

## TECHNICAL DATA

|                                    |  |
|------------------------------------|--|
| <b>Assembly</b>                    | on extension arms with $\varnothing$ 60 x 95 mm ending   |
| <b>Application</b>                 | motorways and expressway, urban roads, pedestrians, parkings   |
| <b>Colour</b>                      | inox / black   |
| <b>Ingress protection</b>          | IP 66 for the optical part and the driver  |
| <b>Material</b>                    | anodised aluminium alloy   |
| <b>Unit volume</b>                 | 0,028 m <sup>3</sup> (URSA LED 48 - 72 W)<br>0,037 m <sup>3</sup> (URSA LED 96 - 144 W)  |
| <b>Operating temperature range</b> | from -40°C to +55°C (for 48 W, 60 W, 72 W, 96 W, 120 W), from -40°C to +40°C (for 144 W)   |
| <b>Expected useful lifetime</b>    | L90B10 - 100 000 h   |
| <b>CRI</b>                         | >70  |
| <b>Inrush current</b>              | 55 A / 200 $\mu$ s (URSA LED 48 - 72)<br>67 A / 210 $\mu$ s (URSA LED 96 - 144)  |
| <b>Input voltage frequency</b>     | 50/60Hz  |
| <b>Power factor</b>                | $\geq$ 0.95  |
| <b>Number of LED</b>               | 24 (48 W, 60 W, 72 W), 48 (96 W, 120 W, 144 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 flux <sup>1</sup> | Luminaire luminous flux <sup>1</sup> | Luminous efficacy <sup>1</sup> | Net weight |
|----------------------------|--------------|-----------|-----------------------------|---------------------|--------------------------|---------------------------------|--------------------------------------|--------------------------------|------------|
| 2220033/1/... <sup>2</sup> | URSA LED 48  | 48 W      | 55 W                        | 700 mA              | 2700 K                   | 8150 lm                         | 7450 lm                              | 135 lm/W                       | 8 kg       |
| 2220033/3/... <sup>2</sup> | URSA LED 48  | 48 W      | 55 W                        | 700 mA              | 3500 K                   | 8650 lm                         | 7900 lm                              | 144 lm/W                       | 8 kg       |
| 2220033/4/... <sup>2</sup> | URSA LED 48  | 48 W      | 55 W                        | 700 mA              | 4000 K                   | 9150 lm                         | 8350 lm                              | 152 lm/W                       | 8 kg       |
| 2220033/6/... <sup>2</sup> | URSA LED 48  | 48 W      | 55 W                        | 700 mA              | 5000 K                   | 9150 lm                         | 8350 lm                              | 152 lm/W                       | 8 kg       |
| 2220034/1/... <sup>2</sup> | URSA LED 60  | 60 W      | 68 W                        | 830 mA              | 2700 K                   | 9300 lm                         | 8500 lm                              | 127 lm/W                       | 8 kg       |
| 2220034/3/... <sup>2</sup> | URSA LED 60  | 60 W      | 68 W                        | 830 mA              | 3500 K                   | 9850 lm                         | 9000 lm                              | 134 lm/W                       | 8 kg       |
| 2220034/4/... <sup>2</sup> | URSA LED 60  | 60 W      | 68 W                        | 830 mA              | 4000 K                   | 10450 lm                        | 9550 lm                              | 143 lm/W                       | 8 kg       |
| 2220034/6/... <sup>2</sup> | URSA LED 60  | 60 W      | 68 W                        | 830 mA              | 5000 K                   | 10450 lm                        | 9550 lm                              | 143 lm/W                       | 8 kg       |
| 2220035/1/... <sup>2</sup> | URSA LED 72  | 72 W      | 79 W                        | 1000 mA             | 2700 K                   | 10700 lm                        | 9800 lm                              | 124 lm/W                       | 8 kg       |
| 2220035/3/... <sup>2</sup> | URSA LED 72  | 72 W      | 79 W                        | 1000 mA             | 3500 K                   | 11350 lm                        | 10400 lm                             | 132 lm/W                       | 8 kg       |
| 2220035/4/... <sup>2</sup> | URSA LED 72  | 72 W      | 79 W                        | 1000 mA             | 4000 K                   | 12100 lm                        | 11050 lm                             | 140 lm/W                       | 8 kg       |
| 2220035/6/... <sup>2</sup> | URSA LED 72  | 72 W      | 79 W                        | 1000 mA             | 5000 K                   | 12100 lm                        | 11050 lm                             | 140 lm/W                       | 8 kg       |
| 2220037/1/... <sup>2</sup> | URSA LED 96  | 96 W      | 105 W                       | 700 mA              | 2700 K                   | 16300 lm                        | 14900 lm                             | 142 lm/W                       | 10 kg      |
| 2220037/3/... <sup>2</sup> | URSA LED 96  | 96 W      | 105 W                       | 700 mA              | 3500 K                   | 17300 lm                        | 15850 lm                             | 151 lm/W                       | 10 kg      |
| 2220037/4/... <sup>2</sup> | URSA LED 96  | 96 W      | 105 W                       | 700 mA              | 4000 K                   | 18300 lm                        | 16750 lm                             | 160 lm/W                       | 10 kg      |
| 2220037/6/... <sup>2</sup> | URSA LED 96  | 96 W      | 105 W                       | 700 mA              | 5000 K                   | 18300 lm                        | 16750 lm                             | 160 lm/W                       | 10 kg      |
| 2220039/1/... <sup>2</sup> | URSA LED 120 | 120 W     | 129 W                       | 830 mA              | 2700 K                   | 18600 lm                        | 17050 lm                             | 132 lm/W                       | 10 kg      |
| 2220039/3/... <sup>2</sup> | URSA LED 120 | 120 W     | 129 W                       | 830 mA              | 3500 K                   | 19700 lm                        | 18050 lm                             | 140 lm/W                       | 10 kg      |
| 2220039/4/... <sup>2</sup> | URSA LED 120 | 120 W     | 129 W                       | 830 mA              | 4000 K                   | 20900 lm                        | 19150 lm                             | 148 lm/W                       | 10 kg      |
| 2220039/6/... <sup>2</sup> | URSA LED 120 | 120 W     | 129 W                       | 830 mA              | 5000 K                   | 20900 lm                        | 19150 lm                             | 148 lm/W                       | 10 kg      |
| 2220041/1/... <sup>2</sup> | URSA LED 144 | 144 W     | 154 W                       | 1000 mA             | 2700 K                   | 21400 lm                        | 19600 lm                             | 127 lm/W                       | 10 kg      |
| 2220041/3/... <sup>2</sup> | URSA LED 144 | 144 W     | 154 W                       | 1000 mA             | 3500 K                   | 22700 lm                        | 20800 lm                             | 135 lm/W                       | 10 kg      |
| 2220041/4/... <sup>2</sup> | URSA LED 144 | 144 W     | 154 W                       | 1000 mA             | 4000 K                   | 24200 lm                        | 22150 lm                             | 144 lm/W                       | 10 kg      |
| 2220041/6/... <sup>2</sup> | URSA LED 144 | 144 W     | 154 W                       | 1000 mA             | 5000 K                   | 24200 lm                        | 22150 lm                             | 144 lm/W                       | 10 kg      |

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

2) symbol of chosen optical system eg. 2220033/6/T2 is URSA LED 48 5000K with T2 optical system

## 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

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

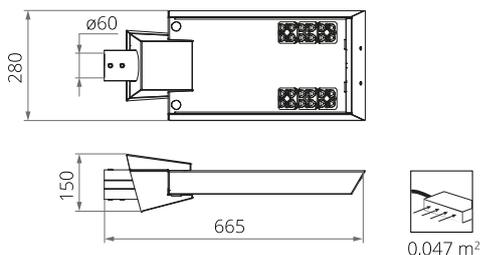
## REMOVING ELECTROSTATIC CHARGE FROM LED LUMINAIRE BODY

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:

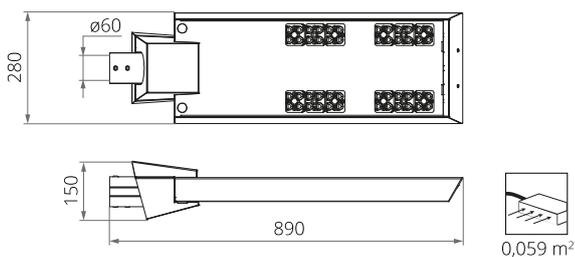
- functional grounding
- LED luminaire with an additional protection device

## TECHNICAL DRAWING

URSA LED 48W, 60W, 72W

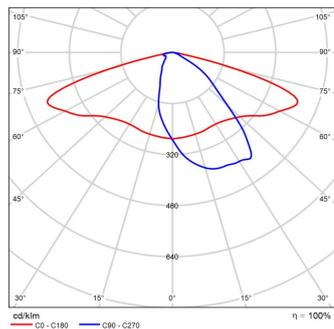


URSA LED 96W, 120W, 144W

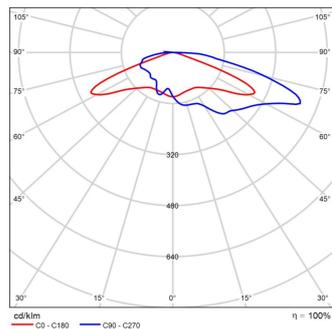


## PHOTOMETRIC CURVES

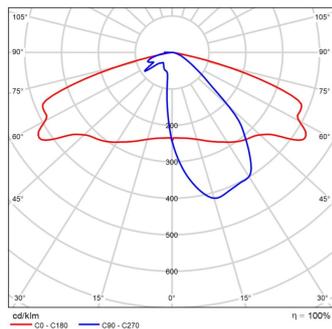
DW



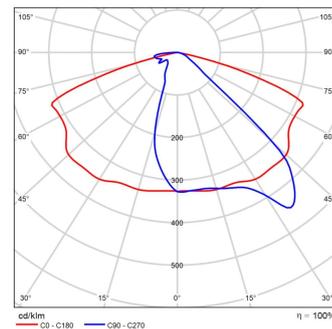
T4



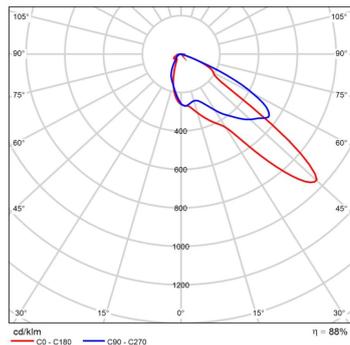
T2



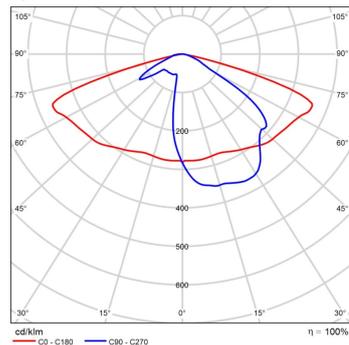
ME



PP



T3



## 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

Overcurrent switches MCB type B or C

| Luminaire                 | Typ | 2A | 4A | 6A | 10A | 16A | 20A | 25A |
|---------------------------|-----|----|----|----|-----|-----|-----|-----|
| URSA LED<br>48, 60, 72W   | B   | 1  | 2  | 4  | 6   | 11  | 13  | 17  |
|                           | C   | 1  | 4  | 6  | 11  | 18  | 22  | 28  |
| URSA LED<br>96, 120, 144W | B   | 1  | 1  | 3  | 5   | 8   | 12  | 12  |
|                           | C   | 1  | 3  | 5  | 8   | 13  | 16  | 20  |

Fuse – type gG and GL

| Luminaire                 | 2A | 4A | 6A | 10A | 16A | 20A | 25A |
|---------------------------|----|----|----|-----|-----|-----|-----|
| URSA LED<br>48, 60, 72W   | 1  | 2  | 11 | 19  | 30  | 38  | 47  |
| URSA LED<br>96, 120, 144W | 1  | 1  | 6  | 9   | 15  | 19  | 24  |