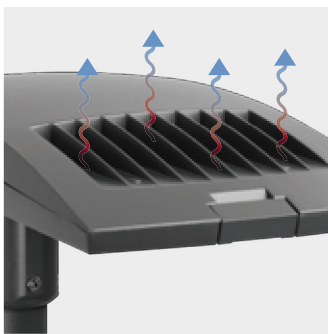


KREOS

OUTDOOR | URBAN | STREET LIGHTING



The quality light smart cities deserve

KREOS, future of "krei" (to create) in the Esperanto language, is a wish to bring fast from scratch the smart city of tomorrow. Thanks to the experience gained with projects all around the world, PERFORMANCE IN LIGHTING has developed this series with new proprietary optics, made with aluminium silver-coated premium reflectors. They are designed according to three imperatives: energy saving, achieved thanks to light "only where needed"; visual comfort, guaranteed by reduced levels of glare and intrusive light; versatility, met with a set of lighting solutions to adapt to the heterogeneity of existing plants. In new projects, an optimised inter distance allows fewer devices to be used, thus reducing installation and operating costs. Inexistent optical unit installations can be easily replaced to get immediate energy savings.

The series embraces the needs of the cities of the future through the provision for NEMA and Zhaga Book 18 protocols, interfaces for wireless remote control systems, opening to all future developments of the Internet of Things (IoT) and connected cities. In this way, each public administration can use its management system and platforms in anticipation of further developments on this thematic imagination.

KREOS

OVERVIEW



KREOS **NEW**

Construction

IP	IP66	
IK	IK08 9J xx5	
Dimensions [mm]	L 536 H 300 - D 80,5	
Windage area	EPA - front	0,0147 m ²
	EPA - side	0,047 m ²
	EPA - top	0,022 m ²
Weight	Max 6,5 kg	
Colour	●	

LED

Lightsource lumen output	3000 K	1875 lm ÷ 12125 lm
	4000 K	1965 lm ÷ 12707 lm
Luminaire lumen output	3000 K	1417 lm ÷ 9410 lm
	4000 K	1485 lm ÷ 9862 lm
CCT - Correlated Color Temperature	3000 K - 4000 K	
CRI / SDCM (macadam step)	70/5	
Lifetime	L90B10@100000h	

Optic

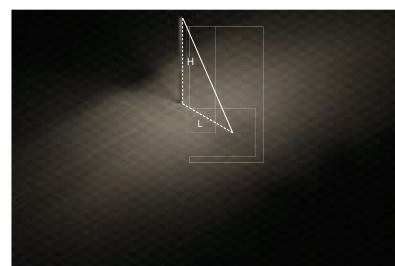
SR/075 road reflector	SR/075
SR/100 road reflector	SR/100
SR/125 road reflector	SR/125
SR/150 road reflector	SR/150

Electrical

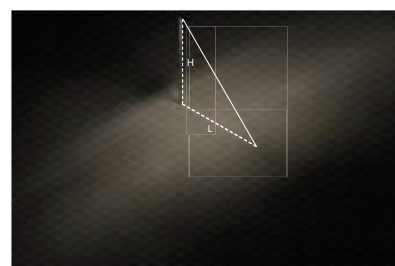
Wattage	12 W - 16 W - 24 W - 34 W - 35 W 44 W - 53 W - 63 W - 82 W
Class	II
Ta MAX° luminaire	40° C - 50° C
Ta MIN° luminaire	-40°C
Dimmable 1-10V	-
Dimmable DALI	-
CO _S φ ≥ 0,9	✓

Control systems

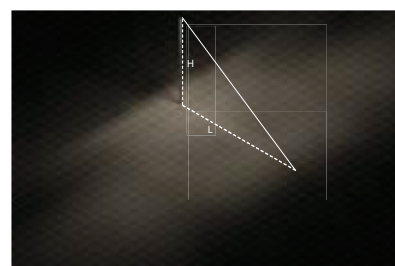
Automatic derating	✓
Pilot wire command derating	(on request)
Constant light output	(on request)



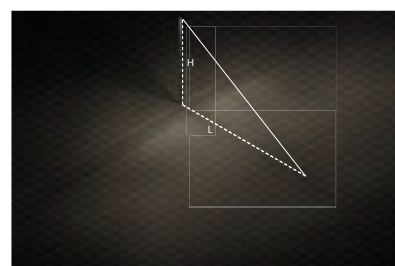
SR/075 (0,5 ≥ L/H ≥ 0,875)



SR/100 (0,875 ≥ L/H ≥ 1,125)



SR/125 (1,125 ≥ L/H ≥ 1,375)



SR/150 (1,375 ≥ L/H ≥ 1,625)

KREOS

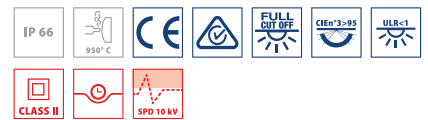
design by PERFORMANCE IN LIGHTING



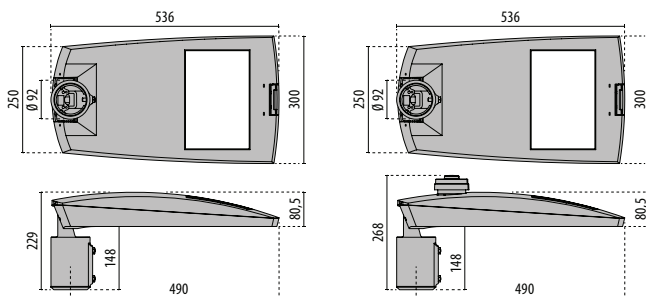
Series of LED street luminaires, comprising:

- Housing and cap in die-cast aluminium with polyester powder coating after surface chemical conversion treatment
- Painted die-cast aluminium pole-mounting joint for pole Ø 60 mm or 76 mm
- Very high performance reflectors made of very pure aluminium, polished and oxidised with successive PVD 99.99% silver treatment. This creates a surface with greater than 97% reflectance and free of iridescence.
- Optics available depending on the models: SR/075 for narrow roads with an L/H ratio (road width/pole height) between 0.5 and 0.75; SR/100 for two-lane roads and L/H ratio equal to 1; SR/125 for wide roads and L/H ratio equal to 1.25; SR/150 for wide roads and L/H ratio equal to 1.5
- Compliant with the UNI 10819 Standard and with the Italian regional laws on light pollution
- High resiliency anti-ageing silicone gasket with high elastic return capacity
- Flat extra clear tempered glass diffuser
- Automatic line isolator switch that cuts off power supply when ring is opened

- High efficiency electronic driver
- Complete with supplementary device for protection against network surges of up to 10 kV (DM)
- Complete with 1 meter H07RN-F 2x1.5 mm² or H07RN-F 4x1.5 mm² cable for dimmable versions, which allows connection to the network without opening the luminaire
- Stainless steel external screws
- NEMA versions are complete with NEMA SOCKET connected to DALI dimmer capable drivers and a watertight short-circuit cap that allows the on-off operation of the luminaire. These versions are designed for mounting SMART-compatible solutions.
- KREOS versions can be manufactured with all optics available for the series. Consult Factory
- Consult factory for other colour temperatures and colour rendering index
- CLO (Constant light output) option available. Consult Factory
- Photometric data measure according to UNI EN 13032-4 and IES LM-79-08



● AN-96 / Anthracite gray / Textured

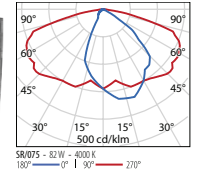


Please visit our web site
www.performanceinlighting.com
 for the latest updated versions available.

KREOS SR/075

IK08 9J xx5

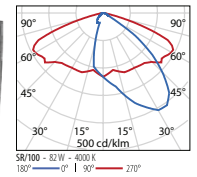
WATTAGE	CLASS	CEC	CRI	KELVIN	COS φ ≥0.9	OPTIC	OPTIC BEAM	LIGHTSOURCE LUMEN OUTPUT	LUMINAIRE LUMEN OUTPUT	L	B	LIFETIME	COLOUR/ RAL	PART NUMBER	EURO
Power LED - with automatic power reduction 220-240 V 50/60 Hz															
82 W	II	-	70	4000	✓	SR/075	-	12707 lm	9851 lm	90	10	100000 h	●	3106228	520,00
82 W	II	-	70	3000	✓	SR/075	-	12125 lm	9400 lm	90	10	100000 h	●	3106237	520,00
63 W	II	-	70	4000	✓	SR/075	-	10611 lm	8302 lm	90	10	100000 h	●	3106227	520,00
63 W	II	-	70	3000	✓	SR/075	-	10125 lm	7922 lm	90	10	100000 h	●	3106236	520,00
53 W	II	-	70	4000	✓	SR/075	-	9039 lm	7293 lm	90	10	100000 h	●	3106226	520,00
53 W	II	-	70	3000	✓	SR/075	-	8625 lm	6959 lm	90	10	100000 h	●	3106235	520,00
44 W	II	-	70	4000	✓	SR/075	-	7729 lm	6323 lm	90	10	100000 h	●	3106225	520,00
44 W	II	-	70	3000	✓	SR/075	-	7375 lm	6033 lm	90	10	100000 h	●	3106234	520,00
35 W	II	-	70	4000	✓	SR/075	-	6288 lm	5117 lm	90	10	100000 h	●	3106224	520,00
35 W	II	-	70	3000	✓	SR/075	-	6000 lm	4883 lm	90	10	100000 h	●	3106233	520,00
34 W	II	-	70	4000	✓	SR/075	-	5305 lm	4240 lm	90	10	100000 h	●	3106223	480,00
34 W	II	-	70	3000	✓	SR/075	-	5062 lm	4046 lm	90	10	100000 h	●	3106232	480,00
24 W	II	-	70	4000	✓	SR/075	-	3930 lm	3163 lm	90	10	100000 h	●	3106222	480,00
24 W	II	-	70	3000	✓	SR/075	-	3750 lm	3018 lm	90	10	100000 h	●	3106231	480,00
16 W	II	-	70	4000	✓	SR/075	-	2685 lm	2155 lm	90	10	100000 h	●	3106221	480,00
16 W	II	-	70	3000	✓	SR/075	-	2562 lm	2056 lm	90	10	100000 h	●	3106230	480,00
12 W	II	-	70	4000	✓	SR/075	-	1965 lm	1567 lm	90	10	100000 h	●	3106220	480,00
12 W	II	-	70	3000	✓	SR/075	-	1875 lm	1495 lm	90	10	100000 h	●	3106229	480,00



KREOS SR/100

IK08 9J xx5

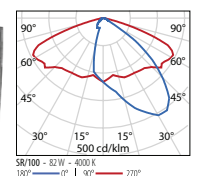
WATTAGE	CLASS	CEC	CRI	KELVIN	COS φ ≥0.9	OPTIC	OPTIC BEAM	LIGHTSOURCE LUMEN OUTPUT	LUMINAIRE LUMEN OUTPUT	L	B	LIFETIME	COLOUR/ RAL	PART NUMBER	EURO
Power LED - with automatic power reduction 220-240 V 50/60 Hz															
82 W	II	-	70	4000	✓	SR/100	-	12707 lm	9862 lm	90	10	100000 h	●	3106121	520,00
82 W	II	-	70	3000	✓	SR/100	-	12125 lm	9410 lm	90	10	100000 h	●	3106179	520,00
63 W	II	-	70	4000	✓	SR/100	-	10611 lm	8311 lm	90	10	100000 h	●	3106120	520,00
63 W	II	-	70	3000	✓	SR/100	-	10125 lm	7930 lm	90	10	100000 h	●	3106178	520,00
53 W	II	-	70	4000	✓	SR/100	-	9039 lm	7302 lm	90	10	100000 h	●	3106119	520,00
53 W	II	-	70	3000	✓	SR/100	-	8625 lm	6968 lm	90	10	100000 h	●	3106177	520,00
44 W	II	-	70	4000	✓	SR/100	-	7729 lm	6330 lm	90	10	100000 h	●	3106118	520,00
44 W	II	-	70	3000	✓	SR/100	-	7375 lm	6040 lm	90	10	100000 h	●	3106176	520,00
35 W	II	-	70	4000	✓	SR/100	-	6288 lm	5122 lm	90	10	100000 h	●	3106117	520,00
35 W	II	-	70	3000	✓	SR/100	-	6000 lm	4887 lm	90	10	100000 h	●	3106175	520,00
34 W	II	-	70	4000	✓	SR/100	-	5305 lm	4247 lm	90	10	100000 h	●	3106116	480,00
34 W	II	-	70	3000	✓	SR/100	-	5062 lm	4053 lm	90	10	100000 h	●	3106174	480,00
24 W	II	-	70	4000	✓	SR/100	-	3930 lm	3210 lm	90	10	100000 h	●	3106115	480,00
24 W	II	-	70	3000	✓	SR/100	-	3750 lm	3063 lm	90	10	100000 h	●	3106173	480,00
16 W	II	-	70	4000	✓	SR/100	-	2685 lm	2190 lm	90	10	100000 h	●	3106114	480,00
16 W	II	-	70	3000	✓	SR/100	-	2562 lm	2090 lm	90	10	100000 h	●	3106172	480,00
12 W	II	-	70	4000	✓	SR/100	-	1965 lm	1575 lm	90	10	100000 h	●	3106113	480,00
12 W	II	-	70	3000	✓	SR/100	-	1875 lm	1503 lm	90	10	100000 h	●	3106171	480,00



KREOS SR/100 NEMA

IK08 9J xx5

WATTAGE	CLASS	CEC	CRI	KELVIN	COS φ ≥0.9	OPTIC	OPTIC BEAM	LIGHTSOURCE LUMEN OUTPUT	LUMINAIRE LUMEN OUTPUT	L	B	LIFETIME	COLOUR/ RAL	PART NUMBER	EURO
Power LED - dimmable DALI with NEMA socket - 220-240 V 50/50 Hz															
82 W	II	-	70	4000	✓	SR/100	-	12707 lm	9862 lm	90	10	100000 h	●	3105696	560,00
82 W	II	-	70	3000	✓	SR/100	-	12125 lm	9410 lm	90	10	100000 h	●	3106161	560,00
63 W	II	-	70	4000	✓	SR/100	-	10611 lm	8311 lm	90	10	100000 h	●	3105695	560,00
63 W	II	-	70	3000	✓	SR/100	-	10125 lm	7930 lm	90	10	100000 h	●	3106160	560,00
53 W	II	-	70	4000	✓	SR/100	-	9039 lm	7302 lm	90	10	100000 h	●	3105694	560,00
53 W	II	-	70	3000	✓	SR/100	-	8625 lm	6968 lm	90	10	100000 h	●	3106159	560,00
44 W	II	-	70	4000	✓	SR/100	-	7729 lm	6330 lm	90	10	100000 h	●	3105693	560,00
44 W	II	-	70	3000	✓	SR/100	-	7375 lm	6040 lm	90	10	100000 h	●	3106158	560,00
35 W	II	-	70	4000	✓	SR/100	-	6288 lm	5122 lm	90	10	100000 h	●	3105692	560,00
35 W	II	-	70	3000	✓	SR/100	-	6000 lm	4887 lm	90	10	100000 h	●	3106157	560,00
34 W	II	-	70	4000	✓	SR/100	-	5305 lm	4247 lm	90	10	100000 h	●	3105691	520,00
34 W	II	-	70	3000	✓	SR/100	-	5062 lm	4053 lm	90	10	100000 h	●	3106156	520,00
24 W	II	-	70	4000	✓	SR/100	-	3930 lm	3210 lm	90	10	100000 h	●	3105690	520,00
24 W	II	-	70	3000	✓	SR/100	-	3750 lm	3063 lm	90	10	100000 h	●	3106155	520,00
16 W	II	-	70	4000	✓	SR/100	-	2685 lm	2190 lm	90	10	100000 h	●	3105689	520,00
16 W	II	-	70	3000	✓	SR/100	-	2562 lm	2090 lm	90	10	100000 h	●	3106154	520,00
12 W	II	-	70	4000	✓	SR/100	-	1965 lm	1575 lm	90	10	100000 h	●	3105688	520,00
12 W	II	-	70	3000	✓	SR/100	-	1875 lm	1503 lm	90	10	100000 h	●	3106153	520,00



KREOS SR/125

IK08 9J xx5

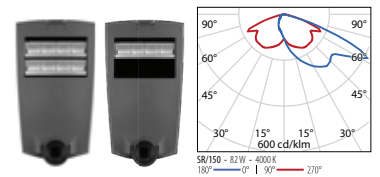
WATTAGE	CLASS	CR	KELVIN	COS φ ≥ 0.9	OPTIC	OPTIC BEAM	LIGHTSOURCE LUMEN OUTPUT	LUMINAIRE LUMEN OUTPUT	L	B	LIFETIME	COLOUR/ RAL	PART NUMBER	EURO
Power LED - with automatic power reduction 220-240 V 50/60 Hz														
82 W	II	-	70	4000	✓	SR/125	-	12707 lm	9779 lm	90	10	100000 h	● 3106246	520,00
82 W	II	-	70	3000	✓	SR/125	-	12125 lm	9331 lm	90	10	100000 h	● 3106255	520,00
63 W	II	-	70	4000	✓	SR/125	-	10611 lm	8241 lm	90	10	100000 h	● 3106245	520,00
63 W	II	-	70	3000	✓	SR/125	-	10125 lm	7864 lm	90	10	100000 h	● 3106254	520,00
53 W	II	-	70	4000	✓	SR/125	-	9039 lm	7240 lm	90	10	100000 h	● 3106244	520,00
53 W	II	-	70	3000	✓	SR/125	-	8625 lm	6908 lm	90	10	100000 h	● 3106253	520,00
44 W	II	-	70	4000	✓	SR/125	-	7729 lm	6277 lm	90	10	100000 h	● 3106243	520,00
44 W	II	-	70	3000	✓	SR/125	-	7375 lm	5990 lm	90	10	100000 h	● 3106252	520,00
35 W	II	-	70	4000	✓	SR/125	-	6288 lm	5079 lm	90	10	100000 h	● 3106242	520,00
35 W	II	-	70	3000	✓	SR/125	-	6000 lm	4846 lm	90	10	100000 h	● 3106251	520,00
34 W	II	-	70	4000	✓	SR/125	-	5305 lm	4204 lm	90	10	100000 h	● 3106241	480,00
34 W	II	-	70	3000	✓	SR/125	-	5062 lm	4011 lm	90	10	100000 h	● 3106250	480,00
24 W	II	-	70	4000	✓	SR/125	-	3930 lm	3144 lm	90	10	100000 h	● 3106240	480,00
24 W	II	-	70	3000	✓	SR/125	-	3750 lm	3000 lm	90	10	100000 h	● 3106249	480,00
16 W	II	-	70	4000	✓	SR/125	-	2865 lm	2142 lm	90	10	100000 h	● 3106239	480,00
16 W	II	-	70	3000	✓	SR/125	-	2562 lm	2044 lm	90	10	100000 h	● 3106248	480,00
12 W	II	-	70	4000	✓	SR/125	-	1965 lm	1558 lm	90	10	100000 h	● 3106238	480,00
12 W	II	-	70	3000	✓	SR/125	-	1875 lm	1487 lm	90	10	100000 h	● 3106247	480,00



KREOS SR/150

IK08 9J xx5

WATTAGE	CLASS	CR	KELVIN	COS φ ≥ 0.9	OPTIC	OPTIC BEAM	LIGHTSOURCE LUMEN OUTPUT	LUMINAIRE LUMEN OUTPUT	L	B	LIFETIME	COLOUR/ RAL	PART NUMBER	EURO
Power LED - with automatic power reduction 220-240 V 50/60 Hz														
82 W	II	-	70	4000	✓	SR/150	-	12707 lm	9156 lm	90	10	100000 h	● 3106264	520,00
82 W	II	-	70	3000	✓	SR/150	-	12125 lm	8737 lm	90	10	100000 h	● 3106273	520,00
63 W	II	-	70	4000	✓	SR/150	-	10611 lm	7743 lm	90	10	100000 h	● 3106263	520,00
63 W	II	-	70	3000	✓	SR/150	-	10125 lm	7388 lm	90	10	100000 h	● 3106272	520,00
53 W	II	-	70	4000	✓	SR/150	-	9039 lm	6725 lm	90	10	100000 h	● 3106262	520,00
53 W	II	-	70	3000	✓	SR/150	-	8625 lm	6417 lm	90	10	100000 h	● 3106271	520,00
44 W	II	-	70	4000	✓	SR/150	-	7729 lm	5838 lm	90	10	100000 h	● 3106261	520,00
44 W	II	-	70	3000	✓	SR/150	-	7375 lm	5571 lm	90	10	100000 h	● 3106270	520,00
35 W	II	-	70	4000	✓	SR/150	-	6288 lm	4710 lm	90	10	100000 h	● 3106260	520,00
35 W	II	-	70	3000	✓	SR/150	-	6000 lm	4494 lm	90	10	100000 h	● 3106269	520,00
34 W	II	-	70	4000	✓	SR/150	-	5305 lm	3937 lm	90	10	100000 h	● 3106259	480,00
34 W	II	-	70	3000	✓	SR/150	-	5062 lm	3757 lm	90	10	100000 h	● 3106268	480,00
24 W	II	-	70	4000	✓	SR/150	-	3930 lm	2927 lm	90	10	100000 h	● 3106258	480,00
24 W	II	-	70	3000	✓	SR/150	-	3750 lm	2793 lm	90	10	100000 h	● 3106267	480,00
16 W	II	-	70	4000	✓	SR/150	-	2685 lm	1995 lm	90	10	100000 h	● 3106257	480,00
16 W	II	-	70	3000	✓	SR/150	-	2562 lm	1904 lm	90	10	100000 h	● 3106266	480,00
12 W	II	-	70	4000	✓	SR/150	-	1965 lm	1485 lm	90	10	100000 h	● 3106256	480,00
12 W	II	-	70	3000	✓	SR/150	-	1875 lm	1417 lm	90	10	100000 h	● 3106265	480,00

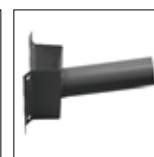


OPTIONAL ACCESSORIES

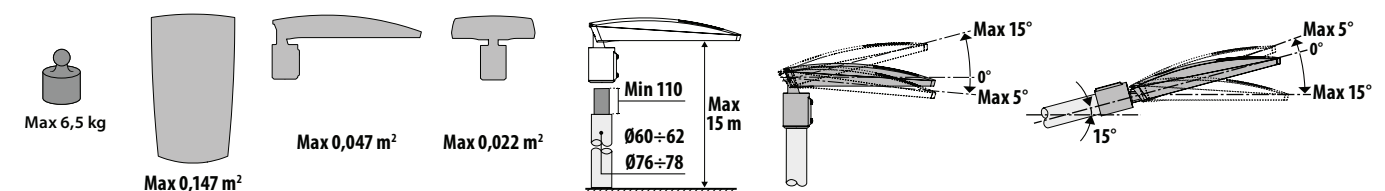
DESCRIPTION	COLOR	PART NUMBER	EURO
KREOS			
Reducer pole Ø 42÷46 mm	●	3106386	44,00
Hot-dipped galvanized wall angled steel bracket, cataphoresis and polyester powder	●	1407796	27,00



3106386



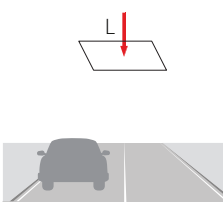
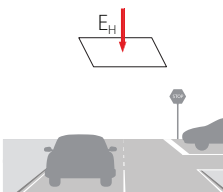
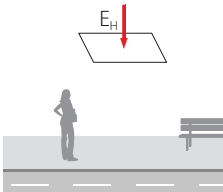
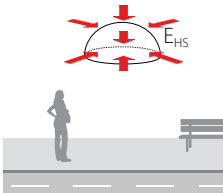
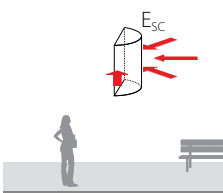
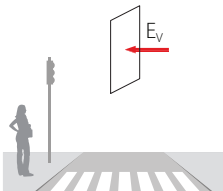
1407796



EN 13201-2 2015

ROAD LIGHTING - PART 2: PERFORMANCE REQUIREMENTS

This part of the European standard defines the performance requirements specified in the form of lighting categories for road lighting designed to satisfy the visual needs of road users and considers environmental aspects of road lighting.

CLASS		REQUIREMENTS					RECOMMENDED OPTIC					
	M MOTOR TRAFFIC Roads with predominantly motor traffic. The lighting magnitude considered is average horizontal illuminance.		L (cd/m ²) (≥)	U_0 (≥)	U_l (≥)	fT_l (%) (≤)	R_{90} (≥)	SR/075	SR/100	SR/125	SR/150	Z/R
		M1	2,00	0,40	0,70	10	0,35	-	-	-	-	-
		M2	1,50	0,40	0,70	10	0,35	-	✓	-	-	-
		M3	1,00	0,40	0,60	15	0,30	✓	✓	✓	✓	-
		M4	0,75	0,40	0,60	15	0,30	✓	✓	✓	✓	-
		M5	0,50	0,35	0,40	15	0,30	✓	✓	✓	✓	-
		M6	0,30	0,35	0,40	20	0,30	✓	✓	✓	✓	-
	C MOTOR TRAFFIC Conflict areas (crossroads and roundabouts) and residential streets. The lighting magnitude considered is average horizontal illuminance.		\bar{E} (lx) (≥)	U_0 (≥)	fT_l (%) (≤)		SR/075	SR/100	SR/125	SR/150	Z/R	
		C0	50	0,40	15		-	✓	✓	✓	-	
		C1	30	0,40	15		-	✓	✓	✓	-	
		C2	20,0	0,40	15		-	✓	✓	✓	-	
		C3	15,0	0,40	20		✓	✓	✓	-	-	
		C4	10,0	0,40	20		✓	✓	-	-	-	
C5	7,50	0,40	20		✓	✓	-	-	-			
	P PEDESTRIAN AREAS Pedestrian and/or cycling areas, residential streets, emergency lanes, car parks and pavements. The lighting magnitude considered is average horizontal illuminance.		\bar{E} (lx) (≥)	E_{min} (lx) (≥)	fT_l (%) (≤)		SR/075	SR/100	SR/125	SR/150	Z/R	
		P1	15,0	3,00	20		✓	✓	✓	✓	-	
		P2	10,0	2,00	25		✓	✓	✓	✓	-	
		P3	7,50	1,50	25		✓	✓	-	-	-	
		P4	5,00	1,00	30		✓	✓	-	-	-	
		P5	3,00	0,60	30		✓	-	-	-	-	
		P6	2,00	0,40	35		✓	-	-	-	-	
		P7	-	-	-		✓	-	-	-	-	
	HS PEDESTRIAN AREAS Pedestrian and/or cycling areas, residential streets, emergency lanes, car parks and pavements. The lighting magnitude considered is average hemispherical illuminance.		E_{HS} (lx) (≥)	U_0 (≥)			SR/075	SR/100	SR/125	SR/150	Z/R	
		HS1	5,00	0,15			✓	✓	✓	✓	-	
		HS2	2,50	0,15			✓	✓	-	-	-	
		HS3	1,50	0,15			✓	-	-	-	-	
		HS4	-	-			✓	-	-	-	-	
	SC ADDITIONAL CATEGORIES Additional category in pedestrian areas in which face recognition is required for security reasons. The lighting magnitude considered is specific minimum semi-cylindrical illuminance.		$E_{SC,min}$ (lx) (≥)				SR/075	SR/100	SR/125	SR/150	Z/R	
		SC1	10,0				✓	✓	✓	✓	-	
		SC2	7,50				✓	✓	✓	✓	-	
		SC3	5,00				✓	✓	✓	✓	-	
		SC4	3,00				✓	✓	✓	✓	-	
		SC5	2,00				✓	✓	✓	✓	-	
		SC6	1,50				✓	✓	-	-	-	
		SC7	1,00				✓	-	-	-	-	
		SC8	0,75				✓	-	-	-	-	
		SC9	0,50				✓	-	-	-	-	
	EV ADDITIONAL CATEGORIES Additional category in areas where attention must be paid to vertical elements, such as pedestrian crossings and conflict areas. The lighting magnitude considered is specific minimum vertical illuminance.		$E_{V,min}$ (lx) (≥)				SR/075	SR/100	SR/125	SR/150	Z/R	
		EV1	50				-	-	-	-	✓	
		EV2	30				-	-	-	-	✓	
		EV3	10,0				-	-	✓	✓	✓	
		EV4	7,50				-	-	✓	✓	✓	
		EV5	5,00				-	-	✓	✓	✓	
		EV6	0,50				-	-	✓	✓	✓	