

**HELLA INDUSTRIES** 





#### **BRIGHT SPOTS!**

For over 100 years we have been concentrating our ideas and skills on just one subject. That's why we are able to more readily identify the dark and light sides of everything to do with light, luminaires and lighting technology. And what is also clear is that we can apply this knowledge in the best possible way: Intelligent luminaires for all areas of life. The basis of this is the HELLA LED lighting technology we have developed. Its modular design makes it simple to replace and upgrade. Cost-efficient thanks to guaranteed availability of modules. Highly efficient through the intelligent light control system. Lucrative through targeted utilization of the saving potential offered by LEDs and therefore extremely versatile, environmentally friendly and easy to install.

And what's more: HELLA LED lights are not just good; they look good, too! On the following pages, we would like to show you attractive lighting solutions that will inspire you.

With best wishes

Felix Hoffmann-Becking

Head of Sales and Marketing

4. Holmann Robin

**HELLA INDUSTRIES** 

# STREET LIGHTING

MODULES

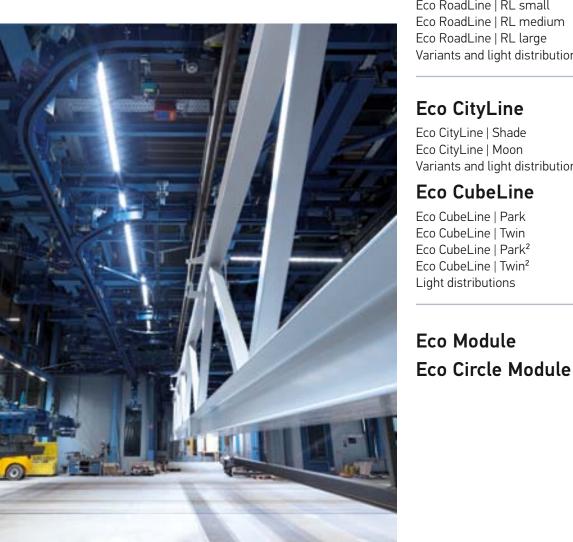
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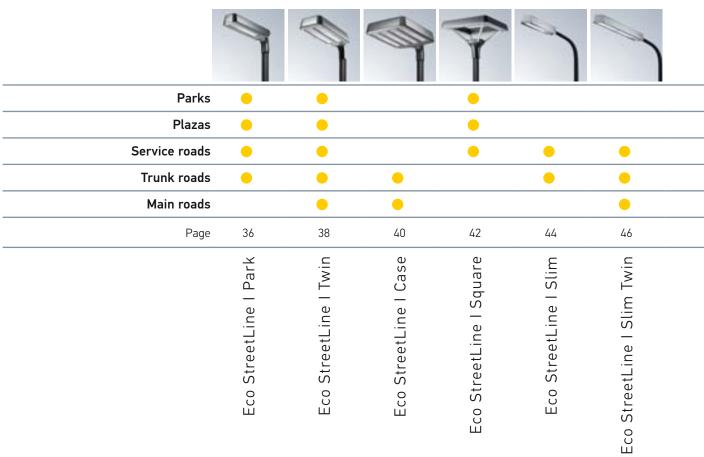


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INDUSTRIAL LIGHTING

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Eco StreetLine I series	Eco RoadLine I series	Eco CityLine I series	Eco CubeLine I series

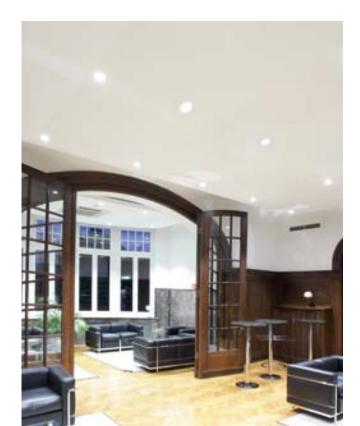
#### THE MAIN POINT - EXCELLENT VISIBILITY

When it has to do with orientation, precision or the safety of people and property, then lighting very quickly advances from being a little-noticed secondary issue to the main point. This is exactly what inspired us to make optimal use of HELLA LED lighting technology for industry, parking garages and retail outlets, filling stations and car repair shops. Today it is possible to take advantage of sustainable, environmentally friendly lighting, which saves energy and, above all, guarantees light and the best visibility in every environment.



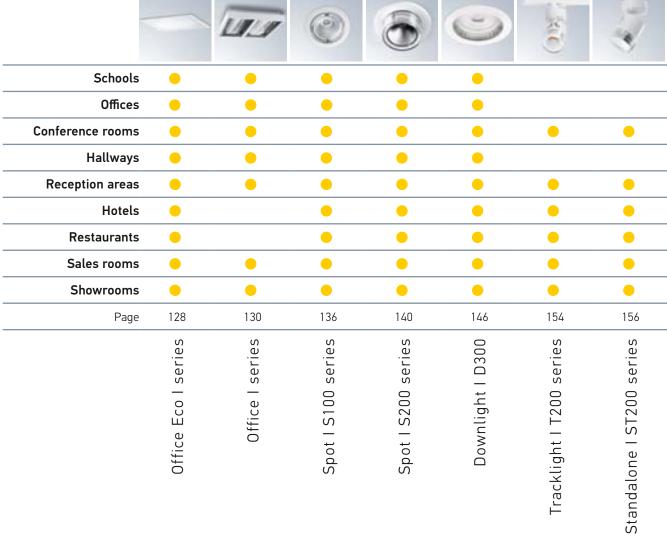
#### LOOK AT THINGS THE WAY THEY ARE

... or the way they were meant to be seen? It's possible to do both. The only thing that you need is good light. And we take care of that. Our LED spot lights, spots, downlights and panel lights make it easy to create, according to your wishes, an inviting environment, a stimulating atmosphere, accentuated light effects or – for example, through the combination of various different lights – harmonious, uniform interior lighting. All of this in a way that is highly efficient, very economical and especially environmentally friendly.











INTELLIGENT LIGHTING

# NEW PERSPECTIVES

# INTELLIGENT LIGHTING CONTROL SYSTEMS TAILORED YOUR INDIVIDUAL REQUIREMENTS

The light of the future is LED. No question. We systematically ensure the future sustainability of HELLA LED lighting technologies through the greatest possible flexibility. For this reason, it is clear that our contribution to intelligent lighting control systems is based on open-source interfaces and different requirements. As the only manufacturer, we developed a compatible and modular system for different HELLA products, which, thanks to being able to replace the modules very easily, is exceptionally efficient, practical and sustainable.

#### **BASIC**

On/off function or on/off function and night-time dimming (This is a network-connected interface control system of  $50\,\%/100\,\%$ . For infrastructures with 2-phase switching).

#### **BASIC+**

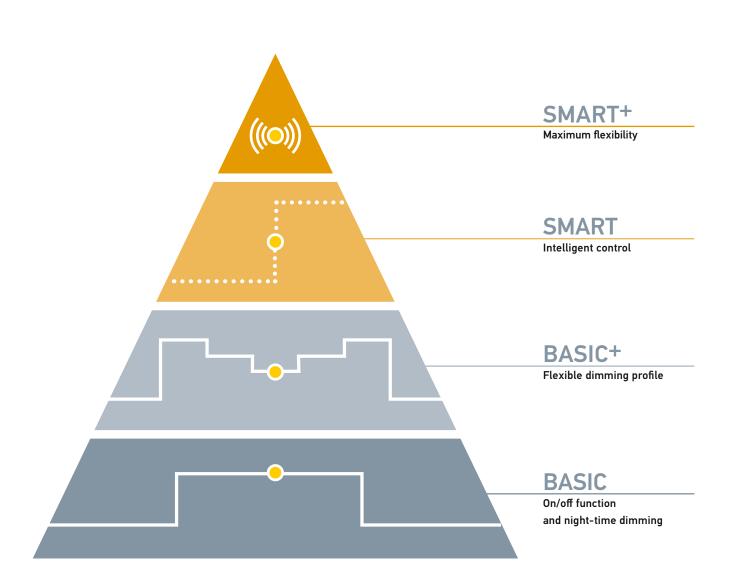
The integrated programmable logic control module enables automatic control (Astrodim) and independent dimming. This solution offers you more freedom to adapt the lighting to perfectly fit the environment and your specific objectives.

#### **SMART**

This control level has an open interface to the light controller (1-10 V/DALI) and offers you the possibility of integrating the lights into a control system.

#### SMART+

Based on the integration of control components, such as radio communication, UMTS and Powerline, you can achieve the highest flexibility and thus the greatest possible scope when integrating the luminaires into customized control systems. Moreover, the luminaires can be programmed to meet customer-specific requirements.









# EXTREMELY SUSTAINABLE

The best light, energy-saving efficiency, a sustainable effect. It doesn't get any better than this. This was what many people thought about LEDs at the beginning. They couldn't have been more wrong! Their real potential was only revealed with the brilliant launch of the modular HELLA LED lighting technology. The use of our ingeniously simple, flexible and versatile Eco module system made the ecologically and economically attractive LED lighting not just especially practical and customer friendly but, moreover, also innovative and sustainable.



# IT COULD BE SO EASY. AND IT IS.

The ECO modular concept for sustainable light, today and tomorrow

#### **INTERFACES**

Sustainability thanks to using the same interfaces and a 20-year availability guarantee

## PROTECTION CLASS

IP 65

#### PLUG & PLAY

Simple installation and removal into the luminaire housing via plug connectors – "plug & play"

# THERMAL MANAGEMENT

Optimal thermal management through a mix of materials and thermal monitoring



**PMMA** 

Poly(methyl methacrylate)

## MADE IN GERMANY

Development and production in Germany

## SIMPLE REPLACEMENT

Contact security (protection class II) enables replacement under load

# ELECTRICAL DRIVER ELECTRONICS

Night-time dimming, DALI- and 1-10 V-capable





### **VARIATIONS**

A range of different performance classes and light colors available. Can optionally be used as emergency lighting

# CONNECTOR





**SMART** 



**BASIC** 

## **OPTICS**

9 different optics for perfect light – by means of integration into the cover lens. Even better efficiency

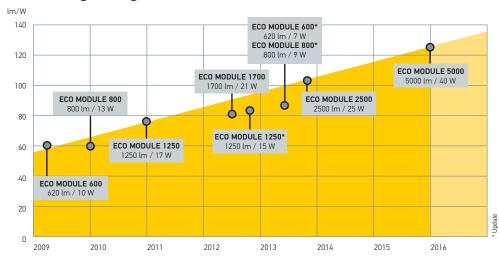
#### MORE INFORMATION:

Eco StreetLine from page 34
Eco CubeLine from page 76
Eco IndustryLine from page 112

# INTELLIGENT. MODULAR. FLEXIBLE.

There is no doubt that the industry's connection standards for conventional lighting have proven their worth. The problem is: There have not yet been any corresponding standards for LED lighting modules. And that's why we asked ourselves the question: How can we promote lighting innovation without throwing the tried-and-tested overboard? Our solution: ECO – the modular system. Uniform interfaces guarantee that it is possible to update to newer ECO modules at any time to ensure state-of-the-art energy efficiency for HELLA lighting for at least 20 years. And what's more. Thanks to the use of the intelligent "SMART" lighting control system, it is also possible to optimize light adjustment for industry and street lighting and thereby appreciably improve their efficiency.

#### The lighting evolution



Our customers are able to take advantage of the improvements in energy efficiency of the latest module technology by simply replacing the module at any time. Also in 20 years!

The ECO modular system thus enjoys a unique, sustainable dynamic. Now with 5,000 lm in the latest generation.



#### Sustainable? Absolutely!

The overall concept of sustainability is the guiding principle behind all aspects of the modular HELLA LED light technology. This correspondingly ensures the long-term stability of the system as well as the favorable ecological and economical consumption data of our LED lights. There are even more benefits associated with the last point as a new module enables simple upgrading to DALI (SMART connection requirement)



**BASIC** connector

## More flexibility thanks to lighting control:

A strictly demand-oriented, three-level structured system. From autonomous control through to individual control:



#### Level 1:

#### The basic solution

Network interface control. 2-phase switching 50% / 100%.



#### Level 2:

#### Flexible profile

Programmable logic control module. Step-less autonomous control (Astrodim).



#### Level 3:

#### Intelligent control

Open interface to control the lights (1-10V/DALI).

#### Modular luminous flux - from 600 lm to 5,000 lm

In our modular designed system, each individual module makes its contribution to an effective system luminous flux. In detail, this is carried out as follows: The luminous flux of each module is 600 lm to 5,000 lm. The effective system luminous flux of an Eco luminaire is thus comprised of the number and the luminaire fluxes of the modules. This requires different amount of LEDs, depending on the performance class, to ensure the lifetime of 60,000 h can be guaranteed. The measurement values are determined in accordance with IES LM-80 & TM-21 test methods.



The latest module generation now with 5.000 lm

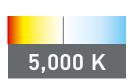
# The right color temperature for the optimal application area:



Warm white light for workplaces, offices, meeting rooms.



Neutral white light for technical basic lighting.

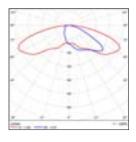


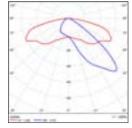
Daylight white light for industrial areas, factory plants, filling stations.

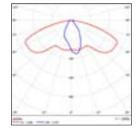


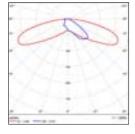
# **ECO MODULES**

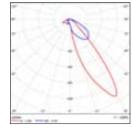
#### AN OVERVIEW OF ALL MODULES











ECO STREETLINE



#### S optics S lighting class streets

- → Particularly wide asymmetrical distribution
- → Low light point height (4-6 m)
- → Large mast spacing (>35 m)
- → Negative light point projection



#### M optics ME lighting class streets

- → Wide distribution, but less reach than S optics.
- → Medium to high light point heights (5 – 10 m)
- → Medium mast spacing (25 - 40 m)
- → Slight positive to negative light point projection
- → Well suited for lights with forward tilt.



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

- → For narrow streets and paths with medium to high light points (5-8 m)
- → Medium to large mast spacing (25-35 m).



#### U optics Streets with low light point heights (4-6 m)

- → Large mast spacing (>40 m)
- → Wide asymmetrical distribution.
- → Low light point heights



crossings

#### F optics Pedestrian

- → Specially for pedestrian crossings
- → Standards-compliant in accordance with DIN 67523
- → Positive contrast for better recognition of pedestrians
- → Light point height (4 - 8 m)





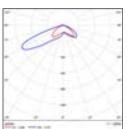




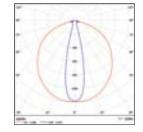


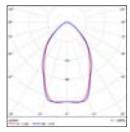
Illustration similar to











ECO INDUSTRYLINE



- → Rectangular asymmetrical distribution
- → Complete illumination of the parking lot
- → Reduced glare in the direction of the road lane
- → Can be used as emergency lighting



- → Wide rotationally symmetrical light distribution
- → Versatile and universal application
- → Can be used as emergency lighting



#### Walls, facades and billboards

- → Especially narrow emission at one level
- ightarrow Very homogeneous light



#### G optics

#### stations

→ Deep-wide radiating optics













# OLD BECOMES EFFICIENT

We love light! Whether in a modern interpretation or shaped in a classic form. And naturally we also especially like the characteristic of many beautiful cities: The historic street lamp. Of course not as a relic of outdated lighting technology! That's why we invented the Eco Circle. A LED module that – thanks to high-tech and superior thermal management – allows decorative street lamps to be put into a good light, also when it comes to aspects of economy and ecology.



# ECO CIRCLE – MORE EFFICIENCY FOR DESIGN LIGHTING

## SIMPLE REPLACEMENT

Ideal for retrofitting decorative street lamps

**PMMA** 

Poly(methyl methacrylate)

## **EFFICIENT LIGHT**

Efficient LED light up to 2,500 lm

PLUG & PLAY

Simple installation and removal



Can be easily integrated into existing design luminaires



Optimal thermal management thanks to the material mix and temperature monitoring

# OPTIMAL LIGHTING CONTROL

For parks and plazas

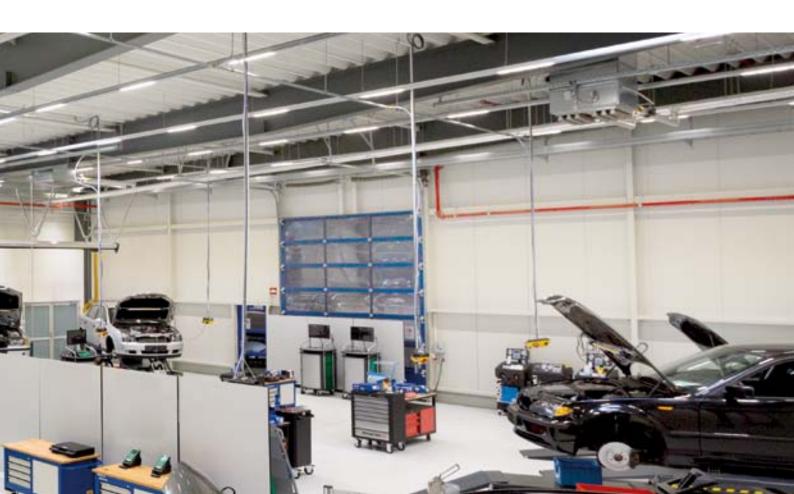


MORE INFORMATION:

ECO Circle module From page 90

# LIGHT LINE SYSTEM LIGHT LINE SYSTEM FUNCTION





# IL2 PLUS – THE HIGHLY FLEXIBLE LIGHT LINE SYSTEM

#### THERMAL MANAGEMENT

Permanent temperature monitoring of LED and electronic driver, temperature range from -25 °C - +50 °C



## LIGHT MANAGEMENT

Targeted luminaire design, efficient lighting control optionally upgradable

## LED module and electronic drive

LED module and electronic driver can be used as emergency lighting, special solution for addressable lighting

**EMERGENCY LIGHTING** 

## **SENSOR SYSTEM**

Intelligent sensor system can be extended at every position on the tracks

# ALUMINUM

High-quality and durable aluminum tracks

ELECTRICAL
DRIVER
DALL and 1-10 V

## LED MODULE

L80B10 after 60,000 h with four (4) different light distributions

## MADE IN GERMANY

Development and production in Germany

#### MORE INFORMATION:

IL2 PLUS light line system from page 94



IP 65
The smart box is sealed

# SMART BOX

Is comprising electronic driver and optional intelligent module

# PLUG & PLAY

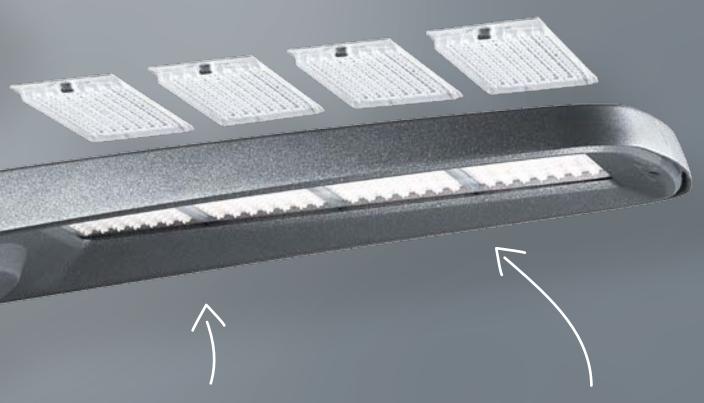
Tool-less replacement

# **FLEXIBLE**

Sensors and antenna can beadditionally integrated

# MODULAR

replaced in seconds without tools



SHOCK-RESISTANT IK10

PERFECTLY INSULATED

LED modules are completely moulded in silicon

# EASY TO USE

Application areas: S and ME classes

MORE INFORMATION:

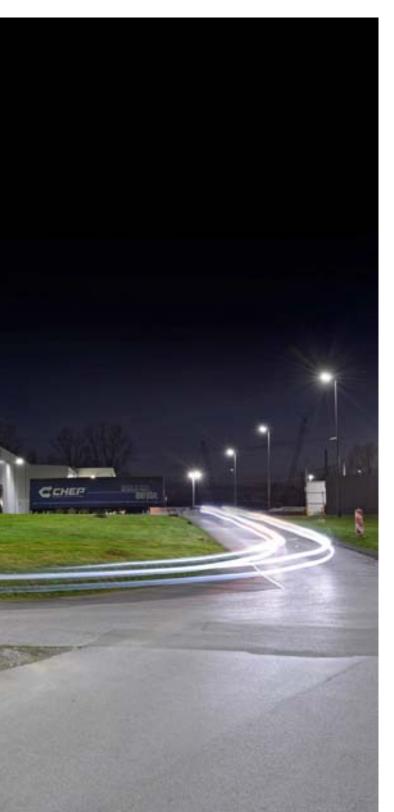
Eco StateLine from page 54





# ECO STREETLINE SERIES LIGHT AND CLEAR





#### A REAL HIGHLIGHT

"FORM FOLLOWS FUNCTION!" The representatives of modern industrial architecture all agree on this concept. And their efforts are well worth looking at. But they (often) aren't. That is because many industrial buildings continue to exist in the dark ages when it comes to conventional lighting. However, we certainly want to contribute to sustainably changing this situation. HELLA therefore offers a comprehensive range of high-performance LED street lights especially for these areas.

And the best: companies, employees as well as the environment all profit from the highly efficient, flexible and energy-saving HELLA LED lighting technology.

- 36 Eco StreetLine | Park
- 38 Eco StreetLine | Twin
- 40 Eco StreetLine | Case
- 42 Eco StreetLine | Square
- 44 Eco StreetLine | Slim
- 46 Eco StreetLine | Slim Twin
- 48 Light distributions

BASIC





# **ECO STREETLINE | PARK**

# Side-mounted and top-mounted luminaires

### DATA AND FACTS

During the development of these lights, we focused on one traffic area in which lighting is very often neglected:

Bicycle and pedestrian paths. And thus the "Park" was developed – a side- and top-mounted luminaire from the Eco StreetLine family with an autonomous LED module.

### The benefits of the Eco StreetLine | Park:

- → Modular LED system with integrated driver
- → Long-term cost security and cost-structure transparency
- → High-performance LED light technology including light control system
- → Technology guarantee
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Modular light distribution
- → Variably adjustable from -15° to +15° tilt
- → Completely preassembled with connection cables and module
- → Intelligent control possible
- → Integrated overheating protection
- ightarrow Maintenance-optimized design
- → Can be used as a linear luminaire

### → Development and production in Germany

- → Parks
- → Plazas
- → Service roads
- → Local distributor roads

ELECTRONICS	
Luminaire type	1 Eco module with 8 LEDs, 14 LEDs or 28 LEDs
Driver	Electronic, integrated into module
Interface control system	Option of night-time dimming (50 % /100 %), dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c
Power consumption	7-40 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	Optionally with mounted connection cable in different lengths or with a connection box

LIGHT TECHNOLOGY	
Effective system luminous flux	600 lm/800 lm/1,250 lm/1,700 lm/ 2,200 lm/2,500 lm/3,000 lm/3,500 lm/ 4,000 lm/4,500 lm/5,000 lm
Color temperature	4,000 K (neutral white), 5,000 K (cold white), optionally 3,000 K (warm white)
Color rendering index (CRI)	CRI 83 (3,000 K) CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21) 80% after 100,000 hours
Optics	PMMA individual optics

ADDITIONAL DATA	
Dimensions (L x W x H)	680 x 160 x 110 mm
Weight	6.5 kg
Materials	Housing wall and luminaire base made of aluminum die casting, painted similar to DB 703
Mast connection	60 or 76 mm spigot size for side-mounted or top-mounted luminaires Tilt adjustable from -15° to +15° 42 or 65 mm for side-mounted luminaires Tilt adjustable from 0° to -15°
Area exposed to wind	$FW = 0.08 \text{ m}^2$
Ambient temperature range	from -40 °C to +40 °C
Impact resistance	IK 04/IK 05/IK 08
IP Certification (Luminaire)	IP 67 / IP 69 K
Certification	<b>CE ₹</b> 10 <b>△ ⊕</b>
Efficiency class	A <sup>++</sup> A <sup>+</sup>











# **ECO STREETLINE | TWIN**

# Side-mounted and top-mounted luminaires

### DATA AND FACTS

"Twin" is a member of the Eco StreetLine family, equipped with two autonomous LED modules and specifically developed for better illumination of service roads and local distributor roads.

### The benefits of the Eco StreetLine | Twin:

- → Modular LED system with integrated driver
- → Long-term cost security and cost-structure transparency
- → High-performance LED light technology including light control system
- → Technology guarantee
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Demand-orientated configurable, asymmetrical light distribution
- → Variably adjustable from -15° to +15° tilt
- → Completely preassembled with connection cables and modules
- → Intelligent control possible
- → Integrated overheating protection
- → Maintenance-optimized design

### → Development and production in Germany

- → Parks
- → Plazas
- → Service roads
- → Local distributor roads
- → Main roads

ELECTRONICS	
Luminaire type	2 Eco modules with 8 LEDs, 14 LEDs or 28 LEDs each
Driver	Electronic, integrated into module
Interface control system	Option of night-time dimming (50 % /100 %), dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c
Power consumption	14-80 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	Optionally with mounted connection cable in different lengths or with a connection box

LIGHT TECHNOLOGY	
Effective system luminous flux	1,200 lm/1,600 lm/2,500 lm/3,400 lm/ 4,400 lm/5,000 lm/6,000 lm/7,000 lm/ 8,000 lm/9,000 lm/10,000 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white) Optional 3,000 K (warm white)
Color rendering index (CRI)	CRI 83 (3,000 K) CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	90 % after 60,000 hours (in accordance with IES LM 80 & TM 21) 80 % after 100,000 hours
Optics	PMMA individual optics

ADDITIONAL DATA	
Dimensions (L x W x H)	680 x 240 x 110 mm
Weight	9.5 kg
Materials	Housing wall and luminaire base made of aluminum die casting, painted similar to DB 703
Mast connection	60 or 76 mm spigot size for side-mounted or top-mounted luminaires Tilt adjustable from -15° to +15° 42 or 65 mm for side-mounted luminaires Tilt adjustable from 0° to -15°
Area exposed to wind	FW = 0.08 m <sup>2</sup>
Ambient temperature range	from -40 °C to +35 °C
Impact resistance	IK 04/IK 05/IK 08
IP Certification (Luminaire)	IP 67 / IP 69 K
Certification	C€\\\\\10\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Efficiency class	A** A*





# **ECO STREETLINE | CASE**

# Side-mounted and top-mounted luminaires

### DATA AND FACTS

It is often the case that especially in places where there is a lot of action, there is a lack of good light. "Case" provides an ideal solution for this. It is equipped with four autonomous LED modules and its light power is precisely tailor-made for the illumination of main roads and local distributor roads.

### The benefits of the Eco StreetLine | Case:

- → Modular LED system with integrated driver
- → Long-term cost security and cost-structure transparency
- → High-performance LED light technology including light control system
- → Homogeneous illumination
- → Technology guarantee
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Variably adjustable from -15° to +15° tilt
- → Completely preassembled with connection cables and modules
- → Intelligent control possible
- → Integrated overheating protection
- ightarrow Maintenance-optimized design

### → Development and production in Germany

### The most important areas of application:

- → Local distributor roads
- → Main roads

ELECTRONICS	
Luminaire type	4 Eco modules each with 8 LEDs, 14 LEDs or 28 LEDs
Driver	Electronic, integrated into module
Interface control system	Option of night-time dimming (50 % /100 %), dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c
Power consumption	28-160 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	Optionally with mounted connection cable in different lengths or with a connection box

LIGHT TECHNOLOGY	
Effective system luminous flux	2,400 lm/3,200 lm/5,000 lm/6,800 lm/ 8,800 lm/10,000 lm/12,000 lm/14,000 lm/ 16,000 lm/18,000 lm/20,000 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white) Optional 3,000 K (warm white)
Color rendering index (CRI)	CRI 83 (3,000 K) CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	90 % after 60,000 hours (in accordance with IES LM80 & TM21) 80 % after 100,000 hours
Optics	PMMA individual optics

ADDITIONAL DATA	
Dimensions (L x W x H)	680 x 440 x 110 mm
Weight	14.5 kg
Materials	Housing wall and luminaire base made of aluminum die casting, painted similar to DB 703
Mast connection	60 or 76 mm spigot size for side-mounted or top-mounted luminaires Tilt adjustable from -15° to +15°
Area exposed to wind	$FW = 0.08 \text{ m}^2$
Ambient temperature range	from -40 °C to +35 °C
Impact resistance	IK 04/IK 05/IK 08
IP Certification (Luminaire)	IP 67 / IP 69 K
Certification	<b>(€ (((((((((((((</b>
Efficiency class	A** A*

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

# **ECO STREETLINE | SQUARE**

# Decorative top-mounted luminaire

### DATA AND FACTS

"Square" is exactly tailor-made to meet the requirements of parking facilities and important service roads. This applies not only to the equipment with four autonomous LED modules, but also to your demanding design.

### The benefits of the Eco StreetLine | Square:

- → Modular LED system with integrated driver
- → 4 LED modules
- → Modules, asymmetrical light distribution
- → Technology guarantee
- → Average lifetime: 60,000 operating hours
- → Replacement part availability of at least 20 years
- → Completely preassembled with connection cables and modules
- → Night setback of 50 %
- → Integrated overheating protection
- → Maintenance-optimized design

### → Development and production in Germany

### The most important areas of application:

- → Parks
- → Plazas
- → Service roads

ELECTRONICS	
Luminaire type	4 Eco modules each with 8 LEDs
Driver	Electronic, integrated into module
Interface control system	2-level operation via two supply lines (100 % / 50 % reduction)
Mains connection	220 – 240 V / 50 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c (≥ 0.90 c for module 1,250)
Power consumption	28-84 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	Optionally with mounted connection cable in different lengths or with a connection box

LIGHT TECHNOLOGY	
Effective system luminous flux	2,400 lm/3,200 lm/5,000 lm/6,800 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white) Optional 3,000 K (warm white)
Color rendering index (CRI)	CRI 83 (3,000 K) CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	80% after 60,000 hours (in accordance with IES LM 80 & TM 21)
Optics	PMMA individual optics

ADDITIONAL DATA	
	700 700 500
Dimensions (L x W x H)	700 x 700 x 500 mm
Weight	15.5 kg
Materials	Housing wall and luminaire base made of aluminum die casting, housing stanchion made of aluminum extruded profiles, painted similar to DB 703
Mast connection	76 mm spigot size
Area exposed to wind	$FW = 0.15 \text{ m}^2$
Ambient temperature range	from -40 °C to +40 °C
Impact resistance	IK 04/ 05/ 08
IP Certification (Luminaire)	IP 65
Certification	<b>(€ (((((((((((((</b>
Efficiency class	A <sup>+</sup>

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

# **ECO STREETLINE | SLIM**

### Side-mounted luminaire

### DATA AND FACTS

We created our "Slim" side-mounted luminaire especially for local distributor roads and service roads as well as for bike and pedestrian paths, too. Naturally, as a member of the Eco StreetLine family, it also shares its characteristic special features: modularity and timeless design.

### The benefits of the Eco StreetLine | Slim:

- → Modular LED system with integrated driver
- → Sustainable concept with technology guarantee
- → Modules, asymmetrical light distribution
- → Aligned to the light classes S4 S6 or ME6
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Completely preassembled with connection cables and modules
- → Intelligent control possible
- → Integrated overheating protection
- ightarrow Development and production in Germany

- → Service roads
- → Local distributor roads

ELECTRONICS	
Luminaire type	1 Eco module with 8 LEDs, 14 LEDs or 28 LEDs
Driver	Electronic, integrated into module
Interface control system	Option of night-time dimming (50 % /100 %), dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c
Power consumption	15-40 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	With mounted connection cable in different lengths

LIGHT TECHNOLOGY	
Effective system luminous flux	1,250 lm/1,700 lm/2,200 lm/2,500 lm/ 3,000 lm/3,500 lm/4,000 lm/4,500 lm/ 5,000 lm
Color temperature	Optional 3,000 K (warm white) 4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 83 (3,000 K) CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	90 % after 60,000 hours (in accordance with IES LM80 & TM21) 80 % after 100,000 hours
Optics	PMMA individual optics

ADDITIONAL DATA	
Dimensions (L x W x H)	700 x 135 x 90 mm
Weight	4.5 kg
Materials	Aluminum extruded profile, painted similar to DB703
Mast connection	60 mm or 65 mm spigot size
Area exposed to wind	$FW = 0.07 \text{ m}^2$
Ambient temperature range	from -40 °C to +40 °C
mpact resistance	IK 04/IK 05/IK 08
P Certification (Luminaire)	IP 66 / IP 69 K
ertification	<b>(€ (((((((((((((</b>
	A <sup>++</sup>
Efficiency class	A <sup>+</sup>
	Δ

# **ECO STREETLINE | SLIM TWIN**

### Side-mounted luminaire

### DATA AND FACTS

"Slim Twin" is a Side-mounted luminaire, with two autonomous LED modules providing optimal lighting power for light and homogeneous illumination of service roads and local distributor roads.

### The benefits of the Eco StreetLine | Slim Twin:

- → Modular LED system with 2 modules and integrated driver
- → Sustainable concept with technology guarantee
- → Modular light distribution
- ightarrow Aligned to the light classes S5 to S2 and ME6 to ME4
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Completely preassembled with connection cables and modules
- → Intelligent control possible
- → Integrated overheating protection
- ightarrow Development and production in Germany

- → Service roads
- → Local distributor roads
- → Main roads
- → Industrial outdoor areas

ELECTRONICS	
Luminaire type	2 Eco modules with 8 LEDs, 14 LEDs or 28 LEDs each
Driver	Electronic, integrated into module
Interface control system	Option of night-time dimming (50 % /100 %), dimming profile, 1-10 Volt or DALI
Mains connection	220 – 240 V / 50 – 60 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c
Power consumption	30-80 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	With mounted connection cable in different lengths

LIGHT TECHNOLOGY	
Effective system luminous flux	1,200 lm/1,600 lm/2,500 lm/3,400 lm/ 4,400 lm/5,000 lm/6,000 lm/7,000 lm/ 8,000 lm/9,000 lm/10,000 lm
Color temperature	Optional 3,000 K (warm white) 4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 83 (3,000 K) CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	90 % after 60,000 hours (in accordance with IES LM80 & TM21) 80 % after 100,000 hours
Optics	PMMA individual optics

ADDITIONAL DATA	42 spigot size	60/65 spigot size
Dimensions (L x W x H)	1,440 x 135 x 90 mm	1,160 x 135 x 90 mm
Weight (without connecting cable)	approx. 7.7 kg	approx. 6.8 kg
Materials	Aluminum extruded profile, painted similar to DB703	
Mast connection	42 mm	60 mm / 65 mm
Area exposed to wind	FW = 0.13 m <sup>2</sup>	FW = 0.11 m <sup>2</sup>
Ambient temperature range	from -40 °C to +35 °C	
Impact resistance	IK 04/IK 05/IK 08	
IP Certification (Luminaire)	IP 66 / IP 69 K	
Certification	<b>(€</b> ∰10 🕸	) <u> </u>
Efficiency class	A++ A+	



# LIGHT DISTRIBUTIONS



ECO STREETLINE | PARK

Example light distribution 2,500 lm, light point height: 5 m





Narrow streets and paths



Streets in the ME lighting classes



Streets in the S lighting classes

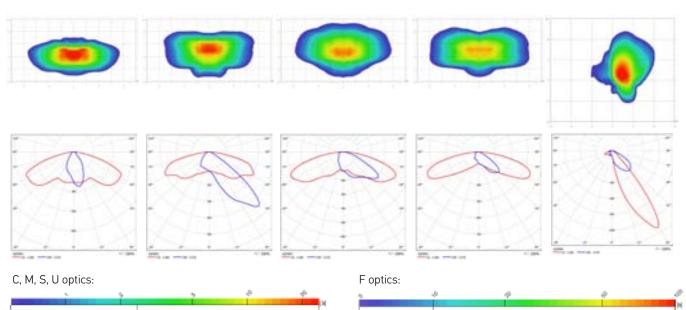


Streets with low light point heights large mast spacing



Example light distribution 5,000 lm, light point height: 6 m

Pedestrian crossings



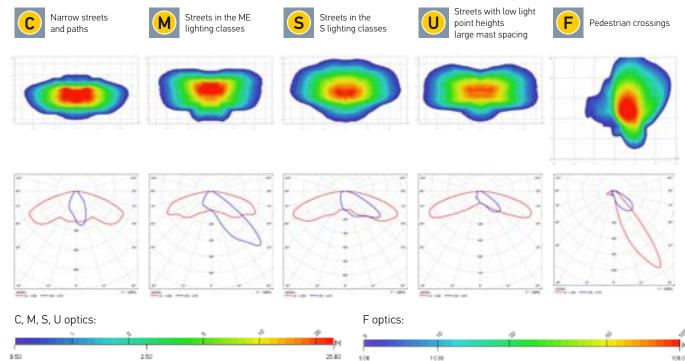


Eco StreetLine | Twin

Example light distribution 5,000 lm, light point height: 6 m

### OPTICS

150



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



# LIGHT DISTRIBUTIONS



Eco StreetLine | Case

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

1.50

### OPTICS\*



Streets in the ME lighting



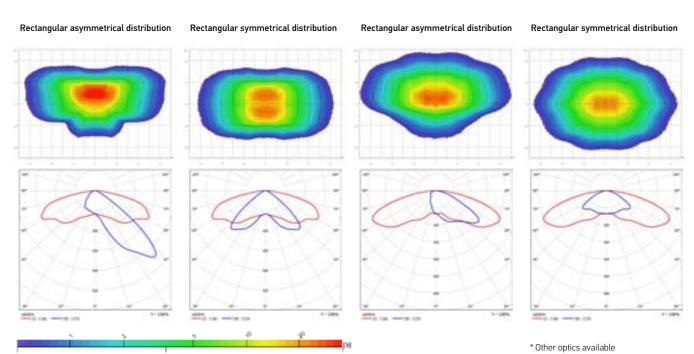
Streets in the ME lighting



Streets in the S lighting classes



Streets in the S lighting classes



35.00

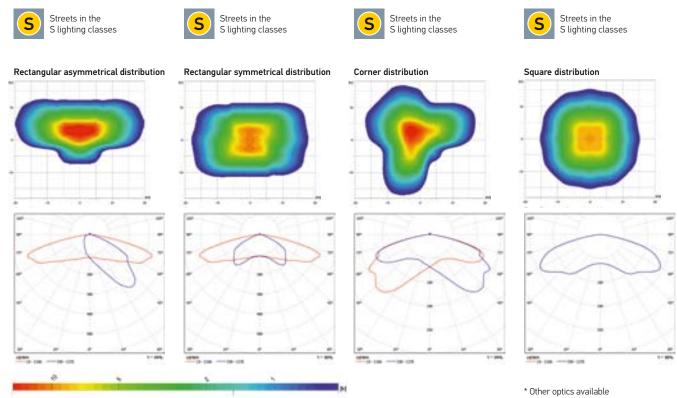




Eco StreetLine | Square

Example light distribution 2,480 lm, light point height: 5 m

### OPTICS\*



150

# LIGHT DISTRIBUTIONS



Eco StreetLine | Slim

Example light distribution 2,500 lm, tilt angle of + 15°

### OPTICS



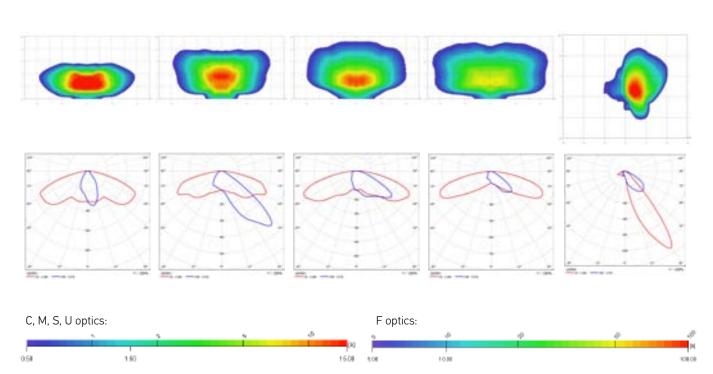




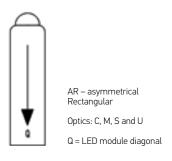


Example light distribution 5,000 lm, light point height: 6 m





### THE LIGHT ORIENTATION



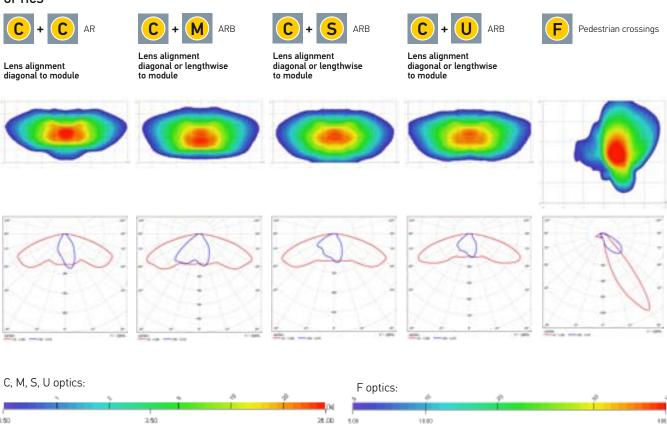


Eco StreetLine | Slim Twin

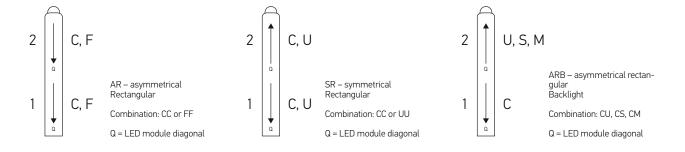
Example light distribution 5,000 lm, tilt angle from + 15°

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

### **OPTICS**

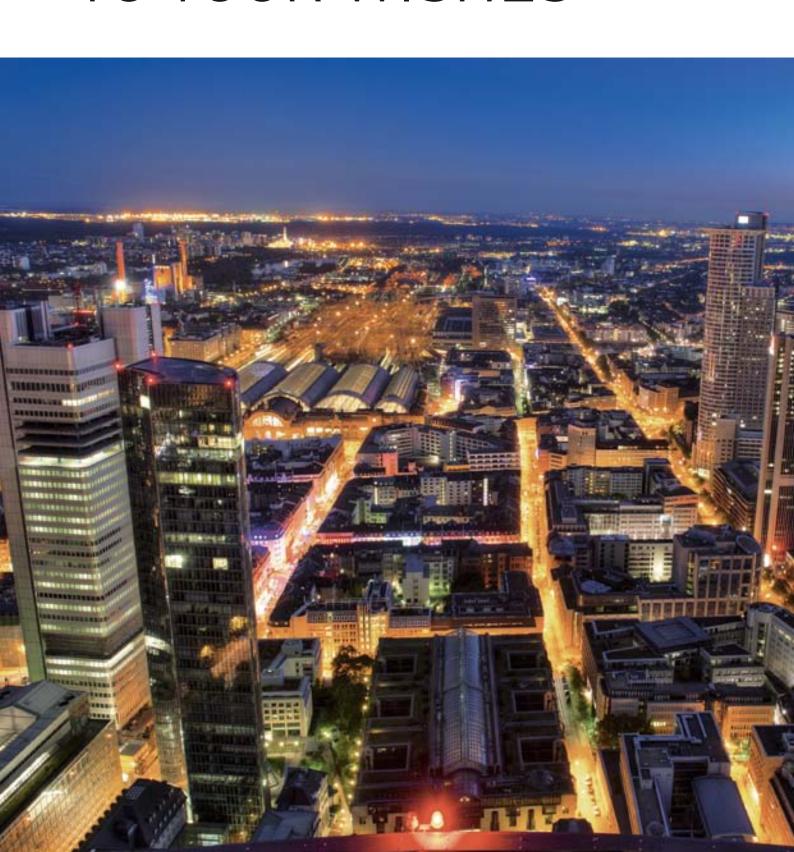


### THE LIGHT ORIENTATION



# **ECO STATELINE SERIES**

# LIGHT ACCORDING TO YOUR WISHES





The general principles for modernity are efficiency, flexibility and sustainability. We are committed to those. This is the reason behind the creation of our modular HELLA LED lighting technology. And it is precisely this goal that motivates us today and continues to drive the light evolution further. Example: The new Eco StateLine series. Unique amongst the street lights, as, for the first time, LED modularity has been ideally expanded by an individual adaptable, electronic concept with freely definable, intelligent modules. Your benefit: Expansion of the functionality, no bond

to the manufacturer and free selection of the system.

#### 56 Eco StateLine | STL 17"

# **ECO STATELINE | STL 17"**

# Side-mounted and top-mounted luminaires

### DATA AND FACTS

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 | STL 17":

- → 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
- → Replaceable SMART BOX comprising electronic driver and optional intelligent modules (housing IP 65)
- → Manufacturer and performance classes of electronic driver and modules components are freely selectable
- → Modules and SMART BOX can be replaced without tools (plug & play)
- → All classic benefits of the HELLA LED light technology
- ightarrow Optional constant luminous flux possible

### → Development and production in Germany

### The most important areas of application:

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

ELECTRONICS	
Luminaire type	Luminaire with 1, 2, 3 or 4 modules
Driver	Electronic, integrated into the Smart box, replaceable
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 80
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
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 $^{\circ}$ to +15 $^{\circ}$
Mast confection	$42-65$ mm spigot size for side-mounted luminaires, adjustable tilt: $0  ^\circ$ to $+15  ^\circ$
Area exposed to wind	$FW = 0.07 \text{ m}^2$
Ambient temperature range	from -40 °C to +40 °C
Impact resistance	IK 10
IP Certification (Luminaire)	IP 67 / IP 69 K
Certification	<b>(€ (((((((((((((</b>
Efficiency class	A** A*

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

# VISIBILITY AND SAFETY





# LIGHT IS A PART OF THE QUALITY OF LIFE.

This motivates us on our ongoing exploration of new solutions based on HELLA LED technology for introducing better lighting into all areas of life.

Example: The illumination of local trunk and main roads. Above all – especially for car drivers as well as residents – this means good visibility and safety.

We designed the Eco RoadLine series for this reason.

Three versions of a side-mounted and top-mounted luminaire based on a high light point, which, in addition to achieving homogeneous illumination and first-class lighting effects, also yields optimum luminous efficiency.

- 60 Eco RoadLine | RL small
- 62 Eco RoadLine | RL medium
- 64 Eco RoadLine | RL large
- 66 Variants and light distributions



# ECO ROADLINE | RL SMALL

# Side-mounted and top-mounted luminaires

### DATA AND FACTS

The RL small has been specially designed for high light points and homogeneous illumination of local trunk roads and main roads. Thanks to the integrated optics in the cover lens, it has been possible to achieve an excellent effect and optimal luminous efficiency.

### The benefits of the Eco RoadLine | RL large:

- → Highly efficient, environmentally friendly LED light technology
- → First-class optical effect and light distribution through the integrated optics in the cover lens
- → Maintenance-optimized design
- → Protected from wetness through IP 66
- → Simple to replace light source and electronics, also during operation
- → Night-time dimming (50% night setback) possible
- → 20-year replacement guarantee

### → Development and production in Germany

### The most important areas of application:

- → Service roads
- → Local trunk roads
- → Main roads

ELECTRONICS	
Luminaire type	1 module with 32 LEDs
Driver	Replaceable
Interface control system	2-level operation via two supply lines possible (100% / 50% reduction)
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power factor*	≥ 0.95 c
Power consumption	75 W
Surge voltage withstand capability	4 KV
Cabling	Optionally with assembled connection cable 14 m or with loose connecting plug for fitting the cable yourself

LIGHT TECHNOLOGY	
Effective system luminous flux	6,800 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 75 (4,000 K) CRI 75 (5,000 K)
Luminous flux over lifetime	80% after 50,000 operating hours (in accordance with IES LM 80 & TM 21)
Optics	Cover lens made of PMMA with integrated optics

ADDITIONAL DATA	
Dimensions (L x W x H)	Horizontal mast fitting: 1,000 x 167 x 132 mm Vertical mast fitting: 990 x 167 x 150 mm
Weight	6.4 kg
Housing	Aluminum die casting, powder coated, similar to RAL 9007
Mast connection	60 mm spigot size (horizontal mast fitting) 76 mm spigot size (vertical mast fitting)
Tilt angle	Adjustable without tools from -15° to +15°
Area exposed to wind	$FW = 0.08 \text{ m}^2$
Ambient temperature range	-40 °C to +40 °C
Impact resistance	IK 08
IP Certification (Luminaire)	IP 66
Certification	(€⊚∰⊚
Efficiency class	A <sup>+</sup>

<sup>\*</sup> At max. output powe

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



# **ECO ROADLINE | RL MEDIUM**

# Side-mounted and top-mounted luminaires

### DATA AND FACTS

The RL medium has an ideal format for the illumination of larger areas and industrial areas. This is ensured by its enormous light power, its excellent efficiency and its location at high light points.

### The benefits of the Eco RoadLine | RL medium:

- → Homogeneous illumination of main roads, plazas and industrial areas
- → Ideal format for gas stations and underground garages or on factory premises
- → First-class efficiency thanks to integrated optics in the cover lens
- → A range of different optics can be selected for needs-based lighting control
- → Tilt angle can be adjusted without tools
- → Completely tool-free module exchange on assembled luminaires
- → Optimized cooling concept and thermal decoupling from light unit and electronic driver
- → Night-time dimming (50% night setback) possible
- → Quick and simple installation and assembly

### → Development and production in Germany

### The most important areas of application:

- → Local trunk roads
- → Main roads
- → Industrial outdoor areas

ELECTRONICS	
Luminaire type	1 module with 48 LEDs
Driver	Replaceable
Interface control system	2-level operation via two supply lines possible (100% / 50% reduction)
Mains connection	220 – 240 V / 50 – 60 Hz
Protection class	Protection class II
Power factor*	≥ 0.95 c
Power consumption	110 W
Surge voltage withstand capability	4 KV
Cabling	Optionally with assembled connection cable 14 m or with loose connecting plug for fitting the cable yourself

LIGHT TECHNOLOGY	
Effective system luminous flux	10,000 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 75 (4,000 K) CRI 75 (5,000 K)
Luminous flux over lifetime	80% after 50,000 operating hours (in accordance with IES LM 80 & TM 21)
Optics	Cover lens made of PMMA with integrated optics

ADDITIONAL DATA	
Dimensions (L x W x H)	Horizontal mast fitting: 1,000 x 167 x 132 mm Vertical mast fitting: 990 x 167 x 150 mm
Weight	6.4 kg
Housing	Aluminum die casting, powder coated, similar to RAL 9007
Mast connection	60 mm spigot size (horizontal mast fitting) 76 mm spigot size (vertical mast fitting)
Tilt angle	Adjustable without tools from -15° to +15°
Area exposed to wind	$FW = 0.08 \text{ m}^2$
Ambient temperature range	-40 °C to +40 °C
Impact resistance	IK 08
IP Certification (Luminaire)	IP 66
Certification	(€⊚∰⊚
Efficiency class	A <sup>+</sup>

<sup>\*</sup> At max. output powe

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



# **ECO ROADLINE | RL LARGE**

# Side-mounted and top-mounted luminaires

### DATA AND FACTS

Whether for wide streets, large plazas or industrial sites – not a problem for the enormous light power of this Eco RoadLine in XXL format. It achieves homogeneous illumination and, thanks to the optics installed into the cover lens, excellent efficiency at the same time.

### The benefits of the Eco RoadLine | RL large:

- → Homogeneous illumination of main roads, plazas and industrial areas
- → Extremely powerful module with 64 LEDs and power consumption of 140 W
- → First-class efficiency thanks to integrated optics in the cover lens
- → A range of different optics can be selected for needs-based lighting control
- → Tilt angle can be adjusted without tools
- → Completely tool-free modular exchange on assembled luminaires
- → Optimized cooling concept and thermal decoupling from light unit and
- → electronic driver
- → Night-time dimming (50% night setback) possible
- → Quick and simple installation and assembly
- → 20-year replacement guarantee

### → Development and production in Germany

### The most important areas of application:

- → Main roads
- → Industrial outdoor areas

ELECTRONICS	
Luminaire type	1 module with 64 LEDs
Driver	Replaceable
Interface control system	2-level operation via two supply lines possible (100% / 50% reduction)
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power factor*	≥ 0.95 c
Power consumption	140 W
Surge voltage withstand capability	4 KV
Cabling	Optionally with assembled connection cable 14 m or with loose connecting plug for fitting the cable yourself

LIGHT TECHNOLOGY	
Effective system luminous flux	10,500 lm / 12,500 lm
Color temperature	3,000 K (warm white) 4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 75 (3,000 K) CRI 75 (4,000 K) CRI 75 (5,000 K)
Luminous flux over lifetime	80% after 50,000 operating hours (in accordance with IES LM 80 & TM 21)
Optics	Cover lens made of PMMA with integrated optics

ADDITIONAL DATA	
Dimensions (L x W x H)	Horizontal mast fitting: 960 x 245 x 132 mm Vertical mast fitting: 950 x 245 x 150 mm
Weight	7.2 kg
Housing	Aluminum die casting, powder coated, similar to RAL 9007
Mast connection	60 mm spigot size (horizontal mast fitting) 76 mm spigot size (vertical mast fitting)
Tilt angle	Adjustable without tools from -15° to +15°
Area exposed to wind	$FW = 0.08 \text{ m}^2$
Ambient temperature range	-40 °C to +40 °C
Impact resistance	IK 07
IP Certification (Luminaire)	IP 66
Certification	C€®∰®
Efficiency class	A <sup>+</sup>

<sup>\*</sup> At max. output power

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



# VARIANTS AND LIGHT DISTRIBUTIONS



**Eco RoadLine | RL small** Top-mounted luminaire



**Eco RoadLine | RL small** Side-mounted luminaire



**Eco RoadLine | RL medium** Top-mounted luminaire



**Eco RoadLine | RL medium** Side-mounted luminaire

### **OPTICS**



Narrow streets and paths



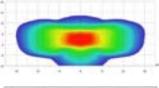
Streets in the ME lighting classes

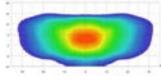


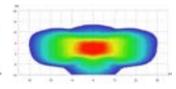
Narrow streets and paths

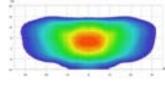


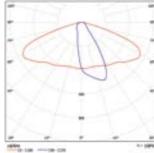
Streets in the ME lighting classes

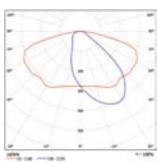


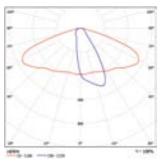


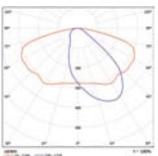


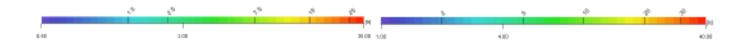
















**Eco RoadLine | RL large** Top-mounted luminaire

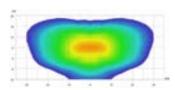


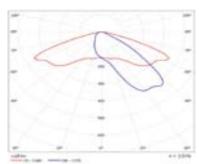
**Eco RoadLine | RL large** Side-mounted luminaire

### OPTICS



Streets in the ME lighting classes Also ideal for industrial sites







# ILLUMINATING CITYSCAPES





# LIGHT IS INCREASINGLY BECOMING A POPULAR ELEMENT OF INNER-CITY DESIGN.

Whether it is intended as a highlight feature or to fit into the overall concept of a cityscape, is only the secondary issue.

The luminaires in our CityLine series are perfect for every creative solution and, moreover, also offer everything to make them attractive to your citizens and the city administration: Premium light quality, the best light distribution and the typical, economical as well as ecological, excellent values of the modular HELLA LED lighting technology.

- 70 Eco CityLine | Shade
- 72 Eco CityLine | Moon
- 74 Variants and light distributions



# **ECO CITYLINE | SHADE**

# Top-mounted luminaire

### DATA AND FACTS

Our cities have a multitude of different facets. And we love them all! Whether as an attractive travel destination, small town or important metropolis. For you and your residents we created the Eco CityLine – well designed luminaires to embellish and illuminate urban spaces, parks and pedestrian zones. A new creation of this HELLA series is the top-mounted luminaire Eco CityLine Shade, with an autonomous Eco Circle module. Beautiful to look at and equipped with all the advantages of the HELLA LED lighting technology.

### The benefits of the Eco CityLine | Shade:

- → Modular LED system with integrated electronics
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- ightarrow Modular symmetrical/asymmetrical light distribution
- → Completely preassembled with connection cable and module
- → Night setback of 50 %
- → Integrated overheating protection
- → Maintenance-optimized design

### ightarrow Development and production in Germany

- → Parks
- → Plazas
- → Service roads

ELECTRONICS	
Luminaire type	1 Circle module with 14 LEDs
Driver	Electronic, integrated into module
Interface control system	2-level operation via 2 supply lines (100 % / 50 % reduction)
Mains connection	220 – 240 V / 50 Hz
Protection class	Class III
Power consumption	23 W
Surge voltage withstand capability	4 KV
Surge current withstand capability	2.5 KA
Cabling	7 m (3 x 1 mm²)

LIGHT TECHNOLOGY	
Effective system luminous flux	1,450 lm (2,700 K) / 1,800 lm (3,000 K) / 1,950 lm (4,000 K)
Color temperature	2,700 K / 3,000 K / 4,000 K
Color rendering index (CRI)	CRI > 70 (4,000 K) CRI > 80 (2,700 K / 3,000 K)
Luminous flux over lifetime	90% after 60,000 operating hours (in accordance with IES LM 80 & TM 21), 80% after 100,000 operating hours
Light distribution	Rectangular symmetrical or rectangular asymmetrical distribution

ADDITIONAL DATA	
Dimensions (L x W x H)	650 x 425 mm
Weight	8.5 kg
Materials	light base made of cast aluminum, housing stanchions made of aluminum, shade and end cover made of aluminum painted similar to DB703
Mast connection	76 mm spigot size, reducing piece 60 mm
Ambient temperature range	from -40 °C to +40 °C
IP Certification (Luminaire)	IP 65
Certification (module)	CE∰10 △ □
Efficiency class	A <sup>+</sup>

# **ECO CITYLINE | MOON**

# Top-mounted luminaire

### DATA AND FACTS

Many of our inner cities could well do with a few highlights. That's why we developed luminaires that will please both, citizens and the city administrators, because they look good, they perform well and are extremely economical. The Eco CityLine Moon, a top-mounted luminaire with an autonomous LED module, is one of these.

### The benefits of the Eco CityLine | Moon:

- → Modular LED system with integrated driver
- → Adapted to lighting classes S6 to S5
- → Technology guarantee
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Modular light distribution
- → Completely preassembled with connection cable and module
- → Night setback of 50 %
- → Integrated overheating protection
- → Maintenance-optimized design
- ightarrow Optionally with clear or white matt luminaire sphere

### → Development and production in Germany

- → Parks
- → Plazas
- → Service roads

ELECTRONICS	
Luminaire type	1 Circle module with 14 LEDs
Driver	Electronic, integrated into module
Interface control system	2-level operation via 2 supply lines (100 % / 50 % reduction)
Mains connection	220-240 V / 50-60 Hz
Protection class	Class III
Power factor	≥ 0.95 c
Power consumption	23 W
Surge voltage withstand capability	4 KV
Cabling	7 m (3 x 1 mm²)

LIGHT TECHNOLOGY	
Effective system luminous flux	1,700 lm (2,700 K) / 2,120 lm (3,000 K) / 2,300 lm (4,000 K)
Color temperature	2,700 K/3,000 K/4,000 K
Color rendering index (CRI)	CRI > 70 (4,000 K) CRI > 80 (2,700 K / 3,000 K)
Luminous flux over lifetime	90% after 60,000 operating hours (in accordance with IES LM 80 & TM 21), 80% after 100,000 operating hours
Light distribution	Rectangular symmetrical or rectangular asymmetrical distribution

ADDITIONAL DATA	
Sphere diameter (mm)	400 / 450 / 500
Weight	3.5 – 4 kg
Material	Luminaire sphere made of PC (clear or matt), mast base made of PC
Mast connection	60 mm / 76 mm spigot size
Ambient temperature range	from -40 °C to +40 °C
Impact resistance	IK 08
IP Certification (Luminaire)	IP 67
Certification (module)	<b>CE ₹</b> 10 <b>△ □</b>
Efficiency class	A <sup>+</sup>

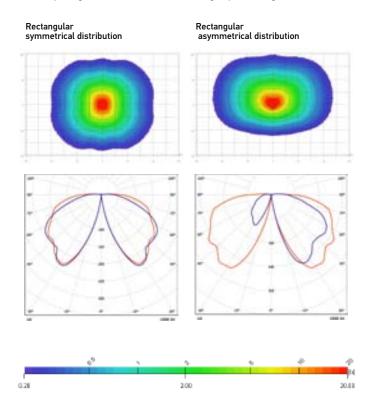


# VARIANTS AND LIGHT DISTRIBUTIONS



Eco CityLine | Shade

Example light distribution 2,000 lm, light point height: 4.5 m





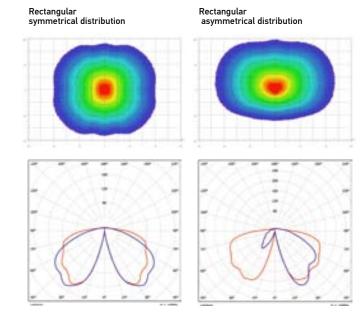


Eco CityLine | Moon Clear version



**Eco CityLine | Moon** White matt version

Example light distribution 2,300 lm, light point height: 4.5 m



211

# LIGHT WITH CHARACTER





### GEOMETRY CAN BE SO BEAUTIFUL!

The "cubist" avant-gardist recognized this and brought out the very best of it: Great art. This inspired us during the development of the Eco CubeLine luminaire because, as a pioneer of LED lighting technology, we took on the challenge of finding a contemporary, design-orientated solution when designing this series. One where the design language lives up to the trendsetting HELLA LED lighting technology. And thus the highly functional design street luminaires were born. They not only guarantee a better vision but are also worthy of being looked at.

- 78 Eco CubeLine | Park
- 80 Eco CubeLine | Twin
- 82 Eco CubeLine | Park<sup>2</sup>
- 84 Eco CubeLine | Twin<sup>2</sup>
- 86 Light distributions

# **ECO CUBELINE | PARK**

# Pole mounted luminaire

### DATA AND FACTS

Efficiency meets design. With the "Park", a decorative design luminaire from the Eco CubeLine series, we managed to set a new and attractive standard – optionally with a 2,500-lumen module. It is equipped with 14 LEDs and its performance complies one-hundred percent with the lighting requirements of bicycle and walking paths as well as smaller service roads.

### The benefits of the Eco CubeLine | Park:

- → Modular LED system with integrated electronics
- ightarrow Equipped with Eco LED module
- → Sustainable concept with technology guarantee
- → Aligned to the light classes S6 to S3 and ME6 to ME5
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Completely preassembled with connection cables and modules
- → Intelligent interface control possible
- → Development and production in Germany

- → Parks
- → Plazas

1 luminaire head with one Eco module
Optionally with night-time dimming, dimming profile, 1-10 Volt or DALI
220-240 V / 50-60 Hz
Protection class II
9-40 W (depending on luminous flux)
6 KV
2.5 KA
Connection cable preassembled

LIGHT TECHNOLOGY	
Effective system luminous flux	600 lm/800 lm/1,250 lm/1,700 lm/ 2,200 lm/2,500 lm/3,000 lm/3,500 lm/ 4,000 lm/4,500 lm/5,000 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white)
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21) 80% after 100,000 hours

ADDITIONAL DATA	
Mast	4 m / 5 m light point height
Impact resistance	IK 04/IK 05/IK 08
IP Certification (Luminaire)	IP 66
Certification	C€
Efficiency class	A <sup>++</sup> A <sup>+</sup>











# **ECO CUBELINE | TWIN**

# Pole mounted luminaire

### DATA AND FACTS

"Twin" is a decorative design luminaire from the Eco CubeLine series. With two autonomous LED modules, its light power is perfectly suited to the lighting requirements of parks, plazas as well as service roads and minor local distributor roads.

### The benefits of the Eco CubeLine | Twin:

- → Modular LED system with integrated electronics
- → Equipped with two Eco LED modules
- → Sustainable concept with technology guarantee
- ightarrow Aligned to the light classes S5 to S2 and ME6 to ME4
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Completely preassembled with connection cables and modules
- → Intelligent interface control possible
- → Development and production in Germany

- → Parks
- → Plazas

ELECTRONICS	
Luminaire type	1 luminaire head with two Eco modules
Interface control system	Optionally with night-time dimming, dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power consumption	18-80 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	Connection cable preassembled

LIGHT TECHNOLOGY	
Effective system luminous flux	1,200 lm/1,600 lm/2,500 lm/3,400 lm/ 4,400 lm/5,000 lm/6,000 lm/7,000 lm/ 8,000 lm/9,000 lm/10,000 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white) Optional 3,000 K (warm white)
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21) 80% after 100,000 hours

ADDITIONAL DATA	
Mast	4 m / 5 m / 6 m light point height
Impact resistance	IK 04/IK 05/IK 08
IP Certification (Luminaire)	IP 66
Certification	C€
Efficiency class	A <sup>++</sup> A A

# **ECO CUBELINE | PARK<sup>2</sup>**

# Pole mounted luminaire

### DATA AND FACTS

The best vision for representative spaces:

"Park<sup>2</sup>" from the Eco CubeLine series is a decorative design luminaire and not just brilliant due to its efficiency and functionality, it is also beautiful to look at. Above all it puts everything into the best light.

### The benefits of the Eco CubeLine | Park2:

- → Modular LED system with integrated electronics
- → Optionally equipped with two Eco LED modules
- → Sustainable concept with technology guarantee
- → Aligned to the light classes S4 S6 or ME6
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Completely preassembled with connection cables and modules
- → Intelligent interface control possible
- → Development and production in Germany

- → Parks
- → Plazas

ELECTRONICS	
Luminaire type	2 luminaire heads each with one module
Interface control system	Optionally with night-time dimming, dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power consumption	18-80 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	Connection cable preassembled

1,600 lm/2,500 lm/3,400 lm/5,000 lm/ 6,000 lm/7,000 lm/8,000 lm/9,000 lm/ 10,000 lm
4,000 K (neutral white) 5,000 K (cold white) Optional 3,000 K (warm white)
90% after 60,000 hours (in accordance with IES LM80 & TM21) 80% after 100,000 hours

ADDITIONAL DATA	
Mast	4 m / 5 m light point height
Impact resistance	IK 04/IK 05/IK 08
IP Certification (Luminaire)	IP 66
Certification	C€
Efficiency class	A** A* A

# ECO CUBELINE | TWIN<sup>2</sup>

# Pole mounted luminaire

### DATA AND FACTS

The attractive design luminaire, Eco CubeLine "Twin?", is a prime example for the trendsetting combination of efficiency and aesthetics. Its light power is ideal for the lighting requirements of service roads and smaller local trunk roads and also being well suited for parks or plazas.

### The benefits of the Eco CubeLine | Twin2:

- → Modular LED system with integrated electronics
- → Equipped with four Eco LED modules
- → Sustainable concept with technology guarantee
- → Aligned to the light classes S5 S2 and ME6 ME4
- → Average lifetime: 100,000 operating hours
- → Replacement part availability of at least 20 years
- → Completely preassembled with connection cables and modules
- → Intelligent interface control possible
- → Development and production in Germany

- → Parks
- → Plazas

ELECTRONICS	
Luminaire type	2 luminaire heads each with two modules
Interface control system	Optionally with night-time dimming, dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power consumption	36-160 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	Connection cable preassembled

LIGHT TECHNOLOGY	
Effective system luminous flux	3,400 lm/5,000 lm/6,800 lm/10,000 lm/ 12,000 lm/14,000 lm/16,000 lm/ 18,000 lm/20,000 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white) Optional 3,000 K (warm white)
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21) 80% after 100,000 hours

ADDITIONAL DATA	
Mast	4 m/5 m/6 m light point height
Impact resistance	IK 04/IK 05/IK 08
IP Certification (Luminaire)	IP 66
Certification	CE
Efficiency class	A** A* A



# LIGHT DISTRIBUTIONS



Eco CubeLine | Park

Example light distribution 2,500 lm, light point height: 5 m

### **OPTICS**



Streets in the ME lighting classes



asymmetrical

Streets in the S lighting classes



Streets in the ME lighting classes

Example light distribution 5,000 lm,

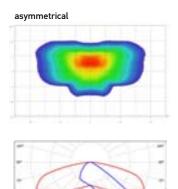
Eco CubeLine | Park²

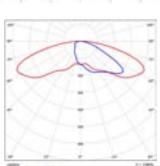
light point height: 5 m

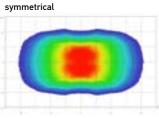


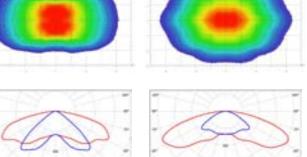
symmetrical

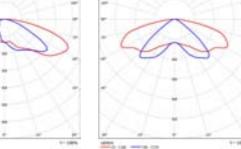
Streets in the S lighting classes

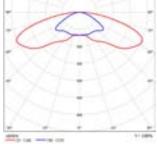












0.50

7.50



Eco CubeLine | Twin

Example light distribution 5,000 lm, light point height: 6 m

### OPTICS



Streets in the ME lighting



asymmetrical

Streets in the S lighting classes



Eco CubeLine | Twin<sup>2</sup>

Example light distribution 10,000 lm, light point height: 6 m



25.00

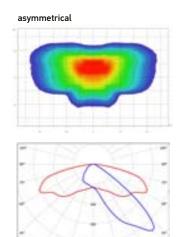
symmetrical

Streets in the ME lighting classes

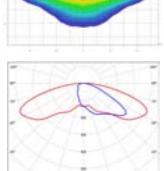


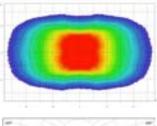
symmetrical

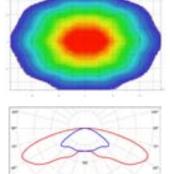
Streets in the S lighting classes

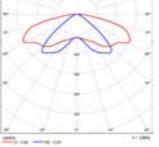


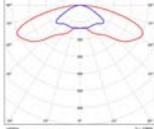
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# **ECO MODULE**

### DATA AND FACTS

The modular design corresponds optimally with the power-saving, environmentally friendly and sustainable goals of our innovative LED lighting technology. The 5000-lumen Eco module once again underscores the innovativeness and trendsetting qualities of our LED lighting technology. While the StreetLine and IndustryLine series have been further developed and improved, the existing interface for simple, time- and cost-saving exchange of the modules via plug & play has been retained.

### The benefits of the Eco Module:

- → Luminous flux up to 5000 lumen
- → Interface for time-saving exchange of the module
- → Module exchange via plug & play system
- → 20-year availability of replacement parts
- → Intelligent interface control

### → Development and production in Germany

### Application:

→ In luminaires from the Eco StreetLine, CubeLine and IndustryLine series

ELECTRONICS	
Driver	Electronic, integrated into module
Interface control system	Optionally with night-time dimming, dimming profile, 1-10 Volt or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c
Power consumption	7-40 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA

LIGHT TECHNOLOGY	
Effective system luminous flux	600 lm / 800 lm / 1,250 lm / 1,700 lm / 2,500 lm / 3,000 lm / 3,500 lm / 4,000 lm / 4,500 lm / 5,000 lm
Color temperature	Optional 3,000 K (warm white) 4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 83 (3,000 K) CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21), 80% after 100,000 hours
Optics	PMMA individual optics

460 x 85 x 100 mm
460 X 83 X 100 MM
approx. 1,060 g
from -40 °C to +55 °C
IK 04/IK 05/IK 08
IP 65
<b>(€ (((((((((((((</b>
A** A* A

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







# **ECO CIRCLE**

## Module

### DATA AND FACTS

Historic and decorative street luminaires are often a characterizing feature of the cityscape – unfortunately this is not very — economical. Our new Eco Circle LED module allows the old luminaires to appear in a better light. The replacement only provides benefits: the cityscape retains its character, light distribution is optimized and the power balance is significantly improved.

### The benefits of the Eco Circle:

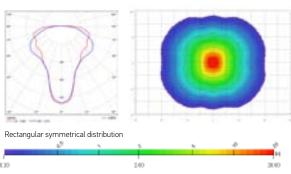
- → LED module as a certified luminaire
- → Modular design
- → A range of different variants for profile lengths
- → Optimal thermal management
- → Minimal energy consumption
- → IP Certification IP 40 or IP 54
- → Simple replacement in just a few minutes
- ightarrow Complete with 0.6 m or 7 m connection cable
- → Average lifetime: 100,000 operating hours
- → Night-time dimming

### ightarrow Development and production in Germany

### The most important areas of application:

- → In all design street luminaires
- → Parks
- → Plazas
- → Service roads

### Example light distribution 2,500 lm, light point height: 4.5 m



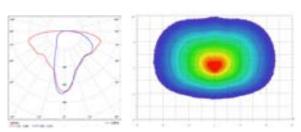
ELECTRONICS	
Luminaire type	Module with 14 LEDs
Driver	Electronic, integrated into module
Interface control system	2-level operation via two supply lines $(100\%/50\%$ reduction)
Mains connection	220-240 V / 50-60 Hz
Protection class	PROTECTION CLASS II
Power factor	≥ 0.95 c
Power consumption	23 W
Surge voltage withstand capability	4 KV
Cabling	0.6 m or 7 m
LIGHT TECHNOLOGY	
Effective system luminous flux	1,850 lm (2,700 K), 2,300 lm (3,000 K) 2,500 lm (4,000 K)
Color temperature	2,700 K/3,000 K/4,000 K
Color rendering index (CRI)	CRI > 80 (2,700 K), CRI > 70 (3,000 K / 4,000 K)

 $90\,\%$  after 60,000 operating hours

(in accordance with IES LM 80 & TM 21),

	80% after 100,000 operating hours
Light distribution	Rectangular symmetrical or rectangular asymmetrical distribution
ADDITIONAL DATA	
Dimensions (Ø, H)	137 mm, 220 mm to 414 mm
Weight	1,020 g – 1,375 g
Materials	Distance tube: Aluminum anodized Light grid: PMMA
Mounting	In luminaire housing by means of mounting plate or direct screw coupling
IP type of protection	IP 40 or IP 54
Ambient temperature range	$-40^{\circ}\text{C}$ to $+35^{\circ}\text{C}$ +35 $^{\circ}\text{C}$ (reduced luminous flux)
Certification	CE (₹10 △ )
Efficiency class	A <sup>+</sup>

All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C}$ 



Rectangular asymmetrical distribution

Luminous flux over lifetime

# THE BEST VIEW IS TOP PRIORITY

When it has to do with orientation, precision or the safety of people and property, lighting very quickly moves from being a little-noticed secondary issue to the main issue. Because efficient, safe operations require uniform, homogeneous and unobtrusive light distribution. And that is exactly what has inspired us to optimize HELLA LED lighting technology to make it work for industry, for parking garages, gas stations and car repair shops.

What is beneficial here today are luminaires that operate in a sustainable and environmentally friendly way, that save energy costs and, above all, guarantee pleasant light and the best visibility.





# LIGHT LINE SYSTEM | IL2 PLUS

# LIGHT RIGHT INTO THE FAR-FLUNG CORNERS





Even the most widely recognized best light source of our day is no use if it is not used optimally. For example for industry, warehouses and logistics. And this is the reason why we experimented for so long to ensure "it" fully meets the requirements of these target groups: The modular, flexible and efficient IL2 PLUS light line system. Ideal for homogeneous illumination of workshops, warehouses and industrial buildings. Equipped with intelligent temperature management. Simple to install. Light, efficient and environmentally friendly. Simply brilliant.

- 96 Light line system | IL2 PLUS
- 98 Accessories | IL2 PLUS
- Variants and light distributions







# **LIGHT LINE SYSTEM | IL2 PLUS**

### DATA AND FACTS

Optimal light right into the most far-flung corners of production plants, facilities and for example, also high-bay warehouses: our light line system IL2 PLUS shines with a consistent light quality. Thanks to the option of freely selecting optics according to your requirements, it is possible to guarantee homogeneous illumination and ideally suited light distribution at all times. The upper part of the support rail can be utilized as a cable route

and the phase organization per light point can be freely selected.

### The benefits of the Light strip system | IL2 Plus:

- → Highly flexible LED light line system
- → Modular design
- → Simple and fast tool-free installation
- → Warp-resistant aluminum rails
- → Intelligent temperature management
- → Separate replacement of electronic drivers and LED module
- → The luminaire type of protection can be upgraded to IP 54 at any time
- → Emergency lighting is possible
- → Sensors can be upgraded and expanded at every rail position
- → At least 80% luminous flux after an average lifetime of 60,000 operating hours
- → Replacement part availability of at least 20 years

### → Development and production in Germany

### The most important areas of application:

- → Warehouses
- → Logistics facilities
- → Factory facilities
- → Production facilities

ELECTRONICS	
Luminaire type	LED module each with 104 LEDs
Driver	Optionally as 1 – 10 V dimming or DALI
Failure rate of the electronic drivers	Max. 3% after 50,000 hours (MTBF 2 million hours)
Mains connection	220 – 240 V / 50 – 60 Hz
Sensor system	Optional daylight sensors (1 – 10 V) and / or presence detector (1-10 V, DALI, DALI 2)
Protection class	System: PROTECTION CLASS I / electronic drivers and modules: PROTECTION CLASS II
Power factor	≥ 0.95 c
Power consumption	22 W (3,300 lm) / 28 W (4,000 lm) / 33 W (4,700 lm)
Surge voltage withstand capability	4 KV

LIGHT TECHNOLOGY	
Effective system luminous flux	3,300 lm / 4,000 lm / 4,700 lm
Color temperature	4,000 K (840) / 5,000 K (850) / 6,500 K (865)
Color rendering index (CRI)	> 80
	L80B10 after 60,000 operating hours (in accordance with IES LM 80 and TM 21-11)
Optics I	N optics: Narrow beam W optics: Wide beam D optics: Double asymmetrical illumination X optics: Very narrow radiation
Jptics [	D optics: Double asymmetrical illun

ADDITIONAL DATA	
Dimensions (L x W x H)	LED module: 592 x 72 mm Support rail: 0.6 m / 1.20 m / 3.00 m / 4.20 m Length 600 / 1,200 / 3,000 / 4,200 x 90 x 85 mm
Weight pro 0.6 m	<ul><li>2.2 kg with complete module equipment,</li><li>1.3 kg without module equipment</li></ul>
Materials	High-quality and buckling-resistant support rail made of aluminum, lens made of PMMA, covering of PP
Mounting	Mounting by means of hanging on support rails
Colors	Support rail optionally in aluminum color, gloss white similar to RAL 9016, grey similar to RAL 9007 or black matt similar to RAL 9017
Ambient temperature range	3,300 lm: -25 °C to +50 °C 4,000 lm: -25 °C to +50 °C 4,700 lm: -25 °C to +45 °C
IP Certification (Luminaire)	IP 20 / IP 40 / IP 54
Certification	(€@
Efficiency class	A**

Technical data effective from 06/2016



# **ACCESSORIES | IL2 PLUS**

# Presence detector including constant lighting control

### DATA AND FACTS

The IL2 PLUS presence detector can further optimize the performance and benefits of the system. And this is exactly the function of our infrared presence detector including constant lighting control via daylight sensor, DALI sensor or high-bay sensor, SMART plus control. The highly innovative sensors are equipped with a special lens and can react within a square detection zone to movements and different kinds of light conditions allowing automatically control illumination.

Available in five variations:
DALI to 8 m, DALI to 10 m,
1 – 10 V to 8 m or 1 – 10 V to 10 m.
(Broadcast), DALI 2 to 10 m

# Benefits of the presence detector incl. constant lighting control:

- → Direct installation into the IL2 PLUS support rail with automatic contact to the 1 – 10 V or DALI interface
- → Plug & play connection system without any other additional installation material
- → 1,760 and 4,800 switching zone for the highest detection quality
- → Simple alignment to the individual usage situation
- → Optionally available remote control for easy installation and control
- → Additional energy savings
- → Longer lifetime
- → Development and production in Germany

ELECTRONICS	
Version	Presence detector
Type of sensor	Passive infrared
Interface control system	1-10 V, DALI (broadcast) or DALI 2
Dimming	1–10 V: 10–100 % DALI: 10–100 % (switch-off possible)
Protection class	PROTECTION CLASS II
Connection	Plug contact for IL2 PLUS support rail
Number of adjustable light points	1–10 V: max. 50 electronic drivers DALI: max. 12 electronic drivers (broadcast) DALI 2: Can be addressed via DALI control

INSTALLATION DATA	Presence detector up to 8 m	Presence detector up to 10 m
Max. installation height	2.5 m to 8 m	2.5 m to 10 m
Square detection zone presence	Max. 4 x 4 m (16 m <sup>2</sup> )	Max. 8 x 8 m (64 m²)
Square detection zone tangential	Max. 7 x 7 m (49 m <sup>2</sup> )	Max. 20 x 20 m (400 m <sup>2</sup> )
Square detection zone radial	Max. 5 x 5 m (25 m <sup>2</sup> )	Max. 8 x 8 m (64 m²)
Light sensor working area	100 – 1,000 lx	
Configuration	Configuration carried out directly at the presence detector, optionally via remote control	
Sensor system	13 detection levels, 1,760 switching zones	13 detection levels, 4,800 switching zones
Site of operation	In the interior of buildings	

ADDITIONAL DATA	
Dimensions (L x W x H)	180 x 130 x 95 mm
Weight	310 g
Housing	PPT40
Ambient temperature range	-25 °C to +55 °C
IP type of protection	IP 20
Certification	CE 🗱 🐵
Daylight sensor	Yes



# **ACCESSORIES | IL2 PLUS**

# Daylight sensor

### DATA AND FACTS

Do you have a high amount of incidental daylight in your facility? If so, this sensor is an intelligent solution for additional cost savings.

In many cases, our special daylight sensor for IL2 PLUS light line system is the perfect solution to supplement the lighting system. The sensor measures the brightness in the working area and controls the luminous flux of the IL2 PLUS LED module.

### Benefits of the daylight sensor:

- → Simple installation onto the IL2 PLUS support rails (plug & play)
- → Direct connection to the 1 10 V interface
- → Simple setting of the target value by means of the potentiometer
- → Controls 100% of the incidental daylight
- → Energy savings
- → Increased lifetime
- → Thermal management is facilitated
- → Development and production in Germany

ELECTRONICS	
Type of sensor	Daylight sensor
Interface control system	1-10 V
Protection class	PROTECTION CLASS II
Connection	Plug contact for IL2 PLUS support rail
Number of adjustable light points	Max. 80 electronic drivers
Number of adjustable light points	Max. 80 electronic drivers

INSTALLATION DATA	
Max. installation height	8 m
Light sensor detection area	Cone shaped, approx. 90° angle of beam spread
Light sensor working area	20-800 lx
Target value setting	Manuel target value setting via potentiometer

ADDITIONAL DATA	
Dimensions (L x W x H)	175 x 80 x 75 mm
Weight	185 g
Sensor	Makrolon / polycarbonate
Housing	PPT40
Ambient temperature range	0-40°C
IP type of protection	IP 20
Certification	(€ ∰™®



# VARIANTS AND LIGHT DISTRIBUTIONS



IL2 PLUS light line system Continuous suspension



IL2 PLUS light line system Suspension, with coverage



IL2 PLUS light line system Surface mounted



IL2 PLUS light line system Suspension, individual module

### **OPTICS**



W optics

### **Production facilities**

- → Wide beam
- ightarrow Very homogeneous illumination
- → Large light line intervals also in the case of low light point heights



N optics

### High industrial facilities

- → Narrow beam
- → Narrow radiation characteristics
- → Optimized for high light points



X optics

### High-bay warehouse

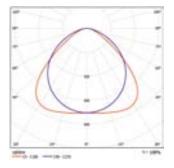
- → Very narrow radiation
- → Ideal for very high light points.

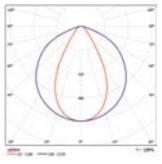


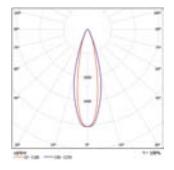
D optics

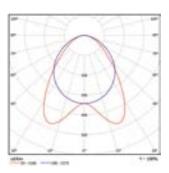
### Supermarkets

- ightarrow Double asymmetrical
- → Targeted illumination of shelving.











Light point height: > 4 m



N optics

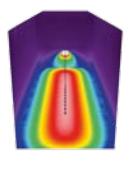
Light point height: > 7 m

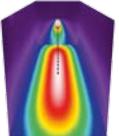


Light point height: > 12 m



Light point height: > 2.6 m

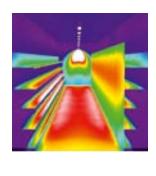




















# HIGHBAY SERIES PERFECTLY LIGHT





It's natural that facilities which operate as warehouses or production plants should be operational rather than cozy. And who would want it to be any different?

Definitely not those who work there. But some people would definitely like better light. And it does exist.

Our modular LED high-bay lights leave nothing to be desired. With their precision optics, optimal thermal management and excellent light distribution, they deliver precisely what is desired: Good, efficient light!

And HELLA is able to provide this under the best conditions, because installation is simple and energy consumption is very economical.

106 Highbay | IL Up

108 Highbay | IL One

110 Variants and light distributions



# HIGHBAY | IL UP

# High-bay lights

### DATA AND FACTS

The IL Up high-bay light sets a new benchmark for efficient illumination of industrial, factory and storage facilities. This aluminum lightweight sets new standards with its combination of flat luminaire housing (with smooth surfaces and no cooling fins), attractive industrial design and an electronical driver. Premium-class light quality, minimal emissions as well as a significant reduction of energy costs also provide clear advantages for the innovations offered in these three variations.

### The benefits of the Highbay | IL Up:

- $\rightarrow$  3 variants from 14,000 lm to 30,000 lm
- → Lighting concept with electronical driver 1-10 V and DALI, constant light output
- → Operating temperature range -30 °C to +50 °C (higher temperatures can be achieved through low current feed)
- → Protection classes IP 65 and IK 08
- → Base body made of ALU die casting
- ightarrow Flat design, no cooling fins
- $\rightarrow$  Simple installation
- → Oil-resistant
- → Replaceable glass protective screen offers protection in tough environmental conditions (optional) IK 10
- ightarrow Electronic drivers can be individually replaced
- → 20-year availability of replacement parts

### → Development and production in Germany

### The most important areas of application:

- → Warehouses
- → Logistics facilities
- → Factory facilities
- → Production facilities

ELECTRONICS	
Luminaire type	LED module each with 190 LEDs
Driver	Optionally as ON/OFF, 1-10 Volt dimming or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	PROTECTION CLASS I
Power factor	≥ 0.95 c
Power consumption	100 W/ 160 W/ 230 W
Surge voltage protection	> 4 kV

LIGHT TECHNOLOGY	
Effective system luminous flux	14,000 lm / 20,000 lm / 30,000 lm
Color temperature	4,000 K (840) / 5,000 K (850) / 6,500 k (865)
Color rendering index (CRI)	RA > 80
Color consistency	< 3SDCM
Luminous flux over lifetime	L80B10 after 60,000 h (in accordance with IES LM 80 and TM 21-11)
Optics (angle of radiation)	N optics: narrow beam W optics: wide beam
Interface control system	DALI (CLO-Option) 1-10 V On/Off

ADDITIONAL DATA	IL Up M	IL Up L
Dimensions	480 x 405 x 125 mm	585 x 480 x 125 mm
Weight	8.2 kg	10.8 kg
Materials	Aluminum die cast	
Lens	PMMA, integrated optics	
Mounting	2 or 4 point suspension with cable, bracket for ceiling or wall installation	
Frame color	Two-colored RAL 9005 / RAL 9006	
Impact resistance	IK 08 (IK 10 with protective screen)	
Ambient temperature range	- 30 °C to +50 °C	
IP Certification (Luminaire)	IP 65	
Certification	CE®®	
Efficiency class	A <sup>++</sup>	

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





# HIGHBAY | IL ONE

# High-bay lights

# DATA AND FACTS

The high-bay light, IL One Highbay, is characterized by low installation height, minimal dimensions and optimal light technology. The optimized thermal management, best light distribution and utilization of sensors guarantees the most important factors for workplaces and for saving costs: excellent light quality, minimal emissions as well as savings in energy of 65% and more.

### The benefits of the Highbay | IL One:

- → Excellent LED light quality
- → Series production 1-10 V model
- → Flat, robust design
- $\rightarrow$  Energy savings of 65% and more
- → Only minimum emissions
- → Optimized thermal management
- → Simple 1:1 replacement can be implemented
- → Sustainable concept with technology guarantee
- → Easy adjustment of the spot light thanks to its round shape

## The most important areas of application:

- → Warehouses
- → Logistics facilities
- $\rightarrow$  Industrial buildings
- → Production facilities

ELECTRONICS	
Luminaire type	LED high-bay lights with up to 264 LEDs
Driver	Integrated, incl. 1 – 10 V dimming
Mains connection	90 – 305 V
Protection class	PROTECTION CLASS I
Power consumption	100 W 160 W 230 W
Dimming	1 – 10 V

LIGHT TECHNOLOGY		
Effective system luminous flux	W optics 100 W: 10,500 lm 160 W: 16,500 lm 230 W: 23,000 lm	N optics 100 W: 9,500 lm 160 W: 15,000 lm 230 W: 20,500 lm
Color temperature	4,000 K (840)	
Color rendering index (CRI)	RA > 80	
Luminous flux over lifetime	70% after 50,000 operating hours	
Optics (angle of radiation)	W optics 120°	N optics 90° or 90° / 80° with reflector

ADDITIONAL DATA	
Dimensions	388 x 178 mm
Weight	7–8 kg
Materials	Housing made of aluminum powder coated in RAL 9006
Operating temperature	100 W to 160 W: -25 °C to +45 °C 230 W: -25 °C to +40 °C
Impact resistance	IK 10
IP Certification (Luminaire)	IP 65 (W optics) IP 54 (N optics)
Certification	<b>C</b> €∰₀₅
Efficiency class	A <sup>+</sup>

All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C}$ 





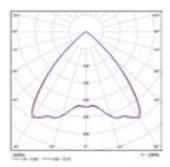


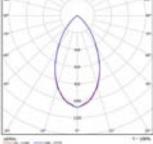
HighBay | IL Up M

HighBay | IL Up L











IL One | HighBay Clear version



IL One | HighBay Matt version



**IL One | HighBay** Version with transparent shade



**IL One | HighBay** Version with matt shade



**OPTICS** 

Production facilities



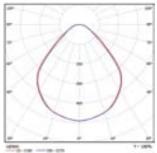
High industrial facilities



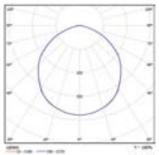
High industrial facilities



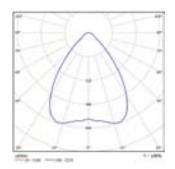
High industrial facilities

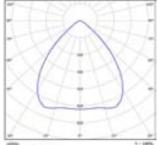


90° angle of radiation

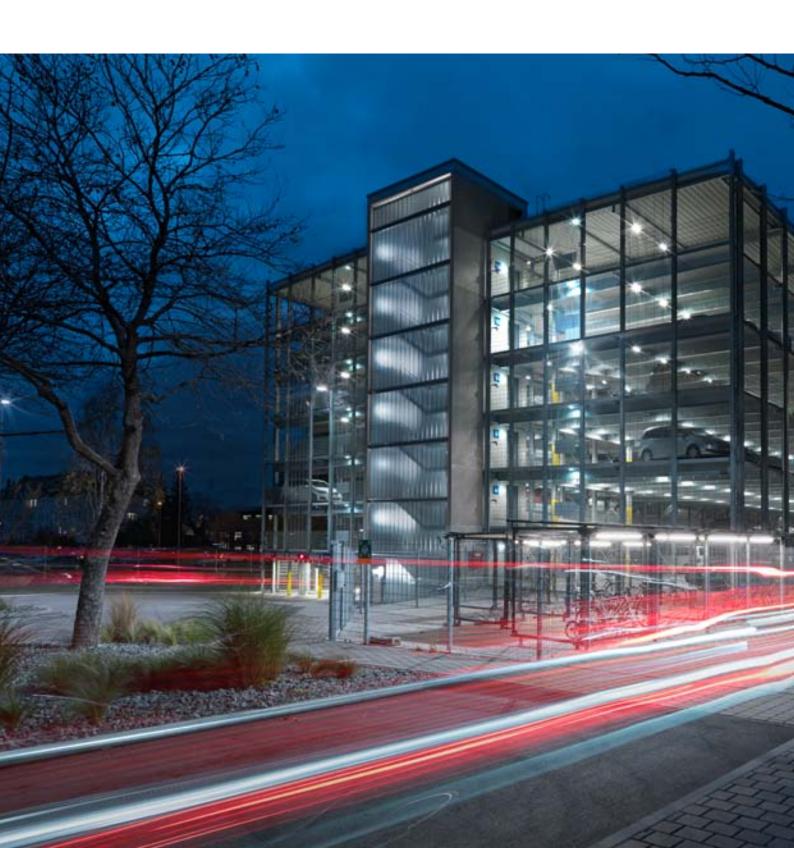


120° angle of radiation





# CRYSTAL CLEAR





There are light situations that can only benefit from an overall change from conventional lamps to LEDs. Examples of these are dimly lit underground garages, the gloomy atmosphere of warehouse facilities or starkly lit workplaces. All of these are unreasonable for those concerned, absolutely outdated and can prove to be expensive for the operator, employer and the environment. LED functional luminaires demonstrate that it can be done differently; more economically and at the same time much better. With energy efficiency, intelligent control, modularity and genuinely good, adapted light.

- 114 Eco IndustryLine | Frame
- 116 Eco IndustryLine | Box
- 118 Eco IndustryLine | Basic
- 120 Variants and light distributions











# **ECO INDUSTRYLINE | FRAME**

# Functional luminaire with 1 module, 2 modules or 3 modules

# DATA AND FACTS

With the manufacture of the Eco IndustryLine, we have managed to achieve optimal use of today's recognized best light source in combination with the innovative HELLA module system for a range of different application purposes. It is high time to make a break from conventional lighting of, for example, gas stations, underground garages, parking garages and a whole range of diverse industrial areas, by utilizing LED light.

### The benefits of the Eco IndustryLine | Frame:

- → Modular design enables decoupling of the LED module to the housing
- → Energy efficiency
- → Modules can be easily replaced via the plug & play system at any time
- → Weather resistance
- → Integrated thermal management
- → Optimized light distribution
- → Dimming
- → 20-year replacement guarantee
- → Minimum of 80% luminous flux after an average lifetime of 100,000 operating hours
- ightarrow Development and production in Germany

### The most important areas of application:

- → Gas stations
- → Parking garages
- → Outdoor areas

ELECTRONICS		
Luminaire type	Recessed or surface-mounted luminaires with 1, 2 or 3 LED modules each with 14 LEDs or 28 LEDs	
Driver	Electronic, integrated into module	
Interface control system	Night-time dimming, 1–10 V or DALI	
Mains connection	220-240 V / 50-60 Hz	
Protection class	PROTECTION CLASS II	
Power factor*	> 0.95 c	
Power consumption	24 W – 120 W	
Surge voltage withstand capability	6 KV	
Cabling	Incl. connection box or 5 m cabling	
LIGHT TECHNOLOGY		
Effective system luminous flux	2,500 lm / 5,000 lm / 7,500 lm / 10,000 lm / 15,000 lm	
Color temperature	4,000 K (neutral white), 5,000 K (cold white)	
Color rendering index (CRI)	CRI > 70	
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21) 80% after 100,000 hours	
Optics	PMMA individual optics	
ADDITIONAL DATA		
Materials	Cover lens module made of PMMA. Housing and mounting bracket made of galvanized steel, painted in RAL 9003 (signal white)	
Ambient temperature range	-40°C to +40°C	
Impact resistance	IK 05/IK 08	
IP Certification (Luminaire)	IP 65	
Certification	CE <b>₹</b> 10 ♠ ♠	
Efficiency class	A++ A+ A	

 $^{\star}$  At max, output power All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C}$ 

SURFACE-MOUNTED LUMINAIRE

Dimensions (L x vv x H)	337 X 411 X 92 MM
Mounting	Ceiling mounted, perforated frame. Modules are clipped into brackets.
RECESSED LUMINAIRE	
Dimensions (L x W)	557 x 411 mm (external cover)
Installation dimensions (L x W)	360 x 320 mm to 390 x 390 mm (inner)
Mounting	Recessed ceiling mounting by means of mounting bracket for variable ceiling thicknesses (to 120 mm). The installation height incl. connection box is 155 mm. Modules are clipped into brackets.

WEIGHT	Housing	1 module	2 modules	3 modules
Module	1.0 kg	1.0 kg	2.0 kg	3.0 kg
Surface mounted	4.8 kg	5.8 kg	6.7 kg	7.7 kg
Recessed	4.5 kg	5.5 kg	6.4 kg	7.4 kg











# **ECO INDUSTRYLINE | BOX**

# Functional luminaire with 1 module or 2 modules

# DATA AND FACTS

Homogeneous illumination and optimal light distribution is an absolutely necessary prerequisite in industrial, logistical and warehouse facilities to ensure productive, efficient work. A comparable light quality can also be expected by the users of parking garages and gas stations. Because only the best light can guarantee visibility conditions to ensure problem-free orientation in these areas. Our Box 1 and Box 2 fulfill the wishes and expectations of both target groups.

### The benefits of the Eco IndustryLine | Box:

- → Modular design enables decoupling of the LED module to the housing
- → Energy efficiency
- → Modules can be easily replaced via the plug & play at any time
- → Weather resistance
- → Integrated thermal management
- → Optimized light distribution
- → Dimming
- → 20-year replacement guarantee
- → Minimum of 80% luminous flux after an average lifetime of 100,000 operating hours
- → Mercury-free
- → Development and production in Germany

### The most important areas of application:

- → Factory facilities
- → Production facilities
- → Gas stations
- → Parking garages
- → Outdoor areas

ELECTRONICS	
Luminaire type	1 or 2 Eco modules each with 8 LEDs, 14 LEDs or 28 LEDs
Driver	Electronic, integrated into module
Interface control system	Night-time dimming, 1-10V or DALI
Mains connection	220-240 V/60 Hz
Protection class	Protection class II
Power factor*	≥ 0.95 c (≥ 0.90 c for module 1,250)
Power consumption	9-80 W (depending on luminous flux)
Surge voltage withstand capability	6 KV
Surge current withstand capability	2.5 KA
Cabling	5 or 10 m cabling

LIGHT TECHNOLOGY	
Effective system luminous flux	800 lm / 1,250 lm / 1,600 lm / 1,700 lm / 2,500 lm / 3,400 lm / 5,000 lm / 10,000 lm
Color temperature	4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 73 (4,000 K) CRI 65 (5,000 K)
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21) 80% after 100,000 hours
Optics	PMMA individual optics

ADDITIONAL DATA		1 module	2 modules	
Dimensions (L x W x H)		499/515 x 960/978 x 103 x 105 mm 103 x 105 mr		
	Module and connection box	2.7 kg	5.2 kg	
Weight	Module and 5 m connection cable	3.0 kg	5.5 kg	
	Module and 10 m connection cable	3.3 kg	5.7 kg	
Materials		Housing made of aluminum extruded profile, painted similar to RAL 9006, connection box and end caps made of PC		
Mounting		Direct screw coupling for ceiling installation		
Terminal compartment		Supply line 2 x (5-pin 1 mm $^2$ to 2.5 mm $^2$ , rigid possible), cable gland M16 for Ø 6 mm $-$ 12 mm		
Ambient temperature range		-40 °C to +40 °C		
Impact resistance		IK 04/IK 05/IK 08		
IP Certification (Luminaire)		IP 65		
Certification		(€∰10△≙	(Emis	
Efficiency class		A <sup>++</sup> A		

<sup>\*</sup> At max. output power

All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C}$ 







# **ECO INDUSTRYLINE | BASIC**

# Moisture-proof luminaire as feed-through wiring or light point

# DATA AND FACTS

The Eco IndustryLine Basic offers a solution for those areas that pose special challenges. Its areas of application are, for example, places with consistently high humidity.

This affects many sectors of industry, especially industrial facilities, parking garages, gas stations and car workshops.

### The benefits of the Eco IndustryLine | Basic:

- → Energy efficiency
- → Modules can be easily replaced via the plug & play system at any time
- → Weather resistance
- → Integrated thermal management
- → Optimized light distribution
- → Dimming
- → 20-year replacement guarantee
- → Minimum of 80% luminous flux after an average lifetime of 100,000 operating hours
- → Mercury-free
- → Upgradeable through plug connection

### → Development and production in Germany

### The most important areas of application:

Our Eco IndustryLine Basic is also available as a recessed model in cable routing and top-hat rails or as a clamped model when ceiling surface mounted.

- → Industrial buildings
- → Production facilities
- → Gas stations
- → Parking garages
- → Outdoor areas

ELECTRONICS	
Luminaire type	LED module each with 14 LEDs
Driver	Electronic, integrated into module
Interface control system	Night-time dimming, 1 – 10 V or DALI
Mains connection	220-240 V / 50-60 Hz
Protection class	Protection class II
Power consumption	24 W / 40 W
Power factor*	≥ 0.95 c
Surge voltage withstand capability	4 KV

LIGHT TECHNOLOGIES	
Effective system luminous flux	2,500 lm per module
Color temperature	4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI > 70
Luminous flux over lifetime	90 % after 60,000 hours (in accordance with IES LM80 & TM21) 80 % after 100,000 hours
Optics	PMMA individual optics
ADDITIONAL DATA	
Dimensions	Module one sided: 461 x 78 x 62 mm Module for through-wiring: 466 x 78 x 62 mm
Weight	Module one sided: 1.2 kg

ADDITIONAL DATA	
Dimensions	Module one sided: 461 x 78 x 62 mm Module for through-wiring: 466 x 78 x 62 mm
Weight	Module one sided: 1.2 kg Module for through-wiring: 1.3 kg
Materials	Housing made of PP-T40 and PC + ABS
Connection	Wieland connector
Mounting	Mounting clips for direct screw coupling or for snapping into top-hat rails standardized according to EN 50022 (35 x 7.5 mm)
Ambient temperature range	-40 °C to +45 °C 45 °C to 55 °C (reduced luminous flux)
Impact resistance	IK 05 (higher IK classes optionally possible)
IP type of protection	IP 65
Certification	<b>₹</b> 10 <b>€ (€</b>
Efficiency class	A <sup>+</sup>
	<u> </u>

 $<sup>^*</sup>$  At max, output power All performance parameters are based on an ambient temperature of 25  $^\circ\text{C}$ 



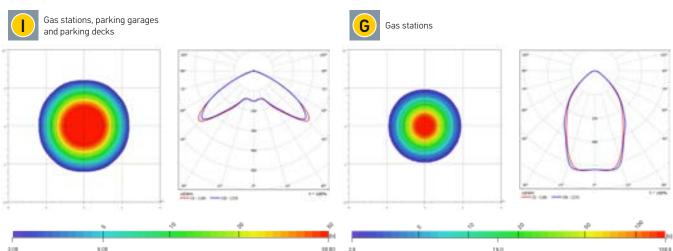






Eco IndustryLine   Frame	Installation with 1 module	Installation with 2 modules	Installation with 3 modules
Color temperature	4,000 K / 5,000 K	4,000 K / 5,000 K	4,000 K / 5,000 K
Lumen packages	2,500 lm / 5,000 lm	5,000 lm / 10,000 lm	7,500 lm / 15,000 lm
Dimensions	557 x 411 x 155 mm	557 x 411 x 155 mm	557 x 411 x 155 mm

Example light distribution 5,000 lm, light point height: 3 m





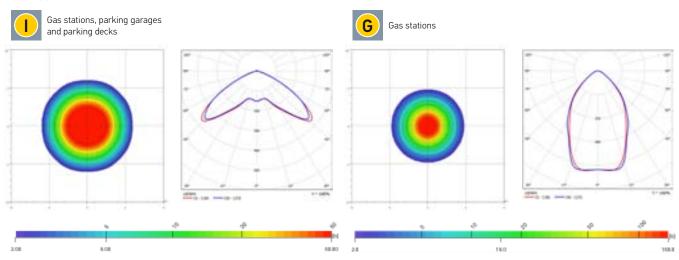






Eco IndustryLine   Frame	Installation with 1 module	Installation with 2 modules	Installation with 3 modules
Color temperature	4,000 K / 5,000 K	4,000 K / 5,000 K	4,000 K / 5,000 K
Lumen packages	2,500 lm / 5,000 lm	5,000 lm / 10,000 lm	7,500 lm / 15,000 lm
Dimensions	557 x 411 x 92 mm	557 x 411 x 92 mm	557 x 411 x 92 mm

Example light distribution 5,000 lm, light point height: 3 m



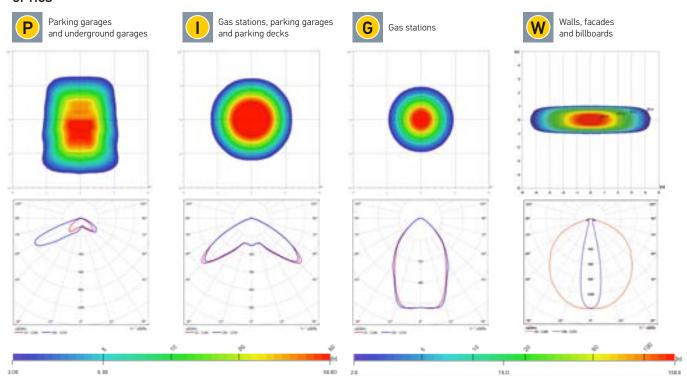






Functional luminaires	Eco IndustryLine   Box 1	Eco IndustryLine   Box 2
Color temperature	4,000 K / 5,000 K	4,000 K / 5,000 K
Lumen packages	800 lm / 1,250 lm / 1,700 lm / 2,500 lm / 5,000 lm	1,600 lm / 2,500 lm / 3,400 lm / 5,000 lm / 10,000 lm
Dimensions	499/515 x 103 x 105 mm	960/978 x 103 x 105 mm

Example light distribution 2,500 lm, light point height: 3 m









### Cable routes:

The cable routing sections are compatible with all Eco Industry modules and can therefore be used flexibly anywhere. Cable routes and LED module mount in a universal combination.

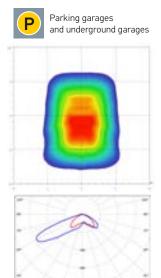
Moisture-proof luminaires	Eco IndustryLine   Basic Multiple module, through-wiring possible	Eco IndustryLine   Basic Individual module
Color temperature per module	4,000 K / 5,000 K	4,000 K / 5,000 K
Lumen packages	2,500 lm per module	2,500 lm
Dimensions Wieland, one-sided connector	461 x 78 x 62 mm	461 x 78 x 62 mm
per module Wieland, connector on both sides	466 x 78 x 62 mm	466 x 78 x 62 mm

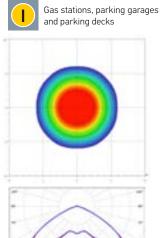


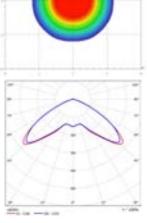
### Shade:

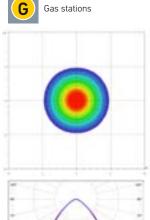
The elegant shade, made of high-quality stainless steel, is resistant to corrosion. It serves to round off the design and as an LED module mount for all moisture-proof luminaires.

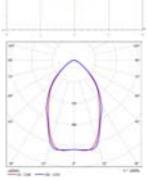
### **OPTICS**











16.0



### Basis module mount:

The Basis module mount enables all moisture-proof modules to be installed in the ceiling quickly and flexibly. It is possible to implement both light points as well as through-wired luminaire variations.





# WHAT GOOD LIGHT CAN ACHIEVE





Light serves people and their needs. That sounds good. However, we are not just satisfied with that, because, for us as lighting experts, there is a much more interesting question: Which human needs can we fulfill in a special environment? And we succeed in providing new and illuminating answers to this question again and again with the help of HELLA LED lighting technology. One of these is called Office. A panel lighting with an excellent light quality that goes a long way towards improving the working conditions in industrial facilities and also in schools, universities and many more.

128 Office Eco series

130 Office series

132 Variants and light distributions







# **OFFICE ECO SERIES**

# Panel lighting 600 and 1200

# DATA AND FACTS

The panel lighting from the Office Eco series can contribute to supporting the powers of concentration of students and employees. At the same time they are also able to ensure a pleasant visit to restaurants and conference rooms. This versatility is based on the successful combination of sleek design and good light power.

### The benefits of the Office Eco series:

- → Patented lighting control
- → Particularly homogeneous and wide illumination
- → Special versions for computer workstations
- → Extremely flat structural shape
- → Sleek design with diffuse lens
- → Standard dimensions for easy integration in existing infrastructures
- → Installation packet for additional installation situations can be ordered separately
- → Available in two versions: 600 and 1200
- → Sustainable concept with technology guarantee

### The most important areas of application:

- → Offices
- → Hotels
- → Reception areas
- → Conference rooms
- → Hallways

ELECTRONICS	
Luminaire type	Ceiling light
Driver	External
Protection class	PROTECTION CLASS II
Power factor	≥ 0.95 c
Power consumption	34 W (Eco 600) / 40 W (Eco 1200)
Dimming (optional)	1-10 V / DALI
Operating temperature	-20 °C to +45 °C

LIGHT TECHNOLOGY	
Effective system luminous flux	Eco 600: 3,200 lm (3,000 K)/3,400 lm (4,000 K) Eco 1200: 3,600 lm (3,000 K)/3,800 lm (4,000 K)
Color temperature	3,000 K 4,000 K
Color rendering index (CRI)	≥ 80
Luminous flux over lifetime	70 % after 50,000 operating hours
Optics	Prism/ translucent
Suitable for use with computer workstations (optional)	UGR 19 (variations with prisms)

g made of aluminum, white
recessed / ceiling surface-mounted / suspension
<b>4</b> 05

GRID CEILINGS ECO 600		
Dimensions (L x W x H)	Weight	Ceiling dimension
595 x 595 x 10 mm	3.9 kg	600 x 600 mm
622 x 622 x 10 mm	3.9 kg	625 x 625 mm
•		

GRID CEILINGS ECO 1200				
Dimensions (L x W x H)	Weight	Ceiling dimension		
1,195 x 295 x 10 mm	4.5 kg	1,200 x 300 mm		
1,245 x 308 x 10 mm	4.3 kg	1,250 x 312.5 mm		

All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C}$ 





# **OFFICE** series

# Panel lighting with 1 module or 2 modules

# DATA AND FACTS

Genuinely perfect – which can be attributed more to outstanding features than mere outward appearances. A panel lighting with qualities that make it stand out from other lighting solutions. Installation in schools and conference rooms, in interior areas or gas stations as well as reception rooms in hotels does not require any unreasonable compromises.

In short: The Office series.

### The benefits of the Office series:

- → Patented lighting control
- → Especially homogeneous and wide illumination through a combination of special optic lens and reflector technology
- → Metalized reflector ideal for computer workstations, in particular for CAD (in accordance with EN 12464-1)
- → Sustainable concept with technology guarantee
- → Standard dimensions for easy installation in existing infrastructures
- → Tool-free installation
- ightarrow A range of frames for different types of installation
- → Linect® compatible
- → Development and production in Germany

### The most important areas of application:

- → Offices
- → Conference rooms
- → Reception areas
- → Schools
- → Showrooms

ELECTRONICS	
Luminaire type	Panel light with 1 or 2 units
Driver	Integrated
Mains connection	220-240 V/~50-60 Hz
Protection class	PROTECTION CLASS I
Power factor	≥ 0.95 c
Power consumption	19 W
Dimming (optional)	1-10 V / DALI
Operating temperature	0°C to +35°C

LIGHT TECHNOLOGY	Office 300	Office 600	Office 1200
Effective system luminous flux	2,150 lm	4,300 lm	4,300 lm
Color temperature	4,000 K		-
Color rendering index (CRI)	≥ 80		
Luminous flux over lifetime	70 % after 50,00	00 operating hou	rs
Optics	Light control by of lens and refle	means of a comector	bination
Suitable for use with computer workstations (optional)	UGR 19 (variants with metalized reflector and clear lens)		

ADDITIONAL DATA	
Materials	Frame made of steel panel, painted white similar to RAL 9003 gloss, reflector made of high-performance plastic, reflector housing fused with a plastic optic lens
Variants	Ceiling recessed / ceiling surface-mounted / ceiling suspension
Reflector	Metalized or white
Lens	Clear or matt
IP Certification (Luminaire)	IP 30
Certification	CE
Efficiency class	A <sup>+</sup>

All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C}$ 

CEILING RECESSED			
	Dimensions (L x W x H)	Weight	Ceiling dimension
Office 300	595 x 294 x 101 mm	3.0 kg	600 x 300 mm
Office 300	622 x 310 x 101 mm	3.3 kg	625 x 312.5 mm
Office 600	595 x 595 x 83 mm	6.1 kg	600 x 600 mm
	622 x 622 x 83 mm	6.4 kg	625 x 625 mm
Office 1200	1,195 x 294 x 101 mm	6.1 kg	1,200 x 300 mm
	1,245 x 310 x 101 mm	6.4 kg	1,205 x 312.5 mm

CEILING SURFACE MOUNTED / CEILING SUSPENSION		
Dimensions (L x W x H)		Weight
Office 300	600 x 300 x 102 mm	3.3 kg
Office 600	600 x 600 x 102 mm	6.4 kg
Office 1200	1,200 x 300 x 102 mm	6.4 kg





Office Eco | 600 Ceiling recessed



Office Eco | 600 Ceiling surface mounted

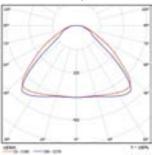


Office Eco | 600 Ceiling suspension

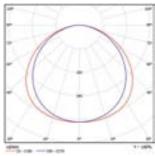


Office Eco | 1200 Ceiling recessed

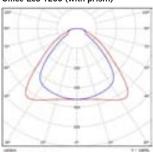
### Office Eco 600 (with prism)



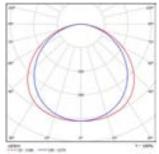
Office Eco 600 (without prism)



Office Eco 1200 (with prism)



Office Eco 1200 (without prism)







Office | 300 1 module, ceiling recessed



Office | 600 2 modules, ceiling recessed



Office | 1200 2 modules, ceiling recessed

Also available as ceiling suspension and as a matt version.



Office | 300 1 module, ceiling surface mounted



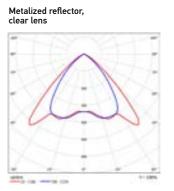
2 modules, ceiling surface mounted



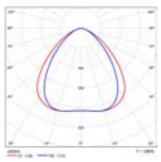
2 modules, ceiling surface mounted

Office | 600 Office | 1200

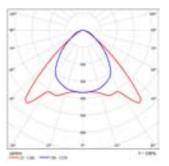
Example:



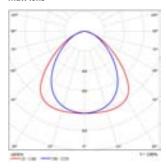
Metalized reflector, matt lens



White reflector, clear lens



White reflector, matt lens



# EYE CATCHER WITH AMBIENT LIGHT





There's something about variety. Above all if it is characterized by outstanding features. And this is precisely the case with our Universal Design Spots. Irrespective of whether they are used, for example, in cafés, offices, galleries, hotels, residential spaces or showrooms: These LED luminaires put on a brilliant show at all times. With the combination of ambient and functional lighting. With optimal illumination, excellent thermal management, break-proof components and easy installation – right through to environmentally friendly, cost-cutting energy savings.

136 Universal Design Spot | S100 series

138 Variants and light distributions

140 Spot | S200 series

144 Variants and light distributions

145 Driver





# UNIVERSAL DESIGN SPOT | S100 series

Spot S100, S102 and S104

# DATA AND FACTS

A spot that brilliantly sets decorative highlights in living spaces as well as the completely different conditions of, for example, gas stations, supermarkets, cafés, restaurants and offices is really a universal genius of the lighting genre.

### The benefits of the Universal Design Spot | S100 series:

- → Patented ambient and functional light in one spot united
- → light color in warm white and neutral white
- → Light color guarantee through high-quality LED technology
- → Special HELLA reflector technology for optimal illumination
- → Excellent thermal management (no overheating and low radiation heat)
- → IP 55 (suitable for use in moist areas)
- → Extremely break-proof components
- → Pivoting +/- 20°
- → Simple installation by means of integrated connection terminals
- → Low installation depth

### The most important areas of application:

- → Schools
- → Offices
- → Hallways
- $\rightarrow$  Reception areas
- → Hotels

ELECTRONICS		
Luminaire type	LED spot	
Driver (not included, order separately)	with ambient function and 1 – 10 V interface: S1= 700 mA / 50 mA (max. 16 W) [S100 / S102] M1= 700 mA / 50 mA (max. 35 W) [S100 / S102] M1= 500 mA / 50 mA (max. 25 W) [S104] without ambient function but with 1 – 10 V or DALI interface: 30 W = 700 mA / 50 mA (max. 30 W) [S100 / S102 / S104]	
Mains connection	230 VAC	
Power consumption*	4.5 W (S100) / 9 W (S102) / 20 W (S104)	
Dimming	Independent of the driver: no dimming/ 1–10 V/DALI (without ambient function)	
Operating temperature	IP 23: 0 °C to +40 °C / IP 55: -20 °C to +40 °C	

LIGHT TECHNOLOGY		S100	S102	S104
Effective system lu- minous flux	3,000 K 4,000 K	350 lm	700 lm	1,150 lm 1,250 lm
Color temperature		3,000 K/4,000 K		
Color rendering index (CRI)		≥ 80		
Luminous flux over lifetime		70% after 60,000 operating hours		
Optics		Reflector technology		
Angle of radiation		40°/60°		

ADDITIONAL DATA		
Dimensions (L x W x H)	Height: 50 mm (interior ambient ring) 69 mm (exterior ambient ring) Frame: Ø 115 mm (round), Ø 115 mm x 115 mm (square)	
Installation dimensions	Ceiling cut out (Ø): 102 mm Depth: min. 50 mm	
Weight	296 g	
Materials	Housing and frame made of aluminum lens and ambient ring made of PC	
Housing frame Round / square		
Housing colors	White / silver / dark gray	
Ambient colors White / blue / amber Optional: without ambient function		
Ambient ring	Interior/ exterior (only for IP 23)	
Mounting	Installation in suspended ceilings by means of integrated springs	
IP Certification (Luminaire)	IP 23 (adjustable tilt angle± 20°) IP 44	
Certification	C€	
Efficiency class	A <sup>+</sup>	

 $<sup>^{\</sup>star}$  All performance parameters are based on an ambient temperature of 25 °C, including electronic driver power





Universal Design Spot S100 series Housing white Ambient white

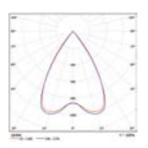


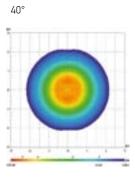
Universal Design Spot S100 series Housing white Ambient blue exterior

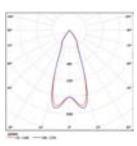


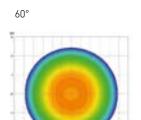
Universal Design Spot S100 series Housing white Ambient blue exterior

# **5100**60°

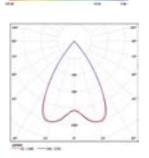


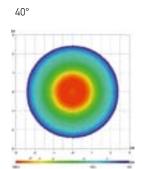


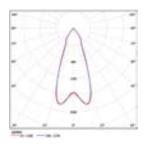




S102





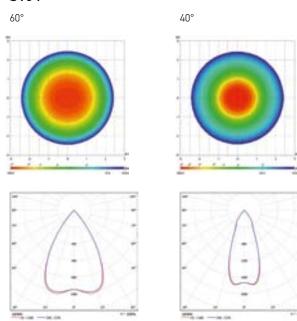




Different ambient colors (amber, white and blue) as well as housing colors and frame shapes available. Please get in touch with us.

Our service contact information is listed on page 161.

# S104









# SPOT | S200 series

# Spot S202, S204 and S206

# DATA AND FACTS

When it comes to the interior design of hotel lobbies, guest rooms, showrooms and conference rooms, it is generally accepted that – alongside many other aspects – the feel-good factor plays an important role. This recessed spot offers three different variations of light, from warm white through normal white to a cold white light. Another technical detail is the three-stage adjustable frame to suit different installation depths.

### The benefits of the Spot | S200 series:

- → Patented ambient and functional light in one spot united
- → Special HELLA reflector technology for optimal illumination
- → Ceiling recessed variant including driver
- ightarrow IP 54: Suitable for use in moist areas and in outdoor areas
- → Adjustability of the external housing ring enables three (3) different types of mounting
- → Available in different angles of radiation
- → Spot with 600 variation possibilities
- → Light color guarantee through high-quality LED technology
- → Excellent thermal management through passive cooling

### The most important areas of application:

- → Showrooms
- → Restaurants
- → Hotels
- → Conference rooms
- → Reception areas

ELECTRONICS	
Luminaire type	LED recessed spot
Driver	Included, in separate electronic driver housing
Mains connection	230 V ± 10 % ~50 Hz
Protection class	PROTECTION CLASS II
Power factor	0.90 / 0.98
Power consumption*	20 W (S202) / 31 W (S204) / 41 W (S206)
Dimming	1 – 10 V
Operating temperature	-20 °C to +40 °C

LIGHT TECHNOLOGY		S202 (20 W)	S204 (31 W)	S206 (41 W)
Effective system luminous flux	3,000 K 4,000 K 5,000 K	1,470 lm 1,500 lm 1.820 lm	1,940 lm 1,980 lm 2.400 lm	3,050 lm 3,100 lm 3.750 lm
Color temperature		3,000 K/4,000 K/5,000 K		
Color rendering index (CRI)		≥ 80 (3,000 K / 4,000 K) ** ≥ 65 (5,000 K) ***		
Luminous flux over lifetime		70% after 50,000 operating hours		
Optics		Reflector technology		
Angle of radiation		10°/30°/60°/80° (20 W/31 W) 20°/30°/60°/80° (41 W)****		

ADDITIONAL DATA	
Dimensions (L x W x H)	Diameter: 160 mm Height: max. 150 mm
Installation dimensions	Diameter: 140 mm Depths: 95 / 115 / 140 mm
Weight	1,415 g
Materials	Housing made of aluminum, cover plate made of PMMA, frame made of glass fiber reinforced PA, electronic driver housing made of PC and aluminum, decorative ring made of ABS
Housing colors	Decorative ring: White / black / silver
IP Certification (Luminaire)	IP 54
Ambient colors	Blue, white or amber
Certification	CE &
Efficiency class	A <sup>+</sup>

- \* incl. driver
- \*\* CRI ≥ 90 upon request
- \*\*\* CRI ≥ 80 upon request
- \*\*\*\* 10° (41 W) upon request







# SPOT | S200 series

# Gimbal lighting

# DATA AND FACTS

For optimal illumination of your products in gas stations, gas station shops or display windows, flexibility is of the essence. And this is where the gimbal system is simply unbeatable. By hanging the luminaire light sources in two right-angled, adjacent axes, which can be pivoted the lights can be turned in any direction and adjusted precisely according to individual needs.

### The benefits of the Spot | Gimbal Variant:

- → Patented ambient and functional light in one spot united
- → Special HELLA reflector technology for optimal illumination
- → Ceiling recessed variant including driver
- → IP 54: Suitable for use in moist areas and in outdoor areas
- → Adjustability of the external housing ring enables three different types of mounting
- → Can be precisely adjusted according to requirements thanks to the gimbal system
- → Spot with 600 variation possibilities
- ightarrow Light color guarantee through high-quality LED technology
- → Excellent thermal management through passive cooling

### The most important areas of application:

- → Showrooms
- → Restaurants
- → Offices
- → Schools
- → Conference rooms

ELECTRONICS	
Luminaire type	Gimbal lighting
Driver	Included, in separate electronic driver housing
Mains connection	230 V ± 10 % ~50 Hz
Protection class	PROTECTION CLASS II
Power factor	0.90 / 0.98
Power consumption*	20 W/31 W/41 W
Dimming	1 – 10 V
Operating temperature	-20 °C to +40 °C

LIGHT TECHNOLOGY		20 W	31 W	41 W
Effective system luminous flux	3,000 K 4,000 K 5,000 K	1,470 lm 1,500 lm 1,820 lm	1,940 lm 1,980 lm 2,400 lm	3,050 lm 3,100 lm 3,750 lm
Color temperature		3,000 K/4,000 K/5,000 K		
Color rendering index (CRI)		≥ 80 (3,000 K / 4,000 K) ≥ 65 (5,000 K)		
Luminous flux over lifetime		70 % after 50,000 operating hours		
Optics		Reflector technology		
Angle of radiation		10°/30°/60°/80° (20 W/31 W) 20°/30°/60°/80° (41 W)		

ADDITIONAL DATA	
Dimensions	Height: max. 150 mm Frame: round: Ø 200 mm / square: 200 x 200 mm
Installation dimensions	Ceiling cut out (Ø): 180 mm Depths: 115 / 140 mm
Weight	1,875 g
Materials	Housing made of aluminum, cover plate of PMMA, electronic driver housing of PC and aluminum, frame of steel panel
Housing	Round / square
Frame color	White (RAL 9016)
Ambient colors	White / blue / amber
IP Certification (Luminaire)	IP 54
Certification	C€®
Efficiency class	A <sup>+</sup>

 $<sup>^{\</sup>star}$  All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C},$  incl. driver



**Spot | S200 series**Decorative ring in white, black or silver



**Spot | S200 series**Gimbal variation available as circular or square shaped

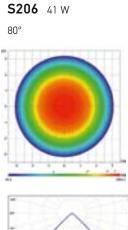
60°

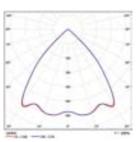


**Spot | S200 series**Ambient function blue, white or amber

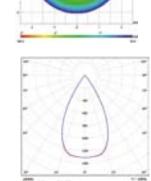


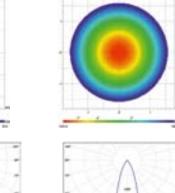
**Spot | S200 series**Variable installation depth



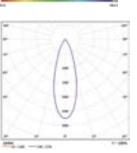


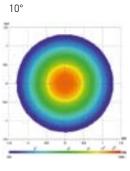
**S204** 31 W / **S202** 20 W

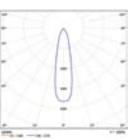




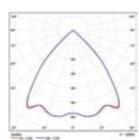
30°

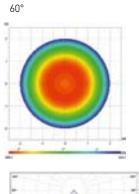


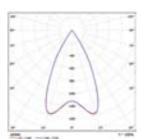


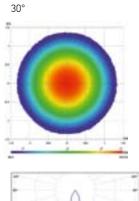


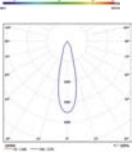
80°

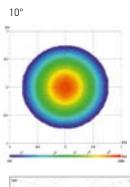


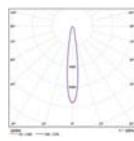












## DRIVERS WITH AND WITHOUT AMBIENT FUNCTION

#### Ample scope for variations in lux for the S100 / S200 series

Between brightness and darkness is a wide spectrum of light conditions, which includes countless facets in gradual increments. Modern lighting technology takes advantage of this fact by controlling the emitted light output according to requirements. This allows you to achieve a multitude of different effects and set any number of desirable highlights. The brightness of the Universal Design Spots can be precisely controlled by regulating the output of current in a range between 20 % and 100 %. Switching between the main light and ambient light is done by means of a conventional switch. The ambient function can also be controlled via a 1-10~V dimmer – ambient light switches on automatically when the main light is almost completely dimmed.

#### S1 MODEL









Performance 16 W 700 mA (main light) / 50 mA (ambient light)

Efficiency of the power source: 85 %. Only consumes 0.5 W in standby mode

#### M1 MODEL









Performance 25 / 35 W 500 mA (main light) / 50 mA (ambient light) 700 mA (main light) / 50 mA (ambient light)

Efficiency of the power source: 90 %. Only consumes 0.5 W in standby mode

### DRIVER WITHOUT AMBIENT FUNCTION

- → Selectable constant current (only main light): 700 mA for S100 and S102 series / 500 mA for S104 series
- → Maximum output power of 30 W (only main light): connection of up to seven S100 spots / three S102 spots / one S104 spot
- → Including strain-relief
- → Also available as dimmable variation (with 1 – 10 V or DALI interface – dimming range 1 – 100%)











Dimming 1-10 V or DALI

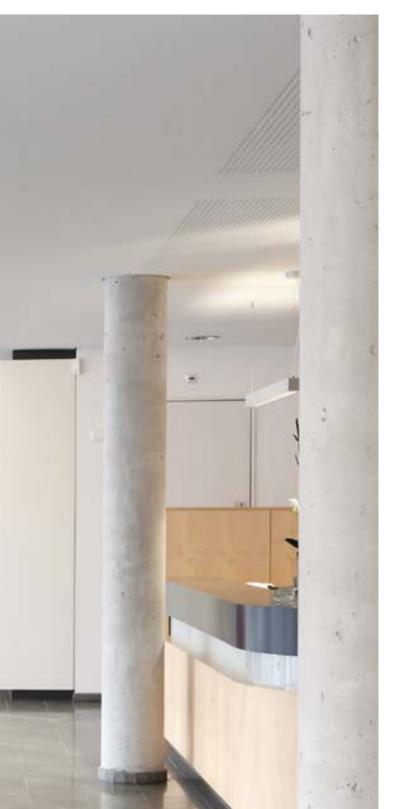
Performance 30 W 700 mA for S100 and S102 series 500 mA for S104 series

Efficiency of the power source: 86 %

#### DOWNLIGHT | D300

# LIGHTING CULTURE AT THE HIGHEST LEVEL





When it comes to finding a suitable lighting concept, the profile of requirements of hotels and restaurants, offices and schools is so different that it is only possible to speak of different types of luminaries.

One would think. But that was before – before HELLA LED lighting technology. HELLA Downlights once again prove the system's fitness for the future, as being equipped with patented lighting control and special reflector technology. These luminaires provide such exceptionally homogeneous, wide and controllable illumination that they can be adapted to the most varied of customer requirements.

148 Downlight | D300

150 Variants and light distributions





#### **DOWNLIGHT | D300**

#### DATA AND FACTS

Our LED Downlight features outstanding optics and light quality that optimally fulfills the demands of different institutions such as, e.g. offices and schools, restoration enterprises and conference rooms. The reasons for this are many. However, the patented lighting control and exceptionally homogeneous and wide illumination as a result of the combination of a special optic lens and reflector technology need to be especially highlighted.

#### The benefits of the Downlight | D300:

- → Patented lighting control
- → Particularly homogeneous and wide illumination through a combination of special optic lens and reflector technology
- → Sustainable concept with technology guarantee
- → Low installation depth
- → Dimming optional
- → Including driver
- → Development and production in Germany

#### The five (5) most important areas of application:

- → Showrooms
- → Offices
- → Schools
- → Restaurants
- → Conference rooms

ELECTRONICS	
Luminaire type	Ceiling light with multichip LED
Driver	External
Mains connection	220 – 240 V~50 – 60 Hz
Protection class	PROTECTION CLASS II
Power factor	> 0.94 c
Power consumption*	25 W / 43 W
Cabling	1 – 10 V / DALI (only 25 W)

LIGHT TECHNOLOGY		25 W	43 W	
Effective system luminous flux	2,700 K 3,000 K 4,000 K	2,100 lm 2,200 lm 2,300 lm	4,400 lm 4,500 lm 4,800 lm	
Color temperature		2,700 K / 3,000 K / 4,000 K		
Color rendering index (CRI)		≥ 80		
Luminous flux over lifetime		70 % after 50,000 operating hours		
Optics		Light control through a combination of lens and reflector		

ADDITIONAL DATA	
Dimensions (L x W x H)	Height: 100 mm Diameter: 265 mm (external)
Installation dimensions	Ceiling cut out (0): 245 mm Depth: min. 155 mm
Weight	2.5 kg
Materials	Frame made of steel panel, white powder- coated similar to RAL 9003, reflector made of plastic, fused with a plastic optic lens, aluminum cooling element
Mounting	Installation in suspended ceilings (ceiling thicknesses = 10 – 20 mm)
Reflector	Metalized or white
Lens	Clear or matt
Ambient temperature range	0 °C to +35 °C
IP Certification (Luminaire)	IP 20 (IP 54 room side)
Certification	CE
Efficiency class	A <sup>+</sup>

 $<sup>^{\</sup>star}$  All performance parameters are based on an ambient temperature of 25  $^{\circ}\text{C}$ 



#### VARIANTS AND LIGHT DISTRIBUTIONS



Downlight | D300 Metalized clear



Downlight | D300 Metalized matt



Downlight | D300 White clear

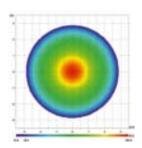


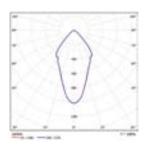
Downlight | D300 White matt

#### **OPTICS**

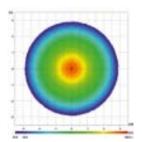
#### Downlight | D300 25 W

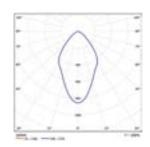
Metalized clear



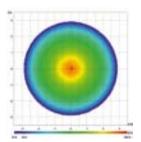


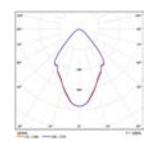
Metalized matt



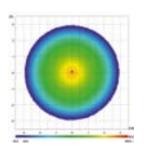


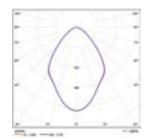
White clear





White matt



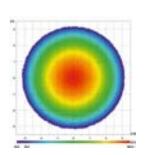


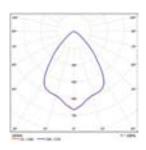
WC

#### OPTICS

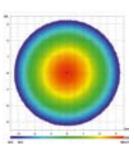
#### Downlight | D300 43 W

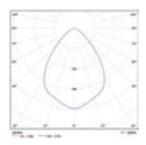
Metalized clear



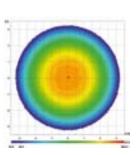


Metalized matt



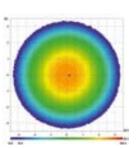


White clear





White matt





# BRILLIANT RECEPTION





First impressions are the most lasting. So they say.

And even if this platitude doesn't always reflect
reality, it very much applies to rooms that mainly
serve as representative spaces. The LED spots of our
Tracklight and Standalone series are ideally suited
to underscoring the architecture of reception areas
and showrooms in a positive way and, as patented
ambient and function lighting, also to set welcoming,
inviting and pleasant highlights. Moreover they can be
mounted on all commercially available track systems
and precisely aligned.

154 Tracklight | T200 series

156 Standalone | ST200 series

158 Variants and light distributions





#### TRACKLIGHT | T200 series

#### Spot light

#### DATA AND FACTS

In the areas of industry, management and the hotel sector, people are increasingly coming to rely on the brilliant quality of LED spot lights from the Tracklight series. With patented ambient and functional lighting in one spot light, with light color guarantee thanks to high-quality LED technology and a guaranteed pleasant and inviting atmosphere thanks to HELLA reflector technology.

#### The benefits of the Tracklight series:

- → Patented ambient and functional light in one spot united
- → Special HELLA reflector technology for optimal illumination
- → Integrated driver
- → Light color guarantee through high-quality LED technology
- → Color rendering index (CRI) ≥ 80
- → Excellent thermal management through passive cooling
- → Available in different angles of radiation
- → 25 % energy savings compared to halogen metal halide lamps and up to 80 % compared to conventional halogen lamps
- → Available with different adapters, which are also compatible with commercially available tracks
- → Robust aluminum housing
- → Dust-protected lighting unit
- → Can be tilted and pivoted

#### The most important areas of application:

- → Showrooms
- → Sales rooms
- → Hotels
- → Conference rooms
- → Reception areas

ELECTRONICS	
Luminaire type	LED busbar power rail spots
Driver	Integrated
Interface control system	Including integrated adapter for 3-phase busbar power rail systems (different adapters available)
Mains connection	230 V ± 10 % ~50 Hz
Protection class	PROTECTION CLASS II
Power factor	0.90-0.98
Power consumption*	20 W (T202) / 31 W (T204) / 41 W (T206)
Dimming	1 – 10 V
Operating temperature	0 °C to +40 °C

LIGHT TECHNOLOGY		20 W	31 W	41 W
Effective system luminous flux	3,000 K 4,000 K 5,000 K	1,470 lm 1,500 lm 1,820 lm	1,940 lm 1,980 lm 2,400 lm	3,050 lm 3,100 lm 3,750 lm
Color temperature		3,000 K/4,000 K/5,000 K		
Color rendering index (CRI)		≥ 80 (3,000 K / 4,000 K) ** ≥ 65 (5,000 K) ***		
Luminous flux over life	time	70 % after 50,000 operating hours		ours
Optics		Reflector technology		
Angle of radiation		10°/30°/60°/80° (20 W/31 W) 20°/30°/60°/80° (41 W)****		

ADDITIONAL DATA	
Dimensions (L x W x H)	Diameter: 115 mm Height (without adapter): 210 mm
Weight	1,205 g (without adapter)
Materials	Housing made of aluminum, cover plate made of PMMA, electronic driver housing made of PC
Housing color	White / black / silver
Ambient colors	White / blue / amber
IP Certification (Luminaire)	IP 23
Certification	C€®
Efficiency class	A <sup>+</sup>

- \* incl. driver
- \* CRI ≥ 90 upon request
- \*\*\* CRI ≥ 80 upon request
- \*\*\*\* 10° (41 W) upon request



AMBIENT FUNKTION







#### STANDALONE | ST200 series

#### Spot light

#### DATA AND FACTS

The LED spot light, Standalone, guarantees an inviting atmosphere both in the reception area as well as at the workplace. As a combined ambient and functional light, the spot light radiates its exceptional qualities in every environment and is therefore also extremely well suited to set a highlight in offices and conference rooms.

#### The benefits of the Standalone series:

- → Patented ambient and functional light in one spot united
- → Special HELLA reflector technology for optimal illumination
- → Can be tilted and pivoted
- → Light color guarantee through high-quality LED technology
- → Color rendering index (CRI) ≥ 80
- → Excellent thermal management through passive cooling
- → Available in different angles of radiation
- ightarrow 25 % energy savings compared to halogen metal halide lamps and up to 80 % compared to conventional halogen lamps
- → Robust aluminum housing
- → Dust-protected lighting unit
- → Simple installation directly on the ceiling surface

#### The most important areas of application:

- → Showrooms
- → Sales rooms
- → Hotels
- → Conference rooms
- → Reception areas

ELECTRONICS	
Luminaire type	LED spot
Driver	Integrated
Mains connection	230 V ± 10 % ~50 Hz
Protection class	PROTECTION CLASS II
Power factor	0.90-0.98
Power consumption*	20 W (ST202) / 31 W (ST204) / 41 W (ST206)
Dimming	1 – 10 V
Operating temperature	0°C to +40°C

LIGHT TECHNOLOGY		20 W	31 W	41 W		
Effective system luminous flux	3,000 K 4,000 K 5,000 K	1,470 lm 1,500 lm 1,820 lm	1,940 lm 1,980 lm 2,400 lm	3,050 lm 3,100 lm 3,750 lm		
Color temperature	Color temperature		3,000 K/4,000 K/5,000 K			
Color rendering index (CRI)		≥ 80 (3,000 K / 4,000 K) ** ≥ 65 (5,000 K) ***				
Luminous flux over lifetime		70% after 50,000 operating hours				
Optics		Reflector technology				
Angle of radiation		10°/30°/60°/80° (20 W/31 W) 20°/30°/60°/80° (41 W)****				

ADDITIONAL DATA	
Dimensions (L x W x H)	Diameter: 115 mm Height: 210 mm
Weight	1,205 g
Materials	Housing made of aluminum, cover plate made of PMMA, electronic driver housing made of PC
Mounting	Direct installation on the ceiling surface
Housing color	White/black/silver
Ambient colors	White / blue / amber
IP Certification (Luminaire)	IP 23
Certification	C€®
Efficiency class	A <sup>+</sup>

- incl. driver
- \*\* CRI ≥ 90 upon request
- \*\*\* CRI ≥ 80 upon request
- \*\*\*\* 10° (41 W) upon request



#### VARIANTS AND LIGHT DISTRIBUTIONS



Tracklight | T200 series Housing white



**Tracklight | T200 series** Housing white Ambient blue



**Standalone | ST200 series** Housing white

Further ambient colors (amber, white and blue)

Our service contact information is listed on page 161.

available. Please get in touch with us.

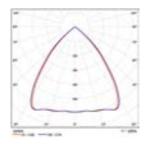


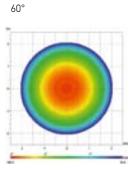
**Standalone | ST200 series** Housing white Ambient blue

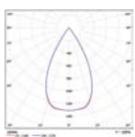
OPTICS

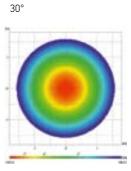
T206/ST206 41 W

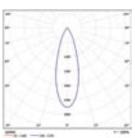
80°

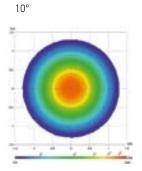


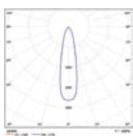




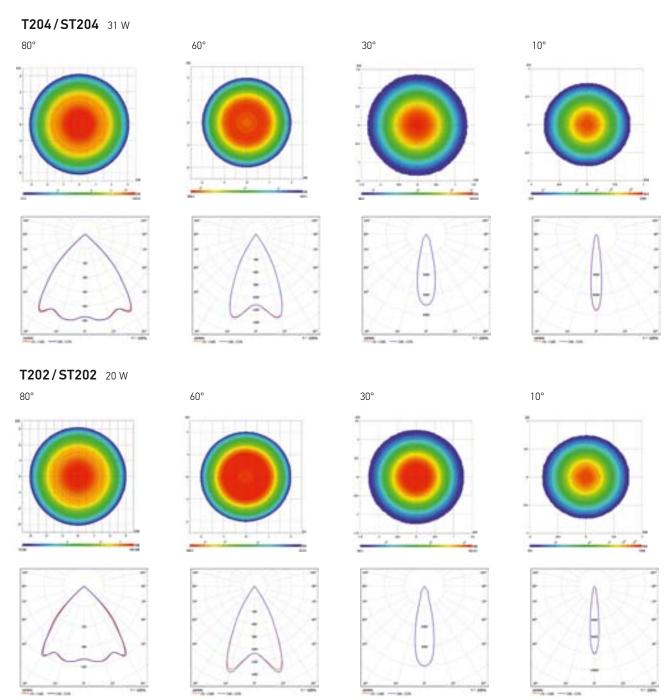








#### OPTICS





#### **HELLA INDUSTRIES SERVICE**

# THE IDEAL COMPLEMENT TO INTELLIGENT PRODUCTS

### We don't just offer beautiful lights, but excellent service, too!

Are you interested in HELLA INDUSTRIES? We are glad to hear that and, of course, we are there for you should you require more information or would like to discuss a special issue. We will go that extra mile to ensure we find the ideal solution for your application. For example, we help you with inventory taking and are happy to provide professional support during the development of an individual lighting concept. This ensures that your upgrade to HELLA LED luminaires is a perfect success.

By the way: Did you know that the great majority of HELLA Industries products are developed and manufactured in Germany and tested using the most modern methods? The very best prerequisites for consistent top quality products, which, thanks to our inhouse logistics center, are always delivered to you promptly and in excellent condition. Our 20-year replacement guarantee also ensures absolute sustainability.

We look forward to your project!

#### We offer you:

- → Technical consultation on site
- → Professional lighting planning
- → In-house development center
- → Comprehensive quality testing
- → Production at the Lippstadt site
- → Modern logistics

#### Service Center Germany and international: Tel. + 49 2941 38 - 32818

You will find more information at: www.hella-industries.com

You can also contact us at:

Lighting Planning: lichtplanung@hella.com

Service/information: industries@hella.com





MEMO			

