

## TECHNICAL DATA

|                                    |  |
|------------------------------------|--|
| <b>Application</b>                 | motorways and expressway, urban roads, residential roads (internal), pedestrians, parkings   |
| <b>Assembly</b>                    | on extension arms with ø 60 x 100 mm ending  |
| <b>Colour</b>                      | inox / black   |
| <b>Ingress protection</b>          | IP 66 for the optical part and the driver  |
| <b>Optical system</b>              | PMMA optics, interchangeable LED module, PC-UV diffuser  |
| <b>Material</b>                    | anodised aluminium alloy   |
| <b>Unit volume</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>              | 49 A / 290 µs (CUDDLE II LED D4i 48 - 72)<br>24 A / 60 µs (CUDDLE II LED D4i 96 - 144)<br>24 A / 100 µs (CUDDLE II LED D4i x2 96)<br>85 A / 215 µs (CUDDLE II LED D4i 192) |
| <b>Input voltage frequency</b>     | 50/60Hz  |
| <b>Power factor</b>                | ≥0.95  |
| <b>Number of LED</b>               | 64   |
| <b>Control system</b>              | Luminaire can be connected to an external control system and / or sensors via socket compatible with Zhaga Book 18   |

| 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> | D4i socket | Net weight |
|----------------------------|-----------------------|-----------|-----------------------------|---------------------|--------------------------|---------------------------------|--------------------------------------|--------------------------------|------------|------------|
| 2225046/6/... <sup>2</sup> | CUDDLE II LED D4i 192 | 192 W     | 205 W                       | 1000 mA             | 5000 K                   | 31350 lm                        | 26700 lm                             | 130 lm/W                       | 1 ↑        | 7.8 kg     |

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

2) symbol of chosen optical system eg. 2225033/6/T2 is CUDDLE II LED D4i 48 5000K with T2 optical system

↑ - D4i socket from top, ↓ - D4i socket from bottom, ↑ ↓ - D4i socket from top and bottom

\*For the CUDDLE II LED D4i luminaire with P2 and PL optics it is possible to choose an additional light colour temperature: 5700K. The product code is then supplemented with the designation '/7'. Example: 2225033/7/P2 -CUDDLE II LED D4i 48W 5700K luminaire with P2 optics

## 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=40°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:

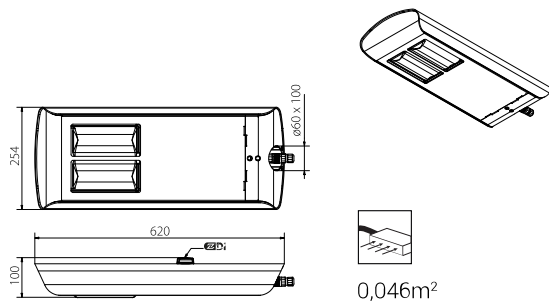
- functional grounding
- LED luminaire with an additional protection device

# CUDDLE II LED D4i 192

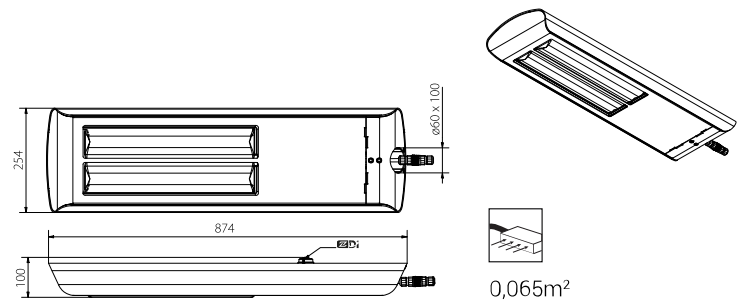


## TECHNICAL DRAWING

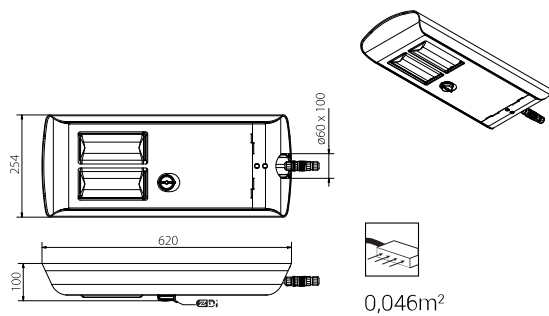
CUDDLE II LED D4i 48-72 W



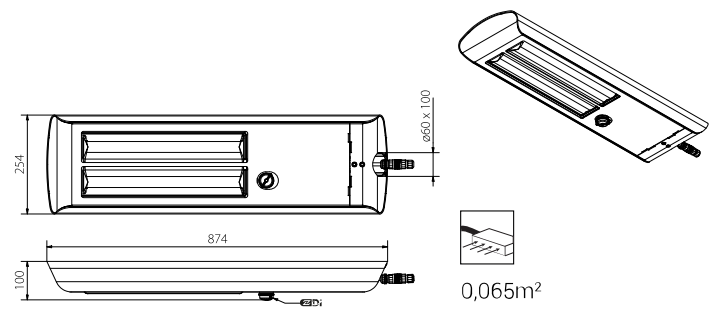
CUDDLE II LED D4i 96-192 W



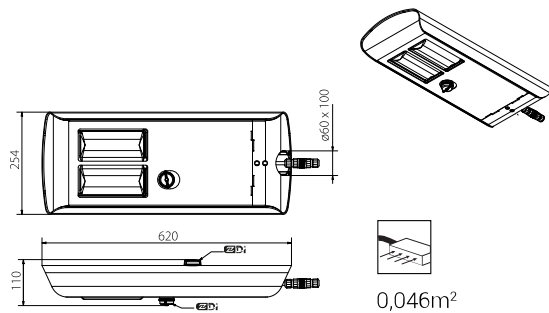
CUDDLE II LED D4i D 48-72 W



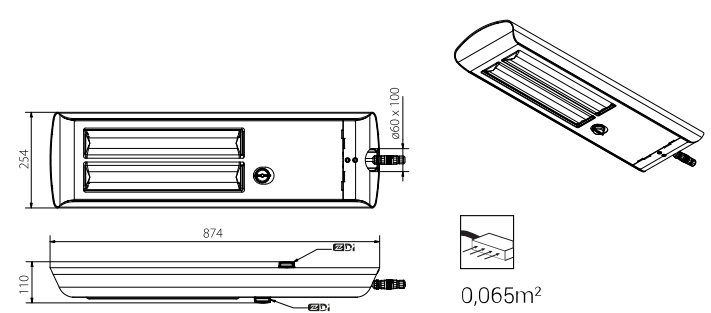
CUDDLE II LED D4i D 96-192 W



CUDDLE II LED D4i x2 48-72 W

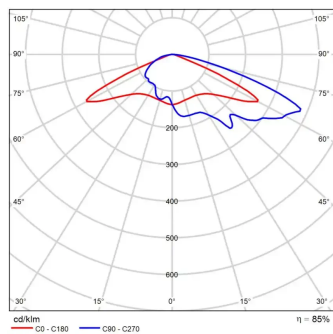


CUDDLE II LED D4i x2 96-192 W

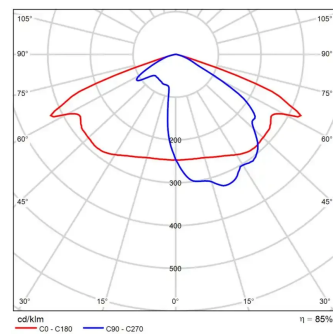


## PHOTOMETRIC CURVES

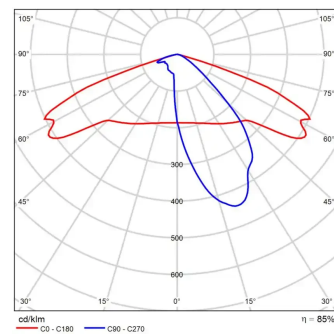
T4



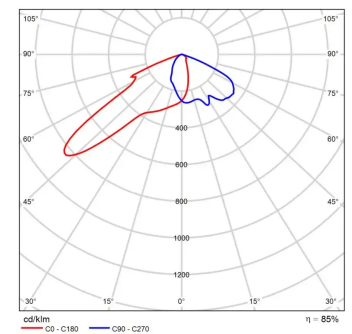
T3

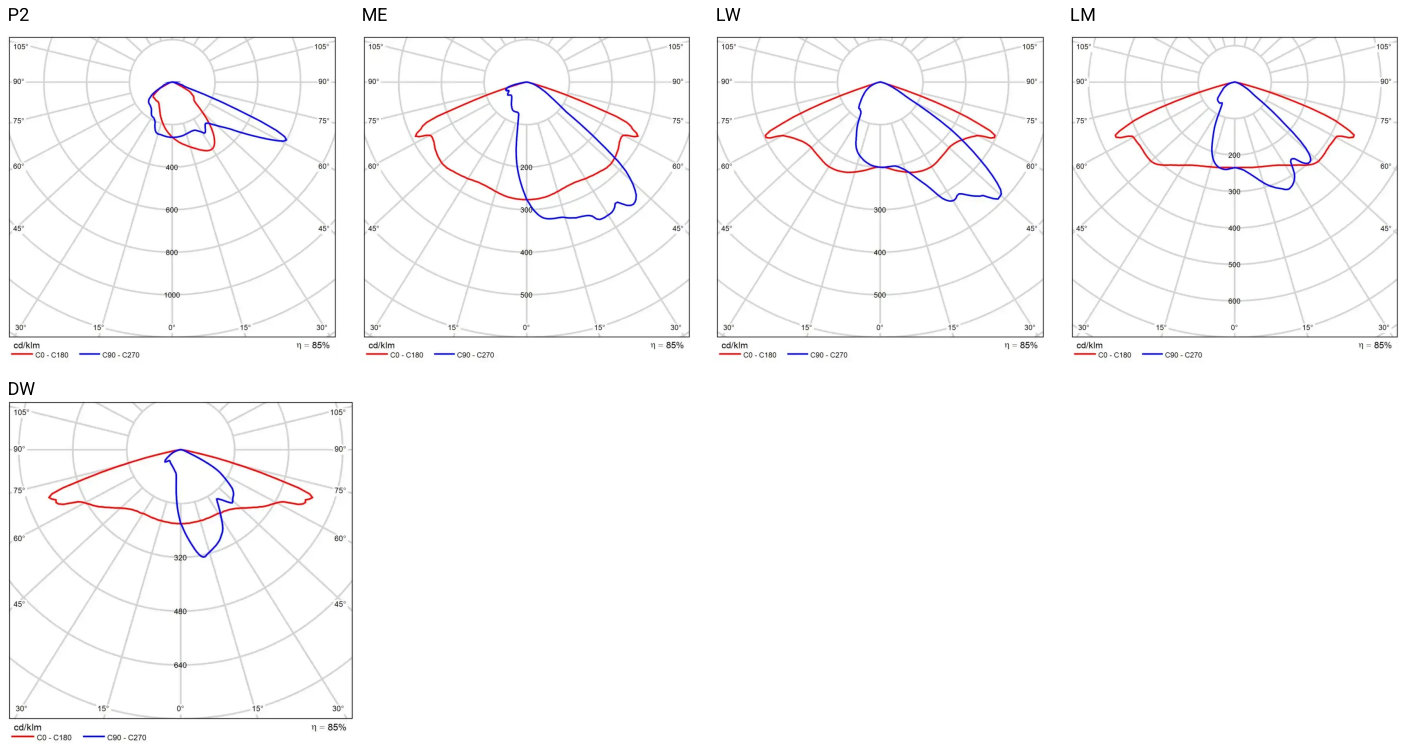


T2



PL





## POWER SYSTEM FUNCTIONS

Luminaire in standard has following functions of intelligent power supply:

- 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 |
|------------------------------------|-----|----|----|----|-----|-----|-----|-----|
| CUDDLE II LED D4i<br>48, 60, 72W   | B   | 4  | 9  | 13 | 23  | 37  | 46  | 58  |
|                                    | C   | 4  | 9  | 13 | 23  | 37  | 46  | 58  |
| CUDDLE II LED D4i<br>96, 120, 144W | B   | 1  | 3  | 5  | 8   | 14  | 17  | 21  |
|                                    | C   | 1  | 4  | 7  | 11  | 19  | 23  | 29  |
| CUDDLE II LED D4i<br>192W          | B   | 0  | 1  | 2  | 3   | 5   | 6   | 7   |
|                                    | C   | 0  | 2  | 3  | 5   | 8   | 10  | 13  |

Fuse – type gG and GL

| Luminaire                 | 2A | 4A | 6A | 10A | 16A | 20A | 25A |
|---------------------------|----|----|----|-----|-----|-----|-----|
| CUDDLE II LED D4i<br>48W  | 4  | 9  | 13 | 23  | 37  | 46  | 58  |
| CUDDLE II LED D4i<br>60W  | 4  | 9  | 13 | 23  | 37  | 46  | 58  |
| CUDDLE II LED D4i<br>72W  | 4  | 9  | 13 | 23  | 37  | 46  | 58  |
| CUDDLE II LED D4i<br>96W  | 2  | 4  | 7  | 11  | 19  | 23  | 29  |
| CUDDLE II LED D4i<br>120W | 2  | 4  | 7  | 11  | 19  | 23  | 29  |
| CUDDLE II LED D4i<br>144W | 2  | 4  | 7  | 11  | 19  | 23  | 29  |
| CUDDLE II LED D4i<br>192W | 0  | 2  | 4  | 6   | 12  | 17  | 22  |

## 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 |