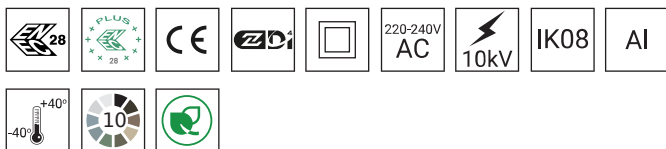


CUDDLE MINI LED D4i



TECHNICAL DATA

Anodising	10 colours
Assembly	on extension arms with ø 60 x 100 mm ending
Application	urban roads, residential roads (internal), pedestrians, parkings
Ingress protection	IP 66 for the optical part and the driver
Optical system	PMMA optics, interchangeable LED module
Material	anodised aluminium alloy, diffuser – tempered glass
Unit volume	0,01 m³
Operating temperature range	from -40°C to +40°C
Expected useful lifetime	L90B10 - 100 000 h
CRI	>70
Inrush current	24,6 A / 195,5 µs (12 W - 36 W) 98 A / 120 µs (48 W - 60 W)
Input voltage frequency	50 - 60Hz
Power factor	≥0,95
Number of LED	16
Control system	Luminaire can be connected to an external control system and / or sensors via socket compatible with Zhaga Book 18



TABLE OF VARIANTS

Code	Symbol	LED power	Luminaire power consumption	LED forward current	Colour temperature (CCT)	LEDs luminous flux¹	Luminaire luminous flux¹	Luminous efficacy¹	D4i socket	Net weight
2227227/1/...²	CUDDLE MINI LED D4i 12	12 W	15 W	140 mA	2700 K	2450 lm	2050 lm	137 lm/W	1 ↑	3,7 kg
2227227/3/...²	CUDDLE MINI LED D4i 12	12 W	15 W	140 mA	3500 K	2600 lm	2150 lm	143 lm/W	1 ↑	3,7 kg
2227227/4/...²	CUDDLE MINI LED D4i 12	12 W	15 W	140 mA	4000 K	2650 lm	2200 lm	147 lm/W	1 ↑	3,7 kg
2227227/6/...²	CUDDLE MINI LED D4i 12	12 W	15 W	140 mA	5000 K	2600 lm	2150 lm	143 lm/W	1 ↑	3,7 kg
2227230/1/...²	CUDDLE MINI LED D4i 24	24 W	26 W	250 mA	2700 K	4250 lm	3550 lm	137 lm/W	1 ↑	3,7 kg
2227230/3/...²	CUDDLE MINI LED D4i 24	24 W	26 W	250 mA	3500 K	4650 lm	3400 lm	142 lm/W	1 ↑	3,7 kg
2227230/4/...²	CUDDLE MINI LED D4i 24	24 W	26 W	250 mA	4000 K	4800 lm	3500 lm	146 lm/W	1 ↑	3,7 kg
2227230/6/...²	CUDDLE MINI LED D4i 24	24 W	26 W	250 mA	5000 K	4500 lm	3750 lm	144 lm/W	1 ↑	3,7 kg
2227232/1/...²	CUDDLE MINI LED D4i 36	36 W	39 W	375 mA	2700 K	6200 lm	5150 lm	132 lm/W	1 ↑	3,7 kg
2227232/3/...²	CUDDLE MINI LED D4i 36	36 W	39 W	375 mA	3500 K	6500 lm	5400 lm	138 lm/W	1 ↑	3,7 kg
2227232/4/...²	CUDDLE MINI LED D4i 36	36 W	39 W	375 mA	4000 K	7050 lm	5150 lm	132 lm/W	1 ↑	3,7 kg
2227232/6/...²	CUDDLE MINI LED D4i 36	36 W	39 W	375 mA	5000 K	6950 lm	5050 lm	129 lm/W	1 ↑	3,7 kg
2227233/1/...²	CUDDLE MINI LED D4i 48	48 W	54 W	500 mA	2700 K	8550 lm	6250 lm	116 lm/W	1 ↑	3,7 kg
2227233/3/...²	CUDDLE MINI LED D4i 48	48 W	54 W	500 mA	3500 K	8300 lm	6900 lm	128 lm/W	1 ↑	3,7 kg
2227233/4/...²	CUDDLE MINI LED D4i 48	48 W	54 W	500 mA	4000 K	8550 lm	7100 lm	131 lm/W	1 ↑	3,7 kg
2227233/6/...²	CUDDLE MINI LED D4i 48	48 W	54 W	500 mA	5000 K	8450 lm	7000 lm	130 lm/W	1 ↑	3,7 kg
2227234/1/...²	CUDDLE MINI LED D4i 60	60 W	67 W	625 mA	2700 K	9650 lm	8000 lm	119 lm/W	1 ↑	3,7 kg
2227234/3/...²	CUDDLE MINI LED D4i 60	60 W	67 W	625 mA	3500 K	10100 lm	8400 lm	125 lm/W	1 ↑	3,7 kg
2227234/4/...²	CUDDLE MINI LED D4i 60	60 W	67 W	625 mA	4000 K	10350 lm	8600 lm	128 lm/W	1 ↑	3,7 kg
2227234/6/...²	CUDDLE MINI LED D4i 60	60 W	67 W	625 mA	5000 K	10250 lm	8500 lm	127 lm/W	1 ↑	3,7 kg
2227627/1/...²	CUDDLE MINI LED D4i D 12	12 W	15 W	140 mA	2700 K	2450 lm	2050 lm	137 lm/W	1 ↓	3,7 kg
2227627/3/...²	CUDDLE MINI LED D4i D 12	12 W	15 W	140 mA	3500 K	2600 lm	2150 lm	143 lm/W	1 ↓	3,7 kg
2227627/4/...²	CUDDLE MINI LED D4i D 12	12 W	15 W	140 mA	4000 K	2650 lm	2200 lm	147 lm/W	1 ↓	3,7 kg
2227627/6/...²	CUDDLE MINI LED D4i D 12	12 W	15 W	140 mA	5000 K	2600 lm	2150 lm	143 lm/W	1 ↓	3,7 kg
2227630/1/...²	CUDDLE MINI LED D4i D 24	24 W	26 W	250 mA	2700 K	4250 lm	3550 lm	137 lm/W	1 ↓	3,7 kg
2227630/3/...²	CUDDLE MINI LED D4i D 24	24 W	26 W	250 mA	3500 K	4450 lm	3700 lm	142 lm/W	1 ↓	3,7 kg
2227630/4/...²	CUDDLE MINI LED D4i D 24	24 W	26 W	250 mA	4000 K	4600 lm	3800 lm	146 lm/W	1 ↓	3,7 kg
2227630/6/...²	CUDDLE MINI LED D4i D 24	24 W	26 W	250 mA	5000 K	4500 lm	3750 lm	144 lm/W	1 ↓	3,7 kg
2227632/1/...²	CUDDLE MINI LED D4i D 36	36 W	39 W	375 mA	2700 K	6200 lm	5150 lm	132 lm/W	1 ↓	3,7 kg

2227632/3/... ²	CUDDLE MINI LED D4i D 36	36 W	39 W	375 mA	3500 K	6500 lm	5400 lm	138 lm/W	1 ↓	3,7 kg
2227632/4/... ²	CUDDLE MINI LED D4i D 36	36 W	39 W	375 mA	4000 K	6650 lm	5500 lm	141 lm/W	1 ↓	3,7 kg
2227632/6/... ²	CUDDLE MINI LED D4i D 36	36 W	39 W	375 mA	5000 K	6550 lm	5450 lm	140 lm/W	1 ↓	3,7 kg
2227633/1/... ²	CUDDLE MINI LED D4i D 48	48 W	54 W	500 mA	2700 K	7950 lm	6600 lm	122 lm/W	1 ↓	3,7 kg
2227633/3/... ²	CUDDLE MINI LED D4i D 48	48 W	54 W	500 mA	3500 K	8300 lm	6900 lm	128 lm/W	1 ↓	3,7 kg
2227633/4/... ²	CUDDLE MINI LED D4i D 48	48 W	54 W	500 mA	4000 K	8550 lm	7100 lm	131 lm/W	1 ↓	3,7 kg
2227633/6/... ²	CUDDLE MINI LED D4i D 48	48 W	54 W	500 mA	5000 K	8450 lm	7000 lm	130 lm/W	1 ↓	3,7 kg
2227634/1/... ²	CUDDLE MINI LED D4i D 60	60 W	67 W	625 mA	2700 K	9650 lm	8000 lm	119 lm/W	1 ↓	3,7 kg
2227634/3/... ²	CUDDLE MINI LED D4i D 60	60 W	67 W	625 mA	3500 K	10100 lm	8400 lm	125 lm/W	1 ↓	3,7 kg
2227634/4/... ²	CUDDLE MINI LED D4i D 60	60 W	67 W	625 mA	4000 K	10350 lm	8600 lm	128 lm/W	1 ↓	3,7 kg
2227634/6/... ²	CUDDLE MINI LED D4i D 60	60 W	67 W	625 mA	5000 K	10250 lm	8500 lm	127 lm/W	1 ↓	3,7 kg
2227427/1/... ²	CUDDLE MINI LED D4i x2 12	12 W	15 W	140 mA	2700 K	2450 lm	2050 lm	137 lm/W	1 ↑ / 1 ↓	3,7 kg
2227427/3/... ²	CUDDLE MINI LED D4i x2 12	12 W	15 W	140 mA	3500 K	2600 lm	2150 lm	143 lm/W	1 ↑ / 1 ↓	3,7 kg
2227427/4/... ²	CUDDLE MINI LED D4i x2 12	12 W	15 W	140 mA	4000 K	2650 lm	2200 lm	147 lm/W	1 ↑ / 1 ↓	3,7 kg
2227427/6/... ²	CUDDLE MINI LED D4i x2 12	12 W	15 W	140 mA	5000 K	2600 lm	2150 lm	143 lm/W	1 ↑ / 1 ↓	3,7 kg
2227430/1/... ²	CUDDLE MINI LED D4i x2 24	24 W	26 W	250 mA	2700 K	4250 lm	3550 lm	137 lm/W	1 ↑ / 1 ↓	3,7 kg
2227430/3/... ²	CUDDLE MINI LED D4i x2 24	24 W	26 W	250 mA	3500 K	4450 lm	3700 lm	142 lm/W	1 ↑ / 1 ↓	3,7 kg
2227430/4/... ²	CUDDLE MINI LED D4i x2 24	24 W	26 W	250 mA	4000 K	4600 lm	3800 lm	146 lm/W	1 ↑ / 1 ↓	3,7 kg
2227430/6/... ²	CUDDLE MINI LED D4i x2 24	24 W	26 W	250 mA	5000 K	4500 lm	3750 lm	144 lm/W	1 ↑ / 1 ↓	3,7 kg
2227432/1/... ²	CUDDLE MINI LED D4i x2 36	36 W	39 W	375 mA	2700 K	6200 lm	5150 lm	132 lm/W	1 ↑ / 1 ↓	3,7 kg
2227432/3/... ²	CUDDLE MINI LED D4i x2 36	36 W	39 W	375 mA	3500 K	6500 lm	5400 lm	138 lm/W	1 ↑ / 1 ↓	3,7 kg
2227432/4/... ²	CUDDLE MINI LED D4i x2 36	36 W	39 W	375 mA	4000 K	7050 lm	5150 lm	132 lm/W	1 ↑ / 1 ↓	3,7 kg
2227432/6/... ²	CUDDLE MINI LED D4i x2 36	36 W	39 W	375 mA	5000 K	6550 lm	5450 lm	140 lm/W	1 ↑ / 1 ↓	3,7 kg
2227433/1/... ²	CUDDLE MINI LED D4i x2 48	48 W	54 W	500 mA	2700 K	7950 lm	6600 lm	122 lm/W	1 ↑ / 1 ↓	3,7 kg
2227433/3/... ²	CUDDLE MINI LED D4i x2 48	48 W	54 W	500 mA	3500 K	8300 lm	6900 lm	128 lm/W	1 ↑ / 1 ↓	3,7 kg
2227433/4/... ²	CUDDLE MINI LED D4i x2 48	48 W	54 W	500 mA	4000 K	8550 lm	7100 lm	131 lm/W	1 ↑ / 1 ↓	3,7 kg
2227433/6/... ²	CUDDLE MINI LED D4i x2 48	48 W	54 W	500 mA	5000 K	8450 lm	7000 lm	130 lm/W	1 ↑ / 1 ↓	3,7 kg
2227434/1/... ²	CUDDLE MINI LED D4i x2 60	60 W	67 W	625 mA	2700 K	9650 lm	8000 lm	119 lm/W	1 ↑ / 1 ↓	3,7 kg
2227434/3/... ²	CUDDLE MINI LED D4i x2 60	60 W	67 W	625 mA	3500 K	10100 lm	8400 lm	125 lm/W	1 ↑ / 1 ↓	3,7 kg
2227434/4/... ²	CUDDLE MINI LED D4i x2 60	60 W	67 W	625 mA	4000 K	10350 lm	8600 lm	128 lm/W	1 ↑ / 1 ↓	3,7 kg
2227434/6/... ²	CUDDLE MINI LED D4i x2 60	60 W	67 W	625 mA	5000 K	10250 lm	8500 lm	127 lm/W	1 ↑ / 1 ↓	3,7 kg

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

2) symbol of chosen optical system eg. 222723/6/T2 is CUDDLE MINI LED D4i 48 5000 K with T2 optical system

*For the CUDDLE MINI LED D4i luminaire with P2 and PL optics it is possible to choose an additional light colour temperature: 5700 K. The product code is then supplemented with the designation '7'. Example: 222723/7/P2 -CUDDLE MINI LED D4i 48 W 5700 K 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

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

REMOVING ELECTROSTATIC CHARGE FROM LED LUMINAIRE BODY

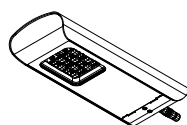
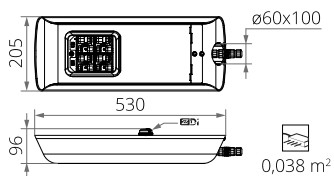
In order to efficient discharge the electrostatic charge from the housing of LED fitting installed on the pole from dielectric material (non-conductive) one of the following solutions is required:

- functional grounding

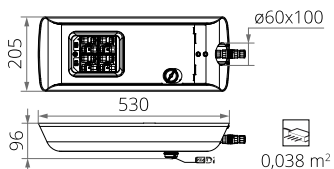
- LED luminaire with an additional protection device

TECHNICAL DRAWING

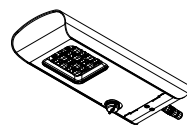
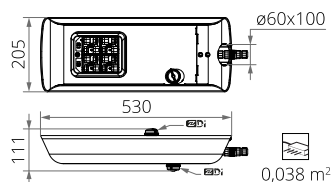
CUDDLE MINI LED D4i



CUDDLE MINI LED D4i D

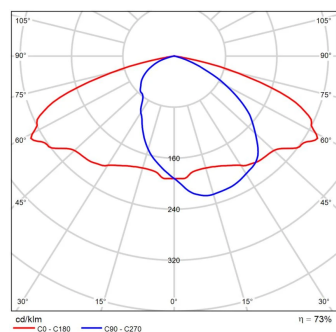


CUDDLE MINI LED D4i x2

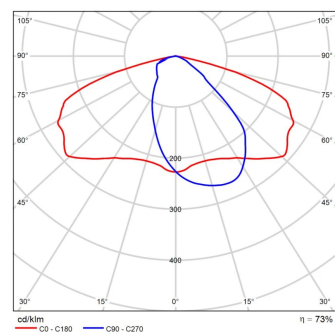


PHOTOMETRIC CURVES

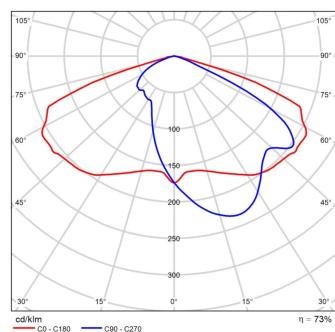
DW



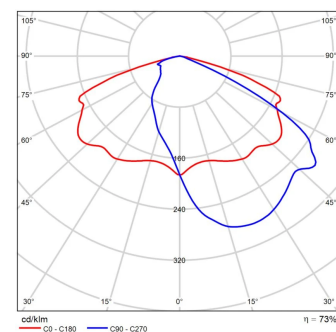
LN



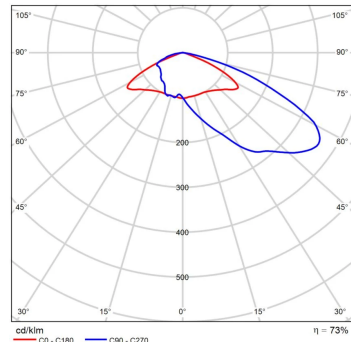
T3



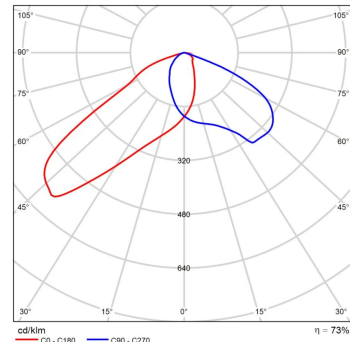
LW



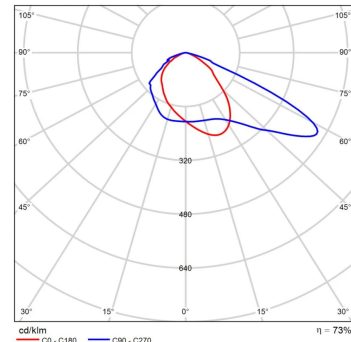
T4



PL



P2



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,

CUDDLE MINI LED D4I



ACCETABLE QUANTITY OF LUMINAIRES ON ONE CIRCUIT

Overcurrent switches MCB type B or C

Luminaire	Typ	2 A	4 A	6 A	10 A	16 A	20 A	25 A
CUDDLE MINI LED 24 W, 36 W	B	4	7	12	18	30	37	46
	C	4	12	18	31	51	62	78
CUDDLE MINI LED 48 W	B	1	2	4	6	10	12	15
	C	1	4	6	10	17	20	26
CUDDLE MINI LED 60 W	B	4	8	13	20	33	41	51
	C	4	13	20	34	56	68	85

Fuse – type gG and GL

Luminaire	2 A	4 A	6 A	10 A	16 A	20 A	25 A
CUDDLE MINI LED 24 W, 36 W	1	10	20	26	52	71	101
CUDDLE MINI LED 48 W	0	4	8	11	22	31	44
CUDDLE MINI LED 60 W	0	2	4	5	11	16	22