



**INTELLIGENT LUMINAIRES
FOR EXTERIOR LIGHTING**



ECO STATELINE

ECO STATELINE SERIES

LIGHT ACCORDING TO YOUR WISHES



With its innovative electronic concept, the new Eco StateLine series offers unprecedented possibilities. The SMART BOX has been developed – completely according to your wishes – in addition to the current driver, other intelligent module components can be integrated, such as a radio module and also sensors and antenna. We take on the task of integrating the intelligence; you are left the choice of which manufacturer and which system you would like.

THE BENEFITS OF THE ECO STATELINE:

- Modular LED lighting concept to cover all different types of streets (S and ME classes)
- Integrated optical system with guaranteed minimal losses
- Perfectly insulated LED unit
- Highly adaptable electronic concept
- Sealed SMART BOX that can be changed without tools, comprising electronic driver and optional intelligent modules – can be configured on customer request
- Modules and SMART BOX can be replaced without tools (plug & play)
- All classic benefits of the HELLA LED light technology
- Optional constant luminous flux possible (CLO)
- Soft-start function
- Convenient opening and closing mechanism (gas pressure springs)

- **Development and production in Germany**

The most important areas of application:

- All outdoor areas such as service roads, local distributor roads and main roads

Eco StateLine LED module

- Homogeneous large illuminating surface
- Improved thermal connection
- High color rendering index (typ. >85)
- Low LED operating currents (<150 mA)
- High lighting efficiency (>125 lm/W)
- No light pollution in the upper half-space (ULOR 0%, "dark sky")

DATA AND FACTS

| ELECTRONICS | |
|------------------------------------|--|
| Luminaire type | Luminaire with 1, 2, 3 or 4 modules |
| Driver | Electronic, integrated into the SMART BOX, replaceable without tools |
| Interface control system | Optional 2-level operation via two supply lines (100% / 50% reduction), dimming profile, 1-10 Volt or DALI |
| Mains connection | 198 – 264 V / AC 165 – 275 V / DC 50 – 60 Hz |
| Protection class | Protection class II |
| Power factor | ≥ 0.95 c |
| Power consumption | 15 – 180 W |
| Surge voltage withstand capability | 10 KV |
| Cabling | Pre-mounted connection cable |

| LIGHT TECHNOLOGY | |
|--------------------------------|---|
| Effective system luminous flux | 2,000 – 20,000 lm |
| Color temperature | 3,000 K (warm white) 4,000 K (neutral white) 5,000 K (cold white) |
| Color rendering index (CRI) | CRI 85 |
| Luminous flux over lifetime | 90% after 60,000 hours (IES LM 80 & TM 21), 80% after 100,000 hours |
| Optics | Silicon optics (formed around the LEDs) |

| ADDITIONAL DATA | |
|------------------------------|--|
| Dimensions (L x W x H) | 815 x 350 x 130 mm |
| Weight | 11 kg |
| Materials | Aluminum die casting, SMART BOX: PPS, fire-resistant |
| Mast connection | 60 mm or 76 mm spigot size for top-mounted luminaire, adjustable tilt: 0° to +15° 42 – 65 mm spigot size for side-mounted luminaires, adjustable tilt: 0° to +15° |
| Area exposed to wind | FW = 0.07 m ² |
| Ambient temperature range | from -40°C to +40°C |
| Impact resistance | IK 10 |
| IP Certification (Luminaire) | IP 67 / IP 69 K |

| | |
|------------------|---|
| Certification |     |
| Efficiency class |    |

All performance parameters are based on an ambient temperature of 25°C



FLEXIBLE AND INTELLIGENT

SMART BOX

Is comprising electronic driver and optional intelligent modules

FLEXIBLE

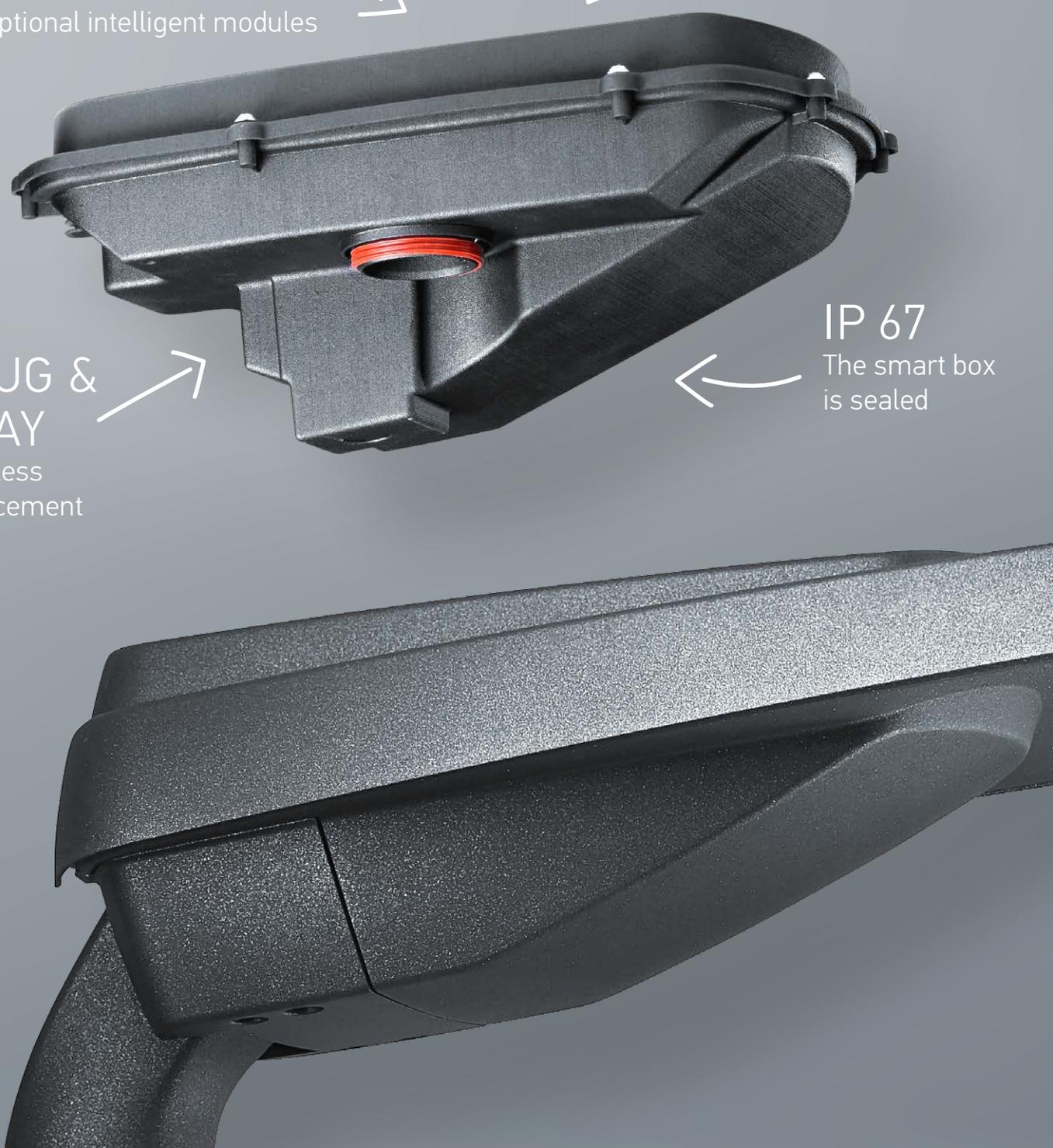
Sensors and antenna can be additionally integrated

PLUG & PLAY

Tool-less replacement

IP 67

The smart box is sealed

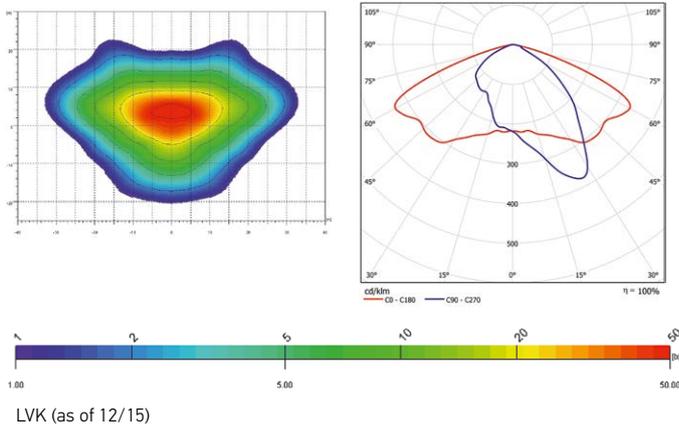


OPTICS AND LIGHT DISTRIBUTIONS

Example light distribution 10,000 lm,
light point height: 8 m

M ME lighting class streets

→ For medium to high light point heights.
Slightly positive light point surplus possible.
Starting in 05/2016



L Industrial applications, harbor installations, outdoor parking spaces

→ Extensive, homogenous illumination,
mounting height up to 15 m
Starting in 05/2016

S S lighting class streets

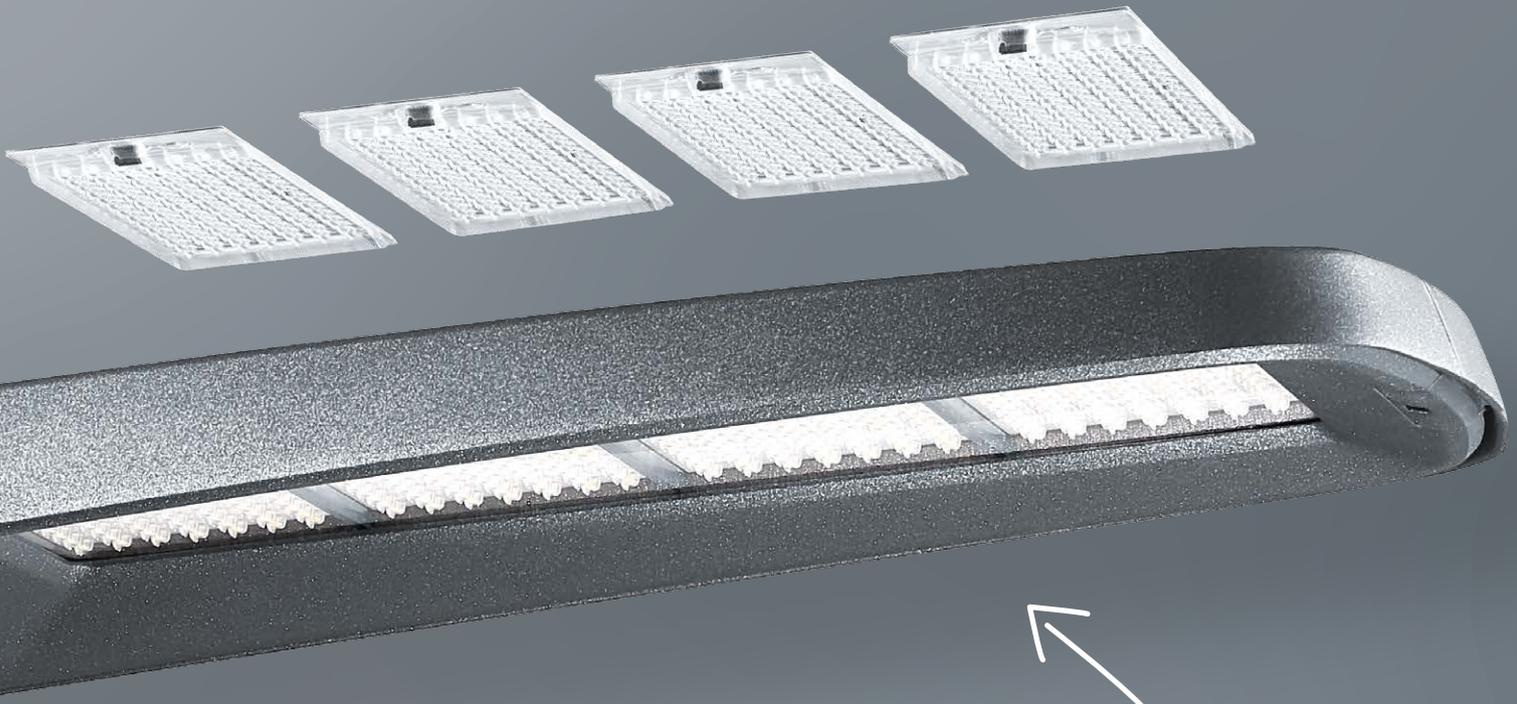
→ Particularly wide, asymmetrical distribution for low to medium light point heights and large mast spacing.
Starting in 07/2016

C Streets with projecting light points (mast poles with circular curved brackets)

→ For medium to high light points with mast tilt and large mast spacing.
Starting in 07/2016

F Pedestrian crossings

→ Specially for pedestrian crossings.
Standards-compliant in accordance with DIN 67523.
Starting in 07/2016



PERFECTLY INSULATED
LED modules are completely moulded in silicon

MODULAR
Modular LED module can be replaced in seconds without tools (plug & play)

INTELLIGENT LIGHT CONTROL

FLEXIBLE AND INDIVIDUAL

1, 2, 3 or 4 modules



Possible luminous flux

2,000 to 20,000 lm



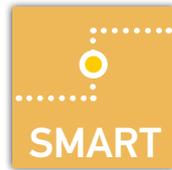
Choose intelligence for the SMART-BOX



**NIGHT-TIME
DIMMING**



**DIMMING
PROFILES**



**DALI /
1-10V**

SMART⁺ FUNCTIONS

THE SMART BOX OFFERS THE FOLLOWING
EQUIPMENT OPTIONS

COMPANION LIGHT

If no movements are detected, the street lights illuminate at a defined minimal level. The lights register the movements of pedestrians via motion sensors and switch to 100%. The lights communicate automatically. As a result, the pedestrian's direct field of vision is illuminated optimally.



USE MEASUREMENT

The light measures the exact power consumption. This data can be analyzed centrally.

WIRELESS INTERFACES

The light can communicate with headquarters via (mobile) radio.

PROACTIVE MAINTENANCE

If a light is defective, the light reports its exact position directly to headquarters with a maintenance order. As a result, the period when a light does not illuminate optimally is kept to a minimum, ensuring the safety of citizens.

SENSOR INTEGRATION

If necessary, motion sensors or daylight sensors can be integrated into the lights so that the lights can be steplessly dimmed automatically. The lights are also switched on and off automatically. This is particularly advantageous in areas with a less established infrastructure.

TRAFFIC DETECTION

Traffic can be counted. This data can be analyzed centrally to optimize traffic routing. In perspective, traffic counting can differentiate between different vehicle types (truck or passenger car).

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Subject to technical change.
As of 02/2016

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Printed in Germany

HELLA INDUSTRIES

Street lighting
Industrial lighting
Interior lighting

You can find more information at:
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