

Round LED modules 255mm FLAT

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 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 255mm 2500lm 830 42V FLAT CJ	1010 147 68046	3000	340	2462	2525	37	13	195	80	1600	C
G4 RdLED 255mm 2500lm 840 42V FLAT CJ G4	1010 147 68146	4000	340	2561	2626	37	13	203	80	1600	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 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 255mm 2500lm 830 42V FLAT CN G3	1010 147 67846	3000	350	2428	2512	37	13	186	80	1600	C
RdLED 255mm 2500lm 840 42V FLAT CN G3	1010 147 67946	4000	350	2561	2651	37	13	196	80	1600	B

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 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 255mm 2500lm 830 42V FLAT LG	1010 147 67646	3000	360	2447	2523	38	14	179	80	1200	C
G2 RdLED 255mm 2500lm 840 42V FLAT LG G2	1010 147 67746	4000	360	2600	2681	38	14	190	80	1200	C

RdLED CRI 90 EH1.1 G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux ¹ Φ [lm]	Useful luminous flux ² [lm]	Voltage 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 255mm 2500lm 927 42V FLAT EH1.1	1010 127 95146	2700	375	2477	2552	39	15	170	80	1200	D
G3 RdLED 255mm 2500lm 930 42V FLAT	1010 127 65646	3000	375	2477	2552	39	15	170	80	1200	D
EH1.1 G3 RdLED 255mm 2500lm 940 42V	1010 147 85946	4000	375	2632	2712	39	15	181	80	1200	C

FLAT EH1.1 G3

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	CIE _x	CIE _y
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

for LE G5, LG G2

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	>100 000
	55°C>100 000	>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	>100 000
	75°C>100 000	>100 000	>100 000	>100 000	>100 000	98 000	98 000
	85°C>100 000	>100 000	>100 000	>100 000	81 000	73 000	73 000
If max	45°C>100 000	>100 000	92 000	87 000	45 000	42 000	42 000
	55°C>100 000	>100 000	92 000	87 000	45 000	42 000	42 000
	65°C>100 000	>100 000	92 000	87 000	45 000	42 000	42 000
	75°C>100 000	>100 000	92 000	87 000	45 000	42 000	42 000
	85°C>100 000	>100 000	92 000	87 000	45 000	42 000	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	>102 000
	55°C>102 000	>102 000	>102 000	>102 000	>102 000	>102 000	>102 000
	65°C>102 000	>102 000	>102 000	>102 000	>102 000	89 000	88 000
	75°C>102 000	>102 000	>102 000	>102 000	>102 000	75 000	74 000
	85°C>102 000	>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	>102 000
	55°C>102 000	>102 000	>102 000	>102 000	>102 000	97 000	96 000
	65°C>102 000	>102 000	>102 000	>102 000	>102 000	82 000	81 000
	75°C>102 000	>102 000	>102 000	>102 000	>102 000	69 000	68 000
	85°C>102 000	>102 000	>102 000	>102 000	>102 000	59 000	58 000

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

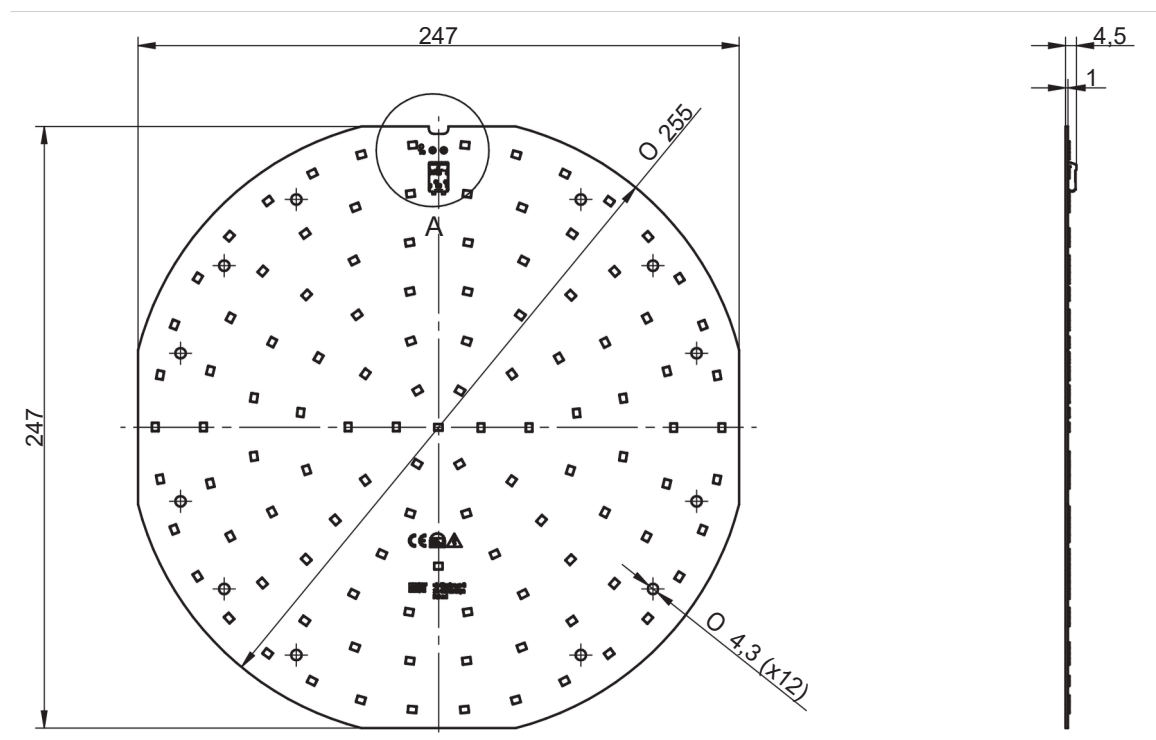
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Lumen maintenance

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	>72 000	>72 000
	55°C	>72 000	>72 000	>72 000	>72 000	>72 000	>72 000
	65°C	>72 000	>72 000	>72 000	>72 000	>72 000	>72 000
	75°C	>72 000	>72 000	>72 000	>72 000	>72 000	>72 000
	85°C	>72 000	>72 000	>72 000	>72 000	>72 000	>72 000
If max	45°C	>72 000	>72 000	67 000	62 000	30 000	29 000
	55°C	>72 000	>72 000	66 000	61 000	30 000	28 000
	65°C	>72 000	>72 000	65 000	60 000	29 000	27 000
	75°C	>72 000	>72 000	65 000	59 000	29 000	26 000
	85°C	>72 000	>72 000	64 000	58 000	28 000	26 000

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

Dimensions



Mounting

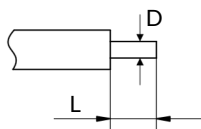
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max.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

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

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Wiring

Wire cross-section and strip length:



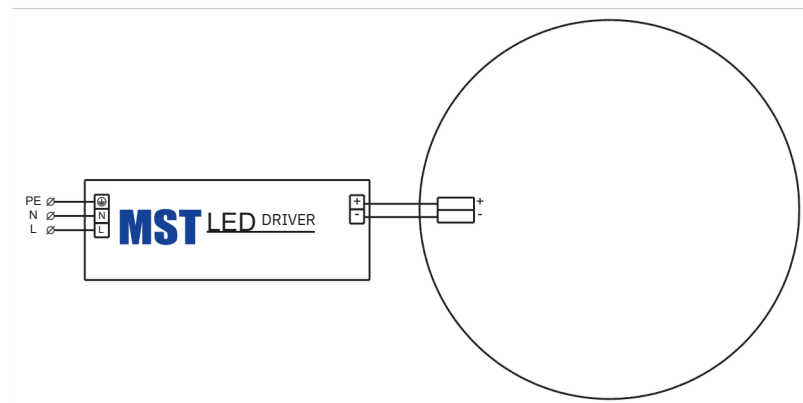
D - wire cross section (solid and flexible wires)	Min	Max
	0.2mm ²	0.75mm ²
	AWG 24	AWG 18

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



Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RdLED 255mm 2500lm 830 42V FLAT CJ G4	1010 147 68046	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 840 42V FLAT CJ G4	1010 147 68146	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 830 42V FLAT CN G3	1010 147 67846	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 840 42V FLAT CN G3	1010 147 67946	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 830 42V FLAT LG G2	1010 147 67646	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 840 42V FLAT LG G2	1010 147 67746	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 927 42V FLAT EH1.1 G3	1010 127 95146	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 930 42V FLAT EH1.1 G3	1010 127 65646	20	2400	300 x 266 x 83
RdLED 255mm 2500lm 940 42V FLAT EH1.1 G3	1010 147 85946	20	2400	300 x 266 x 83