

## Outdoor LED modules

A rectangular solution for outdoor lighting. Compatible with standard 2x2 optics for example LEDiL's STRADA-2x2.

### Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC, ENEC +
- Available CCT from 2700K to 6500K and CRI 70, 80, 90, 95



### RecLED 122x50mm 2x4 CRI 70 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 122x50mm 1900lm 730 2x4 Opt G2	1010 117 63146	3000	520	1854	1998	22	11	163	100	1500	D
RecLED 122x50mm 1900lm 740 2x4 Opt G2	1010 117 63246	4000	520	1972	2125	22	11	173	100	1500	C

### RecLED 173x50mm 2x6 CRI 70 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 173x50mm 2900lm 730 2x6 Opt G2	1010 117 63446	3000	520	2782	2997	33	17	163	100	1500	D
RecLED 173x50mm 2900lm 740 2x6 Opt G2	1010 117 63546	4000	520	2958	3187	33	17	173	100	1500	C

### RecLED 224x50mm 2x8 CRI 70 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 224x50mm 3800lm 730 2x8 Opt G2	1010 117 63746	3000	520	3709	3996	44	23	163	200	1500	D
RecLED 224x50mm 3800lm 740 2x8 Opt G2	1010 117 63846	4000	520	3944	4250	44	23	173	200	1500	C

### RecLED 122x50mm 2x4 CRI 70 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 122x50mm 1900lm 730 2x4 Opt G1	1010 117 51246	3000	520	1796	1935	22	11	158	100	1500	D
RecLED 122x50mm 1900lm 740 2x4 Opt G1	1010 117 51346	4000	520	1913	2061	22	11	168	100	1500	C
RecLED 122x50mm 1900lm 765 2x4 Opt G1	1010 117 51446	6500	520	1913	2061	22	11	168	100	1500	C

### RecLED 173x50mm 2x6 CRI 70 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 173x50mm 2900lm 730 2x6 Opt G1	1010 117 51546	3000	520	2693	2902	33	17	158	100	1500	D
RecLED 173x50mm 2900lm 740 2x6 Opt G1	1010 117 51646	4000	520	2870	3092	33	17	168	100	1500	C
RecLED 173x50mm 2900lm 765 2x6 Opt G1	1010 117 51746	6500	520	2870	3092	33	17	168	100	1500	C

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### RecLED 224x50mm 2x8 CRI 70 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 224x50mm 3800lm 730 2x8 Opt G1	1010 117 51846	3000	520	3591	3869	44	23	158	200	1500	D
RecLED 224x50mm 3800lm 740 2x8 Opt G1	1010 117 51946	4000	520	3827	4123	44	23	168	200	1500	C
RecLED 224x50mm 3800lm 765 2x8 Opt G1	1010 117 52046	6500	520	3827	4123	44	23	168	200	1500	C

<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]	75
T <sub>p</sub> rated	[°C]	75
T <sub>c</sub>	[°C]	95
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</sub> rated - Maximum operating temperature to which the rated performance characteristics are declared

T<sub>c</sub> - Highest permissible value for safe operation

### Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	420
Beam angle	[deg]	120
Initial color consistency	[SDCM]	5
Photobiological safety		RG2 (RG1 at >0.5m distance)

### Color coordinates

According to CIE 1931

Specification item	CIE <sub>x</sub>	CIE <sub>y</sub>
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
ENEC+	Yes
CE	Yes
RoHS	Yes
REACH	Yes
Zhaga	Comply with Book 15
IP rating	No IP rating

## Outdoor LED modules

### Lumen maintenance

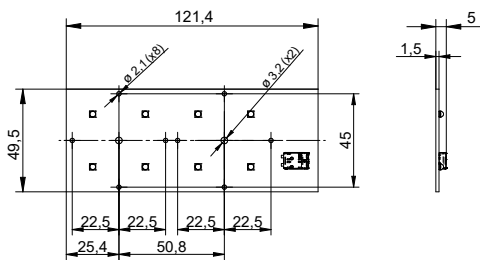
### RecLED CRI 70

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	75°C	>100 000	>100 000	>100 000	>100 000	>100 000	>100 000
	80°C	>100 000	>100 000	>100 000	>100 000	>100 000	>100 000
	85°C	>100 000	>100 000	>100 000	>100 000	>100 000	>100 000
	90°C	>100 000	>100 000	>100 000	>100 000	>100 000	>100 000
	95°C	>100 000	>100 000	>100 000	>100 000	>100 000	>100 000
If max	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	82 000	77 000
	75°C	>100 000	>100 000	>100 000	>100 000	58 000	54 000
	85°C	>100 000	>100 000	>100 000	>100 000	41 000	38 000

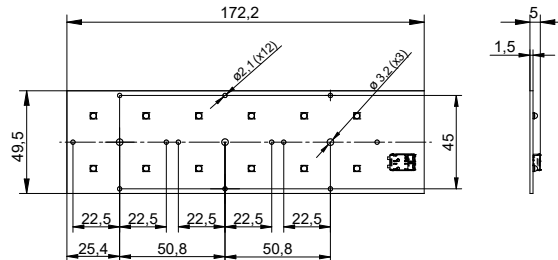
simulation based on LM80 LED data 10 000h

### Dimensions

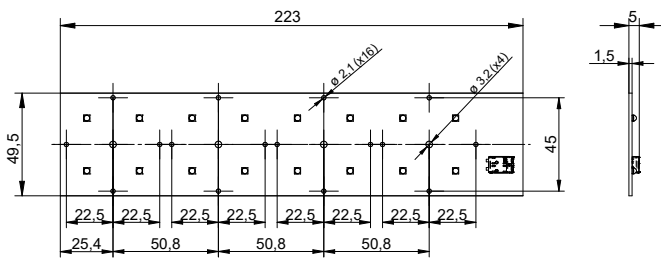
#### RecLED 122x50mm 2x4



#### RecLED 173x50mm 2x6



#### RecLED 224x50mm 2x8



### Mounting

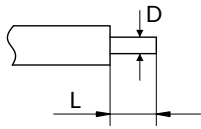
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max.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

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

## Outdoor LED modules

### Wiring

Wire cross section and strip length:



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



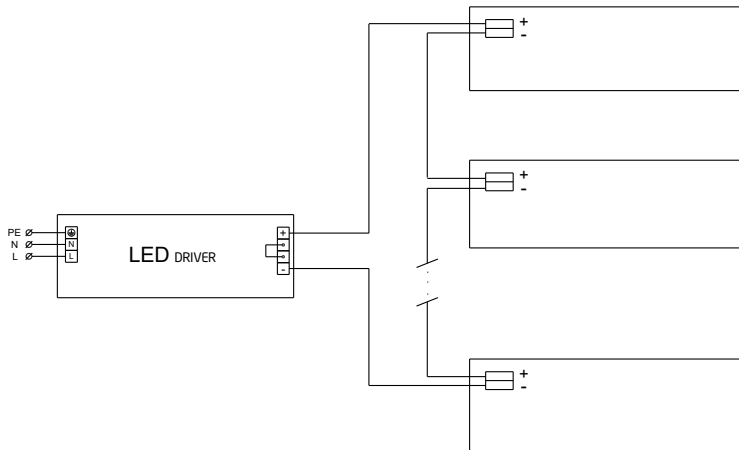
D - wire cross section (solid and flexible wires)	Min	Max
	0.2mm <sup>2</sup>	0.75mm <sup>2</sup>
	AWG 24	AWG 18

L - strip length	Min	Max
	8mm	9mm

### Connections

Max number of modules	Unit	Series	Parallel
RecLED 122x50mm 2x4	[pcs]	16	-
RecLED 173x50mm 2x6	[pcs]	11	-
RecLED 224x50mm 2x8	[pcs]	8	-

Wiring for series connection system



### 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.

## Outdoor LED modules

### Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RecLED 122x50mm 1900lm 730 2x4 Opt G2	1010 117 63146	40	11520	238 x 140 x 61
RecLED 122x50mm 1900lm 740 2x4 Opt G2	1010 117 63246	40	11520	238 x 140 x 61
RecLED 173x50mm 2900lm 730 2x6 Opt G2	1010 117 63446	64	8640	238 x 238 x 91
RecLED 173x50mm 2900lm 740 2x6 Opt G2	1010 117 63546	64	8640	238 x 238 x 91
RecLED 224x50mm 3800lm 730 2x8 Opt G2	1010 117 63746	36	6840	248 x 175 x 66
RecLED 224x50mm 3800lm 740 2x8 Opt G2	1010 117 63846	36	6840	248 x 175 x 66
RecLED 122x50mm 1900lm 730 2x4 Opt G1	1010 117 51246	40	11520	238 x 140 x 61
RecLED 122x50mm 1900lm 740 2x4 Opt G1	1010 117 51346	40	11520	238 x 140 x 61
RecLED 122x50mm 1900lm 765 2x4 Opt G1	1010 117 51446	64	11520	238 x 140 x 61
RecLED 173x50mm 2900lm 730 2x6 Opt G1	1010 117 51546	64	8640	238 x 238 x 91
RecLED 173x50mm 2900lm 740 2x6 Opt G1	1010 117 51646	64	8640	238 x 238 x 91
RecLED 173x50mm 2900lm 765 2x6 Opt G1	1010 117 51746	64	8640	238 x 238 x 91
RecLED 224x50mm 3800lm 730 2x8 Opt G1	1010 117 51846	36	6840	248 x 175 x 66
RecLED 224x50mm 3800lm 740 2x8 Opt G1	1010 117 51946	36	6840	248 x 175 x 66
RecLED 224x50mm 3800lm 765 2x8 Opt G1	1010 117 52046	36	6840	248 x 175 x 66