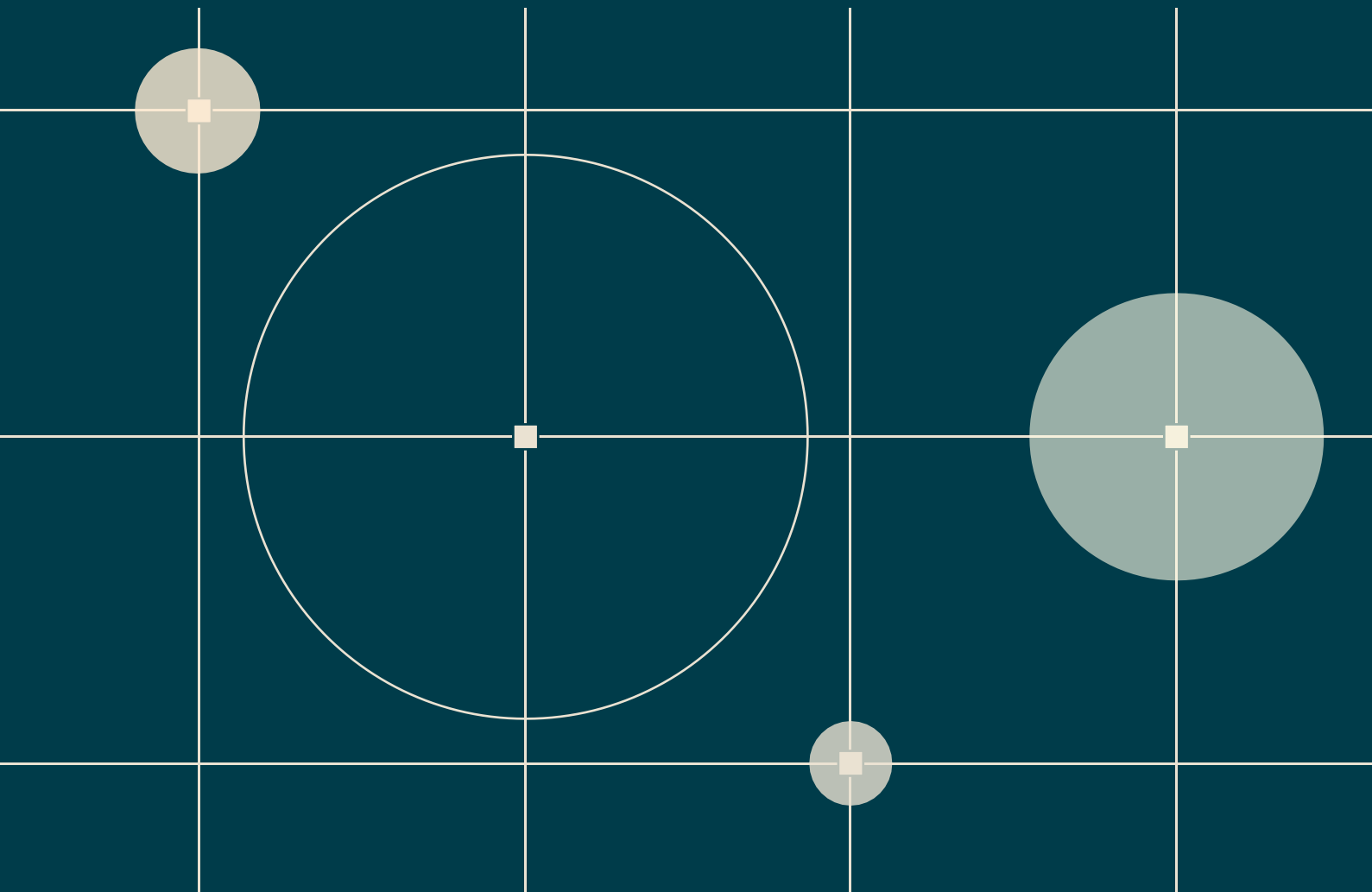
Niteko

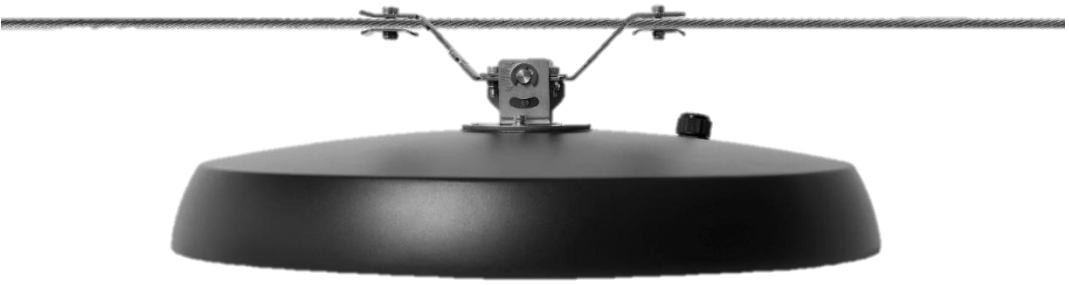
DATASHEET | URBAN LIGHTING

UPGRADE

VENERE Pro

LED urban luminaire





UPGRADE

VENERE Pro T

A consistent aesthetic in every urban landscape, on every surface.
4 interchangeable mounting accessories, one single luminaire: post-top, side-entry, suspended, catenary or wall-mounted.

TECHNICAL DESCRIPTION

Artistic LED luminaire for lighting urban and residential streets, historic centres, cycle and pedestrian areas, squares, gardens and car parks, **NITEKO** brand, **VENERE PRO** series, **T** version for top-mounted installation on a catenary.
Luminaire consisting of a single optical and electrical compartment that can be opened by removing the screws securing the screen, comprising independent and replaceable LED modules and PMMA optics fixed to the heat sink without the use of adhesives to allow for quick and easy maintenance of the luminaire in the event of a fault or technological upgrade.

Luminaire equipped with **high-power LEDs** powered by a constant current up to a maximum of **500mA**, with a correlated colour temperature of **3,000K** in the standard version, or with optional CCTs of **1.800K**, **2.200K**, **2.700K**, **3,000K**, **5.000K**, a colour rendering index **(CRI)** greater than **70** in the standard version, or **CRI>80** or **CRI>90** on request, and a photobiological risk class not exceeding **RG1**.

LEDs fitted with high-precision **PMMA secondary collimators** for focusing the light beam, with an overall minimum optical system efficiency of not less than **75%**, a wide choice of photometric curves suitable for any type of application, featuring asymmetrical, rotosymmetrical, elliptical or symmetrical light beams, or for pedestrian crossings, with a luminous intensity class of no less than **G*2**; all are **full cut-off,** in full compliance with legislation against light pollution, with zero luminous intensity beyond 90° in their standard installation position.

Light source

Light source efficiency greater than **190 lm/W** (3,000 K) and lifetime, under optimal operating conditions, of:

- Lifespan 100,000 h (L95 B10: T_a = 25 °C; IF ≤ 500mA);
- Lifespan 120,000 h (L90 B10: T_a = 25 °C; IF ≤ 500mA);
- Lifespan 270,000 h (L80 B10: T_a = 25 °C; IF ≤ 500mA);
- Lifespan 450,000 h (L70 B10: T_a = 25 °C; IF ≤ 500mA).

Luminaire's luminous flux from **1,446lm** to **13,648lm,** with luminous efficacy greater than **135lm/W** (3,000K) depending on the configuration (number of LEDs and supply current, CCT, CRI, optics) and an energy efficiency rating higher than **A++.**

Power

Luminaire with an effective power output of between **10.9W** and **75.0W** with 175–264V AC – 50/60Hz power supply in the standard version, or 120–277V AC – 50/60Hz power supply available on request in the optional version. High-efficiency electronic drivers integrated into the electrical compartment of the luminaire, characterised by a power factor greater than **PF>0.95** with a failure rate of less than 12% after 100,000 hours of operation and a minimum efficiency of **90%**.

In the standard version, the power supply unit comes with the following functions:

- Pre-programmed automatic dimming for up to 5 daily time profiles (PRG5);
- Control via a 1–10 V analogue signal (DIM);
- Constant lighting control during the lifetime (CLO.LITE).

Protection

Thermal protection, short-circuit protection and standard surge protection up to **10kV** in common mode and **6kV** in differential mode. On request, the luminaire can be equipped with an **SPD device** integrated into the electrical compartment, providing surge protection up to **10kV, 12kV** or **20 kV**, in both common mode and differential mode.

EOS-free luminaire equipped with specific technical features designed to prevent the formation of parasitic capacitance, thereby minimising damage caused by electrical overstress (EOS).

VOC-free luminaire constructed using non-metallic materials and components with high chemical compatibility with the LED source to prevent the release of volatile organic compounds (VOCs) that could affect performance, stability and colour temperature over time.

Class II insulated luminaire (or optional **Class I**) with an **IP66** rating for the optical and electrical compartments, impact resistance rating of **IK09**, with an operating temperature range of **-40°C** to **+50°C** and a storage temperature range of -40°C to +80°C, body dimensions excluding accessories of **Ø490 x h80** mm, weight **9,7kg** (mounting accessories included), with a side wind-exposed surface area of less than **0.100 m²**, comprising:

- body and brackets in die-cast aluminium with a profile offering very low wind exposure, fitted with a self-cleaning system that allows rainwater to drain away, comprising a heat sink system incorporated within the electrical compartment and sized to ensure long life and maximum efficiency of the LEDs thanks to optimal heat dissipation management, subjected to a polyester powder coating process in standard **graphite black RAL 9011** (other colours available on request), free from VOCs and EOS, resistant to corrosion, abrasion, flaking, UV rays and salt spray, with testing up to **1,000 hours** ensuring colour stability over time even when exposed to strong sunlight and salt spray;

- external fastners in A2 stainless steel;
- light source consisting of high-efficiency power LED modules, secured to the internal heat sink using screws without the use of adhesives or other bonding agents;
- optical system comprising modular PMMA lenses, a PC reflector and a **4mm-thick** extra-clear tempered glass screen, with a guarantee against yellowing and ageing, fitted with sealing gaskets made of non-toxic, ageing-resistant silicone that ensure the optical compartment is airtight, guaranteeing IP66 protection;
- anti-condensation valve that allows air to circulate without compromising the luminaire's protection rating, ensuring a longer service life for materials and components;
- high-efficiency electronic drivers, programmable and compatible with all remote-control systems via 0-10V analogue or DALI and DALI2.0 digital control;
- additional surge protection device up to 10, 12 and 20 kV incorporated into the luminaire's electrical compartment on request;
- H07RN-F type outgoing cable with a standard length of 0.5 m;
- electrical connection via IP66/IP68-rated connectors supplied on request.

Remote-control

On request, the luminaire can be equipped with a **remote-control** interface integrated into the luminaire body, available in the following versions:

- Control via DALI and DALI2.0 digital signals (DALI/DALI2.0);
- Automatic flux dimming according to pre-programmed settings (CLO-FULL);
- Voltage variation regulation (PLV);
- Power line carrier regulation (LPL);
- Interface with emergency lighting devices (DCE-DIM);
- Radio-frequency control (Nema Socket and Zhaga Socket).

Certifications

This appliance complies with product standards and meets the Minimum Environmental Criteria (CAM) in accordance with Ministerial Decree of 27 September 2017 (Official Gazette No. 244 of 18 October 2017).



*Pending

TECHNICAL SPECIFICATIONS

MAIN Features

Luminaire type	Artistic LED luminaire
Applications	Urban and residential lighting, cycle paths and pedestrian areas, car parks, squares and gardens
Brand	Niteko
Series	VENERE PRO
Model	T
Mounting	On catenary
Effective power	10.9 W – 75.0W (Tolerance +5%)
Luminaire efficacy	η_{app} ≥ 135 lm/W (3,000K)
Operating temperature	Operating temperature: -40°C to + 50°C; Storage temperature; -40°C to +80°C
Estimated service life	L95 B10: > 100.000 h (T_a = 25 ° C ; IF ≤ 500mA); L90 B10: > 120.000 h (T_a = 25 ° C ; IF ≤ 500mA); L80 B10: > 270.000 h (T_a = 25 ° C ; IF ≤ 500mA); L70 B10: > 450.000 h (T_a = 25 ° C ; IF ≤ 500mA);
Certifications	CE, RoHS, ENEC (pending), ENEC + (pending), IP66 (pending), IK09 (pending), 1,000h hour salt spray test, photobiological safety, Zhaga D4i (pending), photometric certification, Vibration & Shock Test (pending), EOS Free, VOC Free.

OPTICAL Features

Light source	High-power LEDs powered by a constant current of less than 500mA
Optical system	Independent and replaceable PMMA LED and optical modules
Source luminous flux	From 1.446lm (10W 1,800K CRI>70) to 13.648lm (75W 4,000K CRI>70) (Tolerance ±7%)
Source luminous efficacy	η_{LED} ≥ 190 lm/W (3,000K)
Colour temperature	Standard: 3,000K; Optional: 1,800K, 2,200K, 2,700K, 4,000K, 5,000K, 5,700K
Colour Rendering Index	Standard: CRI>70; Optional: CRI>80, CRI>90
Photometry	Rotosymmetrical, symmetrical and for pedestrian crossings
Optical Efficiency	75-86%
Photometric classes	Luminous intensity class G*2; Glare index class D.6
Photobiological safety	Risk class: RG1; IR and UV radiation: absent
Switch-on/re-switch-on time	tA < 1sec. ; tR < 1sec.

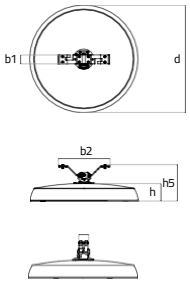
ELECTRICAL Features	Power supply	Standard: 175/264 V a.c. – 50/60 Hz; Optional: 120/277 V a.c. – 50/60 Hz; Electronic power supplies built into the appliance's electrical compartment with efficiency η>95% and power factor PF>0.97 (Active PFC). Available standard functions: - Pre-programmed automatic dimming for up to 5 daily time profiles (PRG5); - Control via a 1–10 V analogue signal (DIM); - Constant lighting control during the lifetime (CLO.LITE).
	Electrical connection	Standard: H07RN-F power cable with optional IP66/IP68 electrical connector
	Insulation class	Standard: Class II; Optional: Class I
	Electrical protection	Standard: surge protection up to 10kV in common mode and 6kV in differential mode Optional: additional protection with an SPD device built into the electrical compartment, protecting the unit up to 10kV, 12kV or 20 kV, both in CM and DM.
MECHANICAL Features	Materials	Body and brackets: die-cast aluminium with built-in heat sink; Screen: 4 mm thick extra-clear flat tempered glass; Optics: PMMA modular optics; Reflector: white PC; Gaskets: silicone Screws: A2 stainless steel;
	Colour	Standard: RAL 9011 Graphite black; Optional: other RAL colours available on request
	Protection rating	Optical compartment: IP66; Electrical compartment: IP66; Impact resistance: IK09
	Wind exposure	Base: 0,19 m²; Side: 0,04 m²
	Dimensions and weight	Body's dimensions: Ø490 x H80 mm; Weight: 9,7kg Catenary mounting: Ø490 x H80 x 165 mm

LIGHTING FEATURES

PRODUCT ITEM CODE	POWER	NOMINAL LUMINOUS FLUX (xxyy)					
		4070 5070	3070	2270 3580 4080 5080 5780	3080	2270 2780	1870 2790
	W	lm					
Vm-**40W**-xxyy-zzzz-rrrr	10,9	2.053	1.942	1.899	1.770	1.717	1.446
	15,8	2.922	2.767	2.702	2.522	2.446	2.061
	20,8	3.860	3.672	3.490	3.259	3.161	2.665
	25,7	4.886	4.632	4.519	4.223	4.096	3.453
	30,6	5.705	5.409	5.276	4.931	4.783	4.033
	35,6	6.511	6.175	6.022	6.177	5.992	4.604
	38,9	7.042	6.679	6.513	6.093	5.906	4.980
Vm-**75W**-xxyy-zzzz-rrrr	21,0	4.325	4.089	4.001	3.727	3.615	3.046
	25,3	5.180	4.900	4.792	4.466	4.332	3.651
	30,5	6.167	5.836	5.704	5.320	5.160	4.349
	35,7	7.143	6.762	6.607	6.164	5.979	5.040
	40,3	7.971	7.548	7.373	6.880	6.674	5.626
	45,6	8.928	8.456	8.258	7.708	7.477	6.303
	51,0	9.876	9.356	9.134	8.528	8.272	6.974
	55,7	10.681	10.120	9.879	9.225	8.948	7.543
	60,4	11.479	10.878	10.618	9.493	9.208	8.109
	65,9	12.404	11.755	11.473	10.715	10.394	8.763
	70,7	13.190	12.501	12.200	11.395	11.053	9.319
	75,0	13.648	12.935	12.284	11.445	11.102	9.359

Product code nomenclature
"m"= Available versions: P, F, S

TECHNICAL DRAWINGS



d	490 mm
h	80 mm
h5	165 mm
b1	40 mm
b2	232 mm

Weight 9,7 kg

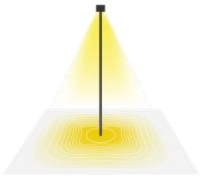
Wind exposure surface

Base	0,19 m^2
Side	0,04 m^2

PHOTOMETRIC DATA

VENERE PRO T

Rotosymmetrical

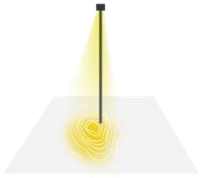


R1 - 140°x 140°

η 82,1% - G*6

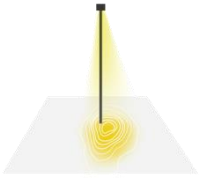
VENERE PRO T

Pedestrian crossings



PCDX - R65°x 60°

η 85,4% - G*6

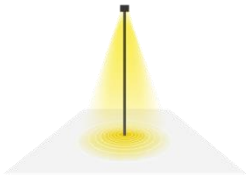


PCDX - R65°x 60°

η 85,4% - G*6

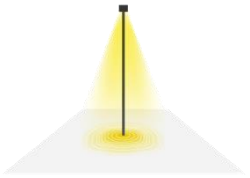
VENERE PRO T

Symmetrical



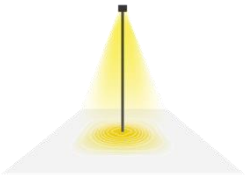
25 - 35°x 35°

η 90,4% - G*6



50 -60°x 60°

η 89,7% - G*6



100 - 100°x 100°

η 86,4% - G*6

VENERE PRO T VERSION





MOUNTING EXAMPLES



REFERENCE



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