

Round LED modules 440mm

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 CJ G4

| 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 440mm 5000lm 830 39V CJ G4 | 1010 147 79146 | 3000 | 735 | 4904 | 5029 | 35 | 26 | 191 | 120 | 3000 | C |
| RdLED 440mm 5000lm 830 117V CJ G4 | 1010 147 79346 | | 245 | 4904 | 5029 | 105 | 26 | 191 | 40 | 1000 | C |
| RdLED 440mm 5000lm 840 39V CJ G4 | 1010 147 79246 | 4000 | 735 | 5100 | 5230 | 35 | 26 | 199 | 120 | 3000 | B |
| RdLED 440mm 5000lm 840 117V CJ G4 | 1010 147 79446 | | 245 | 5100 | 5230 | 105 | 26 | 199 | 40 | 1000 | B |

RdLED CRI 80 CN G3

| 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 440mm 5000lm 830 39V CN G3 | 1010 147 78746 | 3000 | 765 | 4883 | 5053 | 35 | 27 | 182 | 120 | 1800 | C |
| RdLED 440mm 5000lm 830 117V CN G3 | 1010 147 78946 | | 255 | 4883 | 5053 | 105 | 27 | 182 | 40 | 600 | C |
| RdLED 440mm 5000lm 840 39V CN G3 | 1010 147 78846 | 4000 | 765 | 5151 | 5331 | 35 | 27 | 192 | 120 | 1800 | C |
| RdLED 440mm 5000lm 840 117V CN G3 | 1010 147 79046 | | 255 | 5151 | 5331 | 105 | 27 | 192 | 40 | 600 | C |

RdLED CRI 80 LG 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 440mm 5000lm 830 39V LG G2 | 1010 147 78346 | 3000 | 795 | 4890 | 5044 | 36 | 29 | 171 | 120 | 2400 | C |
| RdLED 440mm 5000lm 830 117V LG G2 | 1010 147 78546 | | 265 | 4890 | 5044 | 108 | 29 | 171 | 40 | 800 | C |
| RdLED 440mm 5000lm 840 39V LG G2 | 1010 147 78446 | 4000 | 795 | 5196 | 5359 | 36 | 29 | 182 | 120 | 2400 | C |
| RdLED 440mm 5000lm 840 117V LG G2 | 1010 147 78646 | | 265 | 5196 | 5359 | 108 | 29 | 182 | 40 | 800 | C |

¹At nominal current and T_p

²At nominal current and 25°C

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

Tolerance range for optical and electrical ±10%

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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-condensing) | [%] | 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 |

Certificates & standards

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

Lumen maintenance

for LE G5, LG G2, LA G3

| Forward current | Tp temp. | L70 [h] | | L80 [h] | | L90 [h] | |
|-----------------|----------|----------|----------|----------|----------|----------|----------|
| | | B50 | B10 | B50 | B10 | B50 | B10 |
| If nom | 45°C | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
| | 55°C | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
| | 65°C | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
| | 75°C | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | 98 000 |
| | 85°C | >100 000 | >100 000 | >100 000 | >100 000 | 81 000 | 73 000 |
| If max | 45°C | >100 000 | >100 000 | 92 000 | 87 000 | 45 000 | 42 000 |
| | 55°C | >100 000 | >100 000 | 92 000 | 87 000 | 45 000 | 42 000 |
| | 65°C | >100 000 | >100 000 | 92 000 | 87 000 | 45 000 | 42 000 |
| | 75°C | >100 000 | >100 000 | 92 000 | 87 000 | 45 000 | 42 000 |
| | 85°C | >100 000 | >100 000 | 92 000 | 87 000 | 45 000 | 42 000 |

Calculated data based on LM80 LED data (12 000h)

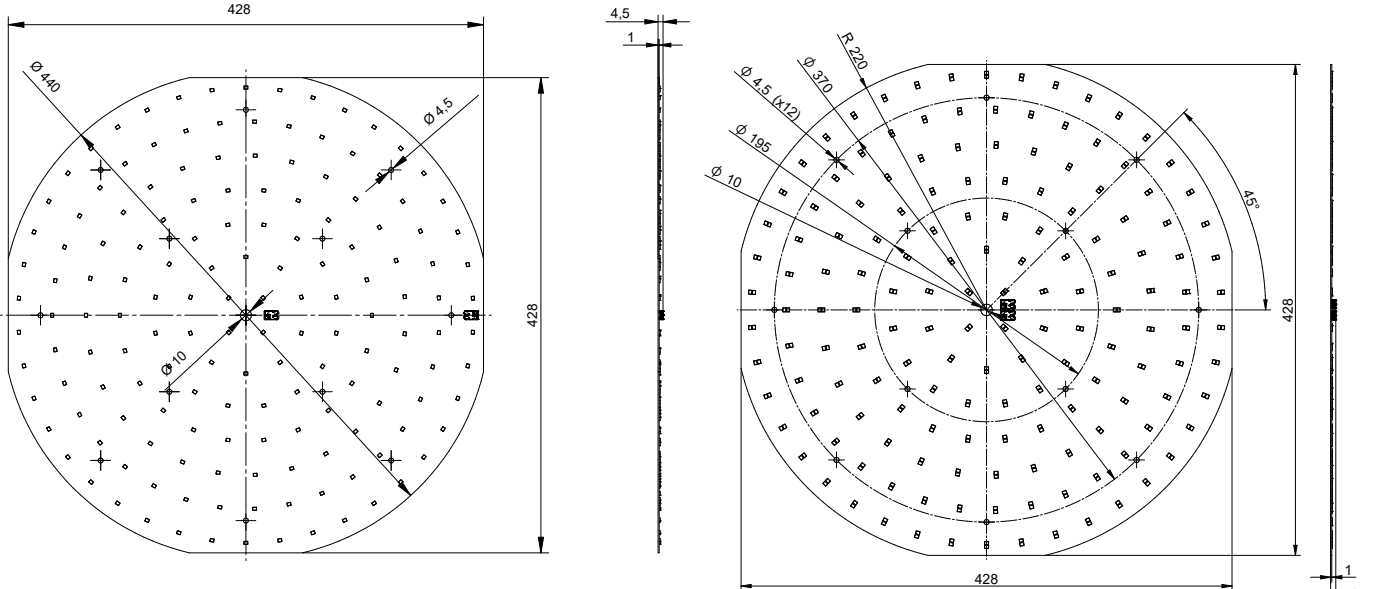
for CJ G4, CN G3

| 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 | >102 000 | >102 000 |
| | 55°C | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 |
| | 65°C | >102 000 | >102 000 | >102 000 | >102 000 | 89 000 | 88 000 |
| | 75°C | >102 000 | >102 000 | >102 000 | >102 000 | 75 000 | 74 000 |
| | 85°C | >102 000 | >102 000 | >102 000 | >102 000 | 64 000 | 63 000 |
| If max | 45°C | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 |
| | 55°C | >102 000 | >102 000 | >102 000 | >102 000 | 93 000 | 92 000 |
| | 65°C | >102 000 | >102 000 | >102 000 | >102 000 | 79 000 | 78 000 |
| | 75°C | >102 000 | >102 000 | >102 000 | >102 000 | 67 000 | 66 000 |
| | 85°C | >102 000 | >102 000 | >102 000 | >102 000 | 57 000 | 56 000 |

Reported data based on LM80 LED data (17 000h)

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Dimensions



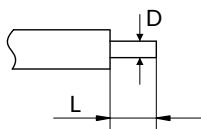
Mounting

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.

Wiring

Wire cross section and strip length:



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

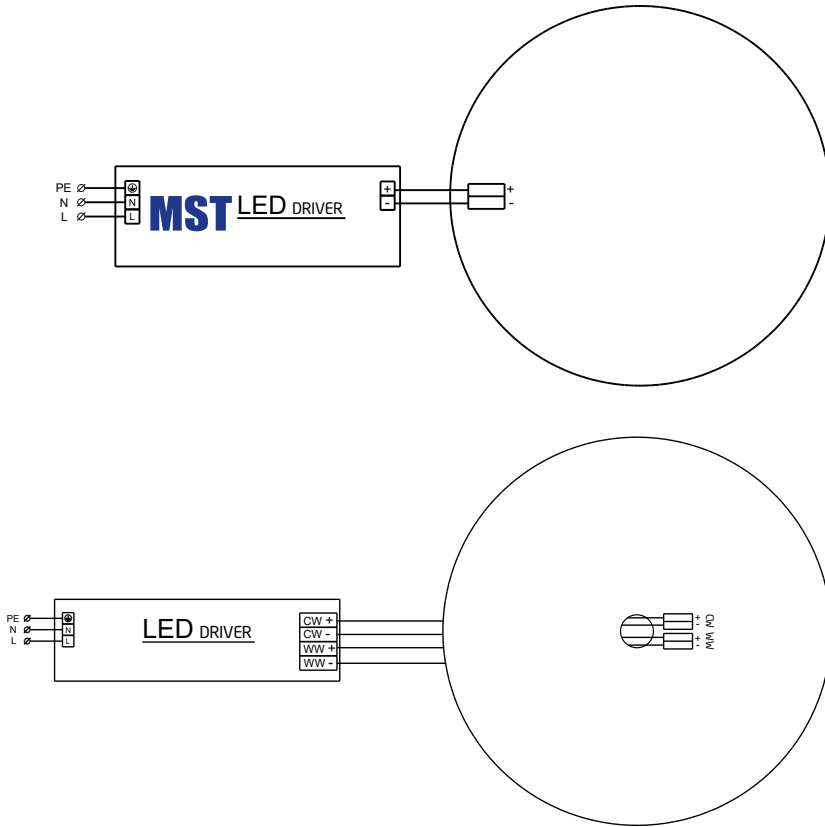
| L - strip length | Min | Max |
|------------------|-----|-----|
| | 8mm | 9mm |

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



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Connections



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 440mm 5000lm 830 39V CJ G4 | 1010 147 79146 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 830 117V CJ G4 | 1010 147 79346 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 840 39V CJ G4 | 1010 147 79246 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 840 117V CJ G4 | 1010 147 79446 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 830 39V CN G3 | 1010 147 78746 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 830 117V CN G3 | 1010 147 78946 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 840 39V CN G3 | 1010 147 78846 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 840 117V CN G3 | 1010 147 79046 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 830 39V LG G2 | 1010 147 78346 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 830 117V LG G2 | 1010 147 78546 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 840 39V LG G2 | 1010 147 78446 | 12 | 336 | 441 x 441 x 58 |
| RdLED 440mm 5000lm 840 117V LG G2 | 1010 147 78646 | 12 | 336 | 441 x 441 x 58 |