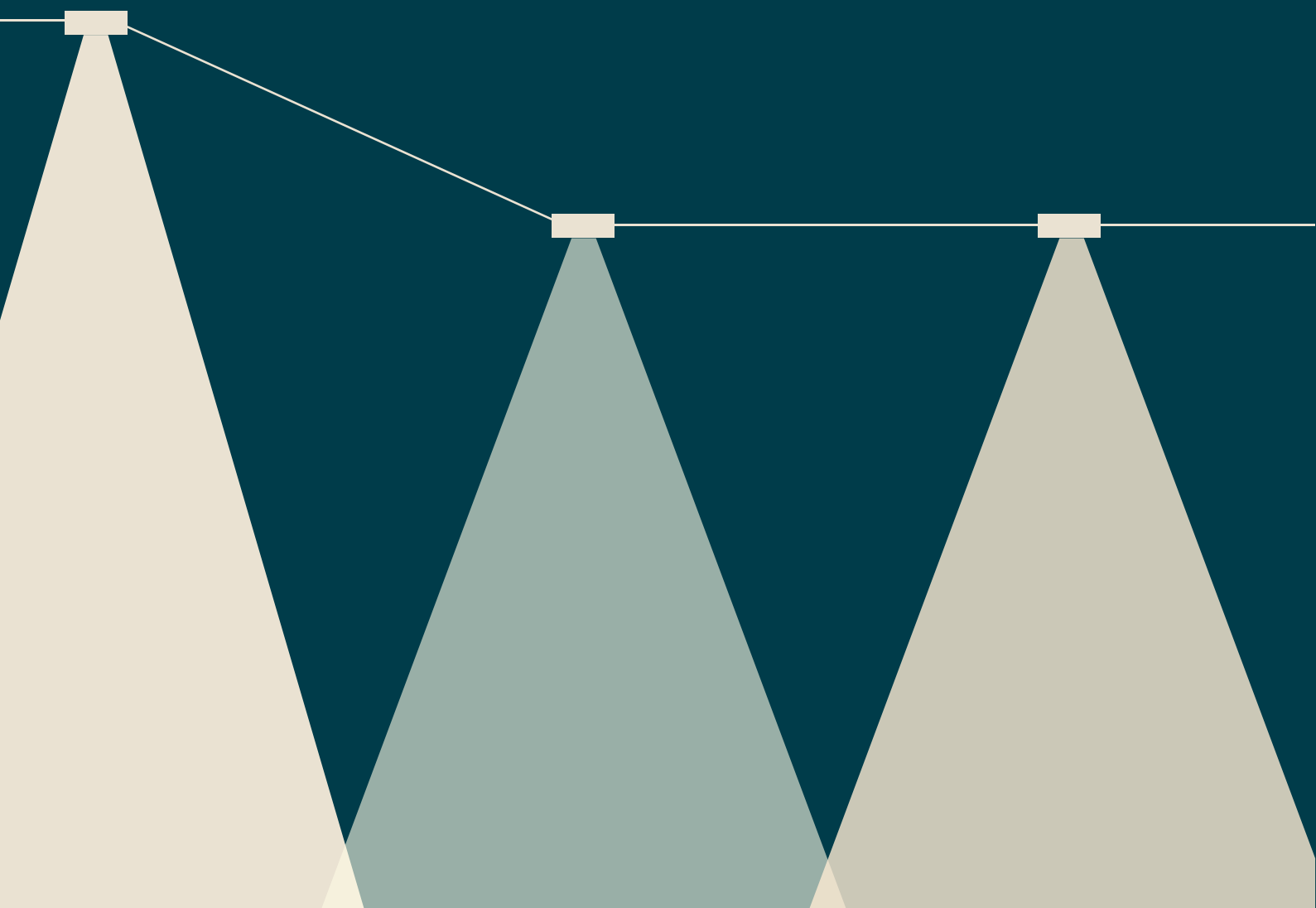
Niteko

DATASHEET | STREET LIGHTING

UPGRADE

GUIDA

Lampada stradale a LED





GUIDA S

The perfect shape for uncompromising light.
New design, more efficiency, 3 different sizes, adaptable to any urban and extra-urban context.

TECHNICAL DESCRIPTION

LED lighting fixture for street lighting, **NITEKO** brand, **GUIDA** series, **S** model, suitable for mounting on arm or post-top (the fixture includes an adjustable arm and the possibility of inclination from +15° to -15° in 5° steps), with a (actual) maximum power consumption from **10.8W** a **100.1W** and power supply of 220/240V A.C. – 50/60Hz.

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).

Fixture's luminous flux from **1,403 lm** (10W 1,800K CRI 70) to **18,712lm** (150W 4,000K/5000K CRI 70), 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

Fixture with an effective power output of between **10.4W** e **150.3W** 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 of **637x303x148mm,** consisting of:

- a die-cast aluminium body, which can be opened without tools using a screw-lock pin, with a built-in heat sink featuring large cooling fins dimensioned to ensure a long service life and maximum efficiency of the diodes; the body has undergone sandblasting, cataphoresis and polyester powder coating in the standard colour **RAL 7024** (other colours available on request), resistant to corrosion, abrasion, flaking and salt spray;

- Silicone gasket shaped to the geometry of the cover ensuring of the air-tightness of the power supply compartment;

- adjustable integrated system for arm mounting (180°) or head – pole (90°) with a possible inclination of -

15° / +15° in 5° steps.

- 4mm-thick extra-clear tempered glass screen with silicone rubber gasket shaped to the geometry of the optical compartment, which ensures the air-tightness of the fixture;
- LED modules assembled on the fixture's body using screws only, without the use of adhesives or special glues, to facilitate maintenance and replacement;
- High-efficiency modular PMMA optical components assembled on the LED modules using special fixing screws; these can be removed to allow for easy replacement during maintenance.

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

MAIN Features

Luminaire type	LED street lighting fixtures
Applications	Uban and extra-urban lighting, large areas, roundabouts, squares and car parks
Brand	Niteko
Series	GUIDA
Model	S
Mounting	Post-top or mast arm with inclination of -15° ÷ +15° in 5° steps; Standard accessory: compatible with Ø60mm poles/arms; Optional accessory: compatible with Ø76mm poles/arms;
Effective power	10.8 W – 100.1W (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, ENEC +, IP66, IK09, 1,000h hour salt spray test, photobiological safety, Zhaga D4i, photometric certification, Vibration & Shock Test, 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 18,712lm (150W 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	Asymmetrical, rotosymmetrical, elliptical 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	t_A < 1sec. ; t_R < 1sec.

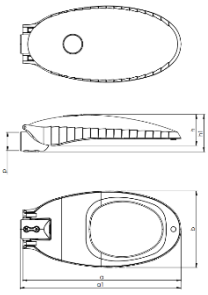
ELECTRICAL Features	Power supply	Standard: 175/264 V a.c. – 50/60 Hz; Optional: 120/277 V a.c. – 50/60 Hz; Electronic power supplies built into the appliance's electrical compartment with efficiency η>95% and power factor PF>0.97 (Active PFC). Available standard functions: - Pre-programmed automatic 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: safety isolating switch with disconnection upon opening of the electrical compartment Optional: outgoing power supply cable with an 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; Adjustable mounting bracket: 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 7024 anthracite black; Optional: other RAL colours available on request
	Protection rating	Optical compartment: IP66; Electrical compartment: IP66; Impact resistance: IK09
	Wind exposure	Base: 0,14 m^2; Side: 0,05 m^2
	Dimensions and weight	627 x 303 x 123 mm; 4,5 kg Mast arm mounting: 637 x 303 x 148 mm; Post-top mounting: 605 x 303 x182 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					
GUIDAS-20W-xxyy-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
	20,6	3.664	3.466	3.410	3.160	3.065	2.583
GUIDAS-30W-xxyy-zz-rr	25,5	4.743	4.490	4.387	4.093	3.970	3.346
	30,3	5.582	5.242	5.121	4.778	4.635	3.907
GUIDAS-40W-xxyy-zz-rr	34,6	6.318	5.984	5.843	5.986	5.806	4.460
	38,5	6.832	6.519	6.320	5.899	5.722	4.824
GUIDAS-50W-xxyy-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
GUIDAS-60W-xxyy-zz-rr	55,4	10.476	9.916	9.690	9.038	8.767	7.391
	60,8	11.426	10.842	10.414	9.715	9.424	7.944
GUIDAS-70W-xxyy-zz-rr	65,6	12.165	11.517	11.252	10.498	10.183	8.584
	70,4	12.998	12.319	11.965	11.164	10.829	9.129
GUIDAS-80W-xxyy-zz-rr	70,0	13.617	12.884	12.595	11.744	11.392	9.604
	75,2	14.531	13.751	13.440	12.534	12.158	10.250
GUIDAS-100W-xxyy-zz-rr	80,3	15.400	14.578	14.244	13.286	12.887	10.864
	85,6	16.303	15.432	15.079	14.066	13.644	11.502

TECHNICAL DRAWINGS

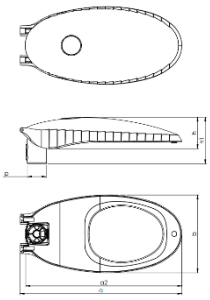
Mast arm mounting



a 827 mm
b 360 mm
h 127 mm
a1 823 mm
h1 153 mm
Øp 60 mm (pole) x 90 mm (depth)

Øp 76 x 90 mm (optional)

Post-top mounting



a 827 mm
b 360 mm
h 127 mm
a2 795 mm
h1 187 mm
Øp 60 mm (pole) x 90 mm (depth)

Øp 76 x 90 mm (optional)

Weight 6, 9 kg

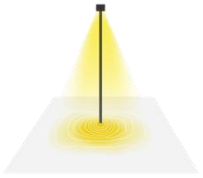
Wind exposure surface

Base 0,14 m^2

Side 0,05 m^2

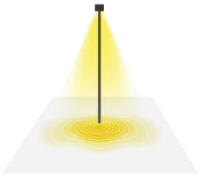
PHOTOMETRIC DATA

Asymmetrical



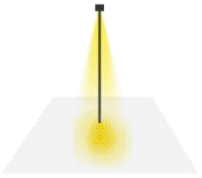
A1 - 150°x 50°

η 83,8% - G*6



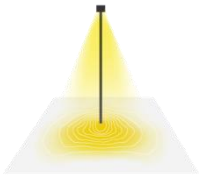
A2 - 140°x 45°

η 84,7% - G*4



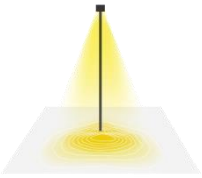
A3 - 90°x 60°

η 86,7% - G*6



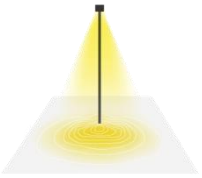
A4 - 145°x 55°

η 82,9% - G*4



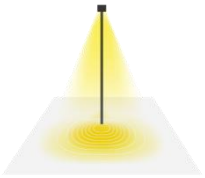
A7 - 140°x 70°

η 79,1% - G*2



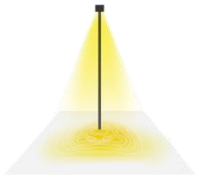
A8 - 155°x 60°

η 81,9% - G*1



A9 - 145°x 55°

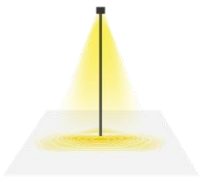
η 85,2% - G*4



A10 - 155°x 65°

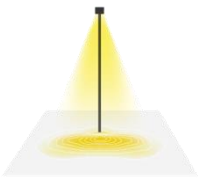
η 75,6% - G*2

Black light stop



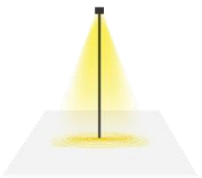
AB2 - 140°x 50°

η 84,6% - G*3



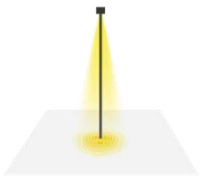
AB4 - 145°x 60°

η 83,9% - G*3



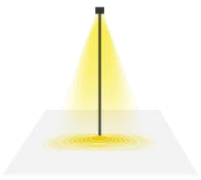
BA2 - 140°x 45°

η 78,7% - G*4



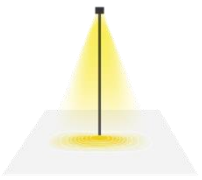
BA3 - 90°x 60°

η 81,1% - G*6



BA4 - 145°x 65°

η 77,0% - G*3

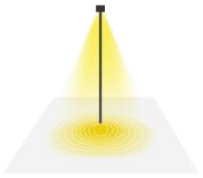


BA9 - 145°x 75°

η 81,3% - G*4

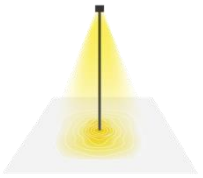
PHOTOMETRIC DATA

Elliptical



E3 - 145°x 110°

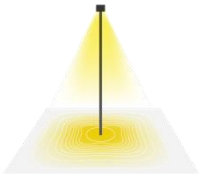
η 87,0% - G*6



E4 - 140°x 100°

η 81,4% - G*6

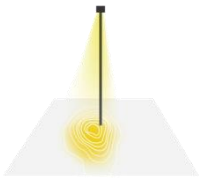
Rotosymmetrical



R1 - 140°x 140°

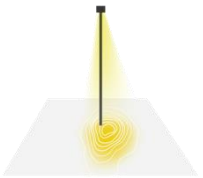
η 82,1% - G*6

Pedestrian crossings



PCDX - R65°x 60°

η 85,4% - G*6



PCDX - R65°x 60°

η 85,4% - G*6

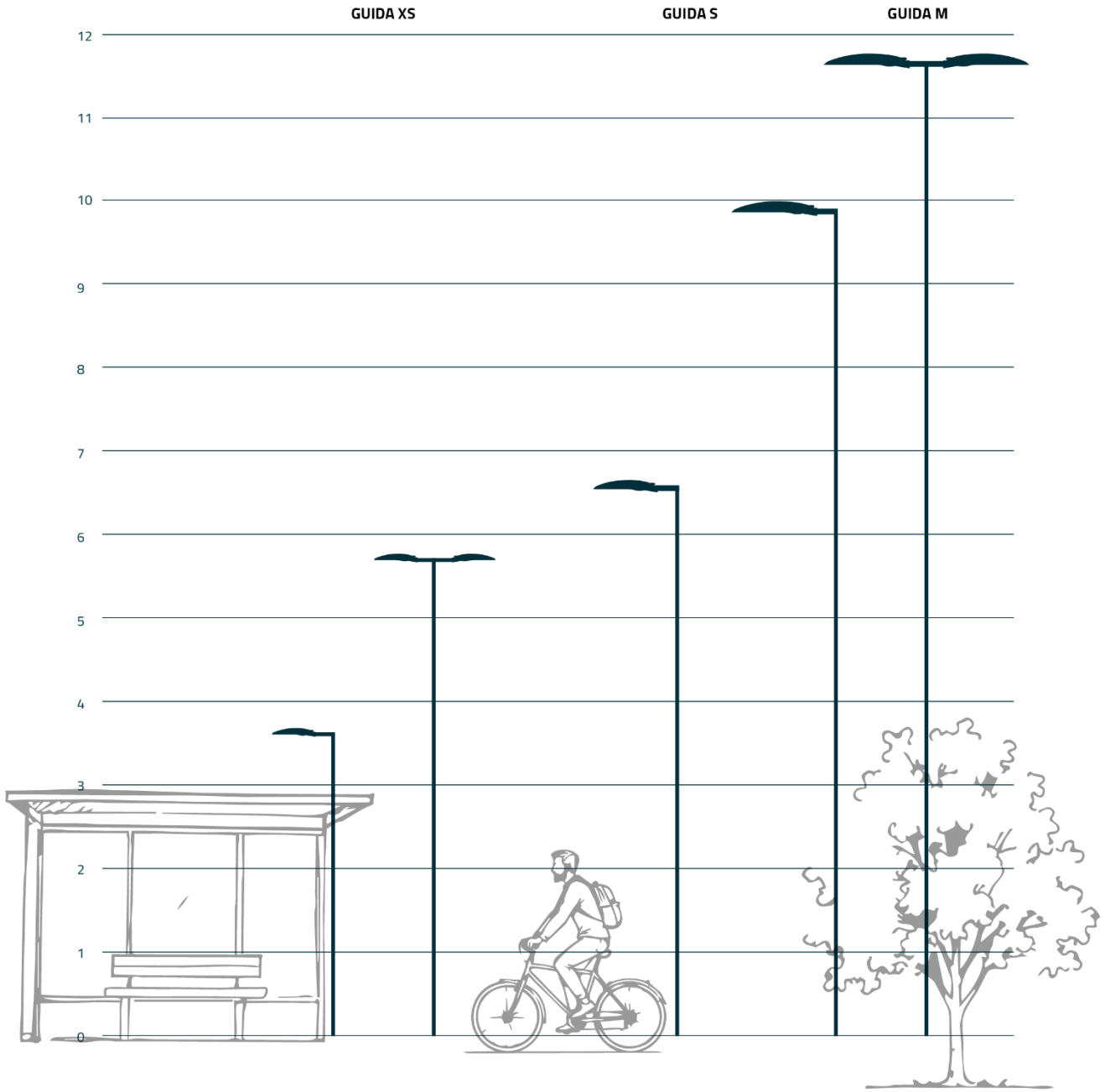
GUIDA S MODEL







MOUNTING EXAMPLES



REFERENCE



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