

## TECHNICAL DATA

<b>Assembly</b>	depending on the type of head: A - pole top mounted or on extension arms with $\phi$ 60 x 50 mm, B - pole top mounted with $\phi$ 60 x 180 mm
<b>Application</b>	surrounding office buildings, parks, pedestrians, parkings
<b>Ingress protection</b>	IP 66
<b>Optical system</b>	PMMA optics, interchangeable LED module
<b>Material</b>	cap - formed aluminium sheet diffuser - tempered glass luminaire body - aluminum alloy, anodized
<b>Unit volume</b>	0,05 m <sup>3</sup> (type „A“), 0,097 m <sup>3</sup> (type „B“)
<b>Operating temperature range</b>	from -40°C to +40°C
<b>Expected useful lifetime</b>	L90B10 - 100 000 h
<b>CRI</b>	>70
<b>Inrush current</b>	18 A / 280 $\mu$ s (RING LED 12 - 36) 43 A / 260 $\mu$ s (RING LED 48)
<b>Input voltage frequency</b>	50/60Hz
<b>Power factor</b>	$\geq$ 0.95
<b>Number of LED</b>	16
<b>Control system</b>	Luminaire has the possibility to connect to an external control system via DALI interface (optionally via analog signal 1- 10V).



## TABLE OF VARIANTS

Code	Symbol	LED power	Luminaire power consumption	LED forward current	Colour temperature (CCT)	LEDs luminous flux <sup>1</sup>	Luminaire luminous flux <sup>1</sup>	Luminous efficacy <sup>1</sup>	Net weight with mounting head type 'A' / 'B'
212227/.../1/.../2/C...	RING 3 LED 12	12 W	15 W	280 mA	2700 K	2400 lm	1850 lm	123 lm/W	6,7 / 7,2 kg
212227/.../3/.../2/C...	RING 3 LED 12	12 W	15 W	280 mA	3500 K	2550 lm	1950 lm	130 lm/W	6,7 / 7,2 kg
212227/.../4/.../2/C...	RING 3 LED 12	12 W	15 W	280 mA	4000 K	2700 lm	2050 lm	137 lm/W	6,7 / 7,2 kg
212227/.../6/.../2/C...	RING 3 LED 12	12 W	15 W	280 mA	5000 K	2700 lm	2050 lm	137 lm/W	6,7 / 7,2 kg
212230/.../1/.../2/C...	RING 3 LED 24	24 W	28 W	500 mA	2700 K	4050 lm	3050 lm	109 lm/W	6,7 / 7,2 kg
212230/.../3/.../2/C...	RING 3 LED 24	24 W	28 W	500 mA	3500 K	4300 lm	3250 lm	116 lm/W	6,7 / 7,2 kg
212230/.../4/.../2/C...	RING 3 LED 24	24 W	28 W	500 mA	4000 K	4550 lm	3450 lm	123 lm/W	6,7 / 7,2 kg
212230/.../6/.../2/C...	RING 3 LED 24	24 W	28 W	500 mA	5000 K	4550 lm	3450 lm	123 lm/W	6,7 / 7,2 kg
212232/.../1/.../2/C...	RING 3 LED 36	36 W	40 W	750 mA	2700 K	5750 lm	4350 lm	109 lm/W	6,7 / 7,2 kg
212232/.../3/.../2/C...	RING 3 LED 36	36 W	40 W	750 mA	3500 K	6100 lm	4600 lm	115 lm/W	6,7 / 7,2 kg
212232/.../4/.../2/C...	RING 3 LED 36	36 W	40 W	750 mA	4000 K	6500 lm	4900 lm	123 lm/W	6,7 / 7,2 kg
212232/.../6/.../2/C...	RING 3 LED 36	36 W	40 W	750 mA	5000 K	6500 lm	4900 lm	123 lm/W	6,7 / 7,2 kg
212233/.../1/.../2/C...	RING 3 LED 48	48 W	55 W	1000 mA	2700 K	7300 lm	5550 lm	101 lm/W	6,7 / 7,2 kg
212233/.../3/.../2/C...	RING 3 LED 48	48 W	55 W	1000 mA	3500 K	7750 lm	5850 lm	106 lm/W	6,7 / 7,2 kg
212233/.../4/.../2/C...	RING 3 LED 48	48 W	55 W	1000 mA	4000 K	8200 lm	6200 lm	113 lm/W	6,7 / 7,2 kg
212233/.../6/.../2/C...	RING 3 LED 48	48 W	55 W	1000 mA	5000 K	8200 lm	6200 lm	113 lm/W	6,7 / 7,2 kg

1) tolerance +/- 5% due to LEDs accuracy

2) exemplary product code 212030/A/6/T4/C35 is RING 1 LED 24W 5000K luminaire, where /A/ is the 'A' type mounting head, /T4/ is the T4 optical system, /C35 is the anodizing color of the C35 luminaire black

3) the weight of the luminaire with the head type 'A' is 6.6 kg / with the head type 'B' is 7.1 kg

## DIRECTIVES AND STANDARDS

**DIRECTIVES:** 2014/35/UE (Official Journal of the UE L 96/357 29.03.2014), 2014/30/UE (Official Journal of the UE L 96/79 29.03.2014), 2011/65/UE RoHS (Official Journal of the UE L 174/88 01.07.2011), 2009/125/EC(Official Journal of the UE L 285/10 31.10.2009)

**STANDARDS:** PN-EN IEC 60598-1: 2021-7, PN-EN 60598-2-3: 2006, PN-EN 60529: 2003, PN-EN 62262: 2003, PN-EN 62471:2010, PN-EN 55015: 2019, PN-EN 61547: 2009, PN-EN 61000-3-2: 2019, PN-EN 61000-3-3: 2014, PN-EN 62722-2-1 (tq=25°C)

Lighting parameters presented based on laboratory tests according to IESNA LM-79-19

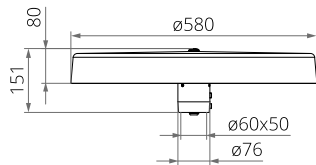
## REMOVING ELECTROSTATIC CHARGE FROM LED LUMINAIRE BODY

In order to efficiently discharge the electrostatic charge from the housing of LED fitting installed on the pole from dielectric material (non-conductive) one of the following solutions is required:

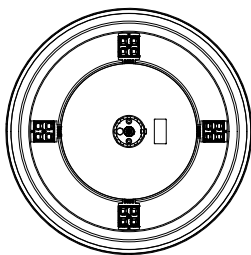
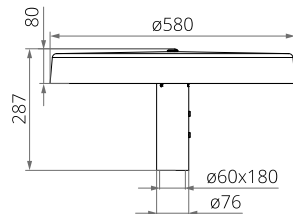
- functional grounding
- LED luminaire with an additional protection device

## TECHNICAL DRAWING

RING 3 LED 'A'

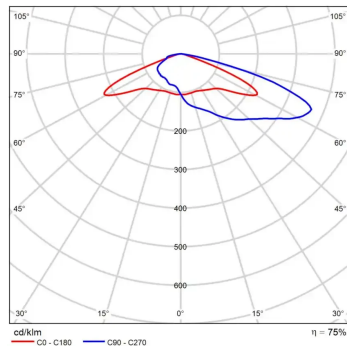


RING 3 LED 'B'

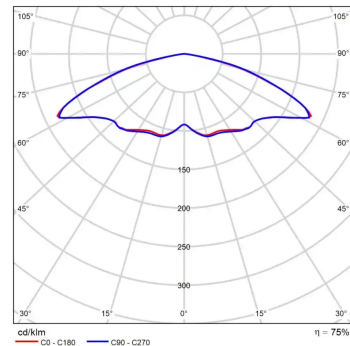


## PHOTOMETRIC CURVES

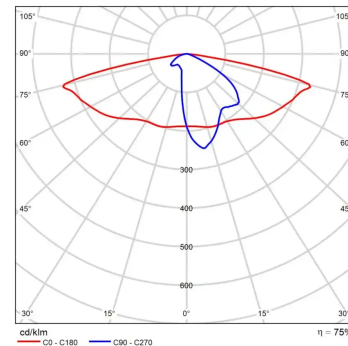
T4



VS



SP



## POWER SYSTEM FUNCTIONS

Luminaire in standard has following functions of intelligent power supply:

- Connection to outside control system by DALI interface (operation of analog signal 1-10V as an option),
- Possibility of programming multistage dimming of luminaire, up to 5 intervals in the range of from 10 to 100% of nominal power,
- LED module equipped with thermal protection implemented via an NTC thermistor,
- Regulation of power / luminous flux – the option of setting another value than the catalogue in the range of 30-100% of nominal one,

## ACCEPTABLE QUANTITY OF LUMINAIRES ON ONE CIRCUIT

Acceptable quantity of luminaires RING 1 LED D4i on one circuit, protected by:

Overcurrent switches MCB type B or C

Luminaire	Typ	2A	4A	6A	10A	16A	20A	25A
RING 3 LED	B	4	7	12	18	30	37	46
	C	4	12	18	31	51	62	78

Fuse – type gG and GL

Luminaire	2A	4A	6A	10A	16A	20A	25A
RING 3 LED	1	10	20	26	52	71	101

## CHROMATICITY

Chromaticity	x	y
2700K	0,4582	0,4099
3500K	0,4080	0,3916
4000K	0,3825	0,3798
5000K	0,3451	0,3554

## PHOTOMETRIC CODE

2700K	727/559
3500K	735/559
4000K	740/559
5000K	750/559