

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 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 440mm 5000lm 830 117V Opt G2	1010 117 72146	3000	260	4845	5042	108	28	173	40	600	C
RdLED 440mm 5000lm 830 39V Opt G2	1010 117 72346		780	4845	5042	36	28	172	120	1800	C
RdLED 440mm 5000lm 840 117V Opt G2	1010 117 72246	4000	260	5095	5302	108	28	182	40	600	C
RdLED 440mm 5000lm 840 39V Opt G2	1010 117 72446		780	5095	5302	36	28	181	120	1800	C

RdLED CRI 90 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 440mm 5000lm 930 117V Opt G2	1010 117 71746	3000	290	4684	4855	111	32	145	40	600	D
RdLED 440mm 5000lm 930 39V Opt G2	1010 117 71946		870	4684	4855	37	32	145	120	1800	D
RdLED 440mm 5000lm 940 117V Opt G2	1010 117 71846	4000	290	5008	5190	111	32	155	40	600	D
RdLED 440mm 5000lm 940 39V Opt G2	1010 117 72046		870	5008	5190	37	32	155	120	1800	D

RdLED CRI 80 Optimum G1

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 ³ [mA]	Energy Efficiency Class
RdLED 440mm 5000lm 827-865 39V Opt G1	1010 127 46146	2700	800	4908	5078	37	29	167	120	1800	D
		6500	800	5308	5492	37	29	180	120	1800	
RdLED 440mm 5000lm 827-865 117V Opt G1	1010 127 46246	2700	265	4879	5048	110	29	167	40	600	D
		6500	265	5277	5459	110	29	180	40	600	

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%

Temperature & humidity

Specification item	Unit	Value
T _p	[°C]	45
T _p rated	[°C]	65
T _c	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condensing)	[%]	5 ... 85

T_p - Temperature related to the performance parameters of the LED modules

T_p rated - Maximum operating temperature to which the rated performance characteristics are declared

T_c - Highest permissible value for safe operation

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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
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	72 000	62 000
	55°C	>102 000	>102 000	>102 000	>102 000	72 000	62 000
	65°C	>102 000	>102 000	>102 000	>102 000	70 000	61 000
	75°C	>102 000	>102 000	>102 000	>102 000	69 000	60 000
	85°C	>102 000	>102 000	>102 000	>102 000	68 000	60 000
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)

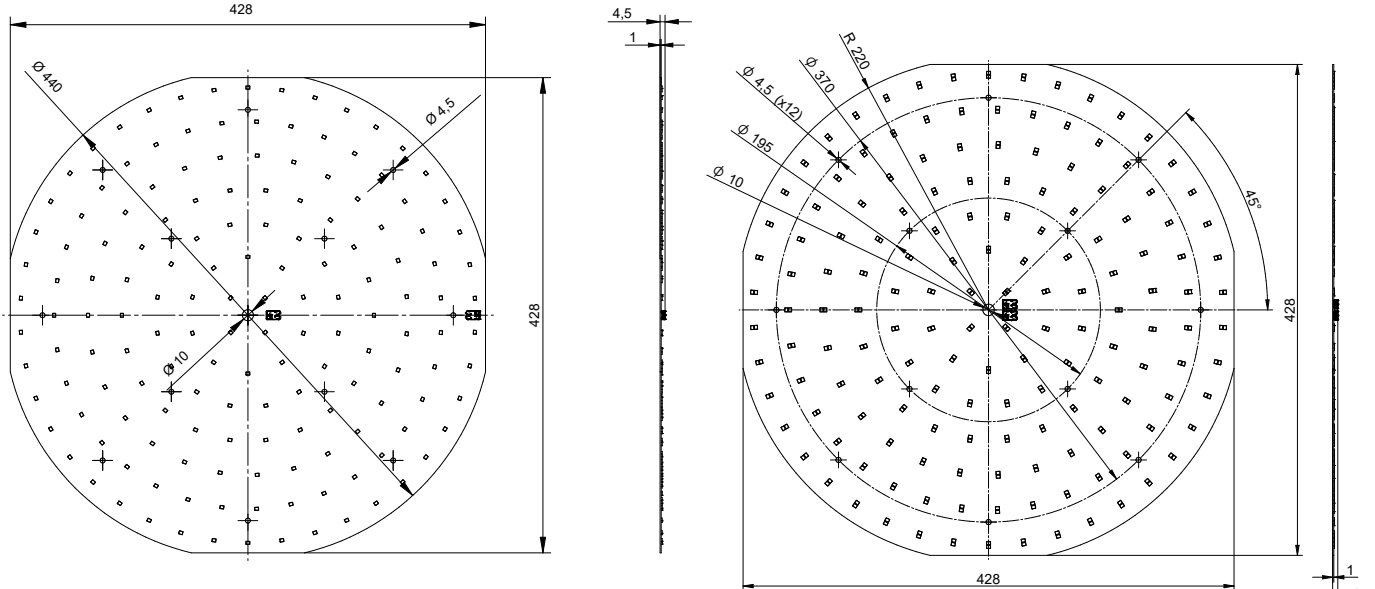
RdLED CRI 90

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>60 000	>60 000	>60 000	>60 000	>60 000	>60 000
	65°C	>60 000	>60 000	>60 000	>60 000	51 000	50 000
If max	85°C	>60 000	>60 000	>60 000	>60 000	41 000	36 000
	45°C	>60 000	>60 000	52 000	49 000	29 000	28 000
	65°C	>60 000	>60 000	47 000	44 000	25 000	24 000
	85°C	>60 000	58 000	41 000	38 000	22 000	19 000

reported data based on LM80 LED data 10 000h

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Dimensions



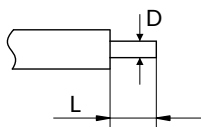
Mounting

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

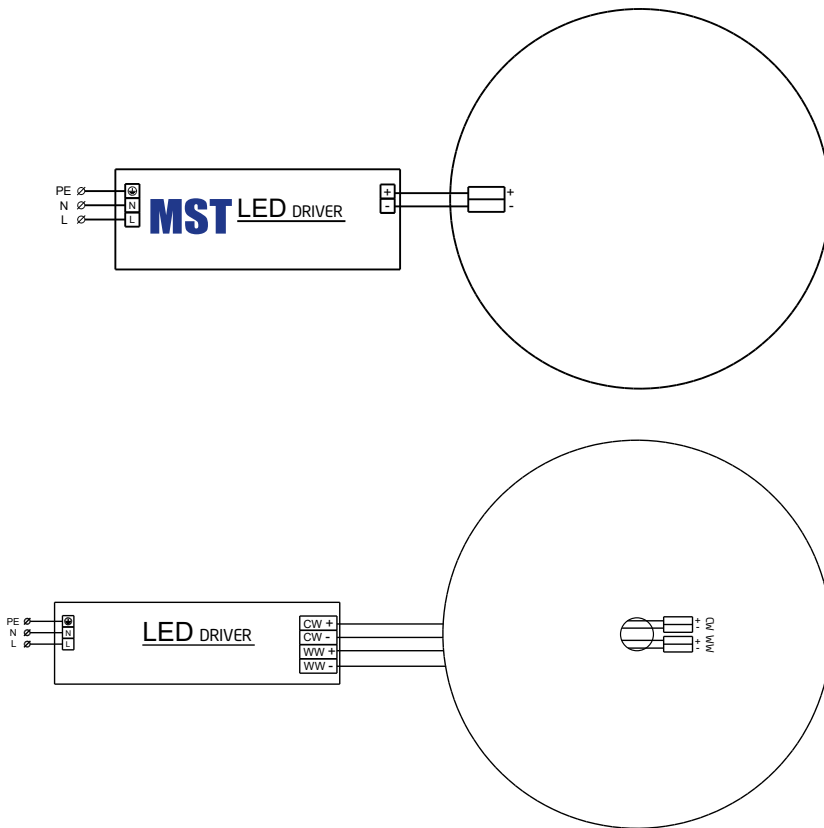
L - strip length	Min	Max
	8mm	9mm

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 117V Opt G2	1010 117 72146	12	240	433 x 433 x 58
RdLED 440mm 5000lm 830 39V Opt G2	1010 117 72346	12	240	433 x 433 x 58
RdLED 440mm 5000lm 840 117V Opt G2	1010 117 72246	12	240	433 x 433 x 58
RdLED 440mm 5000lm 840 39V Opt G2	1010 117 72446	12	240	433 x 433 x 58
RdLED 440mm 5000lm 930 117V Opt G2	1010 117 71746	12	240	433 x 433 x 58
RdLED 440mm 5000lm 930 39V Opt G2	1010 117 71946	12	240	433 x 433 x 58
RdLED 440mm 5000lm 940 117V Opt G2	1010 117 71846	12	240	433 x 433 x 58
RdLED 440mm 5000lm 940 39V Opt G2	1010 117 72046	12	240	433 x 433 x 58
RdLED 440mm 5000lm 827-865 39V Opt G1	1010 127 46146	12	240	433 x 433 x 58
RdLED 440mm 5000lm 827-865 117V Opt G1	1010 127 46246	12	240	433 x 433 x 58