

## Lichttechnischer Prüfbefund

**Familie**  
**Monsun® 21**

**Bestell-Nr.: 51FB107L447K3G**  
**EAN: 4069025131508**

**LP-Nummer**  
**59393\_20**



**Ausführung** Prismenwanne, opal, PMMA, extrem breit strahlend, Notlicht 3h  
**Bestückung** LED 4000 K | CRI ≥ 80  
**Betriebsgerät** EVG  
**Bemessungswerte** Nettolichtstrom = 4330 lm  
Systemleistung = 28.8 W  
Lichtausbeute = 150.3 lm/W

**Seriendokumentation**  
**08.05.2024**

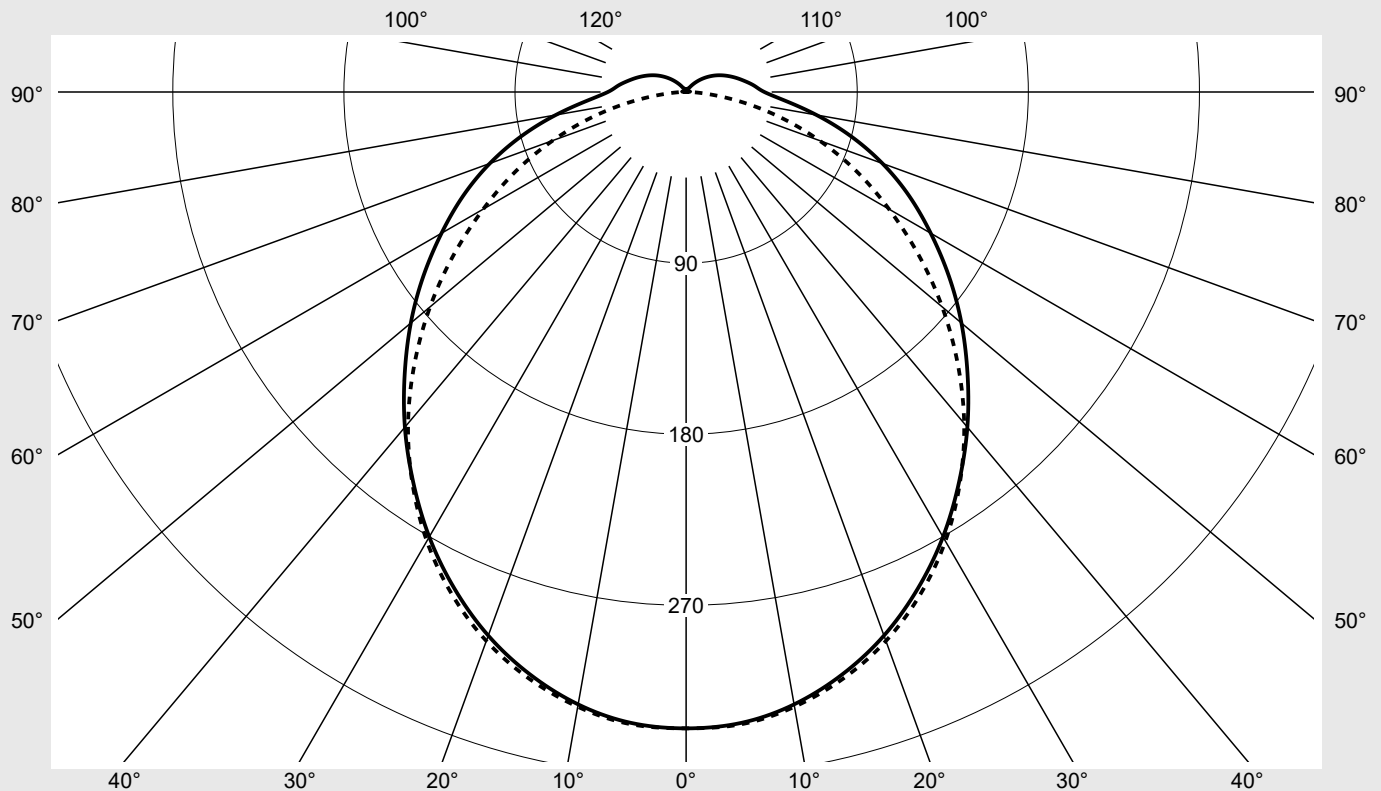
**sITeco**

**Lichtstärke in cd/klm**

**C180-0**

**C270-90**

**Imax: 335 cd/klm**



**Klassifizierungen**

DIN 5040 A 4 1  
CIE N1=46 N2=76 N3=93  
N4=94 N5=100

**Leuchtenbetriebswirkungsgrade**

$\eta_{LB}$  100,0%  
 $\phi_u$  93,9%  
 $\phi_o$  6,1%

**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    |          |
|-----------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------|----------|----------|----------|
|                       |            | 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° |             |          | Phi-Zone | Phi-Zone |
| γ                     |            |                      |                      |                      |                      |                      |             |          |          |          |
| Lichtstärke in cd/klm |            |                      |                      |                      |                      |                      |             |          |          |          |
| Lichtstrom in lm/klm  |            |                      |                      |                      |                      |                      |             |          |          |          |
| 0°                    | 334.7      | 334.7                | 334.7                | 334.7                | 334.7                | 334.7                | 334.7       | 2.0      | 2.0      |          |
| 5°                    | 333.1      | 333.6                | 331.1                | 331.9                | 332.7                | 333.2                | 333.8       | 15.9     | 17.9     |          |
| 10°                   | 327.1      | 327.9                | 325.6                | 326.0                | 327.2                | 327.9                | 328.3       | 31.1     | 49.0     |          |
| 15°                   | 317.2      | 318.4                | 316.4                | 316.9                | 317.9                | 318.6                | 319.4       | 45.1     | 94.1     |          |
| 20°                   | 304.3      | 305.5                | 304.0                | 304.0                | 305.5                | 306.0                | 307.3       | 57.2     | 151.3    |          |
| 25°                   | 288.3      | 289.5                | 288.3                | 288.0                | 289.4                | 289.8                | 291.5       | 67.0     | 218.3    |          |
| 30°                   | 270.2      | 271.6                | 270.4                | 269.7                | 270.4                | 271.0                | 272.7       | 74.2     | 292.5    |          |
| 35°                   | 250.3      | 251.6                | 250.4                | 249.2                | 249.0                | 249.3                | 251.0       | 78.6     | 371.1    |          |
| 40°                   | 230.1      | 230.9                | 229.3                | 227.2                | 226.1                | 225.6                | 227.5       | 80.3     | 451.4    |          |
| 45°                   | 209.3      | 209.8                | 207.4                | 204.4                | 202.0                | 200.5                | 202.0       | 79.4     | 530.9    |          |
| 50°                   | 189.0      | 188.7                | 186.0                | 181.6                | 177.7                | 174.7                | 175.8       | 76.4     | 607.2    |          |
| 55°                   | 168.7      | 168.2                | 164.8                | 159.1                | 153.5                | 149.2                | 149.2       | 71.4     | 678.6    |          |
| 60°                   | 148.6      | 147.7                | 143.7                | 136.7                | 130.2                | 124.3                | 123.2       | 64.8     | 743.4    |          |
| 65°                   | 129.5      | 127.8                | 123.0                | 114.9                | 108.3                | 100.8                | 99.1        | 57.1     | 800.4    |          |
| 70°                   | 109.9      | 108.0                | 102.2                | 93.4                 | 85.8                 | 77.4                 | 74.6        | 48.0     | 848.4    |          |
| 75°                   | 89.7       | 87.9                 | 81.7                 | 72.5                 | 63.8                 | 55.3                 | 51.1        | 38.1     | 886.5    |          |
| 80°                   | 69.6       | 67.6                 | 61.9                 | 52.4                 | 43.1                 | 34.0                 | 28.9        | 27.7     | 914.2    |          |
| 85°                   | 52.2       | 49.9                 | 44.6                 | 35.4                 | 25.7                 | 16.3                 | 10.6        | 18.5     | 932.7    |          |
| 90°                   | 41.2       | 39.2                 | 34.0                 | 25.7                 | 16.3                 | 7.4                  | 2.3         | 13.2     | 945.9    |          |
| 95°                   | 36.2       | 34.5                 | 30.1                 | 22.6                 | 13.9                 | 5.6                  | 2.0         | 11.4     | 957.3    |          |
| 100°                  | 31.8       | 30.4                 | 26.2                 | 19.4                 | 11.5                 | 4.0                  | 1.7         | 9.7      | 967.1    |          |
| 105°                  | 27.9       | 26.5                 | 22.5                 | 16.5                 | 9.2                  | 2.5                  | 1.5         | 8.1      | 975.2    |          |
| 110°                  | 24.2       | 22.6                 | 19.2                 | 13.5                 | 6.9                  | 1.5                  | 1.3         | 6.6      | 981.8    |          |
| 115°                  | 20.8       | 19.1                 | 16.0                 | 10.8                 | 4.9                  | 1.4                  | 1.2         | 5.2      | 987.0    |          |
| 120°                  | 17.3       | 15.9                 | 12.9                 | 8.1                  | 3.1                  | 1.3                  | 1.2         | 4.0      | 991.0    |          |
| 125°                  | 13.9       | 12.5                 | 9.8                  | 5.6                  | 1.6                  | 1.3                  | 1.1         | 2.9      | 993.8    |          |
| 130°                  | 10.5       | 9.4                  | 7.0                  | 3.5                  | 1.5                  | 1.3                  | 1.1         | 2.0      | 995.8    |          |
| 135°                  | 7.3        | 6.4                  | 4.4                  | 1.9                  | 1.5                  | 1.2                  | 1.0         | 1.3      | 997.1    |          |
| 140°                  | 4.5        | 3.8                  | 2.3                  | 1.7                  | 1.5                  | 1.2                  | 1.1         | 0.8      | 997.9    |          |
| 145°                  | 2.3        | 2.1                  | 1.9                  | 1.7                  | 1.5                  | 1.3                  | 1.2         | 0.5      | 998.4    |          |
| 150°                  | 2.0        | 2.0                  | 1.9                  | 1.7                  | 1.5                  | 1.4                  | 1.3         | 0.5      | 998.9    |          |
| 155°                  | 1.9        | 1.9                  | 1.8                  | 1.7                  | 1.5                  | 1.4                  | 1.4         | 0.4      | 999.3    |          |
| 160°                  | 1.8        | 1.8                  | 1.7                  | 1.6                  | 1.5                  | 1.5                  | 1.4         | 0.3      | 999.6    |          |
| 165°                  | 1.7        | 1.7                  | 1.6                  | 1.5                  | 1.5                  | 1.5                  | 1.4         | 0.2      | 999.8    |          |
| 170°                  | 1.5        | 1.5                  | 1.5                  | 1.5                  | 1.5                  | 1.5                  | 1.4         | 0.1      | 999.9    |          |
| 175°                  | 1.5        | 1.5                  | 1.5                  | 1.5                  | 1.5                  | 1.5                  | 1.5         | 0.1      | 1000.0   |          |
| 180°                  | 1.5        | 1.5                  | 1.5                  | 1.5                  | 1.5                  | 1.5                  | 1.5         | 0.0      | 1000.0   |          |

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

| UGR-Tabelle     |     | Standardraum                        |      |      |      |      |                                       |      |      |      |      |
|-----------------|-----|-------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
|                 |     | Blickrichtung quer zur Leuchte (C0) |      |      |      |      | Blickrichtung längs zur Leuchte (C90) |      |      |      |      |
| Raumabmessungen |     |                                     |      |      |      |      |                                       |      |      |      |      |
| x               | y   |                                     |      |      |      |      |                                       |      |      |      |      |
| 2H              | 2H  | 19,7                                | 21,5 | 20,1 | 21,8 | 22,1 | 19,6                                  | 21,3 | 19,9 | 21,6 | 21,9 |
|                 | 3H  | 21,6                                | 23,1 | 21,9 | 23,4 | 23,8 | 21,0                                  | 22,6 | 21,4 | 22,9 | 23,3 |
|                 | 4H  | 22,4                                | 23,9 | 22,8 | 24,2 | 24,6 | 21,6                                  | 23,1 | 22,0 | 23,4 | 23,8 |
|                 | 6H  | 23,1                                | 24,5 | 23,6 | 24,9 | 25,3 | 22,0                                  | 23,4 | 22,4 | 23,8 | 24,1 |
|                 | 8H  | 23,5                                | 24,8 | 23,9 | 25,1 | 25,5 | 22,2                                  | 23,4 | 22,6 | 23,8 | 24,2 |
|                 | 12H | 23,8                                | 25,0 | 24,2 | 25,4 | 25,8 | 22,2                                  | 23,4 | 22,6 | 23,8 | 24,2 |
| 4H              | 2H  | 20,5                                | 21,9 | 20,8 | 22,3 | 22,6 | 20,3                                  | 21,8 | 20,7 | 22,1 | 22,5 |
|                 | 3H  | 22,5                                | 23,7 | 22,9 | 24,1 | 24,5 | 22,0                                  | 23,2 | 22,4 | 23,6 | 24,0 |
|                 | 4H  | 23,4                                | 24,6 | 23,9 | 25,0 | 25,4 | 22,7                                  | 23,8 | 23,1 | 24,2 | 24,7 |
|                 | 6H  | 24,3                                | 25,4 | 24,8 | 25,8 | 26,2 | 23,2                                  | 24,2 | 23,6 | 24,6 | 25,1 |
|                 | 8H  | 24,8                                | 25,7 | 25,2 | 26,1 | 26,6 | 23,3                                  | 24,3 | 23,8 | 24,7 | 25,2 |
|                 | 12H | 25,2                                | 26,0 | 25,6 | 26,4 | 26,9 | 23,5                                  | 24,3 | 23,9 | 24,7 | 25,2 |
| 8H              | 4H  | 23,8                                | 24,7 | 24,2 | 25,1 | 25,6 | 23,1                                  | 24,0 | 23,6 | 24,5 | 24,9 |
|                 | 6H  | 24,8                                | 25,6 | 25,3 | 26,1 | 26,6 | 23,8                                  | 24,5 | 24,3 | 25,0 | 25,5 |
|                 | 8H  | 25,4                                | 26,1 | 25,9 | 26,5 | 27,1 | 24,0                                  | 24,7 | 24,5 | 25,2 | 25,7 |
|                 | 12H | 25,9                                | 26,5 | 26,4 | 27,0 | 27,5 | 24,2                                  | 24,8 | 24,7 | 25,2 | 25,8 |
| 12H             | 4H  | 23,8                                | 24,7 | 24,3 | 25,1 | 25,6 | 23,2                                  | 24,0 | 23,7 | 24,5 | 25,0 |
|                 | 6H  | 24,9                                | 25,6 | 25,4 | 26,1 | 26,6 | 23,9                                  | 24,6 | 24,4 | 25,1 | 25,6 |
|                 | 8H  | 25,5                                | 26,1 | 26,0 | 26,6 | 27,1 | 24,2                                  | 24,8 | 24,7 | 25,3 | 25,8 |

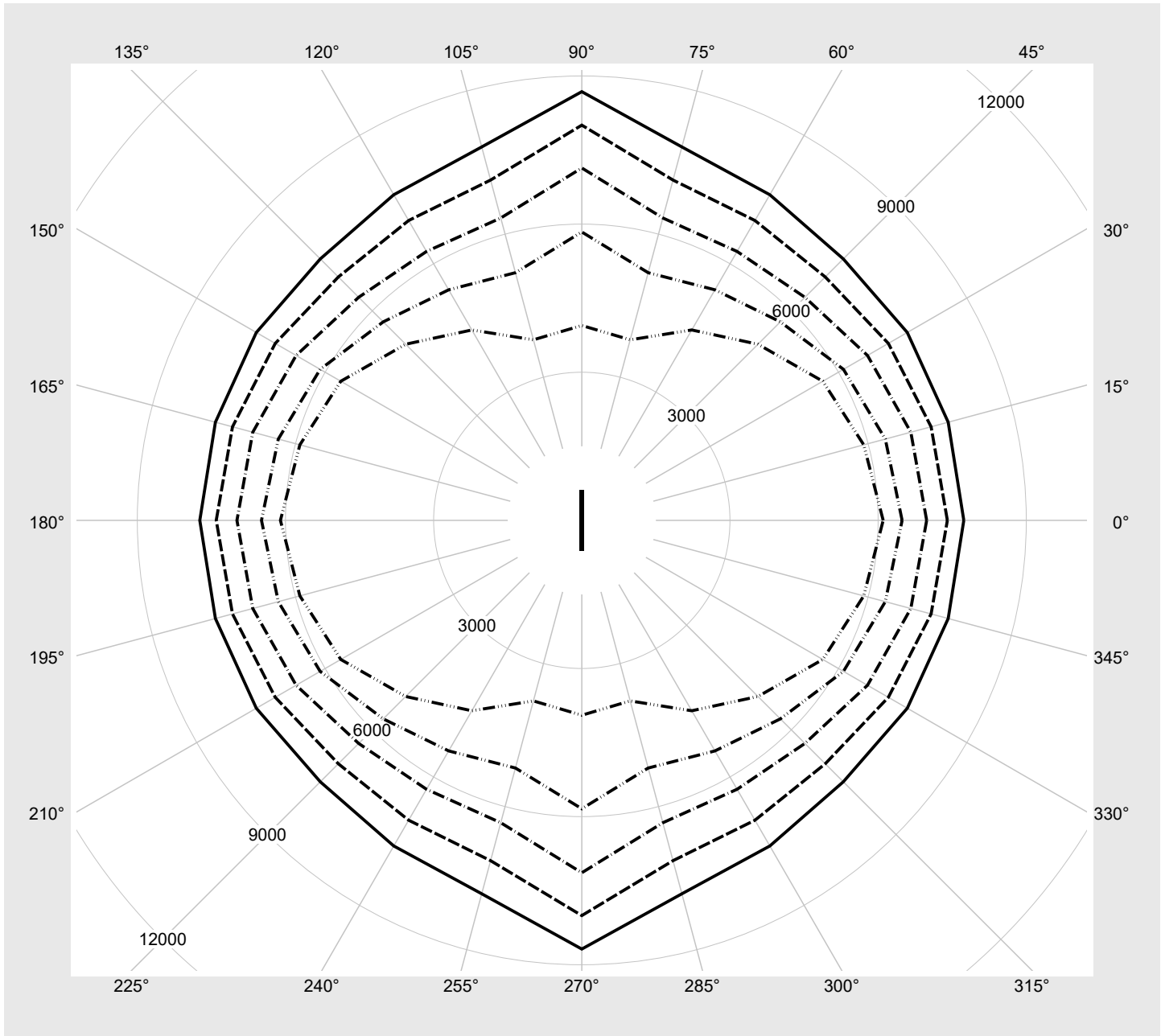
|  |  |            |              |             |              |
|--|--|------------|--------------|-------------|--------------|
| <b>Leuchtdichten-Tabelle</b> Max. für $\gamma \geq 65^\circ$ | <b>Lichttechnische Abmessungen in mm:</b> L = 1299, B = 87 | H(C0) = 21 | H(C180) = 21 | H(C90) = 21 | H(C270) = 21 |
|--|--|------------|--------------|-------------|--------------|

| 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°      |          | 9136.0                            | 9186.6                      | 9235.2                      | 9367.1                      | 9645.2                      | 10077.9                     | 10772.3     |  |
| 50°      |          | 8750.4                            | 8768.5                      | 8807.0                      | 8895.6                      | 9129.5                      | 9526.6                      | 10281.2     |  |
| 55°      |          | 8379.2                            | 8393.6                      | 8400.8                      | 8434.1                      | 8598.1                      | 8968.8                      | 9741.5      |  |
| 60°      |          | 8028.0                            | 8020.5                      | 7999.7                      | 7964.8                      | 8091.8                      | 8387.5                      | 9185.3      |  |
| 65°      |          | 7734.8                            | 7680.4                      | 7610.0                      | 7488.1                      | 7614.7                      | 7829.5                      | 8682.0      |  |
| 70°      |          | 7402.0                            | 7322.1                      | 7167.5                      | 6971.4                      | 7012.0                      | 7135.3                      | 8004.1      |  |
| 75°      |          | 6982.7                            | 6897.2                      | 6679.5                      | 6389.1                      | 6288.6                      | 6339.9                      | 7136.8      |  |
| 80°      |          | 6485.7                            | 6362.2                      | 6117.4                      | 5685.6                      | 5391.5                      | 5192.8                      | 5840.6      |  |
| 85°      |          | 6102.4                            | 5910.1                      | 5634.9                      | 5044.4                      | 4452.6                      | 3785.7                      | 3946.4      |  |

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

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



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

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

| Lichtstrom [%] | Dimmstufe linear | Lichtstrom [lm] | Systemleistung [W] |
|----------------|------------------|-----------------|--------------------|
| 100            | 254              | 4330            | 28.8               |
| 95             | 241              | 4116            | 27.7               |
| 90             | 228              | 3901            | 26.4               |
| 85             | 215              | 3686            | 25.2               |
| 80             | 202              | 3471            | 24.0               |
| 75             | 189              | 3253            | 22.8               |
| 70             | 176              | 3034            | 21.6               |
| 65             | 163              | 2814            | 20.5               |
| 60             | 150              | 2593            | 19.4               |
| 55             | 138              | 2388            | 18.4               |
| 50             | 125              | 2166            | 17.4               |
| 45             | 112              | 1943            | 16.3               |
| 40             | 100              | 1735            | 15.3               |
| 35             | 87               | 1510            | 14.2               |
| 30             | 75               | 1302            | 13.0               |
| 25             | 62               | 1076            | 11.8               |
| 20             | 50               | 866             | 10.7               |
| 15             | 38               | 655             | 9.3                |
| 10             | 25               | 427             | 7.7                |
| 5              | 13               | 215             | 6.0                |
| 2              | 5                | 74              | 4.7                |