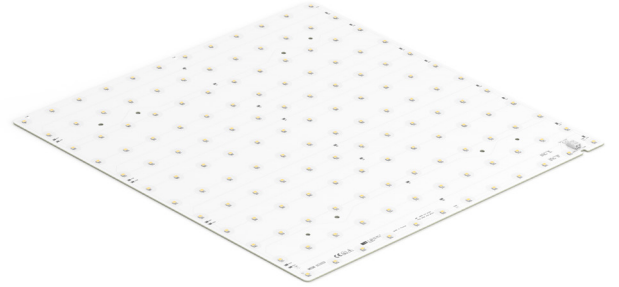


Rectangular LED modules 400x400mm

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 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
RecLED 400x400mm 5000lm 830 108V Opt G4	1010 137 47446	3000	270	4974	5101	96	26	191	40	1000	C
RecLED 400x400mm 5000lm 840 108V Opt G4	1010 137 47546	4000	270	5173	5305	96	26	199	40	1000	B

RecLED CRI 80 Optimum 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
RecLED 400x400mm 5000lm 830 108V Opt G3	1010 127 80046	3000	270	4929	5108	99	27	184	40	600	C
RecLED 400x400mm 5000lm 840 108V Opt G3	1010 127 73146	4000	270	5143	5330	99	27	192	40	600	C

RecLED 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
RecLED 400x400mm 5000lm 830 36V Opt G2	1010 117 39446	3000	850	4942	5113	34	29	171	120	1800	C
RecLED 400x400mm 5000lm 830 108V Opt G2	1010 117 39246		280	4887	5056	102	29	172	40	600	C
RecLED 400x400mm 5000lm 840 36V Opt G2	1010 117 39546	4000	850	5191	5371	34	29	180	120	1800	C
RecLED 400x400mm 5000lm 840 108V Opt G2	1010 117 39346		280	5133	5311	102	29	180	40	600	C

RecLED 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
RecLED 400x400mm 5000lm 927 36V Opt G2	1010 117 72946	2700	960	4371	4530	35	33	131	120	1800	E
RecLED 400x400mm 5000lm 927 108V Opt G2	1010 117 35946		320	4580	4747	104	33	137	40	600	E
RecLED 400x400mm 5000lm 930 36V Opt G2	1010 117 73046	3000	960	4907	5086	35	33	147	120	1800	D
RecLED 400x400mm 5000lm 930 108V Opt G2	1010 117 36046		320	4907	5086	104	33	147	40	600	D
RecLED 400x400mm 5000lm 940 36V Opt G2	1010 117 73146	4000	960	5019	5201	35	33	151	120	1800	D
RecLED 400x400mm 5000lm 940 108V Opt G2	1010 117 36146		320	5071	5255	104	33	152	40	600	D

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%

Rectangular LED modules 400x400mm

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
Zhaga	No
IP rating	No IP rating

Lumen maintenance

RecLED CRI 80

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>72 000	>72 000	>72 000	>72 000	71 000	60 000
	55°C	>72 000	>72 000	>72 000	>72 000	71 000	60 000
	65°C	>72 000	>72 000	>72 000	>72 000	69 000	60 000
	75°C	>72 000	>72 000	>72 000	>72 000	68 000	58 000
	85°C	>72 000	>72 000	>72 000	>72 000	66 000	58 000
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)

RecLED 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	58 000
	65°C	>60 000	>60 000	>60 000	>60 000	49 000	47 000
	85°C	>60 000	>60 000	>60 000	>60 000	39 000	34 000
If max	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)

Rectangular LED modules 400x400mm

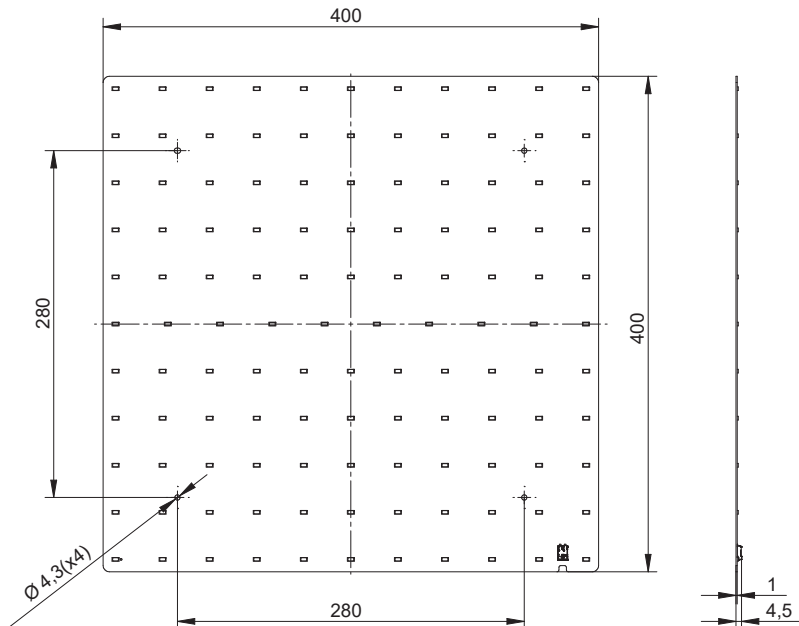
RecLED CRI 80

for RecLED CRI 80 Optimum G4

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	87 000	86 000
	75°C	>102 000	>102 000	>102 000	>102 000	74 000	73 000
	85°C	>102 000	>102 000	>102 000	>102 000	63 000	62 000
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 (17000h)

Dimensions



Mounting

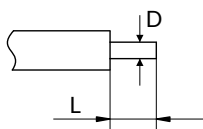
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max.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

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

Rectangular LED modules 400x400mm

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

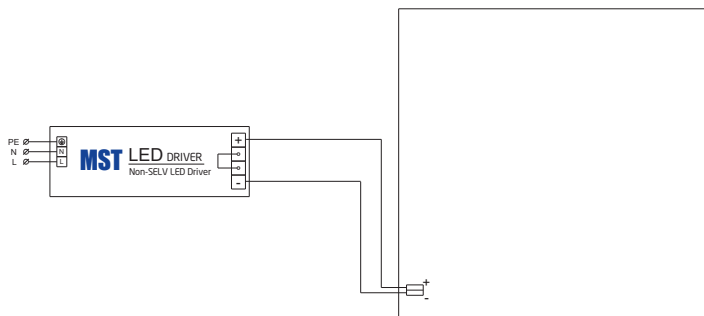
L - strip length	Min	Max
	8mm	9mm

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

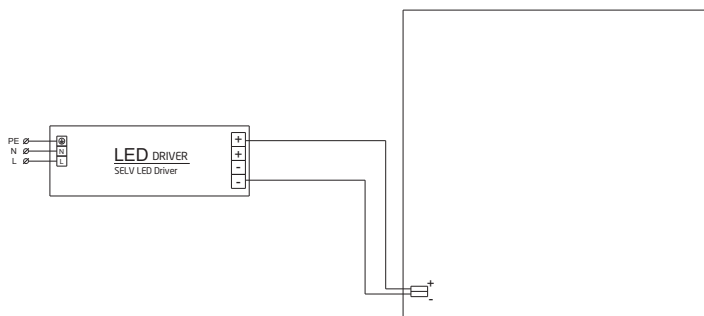


Connections

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.

Rectangular LED modules 400x400mm

Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RecLED 400x400mm 5000lm 830 108V Opt G4	1010 137 47446	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 840 108V Opt G4	1010 137 47546	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 830 108V Opt G3	1010 127 80046	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 840 108V Opt G3	1010 127 73146	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 830 36V Opt G2	1010 117 39446	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 830 108V Opt G2	1010 117 39246	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 840 36V Opt G2	1010 117 39546	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 840 108V Opt G2	1010 117 39346	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 927 36V Opt G2	1010 117 72946	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 927 108V Opt G2	1010 117 35946	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 930 36V Opt G2	1010 117 73046	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 930 108V Opt G2	1010 117 36046	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 940 36V Opt G2	1010 117 73146	12	336	441 x 441 x 58
RecLED 400x400mm 5000lm 940 108V Opt G2	1010 117 36146	12	336	441 x 441 x 58