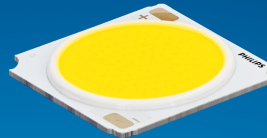


**PHILIPS**

**Fortimo**

**LED**

Fortimo SLM C 8xx 1205  
L15 1919 G8N



Datasheet

# Best offer of performance and value

## Fortimo LED SLM CRI80 G8N Standard

The Fortimo SLM family is Signify's core portfolio, now in its latest generation - Gen 8. This new generation boasts improved efficacy compared to the previous one and an expanded portfolio that includes specific spectrums such as Premium White, Premium Color, and standard color for all applications. It maintains the same two footprints as the previous generation, enabling easy upgrades. Together with other Fortimo SLM G8 product lines, our Fortimo SLM G8 will continuously unlock the extraordinary potential of light, facilitate innovation, and inspire the next generation of luminaire design for our OEM customers. Please also visit the online Easy Design-in Tool for your perfect system combination at [www.easydesignintool.com](http://www.easydesignintool.com).

### Key features and benefits

- +5% efficacy further improvement Vs G7
- Best quality of light available for all applications
- More complete portfolio for easy choice
- Same footprint for easy upgrade
- System proposition

March 2025



## Ordering data

| Commercial product name             | EOC               | 12NC           | EPREL registration # | Box quantity |
|-------------------------------------|-------------------|----------------|----------------------|--------------|
| Fortimo SLM C 827 1205 L15 1919 G8N | 8721103 080660 00 | 9290 039 60801 | 2270363              | 20           |
| Fortimo SLM C 830 1205 L15 1919 G8N | 8721103 080691 00 | 9290 039 60901 | 2270383              | 20           |
| Fortimo SLM C 835 1205 L15 1919 G8N | 8721103 080721 00 | 9290 039 61001 | 2270113              | 20           |
| Fortimo SLM C 840 1205 L15 1919 G8N | 8721103 080752 00 | 9290 039 61101 | 2270356              | 20           |
| Fortimo SLM C 850 1205 L15 1919 G8N | 8721103 080783 00 | 9290 039 61201 | 2270098              | 20           |
| Fortimo SLM C 857 1205 L15 1919 G8N | 8721103 080813 00 | 9290 039 61301 | 2270126              | 20           |

## Drive currents

| Parameter                           | Nominal* | Life**                 | Max*** | Unit |
|-------------------------------------|----------|------------------------|--------|------|
| Fortimo SLM C 8xx 1205 L15 1919 G8N | 450      | see performance window | 1150   | mA   |

## Module temperatures

| Parameter   | Nominal* | Life**                 | Max*** | Unit |
|---|----------|------------------------|--------|------|
| T <sub>c</sub> (case temperature at T <sub>c</sub> point) | 65       | see performance window | 95     | °C   |

\* Nominal value at which typical performance is specified

\*\* Value at which life time is specified

\*\*\* Maximum value for safe operation, do not operate above this value

## Optical characteristics - table per color (CCT)

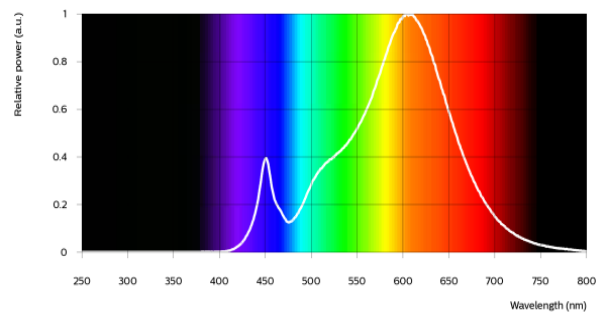
### Fortimo SLM C 827 1205 L15 1919 G8N

| Parameter                          | Min  | Typ            | Max  | Unit |
|------------------------------------|------|----------------|------|------|
| Luminous flux                      | 2270 | 2390           | 2629 | lm   |
| Efficacy                           |      | 154            |      | lm/W |
| Correlated color temperature (CCT) |      | 2700           |      | K    |
| Color coordinates (CIEx, CIEy)     |      | (0.458, 0.410) |      | -    |
| Color consistency                  |      |                | 3    | SDCM |
| CRI                                | 80   |                |      |      |
| R9                                 | >0   |                |      |      |
| Photometric code                   |      | 827/359        |      |      |
| Photobiological safety             |      | RG1 unlimited  |      |      |



Measurement precision  $\pm 5\%$  for the flux data and  $\pm 6\%$  for the efficacy data. Measurement precision for color coordinates  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

| Operation point | 827          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 360mA | Tc 25 °C     | 2016 | 164  |
|                 | Tc-nom 65 °C | 1942 | 159  |
|                 | Tc-max 95 °C | 1857 | 155  |
| I-nom 450mA     | Tc 25 °C     | 2483 | 158  |
|                 | Tc-nom 65 °C | 2390 | 154  |
|                 | Tc-max 95 °C | 2285 | 149  |
| I-max 1150mA    | Tc 25 °C     | 5775 | 127  |
|                 | Tc-nom 65 °C | 5531 | 123  |
|                 | Tc-max 95 °C | 5255 | 118  |



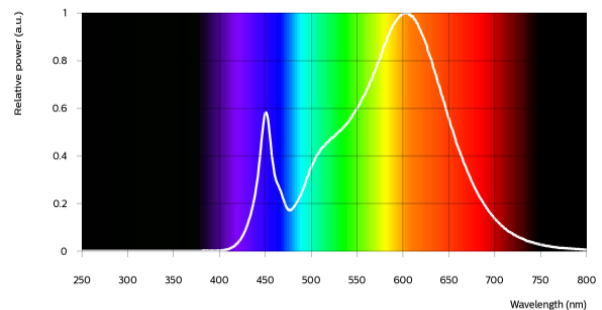
### Fortimo SLM C 830 1205 L15 1919 G8N

| Parameter                          | Min  | Typ            | Max  | Unit |
|------------------------------------|------|----------------|------|------|
| Luminous flux                      | 2413 | 2540           | 2794 | lm   |
| Efficacy                           |      | 164            |      | lm/W |
| Correlated color temperature (CCT) |      | 3000           |      | K    |
| Color coordinates (CIEx, CIEy)     |      | (0.434, 0.403) |      | -    |
| Color consistency                  |      |                | 3    | SDCM |
| CRI                                | 80   |                |      |      |
| R9                                 | >0   |                |      |      |
| Photometric code                   |      | 830/359        |      |      |
| Photobiological safety             |      | RG1 unlimited  |      |      |




Measurement precision  $\pm 5\%$  for the flux data and  $\pm 6\%$  for the efficacy data. Measurement precision for color coordinates  $\pm 0.005$ . Measurement precision for CRI  $\pm 1.5$ .

| Operation point | 830          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 360mA | Tc 25 °C     | 2143 | 174  |
|                 | Tc-nom 65 °C | 2063 | 169  |
|                 | Tc-max 95 °C | 1974 | 164  |
| I-nom 450mA     | Tc 25 °C     | 2639 | 168  |
|                 | Tc-nom 65 °C | 2540 | 164  |
|                 | Tc-max 95 °C | 2428 | 159  |
| I-max 1150mA    | Tc 25 °C     | 6138 | 135  |
|                 | Tc-nom 65 °C | 5880 | 131  |
|                 | Tc-max 95 °C | 5588 | 126  |

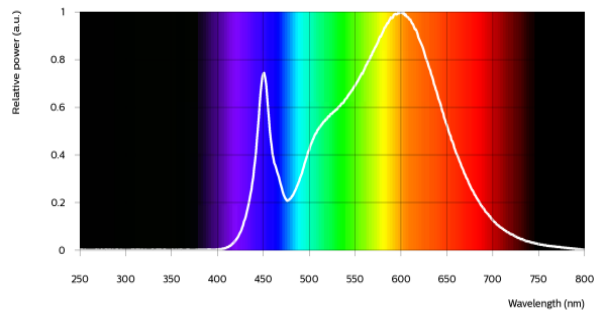


Fortimo SLM C 835 1205 L15 1919 G8N


| Parameter                          | Min   | Typ            | Max  | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux                      | 2475  | 2605           | 2866 | lm   |
| Efficacy                           |   | 168            |      | lm/W |
| Correlated color temperature (CCT) |   | 3500           |      | K    |
| Color coordinates (CIEx, CIEy)     |   | (0.408, 0.393) |      | -    |
| Color consistency                  |   |                | 3    | SDCM |
| CRI                                | 80  |                |      |      |
| R9                                 | >0  |                |      |      |
| Photometric code                   |  | 835/359        |      |      |
| Photobiological safety             |   | RG1 unlimited  |      |      |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 835          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 360mA | Tc 25 °C     | 2198 | 179  |
|                 | Tc-nom 65 °C | 2116 | 173  |
|                 | Tc-max 95 °C | 2024 | 169  |
| I-nom 450mA     | Tc 25 °C     | 2706 | 172  |
|                 | Tc-nom 65 °C | 2605 | 168  |
|                 | Tc-max 95 °C | 2491 | 163  |
| I-max 1150mA    | Tc 25 °C     | 6296 | 139  |
|                 | Tc-nom 65 °C | 6031 | 134  |
|                 | Tc-max 95 °C | 5732 | 129  |

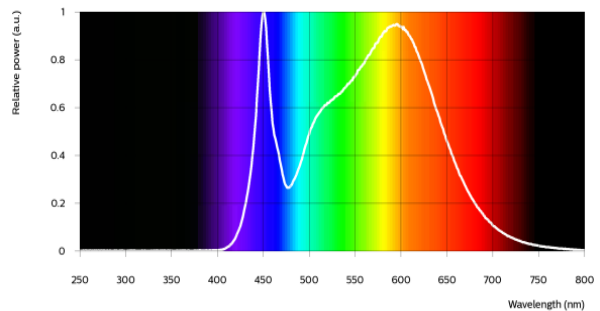


Fortimo SLM C 840 1205 L15 1919 G8N


| Parameter                          | Min   | Typ            | Max  | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux                      | 2513  | 2645           | 2910 | lm   |
| Efficacy                           |   | 171            |      | lm/W |
| Correlated color temperature (CCT) |   | 4000           |      | K    |
| Color coordinates (CIEx, CIEy)     |   | (0.382, 0.380) |      | -    |
| Color consistency                  |   |                | 3    | SDCM |
| CRI                                | 80  |                |      |      |
| R9                                 | >0  |                |      |      |
| Photometric code                   |  | 840/359        |      |      |
| Photobiological safety             |   | RG1 unlimited  |      |      |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 840          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 360mA | Tc 25 °C     | 2231 | 181  |
|                 | Tc-nom 65 °C | 2149 | 176  |
|                 | Tc-max 95 °C | 2055 | 171  |
| I-nom 450mA     | Tc 25 °C     | 2748 | 175  |
|                 | Tc-nom 65 °C | 2645 | 171  |
|                 | Tc-max 95 °C | 2529 | 165  |
| I-max 1150mA    | Tc 25 °C     | 6393 | 140  |
|                 | Tc-nom 65 °C | 6125 | 136  |
|                 | Tc-max 95 °C | 5821 | 131  |

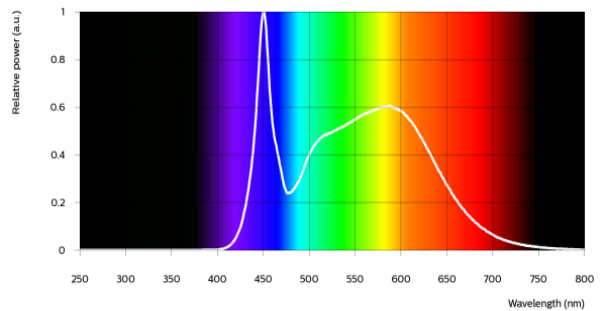


Fortimo SLM C 850 1205 L15 1919 G8N


| Parameter                          | Min   | Typ            | Max  | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux                      | 2513  | 2645           | 2910 | lm   |
| Efficacy                           |   | 171            |      | lm/W |
| Correlated color temperature (CCT) |   | 5000           |      | K    |
| Color coordinates (CIEx, CIEy)     |   | (0.345, 0.355) |      | -    |
| Color consistency                  |   |                | 3    | SDCM |
| CRI                                | 80  |                |      |      |
| R9                                 | >0  |                |      |      |
| Photometric code                   |  | 850/359        |      |      |
| Photobiological safety             |   | RG1 unlimited  |      |      |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 850          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 360mA | Tc 25 °C     | 2231 | 181  |
|                 | Tc-nom 65 °C | 2149 | 176  |
|                 | Tc-max 95 °C | 2055 | 171  |
| I-nom 450mA     | Tc 25 °C     | 2748 | 175  |
|                 | Tc-nom 65 °C | 2645 | 171  |
|                 | Tc-max 95 °C | 2529 | 165  |
| I-max 1150mA    | Tc 25 °C     | 6393 | 140  |
|                 | Tc-nom 65 °C | 6125 | 136  |
|                 | Tc-max 95 °C | 5821 | 131  |

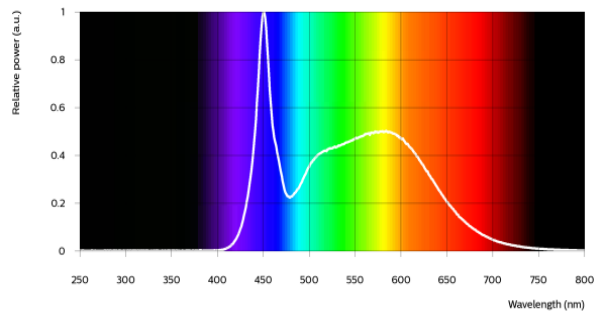


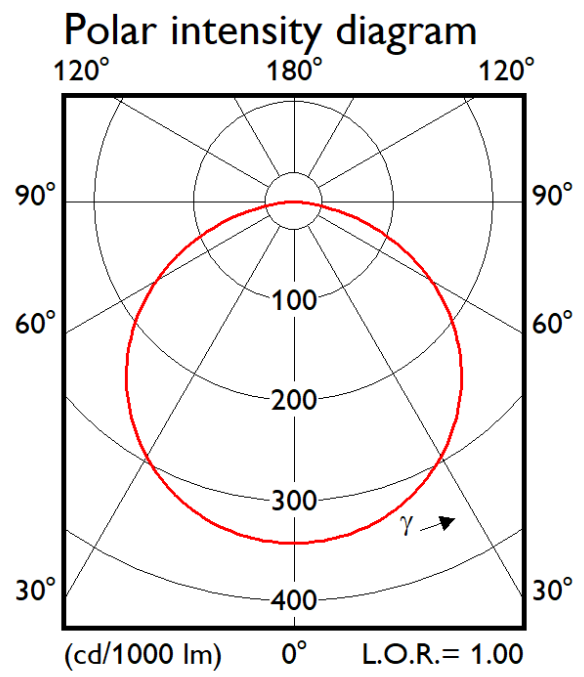
Fortimo SLM C 857 1205 L15 1919 G8N

| Parameter                          | Min   | Typ            | Max  | Unit |
|------------------------------------|---|----------------|------|------|
| Luminous flux                      | 2513  | 2645           | 2910 | lm   |
| Efficacy                           |   | 171            |      | lm/W |
| Correlated color temperature (CCT) |   | 5700           |      | K    |
| Color coordinates (CIEx, CIEy)     |   | (0.329, 0.343) |      | -    |
| Color consistency                  |   |                | 3    | SDCM |
| CRI                                | 80  |                |      |      |
| R9                                 | >0  |                |      |      |
| Photometric code                   |  | 857/359        |      |      |
| Photobiological safety             |   | RG1 unlimited  |      |      |

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5.

| Operation point | 857          | lm   | lm/W |
|-----------------|--------------|------|------|
| 80% I-nom 360mA | Tc 25 °C     | 2231 | 181  |
|                 | Tc-nom 65 °C | 2149 | 176  |
|                 | Tc-max 95 °C | 2055 | 171  |
| I-nom 450mA     | Tc 25 °C     | 2748 | 175  |
|                 | Tc-nom 65 °C | 2645 | 171  |
|                 | Tc-max 95 °C | 2529 | 165  |
| I-max 1150mA    | Tc 25 °C     | 6393 | 140  |
|                 | Tc-nom 65 °C | 6125 | 136  |
|                 | Tc-max 95 °C | 5821 | 131  |





## Electrical characteristics

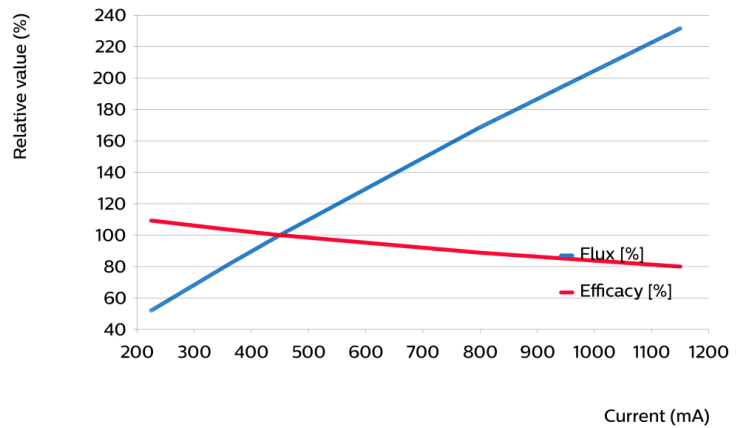
| Parameter                             | Min  | Typ  | Max  | Unit          |
|---------------------------------------|------|------|------|---------------|
| Forward voltage                       | 32.5 | 34.5 | 37.0 | V             |
| Power consumption                     | 14.6 | 15.5 | 16.7 | W = kWh/1000h |
| Number of modules in series per chain |      |      | 1    |               |
| Number of modules per chain           |      |      | 1    |               |
| Number of modules in parallel         |      |      | 1    |               |

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%

## Tuning information

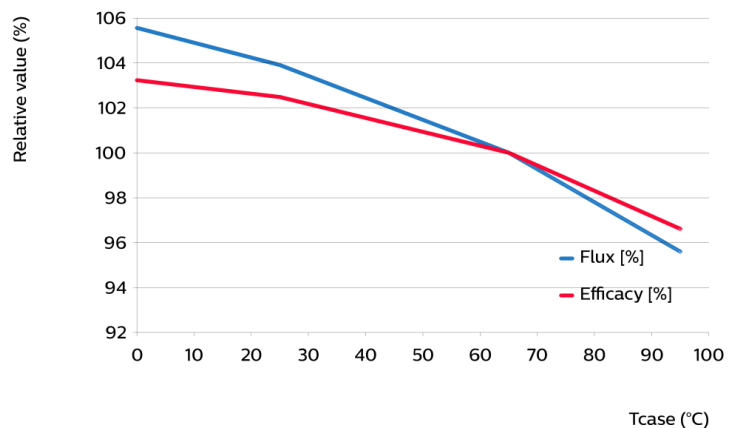
Flux and efficacy versus current (at Tc nominal)

| I [mA] | Flux [%] | Efficacy [%] |
|--------|----------|--------------|
| 1150   | 231      | 80           |
| 800    | 169      | 89           |
| 450    | 100      | 100          |
| 360    | 81       | 103          |
| 225    | 52       | 109          |



Flux and efficacy versus temperature at Tc (at I nominal)

| Tc [°C] | Flux [%] | Efficacy [%] |
|---------|----------|--------------|
| 95      | 96       | 97           |
| 65      | 100      | 100          |
| 25      | 104      | 102          |
| 0       | 106      | 103          |



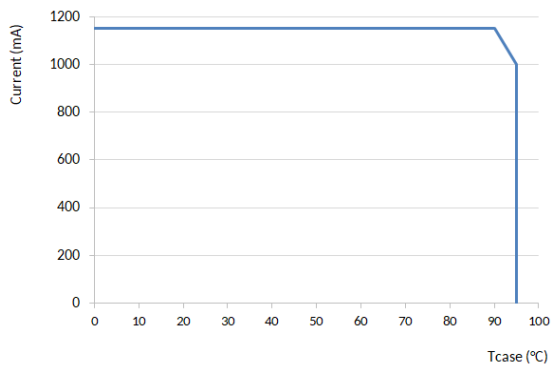
## Lumen maintenance

| Operation point | Lumen maintenance<br>x 1000 hours | L70 |     |     | L80 |     |     | L90 |     |     |
|-----------------|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                 |                                   | B50 | B20 | B10 | B50 | B20 | B10 | B50 | B20 | B10 |
| 80% I-nom 360mA | Tc 50°C                           | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
|                 | Tc 65°C                           | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
|                 | Tc 95°C                           | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
| I-nom 450mA     | Tc 50°C                           | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
|                 | Tc 65°C                           | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 |
|                 | Tc 95°C                           | >66 | >66 | >66 | >66 | >66 | >66 | >66 | >66 | 62  |
| I-max 1150mA    | Tc 50°C                           | >66 | >66 | >66 | >66 | 58  | 53  | 32  | 27  | 25  |
|                 | Tc 65°C                           | >66 | >66 | 64  | 51  | 43  | 40  | 24  | 20  | 18  |
|                 | Tc 95°C                           | 50  | 42  | 39  | 31  | 26  | 24  | 14  | 12  | 11  |

## Lifetime

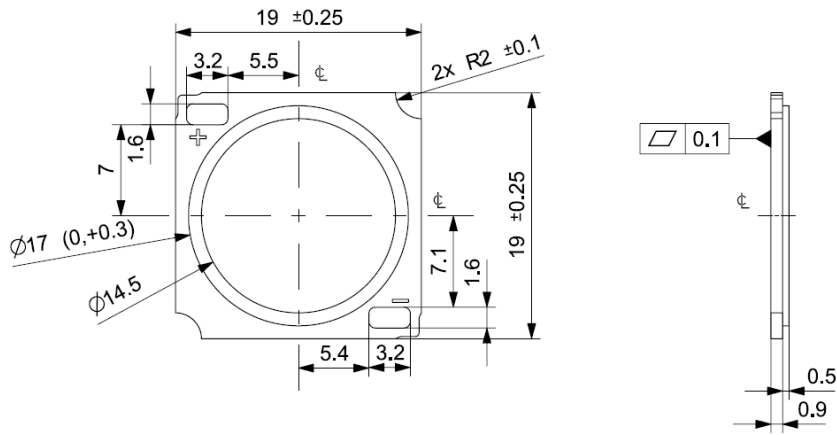
| Parameter      | Value  | Unit  |
|----------------|--------|-------|
| M70F50 nominal | >66000 | hours |

## Performance Window



## Mechanical characteristics

| Parameter            | Min   | Typ  | Max   | Unit |
|----------------------|-------|------|-------|------|
| Length               | 18.75 | 19   | 19.25 | mm   |
| Width                | 18.75 | 19   | 19.25 | mm   |
| Height PCB           | 0.8   | 0.9  | 1     | mm   |
| Height including dam | 1.1   | 1.4  | 1.7   | mm   |
| Product mass         |       | 0.97 |       | gram |



## Absolute ratings

| Parameter                              | Min | Max  | Unit            |
|--|-----|------|-----------------|
| Current through the LED module (I-max) |     | 1150 | mA              |
| Case temperature (Tc-max)              |     | 95   | °C              |
| ESD (direct contact)                   | 8   |      | kV              |
| Working voltage                        |     | 60   | V <sub>dc</sub> |
| Ambient temperature                    | -20 | 40   | °C              |
| Storage temperature                    | -40 | 80   | °C              |

At illumination levels exceeding 1372 lux risk group classification may be RG2.

## Application information

### Certificates and Standards

CB  
 CE  
 ENEC  
 IEC/EN 62031  
 UKCA  
 UL  
 UL 8750

### Environmental

RoHS/REACH

### Application

|                        |                          |
|------------------------|--------------------------|
| IP rating              | No IP-rating             |
| Overheating protection | No                       |
| Luminaire class        | IEC Class I and Class II |
| Dimming                | Yes                      |



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