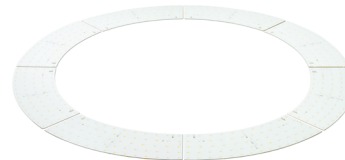


## Round LED modules 1/4 800mm & Ring 1/8 820-1080mm

### 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 G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* φ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
RdLED 1/4 800mm 3000lm 830 33V Opt G2	1010 117 87846	3000	540	2893	29	16	185	2500
RdLED 1/4 800mm 3000lm 840 33V Opt G2	1010 117 87946	4000	540	3134	29	16	200	2500

### RdLED CRI 80 Optimum

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* φ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
RdLED 1/4 800mm 3000lm 830 33V Optimum	1010 117 23246	3000	560	2885	30	17	170	2560
RdLED Ring 1/8 820-1080mm 1100lm 830 24V Optimum	1010 117 23446		280	1049	22	6.2	170	1280
RdLED 1/4 800mm 3000lm 840 33V Optimum	1010 117 23346	4000	560	3032	30	17	178	2560
RdLED Ring 1/8 820-1080mm 1100lm 840 24V Optimum	1010 117 23546		280	1103	22	6.2	178	1280

### RdLED CRI 90 Optimum

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* φ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
RdLED 1/4 800mm 3000lm 930 33V Optimum	1010 117 46446	3000	600	2831	30	18	157	2400
RdLED Ring 1/8 820-1080mm 1100lm 930 24V Optimum	1010 127 07146		300	1040	22	6.6	158	1200
RdLED 1/4 800mm 3000lm 940 33V Optimum	1010 117 30946	4000	600	3027	30	18	167	2400
RdLED Ring 1/8 820-1080mm 1100lm 940 24V Optimum	1010 127 07246		300	1112	22	6.6	169	1200

\*At nominal current and T<sub>p</sub>  
Tolerance range for optical and electrical ±10%

### Temperature & humidity

Specification item	Unit	Value
T <sub>p</sub>	[°C]	45
T <sub>p</sub> rated	[°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</sub> rated - Maximum operating temperature to which the rated performance characteristics are declared  
T<sub>c</sub> - Highest permissible value for safe operation

## Round LED modules 1/4 800mm & Ring 1/8 820-1080mm

### Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Energy Efficiency Class		A++
Working voltage	[Vdc]	340
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Initial color coordinates		Acc. to CIE 1931
Photobiological safety		RG1 unlimited

### Certificates & standards

Specification item	Compliant
ENEC	Yes
CE	Yes
RoHS	Yes
REACH	Yes
Zhaga	No
IP rating	No IP rating

### Lumen maintenance

#### RdLED CRI 80

only for RdLED CRI 80 Optimum

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	80 000	70 000
	55°C	>102 000	>102 000	>102 000	>102 000	80 000	70 000
	65°C	>102 000	>102 000	>102 000	>102 000	78 000	70 000
	75°C	>102 000	>102 000	>102 000	>102 000	78 000	69 000
	85°C	>102 000	>102 000	>102 000	>102 000	77 000	69 000
If max	45°C	>72 000	>72 000	>72 000	>72 000	48 000	36 000
	55°C	>72 000	>72 000	>72 000	>72 000	48 000	36 000
	65°C	>72 000	>72 000	>72 000	>72 000	48 000	36 000
	75°C	>72 000	>72 000	>72 000	69 000	45 000	33 000
	85°C	>72 000	>72 000	>72 000	67 000	42 000	33 000

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

#### RdLED CRI 80

only for RdLED CRI 80 Optimum G2

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	46 000	44 000
	65°C	>60 000	>60 000	>60 000	>60 000	36 000	31 000
	85°C	>60 000	>60 000	>60 000	>60 000	31 000	25 000

reported data based on LM80 LED data 10 000h

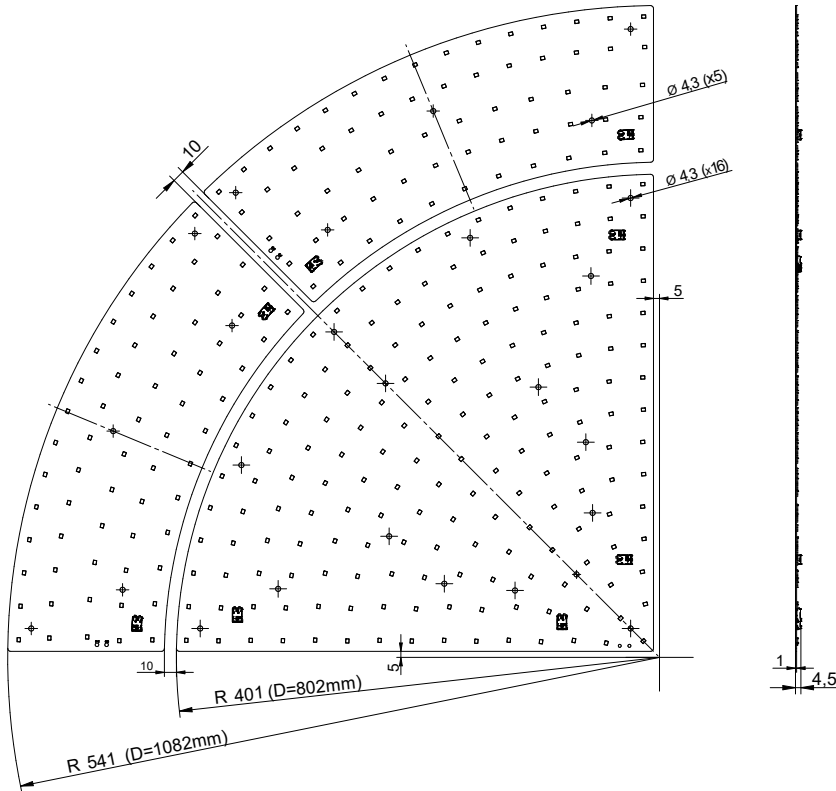
#### RdLED CRI 90

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	>60 000
	65°C	>60 000	>60 000	>60 000	>60 000	>60 000	>60 000
	85°C	>60 000	>60 000	>60 000	>60 000	49 000	43 000
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

## Round LED modules 1/4 800mm & Ring 1/8 820-1080mm

### Dimensions



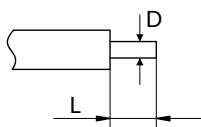
### Mounting

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

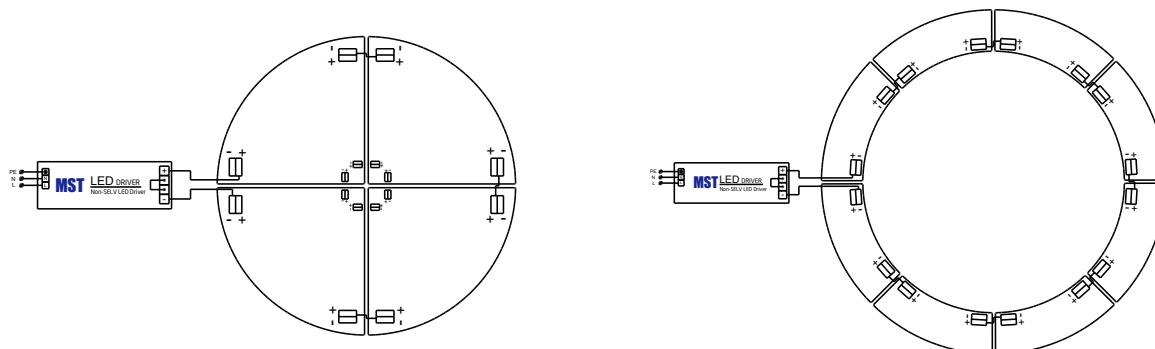
Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:



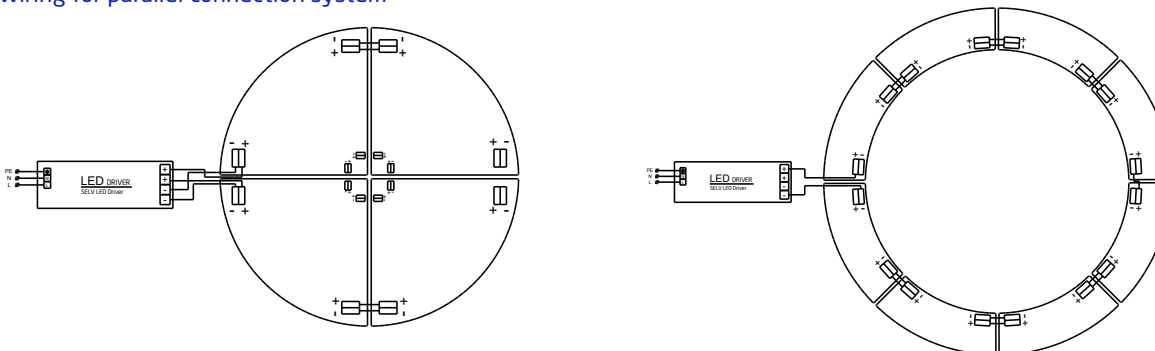
## Round LED modules 1/4 800mm & Ring 1/8 820-1080mm

### 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.

### Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RdLED 1/4 800mm 3000lm 830 33V Opt G2	1010 117 87846	12	336	413 x 413 x 58
RdLED 1/4 800mm 3000lm 840 33V Opt G2	1010 117 87946	12	336	413 x 413 x 58
RdLED 1/4 800mm 3000lm 830 33V Optimum	1010 117 23246	12	336	413 x 413 x 58
RdLED Ring 1/8 820-1080mm 1100lm 830 24V Optimum	1010 117 23446	24	672	413 x 413 x 58
RdLED 1/4 800mm 3000lm 840 33V Optimum	1010 117 23346	12	336	413 x 413 x 58
RdLED Ring 1/8 820-1080mm 1100lm 840 24V Optimum	1010 117 23546	24	672	413 x 413 x 58
RdLED 1/4 800mm 3000lm 930 33V Optimum	1010 117 46446	12	336	413 x 413 x 58
RdLED Ring 1/8 820-1080mm 1100lm 930 24V Optimum	1010 127 07146	24	672	413 x 413 x 58
RdLED 1/4 800mm 3000lm 940 33V Optimum	1010 117 30946	12	336	413 x 413 x 58
RdLED Ring 1/8 820-1080mm 1100lm 940 24V Optimum	1010 127 07246	24	672	413 x 413 x 58