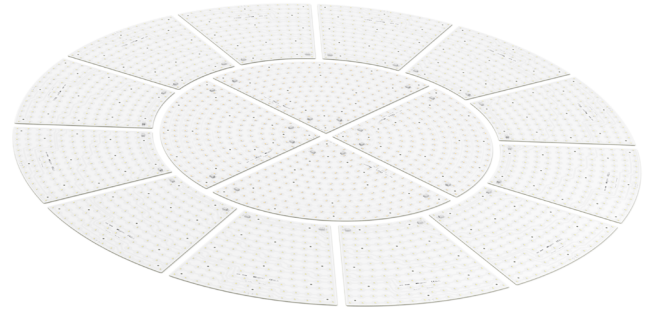


Round LED modules 1/4 800mm & 1/12 RING 820-1500mm

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

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 1/4 800mm 3000lm 830 33V Optimum	1010 117 23246	3000	560	3047	3152	30	17	183	160	2400	C
RdLED 1/12 RING 820-1500mm 2500lm 830 27V Optimum	1010 127 86246		560	2493	2579	24	14	183	160	2400	C
RdLED 1/4 800mm 3000lm 840 33V Optimum	1010 117 23346	4000	560	3201	3311	30	17	192	160	2400	C
RdLED 1/12 RING 820-1500mm 2500lm 840 27V Optimum	1010 127 86346		560	2619	2709	24	14	192	160	2400	C

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

Technical data

Specification item	Unit	RdLED 1/4 800mm	RdLED 1/12 RING 820-1500mm
Classification acc. to IEC 62031		built-in	built-in
Working voltage	[Vdc]	400	350
Beam angle	[deg]	120	120
Initial color consistency	[SDCM]	3	3
Photobiological safety		RG1 unlimited	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

Round LED modules 1/4 800mm & 1/12 RING 820-1500mm

Certificates & standards

Specification item	RdLED 1/4 800mm	RdLED 1/12 RING 820-1500mm
ENEC	Yes	No
CE	Yes	Yes
RoHS	Yes	Yes
REACH	Yes	Yes
Zhaga	No	No
IP rating	No IP rating	No IP rating

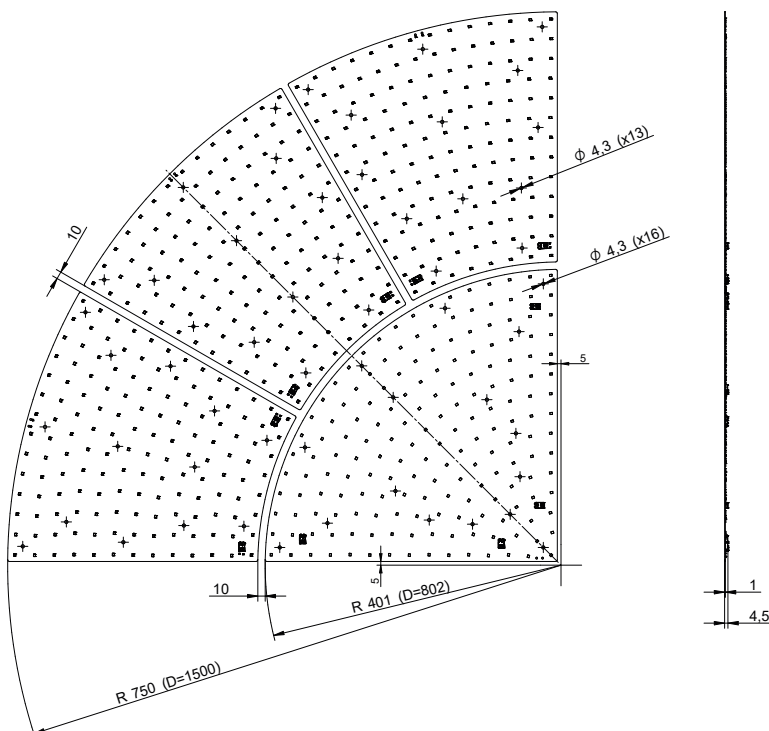
Lumen maintenance

RdLED CRI 80

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>100 000	>100 000	>100 000	>100 000	80 000	70 000
	55°C	>100 000	>100 000	>100 000	>100 000	80 000	70 000
	65°C	>100 000	>100 000	>100 000	>100 000	78 000	70 000
	75°C	>100 000	>100 000	>100 000	>100 000	78 000	69 000
	85°C	>100 000	>100 000	>100 000	>100 000	77 000	69 000
If max	45°C	>100 000	>100 000	>100 000	>100 000	51 000	39 000
	55°C	>100 000	>100 000	>100 000	>100 000	51 000	39 000
	65°C	>100 000	>100 000	>100 000	>100 000	48 000	37 000
	75°C	>100 000	>100 000	>100 000	>100 000	45 000	35 000
	85°C	>100 000	>100 000	>100 000	69 000	43 000	34 000

calculated data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

Dimensions



Mounting

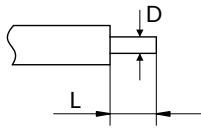
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max.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

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

Round LED modules 1/4 800mm & 1/12 RING 820-1500mm

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

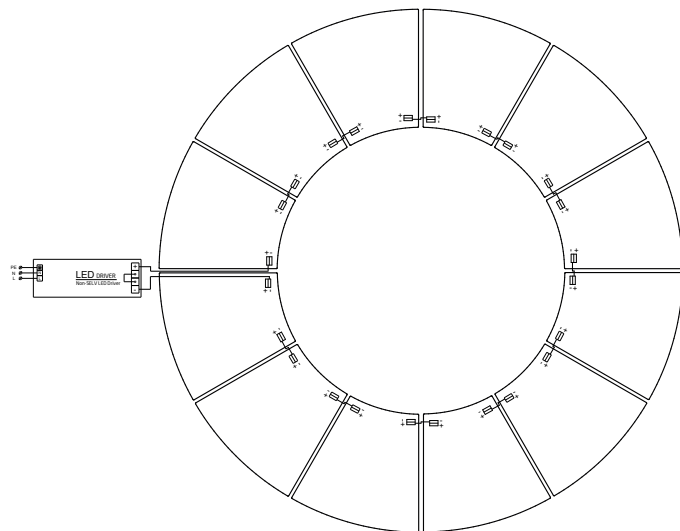
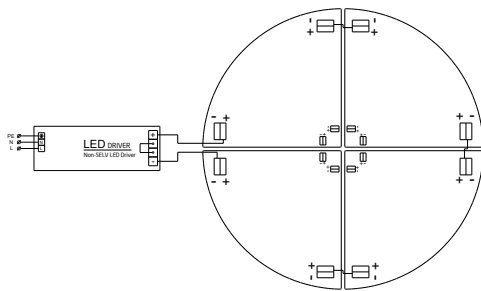
L - strip length	Min	Max
	8mm	9mm

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

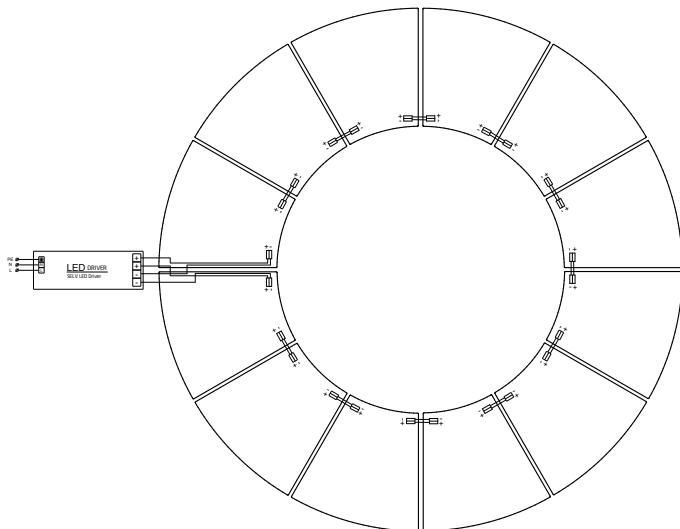
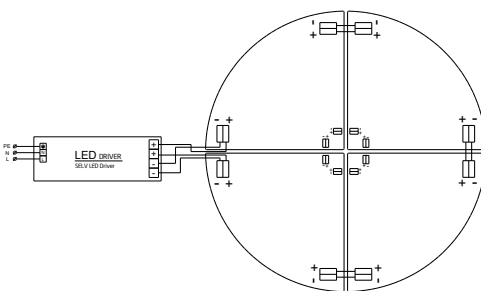


Connections

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.

Round LED modules 1/4 800mm & 1/12 RING 820-1500mm

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 1/4 800mm 3000lm 830 33V Optimum	1010 117 23246	12	336	413 x 413 x 58
RdLED 1/12 RING 820-1500mm 2500lm 830 27V Optimum	1010 127 86246	12	336	433 x 433 x 58
RdLED 1/4 800mm 3000lm 840 33V Optimum	1010 117 23346	12	336	413 x 413 x 58
RdLED 1/12 RING 820-1500mm 2500lm 840 27V Optimum	1010 127 86346	12	336	433 x 433 x 58