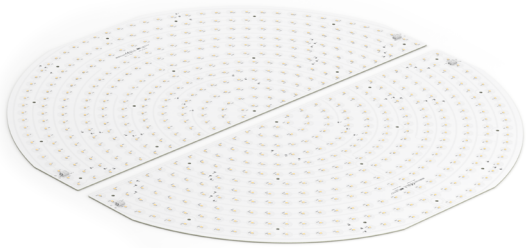
MST Your solutions

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

# Round LED modules 1/2 740mm

**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[1] ϕ [lm] | Useful luminous flux[2] [lm] | Voltage[1] Vf [V] | Power[1] P [W] | Efficacy[1] [lm/W] | Current minimum If min[3] [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RdLED 1/2 740mm 5000lm 830 90V Opt G2 | 1010 117 87446 | 3000 | 320 | 4765 | 4930 | 82 | 26 | 182 | 100 | 1500 | C |
| RdLED 1/2 740mm 5000lm 830 45V Opt G2 | 1010 117 87246 | | 640 | 4765 | 4930 | 41 | 26 | 182 | 200 | 2500 | C |
| RdLED 1/2 740mm 5000lm 840 90V Opt G2 | 1010 117 87546 | 4000 | 320 | 5005 | 5178 | 82 | 26 | 191 | 100 | 1500 | C |
| RdLED 1/2 740mm 5000lm 840 45V Opt G2 | 1010 117 87346 | | 640 | 5005 | 5178 | 41 | 26 | 191 | 200 | 2500 | C |

[1]At nominal current and Tp
[2]At nominal current and 25°C
[3]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 |
|---|---|---|
| Tp | [°C] | 45 |
| Tp rated | [°C] | 65 |
| Tc | [°C] | 85 |
| Relative humidity (non-condensing) | [%] | 5 ... 85 |
| | | |
| Storage ambient temperature | [°C] | -25 ... +85 |
| Storage relative humidity (non-condesing) | [%] | 5 ... 85 |

Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - 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 |

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## Certificates & standards

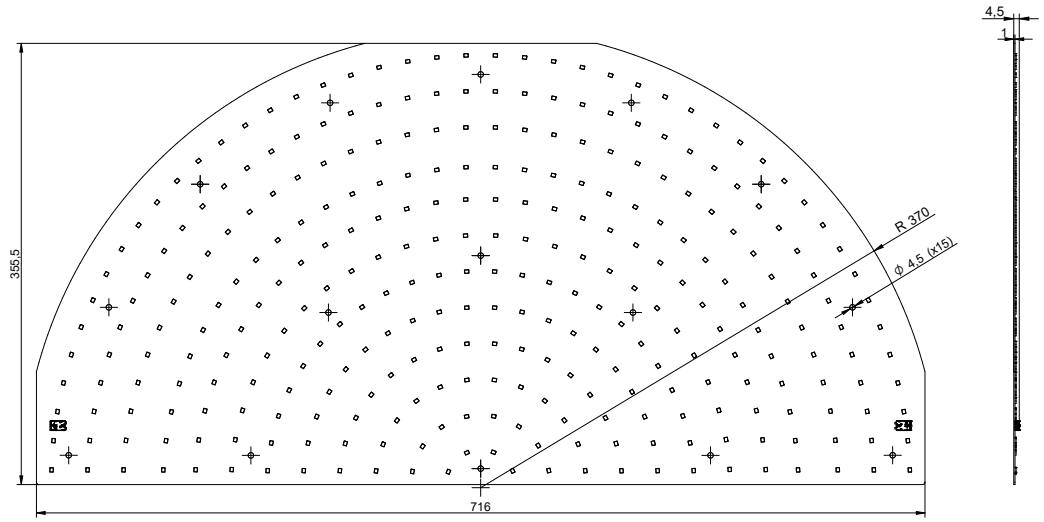
| Specification item | Compliant |
|---|---|
| ENEC | Yes |
| CE | Yes |
| RoHS | Yes |
| REACH | Yes |
| Zhaga | No |
| IP rating | No IP rating |

## 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 | 80 000 | 71 000 |
| | 55°C | >102 000 | >102 000 | >102 000 | >102 000 | 80 000 | 71 000 |
| | 65°C | >102 000 | >102 000 | >102 000 | >102 000 | 79 000 | 71 000 |
| | 75°C | >102 000 | >102 000 | >102 000 | >102 000 | 79 000 | 70 000 |
| | 85°C | >102 000 | >102 000 | >102 000 | >102 000 | 78 000 | 70 000 |
| 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 creepeage 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.

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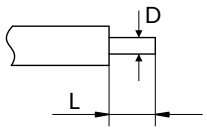
## Wiring

**Wire cross section and strip length:**



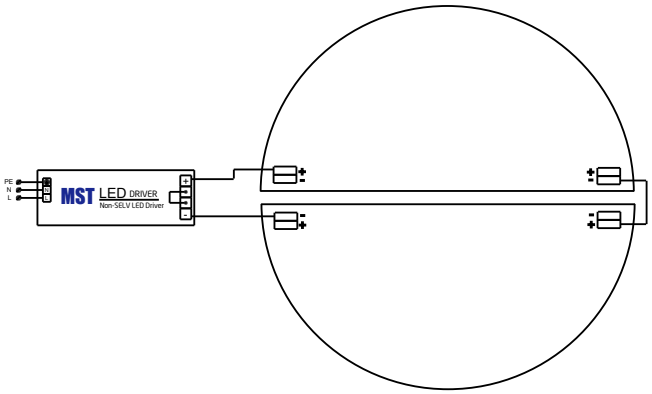

| D - wire cross section (solid and flexible wires) | Min | Max |
|---|---|---|
| | 0.2mm² | 0.75mm² |
| | AWG 24 | AWG 18 |

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

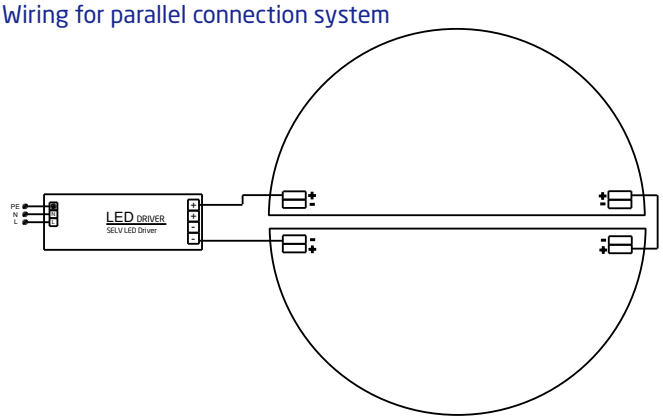
**Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:**

## Connections

### Wiring for series connection system




### Wiring for parallel connection system




To prevent irregular luminous intensity in parallel connection use only LED modules from the same V-code group.
V-code (e.g. "A", "B", "AB") is printed on the LED module and box label. Naming is not adequate to efficacy or luminous flux.

## 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.**

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## Ordering codes

| Product name | Ordering code | Pieces per box | Pieces per pallet | Box dimensions [mm] |
|---|---|---|---|---|
| RdLED 1/2 740mm 5000lm 830 90V Opt G2 | 1010 117 87446 | 10 | 300 | 733 x 368 x 58 |
| RdLED 1/2 740mm 5000lm 830 45V Opt G2 | 1010 117 87246 | 10 | 300 | 733 x 368 x 58 |
| RdLED 1/2 740mm 5000lm 840 90V Opt G2 | 1010 117 87546 | 10 | 300 | 733 x 368 x 58 |
| RdLED 1/2 740mm 5000lm 840 45V Opt G2 | 1010 117 87346 | 10 | 300 | 733 x 368 x 58 |