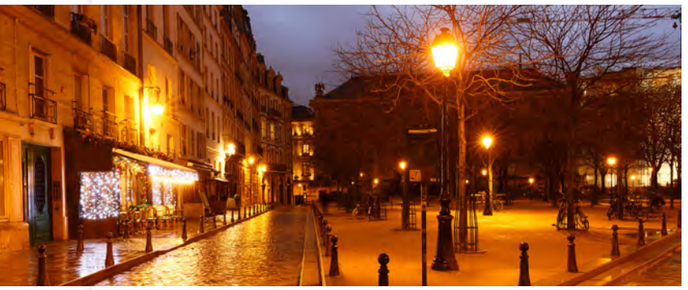
THREELINE

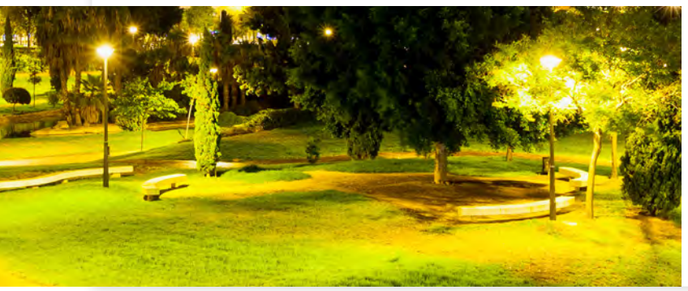
DOSSIER

STREET / URBAN

Street Lighting

THREELINE





The right lighting solution for every road

Road lighting plays a key role in safety, mobility and the quality of urban spaces. It is not only about illuminating a roadway, but about creating safer environments for drivers, pedestrians and cyclists, improving visibility, visual comfort and the perception of the space at night.

LED lighting solutions have transformed road lighting thanks to their high energy efficiency, control capability and adaptability to different urban and road contexts. A well-designed lighting system helps reduce accidents, improve visual orientation, limit glare and minimise light pollution, while optimising operating and maintenance costs.

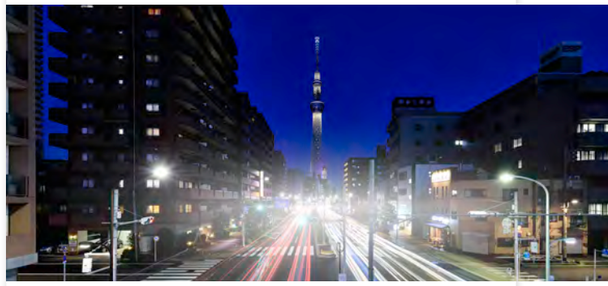
Each road has specific requirements depending on its type, traffic volume, environment and users. Therefore, road lighting must be approached from both a technical and functional perspective, considering regulatory requirements as well as real usage conditions. Proper definition of lighting levels, light distribution, colour temperature and control systems is key to ensuring efficient and sustainable solutions.

At Threeline, we understand road lighting as a design process that goes beyond the selection of a luminaire. That is why we offer architects, engineering firms and public authorities a specialised technical advisory service aimed at transforming regulatory requirements and real conditions of each road into efficient, well-dimensioned lighting solutions. Our team supports professionals through customised lighting studies, environmental analysis and the definition of solutions tailored to each project, providing technical criteria and safety in decision-making throughout the entire process.

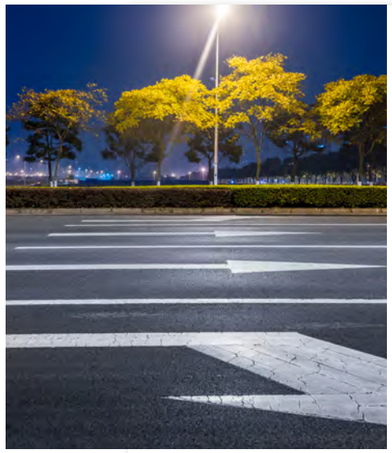
Luminance and uniformity

Proper road lighting ensures sufficient luminance levels and correct uniformity across the roadway and surrounding areas. These parameters are essential for the safety of all road users.

Glare control



Glare is one of the most critical factors in road lighting, as it directly affects visual comfort and safety. The use of specific optics, correct luminaire orientation and appropriate mounting height allow it to be effectively controlled.



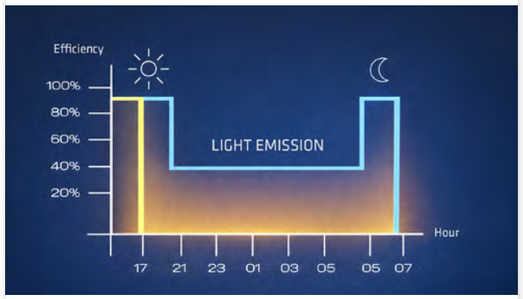
Light distribution

Each road type requires a specific light distribution. The correct selection of optics allows light to be directed exactly where it is needed, optimising system efficiency and avoiding luminous flux losses.

Colour temperature

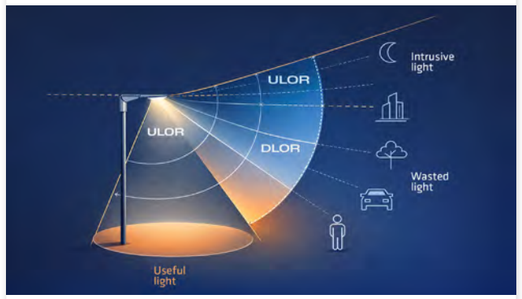
Colour temperature directly influences visual perception, comfort and the integration of lighting within the urban environment. Warmer tones reduce environmental impact and improve the quality of nighttime spaces.

Energy efficiency



High-performance LED technology, combined with dimming and control systems, allows lighting levels to be adapted to actual road use, reducing energy consumption and operating costs.

Light pollution (ULOR)



Responsible road lighting must limit light emission towards the upper hemisphere and avoid intrusive light. **ULOR (Upward Light Output Ratio)** indicates the percentage of luminous flux emitted upwards; low values ensure well-designed and properly installed luminaires.

EN 13201 STANDARD

Street Lighting

The EN 13201 standard classifies roads according to their type and use, establishing minimum lighting and uniformity values. Below are indicative values commonly used in road lighting projects, which must be adjusted according to the specific conditions of each installation.

Main roads with motorised traffic

Environments with high vehicle flow

Moderate to high speeds

Motorways and dual carriageways, interurban roads and main avenues.

Conflict areas

Areas with high interaction between users

Complex traffic environments

Intersections, roundabouts, junctions, areas with traffic lights, access points and exits.

Pedestrian areas and slow traffic

Pedestrian and non-motorised traffic areas

Reduced speeds

Cycle lanes, pedestrian paths, residential streets, squares and promenades.

INDICATIVE CLASSIFICATION (EN 13201)

Road / Environment type	Class	Indicative lighting level	Minimum uniformity
Motorways and high-capacity roads	M1 – M2	2,0 – 1,5 cd/m²	≥ 0,40
Main interurban roads	M2 – M3	1,5 – 1,0 cd/m²	≥ 0,40
Urban avenues with motorised traffic	M3 – M4	1,0 – 0,75 cd/m²	≥ 0,40
Urban intersections and junctions	C2 – C3	20 – 15 lux	≥ 0,40
Roundabouts	C2 – C4	20 – 10 lux	≥ 0,40
Conflict areas (accesses, turns, manoeuvres)	C3 – C4	15 – 10 lux	≥ 0,40
Residential streets	P4 – P5	5 – 3 lux	Emin 1,0 – 0,6 lux
Pedestrian areas	P2 – P3	10 – 7,5 lux	Emin 2,0 – 1,5 lux
Cycle lanes	P2 – P4	10 – 5 lux	Emin 2,0 – 1,0 lux

Indicative values based on UNE-EN 13201. The lighting class applicable to each project must be defined according to the road type, speed, traffic density, users and environmental conditions, through a specific lighting study.

REFERENCE STANDARDS AND RECOMMENDATIONS

EN 13201 – Road lighting.

European reference standard for road lighting. It defines lighting classes according to road type and use, establishing criteria such as:

- Illuminance or luminance
- Uniformity
- Glare control
- Adaptation to the environment through a specific lighting study in each case

CIE – Commission Internationale de l'Éclairage.

International recommendations that form the technical basis of EN 13201 and provide criteria for design, visual assessment and comfort for road users.

National regulations and municipal ordinances.

They adapt European requirements to the local context, incorporating criteria for energy efficiency, reduction of light pollution and protection of the nighttime environment.

STREET LIGHT SOLUTIONS

Consulting services for professionals

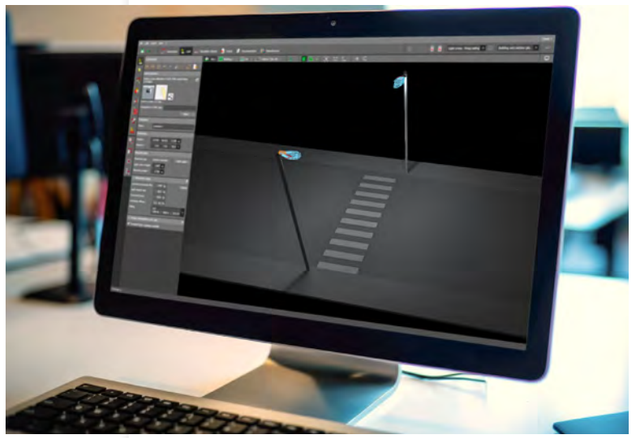
We offer a personalised service for the definition of the final project, providing specific consultations and managing all stages of the process comprehensively.

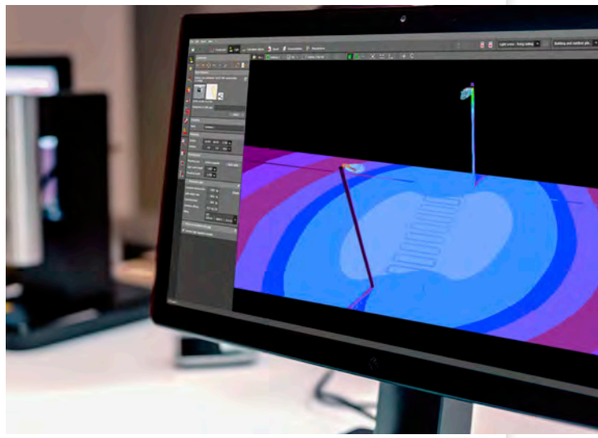
Our goal is to transform customers' ideas into concrete realities through a wide range of specialised studies and reports. We meticulously analyse every technical and aesthetic aspect to ensure that the final result meets the specific expectations and needs of the customer.

For any sports lighting project you wish to undertake, do not hesitate to contact us. We are experts in providing tailored solutions that adapt to your goals and needs, ensuring an optimal and satisfactory result.

Customised calculations based on EN 13201 standard

Our team of engineers specialised in road lighting is available to analyse customer requirements and study their lighting needs.





To properly address a road lighting project, it is essential first to identify the **type of road** to be developed. From there, it is crucial to have data such as **roadway width, spacing between lighting points and the height at which the luminaires will be installed.**

In cases where there is no previous installation and it is possible to define an optimum layout from scratch, it will be enough to know the road **type and the dimensions of the roadway and/or pavement** in order to develop the appropriate lighting proposal.

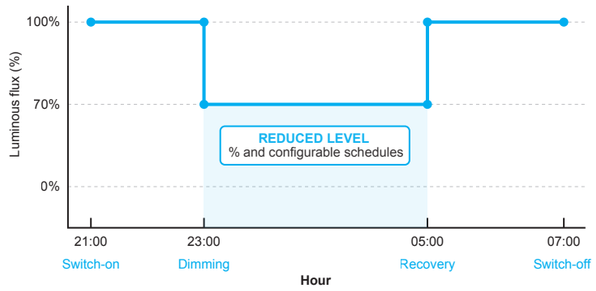
SPECIFIC OPTIONS FOR ROAD LIGHTING CONTROL

DN2-

TWO-LEVEL DIMMING WITHOUT CONTROL LINE

The driver is programmed to reduce the luminous flux to a lower level from a certain point onwards. The reduction percentage, as well as the hours at which it takes place, are fully configurable by THREELINE at the customer's request.

The required values can be specified by the customer; otherwise, a standard configuration will be applied. No control cable is required in the installation.



DN2+

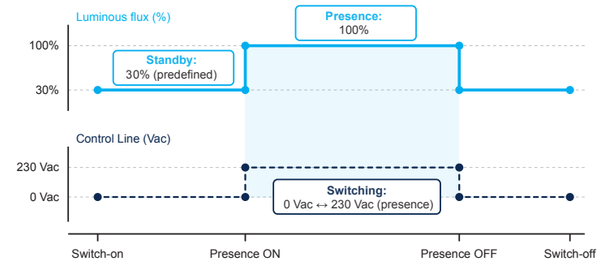
TWO-LEVEL DIMMING WITH CONTROL LINE

Two-level dimming with control line:

In the initial or standby state, the luminaire switches on at a predefined percentage (e.g. 30%). At the control input, the signal is 0 Vac.

The change to the 100% level is made by means of a 230 Vac signal on the control line.

Example of use: areas with presence detection control. Without presence, the control line has a 0 Vac signal and the luminaire operates at the selected percentage (e.g. 30%); when presence is detected, the control line has a 230 Vac signal and the luminaire switches to 100%.



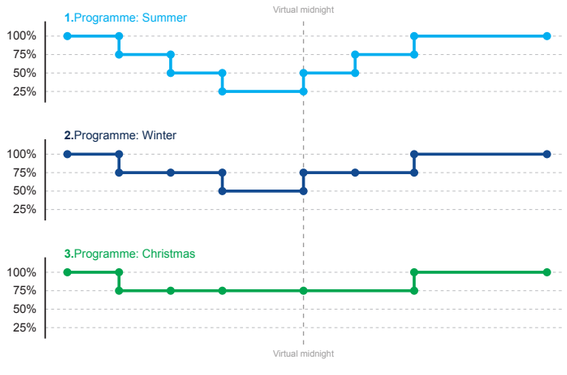
DPR

PROGRAMMABLE

Autonomous system in which up to 8 output levels can be selected, referenced to the midpoint (virtual midnight) of the switching-on time. Programming is carried out at THREELINE.

Up to 3 customised programming settings can be loaded according to customer requirements, plus 4 provided by the driver manufacturer. In the installation, the customer can change from one programme to another from the luminaire head by means of a predefined switching-on sequence, carried out with the help of a specific programmer.

Example of use: one programming curve for summer, another for winter and another for Christmas because, even though it is winter, there is more nighttime activity.



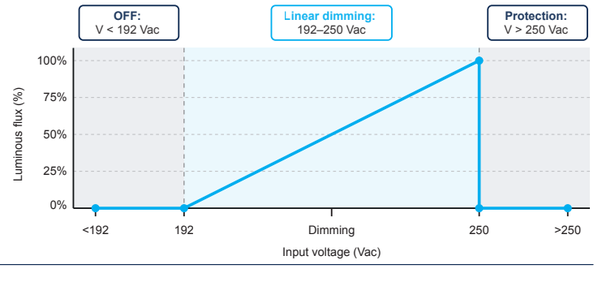
DRC

HEAD-END DIMMING

The lighting level is regulated through the input voltage. No control line is required.

By varying the input voltage from 192 to 250 Vac, the luminaire is regulated linearly.

Below 192 Vac it switches off, and above 250 Vac it switches off to protect the luminaire.



INDEX

NEW

NOX

The **future** of
professional road lighting.

At **Threeline Group,** we introduce **NOX**, the new generation of road lighting luminaires designed to transform efficiency, safety and the management of urban lighting.

It is a versatile and scalable luminaire that adapts precisely to any type of roadway, from residential streets to large avenues and interurban access roads. Its name, inspired by the Latin word “nox” (night), reflects its purpose: to provide safer, cleaner and smarter lighting for our cities.

The range is composed of four sizes: **S, M, L** and **XL,** covering power ratings from **25W** to **200W,** offering the exact solution for each installation height and level of requirement. Its advanced optics (asymmetric, extensive and specific) ensure precise light distribution, improving visibility and reducing glare.

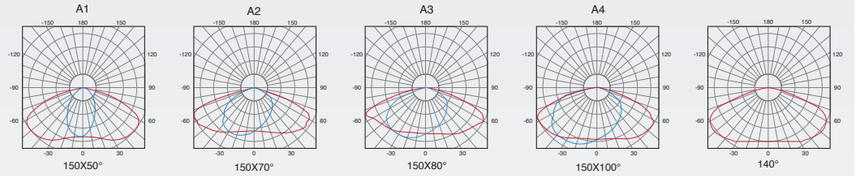
NOX offers colour temperatures of **1800K, 2200K, 2700K, 3000K and 4000K,** enabling more environmentally respectful solutions, especially in residential areas and sensitive environments, improving visual comfort and minimising light intrusion without compromising safety or the required uniformity levels.

With real efficiencies of **up to 170 lm/W** and electronics prepared for the connected city, NOX incorporates control options including **0-10V, DALI-2** and programmable drivers.

Manufactured from high-quality aluminium, its compact structure and optimised thermal management ensure stable performance over time, with **IP66** and **IK08** protection, designed to withstand the most demanding environmental conditions.

NOX is the perfect combination of technology, safety and durability. A family designed to illuminate our cities with greater efficiency, lower consumption and total control of every light point.

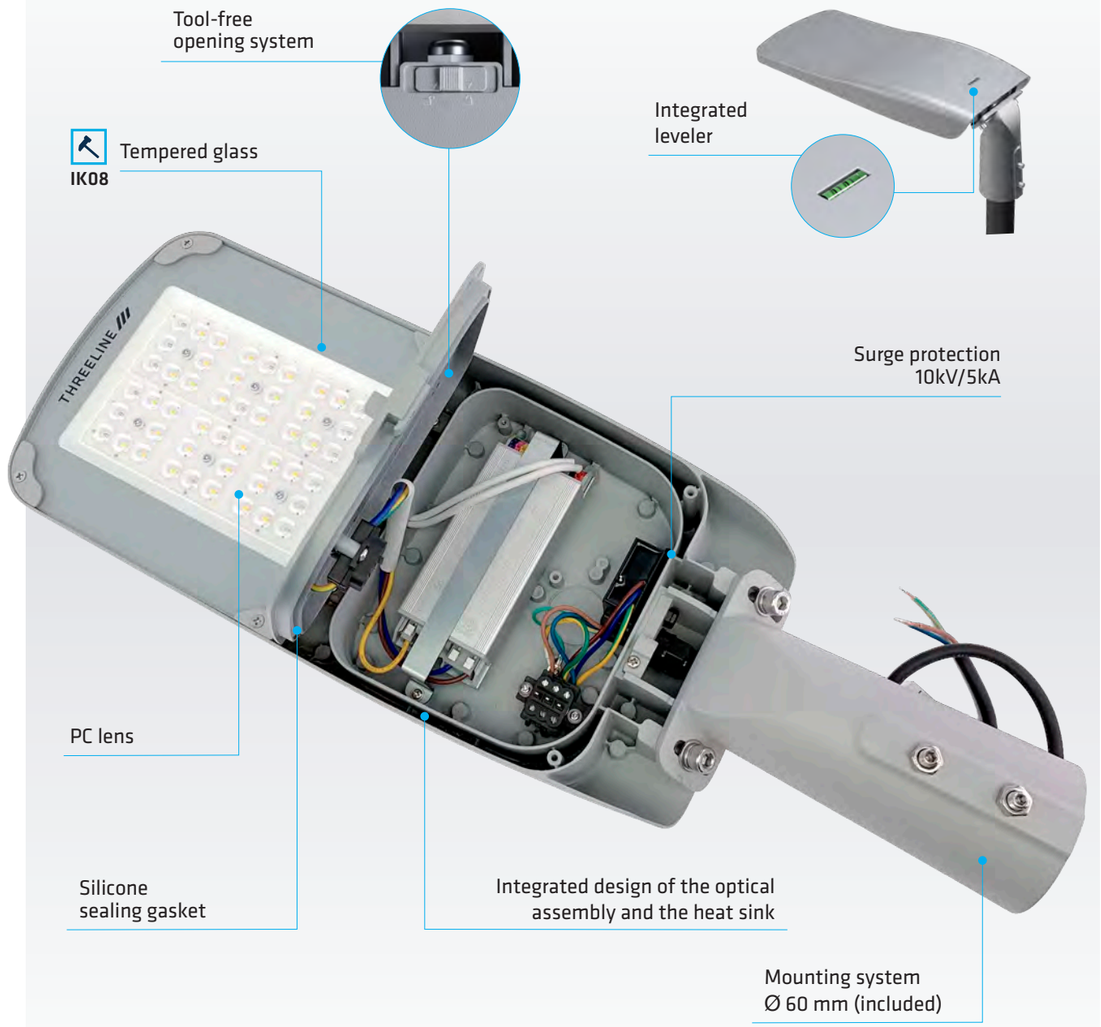
NOX. FEATURES

	NOX **S** NXS	NOX **M** NXM	NOX **L** NXL	NOX **XL** NXXL
POWER	25 W / 40 W	70 W / 100 W	120 W / 150 W	180 W / 200 W
POWER (● 1800K)	25 W / 40 W / 60 W	80 W	100 W / 130 W	150 W
EFFICIENCY	Up to actual 170 lm/W			
RECOMMENDED INSTALLATION HEIGHT	6-8 m	8-12 m	8-12 m	12-15 m
COLOUR TEMPERATURE	● 1800K / ● 2200K / ● 2700K / ● 3000K / ● 4000K			
REAL LUMINOUS FLUX	3037 ~ 6800 lm	8925 ~ 17000 lm	11600 ~ 25500 lm	17663 ~ 34000 lm
AVAILABLE OPTICS				
CONTROL OPTIONS	0-10V / DALI-2 / DN2+ / DN2- / DPR			
LED TYPE	SMD 5050			
LED TYPE (● 1800K)	SMD 3030			
NUMERS OF LEDS	20 LEDs (25 W) 24 LEDs (40 W)	32 LEDs (70 W) 48 LEDs (100 W)	56 LEDs (120 W) 72 LEDs (150 W)	88 LEDs (180 W) 96 LEDs (200 W)
No. OF LEDS (● 1800K)	72 LEDs	120 LEDs	185 LEDs	240 LEDs
LIFETIME	100000 h L80B50 / 153000 h L70B10 / 46000 h L90B10			
IP	IP66			
IK	IK08			
OPERATING TEMPERATURE	-30°C ~ +50°C			
SURGE PROTECTION	10 kV / 5 kA			
WEIGHT	2,70 Kg	3,40 Kg	4,20 Kg	4,50 Kg
CERTIFICATIONS	CE / ENEC / CMIN / RoHS			
EXPOSED WIND AREA	0,072 m^2	0,084 m^2	0,11 m^2	0,13 m^2
WARRANTY	5 years			

NEW PRO NOX NX

4000K 3000K 2700K 2200K 1800K | IP66 | IK08 | 5 YEARS WARRANTY | PL RAL 9006 | FLICKER FREE

Hasta
Actual 170 lm/W



• Optics

140x70° 150x70° 140x80° 50x140° 140°

• Dimming options

0-10V (CLASS I) | DALI-2 DN2+ DN2- DPR (CLASS II)

• Materials

AL BODY | PC REFLECTOR AND LENS | Si GASKET | Zn CLIP

• Included

Ref. **ANX60**

• Optional

Ref. **ANX42** | Ref. **ANX76** | Ref. **APNX60** | CUSTOM | ANTISALINE TREATMENT

NOX. FEATURES

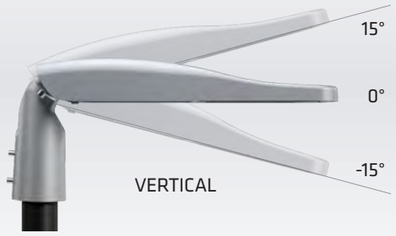
MOUNTING SYSTEM

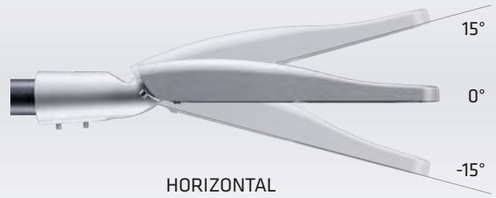
The pre-installed adapter allows mounting on a pole in horizontal or vertical position. Available in several diameters (T60 included and T42 / T76 optional).

• Included
Ref. **ANX60**

• Optional
Ref. **ANX42** (Ø 42 mm)
Ref. **ANX76** (Ø 76 mm)

• Optional
Ref. **APNX60** (Ø 60 mm)





TILT ADJUSTMENT

Tilt range from –15° to +15° in 5° steps, optimising photometric distribution and uniformity on public roads.

INDEPENDENT COMPARTMENT FOR THE DRIVER

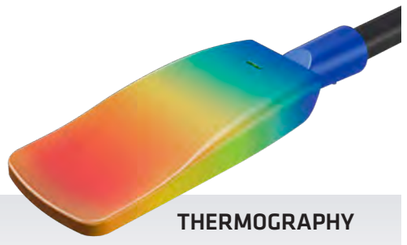
The driver can be easily removed by opening the compartment, without the need for tools.

IP66 PROTECTION

Watertight design with high-quality waterproof silicone gaskets to ensure **IP66** sealing.

AESTHETIC AND MINIMALIST DESIGN

Clean and simple finish, with smooth surfaces that prevent dirt accumulation. The light grey textured coating allows the luminaire to visually blend into its surroundings.



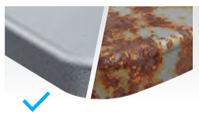
THERMOGRAPHY

Its ADC12 aluminium alloy body and streamlined design with a through-channel promote air convection, optimising heat dissipation.

CUSTOMIZABLE

Custom colour finish option.

CUSTOM



ANTISALINE TREATMENT

Optional antisaline treatment to prevent corrosion.

ANTISALINE TREATMENT

LED STREET LUMINAIRE

PRO NOX S NXS

4000K · 3000K · 2700K · 2200K · 90-305Vac 50/60Hz · FLICKER FREE

CRI >70 · cos φ >0,97 · 100.000 h · x 15.000 · 5 YEARS WARRANTY

IK08 · IP66 · DI · PL RAL 9006 · 10kV/5kA PROTECTOR · max. h S (8m)

Actual 170 lm/W

• Material

AL BODY · PC REFLECTOR AND LENS · Zn CLIP · Si GASKET

• Certifications

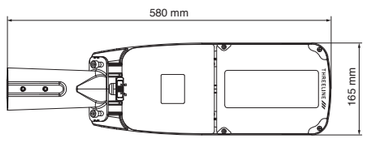
CE

• Dimming options

(40W) 0-10V · DALI-2 · DN2+ · DN2- · DPR

• Lens

150x50° · 150x70° · 150x80° · 150x100° · 140°



• Included

Ref. ANX60 · Ref. ANX42 · Ref. ANX76 · Ref. APNX60

• Optional

CUSTOM · ANTISALINE TREATMENT

SURGE PROTECTOR INCLUDED

Generate your reference

*0-10V only for 40W

REF.	W		K			
NXS	25 W	25	4000K	40	150x50°	A1
	40 W	40	3000K	30	150x70°	A2
			2700K	27	150x80°	A3
			2200K	22	150x100°	A4
					140°	140

CLASS I		
CLASS I	C1	ON-OFF
		*0-10V D1

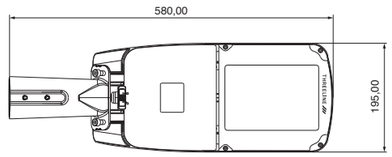
CLASS II		
CLASS II	C2	ON-OFF
		DALI-2 D2
		DN2- D6
		DN2+ D7
		DPR D8

W	K		
25 W	4000K	4750 lm	4250 lm
	3000K	3988 lm	3613 lm
	2700K	3563 lm	3188 lm
	2200K	3563 lm	3188 lm

W	K		
40 W	4000K	7600 lm	6800 lm
	3000K	6380 lm	5780 lm
	2700K	5700 lm	5100 lm
	2200K	5700 lm	5100 lm

LED STREET LUMINAIRE

Actual 170 lm/W



PRO NOX M NXM

4000K · 3000K · 2700K · 2200K · 108-305Vac 50/60Hz · FLICKER FREE

CRI >70 · cos φ >0,97 · 100.000 h · x 15.000 · 5 YEARS WARRANTY

IK08 · IP66 · DI · PL RAL 9006 · 10kV/5kA PROTECTOR · max. h M (12m)

• Material

AL BODY · PC REFLECTOR AND LENS · Si GASKET · Zn CLIP

• Certifications

CE

• Dimming options

0-10V · DALI-2 · DN2+ · DN2- · DPR

• Lens

150x50° · 150x70° · 150x80° · 150x100° · 140°

• Included

Ref. ANX60 · Ref. ANX42 · Ref. ANX76 · Ref. APNX60

• Optional

CUSTOM · ANTISALINE TREATMENT

SURGE PROTECTOR INCLUDED

Generate your reference

REF.	W		K			
NXM	70 W	70	4000K	40	150x50°	A1
	100 W	100	3000K	30	150x70°	A2
			2700K	27	150x80°	A3
			2200K	22	150x100°	A4
					140°	140

CLASS I		
CLASS I	C1	ON-OFF
		0-10V D1

CLASS II		
CLASS II	C2	ON-OFF
		DALI-2 D2
		DN2- D6
		DN2+ D7
		DPR D8

W	K		
70 W	4000K	13300 lm	11900 lm
	3000K	11165 lm	10115 lm
	2700K	9975 lm	8925 lm
	2200K	9975 lm	8925 lm

W	K		
100 W	4000K	19000 lm	17000 lm
	3000K	15950 lm	14450 lm
	2700K	14250 lm	12750 lm
	2200K	14250 lm	12750 lm

STREET LED LUMINAIRE

PRO NOX L NXL

4000K · 3000K · 2700K · 2200K · 108-305Vac 50/60Hz · FLICKER FREE

CRI >70 · cos φ >0,97 · 100.000 h · x 15.000 · 5 YEARS WARRANTY

IK08 · IP66 · DI · PL RAL 9006 · 10kV/5kA PROTECTOR · max. h L (12m)

Actual 170 lm/W

• Material

AL BODY · PC REFLECTOR AND LENS · Zn CLIP · Si GASKET

• Certifications

CE · EAC

• Dimming options

(150W)

0-10V · DALI-2 · DN2+ · DN2- · DPR

• Lens

150x50° · 150x70° · 150x80° · 150x100° · 140°

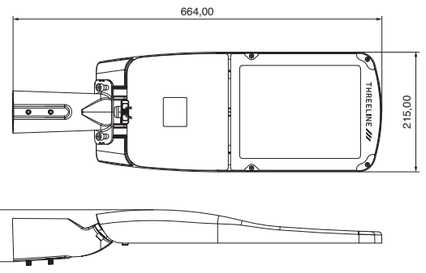
• Included

Ref. ANX60

• Optional

Ref. ANX42 · Ref. ANX76 · Ref. APNX60 · CUSTOM · ANTISALINE TREATMENT

SURGE PROTECTOR INCLUDED



Generate your reference

*0-10V only for 150W

REF.	W		K		◺	
NXL	120 W	120	4000K	40	150x50°	A1
	150 W	150	3000K	30	150x70°	A2
			2700K	27	150x80°	A3
			2200K	22	150x100°	A4
					140°	140

CLASS I		⎓	
CLASS I	C1	ON-OFF	
		*0-10V	D1

CLASS II		⎓	
CLASS II	C2	ON-OFF	
		DALI-2	D2
		DN2-	D6
		DN2+	D7
		DPR	D8

W	K	N	
120 W	4000K	22800 lm	20400 lm
	3000K	19140 lm	17340 lm
	2700K	17100 lm	15300 lm
	2200K	17100 lm	15300 lm

W	K	N	
150 W	4000K	28500 lm	25500 lm
	3000K	23925 lm	21675 lm
	2700K	21375 lm	19125 lm
	2200K	21375 lm	19125 lm

STREET LED LUMINAIRE

Actual 170 lm/W

PRO NOX XL NXXL

4000K · 3000K · 2700K · 2200K · 108-305Vac 50/60Hz · FLICKER FREE

CRI >70 · cos φ >0,97 · 100.000 h · x 15.000 · 5 YEARS WARRANTY

IK08 · IP66 · DI · PL RAL 9006 · 10kV/5kA PROTECTOR · max. h XL (15m)

• Material

AL BODY · PC REFLECTOR AND LENS · Zn CLIP · Si GASKET

• Certifications

CE · EAC

• Dimming options

(200W)

0-10V · DALI-2 · DN2+ · DN2- · DPR

• Lens

150x50° · 150x70° · 150x80° · 150x100° · 140°

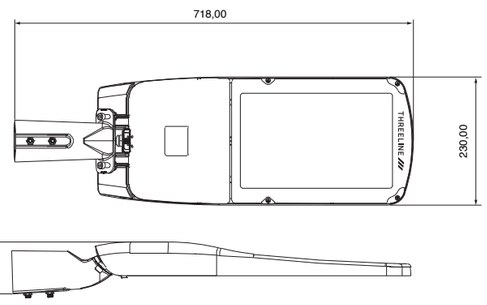
• Included

Ref. ANX60

• Optional

Ref. ANX42 · Ref. ANX76 · Ref. APNX60 · CUSTOM · ANTISALINE TREATMENT

SURGE PROTECTOR INCLUDED



Generate your reference

*0-10V only for 200W

REF.	W		K		◺	
NXXL	180 W	180	4000K	40	150x50°	A1
	200 W	200	3000K	30	150x70°	A2
			2700K	27	150x80°	A3
			2200K	22	150x100°	A4
					140°	140

CLASS I		⎓	
CLASS I	C1	ON-OFF	
		0-10V	D1

CLASS II		⎓	
CLASS II	C2	ON-OFF	
		DALI-2	D2
		DN2-	D6
		DN2+	D7
		DPR	D8

W	K	N	
180 W	4000K	34200 lm	30600 lm
	3000K	28710 lm	26010 lm
	2700K	25650 lm	22950 lm
	2200K	25650 lm	22950 lm

W	K	N	
200 W	4000K	38000 lm	34000 lm
	3000K	31900 lm	28900 lm
	2700K	28500 lm	25500 lm
	2200K	28500 lm	25500 lm

ULTRA-WARM LIGHT

We offer ultra-warm lighting **solutions in 1800K** with low blue-spectrum emission, designed to reduce environmental impact and preserve the night-time environment in street lighting applications.

The 1800K colour temperature provides an optimal balance between visibility, visual comfort and environmental respect. In addition, it is less invasive to nocturnal ecosystems than white or cool light (4000K–5000K), thus helping preserve the biological cycles of animals and plants.

Thanks to its appearance, similar to that of traditional lamps, 1800K LED lighting is ideal for historic centres, towns, parks and residential areas, creating a warm and welcoming atmosphere instead of a sterile or industrial look, especially in environments where protection of the night sky is a priority.

Integrated into high-efficiency LED solutions and properly designed from an optical point of view, ultra-warm light helps minimise light dispersion, glare and intrusive light, while maintaining the safety levels required by current regulations at all times.

1800K 3000K 4000K 5000K

Benefits of ultra-warm light:

1. Significant reduction of night-time environmental impact.

2. Lower light dispersion and glare control.

3. Improved visual comfort in low-luminance environments.

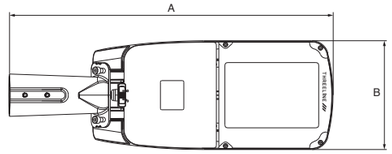
4. Suitable for sensitive areas and protected spaces.

5. Compatible with dimming and intelligent control systems.

6. Lower impact on flora and fauna.

7. A welcoming atmosphere in residential and historic areas.

STREET LED LUMINAIRE



Measurements (mm).

	A	B	C
NXS	580	165	94
NXM	580	195	94
NXL	664	215	94
NXXL	718	230	94

PRO **NOX** 1800K

NXS / NXM / NXL / NXXL

1800K · 108-305Vac 50/60Hz · CRI >70 · cos φ >0,97 · 100.000 h · x 15.000 · OFF ON

IK08 · IP66 · DI · PL RAL 9006 · 5 YEARS WARRANTY · FLICKER FREE

10kV/5kA PROTECTOR · max. h S (8m) · max. h M (12m) · max. h L (12m) · max. h XL (15m)

• Material

AL BODY · PC REFLECTOR AND LENS · Zn CLIP · Si GASKET

• Certifications

CE

• Dimming Opt.

0-10V

SURGE PROTECTOR INCLUDED

• Lens

150x50° · 150x70° · 150x80° · 150x100° · 140°

• Included

Ref. **ANX60**

• Optional

Ref. **ANX42** · Ref. **ANX76** · Ref. **APNX60**

CUSTOM

ANTISALINE TREATMENT

Generate your reference

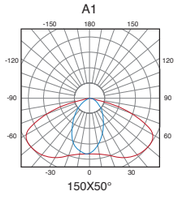
*0-10V except for 25W and 100W

REF.	W		K		CLASS I		
NXS	25 W	25	● 1800K	18	150x50°	A1	CLASS I C1 ON-OFF
	40 W	40			150x70°	A2	*0-10V D1
	60 W	60			150x80°	A3	
NXM	80 W	80			150x100°	A4	
NXL	100 W	100			140°	140	
	130 W	130					
NXXL	150 W	150					

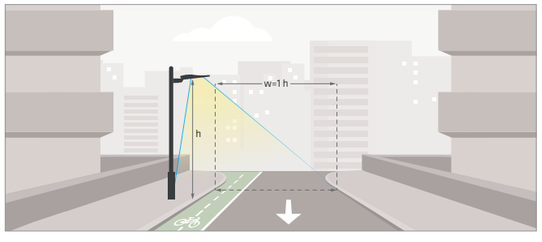
K	NOX S			NOX M			NOX L			NOX XL		
	W	N		W	N		W	N		W	N	
● 1800K	25 W	3413 lm	3037 lm	80 W	10560 lm	9396 lm	100 W	13100 lm	11600 lm	150 W	19800 lm	17663 lm
	40 W	5460 lm	4860 lm				130 W	17030 lm	15080 lm			
	60 W	8076 lm	7176 lm									

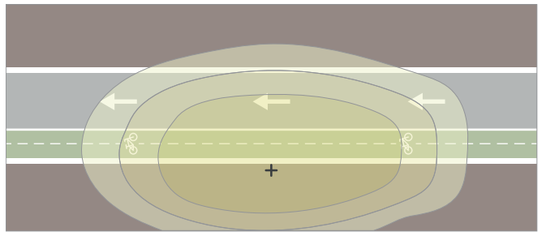
NOX

TYPE I Short - A1

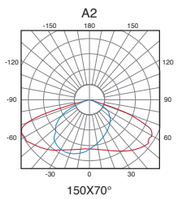


Suitable distribution for **narrow roads**, where the transverse width of the roadway is approximately equal to the mounting height of the luminaire (w = 1h).

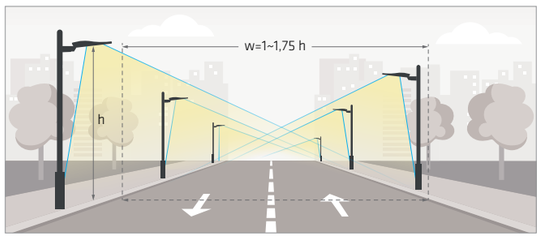


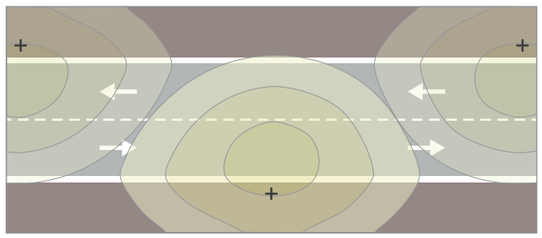


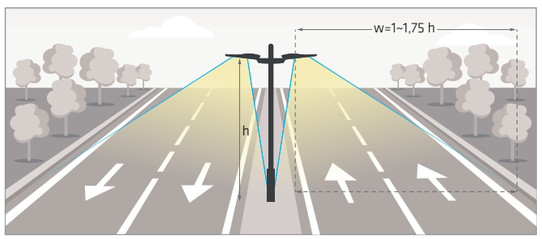
TYPE II Medium - A2

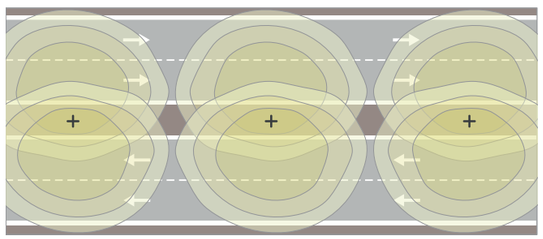


Suitable distribution for roads of **medium-width**, where the transverse width of the roadway is between 1 and 1.75 times the mounting height of the luminaire (w = 1–1.75h).





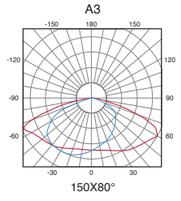




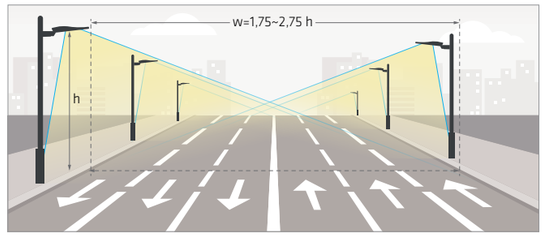
NOX

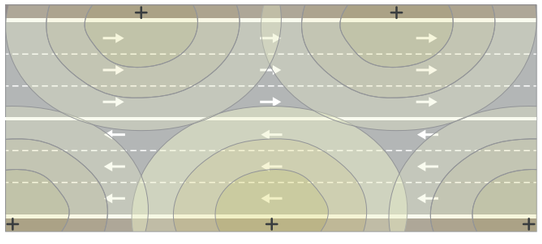
CHOOSE THE RIGHT LENS FOR EACH SITUATION

TYPE III Medium - A3

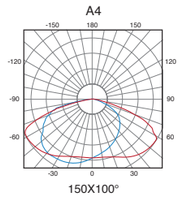


Suitable distribution for **wide roads**, where the transverse width of the roadway is **between 1.75 and 2.75** times the mounting height of the luminaire (w = 1.75–2.75h).

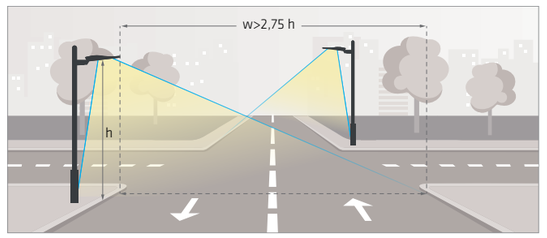


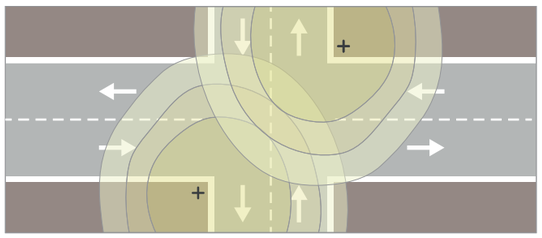


TYPE IV Short - A4

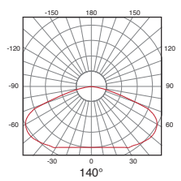


Suitable distribution for **wide roads**, where the transverse width of the roadway is **greater than 2.75** times the mounting height of the luminaire (w > 2.75h).

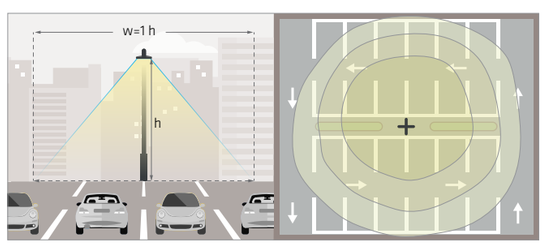




TYPE V Short - 140°



The coverage width is approximately equal to **1.0 times** the mounting height of the luminaire in all directions.



PRO RUA CV

5000K 4000K 2700K FLICKER FREE 5 YEARS WARRANTY PL RAL 9006 IP66 IK08 CE

Up to Actual 130 lm/W

ACV60 Ø 60 mm.

Included

ACV34 Ø 34 mm.
ACV42 Ø 42 mm.
ACV76 Ø 76 mm.

Tilt optionals

Vertical
±15° rotation

Horizontal
±15° rotation

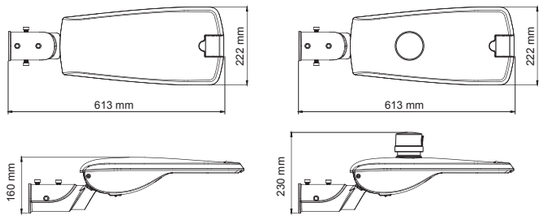
• Lens

• Dimming Options

• Material

AL BODY | V TEMP DIFFUSER | PMMA LENS | INOX CLOSURE | NEOPRENE SEALING GASKET

STREET LED LUMINAIRE



PRO RUA S CVS

5000K 4000K 2700K 198-264Vac 50/60Hz 5 YEARS WARRANTY

CRI >70 | cos φ >0,95 | 100.000 h | x 60.000

IK08 | IP66 | DI | PL RAL 9006 | 10kV/10kA PROTECTOR | max. h S (8m)

• LED

LED 3030 NICHIA | 48 LED | NICHIA

• Material

AL BODY | V TEMP DIFFUSER | PMMA LENTE | INOX CLOSURE | NEOPRENE SEALING GASKET

• Dimming Options

• Optional

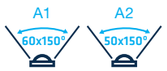
Ref. **APCV60V2**

• Certif.

CE ENAC

	K	W	I		
CVS001.*.**	5000K	20 W	350 mA	3200 lm	2751 lm
CVS002.*.**	4000K	20 W	350 mA	3100 lm	2620 lm
CVS003.*.**	2700K	20 W	350 mA	2810 lm	2410 lm
CVS004.*.**	5000K	30 W	550 mA	4800 lm	4095 lm
CVS005.*.**	4000K	30 W	550 mA	4650 lm	3900 lm
CVS006.*.**	2700K	30 W	550 mA	4188 lm	3588 lm
CVS007.*.**	5000K	40 W	700 mA	6400 lm	5418 lm
CVS008.*.**	4000K	40 W	700 mA	6200 lm	5160 lm
CVS009.*.**	2700K	40 W	700 mA	5560 lm	4747 lm
CVS010.*.**	5000K	50 W	900 mA	8000 lm	6731 lm
CVS011.*.**	4000K	50 W	900 mA	7750 lm	6410 lm
CVS012.*.**	2700K	50 W	900 mA	6900 lm	5897 lm

* Lens Opt.



** Dimming Opt.

PH	ON/OFF Photocell	D110	1-10V
TD5	CASAMBI Remote management	DA	DALI
SR	Non-dimmable	DPR	Programmable
DN2-	Dual level without control cable	DC	12-24Vdc
DN2+	Dual level with control cable		
DRC	Dimming on head		

*CRI>80 to order

RUA M CVM

5000K · 4000K · 2700K · 198-264Vac 50/60Hz · 5 YEARS WARRANTY

CRI >70 · cos φ >0,95 · 100.000 h · x 60.000

IK08 · IP66 · DI · PL RAL 9006 · 10kV/10kA PROTECTOR · max. h M (12m)

• LED

3030 NICHIA · 90 LED · NICHIA

• Material

AL BODY · V TEMP DIFFUSER · PMMA LENS · INOX CLOSURE · NEOPRENE SEALING GASKET

• Dimming Opt.

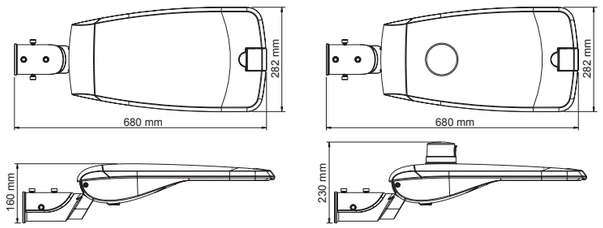
1-10V · DALI · DN2- · DN2+ · DRC · DPR

• Optional

Ref. **APCV60V2**

• Certif.

CE ENAC



	K	W	I		
CVM001.*.**	5000K	50 W	500 mA	8000 lm	6878 lm
CVM002.*.**	4000K	50 W	500 mA	7750 lm	6550 lm
CVM003.*.**	2700K	50 W	500 mA	7091 lm	6091 lm
CVM004.*.**	5000K	60 W	600 mA	9600 lm	8253 lm
CVM005.*.**	4000K	60 W	600 mA	9300 lm	7860 lm
CVM006.*.**	2700K	60 W	600 mA	8435 lm	7310 lm
CVM007.*.**	5000K	70 W	700 mA	11200 lm	9555 lm
CVM008.*.**	4000K	70 W	700 mA	10500 lm	9100 lm
CVM009.*.**	2700K	70 W	700 mA	9870 lm	8463 lm
CVM010.*.**	5000K	80 W	800 mA	12800 lm	10836 lm
CVM011.*.**	4000K	80 W	800 mA	12400 lm	10320 lm
CVM012.*.**	2700K	80 W	800 mA	11200 lm	9597 lm
CVM013.*.**	5000K	90 W	850 mA	14400 lm	12096 lm
CVM014.*.**	4000K	90 W	850 mA	13950 lm	11520 lm
CVM015.*.**	2700K	90 W	850 mA	12510 lm	10713 lm

* Lens Options

** Dimming Opt.

PH	ON/OFF Photocell	D110	1-10V
TD5	CASAMBI Remote management	DA	DALI
SR	Non-dimmable	DPR	Programmable
DN2-	Dual level without control cable		
DN2+	Dual level with control cable		
DRC	Dimming on head		

*CRI>80 to order

RUA L CVL

5000K · 4000K · 2700K · 198-264Vac 50/60Hz · 5 YEARS WARRANTY

CRI >70 · cos φ >0,95 · 100.000 h · x 60.000

IK08 · IP66 · DI · PL RAL 9006 · 10kV/10kA PROTECTOR · max. h L (15m)

• LED

3030 NICHIA · 100/120W 144 LED · 150W 176 LED · NICHIA

• Material

AL BODY · V TEMP DIFFUSER · PMMA LENS · INOX CLOSURE · NEOPRENE SEALING GASKET

• Dimming Opt.

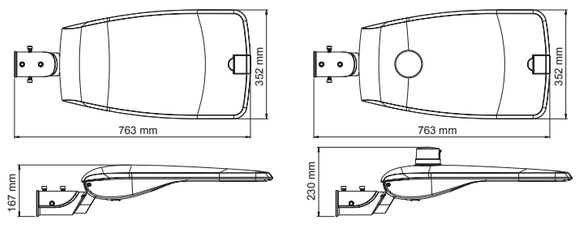
1-10V · DALI · DN2- · DN2+ · DRC · DPR

• Optional

Ref. **APCV60V2**

• Certif.

CE ENAC



	K	W	I		
CVL001.*.**	5000K	100 W	850 mA	14360 lm	12445 lm
CVL002.*.**	4000K	100 W	850 mA	15115 lm	13100 lm
CVL003.*.**	2700K	100 W	850 mA	14000 lm	12050 lm
CVL004.*.**	5000K	120 W	1050 mA	17100 lm	14820 lm
CVL005.*.**	4000K	120 W	1050 mA	18000 lm	15600 lm
CVL006.*.**	2700K	120 W	1050 mA	16560 lm	14352 lm
CVL007.*.**	5000K	150 W	1050 mA	21211 lm	18383 lm
CVL008.*.**	4000K	150 W	1050 mA	22327 lm	19350 lm
CVL009.*.**	2700K	150 W	1050 mA	20541 lm	17802 lm

* Lens Options

** Dimming Opt.

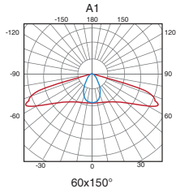
PH	ON/OFF Photocell	DRC	Dimming on head
TD5	CASAMBI Remote management	D110	1-10V
SR	Non-dimmable	DA	DALI
DN2-	Dual level without control cable	DPR	Programmable
DN2+	Dual level with control cable		

*CRI>80 to order

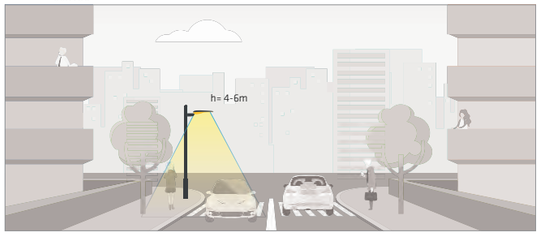
RUA

CHOOSE THE RIGHT LENS FOR EACH SITUATION

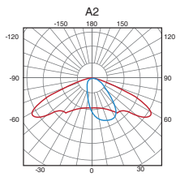
TYPE I Short

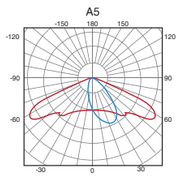


For heights (h) between 6m and 8m and centre-to-centre spacing (w) between 1h and 2.25h.

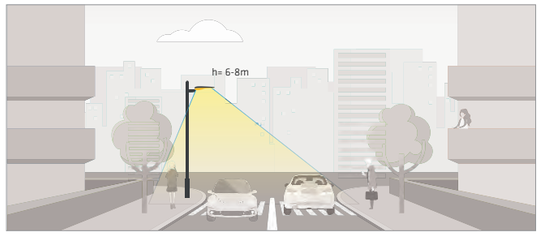


TYPE II Short

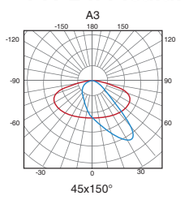


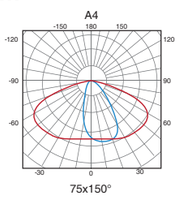


For heights (h) between 6m and 8m and centre-to-centre spacing (w) between 1h and 2.25h.

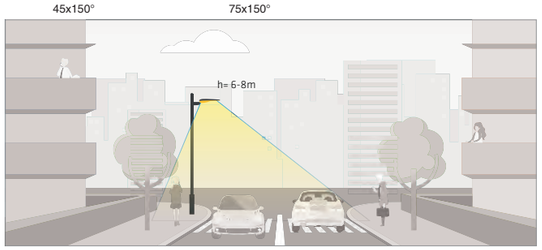


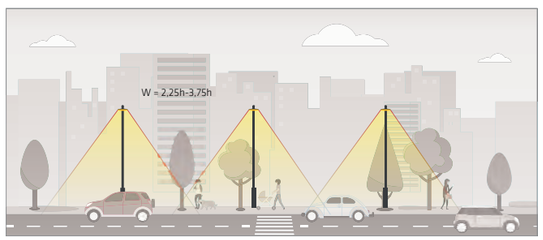
TYPE II Medium





For heights (h) between 6m and 8m and centre-to-centre spacing (w) between 2,25h and 3,75h.

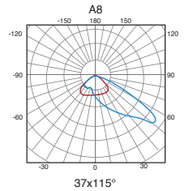




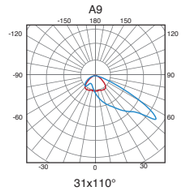
RUA

CHOOSE THE RIGHT LENS FOR EACH SITUATION

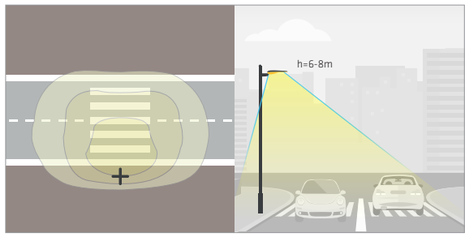
TYPE III Very Short

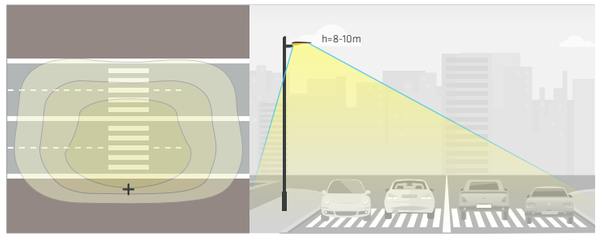


For heights (h) between 6m and 8m and centre-to-centre spacing (w) between 1h and 1.75h. Suitable for 2 streets intersections.

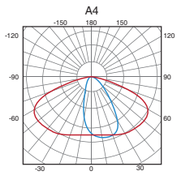


For heights (h) between 8m and 10m and centre-to-centre spacing (w) between 1h and 1.75h. Suitable for 4 streets intersections.

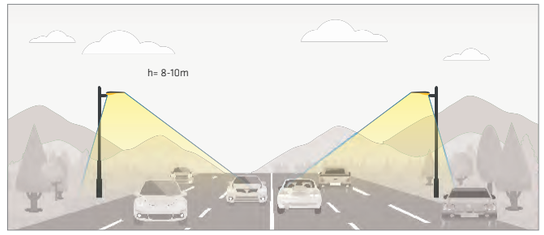


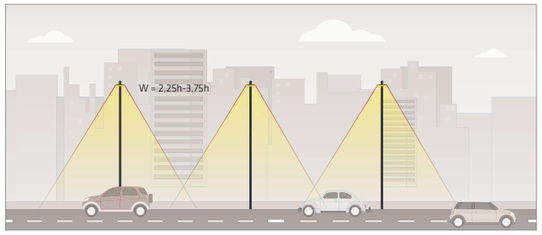


TYPE III Medium



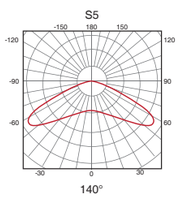
For heights (h) between 8m and 10m and centre-to-centre spacing (w) between 2,25h and 3,75h.

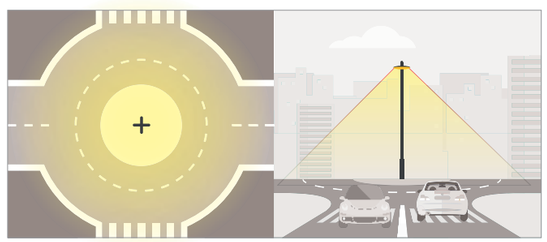




TYPE V

For areas where a symmetrical light distribution is needed.





RETROFIT

Threeline offers a **CUSTOMISED SERVICE** to adapt LED modules to existing street lamps.

1. Send us a **sample of the internal plate** or a scheme with the **dimensions required** for the adaptation.

2. Our R&S and technical department will develop a **project of the plate** and a **study of the necessary light source.**

3. Once realised the project of the adaptation, **fabrication** phase will begin.

4. After the production, several **tests** and controls will take place, in order to **verify the project and the quality.**

5. Afterwards, the manufacturing laboratory will **assemble the light source with the casing.**

6. Once completed, the **order will be shipped** from our logistic warehouse.

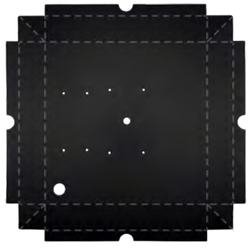
Street Lamps already installed?
Transform them with LED technology
We're here to help you!

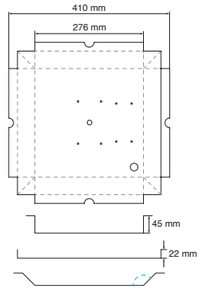
Conventional technology

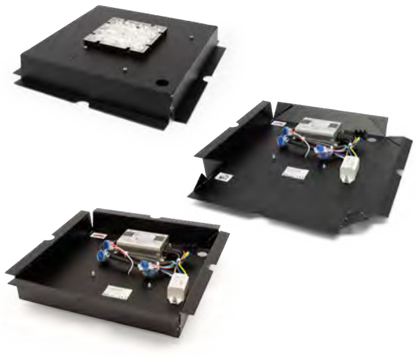
LED technology

NEW

UNIVERSAL PLATE
Fits any Villa-style streetlight head.
Easy, tool-free installation!

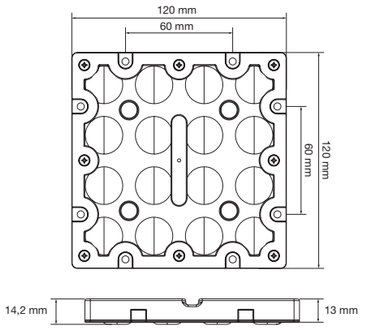






LED MODULE

Actual 150 lm/W



PRO **NUIT** NUI

4000K · 3000K · 2700K · 110-305Vac 50/60Hz · 5 YEARS WARRANTY · FLICKER FREE

CRI >70 · cos φ >0,95 · 50.000 h · OFF ON x30.000

IP65 · IK08 · DE · NE RAL 9003

*NUI available in Class II on request.

• Material

AL BODY · PC DIFFUSER

• Certif. CE

• Lens

80x150° · 150°

* Optional:

NC — MODULE AND DRIVER (WITHOUT PLATE)

S — 10kV/10kA PROTECTOR

CUSTOM PLATE

UNIVERSAL PLATE

The NUIT optical assembly references include the **LED module,** the **driver** and the **heat sink plate.**

When placing the order, it must be specified whether **a custom plate** is required for the installation, indicating dimensions and colour, or the **universal plate.**

Generate your reference

	W		CRI		K			CLASS				
NUI	20 W	20	CRI>70	7	4000K	40	80x150°	A6	CLASS I		SR	SR	NC
	30 W	30			3000K	30	150°	S6	CLASS II	C2	DN2-	DN2-	S
	40 W	40			2700K	27					DN2+	DN2+	
	50 W	50									D110	D110	
											DA	DA	
											DPR	DPR	

W	K	N		W	K	N		W	K	N		W	K	N	
	4000K	3400 lm	3000 lm		4000K	5100 lm	4500 lm		4000K	6800 lm	6000 lm		4000K	8500 lm	7500 lm
20 W	3000K	3200 lm	2900 lm	30 W	3000K	4800 lm	4350 lm	40 W	3000K	6400 lm	5800 lm	50 W	3000K	8000 lm	7250 lm
	2700K	3100 lm	2800 lm		2700K	4650 lm	4200 lm		2700K	6200 lm	5600 lm		2700K	7750 lm	7000 lm

PRO VILLA

VILLA_CV

5700K · 4000K · 3000K · 2700K · 100-305Vac 50/60Hz · FLICKER FREE

CRI >70 · cos φ >0,95 · 50.000 h · x 100.000 (VLQ) x 30.000 (VLN) · 5 YEARS WARRANTY

IK08 · IP65 · DE · NE

• Lens

45° · 60° · 120° · 150° · 80x150°

• Material

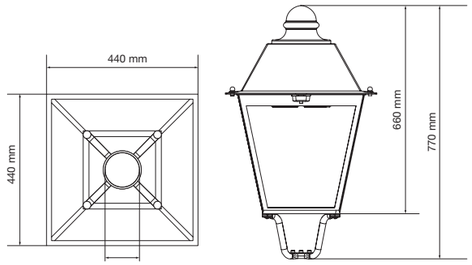
M DIFUSOR · AL BODY · AL REFLECTOR

• Certif.

CE

• Dimming Opt.

1-10V · DALI · DN2- · DN2+ · DRC



MAKE YOUR ORDER

You have to order separately:

1. **Ref. street lamp casing:** VILLA_CV
2. **Ref. LED module:** VLN or VLQ according to the characteristics needed

Ex.: VILLA_CV (Ref. street lamp casing)
Ex..: VLQ + 040 + 40 + 120 + D2 = VLQ04040120D2 (Ref. LED module)

	W		K		◺		⌒	*
VLN	25 W	025	4000K	40	80x150°	A6	Non dimmable	
	50 W	050	3000K	30	150°	150	1-10V	D1
	100 W	100	2700K	27			DALI	D2
							DN2-	D6
							DN2+	D7
							DRC	D8
VLQ	40 W	040	5700K	57	45°	45	Non dimmable	
	80 W	080	4000K	40	60°	60	1-10V	D1
			3000K	30	120°	120	DALI	D2

* Optional:

S 10kV/10kA PROTECTOR

*VLN CLASS II available to order.

CCT	25 W		40 W		50 W		80 W		100 W	
	N		N		N		N		N	
5700K	–	–	8000 lm	6800 lm	–	–	16000 lm	13600 lm	–	–
4000K	4250 lm	3750 lm	7840 lm	6664 lm	8500 lm	7500 lm	15680 lm	13328 lm	17000 lm	15000 lm
3000K	4000 lm	3625 lm	7600 lm	6460 lm	8000 lm	7250 lm	15200 lm	12920 lm	16000 lm	14500 lm
2700K	3875 lm	3500 lm	–	–	7750 lm	7000 lm	–	–	15500 lm	14000 lm

PRO FERNANDINA

FERNANDINA_CV

5700K · 4000K · 3000K · 2700K · 100-305Vac 50/60Hz · FLICKER FREE

CRI >70 · cos φ >0,95 · 50.000 h · x 100.000 (FRQ) x 30.000 (FRN) · 5 YEARS WARRANTY

IK08 · IP65 · DE · NE

• Lens

45° · 60° · 120° · 150° · 80x150°

• Material

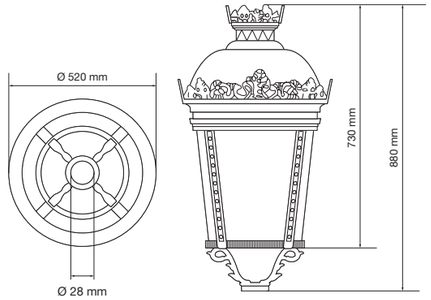
M DIFFUSER · AL BODY

• Certif.

CE

• Dimming Opt.

1-10V · DALI · DN2- · DN2+ · DRC



MAKE YOUR ORDER

You have to order separately:

1. **Ref. street lamp casing:** FERNANDINA_CV
2. **Ref. LED module:** FRN or FRQ according to the characteristics needed

Ex.: FERNANDINA_CV (Ref. street lamp casing)
Ex.: FRQ + 080 + 40 + 120 + D1 = FRQ08040120D1 (Ref. LED module)

	W		K		◺		⌒	*
FRN	25 W	025	4000K	40	80x150°	A6	Non dimmable	
	50 W	050	3000K	30	150°	150	1-10V	D1
	100 W	100	2700K	27			DALI	D2
							DN2-	D6
							DN2+	D7
							DRC	D8
FRQ	40 W	040	5700K	57	45°	45	Non dimmable	
	80 W	080	4000K	40	60°	60	1-10V	D1
			3000K	30	120°	120	DALI	D2

* Optional:

S 10kV/10kA PROTECTOR

*FRN CLASS II available to order.

CCT	25 W		40 W		50 W		80 W		100 W	
	N		N		N		N		N	
5700K	–	–	8000 lm	6800 lm	–	–	16000 lm	13600 lm	–	–
4000K	4250 lm	3750 lm	7840 lm	6664 lm	8500 lm	7500 lm	15680 lm	13328 lm	17000 lm	15000 lm
3000K	4000 lm	3625 lm	7600 lm	6460 lm	8000 lm	7250 lm	15200 lm	12920 lm	16000 lm	14500 lm
2700K	3875 lm	3500 lm	–	–	7750 lm	7000 lm	–	–	15500 lm	14000 lm

STREET LAMP CASING + LED MODULE

PRO URBAN

URBANR_CV / URBANB_CV

5700K · 4000K · 3000K · 2700K · 100-305Vac 50/60Hz · FLICKER FREE

CRI >70 · cos φ >0,95 · 50.000 h · x 100.000 (URQ) x 30.000 (URN) · 5 YEARS WARRANTY

IK08 · IP65 · DE · NE

URBANR_CV

URBANB_CV

• Lens

45° · 60° · 120° · 150° · 80x150°

• Material

M DIFFUSER · AL BODY

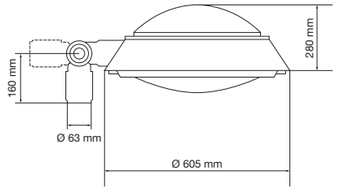
• Certif.

CE

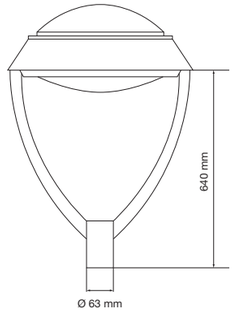
• Dimming Opt.

1-10V · DALI · DN2- · DN2+ · DRC

URBANR_CV



URBANB_CV



MAKE YOUR ORDER

You have to order separately:

1. **Ref. street lamp casing:** URBANR_CV or URBANB_CV
2. **Ref. LED module:** URN or URQ according to the characteristics needed

e.g.: URBANR_CV (Ref. street lamp casing)

e.g.: URN + 100 + 27 + A6 + D7 = URN10027A6D7 (Ref. LED module)

	W		K					*
URN	50 W	050	4000K	40	80x150°	A6	Non dimmable	
	100 W	100	3000K	30	150°	150	1-10V	D1
	150 W	150	2700K	27			DALI	D2
	200 W	200					DN2-	D6
							DN2+	D7
							DRC	D8
URQ	40 W	040	5700K	57	45°	45	Non dimmable	
	80 W	080	4000K	40	60°	60	1-10V	D1
	120 W	120	3000K	30	120°	120	DALI	D2

* Optional:

S

10kV/10kA PROTECTOR

*URN CLASS II available to order.

CCT	40 W		50 W		80 W		100 W		120 W		150 W		200 W	
5700K	8000 lm	6800 lm	–	–	16000 lm	13600 lm	–	–	24000 lm	20400 lm	–	–	–	–
4000K	7840 lm	6664 lm	8500 lm	7500 lm	15680 lm	13328 lm	17000 lm	15000 lm	23520 lm	19992 lm	25500 lm	22500 lm	34000 lm	30000 lm
3000K	7600 lm	6460 lm	8000 lm	7250 lm	15200 lm	12920 lm	16000 lm	14500 lm	22800 lm	19380 lm	24000 lm	21750 lm	32000 lm	29000 lm
2700K	–	–	7750 lm	7000 lm	–	–	15500 lm	14000 lm	–	–	23250 lm	21000 lm	31000 lm	28000 lm

LED STREET LUMINAIRE

ECO GROEN GRN

4000K · 3000K · 175-250Vac 50/60Hz · 5 YEARS WARRANTY · FLICKER FREE

110° · CRI >80 · cos φ >0,9 · 50.000 h

x 25.000 · IK07 · IP65 · DI · NE RAL 9005

10kV/10kA PROTECTOR

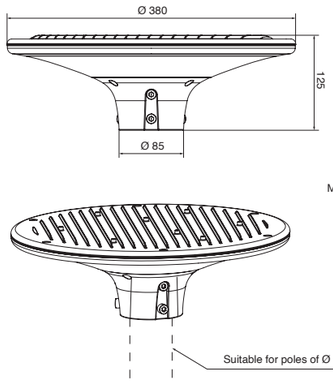
• Material

PC DIFFUSER · AL BODY

• Certif.

CE

SURGE PROTECTOR INCLUDED



		K	W		
GRN2040110	110°	4000K	20 W	2200 lm	2000 lm
GRN2030110	110°	3000K	20 W	2200 lm	2000 lm
GRN3040110	110°	4000K	30 W	3300 lm	3000 lm
GRN3030110	110°	3000K	30 W	3300 lm	3000 lm
GRN5040110	110°	4000K	50 W	5500 lm	5000 lm
GRN5030110	110°	3000K	50 W	5500 lm	5000 lm

STREET LED LUMINAIRE

KALE

KVS / KVM / KVL / KVXL

4000K · 3000K · 90-305Vac 50/60Hz · 5 YEARS WARRANTY · FLICKER FREE

CRI >80 · cos φ >0,95 · 50.000 h · OFF ON x50.000

IK08 · IP66 · DI · PL RAL 9006 · 10kV/5kA PROTECTOR

Actual 140 lm/W

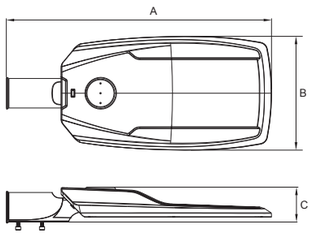
• Material

AL BODY · V DIFUSOR

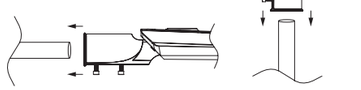
• Certif.

CE

SURGE PROTECTION INCLUDED



Same support for installation on pole (vertical) or on arm (horizontal).

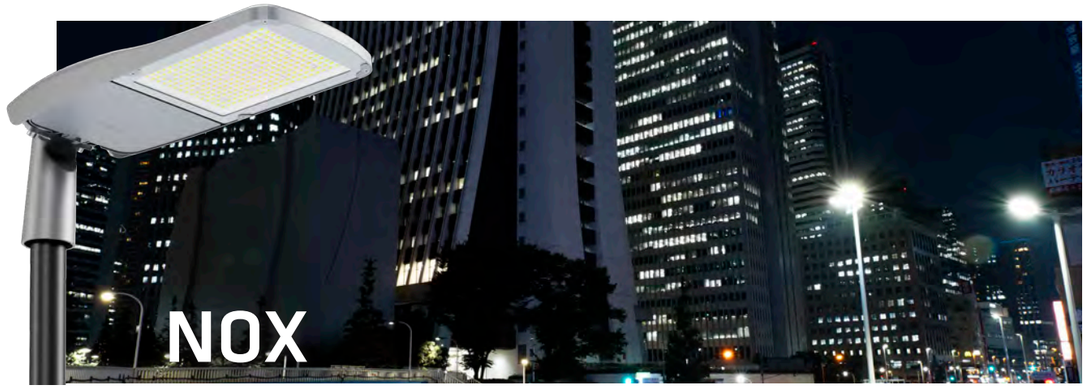


	A	B	C
KVS	534,7 mm	192,47 mm	82,5 mm
KVM	577 mm	222,23 mm	87,5 mm
KVL	667 mm	285,97 mm	90,5 mm
KVXL	764,5 mm	312 mm	90,5 mm

		W	K		
KVS03040	*	30 W	4000K	4800 lm	4200 lm
KVS03030	*	30 W	3000K	4350 lm	3900 lm
KVM08040	*	80 W	4000K	12800 lm	11200 lm
KVM08030	*	80 W	3000K	11600 lm	10400 lm
KVL12040	*	120 W	4000K	19200 lm	16800 lm
KVL12030	*	120 W	3000K	17400 lm	15600 lm
KVXL24040	*	240 W	4000K	38400 lm	33600 lm
KVXL24030	*	240 W	3000K	34800 lm	31200 lm

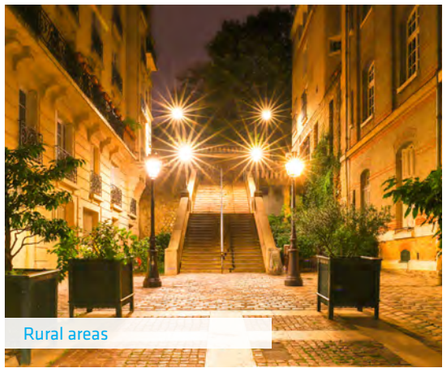
* Lens Options

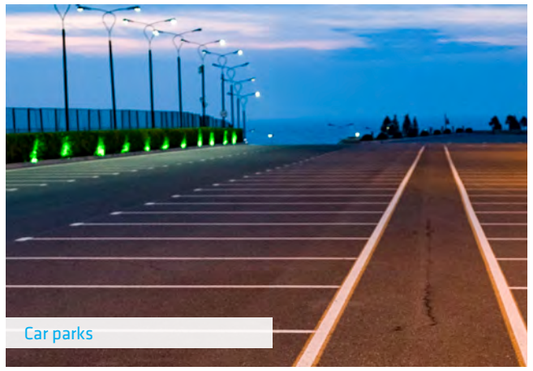
STREET / URBAN. SOLUTIONS



STREET / URBAN. APPLICATIONS


Motorways and roads


Rural areas


Car parks


Walkways

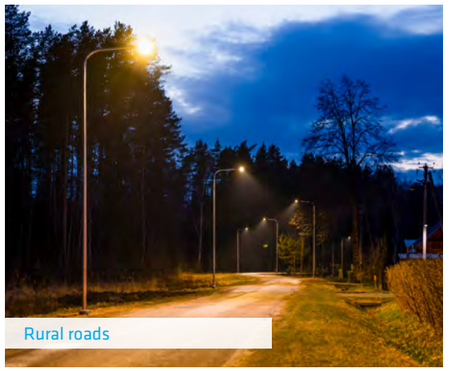

Private residential developments


Stations


Urban environments

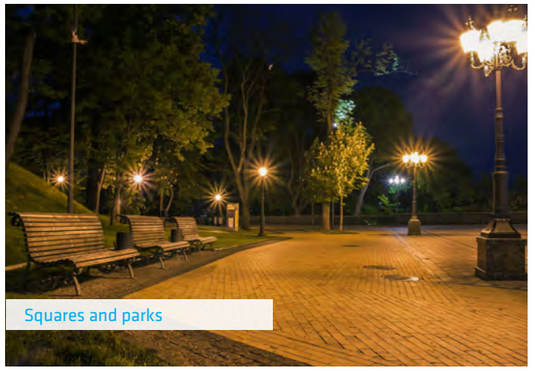

Road intersections

STREET / URBAN. APPLICATIONS

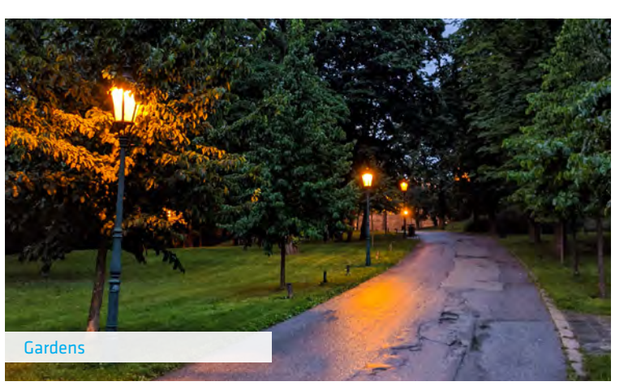

Rural roads

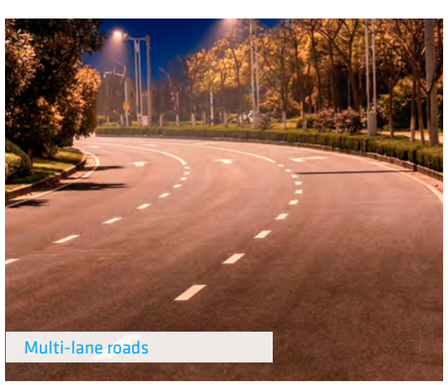

Urban arterial roads

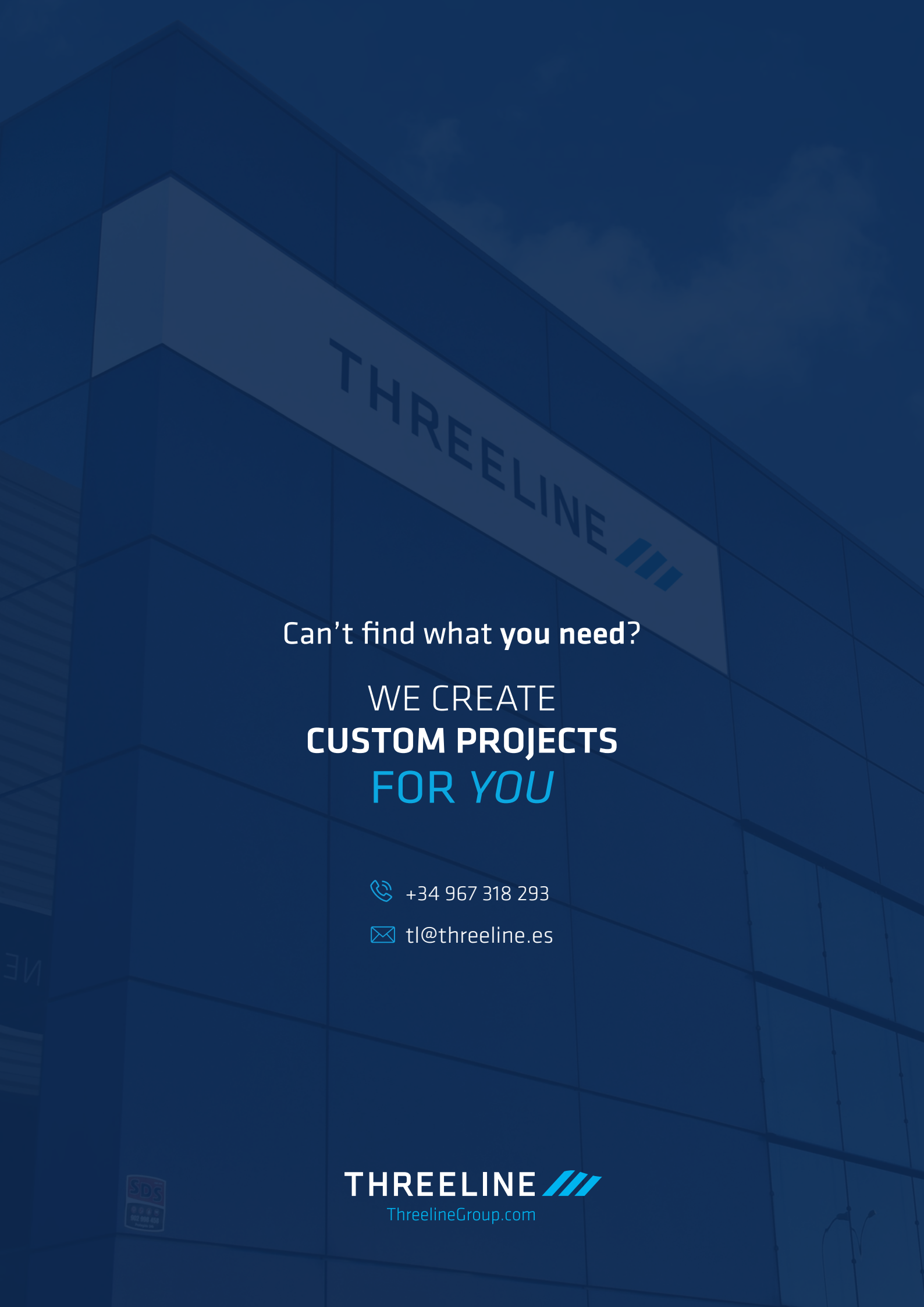

Residential complexes


Squares and parks


Bridges


Gardens


Multi-lane roads



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