



**Application:** motorways and expressways, urban roads, residential roads (internal), pedestrians, parkings

**Assembly:** on extension arms with  $\varnothing 60 \times 100$  mm ending

**Luminaire angular adjustment:** without (only CUDDLE II LED REG luminaire has it)

**Ingress protection:** IP 66 for the optical part and the driver

**Material:** anodised aluminium alloy

**Colour:** inox / black

**Optical system:** PMMA optics, interchangeable LED module, PC-UV diffuser

**Number of LEDs:** 24 for 48W, 60W, 72W; 64 for 96W, 120W, 144W, 192W

**Operating temperature range:** from  $-40^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$

**Expected useful lifetime:** L90F10 – 50 000 h, L80F20 – 100 000 h

**CRI:** >70 for 5000K, 4000K; >80 for 3500K, 2700K

**Input voltage frequency:** 50/60Hz

**Power factor:**  $\geq 0.95$

**Inrush current:** : 46A / 250 $\mu\text{s}$  for 48W, 60W, 72W; 58A / 340 $\mu\text{s}$  for 96W, 120W, 144W; 80A / 225 $\mu\text{s}$  for 192W

Luminaire CUDDLE II LED has the possibility to connect to an external control system via DALI interface (optionally via analog signal 1- 10V).



Code	Symbol	LED power	Luminaire Power consumption	LED forward current	Colour temperature (CCT)	LEDs luminous flux <sup>2)</sup>	Luminaire luminous flux <sup>2)</sup>	Luminous efficacy	Unit volume	Luminaire net weight
<b>2223033/1/...<sup>1)</sup></b>	CUDDLE II LED 48	48W	55W	700mA	2700K	7 050lm	6000lm	109lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223033/3/...<sup>1)</sup></b>	CUDDLE II LED 48	48W	55W	700mA	3500K	7 350lm	6250lm	114lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223033/4/...<sup>1)</sup></b>	CUDDLE II LED 48	48W	55W	700mA	4000K	8 650lm	7450lm	135lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223033/6/...<sup>1)</sup></b>	CUDDLE II LED 48	48W	55W	700mA	5000K	8 650lm	7450lm	135lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223034/1/...<sup>1)</sup></b>	CUDDLE II LED 60	60W	67W	830mA	2700K	8 150lm	7000lm	104lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223034/3/...<sup>1)</sup></b>	CUDDLE II LED 60	60W	67W	830mA	3500K	8 500lm	7350lm	110lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223034/4/...<sup>1)</sup></b>	CUDDLE II LED 60	60W	67W	830mA	4000K	10 050lm	8550lm	128lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223034/6/...<sup>1)</sup></b>	CUDDLE II LED 60	60W	67W	830mA	5000K	10 050lm	8550lm	128lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223035/1/...<sup>1)</sup></b>	CUDDLE II LED 72	72W	79W	1000mA	2700K	9 450lm	8050lm	102lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223035/3/...<sup>1)</sup></b>	CUDDLE II LED 72	72W	79W	1000mA	3500K	9 900lm	8450lm	107lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223035/4/...<sup>1)</sup></b>	CUDDLE II LED 72	72W	79W	1000mA	4000K	11 650lm	9950lm	126lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223035/6/...<sup>1)</sup></b>	CUDDLE II LED 72	72W	79W	1000mA	5000K	11 650lm	9950lm	126lm/W	0,024m <sup>3</sup>	5,6kg
<b>2223037/1/...<sup>1)</sup></b>	CUDDLE II LED 96	96W	105W	500mA	2700K	14 850lm	12700lm	121lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223037/3/...<sup>1)</sup></b>	CUDDLE II LED 96	96W	105W	500mA	3500K	15 500lm	13200lm	126lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223037/4/...<sup>1)</sup></b>	CUDDLE II LED 96	96W	105W	500mA	4000K	18 000lm	15300lm	146lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223037/6/...<sup>1)</sup></b>	CUDDLE II LED 96	96W	105W	500mA	5000K	18 000lm	15300lm	146lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223039/1/...<sup>1)</sup></b>	CUDDLE II LED 120	120W	129W	625mA	2700K	17 900lm	15250lm	118lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223039/3/...<sup>1)</sup></b>	CUDDLE II LED 120	120W	129W	625mA	3500K	18 700lm	15900lm	123lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223039/4/...<sup>1)</sup></b>	CUDDLE II LED 120	120W	129W	625mA	4000K	21 700lm	18400lm	143lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223039/6/...<sup>1)</sup></b>	CUDDLE II LED 120	120W	129W	625mA	5000K	21 700lm	18400lm	143lm/W	0,033m <sup>3</sup>	7,8kg

Code	Symbol	LED power	Luminaire Power consumption	LED forward current	Colour temperature (CCT)	LEDs luminous flux	Luminaire luminous flux	Luminous efficacy	Unit volume	Luminaire net weight
<b>2223041/1/...<sup>1)</sup></b>	CUDDLE II LED 144	144W	154W	750mA	2700K	20 600lm	17500lm	114lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223041/3/...<sup>1)</sup></b>	CUDDLE II LED 144	144W	154W	750mA	3500K	21 500lm	18300lm	119lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223041/4/...<sup>1)</sup></b>	CUDDLE II LED 144	144W	154W	750mA	4000K	24 900lm	21200lm	138lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223041/6/...<sup>1)</sup></b>	CUDDLE II LED 144	144W	154W	750mA	5000K	24 900lm	21200lm	138lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223046/1/...<sup>1)</sup></b>	CUDDLE II LED 192	192W	205W	1000mA	2700K	24 000lm	20400lm	100lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223046/3/...<sup>1)</sup></b>	CUDDLE II LED 192	192W	205W	1000mA	3500K	25 000lm	21300lm	104lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223046/4/...<sup>1)</sup></b>	CUDDLE II LED 192	192W	205W	1000mA	4000K	29 000lm	24600lm	120lm/W	0,033m <sup>3</sup>	7,8kg
<b>2223046/6/...<sup>1)</sup></b>	CUDDLE II LED 192	192W	205W	1000mA	5000K	29 000lm	24600lm	120lm/W	0,033m <sup>3</sup>	7,8kg

1) Symbol of chosen optical system eg. **2223033/6/T2** is **CUDDLE II LED 48 5000K with T2 optical system**

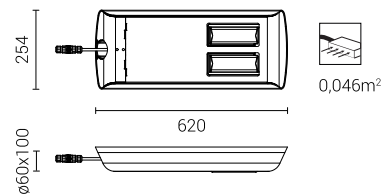
2) tolerance +/- 5% due to LEDs accuracy

**Directive:** 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, 2009/125/EC

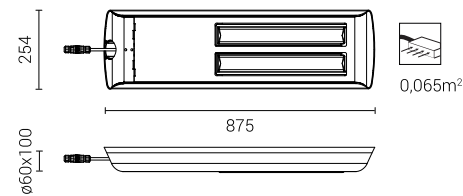
In order to efficient discharge the electrostatic charge from the housing of LED fitting installed on the pole from dielectric material (non-conductive) one of the following solutions is required (for more information visit: [www.rosa.pl/en/knowledge/LED-lighting](http://www.rosa.pl/en/knowledge/LED-lighting)):

- functional grounding
- LED luminaire with an additional protection device

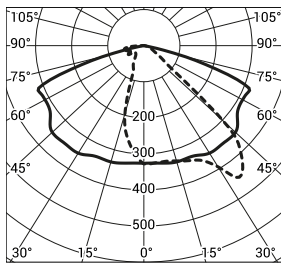
CUDDLE II LED 48W, 60W, 72W



CUDDLE II LED 96W, 120W, 144W, 192W

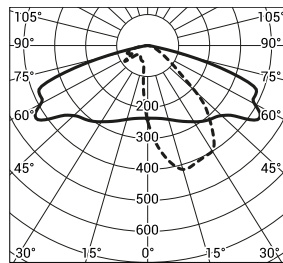


ME



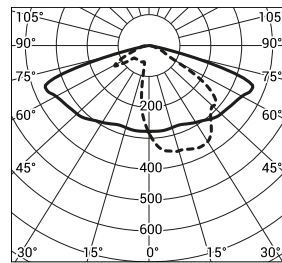
cd/klm  
— C0 - C180    --- C90 - C270

T2



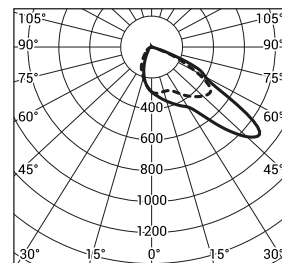
cd/klm  
— C0 - C180    --- C90 - C270

T3



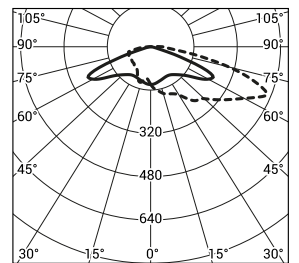
cd/klm  
— C0 - C180    --- C90 - C270

PP



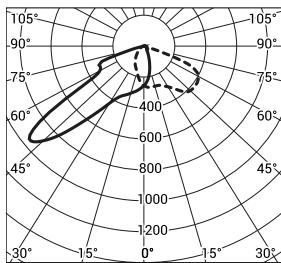
cd/klm  
— C0 - C180    --- C90 - C270

T4



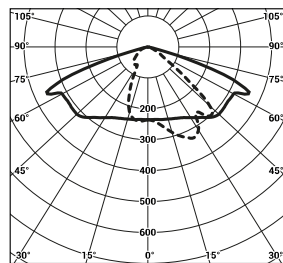
cd/klm  
— C0 - C180    --- C90 - C270

PL



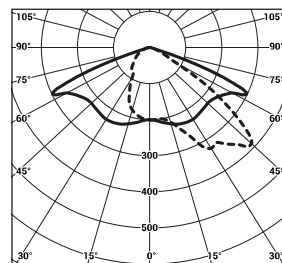
cd/klm  
— C0 - C180    --- C90 - C270

LM



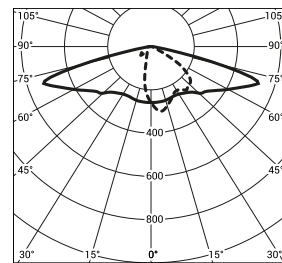
cd/klm  
— C0 - C180    --- C90 - C270

LW



cd/klm  
— C0 - C180    --- C90 - C270

DW



cd/klm  
— C0 - C180    --- C90 - C270

**Luminaire CUDDLE II LED 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,
- Temperature protection of LED module (from overheating) in case of unintentional luminaire operation during the,
- 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 CUDDLE II LED on one circuit, protected by:**

Overcurrent switches MCB type B or C

Luminaire	Typ	2A	4A	6A	10A	16A	20A	25A
CUDDLE II LED 48, 60, 72W	B	1	2	4	6	11	13	17
	C	1	4	6	11	18	22	28
CUDDLE II LED 96, 120, 144W	B	1	1	3	5	8	12	12
	C	1	3	5	8	13	16	20
CUDDLE II LED 192W	B	0	1	2	4	8	10	12
	C	1	2	4	6	13	16	18

Fuse – type gG and GL

Luminaire	2A	4A	6A	10A	16A	20A	25A
CUDDLE II LED 48, 60, 72W	1	2	11	19	30	38	47
CUDDLE II LED 96, 120, 144W	1	1	6	9	15	19	24
CUDDLE II LED 192W	0	1	4	7	12	15	19