9              |  |
| 20°                   | 323.4      | 322.7                | 318.7                | 319.6                | 318.0                | 320.3                | 324.7       | 60.1                 | 159.0             |  |
| 25°                   | 303.6      | 304.4                | 302.2                | 302.2                | 302.6                | 302.3                | 307.6       | 70.2                 | 229.2             |  |
| 30°                   | 283.2      | 283.0                | 279.5                | 280.9                | 281.3                | 280.3                | 282.2       | 77.1                 | 306.3             |  |
| 35°                   | 244.1      | 243.6                | 241.2                | 242.6                | 243.2                | 242.2                | 242.9       | 76.3                 | 382.6             |  |
| 40°                   | 179.9      | 179.6                | 180.9                | 182.1                | 183.5                | 183.3                | 184.4       | 64.1                 | 446.7             |  |
| 45°                   | 110.1      | 109.9                | 111.2                | 112.6                | 113.8                | 115.2                | 117.5       | 43.7                 | 490.4             |  |
| 50°                   | 51.7       | 59.9                 | 67.3                 | 61.6                 | 55.5                 | 66.0                 | 73.6        | 26.1                 | 516.5             |  |
| 55°                   | 21.0       | 28.2                 | 26.7                 | 30.5                 | 23.0                 | 31.8                 | 29.6        | 12.4                 | 528.9             |  |
| 60°                   | 14.1       | 14.7                 | 15.5                 | 14.4                 | 14.4                 | 15.4                 | 16.1        | 7.1                  | 536.0             |  |
| 65°                   | 11.6       | 11.5                 | 12.0                 | 11.7                 | 12.2                 | 12.2                 | 12.1        | 5.9                  | 541.9             |  |
| 70°                   | 8.4        | 8.6                  | 8.9                  | 8.9                  | 9.1                  | 9.2                  | 9.2         | 4.6                  | 546.5             |  |
| 75°                   | 5.8        | 6.1                  | 6.7                  | 6.4                  | 6.5                  | 6.9                  | 6.6         | 3.4                  | 549.9             |  |
| 80°                   | 3.5        | 3.8                  | 4.1                  | 4.5                  | 4.2                  | 4.7                  | 4.7         | 2.3                  | 552.2             |  |
| 85°                   | 1.8        | 1.8                  | 1.8                  | 2.1                  | 2.2                  | 2.5                  | 2.7         | 1.2                  | 553.3             |  |
| 90°                   | 5.2        | 5.0                  | 5.3                  | 5.2                  | 3.1                  | 1.1                  | 0.4         | 2.0                  | 555.4             |  |
| 95°                   | 23.9       | 24.4                 | 26.2                 | 24.8                 | 15.9                 | 8.2                  | 4.2         | 10.3                 | 565.7             |  |
| 100°                  | 42.8       | 43.9                 | 44.3                 | 38.8                 | 26.0                 | 14.7                 | 9.7         | 17.5                 | 583.2             |  |
| 105°                  | 61.3       | 62.6                 | 61.4                 | 52.4                 | 35.9                 | 22.2                 | 16.3        | 24.1                 | 607.3             |  |
| 110°                  | 82.4       | 82.7                 | 77.5                 | 64.5                 | 46.0                 | 30.0                 | 23.3        | 30.4                 | 637.7             |  |
| 115°                  | 100.7      | 99.8                 | 92.0                 | 75.7                 | 55.8                 | 37.9                 | 31.1        | 35.4                 | 673.0             |  |
| 120°                  | 115.9      | 114.0                | 103.9                | 84.8                 | 64.9                 | 45.6                 | 38.7        | 38.8                 | 711.8             |  |
| 125°                  | 125.7      | 122.3                | 111.1                | 93.1                 | 72.6                 | 52.9                 | 46.8        | 40.3                 | 752.1             |  |
| 130°                  | 129.2      | 126.3                | 114.5                | 98.0                 | 78.5                 | 60.4                 | 54.8        | 39.9                 | 792.0             |  |
| 135°                  | 129.0      | 126.3                | 115.8                | 101.3                | 83.2                 | 67.4                 | 62.9        | 38.1                 | 830.1             |  |
| 140°                  | 126.9      | 124.9                | 116.2                | 103.6                | 87.1                 | 74.0                 | 71.4        | 35.5                 | 865.6             |  |
| 145°                  | 124.8      | 123.4                | 116.1                | 105.0                | 90.7                 | 80.2                 | 78.2        | 32.3                 | 897.9             |  |
| 150°                  | 121.9      | 121.3                | 114.8                | 104.9                | 93.7                 | 86.1                 | 84.5        | 28.5                 | 926.4             |  |
| 155°                  | 118.5      | 118.2                | 111.9                | 104.4                | 96.0                 | 91.3                 | 90.1        | 24.2                 | 950.6             |  |
| 160°                  | 113.8      | 113.5                | 108.5                | 103.6                | 98.0                 | 95.4                 | 95.1        | 19.5                 | 970.1             |  |
| 165°                  | 108.8      | 108.2                | 105.6                | 102.3                | 100.0                | 98.6                 | 98.8        | 14.6                 | 984.7             |  |
| 170°                  | 105.0      | 104.5                | 103.8                | 102.4                | 101.4                | 101.2                | 101.3       | 9.8                  | 994.5             |  |
| 175°                  | 102.8      | 102.7                | 102.1                | 101.9                | 102.0                | 102.0                | 102.0       | 4.9                  | 999.4             |  |
| 180°                  | 102.2      | 102.2                | 102.2                | 102.2                | 102.2                | 102.2                | 102.2       | 0.6                  | 1000.0            |  |

## Lichttechnischer Prüfbefund

|                              |   |                              |
|------------------------------|---|------------------------------|
| <b>Familie</b><br>Silica® 21 | <b>Bestell-Nr.: 51MX33DA47SB</b><br><b>EAN: 4058352888940</b> | <b>LP-Nummer</b><br>59331_93 |
|------------------------------|---|------------------------------|

| UGR-Tabelle     |     | Standardraum                        |      |      |      |      |                                       |      |      |      |      |
|-----------------|-----|-------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
| Raumabmessungen |     | Blickrichtung quer zur Leuchte (C0) |      |      |      |      | Blickrichtung längs zur Leuchte (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                                  | 16,3 | 16,5 | 17,2 | 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 | 18,0 | 15,5                                  | 16,2 | 16,5 | 17,1 | 18,3 |
|                 | 8H  | 15,1                                | 15,7 | 16,1 | 16,7 | 17,9 | 15,4                                  | 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 | 16,9 | 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                                | 15,7 | 16,1 | 16,7 | 17,9 | 15,4                                  | 15,9 | 16,3 | 16,9 | 18,1 |
|                 | 4H  | 15,2                                | 15,7 | 16,1 | 16,6 | 17,9 | 15,4                                  | 15,9 | 16,4 | 16,9 | 18,1 |
|                 | 6H  | 15,1                                | 15,6 | 16,1 | 16,6 | 17,8 | 15,5                                  | 15,9 | 16,4 | 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 | 15,0                                | 15,4 | 16,0 | 16,4 | 17,7 | 15,5                                  | 15,8 | 16,5 | 16,8 | 18,1 |
| 8H              | 4H  | 15,0                                | 15,4 | 16,0 | 16,4 | 17,7 | 15,2                                  | 15,6 | 16,2 | 16,6 | 17,9 |
|                 | 6H  | 15,1                                | 15,5 | 16,1 | 16,4 | 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 | 17,7 | 15,5                                  | 15,8 | 16,6 | 16,8 | 18,1 |
| 12H             | 4H  | 15,0                                | 15,3 | 16,0 | 16,3 | 17,6 | 15,1                                  | 15,5 | 16,2 | 16,5 | 17,8 |
|                 | 6H  | 15,1                                | 15,3 | 16,1 | 16,3 | 17,6 | 15,3                                  | 15,6 | 16,3 | 16,6 | 17,9 |
|                 | 8H  | 15,1                                | 15,3 | 16,1 | 16,3 | 17,6 | 15,4                                  | 15,7 | 16,4 | 16,7 | 18,0 |

## Leuchtdichten-Tabelle Max. für $\gamma \geq 65^\circ$

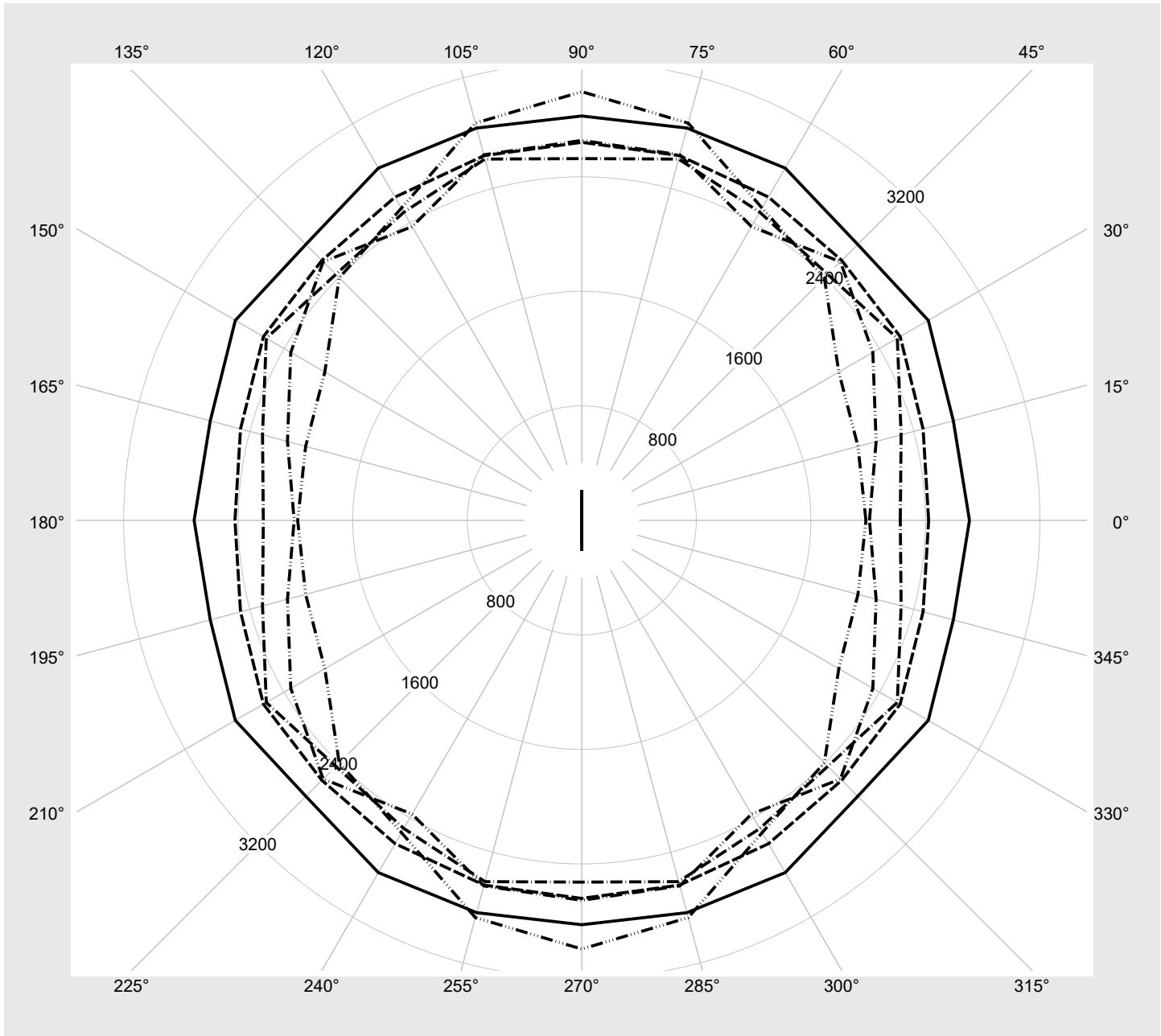
Lichttechnische Abmessungen in mm: **L = 1200**  
**B = 50**

| C-<br>Ebenen | $\gamma$ | Leuchtdichte 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°          | 15337.5  | 15304.3                           | 15496.3                     | 15678.9                     | 15848.6                     | 16051.1                     | 16365.1                     |             |
| 50°          | 7920.8   | 9176.2                            | 10319.4                     | 9444.3                      | 8511.2                      | 10108.4                     | 11284.7                     |             |
| 55°          | 3601.3   | 4851.2                            | 4582.4                      | 5234.8                      | 3953.7                      | 5459.5                      | 5074.6                      |             |
| 60°          | 2787.2   | 2892.4                            | 3057.4                      | 2834.0                      | 2844.5                      | 3025.1                      | 3162.0                      |             |
| 65°          | 2707.8   | 2686.6                            | 2794.5                      | 2726.0                      | 2841.6                      | 2837.4                      | 2825.1                      |             |
| 70°          | 2422.6   | 2467.8                            | 2567.8                      | 2567.8                      | 2608.1                      | 2638.0                      | 2641.2                      |             |
| 75°          | 2224.5   | 2308.9                            | 2544.5                      | 2430.0                      | 2485.9                      | 2613.0                      | 2527.4                      |             |
| 80°          | 2009.2   | 2128.3                            | 2347.2                      | 2554.8                      | 2369.9                      | 2643.9                      | 2654.7                      |             |
| 85°          | 1984.6   | 1997.0                            | 2072.7                      | 2395.9                      | 2519.1                      | 2872.9                      | 2994.9                      |             |

# Lichttechnischer Prüfbefund

|                                     |   |                                     |
|-------------------------------------|---|-------------------------------------|
| <b>Familie</b><br><b>Silica® 21</b> | <b>Bestell-Nr.: 51MX33DA47SB</b><br><b>EAN: 4058352888940</b> | <b>LP-Nummer</b><br><b>59331_93</b> |
|-------------------------------------|---|-------------------------------------|

Leuchtdichten in cd/m<sup>2</sup>      γ 65°    γ 70°    γ 75°    γ 80°    γ 85°      **siteco**



## Lichttechnischer Prüfbefund

|                                     |   |                                     |
|-------------------------------------|---|-------------------------------------|
| <b>Familie</b><br><b>Silica® 21</b> | <b>Bestell-Nr.: 51MX33DA47SB</b><br><b>EAN: 4058352888940</b> | <b>LP-Nummer</b><br><b>59331_93</b> |
| <b>Dimmstufen-Tabelle</b>           |   | <b>sITeco</b>                       |
| Umgebungstemperatur: 25°C           |   |                                     |

| Lichtstrom [%] | Dimmstufe linear | Dimmstufe logarithmisch | Lichtstrom [lm] | Systemleistung [W] |
|----------------|------------------|-------------------------|-----------------|--------------------|
| 100            | 254              | 254                     | 5910            | 38.4               |
| 95             | 241              | 252                     | 5621            | 36.4               |
| 90             | 228              | 250                     | 5330            | 34.4               |
| 85             | 214              | 248                     | 5015            | 32.4               |
| 80             | 201              | 245                     | 4721            | 30.4               |
| 75             | 188              | 243                     | 4426            | 28.5               |
| 70             | 175              | 240                     | 4129            | 26.5               |
| 65             | 162              | 238                     | 3830            | 24.5               |
| 60             | 150              | 235                     | 3553            | 22.9               |
| 55             | 137              | 231                     | 3252            | 21.1               |
| 50             | 124              | 228                     | 2948            | 19.4               |
| 45             | 112              | 224                     | 2668            | 17.7               |
| 40             | 99               | 219                     | 2361            | 15.8               |
| 35             | 87               | 215                     | 2077            | 14.0               |
| 30             | 74               | 209                     | 1767            | 12.1               |
| 25             | 62               | 202                     | 1481            | 10.3               |
| 20             | 49               | 194                     | 1170            | 8.4                |
| 15             | 37               | 183                     | 882             | 6.6                |
| 10             | 25               | 169                     | 592             | 4.7                |
| 6              | 14               | 148                     | 326             | 2.9                |