

## Rectangular LED modules 250x250mm

### Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- Other CCT and CRI on request



### RecLED 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
RecLED 250x250mm 1250lm 830 24V Opt G2	1010 127 06546	3000	300	1222	1267	22	6.5	189	80	1200	C
RecLED 250x250mm 1250lm 840 24V Opt G2	1010 127 06646	4000	300	1276	1322	22	6.5	197	80	1200	B

### RecLED CRI 90 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
RecLED 250x250mm 1250lm 927 24V Opt G2	1010 127 06746	2700	350	1177	1221	22	7.6	155	80	1200	D
RecLED 250x250mm 1250lm 930 24V Opt G2	1010 127 06846	3000	350	1219	1263	22	7.6	161	80	1200	D
RecLED 250x250mm 1250lm 940 24V Opt G2	1010 127 06946	4000	350	1301	1349	22	7.6	172	80	1200	C

### RecLED CRI 80 Optimum G1

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
RecLED 250x250mm 1250lm 830 24V Opt G1	1010 127 06046	3000	315	1247	1290	22	6.9	182	80	1200	C
RecLED 250x250mm 1250lm 840 24V Opt G1	1010 127 06146	4000	315	1310	1355	22	6.9	191	80	1200	C

### RecLED CRI 90 Optimum G1

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
RecLED 250x250mm 1250lm 927 24V Opt G1	1010 127 06246	2700	355	1135	1176	22	7.8	145	80	1200	D
RecLED 250x250mm 1250lm 930 24V Opt G1	1010 127 06346	3000	355	1219	1263	22	7.8	156	80	1200	D
RecLED 250x250mm 1250lm 940 24V Opt G1	1010 127 06446	4000	355	1303	1350	22	7.8	167	80	1200	D

<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

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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
IP rating	No IP rating

### Lumen maintenance **RecLED CRI 80**

for RecLED CRI 80 Optimum G2 & RecLED CRI 80 Optimum G1

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
<b>If nom</b>	45°C	>102 000	>102 000	>102 000	>102 000	79 000	69 000
	55°C	>102 000	>102 000	>102 000	>102 000	79 000	69 000
	65°C	>102 000	>102 000	>102 000	>102 000	77 000	69 000
	75°C	>102 000	>102 000	>102 000	>102 000	77 000	68 000
	85°C	>102 000	>102 000	>102 000	>102 000	76 000	68 000
<b>If max</b>	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)

### **RecLED CRI 90**

for RecLED CRI 90 Optimum G1

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
<b>If nom</b>	45°C	>60 000	>60 000	>60 000	>60 000	>60 000	>60 000
	65°C	>60 000	>60 000	>60 000	>60 000	54 000	53 000
<b>If max</b>	45°C	>60 000	>60 000	>60 000	>60 000	43 000	38 000
	65°C	>60 000	>60 000	52 000	49 000	29 000	28 000
	85°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)

### **RecLED CRI 90**

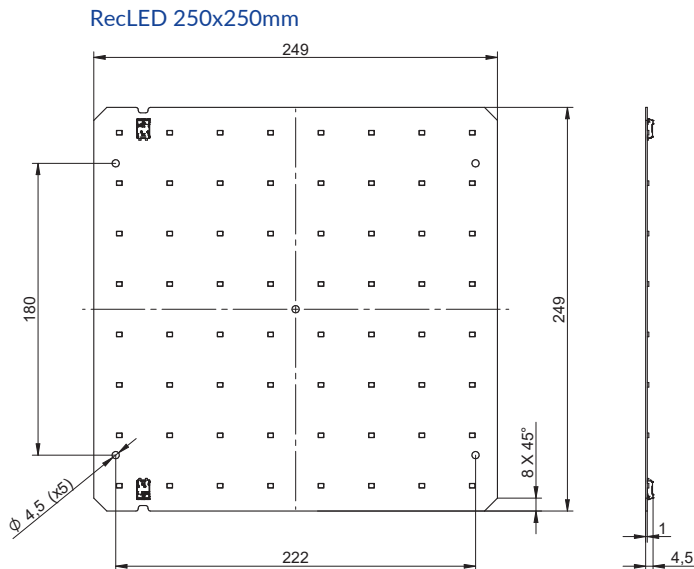
for RecLED CRI 90 Optimum G2

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
<b>If nom</b>	45°C	>102 000	>102 000	>102 000	>102 000	77 000	68 000
	55°C	>102 000	>102 000	>102 000	>102 000	77 000	68 000
	65°C	>102 000	>102 000	>102 000	>102 000	76 000	67 000
	75°C	>102 000	>102 000	>102 000	>102 000	75 000	66 000
	85°C	>102 000	>102 000	>102 000	>102 000	74 000	66 000
<b>If max</b>	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)

## Rectangular LED modules 250x250mm

### Dimensions



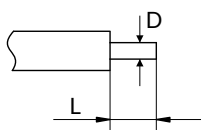
### Mounting

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 <sup>2</sup>	0.75mm <sup>2</sup>
	AWG 24	AWG 18

L - strip length	Min	Max
	8mm	9mm

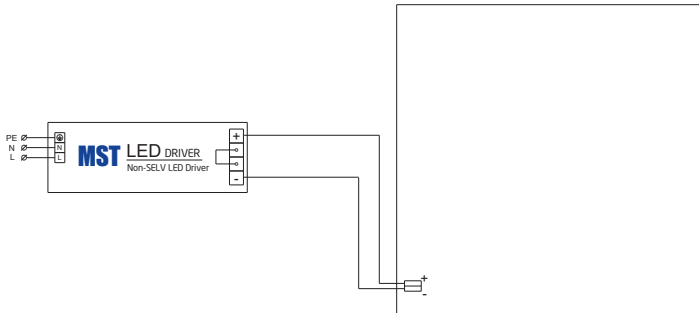
Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:



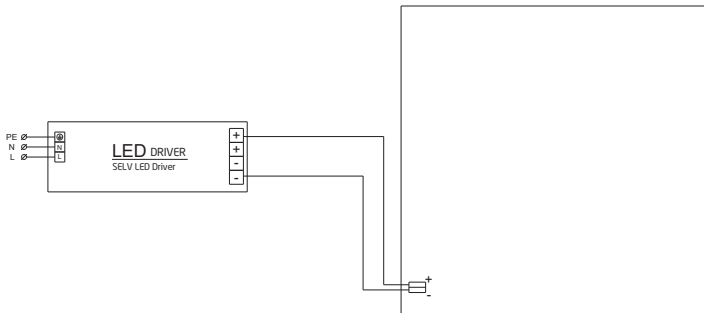
## Rectangular LED modules 250x250mm

### 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.

### Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RecLED 250x250mm 1250lm 830 24V Opt G2	1010 127 06546	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 840 24V Opt G2	1010 127 06646	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 927 24V Opt G2	1010 127 06746	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 930 24V Opt G2	1010 127 06846	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 940 24V Opt G2	1010 127 06946	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 830 24V Opt G1	1010 127 06046	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 840 24V Opt G1	1010 127 06146	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 927 24V Opt G1	1010 127 06246	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 930 24V Opt G1	1010 127 06346	22	1232	553 x 283 x 58
RecLED 250x250mm 1250lm 940 24V Opt G1	1010 127 06446	22	1232	553 x 283 x 58