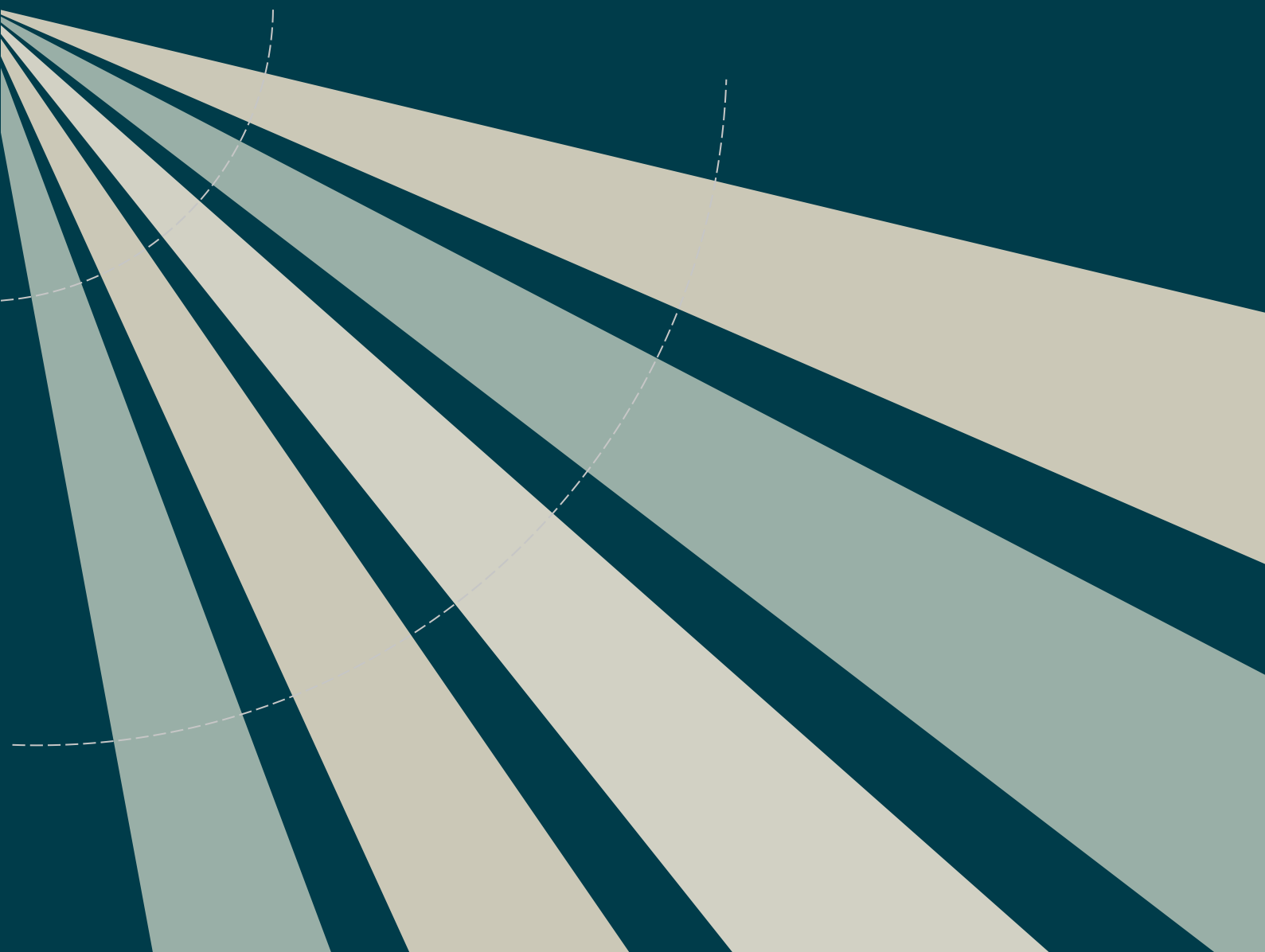


NETTUNO

LED floodlight





NETTUNO S

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, **S** model, suitable for various types of mounting with adjustable bracket, with a (actual) maximum power consumption up to **180W**, 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 **3,339lm** to **34,018lm**, 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 **20.9W** and **180.7W** 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	S
Mounting	Architectural with adjustable bracket from -90° up to +120° (5° steps)
Effective power	20.9W - 780.7W (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
Source luminous flux	4,299 – 34,018 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: 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	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: 0,13 m²; Side: 0,03 m²
Dimensions and weight	438x293x61mm; 7 kg

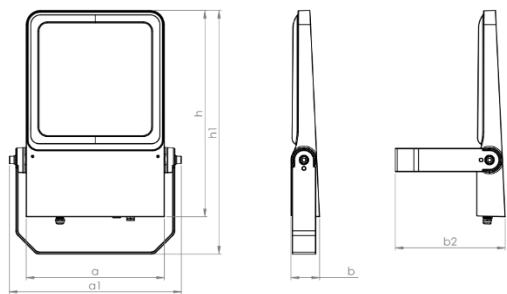
LIGHTING FEATURES

NETTUNO S

PRODUCT ITEM CODE	POWER	NOMINAL LUMINOUS FLUX (xyyy)					
		4070 5070	3070	2270 3580 4080 5080 5780	3080	2270 2780	1870 2790
	W	lm					
NETTUNO-S-50W-xyyy-zz-rr	20,9	4.299	4.063	3.977	3.703	3.592	3.339
	25,3	5.149	4.869	4.763	4.438	4.305	4.003
	30,4	6.130	5.799	5.670	5.286	5.127	4.770
	35,7	7.100	6.719	6.567	6.125	5.941	5.530
	40,2	7.922	7.500	7.328	6.836	6.631	6.175
	45,5	8.873	8.402	8.207	7.659	7.429	6.921
	50,9	9.815	9.295	9.078	8.472	8.218	7.660
NETTUNO-S-75W-xyyy-zz-rr	50,0	9.771	9.244	9.037	8.427	8.422	7.605
	55,3	11.038	10.446	10.209	9.522	9.516	8.597
	60,3	11.935	11.297	11.039	10.297	10.291	9.300
	65,3	12.825	12.142	11.863	11.068	11.061	9.999
	70,3	13.710	12.981	12.681	11.833	11.826	10.693
	75,4	14.589	13.814	13.494	12.593	12.585	11.383
NETTUNO-S-120W-xyyy-zz-rr	80,4	16.018	15.152	14.815	15.157	14.702	12.462
	85,8	16.983	16.067	15.708	14.645	14.206	13.217
	90,2	17.784	16.826	16.449	16.832	16.327	13.844
	95,3	18.687	17.683	17.284	16.119	15.635	14.552
	100,8	19.639	18.585	18.165	16.941	16.433	15.298
	110,5	21.320	20.179	19.719	20.187	19.581	16.616
	120,4	22.779	21.563	21.069	19.655	19.065	17.761
NETTUNO-S-140W-xyyy-zz-rr	130,4	24.434	23.132	22.600	21.086	20.453	19.059
	140,9	26.383	24.980	24.403	22.770	22.087	18.619
NETTUNO-S-160W-xyyy-zz-rr	140,4	27.238	25.779	25.194	23.498	22.793	21.223
	150,6	28.984	27.434	26.808	25.007	24.257	22.592
	160,8	30.718	29.079	28.412	26.506	25.711	23.952
NETTUNO-S-180W-xyyy-zz-rr	170,7	32.373	30.648	29.943	27.936	27.098	25.251
	180,7	34.018	32.208	31.465	32.219	31.252	26.542

TECHNICAL DRAWINGS

NETTUNO S



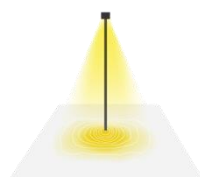
- a 293 mm
- b 61 mm
- h 438 mm
- a1 365 mm
- b1 233 mm
- h1 517 mm

Weight	7,0 kg
Wind exposure	surface
Base	0,13 m ²
Side	0,03 m ²

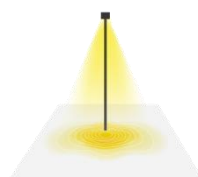
PHOTOMETRIC DATA



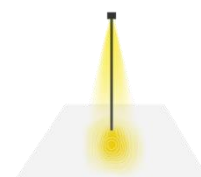
Asymmetrical



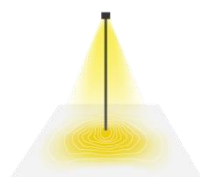
A1 - 150° x 50°
η 83,8% - G*6



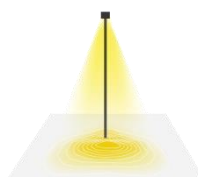
A2 - 140° x 45°
η 84,7% - G*4



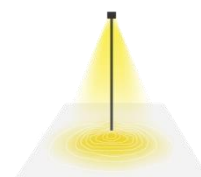
A3 - 90° x 60°
η 86,7% - G*6



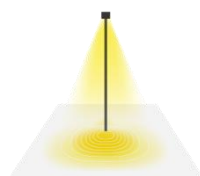
A4 - 145° x 55°
η 82,9% - G*4



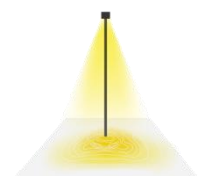
A7 - 140° x 70°
η 79,1% - G*2



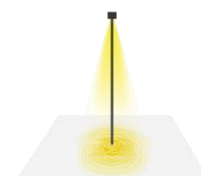
A8 - 155° x 60°
η 81,9% - G*1



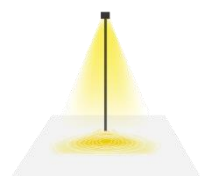
A9 - 145° x 55°
η 85,2% - G*4



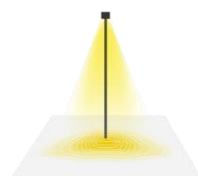
A10 - 155° x 65°
η 75,6% - G*2



A13 - 120° x 65°
η 80,5% - G*6



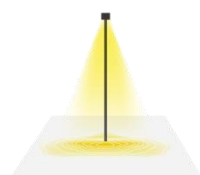
A15 - 145° x 50°
η 84,7% - G*4



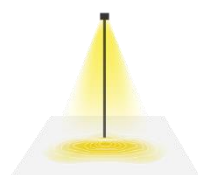
A32 - 145° x 55°
η 84,7% - G*4



Black light stop



AB2 - 140° x 50°
η 84,6% - G*3

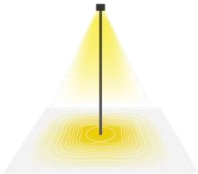


AB2 - 145° x 60°
η 83,9% - G*3

PHOTOMETRIC DATA



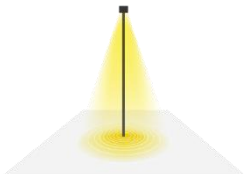
Rotosymmetrical



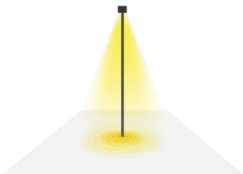
R1 - 140° x 140°
η 82,1% - G*6



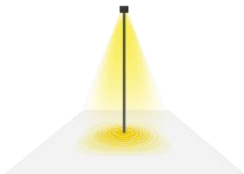
Symmetrical



25 - 35° x 35°
η 90,4% - G*6



50 - 60° x 60°
η 89,7% - G*6

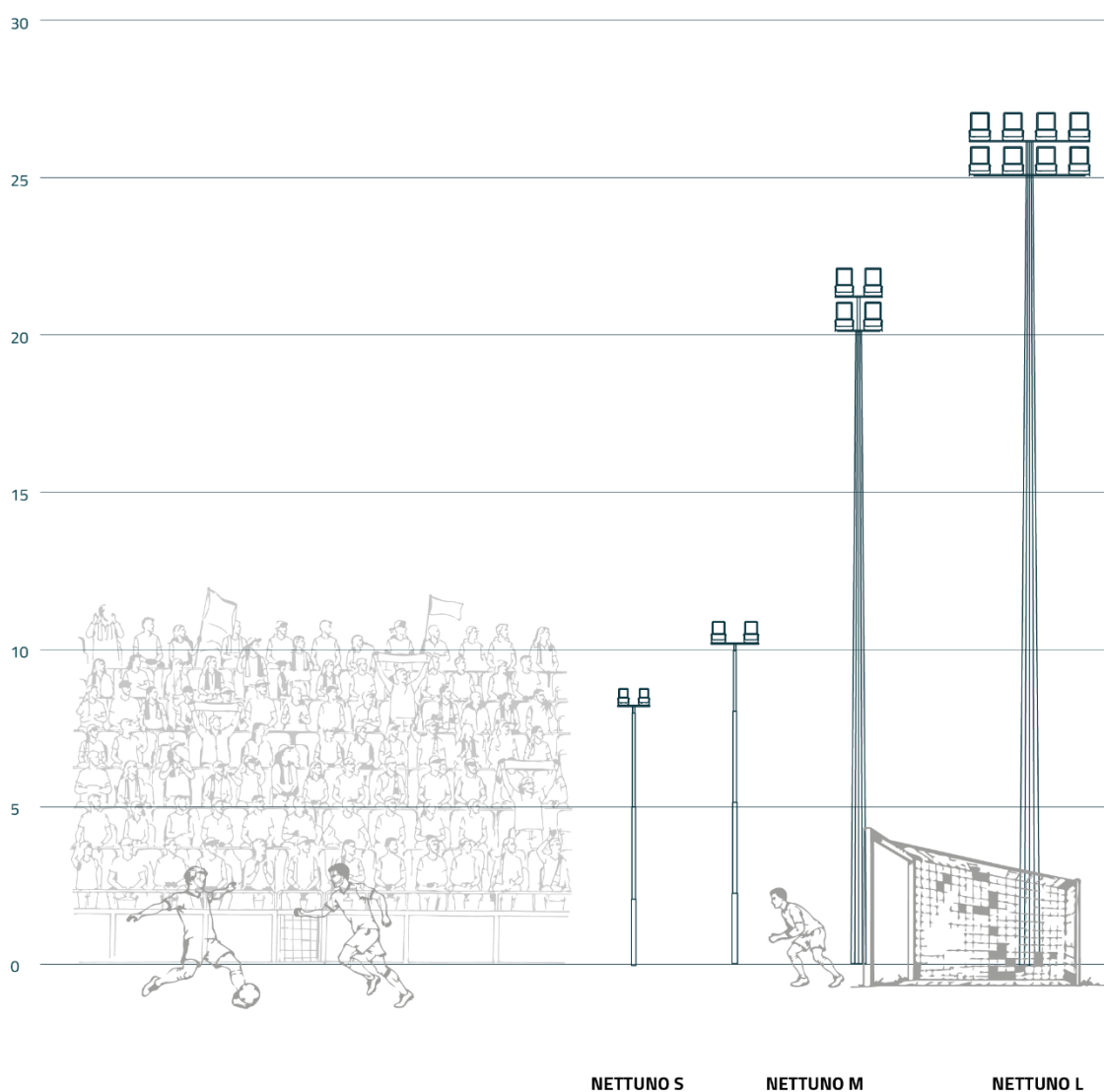


100 - 100° x 100°
η 86,4% - G*6

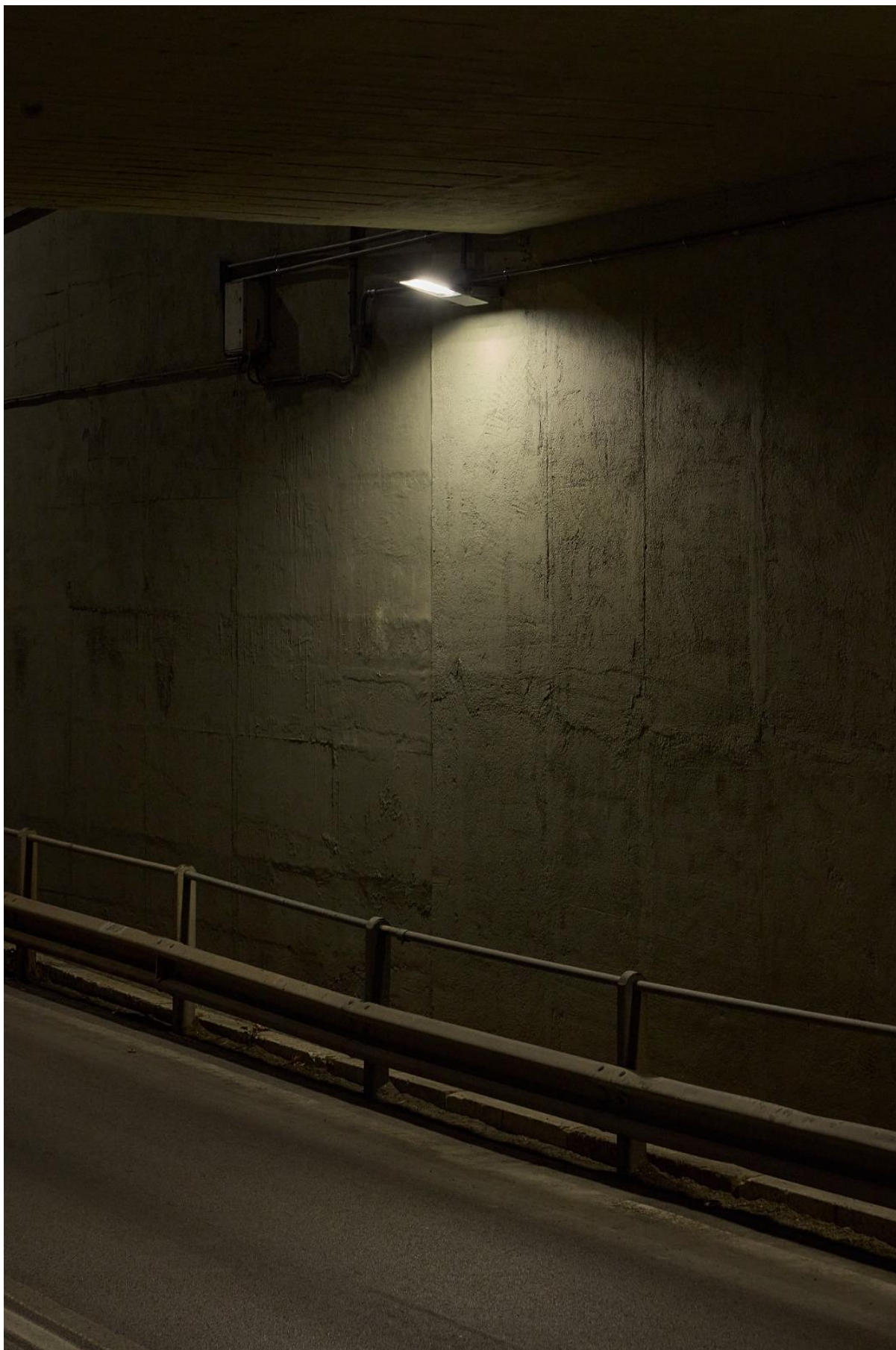
NETTUNO S MODEL



MOUNTING EXAMPLES



REFERENCE



Location: Avezzano (AQ)



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