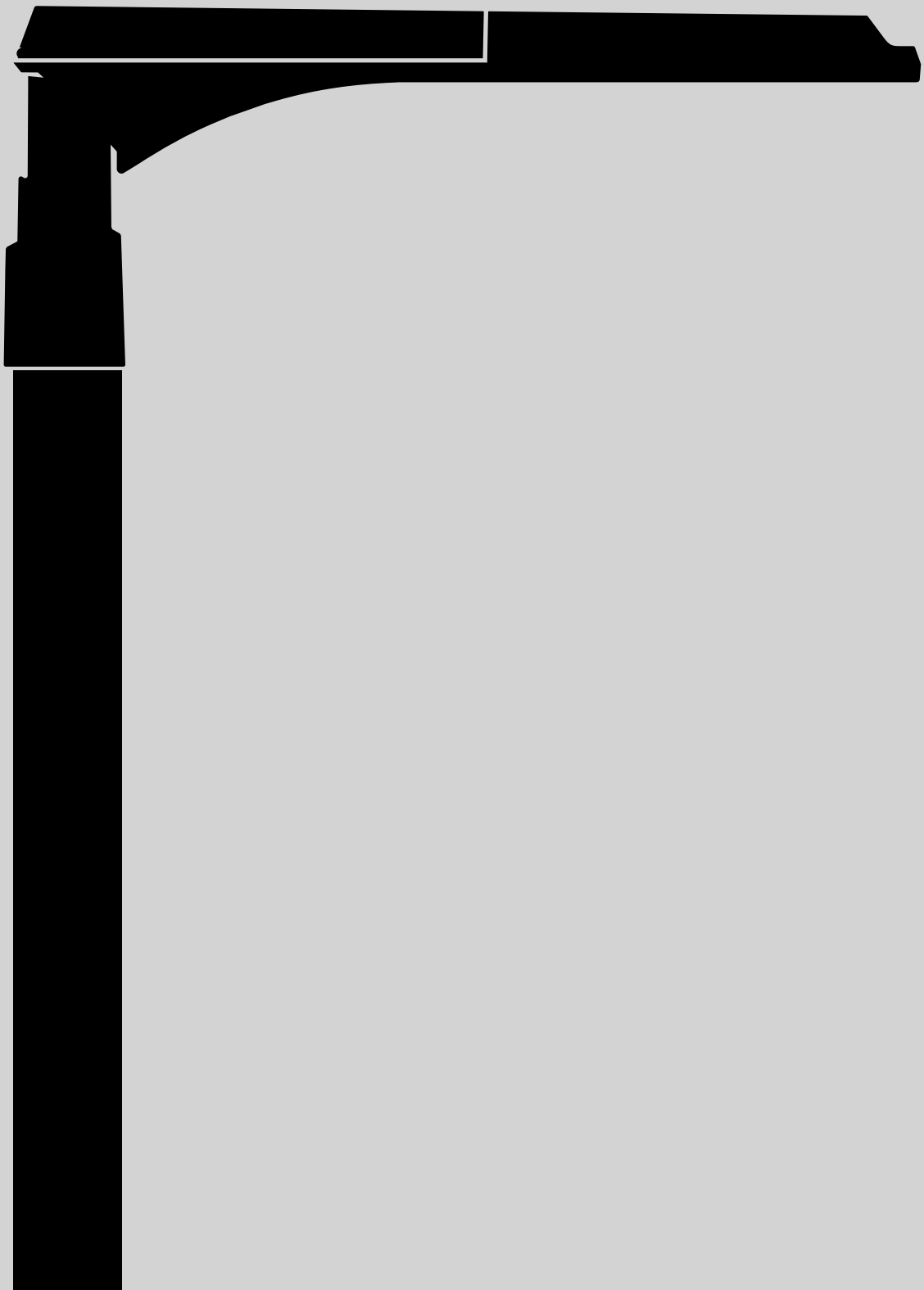
NERI

Antares



Available in two sizes, Antares comes with an optical technology that allows to reach extremely high performance.

The complete optical package consists of 6 geometries.

Luminous flux from 2,500 lm to 18,000 lm.

Efficiency of the system up to 142 lm/W.

Button opening system that does not require any type of tool.

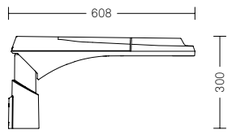
LIGHT ANTARES

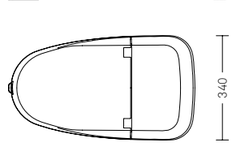
Scale 1:20
Dimensions in mm

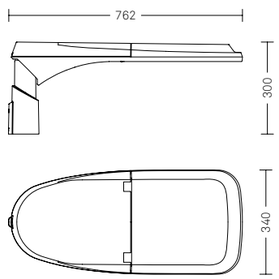
Antares encompasses design, visual comfort, performance and energy savings in a single street lighting system.
Designed by award winning Makio Hasuike, Light Antares comes in two different sizes, together with an adjustable inclination joint that guarantess maximum flexibility.

Materials
Made of cast aluminium, with a IP66 protection rating, the screen is made of transparent extra-clear glass, 4mm thick, IK08 mechanical resistance.

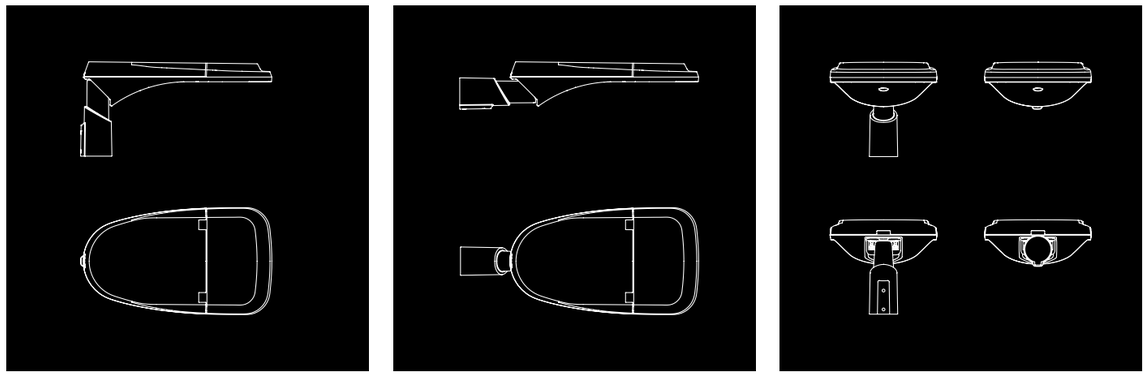
Finishes
Aluminum parts painted with Super Durable textured RAL 9006 colour.
Glass flush with the structure.



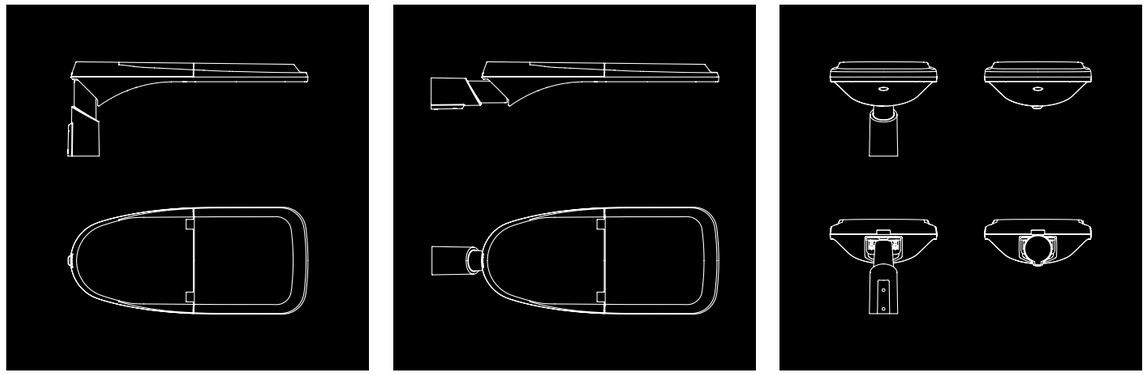




Size 1



Size 2



Applications

Roads and highways, parking lots and large areas, roundabouts, pedestrian and bicycle paths, pedestrian crossing.

Performance

- DALI / 1-10 / NVL / AmpDim energy saving systems.
- Very low LED temperatures.
- LED optics/multilayer lenses for high efficiency, up to 142 lm/W.

Maintenance

Button opening, replacement of wiring plate without requiring tools.

APPLICATIONS

Complete versatility of use thanks to 9 street geometries that meet the requirements necessary for all applications presented.

Roads and highways
Anti-glare reflector, maximum brightness uniformity on the ground.

Parking lots and large areas
Light and safety optimisation: large areas covered in a functional and efficient way.

Roundabouts
The asymmetric road optic distributes light on the circulation ring without glaring.

Pedestrian and bicycle paths
Light is concentrated only where needed, ensuring effective lighting in harmony with the urban context.

Pedestrian crossings
Light illuminates the vertical plane of the path increasing visibility for pedestrians.

MULTILAYER TECHNOLOGY

Performance version

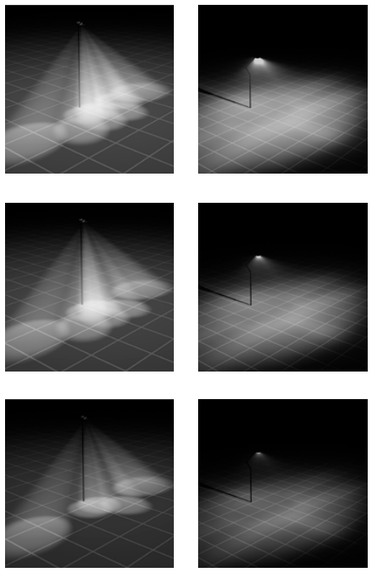
Reduced glare thanks to the wide emission surface. Latest generation LED Cree XP-L and PMMA multilayer lenses provide high and constant performance over time, even in case of failure of a single source.

In the performance version, the optical system is composed by overlapping PMMA lenses with constant high light transmission features; the multilayer system optimises the quality of light even when the system performances change.

In this version, Light Antares houses the latest generation of LED Cree XP-L with high-performance lighting efficiency and a ceramic base guaranteeing high thermal conductivity and electric insulation to ensure a longer duration in time.

The wide emission surface and the perimeter reflector increase the emission efficiency maintaining reduced glare values **(see Planning at value TI (%) p.23)**.

Customised distributions of light can be obtained thanks to the flexibility in composing the lenses.



On the left, from top to bottom, diagrammatic views of LEDs without multilayer lenses.
On the right, from top to bottom, LEDs with multilayer lenses.

PERFORMANCE: ENERGY SAVING

Proper management of electronic luminous flux means benefits in terms of energy saving and life cycle of the product.

Thanks to electronic ballasts equipped with intelligent systems, the lighting management guarantees high energy savings. The driver chosen for Light Antares can be equipped with the features below:

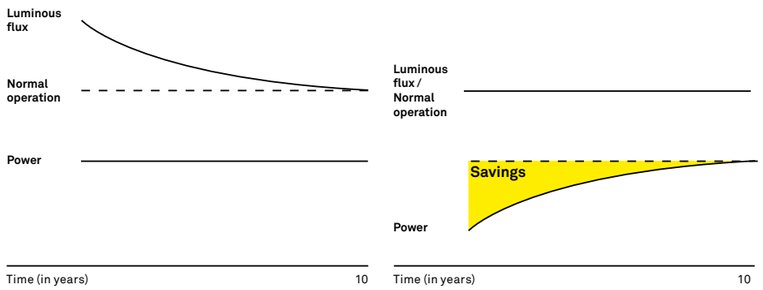
NCL (Neri Constant Lumen)
Keeping flows consistent
The driver allows the initial flow to be kept consistent throughout the product life cycle by calibrating the current supply of the LEDs and ensuring the same luminous flux over time.

NVL (Neri Variable Lighting)
Stand-alone setting
The driver is equipped with a stand-alone control that automatically adjusts the light flow to one or more levels during the operational period, which is automatically set according to the seasons.

DALI, 1-10V
Remote lighting management system
With the two-way digital DALI protocol lighting levels can be adjusted, consumption and system diagnostics monitored. By the analog signal 1-10V, the illumination levels regulation is enabled. Inside the products on the cabling board, space has been made to accommodate an electronic unit for remote management functionalities.

AmpDim
Flux regulator
Product dimming in electrical systems already furnished with flux regulator, where the feed voltage is linearly modulated. The percentages of flux reduction are specified in relation to the existing logic.

NCL – KEEPING FLOWS CONSISTENT

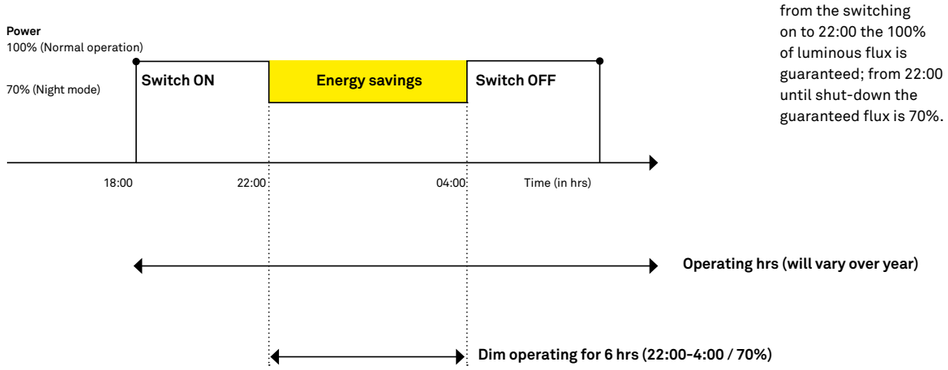


Energy use without NCL

Energy use with NCL

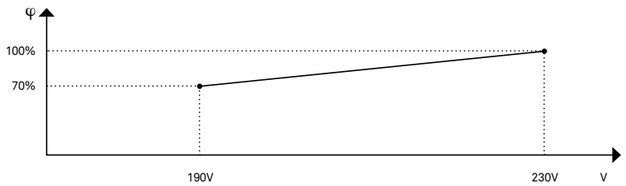
The light output of the system is kept consistent throughout the life of the product by acting on the current supplied and compensating for the decay of the source.

NVL – STAND-ALONE SETTING



Dimming preset cycle: from the switching on to 22:00 the 100% of luminous flux is guaranteed; from 22:00 until shut-down the guaranteed flux is 70%.

AMPDIM – FLUX REGULATOR



Example of AmpDim setting: with a feed voltage of 230V, the product is at 100% of its flux; the flux regulator reduces the feed voltage to 190V, thus reaching 70% of its flux.

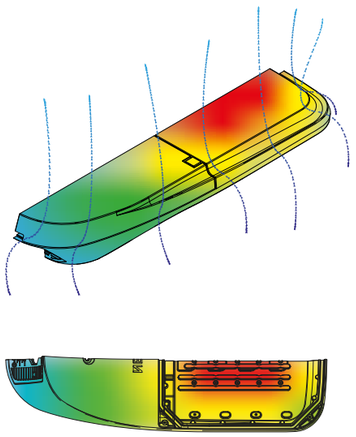
Philips Xitanium
Constant Current

PERFORMANCE:
HEAT DISSIPATION

Thermal management is critical to the proper functioning and long life of LED sources. Light Antares is equipped with a heat dissipation system able to maintain the junction temperature low, extending in this way the life of the light source.

Heat dissipation, crucial for the system efficiency, has been properly integrated with the product design. Through channels dedicated to individual LEDs, physical contact between light source and aluminium cover ensures the right orientation of the transmitted heat.

The system allows the luminaire to be used at temperatures up to 50°C, keeping the LED junction temperature below the threshold to guarantee the expected life.



Thermal scan at temperatures of 25°C.

Designed with a button-opening system that does not require any type of tool, Light Antares was conceived to facilitate product installation and maintenance activities.

TECHNICAL FEATURES

Fixing
- Suitable for post top or side mounting from Ø 48mm to Ø 76mm
- Bracket with a tilting system (5° step)

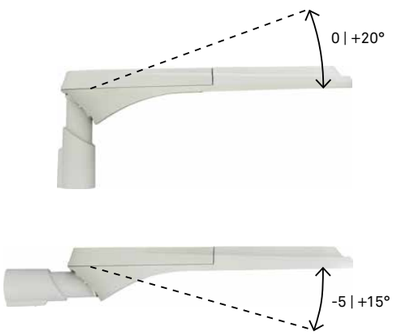
Materials
- Die-cast aluminum
- Extra-clear transparent flat glass
- Stainless steel fasteners

Painting
- Super Durable textured RAL 9006 colour

Structure – Main components
- Horizontally-pivoted aluminum cover to gain access to auxiliary compartment
- Aluminum bottom frame housing the wiring compartment and glass housing frame
- Silicone gasket between lower frame and cover
- Extra-clear transparent flat glass screen with impact resistance IK08 (EN 62262)
- Additional safety system for glass fixing
- Osmotic valve to balance internal/ external pressure

Electrical auxiliaries
- Programmable electronic power supply for LED modules
- Automatic power cutoff switch top cover opened
- Terminals wires max. section of 2.5mm²
- PG16 cable gland
- Wiring plate with space for any auxiliary of remote control devices (Smart City Ready) and additional surge protection devices (SPD)

Power supply
- Programmable electronic power supply with auto diagnostic function
- NFC programmable system without power supply
- Protected against short circuit, over-temperature and over-voltages up to 6kV/8kV
- Estimated life (Ta 25°C): > 100,000h, B10 L85



Bracket with a tilting system from 0° to +20° and from -5° to +15° (5° step).

LIGHTING FEATURES

Performance version

MAIN TECHNICAL DATA

CE IP66

SUPPLY VOLTAGE
220V-240V, 50/60Hz frequency
SURGE PROTECTION
Up to 6kV L-N / 8kV L/N-frame
POWER SUPPLY
Programmable electronic NFC
POWER FACTOR CORRECTION
PFC > cos φ 0.9
ELECTRICAL INSULATION
Class II (class I on demand)
ENCLOUSURE PROTECTION
Water and dust IP66
Mechanical impacts IK08
PLANNING INFORMATIONS
For information related to the combinations between flux size options, power and colour temperature see the website
–
Neri SpA reserves the right to modify its products and documentation without obligation to give prior warning

SCREEN SHAPE

EXTRA-CLEAR TRANSPARENT FLAT GLASS - Full Cutoff

OPTIC SYSTEM

TYPE II - ASYMMETRIC ROAD OR CYCLE PATH (NLG 20)
TYPE III - ASYMMETRIC ROAD (NLG 21)
TYPE III - ASYMM. ROAD WITH SIDEWALK AND CYCLE PATH (NLG 22)
TYPE IV - STRONG ASYMMETRIC (NLG 17)
TYPE V - ROTOSYMMETRICAL (NLG 18)
PEDESTRIAN CROSSINGS (NLG 23)

COLOUR TEMPERATURE

3,000K
4,000K

FLUX SIZES OPTIONS – SIZE 1

3,000K	2,500lm	22W	114lm/W
3,000K	3,500lm	31W	113lm/W
3,000K	4,500lm	37W	121lm/W
3,000K	6,000lm	51W	117lm/W
4,000K	3,500lm	26W	133lm/W
4,000K	4,500lm	32W	141lm/W
4,000K	6,000lm	44W	138lm/W
4,000K	7,500lm	56W	133lm/W

FLUX SIZES OPTIONS – SIZE 2

3,000K	7,500lm	61W	123lm/W
3,000K	9,000lm	76W	119lm/W
3,000K	10,500lm	85W	124lm/W
3,000K	12,000lm	99W	121lm/W
3,000K	13,500lm	115W	118lm/W
3,000K	15,000lm	126W	119lm/W
4,000K	9,000lm	64W	141lm/W
4,000K	10,500lm	77W	136lm/W
4,000K	12,000lm	84W	142lm/W
4,000K	13,500lm	97W	140lm/W
4,000K	15,000lm	110W	136lm/W
4,000K	18,000lm	133W	135lm/W

DRIVER FUNCTIONS

1 - 10V + NCL
AmpDim + NCL
DALI + NCL
NVL + NCL

ELECTRICAL DEVICES

AUTOMATIC DISCONNECTOR

Planning

TYPE II – ASYMMETRIC ROAD OR CYCLE PATH (NLG 20)

CLASS	H 9m, W 9.5m		TI (%)	H 9m, W 10.5m		TI (%)
	Spacing	Flux		Spacing	Flux	
M1	20m	12,000lm	8%	23m	13,500lm	9%
M2	20m	9,000lm	8%	27m	13,500lm	9%
M3	30m	9,000lm	9%	27m	10,500lm	9%
M4	32m	7,500lm	8%	28m	7,500lm	8%

TYPE III – ASYMMETRIC ROAD (NLG 21)

CLASS	H 7m, W 7m		TI (%)	H 9m, W 11.25m	
	Spacing	Flux		Spacing	Flux
M1	22m	9,000lm	9%	28m	13,500lm
M2	22m	12,000lm	9%	-	-
M3	25m	7,500lm	9%	-	-
C1	20m	9,000lm	-	21m	13,500lm

TYPE III – ASYMM. ROAD WITH SIDEWALK (a) AND CYCLE PATH (b) (NLG 22)

CLASS	H 8m, W 8m		W 2m W1.5m		H 7.5m, W 8.5m		W 2m W 1.5m	
	Spacing	Flux	(a)	(b)	Spacing	Flux	(a)	(b)
M2	21m	9,000lm	P1	P1	21m	9,000lm	P1	P1
C2 (20lux)	26m	9,000lm	P2	P1	27m	9,000lm	P3	P1
M3	26m	7,500lm	P2	P2	25m	7,500lm	P2	P2

TYPE IV – STRONG ASYMMETRIC (NLG 17)

CLASS	H 8m, A 38×31m		H 8m, A 44×26m		H 8m, A 38×31m	
	Spacing	Flux	Spacing	Flux	Spacing	Flux
P1	-	-	-	-	31m	13,500lm
P2	31m*	9,000lm	-	-	-	-
P4	-	-	26m*	6,000lm	-	-

* on both sides

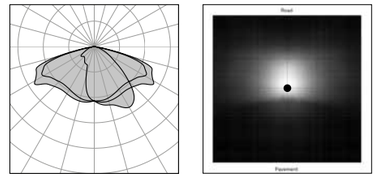
TYPE V – ROTOSYMMETRICAL (NLG 18)

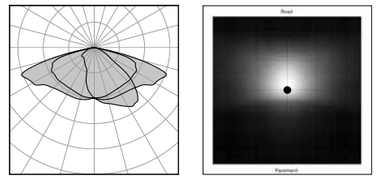
CLASS	H 7m, A 22×22m		H 8m, A 27×27m	
	Spacing	Flux	Spacing	Flux
P1	22m*	9,000lm	-	-
P3	-	-	22m*	6,000lm

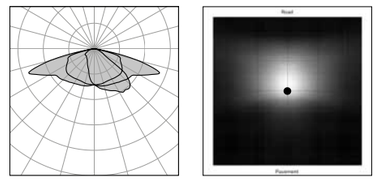
* on both sides

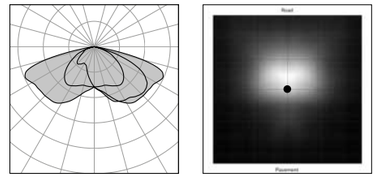
PEDESTRIAN CROSSINGS (NLG 23)
Calculations to establish the required vertical lighting levels are necessary to position the light.

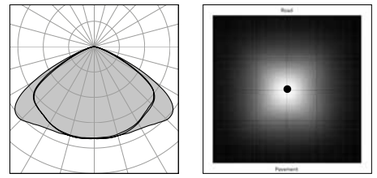
Photometric light distribution

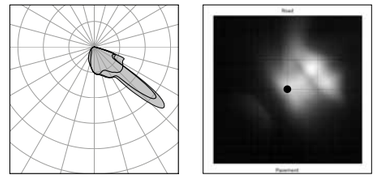












HIGHLIGHTS

Main features
- Light Antares is a ‘Performance’ category device
- Especially suitable for roads and streets with mixed traffic, essentially vehicular
- Designed in full compliance with the lighting standards, with minimal energy consumption, using LEDs and high performance optical solutions
- Designed to reduce glare, without compromising the lighting effectiveness

Flux sizes
- The main factor in lighting design is system flux and photometry
- Neri presents products with their flux sizes, to ensure these values remain constant over time

The flux sizes approach permits:
- Same light independently by the number of LEDs
- Using the best technology on the market (easy upgrade)

Multilayer
Light Antares adopts a technology with multilayer lenses:
- Each LED is associated to a lens
- All lenses are equal to each other and cover the entire area to be lit; in case of failure of a single source, there isn’t any loss in the uniformity of illumination on the ground

Light emitting area
The glaring effect, typical of the individual point sources, is drastically reduced due to some technical devices:
- White color PCB
- Perimeter reflector
- Large light emitting area

VERSIONS AND CODES

In order to configure the Antares luminaire – depending on the model – optic, luminous flux related to colour temperature and driver functions need to be chosen.

Their related codes have then to be added in sequence one to the other, following the order of the tables below, starting from base code (**MNAN1L**), optic (eg: **17**), luminous flux (eg: **1B0**) and driver (eg: **02**). The code of the chosen configuration will be: **MNAN1L171B002**.

Light Antares – Performance version

CODE	Model
MNAN1L	Size 1

CODE	Optic
17	Type IV
18	Type V
20	Type II
21	Type III
22	Type III
23	NLG 23

CODE	CCT	Flux
1B0	3,000K	2,500lm
1B1	3,000K	3,500lm
1B2	3,000K	4,500lm
1B3	3,000K	6,000lm
3B1	4,000K	3,500lm
3B2	4,000K	4,500lm
3B3	4,000K	6,000lm
3B4	4,000K	7,500lm

CODE	Driver functions
02	1-10V + NCL
04	AmpDim + NCL
06	DALI + NCL
14	NVL6H + NCL

CODE	Model
MNAN2L	Size 2

CODE	Optic
17	Type IV
18	Type V
20	Type II
21	Type III
22	Type III
23	NLG 23

CODE	CCT	Flux
1B4	3,000K	7,500lm
1B5	3,000K	9,000lm
1B6	3,000K	10,500lm
1B7	3,000K	12,000lm
1B8	3,000K	13,500lm
1B9	3,000K	15,000lm
3B5	4,000K	9,000lm
3B6	4,000K	10,500lm
3B7	4,000K	12,000lm
3B8	4,000K	13,500lm
3B9	4,000K	15,000lm
3BA	4,000K	18,000lm

CODE	Driver functions
02	1-10V + NCL
04	AmpDim + NCL
06	DALI + NCL
14	NVL6H + NCL

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