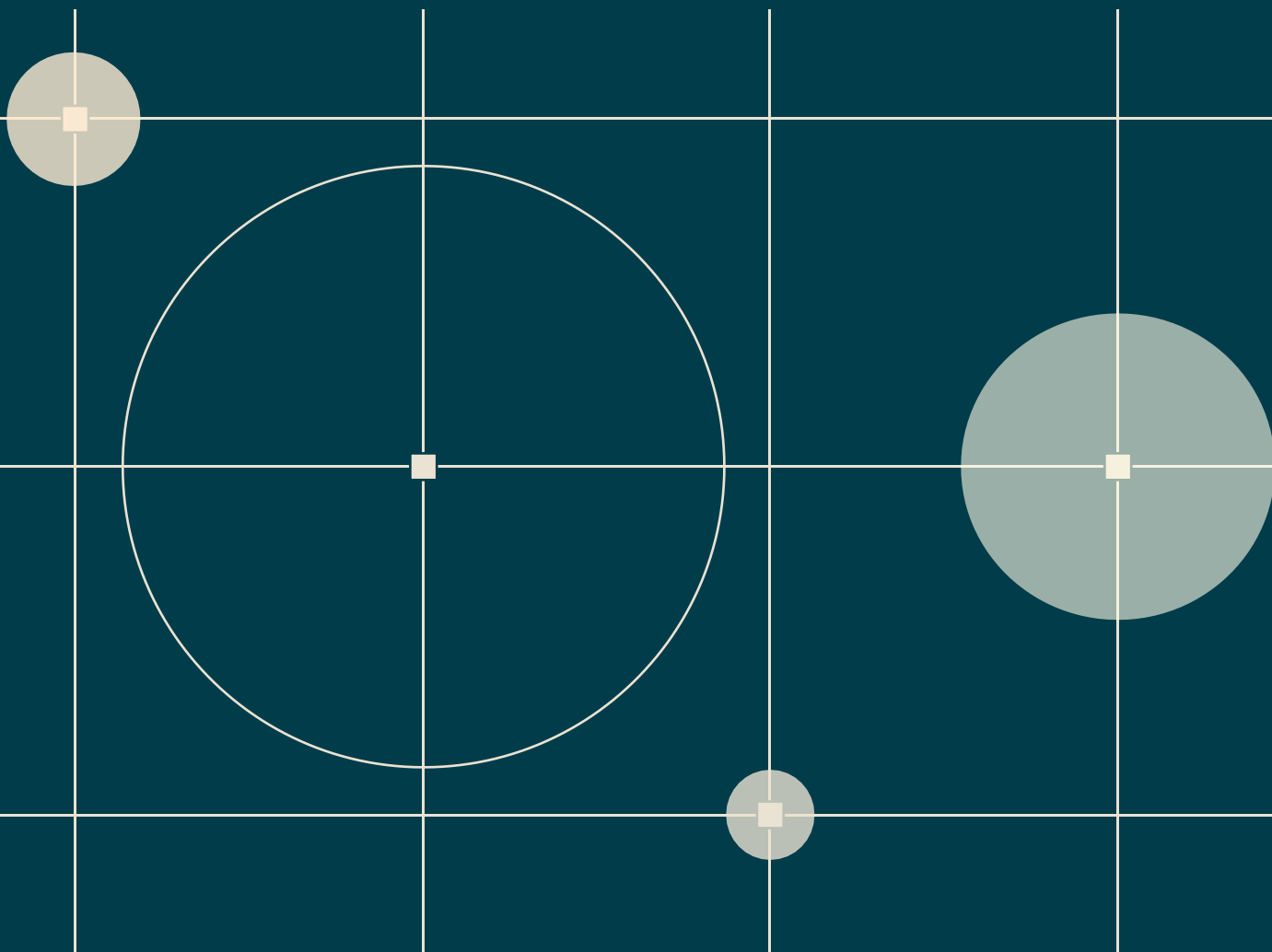


ZENITH

LED luminaire





ZENITH P

Classic luminaire, contemporary technology.

Traditional aesthetics meets advanced LED technology for historic villages, squares and parks where architectural heritage comes first. Available in two configurations: post-top or suspended.

TECHNICAL DESCRIPTION

Classic-style **LED luminaire** for lighting streets, urban and residential areas, squares and gardens, **NITEKO** brand, **ZENITH** series, **P** (suitable for post-top mounting on a 3/4" GAS connection for mounting on Ø 60 mm poles/arms).

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 **64%**, a wide choice of photometric curves suitable for any type of application, featuring asymmetrical, rotosymmetrical or elliptical 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: $T_a = 25\text{ °C}$; $IF \leq 500\text{mA}$);
- Lifespan 120,000 h (L90 B10: $T_a = 25\text{ °C}$; $IF \leq 500\text{mA}$);
- Lifespan 270,000 h (L80 B10: $T_a = 25\text{ °C}$; $IF \leq 500\text{mA}$);
- Lifespan 450,000 h (L70 B10: $T_a = 25\text{ °C}$; $IF \leq 500\text{mA}$).

Luminaire's luminous flux from **1,403lm** to **12,998lm**, with luminous efficacy greater than **105lm/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 **10.8W** and **70.1W** 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 **IK08**, with an operating temperature range of **-40°C** to **+50°C** and a storage temperature range of **-40°C** to **+80°C**, compliant with the CEI 34-33 and EN 60598 standards, body dimensions of **425 x 425 x 740 mm** and weight not exceeding **8,5 kg**, comprising:

- **body** in die-cast aluminium in **graphite black RAL 9011** colour, with a built-in heat sink featuring extensive cooling fins; free from VOCs and EOS;
- external decorative fasteners in A2 stainless steel with a black oxide finish;
- **protective screen** in **4mm-thick** extra-clear tempered glass with silicone gaskets;
- standard **mounting system** using a post-top adapter of 60mm-diameter pole head;
- moduli LED modules, secured to the internal heat sink using screws without the use of adhesives or other bonding agents, to facilitate maintenance and replacements;
- high-efficiency PMMA optical optics;
- electrical connection via a pair of plug-and-socket electrical connectors with IP20 protection;

- On request, available with an H07RN-F outgoing cable fitted with a pair of IP66/IP68 plug-and-socket connectors for a quick and secure connection to the mains.

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).



TECHNICAL SPECIFICATIONS

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PRINCIPALI**

Luminaire type	Artistic LED luminaire
Applications	Urban and residential lighting, squares, gardens, cycle paths and pedestrian areas
Brand	Niteko
Series	ZENITH
Model	P
Mounting	Post-top on Ø60mm poles/arms
Effective power	10.8W – 70.1W (Tolerance ±5%)
Luminaire efficacy	$\eta_{app} > 105 \text{ lm/W}$ (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 ($T_a = 25^\circ \text{C}$; $IF \leq 500\text{mA}$); L90 B10: > 120.000 h ($T_a = 25^\circ \text{C}$; $IF \leq 500\text{mA}$); L80 B10: > 270.000 h ($T_a = 25^\circ \text{C}$; $IF \leq 500\text{mA}$); L70 B10: > 450.000 h ($T_a = 25^\circ \text{C}$; $IF \leq 500\text{mA}$);
Certifications	CE, RoHS, ENEC, IP66, IK08, 1,000h hour salt spray test, photobiological safety, photometric certification, 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 1,403lm (10W 1,800K CRI>70) to 12,998lm (75W 4,000K CRI>70) (Tolerance ±7%)
Source luminous efficacy	$\eta_{LED} > 190 \text{ lm/W}$ (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	Asymmetrical, rotosymmetrical, elliptical
Optical Efficiency	64–75%
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	$t_A < 1\text{sec.}$; $t_R < 1\text{sec.}$

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 $\eta > 95\%$ 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: Safety Isolator Switch with disconnection upon opening of the electrical compartment; Optional: outgoing power supply cable with an IP66 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**

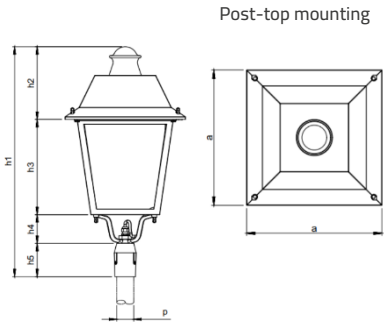
Materials	Body and brackets: die-cast aluminium with built-in heat sink; Mounting accessory: die-cast aluminium integrated into the body; Screen: 4 mm thick extra-clear flat tempered glass; Optics: PMMA modular optics; Gaskets: silicone; Screws: A2 stainless steel.
Colour	Standard: RAL 9011 Graphite black; Optional: other RAL colours available on request
Protection rating	IP66; IK08
Wind exposure	Side: 0,09 m ² ; Base = 0,18 m ²
Dimensions and weight	425 x 425 X 818 mm; 8 kg

LIGHTING FEATURES

PRODUCT ITEM CODE	POWER	NOMINAL LUMINOUS FLUX (xyyy)					
		4070	3070	2270	3080	2270	1870
		5070		3580		2780	2790
				4080			
				5080			
				5780			
	W	lm					
ZENITH-mm-15W-xyyy-zz-rr	10,8	1.994	1.883	1.845	1.716	1.665	1.403
	15,6	2.837	2.694	2.624	2.445	2.372	1.999
ZENITH-mm-20W-xyyy-zz-rr	20,6	3.664	3.466	3.410	3.160	3.065	2.583
ZENITH-mm-25W-xyyy-zz-rr	24,6	4.639	4.393	4.290	4.004	3.884	3.274
ZENITH-mm-30W-xyyy-zz-rr	30,4	5.582	5.278	5.154	4.811	4.667	3.934
ZENITH-mm-40W-xyyy-zz-rr	35,3	6.359	6.025	5.881	6.027	5.846	4.491
	38,6	6.882	6.516	6.361	5.940	5.762	4.857
ZENITH-mm-50W-xyyy-zz-rr	20,9	4.299	4.063	3.977	3.703	3.592	3.027
	25,3	5.149	4.869	4.763	4.438	4.305	3.628
	30,4	6.130	5.799	5.670	5.286	5.127	4.321
	35,7	7.100	6.719	6.567	6.125	5.941	5.007
	40,2	7.922	7.500	7.328	6.836	6.631	5.589
	45,5	8.873	8.402	8.207	7.659	7.429	6.262
	50,9	9.815	9.295	9.078	8.472	8.218	6.928
ZENITH-mm-60W-xyyy-zz-rr	55,2	10.329	9.767	9.554	8.903	8.636	7.281
	60,6	11.426	10.842	10.268	9.785	9.491	7.825
ZENITH-mm-70W-xyyy-zz-rr	65,4	11.994	11.344	11.094	10.340	10.030	8.456
	70,1	12.998	12.319	11.796	10.996	10.666	8.991

TECHNICAL DRAWINGS

ZENITH P



- a 425 mm
- h1 818 mm
- h2 257 mm
- h3 340 mm
- h4 103 mm
- h5 118 mm
- Øp 60 mm (pole) x 100 mm (depth)

Weight 8,0 kg

Wind exposure surface

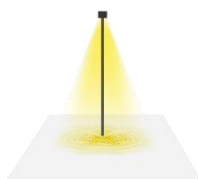
Base 0,18 m²

Side 0,10 m²

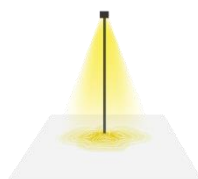
PHOTOMETRIC DATA



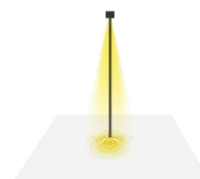
Asymmetrical



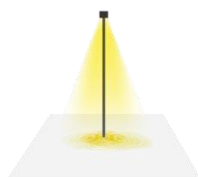
A1 - 150°x 50°
η 67,3% - G*6



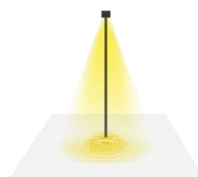
A2 - 140°x 45°
η 69,1% - G*4



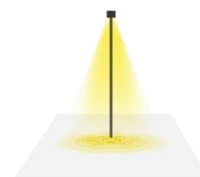
A3 - 90°x 60°
η 72,1% - G*6



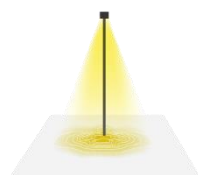
A4 - 145°x 55°
η 68,1% - G*4



A7 - 140°x 70°
η 66,4% - G*2



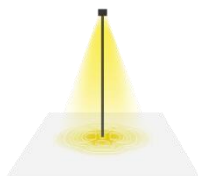
A8 - 155°x 60°
η 64,5% - G*1



A9 - 145°x 55°
η 69,3% - G*4



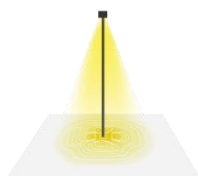
Elliptical



E3 - 145° x 110°
η 75,9% - G*6



Rotosymmetrical



R1 - 140°x 140°
η 67,6% - G*6

ZENITH P MODEL



MOUNTING EXAMPLES



ZENITH S

ZENITH P

REFERENCE





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