

## Lichttechnischer Prüfbefund

Familie  
Silica® 21

Bestell-Nr.: 51MX21DC4ASB  
EAN: 4058352900048

LP-Nummer  
59268\_90



**Ausführung** Anbauleuchte, Reflektor, schwarz, direkt strahlend, eng strahlend, UGR≤19 (L65≤3000cd/m<sup>2</sup>)

**Bestückung** LED 4000 K | CRI ≥ 80

**Betriebsgerät** EVG-DALI

**Bemessungswerte** Nettolichtstrom = 10800 lm  
Systemleistung = 64.8 W  
Lichtausbeute = 166.7 lm/W

Seriendokumentation  
02.08.2023

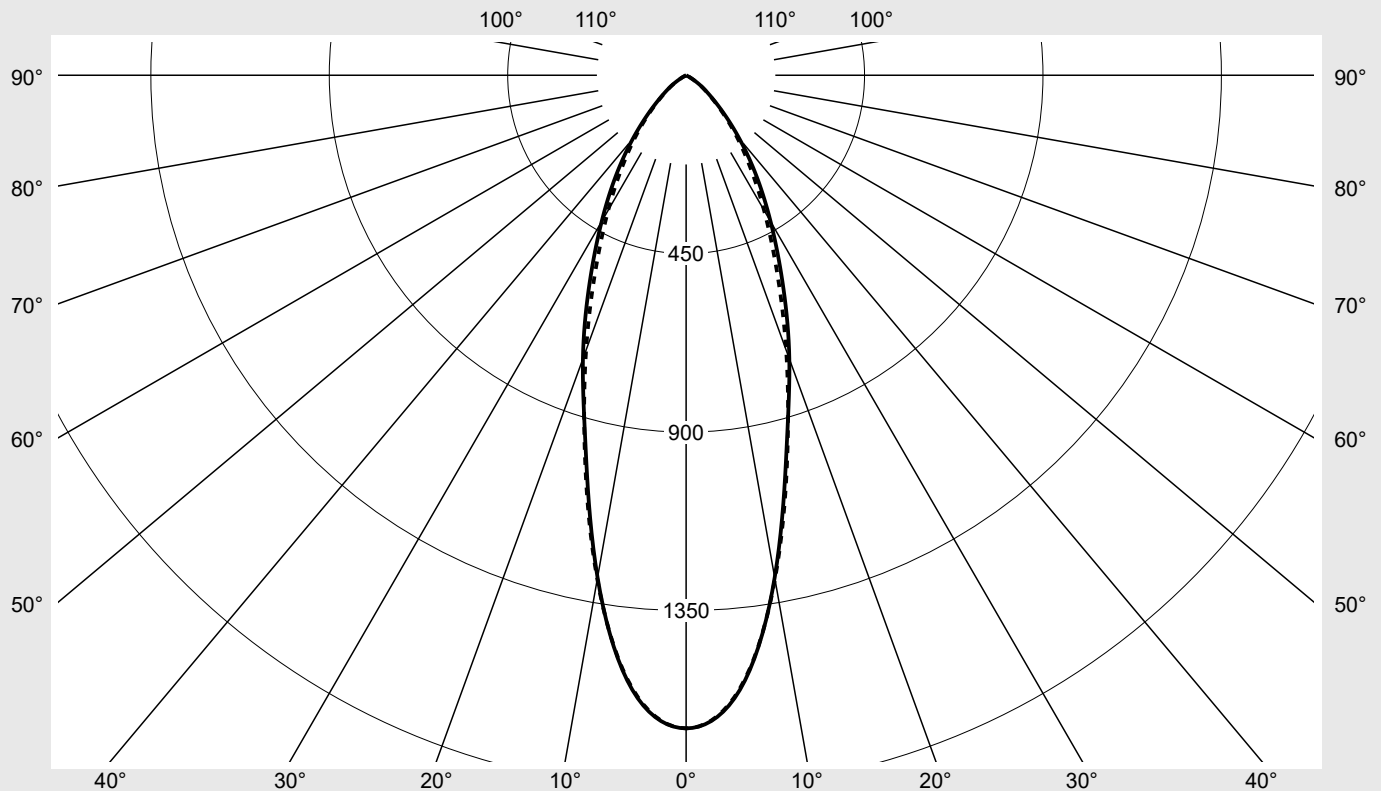
siteco

Lichtstärke in cd/klm

C180-0

C270-90

Imax: 1647 cd/klm



#### Klassifizierungen

DIN 5040 A 7 0  
CIE N1=87 N2=99 N3=100  
N4=100 N5=100

#### Leuchtenbetriebswirkungsgrade

$\eta_{LB}$  100,0%  
 $\phi_u$  100,0%  
 $\phi_o$  0,0%

#### Messbedingungen

DIN EN 13032 und DIN 5032

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|  |   |                                     |
|--|---|-------------------------------------|
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| <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° |             |          |                   |
| γ                     |            |                      |                      |                      |                      |                      |             |          |                   |
| Lichtstärke in cd/klm |            |                      |                      |                      |                      |                      |             |          |                   |
| Lichtstrom in lm/klm  |            |                      |                      |                      |                      |                      |             |          |                   |
| 0°                    | 1647.1     | 1647.1               | 1647.1               | 1647.1               | 1647.1               | 1647.1               | 1647.1      | 9.9      | 9.9               |
| 5°                    | 1556.0     | 1552.2               | 1545.4               | 1552.7               | 1555.3               | 1549.6               | 1552.8      | 74.1     | 84.0              |
| 10°                   | 1286.3     | 1288.4               | 1295.0               | 1311.1               | 1307.0               | 1291.2               | 1290.4      | 123.4    | 207.4             |
| 15°                   | 978.4      | 985.5                | 998.6                | 1011.3               | 1007.8               | 991.2                | 986.9       | 141.3    | 348.7             |
| 20°                   | 761.0      | 758.1                | 743.8                | 731.7                | 736.2                | 737.5                | 737.7       | 139.2    | 488.0             |
| 25°                   | 575.0      | 565.5                | 534.1                | 513.6                | 528.8                | 542.8                | 539.9       | 125.2    | 613.2             |
| 30°                   | 426.0      | 419.2                | 386.1                | 366.4                | 385.1                | 401.9                | 392.9       | 108.2    | 721.3             |
| 35°                   | 308.0      | 307.0                | 281.1                | 264.9                | 280.7                | 295.5                | 280.0       | 90.3     | 811.6             |
| 40°                   | 209.2      | 211.1                | 196.7                | 188.3                | 198.2                | 205.5                | 193.0       | 70.5     | 882.1             |
| 45°                   | 130.5      | 131.9                | 127.1                | 124.8                | 130.2                | 130.3                | 123.1       | 49.8     | 932.0             |
| 50°                   | 76.5       | 78.3                 | 78.7                 | 78.6                 | 80.6                 | 77.5                 | 73.2        | 32.8     | 964.8             |
| 55°                   | 42.1       | 44.0                 | 46.1                 | 47.2                 | 47.6                 | 43.6                 | 40.6        | 20.2     | 985.0             |
| 60°                   | 13.4       | 16.3                 | 24.8                 | 26.9                 | 25.6                 | 18.0                 | 14.5        | 9.9      | 994.9             |
| 65°                   | 4.2        | 5.2                  | 7.6                  | 13.7                 | 8.3                  | 5.3                  | 4.6         | 3.7      | 998.6             |
| 70°                   | 1.7        | 1.8                  | 1.5                  | 2.7                  | 1.9                  | 2.1                  | 2.2         | 1.0      | 999.6             |
| 75°                   | 0.3        | 0.5                  | 0.5                  | 0.6                  | 0.6                  | 0.6                  | 0.4         | 0.3      | 999.9             |
| 80°                   | 0.1        | 0.1                  | 0.1                  | 0.1                  | 0.2                  | 0.2                  | 0.2         | 0.1      | 999.9             |
| 85°                   | 0.1        | 0.1                  | 0.1                  | 0.1                  | 0.1                  | 0.2                  | 0.2         | 0.1      | 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-Tabelle     |     | Standardraum                        |      |      |      |      |                                       |      |      |      |      |
|-----------------|-----|-------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
|                 |     | Blickrichtung quer zur Leuchte (C0) |      |      |      |      | Blickrichtung längs zur Leuchte (C90) |      |      |      |      |
| Raumabmessungen |     |                                     |      |      |      |      |                                       |      |      |      |      |
| x               | y   |                                     |      |      |      |      |                                       |      |      |      |      |
| 2H              | 2H  | 17,1                                | 18,3 | 17,5 | 18,6 | 18,9 | 17,0                                  | 18,2 | 17,4 | 18,5 | 18,8 |
|                 | 3H  | 17,0                                | 18,0 | 17,3 | 18,4 | 18,7 | 16,9                                  | 17,9 | 17,2 | 18,3 | 18,6 |
|                 | 4H  | 16,9                                | 17,9 | 17,3 | 18,2 | 18,6 | 16,8                                  | 17,8 | 17,2 | 18,1 | 18,5 |
|                 | 6H  | 16,8                                | 17,7 | 17,3 | 18,1 | 18,5 | 16,7                                  | 17,6 | 17,2 | 18,0 | 18,4 |
|                 | 8H  | 16,9                                | 17,6 | 17,3 | 18,0 | 18,4 | 16,8                                  | 17,5 | 17,2 | 17,9 | 18,3 |
|                 | 12H | 16,9                                | 17,5 | 17,3 | 17,9 | 18,3 | 16,8                                  | 17,4 | 17,2 | 17,8 | 18,2 |
| 4H              | 2H  | 17,0                                | 18,0 | 17,4 | 18,4 | 18,7 | 16,9                                  | 17,9 | 17,3 | 18,3 | 18,6 |
|                 | 3H  | 16,9                                | 17,7 | 17,3 | 18,1 | 18,5 | 16,8                                  | 17,6 | 17,2 | 18,0 | 18,4 |
|                 | 4H  | 16,8                                | 17,5 | 17,2 | 17,9 | 18,3 | 16,7                                  | 17,4 | 17,1 | 17,8 | 18,2 |
|                 | 6H  | 16,7                                | 17,3 | 17,2 | 17,7 | 18,2 | 16,6                                  | 17,2 | 17,1 | 17,6 | 18,1 |
|                 | 8H  | 16,6                                | 17,2 | 17,1 | 17,6 | 18,1 | 16,6                                  | 17,1 | 17,0 | 17,5 | 18,0 |
|                 | 12H | 16,6                                | 17,1 | 17,1 | 17,5 | 18,0 | 16,5                                  | 17,0 | 17,0 | 17,4 | 17,9 |
| 8H              | 4H  | 16,6                                | 17,2 | 17,1 | 17,6 | 18,1 | 16,6                                  | 17,1 | 17,0 | 17,5 | 18,0 |
|                 | 6H  | 16,5                                | 17,0 | 17,0 | 17,4 | 18,0 | 16,4                                  | 16,9 | 16,9 | 17,3 | 17,9 |
|                 | 8H  | 16,5                                | 16,8 | 17,0 | 17,3 | 17,9 | 16,4                                  | 16,8 | 16,9 | 17,2 | 17,8 |
|                 | 12H | 16,5                                | 16,7 | 17,0 | 17,2 | 17,8 | 16,4                                  | 16,6 | 16,9 | 17,1 | 17,7 |
| 12H             | 4H  | 16,6                                | 17,1 | 17,1 | 17,5 | 18,0 | 16,6                                  | 17,0 | 17,0 | 17,4 | 17,9 |
|                 | 6H  | 16,5                                | 16,8 | 17,0 | 17,3 | 17,9 | 16,4                                  | 16,8 | 16,9 | 17,2 | 17,8 |
|                 | 8H  | 16,5                                | 16,7 | 17,0 | 17,2 | 17,8 | 16,4                                  | 16,6 | 16,9 | 17,1 | 17,7 |

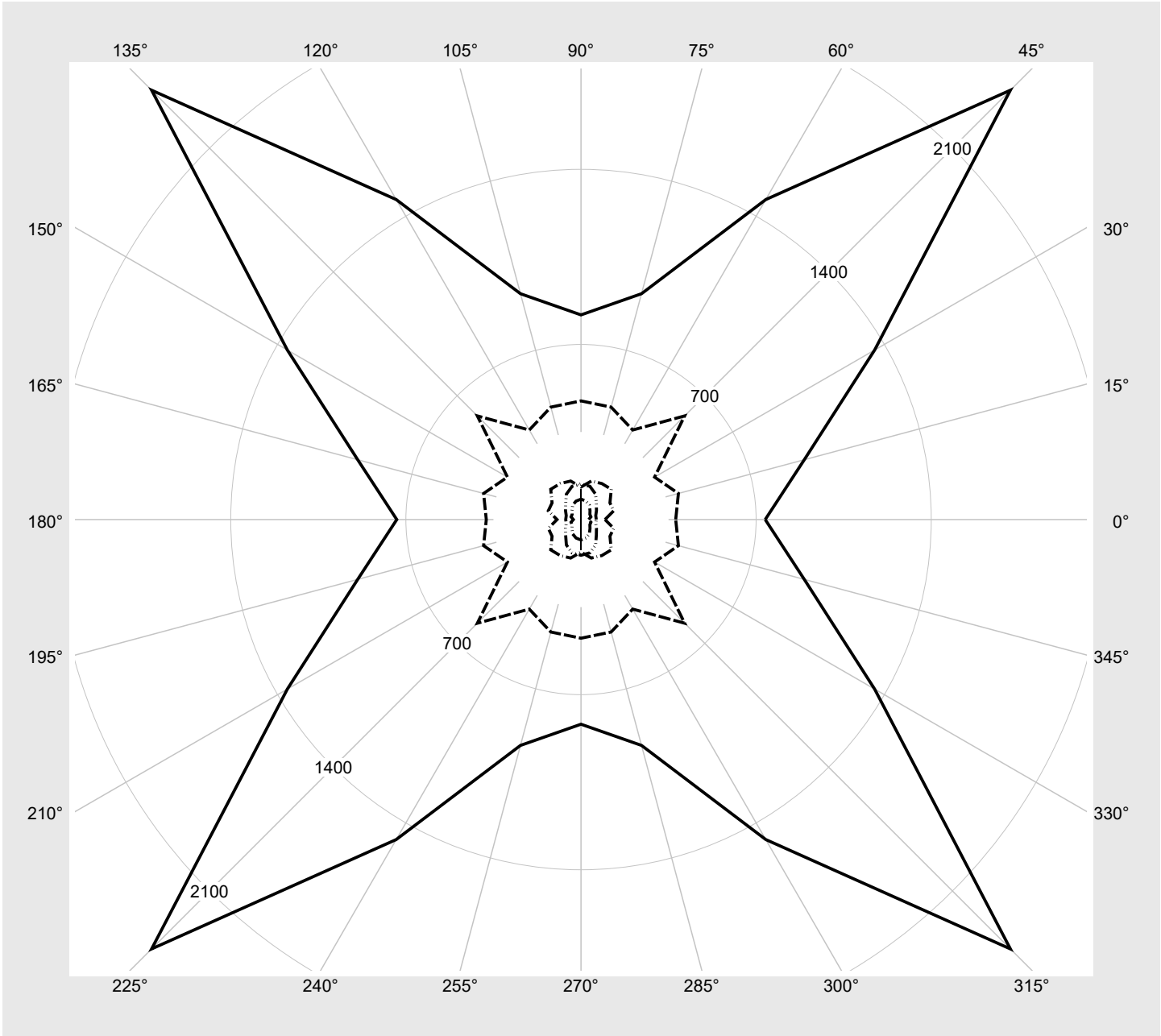
|  |  |
|--|--|
| <b>Leuchtdichten-Tabelle</b> Max. für $\gamma \geq 65^\circ$ | <b>Lichttechnische Abmessungen in mm:</b> L = 2940<br>B = 49 |
|--|--|

| C-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°      |          | 13837.3                           | 13986.0                     | 13475.6                     | 13233.6                     | 13804.1                     | 13819.2                     | 13053.7     |  |
| 50°      |          | 8925.4                            | 9130.3                      | 9184.1                      | 9166.8                      | 9400.7                      | 9037.8                      | 8535.2      |  |
| 55°      |          | 5509.0                            | 5751.6                      | 6021.4                      | 6172.9                      | 6227.0                      | 5700.7                      | 5312.7      |  |
| 60°      |          | 2003.8                            | 2439.0                      | 3713.1                      | 4029.6                      | 3843.3                      | 2697.1                      | 2177.5      |  |
| 65°      |          | 736.4                             | 924.0                       | 1355.3                      | 2427.2                      | 1477.0                      | 934.7                       | 818.1       |  |
| 70°      |          | 378.5                             | 403.1                       | 339.5                       | 585.9                       | 413.4                       | 465.3                       | 474.3       |  |
| 75°      |          | 95.9                              | 135.3                       | 133.5                       | 171.2                       | 166.3                       | 159.3                       | 130.1       |  |
| 80°      |          | 30.7                              | 41.0                        | 41.0                        | 50.9                        | 66.5                        | 76.4                        | 81.6        |  |
| 85°      |          | 61.1                              | 61.1                        | 71.4                        | 86.9                        | 117.0                       | 137.6                       | 142.8       |  |

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|                              |   |                              |
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**Leuchtdichten in cd/m²**      γ 65°    γ 70°    γ 75°    γ 80°    γ 85°      **siteco**



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

|                           |                           |               |
|---------------------------|---------------------------|---------------|
| <b>Dimmstufen-Tabelle</b> | Umgebungstemperatur: 25°C | <b>sITeco</b> |
|---------------------------|---------------------------|---------------|

| Lichtstrom [%] | Dimmstufe linear | Dimmstufe logarithmisch | Lichtstrom [lm] | Systemleistung [W] |
|----------------|------------------|-------------------------|-----------------|--------------------|
| 100            | 254              | 254                     | 10800           | 64.8               |
| 95             | 241              | 252                     | 10278           | 61.6               |
| 90             | 227              | 250                     | 9708            | 58.1               |
| 85             | 214              | 248                     | 9179            | 55.0               |
| 80             | 201              | 245                     | 8646            | 51.7               |
| 75             | 188              | 243                     | 8110            | 48.5               |
| 70             | 175              | 240                     | 7571            | 45.3               |
| 65             | 162              | 238                     | 7026            | 42.2               |
| 60             | 149              | 234                     | 6479            | 39.1               |
| 55             | 136              | 231                     | 5926            | 35.9               |
| 50             | 124              | 228                     | 5414            | 33.0               |
| 45             | 111              | 224                     | 4857            | 29.9               |
| 40             | 99               | 219                     | 4340            | 27.0               |
| 35             | 86               | 214                     | 3777            | 23.9               |
| 30             | 74               | 209                     | 3254            | 21.1               |
| 25             | 61               | 202                     | 2686            | 18.0               |
| 20             | 49               | 194                     | 2158            | 15.2               |
| 15             | 37               | 183                     | 1625            | 12.2               |
| 10             | 25               | 169                     | 1093            | 9.3                |
| 5              | 13               | 145                     | 558             | 5.9                |
| 3              | 8                | 127                     | 335             | 4.1                |