

## Lichttechnischer Prüfbefund

Familie  
Modario® 31

Bestell-Nr.: 53BM812C1V6105  
EAN: 4058352434604

LP-Nummer  
59064\_5



**Ausführung** Diffusoroptik, satiniert, breit strahlend  
**Bestückung** LED 6500 K | CRI ≥ 80  
**Betriebsgerät** EVG-Multilumen CLOi  
**Bemessungswerte** Nettolichtstrom = 10560 lm  
Systemleistung = 63.8 W  
Lichtausbeute = 165.5 lm/W

Seriendokumentation  
29.10.2020

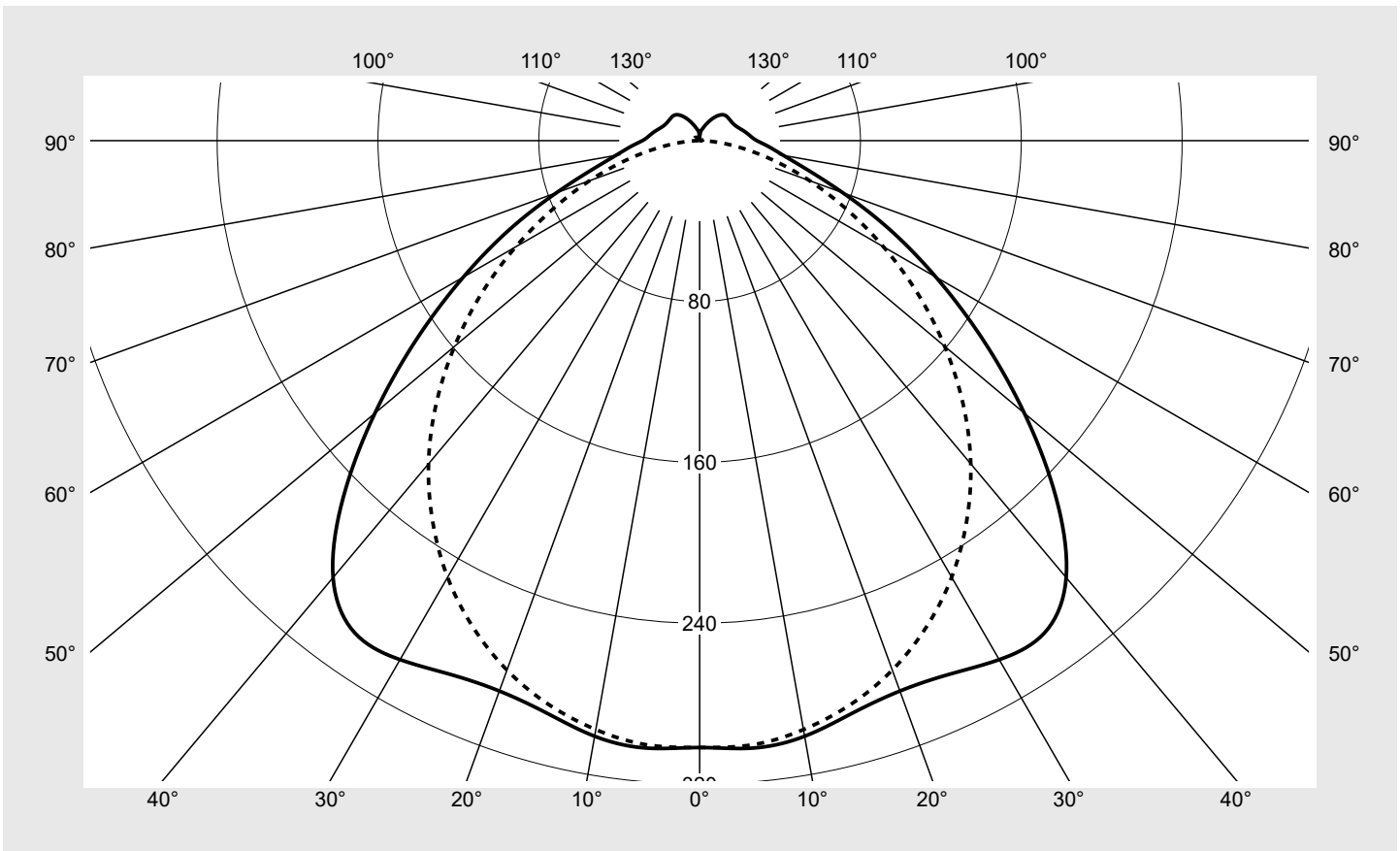
sitEco

Lichtstärke in cd/klm

C180-0

C270-90

Imax: 303 cd/klm



## Klassifizierungen

DIN 5040 A 4 1  
CIE N1=47 N2=80 N3=95  
N4=92 N5=100

## Leuchtenbetriebswirkungsgrade

$\eta_{LB}$  100,0%  
 $\phi_u$  92,2%  
 $\phi_o$  7,8%

## 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<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°                    | 301.8      | 301.8                | 301.8                | 301.8                | 301.8                | 301.8                | 301.8       | 1.8                  | 1.8               |  |
| 5°                    | 303.3      | 302.1                | 299.9                | 300.9                | 301.9                | 301.5                | 301.6       | 14.4                 | 16.2              |  |
| 10°                   | 300.8      | 300.0                | 297.7                | 298.5                | 298.9                | 297.8                | 297.4       | 28.4                 | 44.6              |  |
| 15°                   | 294.6      | 294.3                | 291.7                | 292.6                | 293.1                | 291.2                | 290.3       | 41.5                 | 86.1              |  |
| 20°                   | 291.3      | 290.6                | 285.8                | 284.4                | 284.3                | 281.8                | 280.2       | 53.5                 | 139.7             |  |
| 25°                   | 293.0      | 291.5                | 283.0                | 276.7                | 273.3                | 269.6                | 266.9       | 64.6                 | 204.3             |  |
| 30°                   | 298.0      | 296.0                | 283.3                | 270.8                | 261.1                | 254.6                | 250.8       | 74.9                 | 279.2             |  |
| 35°                   | 299.0      | 297.5                | 283.8                | 265.6                | 248.4                | 237.0                | 231.5       | 83.7                 | 362.9             |  |
| 40°                   | 283.7      | 284.3                | 276.5                | 258.3                | 235.0                | 217.5                | 209.8       | 89.2                 | 452.1             |  |
| 45°                   | 250.6      | 253.6                | 254.2                | 243.8                | 219.3                | 195.5                | 185.4       | 89.4                 | 541.5             |  |
| 50°                   | 210.8      | 214.1                | 220.0                | 218.9                | 199.3                | 171.7                | 159.1       | 84.6                 | 626.1             |  |
| 55°                   | 171.6      | 174.1                | 180.5                | 185.1                | 173.7                | 146.4                | 132.4       | 75.7                 | 701.8             |  |
| 60°                   | 135.7      | 137.3                | 141.6                | 147.2                | 142.6                | 119.7                | 105.6       | 64.0                 | 765.8             |  |
| 65°                   | 104.1      | 104.9                | 107.1                | 111.0                | 110.3                | 93.2                 | 80.6        | 51.2                 | 817.1             |  |
| 70°                   | 75.8       | 76.7                 | 78.0                 | 80.6                 | 80.3                 | 68.4                 | 58.2        | 38.7                 | 855.8             |  |
| 75°                   | 55.2       | 55.4                 | 55.7                 | 57.0                 | 55.4                 | 46.3                 | 38.3        | 27.9                 | 883.7             |  |
| 80°                   | 42.4       | 41.9                 | 40.8                 | 39.2                 | 35.6                 | 27.7                 | 21.5        | 19.5                 | 903.3             |  |
| 85°                   | 34.5       | 33.8                 | 31.7                 | 27.6                 | 21.5                 | 14.0                 | 8.7         | 13.7                 | 916.9             |  |
| 90°                   | 28.5       | 27.9                 | 25.4                 | 20.0                 | 13.0                 | 5.8                  | 0.8         | 9.7                  | 926.7             |  |
| 95°                   | 25.4       | 25.0                 | 22.9                 | 18.2                 | 11.9                 | 5.4                  | 1.1         | 8.8                  | 935.5             |  |
| 100°                  | 23.4       | 22.9                 | 21.0                 | 17.1                 | 11.6                 | 5.5                  | 1.7         | 8.2                  | 943.6             |  |
| 105°                  | 21.5       | 21.0                 | 19.3                 | 16.3                 | 11.6                 | 5.8                  | 2.4         | 7.6                  | 951.2             |  |
| 110°                  | 19.9       | 19.3                 | 18.1                 | 15.8                 | 11.8                 | 6.2                  | 2.9         | 7.1                  | 958.3             |  |
| 115°                  | 18.9       | 18.4                 | 17.5                 | 15.6                 | 12.1                 | 6.5                  | 2.9         | 6.7                  | 965.0             |  |
| 120°                  | 18.5       | 17.9                 | 17.3                 | 15.6                 | 12.2                 | 6.6                  | 2.9         | 6.3                  | 971.4             |  |
| 125°                  | 18.2       | 17.7                 | 17.1                 | 15.5                 | 11.7                 | 6.5                  | 2.7         | 5.9                  | 977.3             |  |
| 130°                  | 18.1       | 17.6                 | 16.9                 | 14.9                 | 10.9                 | 6.2                  | 2.5         | 5.4                  | 982.6             |  |
| 135°                  | 17.9       | 17.2                 | 16.1                 | 13.6                 | 9.8                  | 5.6                  | 2.4         | 4.7                  | 987.3             |  |
| 140°                  | 16.8       | 15.9                 | 14.5                 | 12.0                 | 8.4                  | 5.0                  | 2.2         | 3.8                  | 991.1             |  |
| 145°                  | 14.9       | 14.0                 | 12.6                 | 10.1                 | 6.9                  | 4.5                  | 2.0         | 3.0                  | 994.1             |  |
| 150°                  | 12.5       | 11.8                 | 10.5                 | 8.0                  | 5.7                  | 4.2                  | 1.8         | 2.2                  | 996.3             |  |
| 155°                  | 10.2       | 9.6                  | 8.4                  | 6.3                  | 5.0                  | 3.7                  | 1.6         | 1.5                  | 997.8             |  |
| 160°                  | 8.1        | 7.7                  | 6.3                  | 5.1                  | 4.6                  | 3.6                  | 1.5         | 1.0                  | 998.8             |  |
| 165°                  | 6.4        | 6.2                  | 4.7                  | 4.5                  | 4.1                  | 4.7                  | 1.5         | 0.7                  | 999.5             |  |
| 170°                  | 5.4        | 4.4                  | 3.9                  | 4.0                  | 3.9                  | 3.8                  | 1.5         | 0.4                  | 999.8             |  |
| 175°                  | 3.9        | 3.2                  | 4.4                  | 4.7                  | 3.9                  | 2.2                  | 1.5         | 0.2                  | 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  | 23,0                                | 24,7 | 23,3 | 25,0 | 25,3 | 22,8                                  | 24,5 | 23,1 | 24,8 | 25,1 |
|                 | 3H  | 24,0                                | 25,5 | 24,3 | 25,8 | 26,2 | 23,9                                  | 25,5 | 24,3 | 25,8 | 26,1 |
|                 | 4H  | 24,3                                | 25,8 | 24,7 | 26,1 | 26,5 | 24,3                                  | 25,8 | 24,7 | 26,1 | 26,5 |
|                 | 6H  | 24,7                                | 26,0 | 25,1 | 26,3 | 26,7 | 24,6                                  | 26,0 | 25,0 | 26,3 | 26,7 |
|                 | 8H  | 24,9                                | 26,1 | 25,3 | 26,5 | 26,9 | 24,7                                  | 26,0 | 25,1 | 26,4 | 26,8 |
|                 | 12H | 25,0                                | 26,2 | 25,5 | 26,6 | 27,0 | 24,8                                  | 26,0 | 25,2 | 26,3 | 26,8 |
| 4H              | 2H  | 23,6                                | 25,1 | 24,0 | 25,4 | 25,8 | 23,5                                  | 24,9 | 23,9 | 25,3 | 25,7 |
|                 | 3H  | 24,8                                | 26,0 | 25,2 | 26,4 | 26,8 | 24,9                                  | 26,1 | 25,3 | 26,5 | 26,9 |
|                 | 4H  | 25,2                                | 26,3 | 25,7 | 26,7 | 27,2 | 25,4                                  | 26,5 | 25,8 | 26,9 | 27,3 |
|                 | 6H  | 25,7                                | 26,6 | 26,1 | 27,1 | 27,5 | 25,8                                  | 26,7 | 26,2 | 27,2 | 27,6 |
|                 | 8H  | 25,9                                | 26,8 | 26,4 | 27,2 | 27,7 | 25,9                                  | 26,8 | 26,3 | 27,2 | 27,7 |
|                 | 12H | 26,2                                | 26,9 | 26,6 | 27,4 | 27,9 | 26,0                                  | 26,8 | 26,4 | 27,2 | 27,7 |
| 8H              | 4H  | 25,5                                | 26,4 | 26,0 | 26,8 | 27,3 | 25,6                                  | 26,5 | 26,1 | 27,0 | 27,4 |
|                 | 6H  | 26,1                                | 26,8 | 26,5 | 27,3 | 27,8 | 26,1                                  | 26,9 | 26,6 | 27,4 | 27,8 |
|                 | 8H  | 26,4                                | 27,0 | 26,9 | 27,5 | 28,0 | 26,3                                  | 27,0 | 26,8 | 27,5 | 28,0 |
|                 | 12H | 26,7                                | 27,3 | 27,2 | 27,8 | 28,3 | 26,5                                  | 27,0 | 27,0 | 27,5 | 28,1 |
| 12H             | 4H  | 25,5                                | 26,3 | 26,0 | 26,8 | 27,3 | 25,7                                  | 26,5 | 26,2 | 26,9 | 27,4 |
|                 | 6H  | 26,1                                | 26,8 | 26,6 | 27,3 | 27,8 | 26,2                                  | 26,9 | 26,7 | 27,4 | 27,9 |
|                 | 8H  | 26,5                                | 27,1 | 27,0 | 27,6 | 28,1 | 26,5                                  | 27,0 | 27,0 | 27,5 | 28,0 |

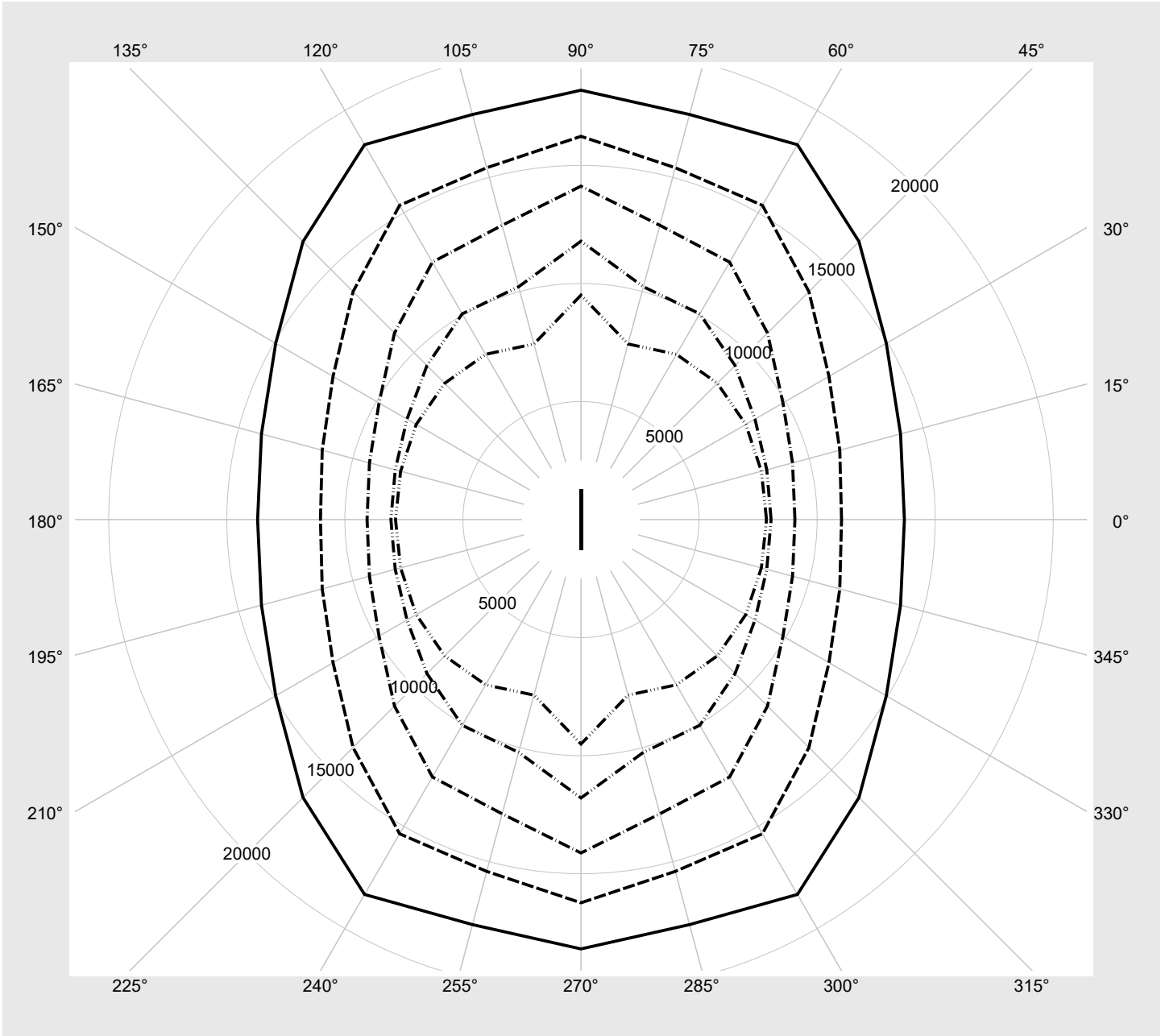
|  |   |            |              |            |             |
|--|---|------------|--------------|------------|-------------|
| <b>Leuchtdichten-Tabelle</b> Max. für $\gamma \geq 65^\circ$ | <b>Lichttechnische Abmessungen in mm:</b> L = 1476 B = 75 | H(C0) = 25 | H(C180) = 25 | H(C90) = 0 | H(C270) = 0 |
|--|---|------------|--------------|------------|-------------|

| 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°      |          | 25358.9                           | 25874.9                     | 26605.9                     | 26616.2                     | 25360.1                     | 24275.4                     | 25007.7     |
| 50°      |          | 22394.6                           | 22963.2                     | 24286.4                     | 25363.6                     | 24678.6                     | 23105.4                     | 23617.2     |
| 55°      |          | 19337.1                           | 19837.2                     | 21256.5                     | 23030.7                     | 23329.8                     | 21674.5                     | 22011.6     |
| 60°      |          | 16417.0                           | 16814.2                     | 18009.2                     | 19944.5                     | 21109.6                     | 19873.5                     | 20147.6     |
| 65°      |          | 13696.2                           | 14010.2                     | 14930.2                     | 16649.8                     | 18333.5                     | 17760.6                     | 18184.6     |
| 70°      |          | 11034.3                           | 11346.3                     | 12126.2                     | 13651.6                     | 15366.8                     | 15426.7                     | 16231.2     |
| 75°      |          | 9060.1                            | 9274.6                      | 9877.0                      | 11170.7                     | 12589.3                     | 12902.7                     | 14121.4     |
| 80°      |          | 8050.1                            | 8145.1                      | 8509.0                      | 9225.9                      | 10061.7                     | 10207.7                     | 11790.1     |
| 85°      |          | 7856.6                            | 7908.9                      | 8058.2                      | 8163.6                      | 8081.7                      | 7698.6                      | 9504.7      |

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

| DIP-Stufe | Schalterstellung |   |   | Lichtstrom<br>[lm] | Systemleistung<br>[W] | Systemleistung [W]<br>Lebensdauerende | Systemleistung [W]<br>Durchschnitt |
|-----------|------------------|---|---|--------------------|-----------------------|---------------------------------------|------------------------------------|
|           | 1                | 2 | 3 |                    |                       |                                       |                                    |
| 1         | A                | C | E | 10560              | 63.8                  | 73.1                                  | 68.4                               |
| 2         | A                | C | F | 10090              | 60.6                  | 69.3                                  | 65.0                               |
| 3         | A                | D | E | 9070               | 53.8                  | 61.0                                  | 57.4                               |
| 4         | A                | D | F | 8020               | 47.0                  | 53.3                                  | 50.2                               |
| 5         | B                | C | E | 7030               | 40.8                  | 46.1                                  | 43.4                               |
| 6         | B                | C | F | 6010               | 34.7                  | 39.0                                  | 36.8                               |
| 7         | B                | D | E | 5050               | 29.1                  | 32.5                                  | 30.8                               |
| 8         | B                | D | F | 4060               | 23.5                  | 26.1                                  | 24.8                               |