

Round LED modules 315mm

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 2200K 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 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 315mm 4000lm 830 24V EMG Opt G2	1010 117 82846	3000	1000	3846	3968	22	22	177	160	3200	C
Emergency light			450	215	222	2.7	1.2	174	60	1200	
RdLED 315mm 4000lm 840 24V EMG Opt G2	1010 117 82946	4000	1000	4166	4298	22	22	192	160	3200	C
Emergency light			450	233	240	2.7	1.2	188	60	1200	

RdLED 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
RdLED 315mm 4000lm 927 24V EMG Opt G2	1010 117 42546	2700	1150	3550	3679	23	26	136	160	2400	E
Emergency light			450	173	179	2.9	1.3	134	60	900	
RdLED 315mm 4000lm 927 24V EMG SSW Opt G2	1010 117 87146	2700	1150	3550	3679	23	26	136	160	2400	E
Emergency light			450	173	179	2.9	1.3	134	60	900	
RdLED 315mm 4000lm 930 24V EMG Opt G2	1010 117 42646	3000	1150	3813	3951	23	26	146	160	2400	D
Emergency light			450	186	193	2.9	1.3	144	60	900	
RdLED 315mm 4000lm 930 24V EMG SSW Opt G2	1010 117 50946	3000	1150	3813	3951	23	26	146	160	2400	D
Emergency light			450	186	193	2.9	1.3	144	60	900	
RdLED 315mm 4000lm 940 24V EMG Opt G2	1010 117 42746	4000	1150	4075	4224	23	26	156	160	2400	D
Emergency light			450	199	206	2.9	1.3	154	60	900	
RdLED 315mm 4000lm 940 24V EMG SSW Opt G2	1010 117 51046	4000	1150	4075	4224	23	26	156	160	2400	D
Emergency light			450	199	206	2.9	1.3	154	60	900	

RdLED CRI 80 Optimum G1

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 315mm 4000lm 827-865 EMG 90V Opt G1	1010 127 19346	2700	280	3956	4092	84	24	168	40	600	D
Emergency light		6500	280	4278	4426	84	24	182	40	600	
		6500	280	145	150	2.7	0.8	189	60	900	

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 315mm 4000lm 827-865 EMG 36V Optimum	1010 117 27846	2700	700	3839	3958	34	24	162	100	1500	D
Emergency light		6500	700	4157	4286	34	24	175	100	1500	
		6500	450	222	229	2.8	1.3	174	60	900	
RdLED 315mm 4000lm 830 EMG 24V Optimum	1010 117 22346	3000	1050	4085	4227	22	23	175	160	2400	C
Emergency light			450	217	219	2.9	1.3	172	60	900	
			1050	4085	4227	22	23	175	160	2400	
RdLED 315mm 4000lm 830 EMG SSW 24V Optimum	1010 117 22546	3000	1050	4085	4227	22	23	175	160	2400	C
Emergency light			450	217	219	2.8	1.3	172	60	900	
			1050	4291	4440	22	23	183	160	2400	
RdLED 315mm 4000lm 840 EMG 24V Optimum	1010 117 22446	4000	450	228	236	2.8	1.3	181	60	900	C
Emergency light			1050	4291	4440	22	23	183	160	2400	
			450	228	236	2.8	1.3	181	60	900	

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

RdLED 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	61 000
	55°C	>72 000	>72 000	>72 000	>72 000	71 000	61 000
	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	59 000
	85°C	>72 000	>72 000	>72 000	>72 000	67 000	58 000
If max	45°C	>72 000	>72 000	>72 000	>72 000	49 000	37 000
	55°C	>72 000	>72 000	>72 000	>72 000	49 000	37 000
	65°C	>72 000	>72 000	>72 000	>72 000	49 000	36 000
	75°C	>72 000	>72 000	>72 000	>72 000	45 000	34 000
	85°C	>72 000	>72 000	>72 000	>72 000	42 000	33 000

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

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	51 000	50 000
If max	85°C	>60 000	>60 000	>60 000	>60 000	41 000	36 000
	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

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RdLED CRI 80

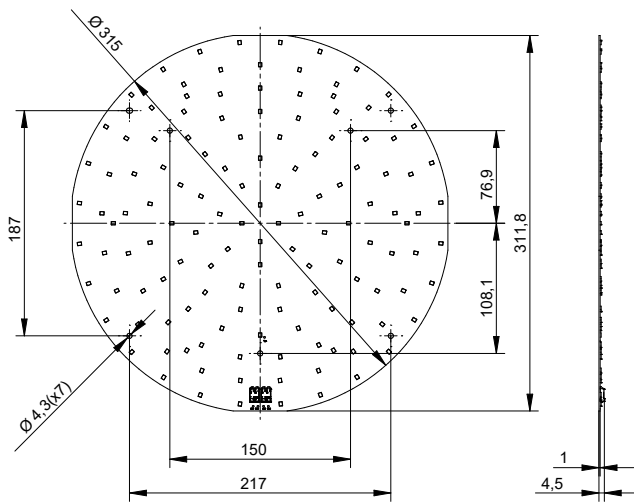
for RdLED CRI 80 Optimum G2

Forward current	Tp	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>60 000	>60 000	>60 000	>60 000	45 000	41 000
	65°C	>60 000	>60 000	>60 000	>60 000	35 000	30 000
	85°C	>60 000	>60 000	>60 000	>60 000	30 000	25 000

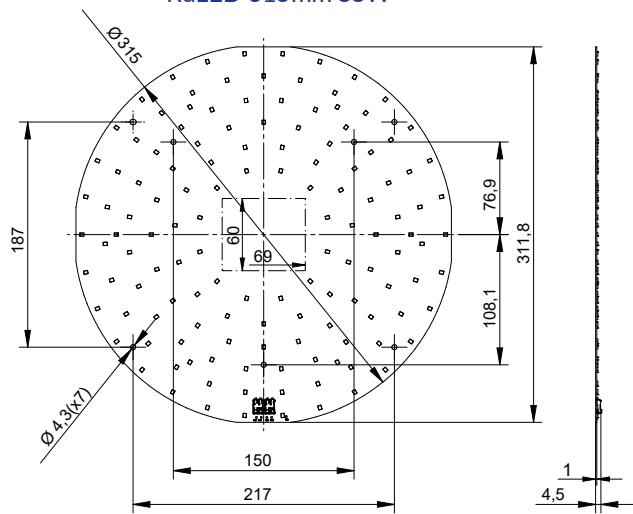
reported data based on LM80 LED data 10 000h

Dimensions

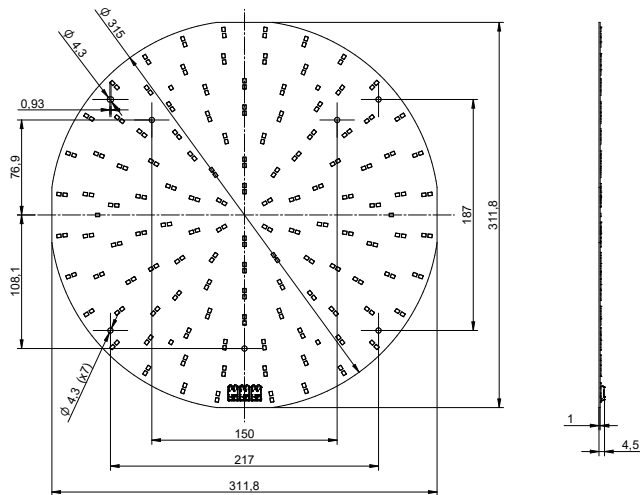
RdLED 315mm



RdLED 315mm SSW



RdLED 315mm TW



Mounting

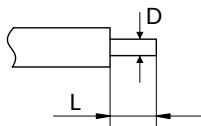
LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max.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



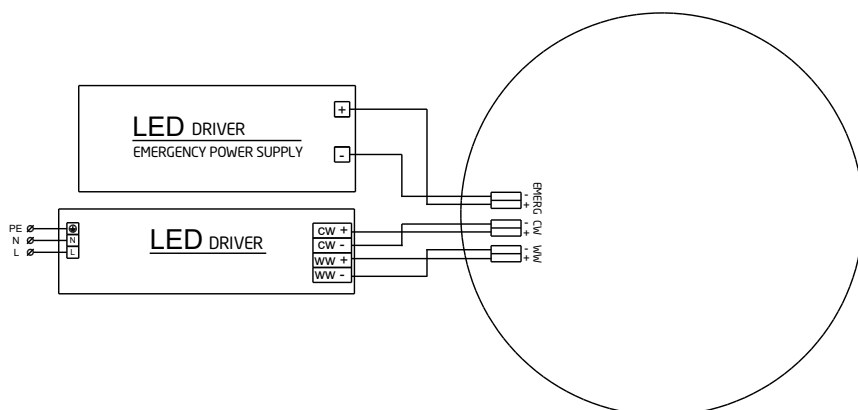
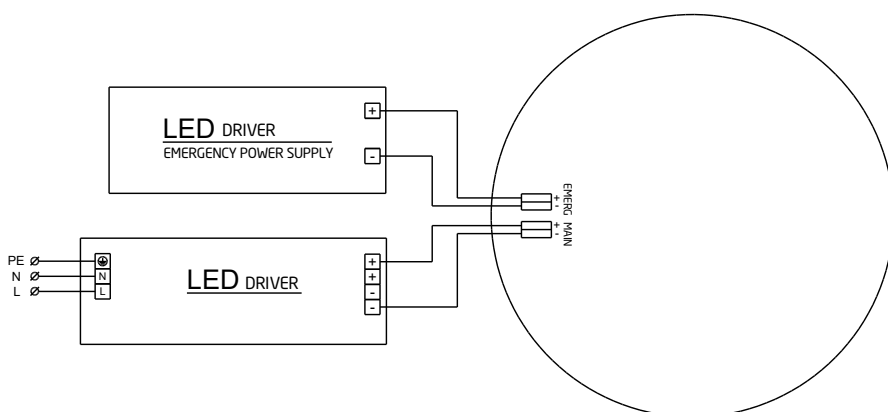
D - wire cross section (solid and flexible wires)	Min	Max
	0.2mm ²	0.75mm ²
	AWG 24	AWG 18

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



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.

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Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RdLED 315mm 4000lm 830 24V EMG Opt G2	1010 117 82846	20	840	333 x 333 x 91
RdLED 315mm 4000lm 840 24V EMG Opt G2	1010 117 82946	20	840	333 x 333 x 91
RdLED 315mm 4000lm 927 24V EMG Opt G2	1010 117 42546	20	840	333 x 333 x 91
RdLED 315mm 4000lm 927 24V EMG SSW Opt G2	1010 117 87146	20	840	333 x 333 x 91
RdLED 315mm 4000lm 930 24V EMG Opt G2	1010 117 42646	20	840	333 x 333 x 91
RdLED 315mm 4000lm 930 24V EMG SSW Opt G2	1010 117 50946	20	840	333 x 333 x 91
RdLED 315mm 4000lm 940 24V EMG Opt G2	1010 117 42746	20	840	333 x 333 x 91
RdLED 315mm 4000lm 940 24V EMG SSW Opt G2	1010 117 51046	20	840	333 x 333 x 91
RdLED 315mm 4000lm 827-865 EMG 90V Opt G1	1010 127 19346	20	840	333 x 333 x 91
RdLED 315mm 4000lm 827-865 EMG 24V Optimum	1010 117 27846	20	840	333 x 333 x 91
RdLED 315mm 4000lm 830 EMG 24V Optimum	1010 117 22346	20	840	333 x 333 x 91
RdLED 315mm 4000lm 830 EMG SSW 24V Optimum	1010 117 22546	20	840	333 x 333 x 91
RdLED 315mm 4000lm 840 EMG 24V Optimum	1010 117 22446	20	840	333 x 333 x 91
RdLED 315mm 4000lm 840 EMG SSW 24V Optimum	1010 117 22646	20	840	333 x 333 x 91