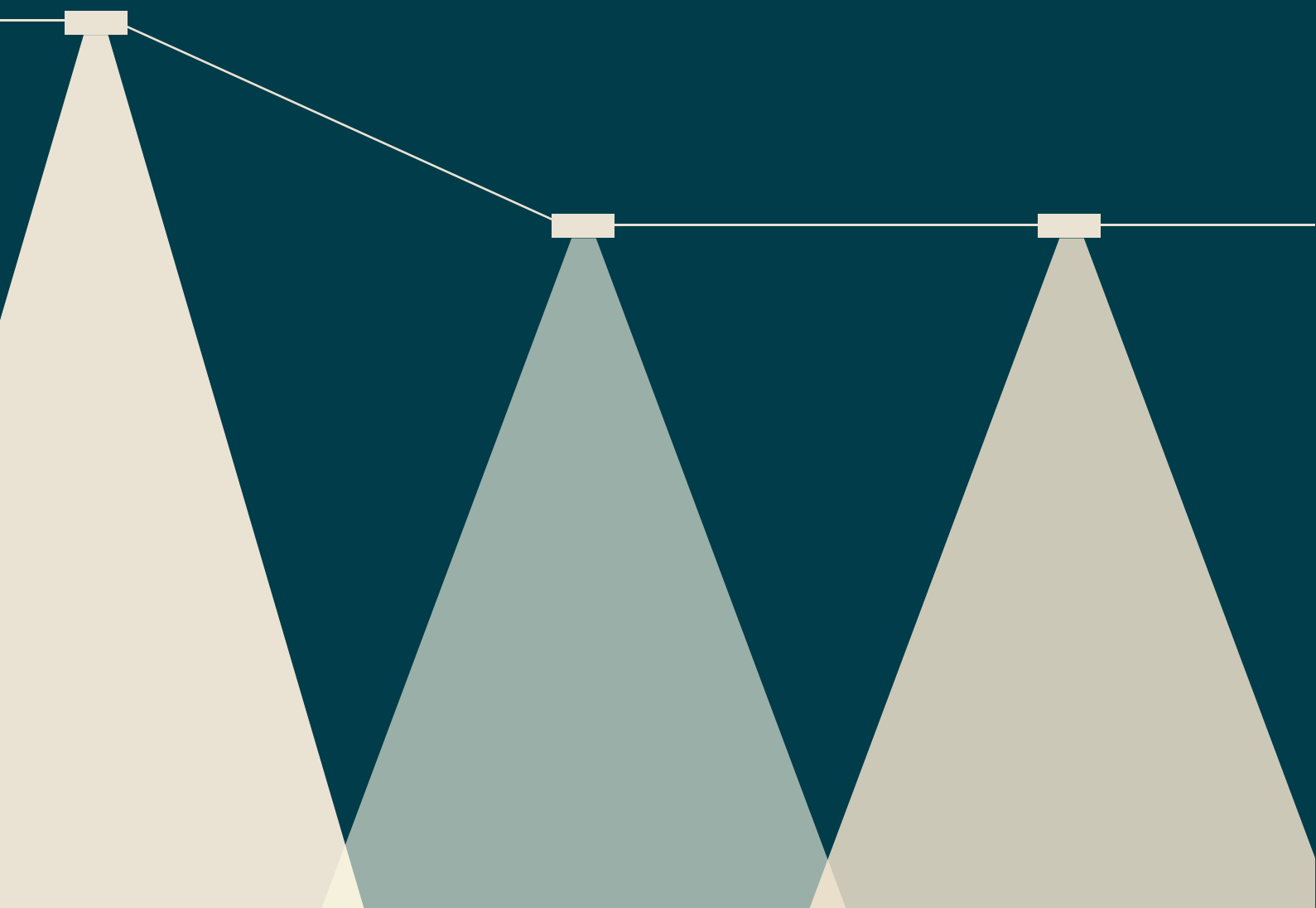
Niteko

DATASHEET | STREET LIGHTING

UPGRADE

# GUIDA

## LED street lighting fixture





# GUIDA XS

**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, **XS** 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 **10.4W** a **39.6W** 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.

**Sorgente luminosa**

**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 **1,291 lm** (10W 1,800K CRI 70) to (10W 1800K CRI 70) to **7,279lm** (150W

4,000K/5,000K 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 **39.6 W** 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 **514x251x128mm,** 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 | XS |
| | Mounting | Post-top or mast arm with inclination of -15° ÷ +15° in 5° steps;<br>Standard accessory: compatible with Ø60mm poles/arms;<br>Optional accessory: compatible with Ø76mm poles/arms; |
| | Effective power | 10.4 W – 39.6W (Tolerance +5%) |
| | Luminaire efficacy | $\eta_{app}$ ≥ 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);<br>L90 B10: > 120.000 h ($T_a$ = 25 ° C ; IF ≤ 500mA);<br>L80 B10: > 270.000 h ($T_a$ = 25 ° C ; IF ≤ 500mA);<br>L70 B10: > 450.000 h ($T_a$ = 25 ° C ; IF ≤ 500mA); |
| | Certifications | CE, RoHS, 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 1,291lm (10W 1,800K CRI>70) to 7,279lm (150W 4,000K CRI>70) (Tolerance ±7%) |
| | Source luminous efficacy | $\eta_{LED}$ ≥ 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;<br>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:<br>- Pre-programmed automatic dimming for up to 5 daily time profiles (PRG5);<br>- Control via a 1–10 V analogue signal (DIM);<br>- Constant lighting control during the lifetime (CLO.LITE). |
| | Electrical connection | Standard: safety isolating switch with disconnection upon opening of the electrical compartment<br>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<br>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;<br>Adjustable mounting bracket: die-cast aluminium integrated into the body;<br>Screen: 4 mm thick extra-clear flat tempered glass;<br>Optics: PMMA modular optics;<br>Gaskets: silicone;<br>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: 0,10m²; Side: 0,03 m²; |
| | Dimensions and weight | 485 x 251 x 92 mm; 4,5 kg<br>Mast arm mounting: 514 x 251 x 128 mm;<br>Post-top mounting: 480 x 251 x153 mm |

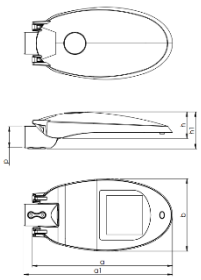
## LIGHTING FEATURES

| PRODUCT ITEM CODE | POWER | NOMINAL LUMINOUS FLUX (xxyy) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 4070<br>5070 | 3070 | 2270<br>3580<br>4080<br>5080<br>5780 | 3080 | 2270<br>2780 | 1870<br>2790 |
| | W | lm | | | | | |
| **GUIDAXS-15W-**xxyy-zz-rr | 10,4 | 1.832 | 1.733 | 1.694 | 1.579 | 1.532 | 1.291 |
| | 15,4 | 2.816 | 2.675 | 2.429 | 2.267 | 2.199 | 1.854 |
| **GUIDAXS-20W-**xxyy-zz-rr | 20,4 | 3.716 | 3.523 | 3.205 | 2.881 | 2.795 | 2.356 |
| **GUIDAXS-30W-**xxyy-zz-rr | 24,3 | 4.703 | 4.449 | 4.350 | 4.056 | 3.934 | 3.316 |
| | 29,3 | 5.609 | 5.308 | 5.187 | 4.838 | 4.693 | 3.956 |
| **GUIDAXS-40W-**xxyy-zz-rr | 34,2 | 6.412 | 6.088 | 5.931 | 5.533 | 5.367 | 5.367 |
| | 39,6 | 7.279 | 6.909 | 6.666 | 6.220 | 6.033 | 5.086 |

## TECHNICAL DRAWINGS

### GUIDA XS

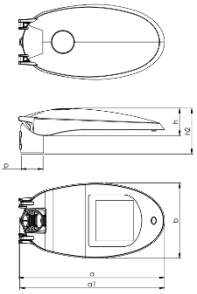
Mast arm mounting



a 485 mm
b 251 mm
h 92 mm
a1 514 mm
h1 128 mm
Øp 60 mm (pole) x 90 mm (depth)

Øp 76 x 90 mm (optional)

Post-top mounting



a 485 mm
b 251 mm
h 92 mm
a1 480 mm
h1 153 mm
Øp 60 mm (pole) x 90 mm (depth)

Øp 76 x 90 mm (optional)

Weight 4,7 kg

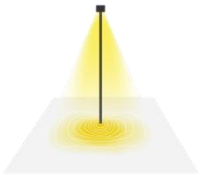
Wind exposure surface

Base 0,10 $m^2$

Side 0,03 $m^2$

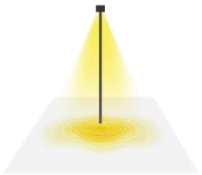
## PHOTOMETRIC DATA

**Asymmetrical**



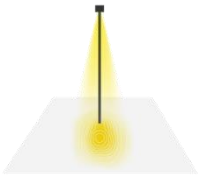
A1 - 150°x 50°

η 83,8% - G*6



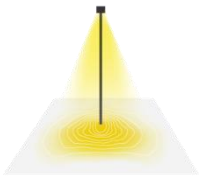
A2 - 140°x 45°

η 84,7% - G*4



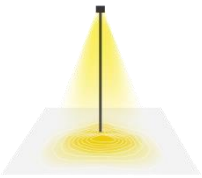
A3 - 90°x 60°

η 86,7% - G*6



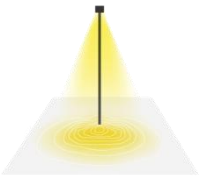
A4 - 145°x 55°

η 82,9% - G*4



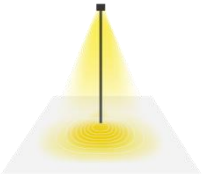
A7 - 140°x 70°

η 79,1% - G*2



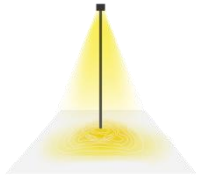
A8 - 155°x 60°

η 81,9% - G*1



A9 - 145°x 55°

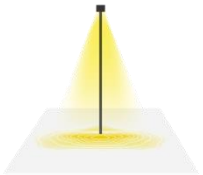
η 85,2% - G*4



A10 - 155°x 65°

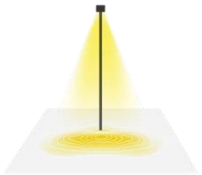
η 75,6% - G*2

**Black light stop**



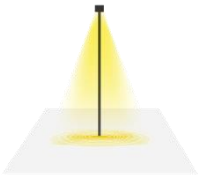
AB2 - 140°x 50°

η 84,6% - G*3



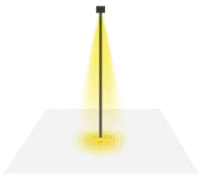
AB4 - 145°x 60°

η 83,9% - G*3



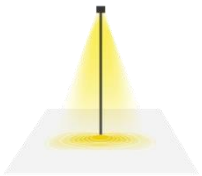
BA2 - 140°x 45°

η 78,7% - G*4



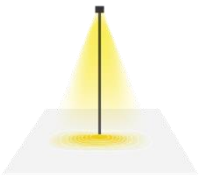
BA3 - 90°x 60°

η 81,1% - G*6



BA4 - 145°x 65°

η 77,0% - G*3

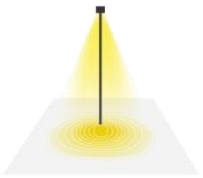


BA9 - 145°x 75°

η 81,3% - G*4

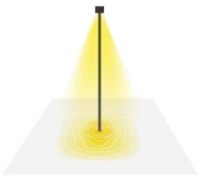
## PHOTOMETRIC DATA

**Elliptical**



E3 - 145°x 110°

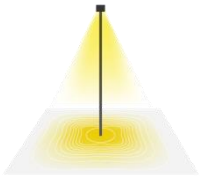
η 87,0% - G*6



E4 - 140°x 100°

η 81,4% - G*6

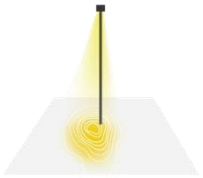
**Rotosymmetrical**



R1 - 140°x 140°

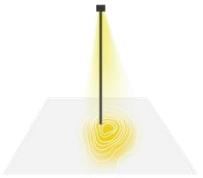
η 82,1% - G*6

**Pedestrian crossings**



PCDX - R65°x 60°

η 85,4% - G*6



PCDX - R65°x 60°

η 85,4% - G*6

## GUIDA XS MODEL

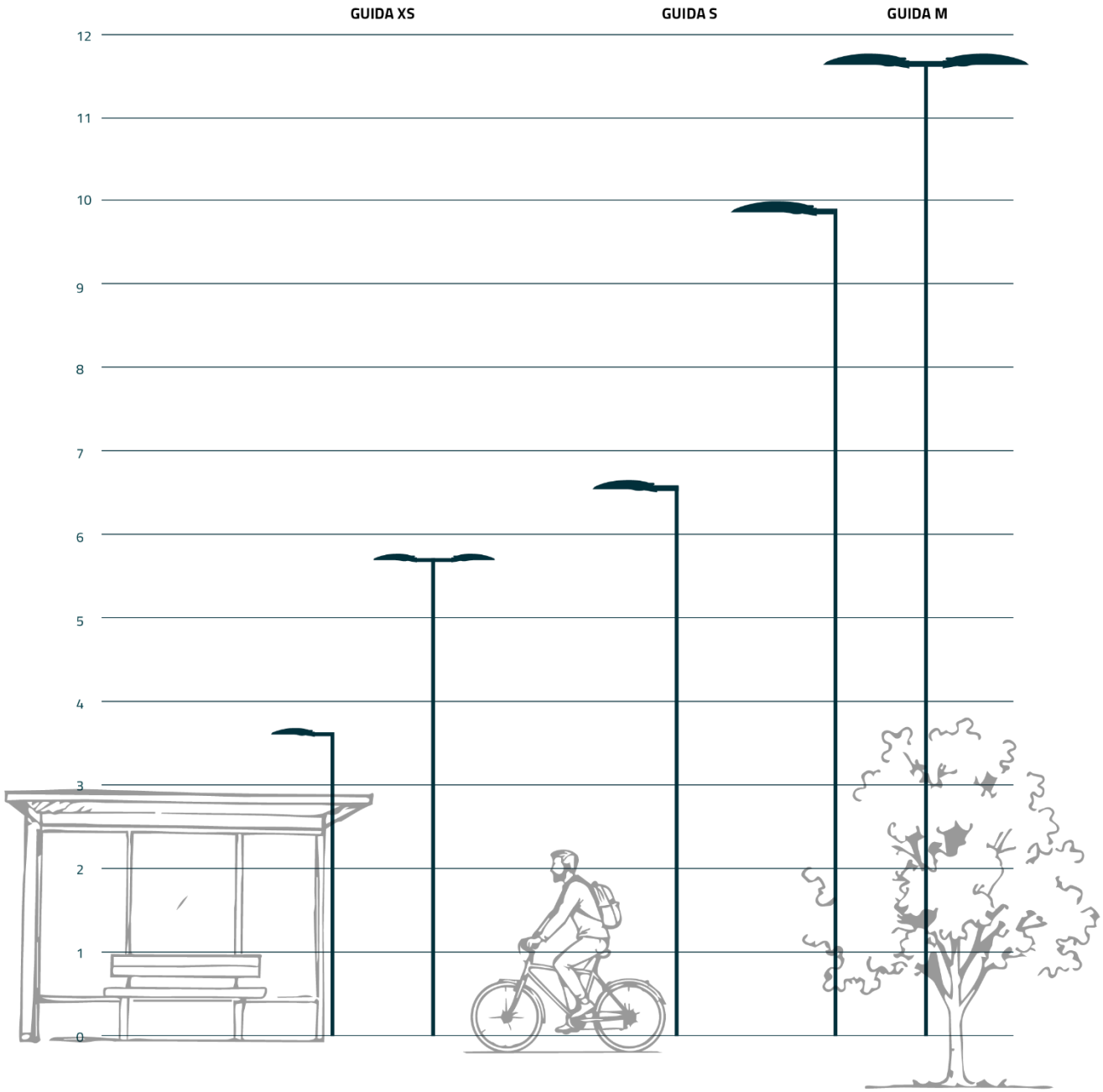






## MOUNTING EXAMPLES

ESEMPI DI MONTAGGIO



## REFERENCE



Location: Cerveteri (RM)

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Tel +39 099 567 12 19
Fax +39 099 567 11 12
e-mail info@niteko.com

**niteko.com**