

## Lichttechnischer Prüfbefund

**Familie**  
**Monsun® 12**

**Bestell-Nr.: 51FE107P480R**  
**EAN: 4058352539439**

**LP-Nummer**  
**58939\_84**



**Ausführung** Prismenwanne, opal, PMMA, breit strahlend  
**Bestückung** LED 4000 K | CRI ≥ 80  
**Betriebsgerät** EVG  
**Bemessungswerte** Nettolichtstrom = 8000 lm  
 Systemleistung = 43.2 W  
 Lichtausbeute = 185.2 lm/W

**Seriendokumentation**  
21.10.2021

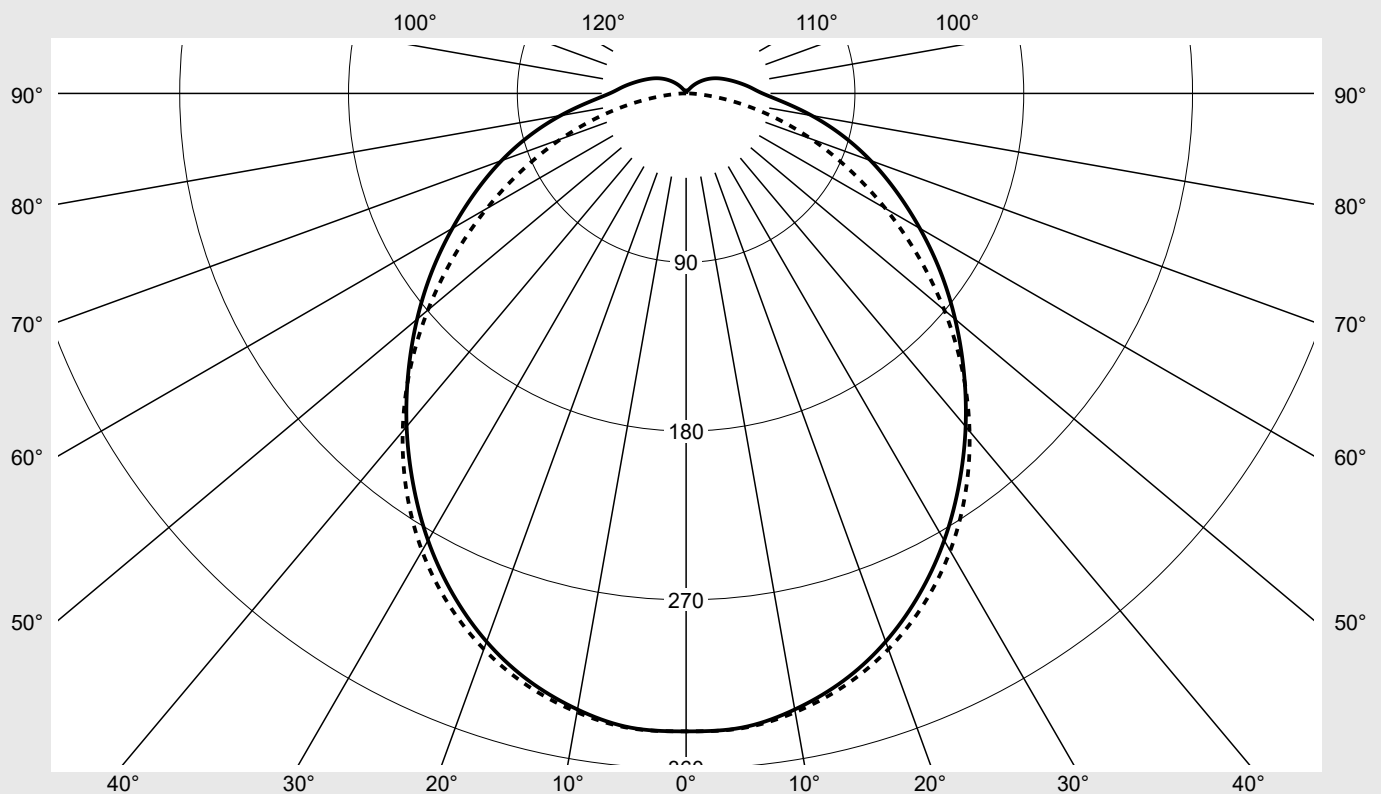
**sitEco**

**Lichtstärke in cd/klm**

**C180-0**

**C270-90**

**Imax: 340 cd/klm**



**Klassifizierungen**

DIN 5040 A 4 1  
 CIE N1=47 N2=77 N3=93  
 N4=94 N5=100

**Leuchtenbetriebswirkungsgrade**

$\eta_{LB}$  100,0%  
 $\phi_u$  94,2%  
 $\phi_o$  5,8%

**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°                    | 340.1      | 340.1                | 340.1                | 340.1                | 340.1                | 340.1                | 340.1       | 2.0      | 2.0      |          |
| 5°                    | 339.4      | 338.3                | 336.5                | 337.9                | 339.5                | 339.4                | 339.8       | 16.2     | 18.2     |          |
| 10°                   | 333.5      | 333.0                | 331.2                | 332.8                | 334.6                | 334.7                | 335.0       | 31.7     | 49.9     |          |
| 15°                   | 324.2      | 324.2                | 322.5                | 324.2                | 326.1                | 326.4                | 326.9       | 46.1     | 96.0     |          |
| 20°                   | 311.0      | 311.6                | 310.1                | 311.9                | 314.1                | 314.7                | 315.3       | 58.6     | 154.6    |          |
| 25°                   | 294.4      | 295.4                | 294.1                | 296.0                | 298.4                | 299.4                | 300.2       | 68.7     | 223.4    |          |
| 30°                   | 275.2      | 276.6                | 275.1                | 276.8                | 279.4                | 280.7                | 281.6       | 76.1     | 299.5    |          |
| 35°                   | 253.9      | 255.2                | 253.8                | 254.9                | 257.1                | 258.4                | 259.7       | 80.5     | 380.0    |          |
| 40°                   | 231.8      | 232.9                | 231.3                | 231.1                | 232.5                | 233.8                | 235.1       | 81.9     | 461.9    |          |
| 45°                   | 209.4      | 209.9                | 207.8                | 205.9                | 206.1                | 206.6                | 208.2       | 80.4     | 542.4    |          |
| 50°                   | 187.2      | 187.1                | 184.8                | 181.3                | 179.3                | 178.3                | 179.7       | 76.6     | 619.0    |          |
| 55°                   | 165.5      | 164.8                | 162.1                | 157.0                | 153.1                | 150.2                | 150.9       | 70.7     | 689.7    |          |
| 60°                   | 143.9      | 142.9                | 139.5                | 133.7                | 127.9                | 123.2                | 122.7       | 63.3     | 753.0    |          |
| 65°                   | 123.6      | 122.5                | 117.8                | 111.0                | 104.2                | 97.9                 | 96.0        | 54.9     | 808.0    |          |
| 70°                   | 104.7      | 103.3                | 97.1                 | 89.4                 | 81.7                 | 74.3                 | 71.0        | 45.8     | 853.8    |          |
| 75°                   | 86.1       | 84.4                 | 77.8                 | 69.2                 | 60.2                 | 52.2                 | 47.8        | 36.3     | 890.0    |          |
| 80°                   | 68.0       | 66.1                 | 60.2                 | 50.5                 | 40.7                 | 32.1                 | 26.9        | 26.7     | 916.7    |          |
| 85°                   | 51.8       | 50.0                 | 44.6                 | 35.3                 | 24.7                 | 15.7                 | 10.1        | 18.3     | 935.0    |          |
| 90°                   | 40.8       | 39.2                 | 34.4                 | 26.0                 | 15.9                 | 6.9                  | 1.8         | 13.1     | 948.2    |          |
| 95°                   | 34.8       | 33.5                 | 29.7                 | 22.7                 | 13.6                 | 5.1                  | 1.6         | 11.2     | 959.3    |          |
| 100°                  | 29.9       | 28.8                 | 25.4                 | 19.2                 | 11.3                 | 3.7                  | 1.4         | 9.4      | 968.7    |          |
| 105°                  | 25.7       | 24.7                 | 21.4                 | 16.1                 | 8.8                  | 2.4                  | 1.2         | 7.7      | 976.4    |          |
| 110°                  | 22.1       | 20.9                 | 18.0                 | 13.0                 | 6.6                  | 1.4                  | 1.1         | 6.1      | 982.5    |          |
| 115°                  | 19.0       | 17.8                 | 15.0                 | 10.4                 | 4.7                  | 1.2                  | 1.1         | 4.9      | 987.4    |          |
| 120°                  | 16.0       | 14.8                 | 12.2                 | 7.9                  | 3.1                  | 1.2                  | 1.0         | 3.8      | 991.2    |          |
| 125°                  | 13.0       | 11.9                 | 9.4                  | 5.6                  | 1.7                  | 1.1                  | 0.9         | 2.7      | 993.9    |          |
| 130°                  | 10.1       | 9.1                  | 6.9                  | 3.7                  | 1.4                  | 1.1                  | 1.0         | 1.9      | 995.9    |          |
| 135°                  | 7.3        | 6.5                  | 4.6                  | 2.1                  | 1.4                  | 1.1                  | 1.1         | 1.3      | 997.1    |          |
| 140°                  | 4.8        | 4.1                  | 2.7                  | 1.7                  | 1.4                  | 1.1                  | 1.1         | 0.8      | 998.0    |          |
| 145°                  | 2.6        | 2.3                  | 1.9                  | 1.7                  | 1.4                  | 1.2                  | 1.2         | 0.5      | 998.5    |          |
| 150°                  | 2.0        | 2.0                  | 1.9                  | 1.6                  | 1.3                  | 1.3                  | 1.3         | 0.4      | 998.9    |          |
| 155°                  | 1.9        | 1.9                  | 1.7                  | 1.6                  | 1.4                  | 1.4                  | 1.4         | 0.4      | 999.3    |          |
| 160°                  | 1.7        | 1.7                  | 1.6                  | 1.4                  | 1.4                  | 1.4                  | 1.4         | 0.3      | 999.6    |          |
| 165°                  | 1.4        | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4         | 0.2      | 999.8    |          |
| 170°                  | 1.3        | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4         | 0.1      | 999.9    |          |
| 175°                  | 1.4        | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4         | 0.1      | 1000.0   |          |
| 180°                  | 1.4        | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4                  | 1.4         | 0.0      | 1000.0   |          |

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| UGR-Tabelle          |           | Standardraum                        |      |      |      |      |                                       |      |      |      |      |
|----------------------|-----------|-------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
| Raumabmessungen      |           | Blickrichtung quer zur Leuchte (C0) |      |      |      |      | Blickrichtung längs zur Leuchte (C90) |      |      |      |      |
| x                    | y         |                                     |      |      |      |      |                                       |      |      |      |      |
| Reflexionsgrad Decke | 0,7       | 0,7                                 | 0,5  | 0,5  | 0,3  | 0,7  | 0,7                                   | 0,5  | 0,5  | 0,3  |      |
| Reflexionsgrad Wände | 0,5       | 0,3                                 | 0,5  | 0,3  | 0,3  | 0,5  | 0,3                                   | 0,5  | 0,3  | 0,3  |      |
| Reflexionsgrad Boden | 0,2       | 0,2                                 | 0,2  | 0,2  | 0,2  | 0,2  | 0,2                                   | 0,2  | 0,2  | 0,2  |      |
| <b>2H</b>            | <b>2H</b> | 21,0                                | 22,7 | 21,4 | 23,1 | 23,4 | 21,0                                  | 22,7 | 21,4 | 23,0 | 23,4 |
|                      | 3H        | 22,8                                | 24,3 | 23,2 | 24,7 | 25,0 | 22,4                                  | 24,0 | 22,8 | 24,3 | 24,6 |
|                      | 4H        | 23,6                                | 25,1 | 24,0 | 25,4 | 25,8 | 22,9                                  | 24,4 | 23,3 | 24,7 | 25,1 |
|                      | 6H        | 24,4                                | 25,7 | 24,8 | 26,1 | 26,5 | 23,3                                  | 24,6 | 23,7 | 25,0 | 25,4 |
|                      | 8H        | 24,7                                | 26,0 | 25,1 | 26,4 | 26,8 | 23,4                                  | 24,7 | 23,8 | 25,1 | 25,5 |
|                      | 12H       | 25,0                                | 26,2 | 25,5 | 26,6 | 27,0 | 23,5                                  | 24,7 | 23,9 | 25,1 | 25,5 |
| <b>4H</b>            | <b>2H</b> | 21,7                                | 23,2 | 22,1 | 23,5 | 23,9 | 21,7                                  | 23,2 | 22,1 | 23,5 | 23,9 |
|                      | 3H        | 23,7                                | 24,9 | 24,1 | 25,3 | 25,7 | 23,3                                  | 24,5 | 23,7 | 24,9 | 25,3 |
|                      | 4H        | 24,6                                | 25,8 | 25,1 | 26,2 | 26,6 | 23,9                                  | 25,1 | 24,4 | 25,5 | 25,9 |
|                      | 6H        | 25,6                                | 26,5 | 26,0 | 27,0 | 27,4 | 24,4                                  | 25,4 | 24,9 | 25,8 | 26,3 |
|                      | 8H        | 26,0                                | 26,9 | 26,4 | 27,3 | 27,8 | 24,6                                  | 25,5 | 25,0 | 25,9 | 26,4 |
|                      | 12H       | 26,4                                | 27,2 | 26,9 | 27,7 | 28,1 | 24,7                                  | 25,5 | 25,1 | 26,0 | 26,4 |
| <b>8H</b>            | <b>4H</b> | 25,0                                | 25,9 | 25,4 | 26,3 | 26,8 | 24,4                                  | 25,3 | 24,8 | 25,7 | 26,2 |
|                      | 6H        | 26,0                                | 26,8 | 26,5 | 27,3 | 27,8 | 25,0                                  | 25,7 | 25,5 | 26,2 | 26,7 |
|                      | 8H        | 26,6                                | 27,3 | 27,1 | 27,8 | 28,3 | 25,2                                  | 25,9 | 25,7 | 26,4 | 26,9 |
|                      | 12H       | 27,1                                | 27,7 | 27,6 | 28,2 | 28,7 | 25,3                                  | 25,9 | 25,9 | 26,4 | 27,0 |
| <b>12H</b>           | <b>4H</b> | 25,0                                | 25,8 | 25,5 | 26,3 | 26,8 | 24,5                                  | 25,3 | 24,9 | 25,7 | 26,2 |
|                      | 6H        | 26,1                                | 26,8 | 26,6 | 27,3 | 27,8 | 25,1                                  | 25,8 | 25,6 | 26,3 | 26,8 |
|                      | 8H        | 26,7                                | 27,3 | 27,2 | 27,8 | 28,3 | 25,4                                  | 26,0 | 25,9 | 26,5 | 27,0 |

|                              |                                 |                                    |                    |                           |                              |
|------------------------------|---------------------------------|------------------------------------|--------------------|---------------------------|------------------------------|
| <b>Leuchtdichten-Tabelle</b> | Max. für $\gamma \geq 65^\circ$ | Lichttechnische Abmessungen in mm: | L = 1590<br>B = 87 | H(C0) = 21<br>H(C90) = 21 | H(C180) = 21<br>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°      |          | 13794.3                           | 13879.8                     | 13981.3                     | 14273.7                     | 14889.8                     | 15714.4                     | 16804.6     |
| 50°      |          | 13083.0                           | 13131.5                     | 13229.6                     | 13431.5                     | 13939.4                     | 14722.5                     | 15917.0     |
| 55°      |          | 12405.8                           | 12420.3                     | 12496.3                     | 12594.8                     | 12987.4                     | 13671.8                     | 14930.5     |
| 60°      |          | 11736.6                           | 11726.7                     | 11747.1                     | 11784.4                     | 12043.2                     | 12608.3                     | 13878.0     |
| 65°      |          | 11148.2                           | 11121.4                     | 11027.3                     | 10957.3                     | 11111.2                     | 11536.5                     | 12775.7     |
| 70°      |          | 10643.0                           | 10582.9                     | 10308.3                     | 10113.6                     | 10131.6                     | 10407.7                     | 11591.5     |
| 75°      |          | 10116.3                           | 10020.8                     | 9636.4                      | 9245.5                      | 9016.2                      | 9109.2                      | 10183.6     |
| 80°      |          | 9558.1                            | 9399.4                      | 9014.2                      | 8319.3                      | 7739.9                      | 7482.4                      | 8327.8      |
| 85°      |          | 9150.7                            | 8957.0                      | 8538.2                      | 7667.0                      | 6517.1                      | 5584.2                      | 5816.0      |

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**Leuchtdichten in cd/m²**

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

**siteco**

