

# RING 1 LED C



## TECHNICAL DATA

|                                    |                                                                                                                                  |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Assembly</b>                    | on extension arms, columns with extension arms with ø 60 x 50 mm ending                                                          |
| <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<br>diffuser - tempered glass<br>luminaire body - aluminum alloy, anodized                           |
| <b>Unit volume</b>                 | 0,08 m³                                                                                                                          |
| <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 µs (RING LED 24 - 36)<br>43 A / 260 µs (RING LED 48 - 72)                                                             |
| <b>Input voltage frequency</b>     | 50/60Hz                                                                                                                          |
| <b>Power factor</b>                | ≥0.95                                                                                                                            |
| <b>Number of LED</b>               | 16 (24 W, 36 W, 48 W) 32 (72 W)                                                                                                  |
| <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 flux¹ | Luminaire luminous flux¹ | Luminous efficacy¹ | Net weight |
|----------------------|-----------------|-----------|-----------------------------|---------------------|--------------------------|---------------------|--------------------------|--------------------|------------|
| 212030/C/1/...²/C... | RING 1 LED C 24 | 24 W      | 28 W                        | 500 mA              | 2700 K                   | 4050 lm             | 3050 lm                  | 109 lm/W           | 7.6 kg     |
| 212030/C/3/...²/C... | RING 1 LED C 24 | 24 W      | 28 W                        | 500 mA              | 3500 K                   | 4300 lm             | 3250 lm                  | 116 lm/W           | 7.6 kg     |
| 212030/C/4/...²/C... | RING 1 LED C 24 | 24 W      | 28 W                        | 500 mA              | 4000 K                   | 4550 lm             | 3450 lm                  | 123 lm/W           | 7.6 kg     |
| 212030/C/6/...²/C... | RING 1 LED C 24 | 24 W      | 28 W                        | 500 mA              | 5000 K                   | 4550 lm             | 3450 lm                  | 123 lm/W           | 7.6 kg     |
| 212032/C/1/...²/C... | RING 1 LED C 36 | 36 W      | 40 W                        | 750 mA              | 2700 K                   | 5750 lm             | 4350 lm                  | 109 lm/W           | 7.6 kg     |
| 212032/C/3/...²/C... | RING 1 LED C 36 | 36 W      | 40 W                        | 750 mA              | 3500 K                   | 6100 lm             | 4600 lm                  | 115 lm/W           | 7.6 kg     |
| 212032/C/4/...²/C... | RING 1 LED C 36 | 36 W      | 40 W                        | 750 mA              | 4000 K                   | 6500 lm             | 4900 lm                  | 123 lm/W           | 7.6 kg     |
| 212032/C/6/...²/C... | RING 1 LED C 36 | 36 W      | 40 W                        | 750 mA              | 5000 K                   | 6500 lm             | 4900 lm                  | 123 lm/W           | 7.6 kg     |
| 212033/C/1/...²/C... | RING 1 LED C 48 | 48 W      | 55 W                        | 1000 mA             | 2700 K                   | 7300 lm             | 5550 lm                  | 101 lm/W           | 7.6 kg     |
| 212033/C/3/...²/C... | RING 1 LED C 48 | 48 W      | 55 W                        | 1000 mA             | 3500 K                   | 7750 lm             | 5850 lm                  | 106 lm/W           | 7.6 kg     |
| 212033/C/4/...²/C... | RING 1 LED C 48 | 48 W      | 55 W                        | 1000 mA             | 4000 K                   | 8200 lm             | 6200 lm                  | 113 lm/W           | 7.6 kg     |
| 212033/C/6/...²/C... | RING 1 LED C 48 | 48 W      | 55 W                        | 1000 mA             | 5000 K                   | 8200 lm             | 6200 lm                  | 113 lm/W           | 7.6 kg     |
| 212035/C/1/...²/C... | RING 1 LED C 72 | 72 W      | 79 W                        | 750 mA              | 2700 K                   | 11520 lm            | 8750 lm                  | 111 lm/W           | 7.6 kg     |
| 212035/C/3/...²/C... | RING 1 LED C 72 | 72 W      | 79 W                        | 750 mA              | 3500 K                   | 12250 lm            | 9300 lm                  | 118 lm/W           | 7.6 kg     |
| 212035/C/4/...²/C... | RING 1 LED C 72 | 72 W      | 79 W                        | 750 mA              | 4000 K                   | 12950 lm            | 9800 lm                  | 124 lm/W           | 7.6 kg     |
| 212035/C/6/...²/C... | RING 1 LED C 72 | 72 W      | 79 W                        | 750 mA              | 5000 K                   | 12950 lm            | 9800 lm                  | 124 lm/W           | 7.6 kg     |

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

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

## 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)

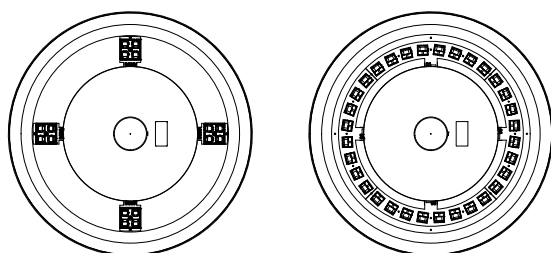
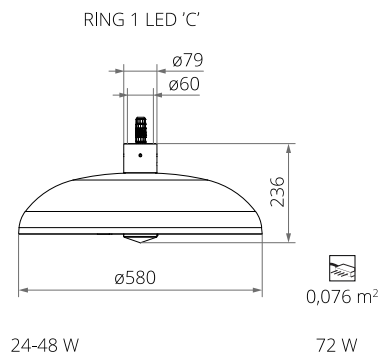
Lighting parameters presented based on laboratory tests according to IESNA LM-79-19

## REMOVING ELECTROSTATIC CHARGE FROM LED LUMINAIRE BODY

In order to efficient 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:

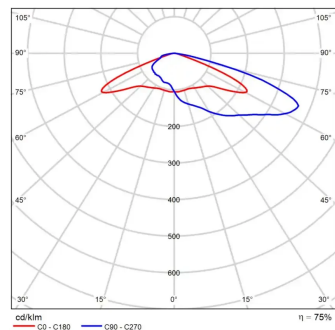
- functional grounding
- LED luminaire with an additional protection device

## TECHNICAL DRAWING

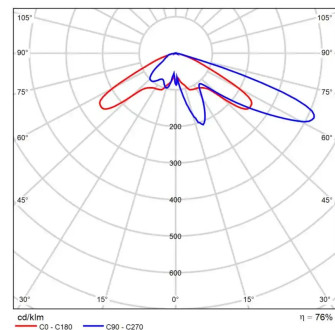


## PHOTOMETRIC CURVES

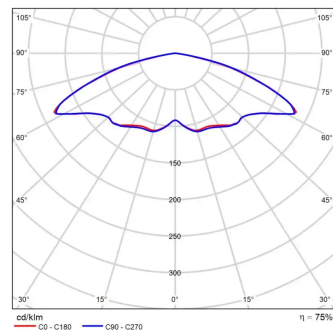
T4



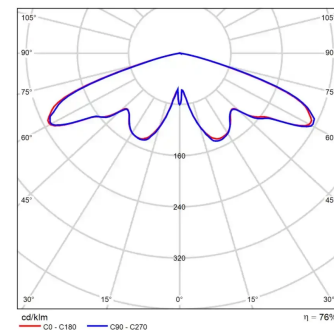
T4 - RING LED 72W



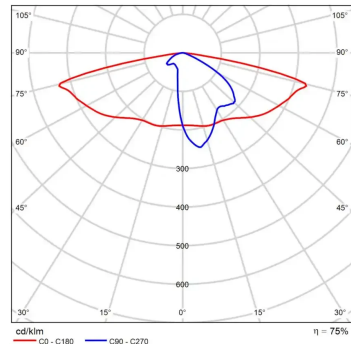
VS



VS - RING LED 72W



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,

## ACCETABLE QUANTITY OF LUMINAIRES ON ONE CIRCUIT

Accetable quantity of luminaires RING 1 LED C on one circuit, protected by:

Overcurrent switches MCB type B or C

| Luminaire    | Typ | 2A | 4A | 6A | 10A | 16A | 20A | 25A |
|--------------|-----|----|----|----|-----|-----|-----|-----|
| RING 1 LED C | 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 1 LED C 24 W, 36 W | 1  | 10 | 20 | 26  | 52  | 71  | 101 |
| RING 1 LED C 48 W, 72 W | 0  | 4  | 8  | 11  | 22  | 31  | 44  |

## 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 |