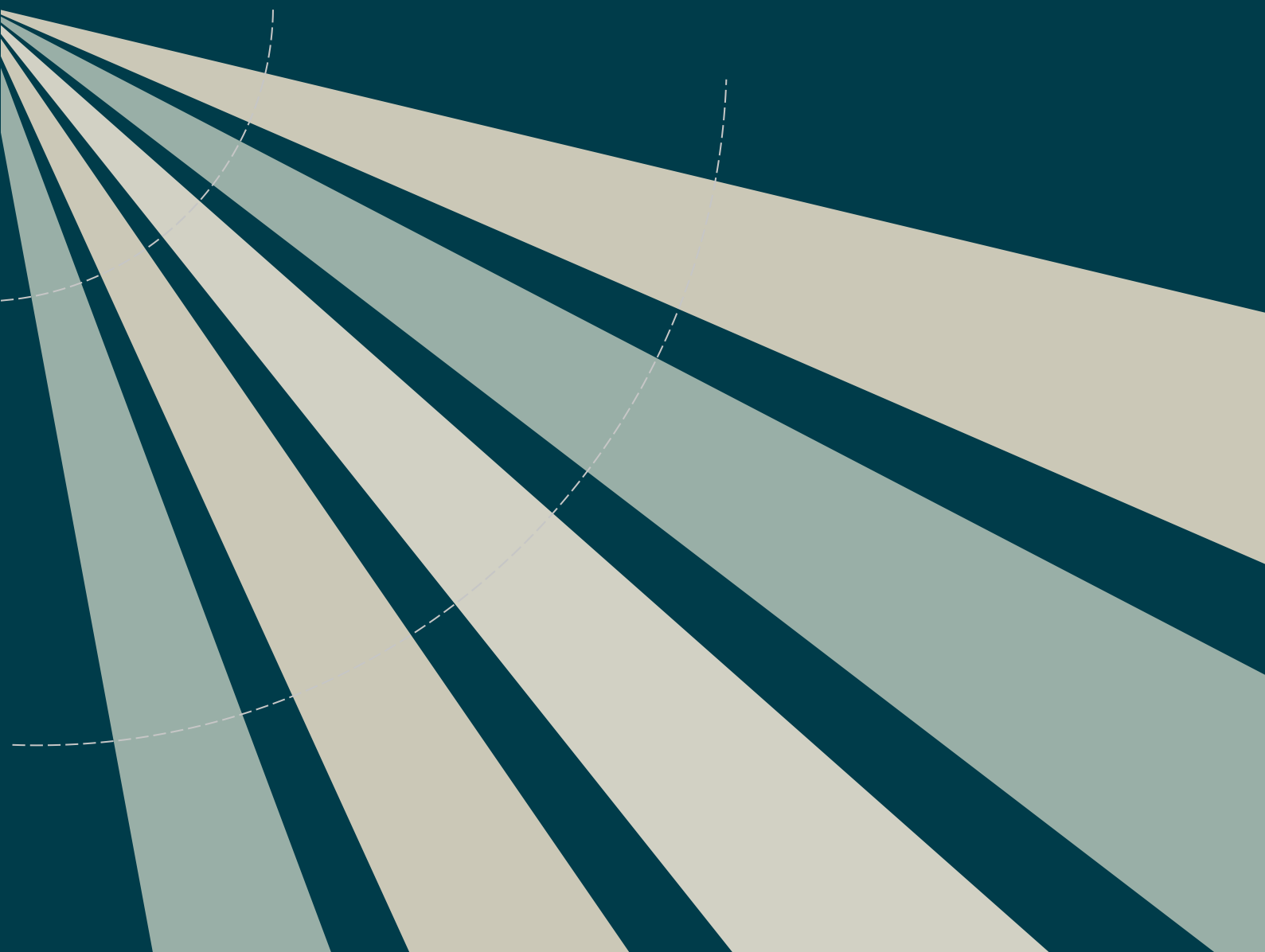


NETTUNO

LED floodlight





NETTUNO M

Niteko's benchmark in high-power lighting.

The wide-range architectural bracket ensures millimetric aiming and optimal light distribution in every mounting position.

TECHNICAL DESCRIPTION

LED floodlight for lighting sports facilities, tunnels and large indoor and outdoor areas, **NITEKO** brand, **NETTUNO** series, **M** model, suitable for various types of mounting with adjustable bracket, with a (actual) maximum power consumption up to **325W**, and power supply of **175/264V a.c. 50/60Hz** or, on request, available with a power supply of **120–277 V AC – 50/60 Hz** in the optional version.

Floodlight 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**.

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: $T_a = 25\text{ °C}$; $IF \leq 500\text{mA}$).

Fixture's luminous flux from **26,115lm** to **59,697lm**, 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 **180.1W** and **325W** 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**, consisting of:

- **body 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 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 **pearl dark grey RAL 9023** (other colours available on request), resistant to corrosion, abrasion, flaking, ensuring colour stability over time even when exposed to strong sunlight and salt spray;
- **5mm-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 and IP66-protected;
- separate electrical compartment with a silicone gasket moulded to the body's geometry.
- advanced safety with a fall-arrest kit that ensures maximum mechanical anchoring and prevents accidental falls, ensuring safe installation and complying with the highest protection standards.
- **mounting system** comprising a 5 mm-thick adjustable bracket, allowing the floodlight to tilt up to $\pm 90^\circ$ in 5° steps, which can be set using the clearly marked side supports;
- **anti-condensation system** with an air vent valve that allows air to circulate without affecting the floodlight's protection rating, ensuring a longer service life of both materials and components;

- 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;
- available on request with an H07RN-F outgoing cable fitted with a pair of IP66/IP68 plug-and-socket connectors for quick and safe 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).



IK09



IP68



VOC-FREE



EOS FREE

SHOCK &
VIBRATION TEST

ISO 9227 1000 h

TECHNICAL SPECIFICATIONS

MAIN

Features

Luminaire type	LED floodlight
Applications	Lighting of sports facilities, tunnels and large indoor and outdoor areas, streets, roundabouts, squares and car parks
Brand	Niteko
Series	NETTUNO
Model	M
Mounting	Architectural with adjustable bracket from -90° up to +120° (5° steps)
Effective power	180.1W - 325W (Tolerance +5%)
Luminaire efficacy	$\eta_{APP} \geq 135 \text{ lm/W}$ (3000k)
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, IK10, 1,000h hour salt spray test, photobiological safety, photometric certification, EOS Free, VOC Free, Shock&Vibration Test.

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
Flusso luminoso sorgente	33,631 – 59,697 lm (CCT 4,000K; CRI>70) (Tolerance: $\pm 7\%$)
Source luminous efficacy	$\eta_{LED} \geq 190 \text{ lm/W}$ (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, symmetrical
Optical Efficiency	75-90%
Photometric classes	Luminous intensity class G*2; Glare index class D.6
Photobiological safety	Risk class: RG 1; 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	Steel cable gland with H07RN-F outgoing cable (standard length 0,5 m) equipped with optional IP66 quick-connectors
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

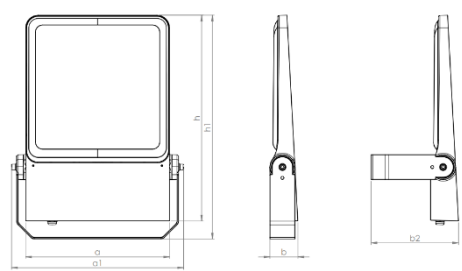
Materials	Body: die-cast aluminium with built-in heat sink; Adjustable mounting bracket: painted S235JR steel; Screen: 5 mm thick extra-clear flat tempered glass; Optics: PMMA modular optics; Gaskets: silicone; Screws: A2 stainless steel
Colour	Standard: RAL 9023; Optional: other RAL colours available on request
Protection rating	IP66; IK09
Wind exposure	Base: 0,24 m ² ; Side: 0,04 m ²
Dimensions and weight	572x400x78mm; 12,5 kg

LIGHTING FEATURES

PRODUCT ITEM CODE	POWER	NOMINAL LUMINOUS FLUX (xyyy)					
		4070		2270		2270	1870
		5070	3070	3580	3080	2780	2790
				4080			
				5080			
				5780			
	W	lm					
NETTUNO-M-200W-xyyy-zz-rr	180,1	33.631	31.767	31.106	28.958	28.940	26.115
	200,8	36.932	34.891	34.160	31.806	31.786	28.695
NETTUNO-M-250W-xyyy-zz-rr	180,3	34.751	32.711	32.046	29.816	29.800	26.864
	200,1	38.144	36.020	35.281	32.833	32.815	29.592
	225,5	42.419	40.065	39.235	36.523	36.500	32.929
	250,6	46.547	43.971	43.053	40.083	40.058	36.153
NETTUNO-M-275W-xyyy-zz-rr	275,4	50.535	47.744	46.741	43.522	43.495	39.269
NETTUNO-M-325W-xyyy-zz-rr	300,4	55.724	52.600	51.541	47.950	47.920	43.227
	325,0	59.697	56.357	55.216	51.374	51.342	46.328

TECHNICAL DRAWINGS

NETTUNO M



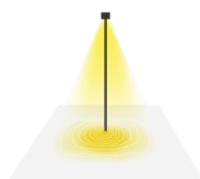
- a 400 mm
- b 78 mm
- h 572 mm
- a1 478 mm
- b1 243 mm
- h1 672 mm

Weight	12,5 kg
Wind exposure surface	
Base	0,24 m ²
Side	0,04 m ²

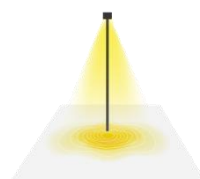
PHOTOMETRIC DATA



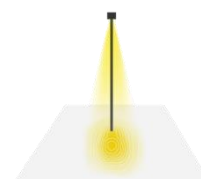
Asymmetrical



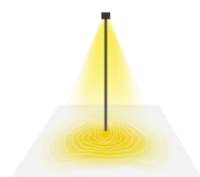
A1 - 150° x 50°
η 83,8% - G*6



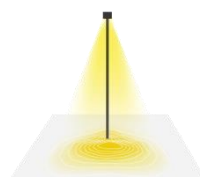
A2 - 140° x 45°
η 84,7% - G*4



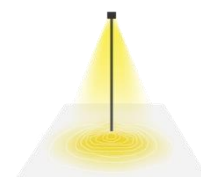
A3 - 90° x 60°
η 86,7% - G*6



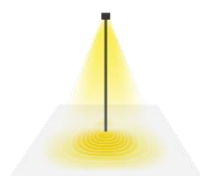
A4 - 145° x 55°
η 82,9% - G*4



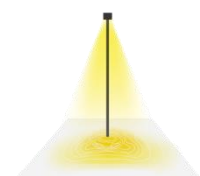
A7 - 140° x 70°
η 79,1% - G*2



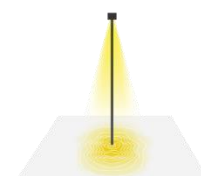
A8 - 155° x 60°
η 81,9% - G*1



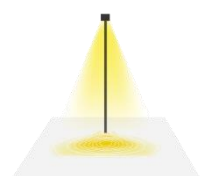
A9 - 145° x 55°
η 85,2% - G*4



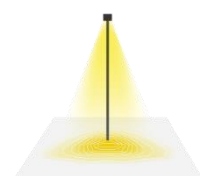
A10 - 155° x 65°
η 75,6% - G*2



A13 - 120° x 65°
η 80,5% - G*6



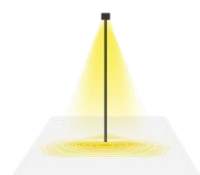
A15 - 145° x 50°
η 84,7% - G*4



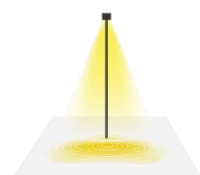
A32 - 145° x 55°
η 84,7% - G*4



Black light stop



AB2 - 140° x 50°
η 84,6% - G*3

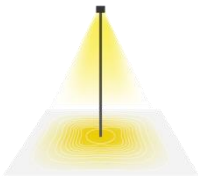


AB2 - 145° x 60°
η 83,9% - G*3

PHOTOMETRIC DATA



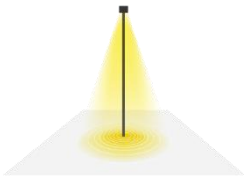
Rotosymmetrical



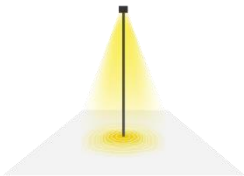
R1 - 140°x 140°
η 82,1% - G*6



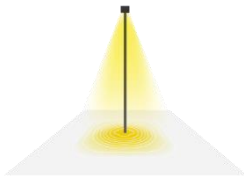
Symmetrical



25 - 35°x 35°
η 90,4% - G*6



50 - 60°x 60°
η 89,7% - G*6

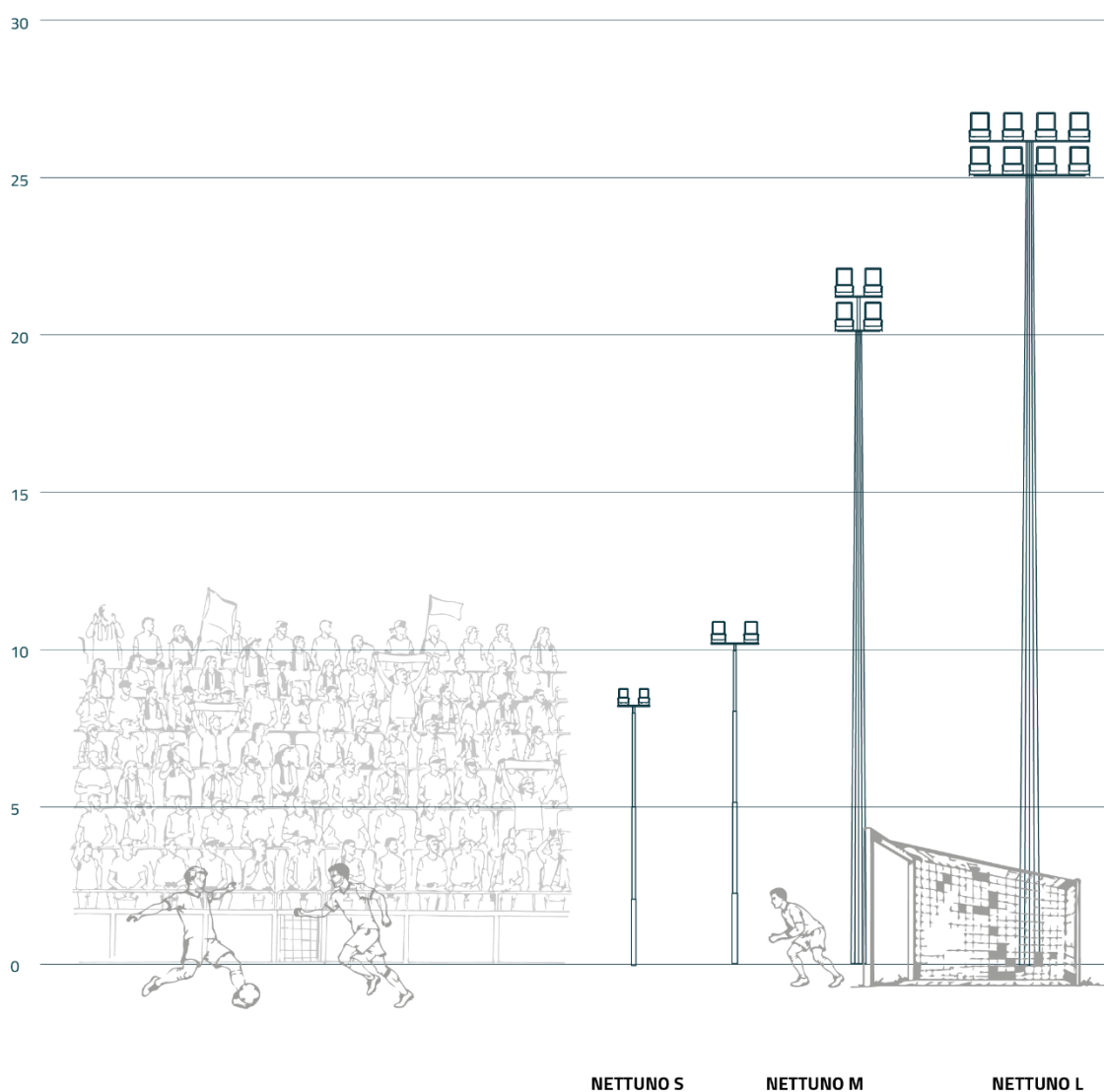


100 - 100°x 100°
η 86,4% - G*6

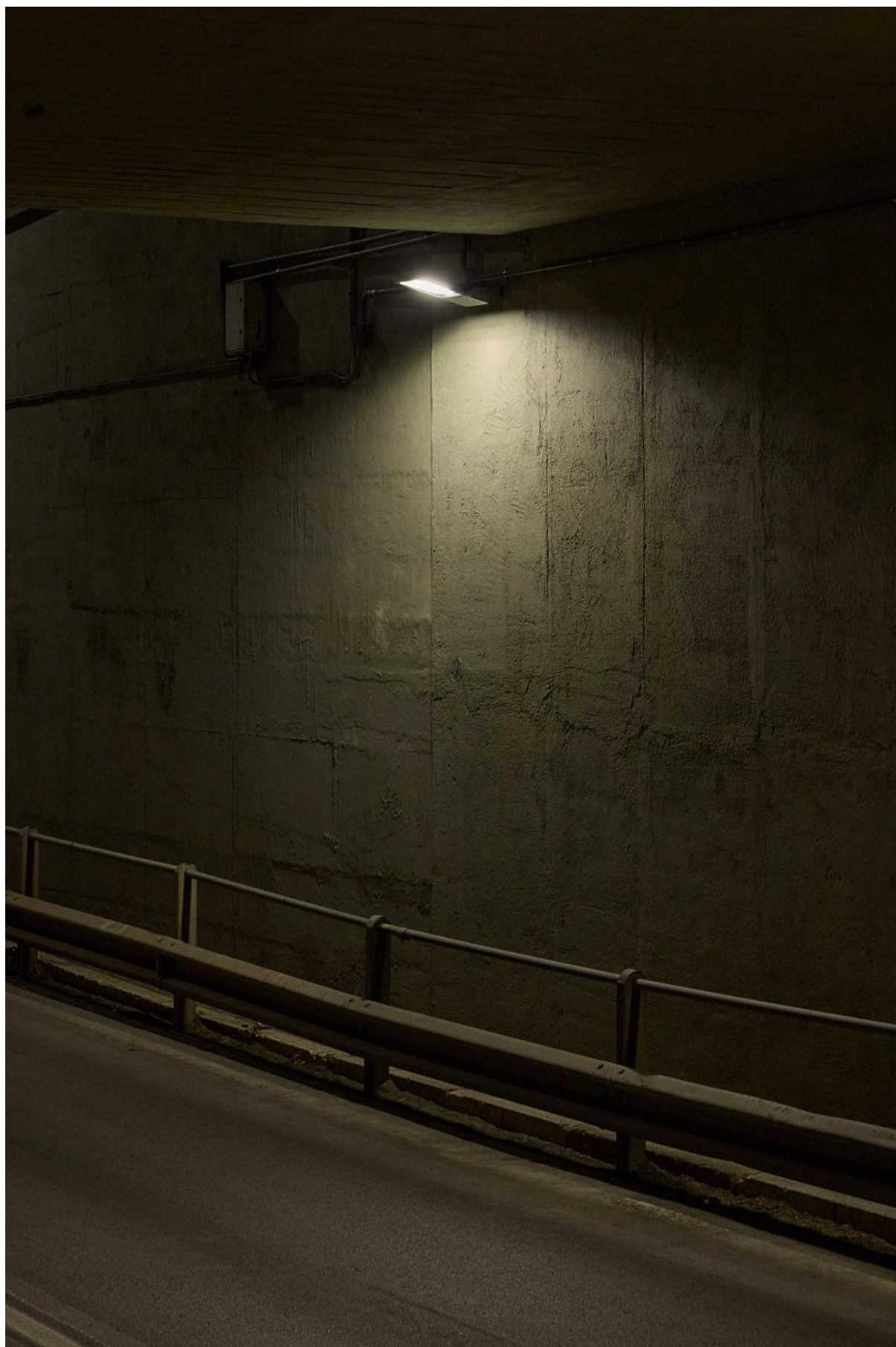
NETTUNO M MODEL



MOUNTING EXAMPLES



REFERENCE



Location: Avezzano (AQ)



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