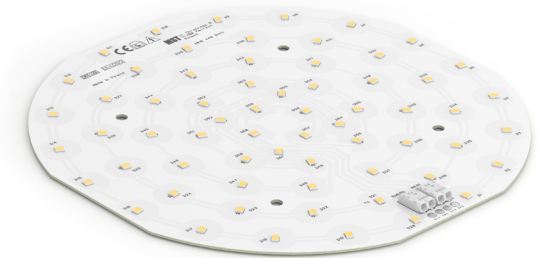


## Round LED modules 190mm

### Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- Available CCT from 2700K to 6500K and CRI 80, 90



### RdLED CRI 80 Optimum G2

| Product name                          | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage <sup>1</sup> Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|---------------------------------------|----------------|------------------------|-----------------------------|-----------------------------------|--|-----------------------------|--------------------------|------------------------------|--|-----------------------------|-------------------------|
| RdLED 190mm 1500lm 830 36V EMG Opt G2 | 1010 117 44646 | 3000                   | 250                         | 1450                              | 1532                                   | 33                          | 8.3                      | 174                          | 50                                       | 750                         | C                       |
| Emergency light                       |                |                        | 320                         | 151                               | 159                                    | 2.8                         | 0.9                      | 169                          | 40                                       | 600                         |                         |
| RdLED 190mm 1500lm 840 36V EMG Opt G2 | 1010 117 44746 | 4000                   | 250                         | 1508                              | 1609                                   | 33                          | 8.3                      | 181                          | 50                                       | 750                         | C                       |
| Emergency light                       |                |                        | 320                         | 157                               | 167                                    | 2.8                         | 0.9                      | 172                          | 40                                       | 600                         |                         |

<sup>1</sup>At nominal current and T<sub>p</sub>

<sup>2</sup>At nominal current and 25°C

<sup>3</sup>It is recommended not to operate below minimum current in order to avoid un-even brightness

Tolerance range for optical and electrical ±10%

### Temperature & humidity

| Specification item                         | Unit | Value       |
|--|------|-------------|
| T <sub>p</sub>                             | [°C] | 45          |
| T <sub>p rated</sub>                       | [°C] | 65          |
| T <sub>c</sub>                             | [°C] | 85          |
| Relative humidity (non-condensing)         | [%]  | 5 ... 85    |
| Storage ambient temperature                | [°C] | -25 ... +85 |
| Storage relative humidity (non-condensing) | [%]  | 5 ... 85    |

T<sub>p</sub> - Temperature related to the performance parameters of the LED modules

T<sub>p rated</sub> - Maximum operating temperature to which the rated performance characteristics are declared

T<sub>c</sub> - Highest permissible value for safe operation

### Technical data

| Specification item               | Unit   | Value         |
|----------------------------------|--------|---------------|
| Classification acc. to IEC 62031 |        | built-in      |
| Working voltage                  | [Vdc]  | 350           |
| Beam angle                       | [deg]  | 120           |
| Initial color consistency        | [SDCM] | 3             |
| Photobiological safety           |        | RG1 unlimited |

### Color coordinates

According to CIE 1931

| Specification item | CIEx   | CIEy   |
|--------------------|--------|--------|
| 2700K              | 0.4578 | 0.4101 |
| 3000K              | 0.4338 | 0.4030 |
| 4000K              | 0.3818 | 0.3797 |
| 6500K              | 0.3123 | 0.3282 |

## Round LED modules 190mm

### Certificates & standards

| Specification item | Compliant    |
|--------------------|--------------|
| ENEC               | Yes          |
| CE                 | Yes          |
| RoHS               | Yes          |
| REACH              | Yes          |
| Zhaga              | No           |
| IP rating          | No IP rating |

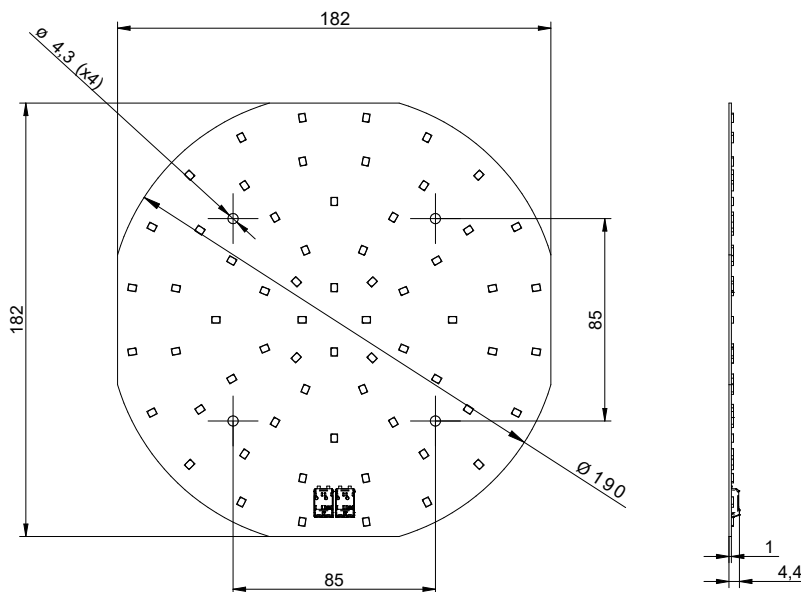
### Lumen maintenance

### RdLED CRI 80

| Forward current | Tp temp. | L70 [h]  |          | L80 [h]  |          | L90 [h] |        |
|-----------------|----------|----------|----------|----------|----------|---------|--------|
|                 |          | B50      | B10      | B50      | B10      | B50     | B10    |
| If nom          | 45°C     | >102 000 | >102 000 | >102 000 | >102 000 | 76 000  | 66 000 |
|                 | 55°C     | >102 000 | >102 000 | >102 000 | >102 000 | 76 000  | 66 000 |
|                 | 65°C     | >102 000 | >102 000 | >102 000 | >102 000 | 74 000  | 66 000 |
|                 | 75°C     | >102 000 | >102 000 | >102 000 | >102 000 | 74 000  | 65 000 |
|                 | 85°C     | >102 000 | >102 000 | >102 000 | >102 000 | 73 000  | 64 000 |
| If max          | 45°C     | >72 000  | >72 000  | >72 000  | >72 000  | 51 000  | 39 000 |
|                 | 55°C     | >72 000  | >72 000  | >72 000  | >72 000  | 51 000  | 39 000 |
|                 | 65°C     | >72 000  | >72 000  | >72 000  | >72 000  | 48 000  | 37 000 |
|                 | 75°C     | >72 000  | >72 000  | >72 000  | >72 000  | 45 000  | 35 000 |
|                 | 85°C     | >72 000  | >72 000  | >72 000  | 69 000   | 43 000  | 34 000 |

reported data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

### Dimensions



### Mounting

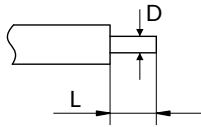
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max. torque for fixing: 0,5Nm.

LED modules are sensitive to electrostatic discharge (ESD). Follow safety regulations according to IEC 61340-5-1.

## Round LED modules 190mm

### Wiring

Wire cross section and strip length:



| D - wire cross section<br>(solid and flexible wires) | Min                | Max                 |
|--|--------------------|---------------------|
|  | 0.2mm <sup>2</sup> | 0.75mm <sup>2</sup> |
|  | AWG 24             | AWG 18              |

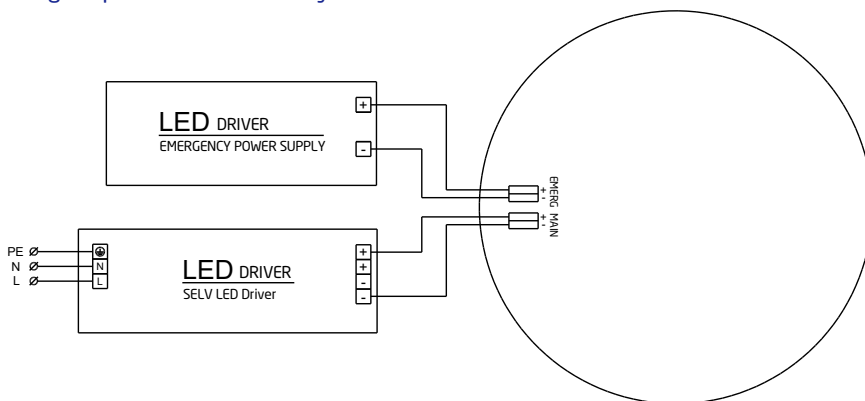
| L - strip length | Min | Max |
|------------------|-----|-----|
|                  | 8mm | 9mm |

Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:



### Connections

Wiring for parallel connection system



### Energy Label / EPREL database

To obtain Energy Label for this product visit <https://eprel.ec.europa.eu/> and enter model identifier

Model identifier consists of 10 digits XXXX XXX XXX. It is printed directly on the LED module or on product label. This is the number you can see in EPREL database.

Ordering code consist of 12 digits XXXX XXX XXX46. Additional last two digits means packaging of the product.

### Ordering codes

| Product name                          | Ordering code  | Pieces per box | Pieces per pallet | Box dimensions [mm] |
|---------------------------------------|----------------|----------------|-------------------|---------------------|
| RdLED 190mm 1500lm 830 36V EMG Opt G2 | 1010 117 44646 | 20             | 2100              | 238 x 238 x 91      |
| RdLED 190mm 1500lm 840 36V EMG Opt G2 | 1010 117 44746 | 20             | 2100              | 238 x 238 x 91      |