Modular Road & Street LED Lighting System

THE MOST ADVANCED, INTERDISCIPLINARY ROAD & STREET LIGHTING TECHNOLOGIES
BASED ON NANOSTRUCTURAL DIFRACTIVE OPTICS AND ADAPTIVE CONTROL

FOR YOUR SAFETY
**WHY MELTRON MRSLS?**

The Meltron Road & Street Lighting System provides superior lighting quality for road and street lighting on a global scale, by utilizing extremely precise and unique patented nano-structural Diffractive Optics (DO). The optics have been designed with EN- and IESNA road lighting standards in mind.

The MRSLS provides ultimate safety to commuters and pedestrians on roadways. Strong, lightweight design, and advanced optics provide bright, uniform, and efficient lighting. The MRSLS offers dynamically adjustable luminous distribution with the ability to optimise the luminaire for each road geometry, lighting class and road type.

MRSLS reduces overall costs, and significantly improves the reliability, energy efficiency, and lifetime of road and street lighting.

The patented nanostructural Diffractive Optics (DO) -based specialised light source units are the key to the excellent lighting performance, provided by the MRSLS.
MRSLS consists of a strong, durable, and lightweight aluminium enclosure, screwless construction, and easily replaceable light source units. All MRSLS electronics, except for the 16 high-power LEDs, are placed down inside the pole for easy, rapid, and cost effective driver and control unit installation, and maintenance.

The MRSLS lighting unit has an extremely rigid enclosure for high wind speeds. Both the lighting unit and driver have an extruded aluminium body, with a thermodynamically optimised emitting surface which provides excellent thermal management for significantly improved lifetime of LEDs and driver electronics.

The driver unit is Meltron’s own multi-channel power supply with individual channel dimming functionality, high power factor and efficiency, as well as compliance with EU LED driver safety and performance standards.

Smart control-ready, MRSLS can adapt to real time conditions, with 4 individually controlled light source units per luminaire, thus providing the best illumination parameters and energy usage at all times.
Light Source: All Meltron lighting systems utilize the highest quality LED components from the most reputable global manufacturers.

Colour temperature: 4000 K neutral white (warm white down to 2700 K – cool white up to 6500 K available)

Head Unit Dimensions: 420 x 575 x 230 mm

Weight: Head Unit ~4.5 kg Maximum projected wind surface <0.25m²

Operating voltage: 220-240 V AC, 50/60Hz (110-120 V AC available)

Operating temperature: -40°C ~ +60°C*

Sealing class: Ingress protection IP44, with IP66/67 for driver, light source modules, and connections

Pressure washable

Power: 20-200 W

Power Factor: 1.00 at 230 V AC, and \( P_n = 195 \) W

Luminous Flux: Up to 24klm

Energy efficiency: Nominal 120 lm/W (from 120 lm/W to 160 lm/W, beginning of lifetime)

Warranty: 5 years (extension negotiable)

Designed lifetime: 15 years, daily night-time use.

*Driver placement must be checked when installing in environments where night-time ambient temperatures may exceed +40°C

The manufacturer reserves the right to make changes.

SALES

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