



# PRODUCT INFORMATION

## FRONT LIGHTING MODULES

- Universal application
- Compact design
- Excellent Lighting Performance










### PRODUCT FEATURES

HELLA's front lighting modules stand out for their blend of advanced technology, robust design, and versatility, making them trusted choices for vehicles that demand exceptional illumination and reliability. Whether you're enhancing visibility on the road or upgrading work lights on specialty vehicles, modules like the Hella 90mm LED Headlamp offer a modular design that adapts to many vehicle types—from trucks to motorhomes—while delivering strong, dependable light output and individual styling flexibility. For more compact applications, options such as the HELLA SOE Front Lighting 60mm Module High Beam/High Beam provide homogeneous illumination in a smaller package, making them ideal for retrofit or custom projects with limited space. HELLA's commitment to quality engineering means these modules maintain reliable performance and durability across diverse conditions, reflecting the brand's long-standing position as an OEM supplier to global automobile manufacturers.

Beyond individual modules, HELLA is pushing the frontier of front-end lighting innovation with integrated lighting systems that redefine vehicle front aesthetics and functionality. Multiple lighting functions—such as daytime running lights, indicators, and position lights—within a single, space-saving unit.

AT A GLANCE

# Universal headlamp modules

60 MM MODULES			90 MM MODULES		
LOW BEAM			HIGH BEAM		
LED		Module 60 LED		Module 60 LED	
Performance:				L 4060	
Essential:				R 80	
Performance:				R 80	
HALOGEN		Module 60		Module 60	
Performance:				L 4060	
Essential:				R 80	

## LOW BEAM AND HIGH BEAM



Bi-LED L 4565

## FOG LIGHT



L 4060



Bi-LED L 4565

## 133 MM MODULES

### LOW BEAM AND HIGH BEAM



M133 LED (R149 Class DS)



M133 LED (R149 Class B)



90 mm diameter. Two lines. 100 % to the point.

HELLA 90 mm modules are subject to high standards that meet a wide range of requirements. However, there is also a common drive at HELLA to go beyond current standards and redefine them.

With the Essential and Performance lines, every requirement profile is met with an appropriate 90 mm module solution.

**Essential modules** offer very good illumination with high cost efficiency. Due to simple installation and intuitive features, these modules are suitable as an optimal entry-level solution.

**Performance modules** are market-leading low and high beam solutions with outstanding light output. Further features, such as additional light functions and zero-tolerance integration, are available alongside the performance characteristics.

LED

60 MM MODULES

# LOW BEAM AND HIGH BEAM

## SPECIFICATIONS

- Especially compact LED headlamps
- Specially developed lens system for homogeneous illumination
- Enables an easy switch from halogen to LED technology
- Robust die-cast aluminium housing

LED low and high beam headlamp Module 60 LED



LED low beam headlamp Module 60 LED



LED high beam headlamp Module 60 LED



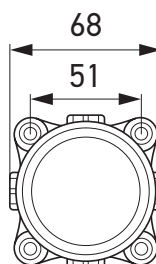
Photo: © Traktorenwerk Lindner GmbH



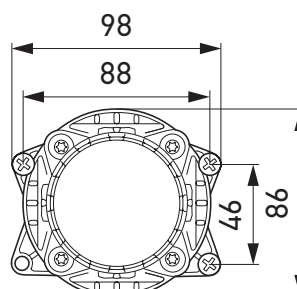
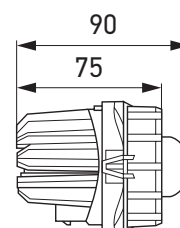
### LED high beam headlamp Module 60 LED

ECE-R149 Class DS	998670031
ECE R149, Class DS, SAE, with pre-assembled carrier frame	998670051
ECE-R149 Class B	998670017

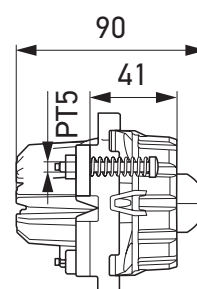
Dimensional sketches of the LED high beam headlamp Module 60 LED



Without carrier frame



With carrier frame, horizontal  
(vertical mounting also possible)



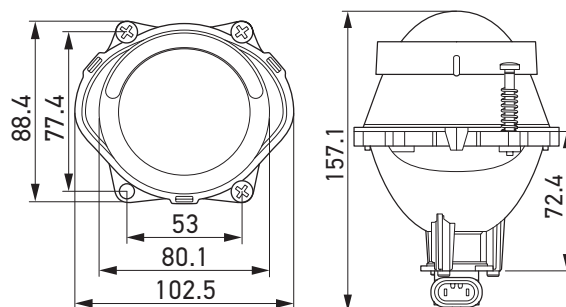




#### Halogen low beam headlamp Module 60

ECE-R149 Class DS	998570641
Right-hand traffic, ECE-R149 Class B	998570601
Left-hand traffic, ECE-R149 Class B	998570611

Dimensional sketches of the halogen low beam headlamp Module 60



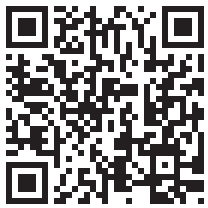


90 MM LED MODULES

The new L4060 LED series is the new addition to the range of 90 millimeter LED modules. This makes HELLA the only supplier in the market to provide a replacement concept for all 90 millimeter halogen modules using LED technology. The design of the new module is very compact and allows three light functions in one module without additional electronics. The resistant cover plate of polycarbonate and the cast aluminum housing are extremely robust and can withstand even tougher loads. The new L4060 LED series give you more illumination and safety with innovative LED technology.

90 MM CONFIGURATOR

This tool shows you the options for equipping or upgrading a vehicle with 90 mm LED modules. See images from Europe's biggest light testing facility and compare the light distribution of halogen and LED modules, in order to help you make the right choice for your application.



[www.hella.com/90mm-modules](http://www.hella.com/90mm-modules)

90MM MODULES

Program Overview

- For the most diverse applications and for the most demanding needs
- Maximum technological and design freedom thanks to its modular system
- Increased lighting and safety thanks to innovative LED technology

	LED	Halogen (conventional lighting technology)
Main light functions	<div>→ Low beam and high beam (bi-modules)</div> <div>→ Low beam</div> <div>→ Low beam with daytime running light and position light</div> <div>→ High beam</div> <div>→ High beam with daytime running light and position light</div> <div>→ High beam and direction indicator light</div>	<div>→ Low beam and high beam (bi-modules)</div> <div>→ Low beam</div> <div>→ High beam</div> <div>→ High beam and position light</div>
Auxiliary light functions	<div>→ Fog light</div> <div>→ Fog light and cornering light</div> <div>→ Fog light, daytime running light and position light</div> <div>→ Daytime running light</div> <div>→ Daytime running light and position light</div> <div>→ Direction indicator light, daytime running light and position light</div>	<div>→ Fog light</div> <div>→ Fog light and cornering light</div> <div>→ Fog light and daytime running light</div> <div>→ Daytime running light and position light</div> <div>→ Position light</div> <div>→ Direction indicator light and position light</div> <div>→ Direction indicator light</div>

90 mm modules  
Configurator

Powerful, cost-efficient and modular. Put together your customized front lighting from our wide range of 90 mm modules.

[www.hella.com/headlamp-modules](http://www.hella.com/headlamp-modules)



# FRONT LIGHTING MODULES



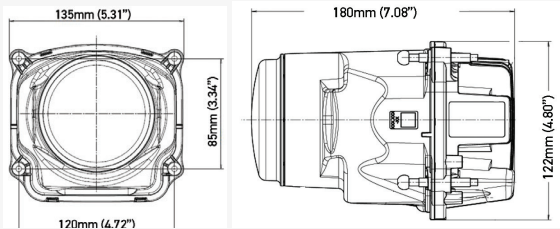
Product image / Dimensions	Features	Technical Specifications	Part Number
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**L4060 LED**  
**BI-LED GEN II**  
HIGH / LOW BEAM


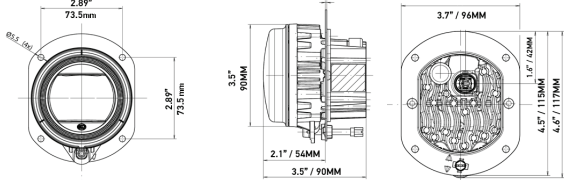


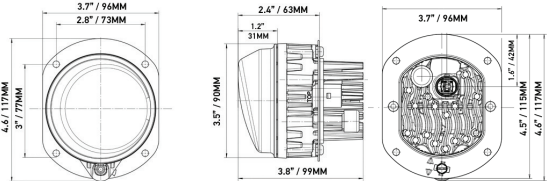

- LED
- Headlight module
  - Polycarbonate lens
  - Cast aluminum housing
  - Black finish cover
  - Dipped beam: 20 Watt
  - Voltage: 9 - 33 V
  - Connection: DT connector
  - Approval: SAE / ECE

- Mounting:**
- Flush
- Applications:**
- Universal application
  - Headlight update
- Content:**
- 1 Headlights, Mounting instructions and installation components

**012758121** Homologation SAE



FRONT LIGHTING MODULES

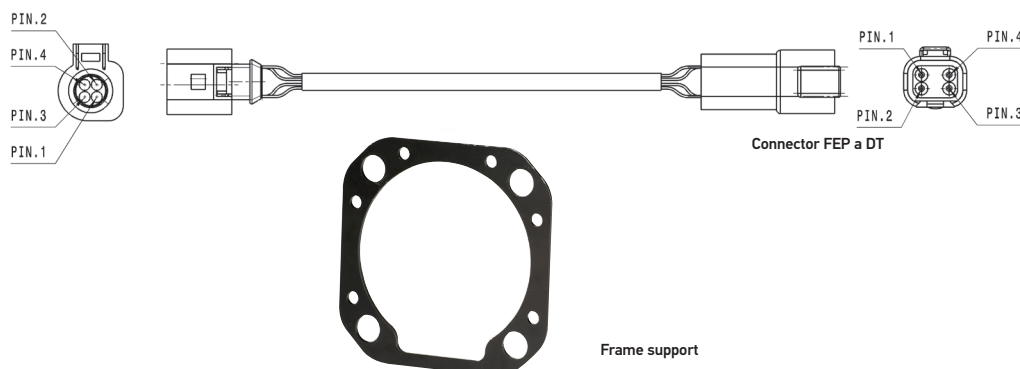
Product image / Dimensions	Features	Technical Specifications	Part Number
<div>L4060 LED</div> <div>LED HIGH BEAM</div> <div>WITH DAYTIME RUNNING/ POSITION LIGHT</div> <div></div> <div>Pre-mounted carrier frame</div>	<div>LED</div> <ul style="list-style-type: none"><li>• Headlamp module with low beam, position and daylight (DRL)</li><li>• Polycarbonate lens</li><li>• Cast aluminum housing</li><li>• Silver design cover</li><li>• Black finish cover on request</li><li>• Voltage: 9 - 32 VDC</li><li>• Power Consumption: 20 Watt</li><li>• Integrated 4-pin DT connector</li><li>• Approval: ECE / SAE</li></ul> <div></div>	<div>Mounting:</div> <ul style="list-style-type: none"><li>• Flush</li></ul> <div>Applications:</div> <ul style="list-style-type: none"><li>• Universal application</li><li>• Headlight update</li></ul> <div>Content:</div> <ul style="list-style-type: none"><li>• 1 Headlight, Mounting instructions and installation components</li></ul> <div></div>	<div>011988031</div> Pre-mounted carrier frame
<div>L4060 LED</div> <div>LED HIGH BEAM</div> <div></div> <div></div> <div>Pre-mounted carrier frame</div>	<div>LED</div> <ul style="list-style-type: none"><li>• Headlight module</li><li>• Polycarbonate lens</li><li>• Cast aluminum housing</li><li>• Silver design cover</li><li>• Black finish cover on request</li><li>• Voltage: 9 - 32 VDC</li><li>• Power Consumption: 20 Watt</li><li>• Integrated 4-pin FEP connector (Power connector DT conversion available - sold separately)</li><li>• Approval: ECE / SAE</li></ul> <div></div>	<div>Mounting:</div> <ul style="list-style-type: none"><li>• Flush</li></ul> <div>Applications:</div> <ul style="list-style-type: none"><li>• Universal application</li><li>• Headlight update</li></ul> <div>Content:</div> <ul style="list-style-type: none"><li>• 1 Headlight, Mounting instructions and installation components</li></ul> <div></div>	<div>011988021</div> Pre-mounted carrier frame
<div>L4060 LED</div> <div>LED HIGH BEAM</div> <div>WITH TURN SIGNAL</div> <div></div>	<div>LED</div> <ul style="list-style-type: none"><li>• Headlight module</li><li>• Polycarbonate lens</li><li>• Cast aluminum housing</li><li>• Silver design cover</li><li>• Black finish cover on request</li><li>• Only for vehicles below 80" in width</li><li>• Voltage: 9 - 32VDC</li><li>• Power Consumption: 20 Watt</li><li>• Integrated 4-pin FEP connector (Power connector DT conversion available - sold separately)</li><li>• Approval: ECE / SAE</li></ul> <div></div>	<div>Mounting:</div> <ul style="list-style-type: none"><li>• Flush</li></ul> <div>Applications:</div> <ul style="list-style-type: none"><li>• Universal application</li><li>• Headlight update</li></ul> <div>Content:</div> <ul style="list-style-type: none"><li>• 1 Headlight, Mounting instructions and installation components</li></ul> <div></div>	<div>011988071</div> With carrier frame without pulse generator
<div>L4060 LED</div> <div>FOG LIGHT WITH CURVE LIGHT</div> <div></div> <div></div>	<div>LED</div> <ul style="list-style-type: none"><li>• Headlight module</li><li>• Polycarbonate lens</li><li>• Cast aluminum housing</li><li>• Silver design cover</li><li>• Black finish cover on request</li><li>• Voltage: 9 - 32VDC</li><li>• Power Consumption: 20 Watt</li><li>• Integrated 4-pin FEP connector (Power connector DT conversion available - sold separately)</li><li>• Approval: ECE / SAE</li></ul> <div></div>	<div>Mounting:</div> <ul style="list-style-type: none"><li>• Flush</li></ul> <div>Applications:</div> <ul style="list-style-type: none"><li>• Universal application</li><li>• Headlight update</li></ul> <div>Content:</div> <ul style="list-style-type: none"><li>• 1 Headlight, Mounting instructions and installation components</li></ul> <div></div>	<div>011988051</div> Light Left Hand
			<div>011988061</div> Light Right Hand
			<div></div>



# FRONT LIGHTING MODULES

Product image / Dimensions	Features	Technical Specifications	Part Number
<b>L4060 LED</b> LED FOG LIGHT 	<b>LED</b> <ul style="list-style-type: none"> <li>Headlight module</li> <li>Polycarbonate lens</li> <li>Cast aluminum housing</li> <li>Silver design cover</li> <li>Black finish cover on request</li> <li>Voltage: 9 - 32 VDC</li> <li>Power Consumption: 20 Watt</li> <li>Integrated 4-pin FEP connector (Power connector DT conversion available - sold separately)</li> <li>Approval: SAE</li> </ul> 	<b>Mounting:</b> <ul style="list-style-type: none"> <li>Flush</li> </ul> <b>Applications:</b> <ul style="list-style-type: none"> <li>Universal application</li> <li>Headlight update</li> </ul> <b>Content:</b> <ul style="list-style-type: none"> <li>(1) Headlight, Mounting instructions and installation components</li> </ul>	<b>011988001</b> Pre-mounted carrier frame <b>202117001</b> DT conversion connector 
<b>L4060 LED</b> LED FOG LIGHT WITH DAYTIME RUNNING/ POSITION LIGHT 	<b>LED</b> <ul style="list-style-type: none"> <li>Headlight module</li> <li>Polycarbonate lens</li> <li>Cast aluminum housing</li> <li>Silver design cover</li> <li>Black finish cover on request</li> <li>Voltage: 9 - 32 VDC</li> <li>Power Consumption: 20 Watt</li> <li>Integrated 4-pin FEP connector (Power connector DT conversion available - sold separately)</li> <li>Approval: SAE</li> </ul> 	<b>Mounting:</b> <ul style="list-style-type: none"> <li>Flush</li> </ul> <b>Applications:</b> <ul style="list-style-type: none"> <li>Universal application</li> <li>Headlight update</li> </ul> <b>Content:</b> <ul style="list-style-type: none"> <li>(1) Headlight, Mounting instructions and installation components</li> </ul>	<b>011988011</b> Pre-mounted carrier frame <b>202117001</b> DT conversion connector 
<b>L4060 LED</b> LED LOW BEAM 	<b>LED</b> <ul style="list-style-type: none"> <li>Headlight module</li> <li>Polycarbonate lens</li> <li>Cast aluminum housing</li> <li>Silver design cover</li> <li>Voltage: 9 - 32 VDC</li> <li>Power Consumption: 20 Watt</li> <li>Integrated DT connector</li> <li>Approval: SAE / ECE</li> </ul> 	<b>Mounting:</b> <ul style="list-style-type: none"> <li>Flush</li> </ul> <b>Applications:</b> <ul style="list-style-type: none"> <li>Universal application</li> <li>Headlight update</li> </ul> <b>Content:</b> <ul style="list-style-type: none"> <li>(1) Headlight, Mounting instructions and installation components</li> </ul>	<b>012488101</b> <b>012488121</b> With Daytime Running /Position Light 

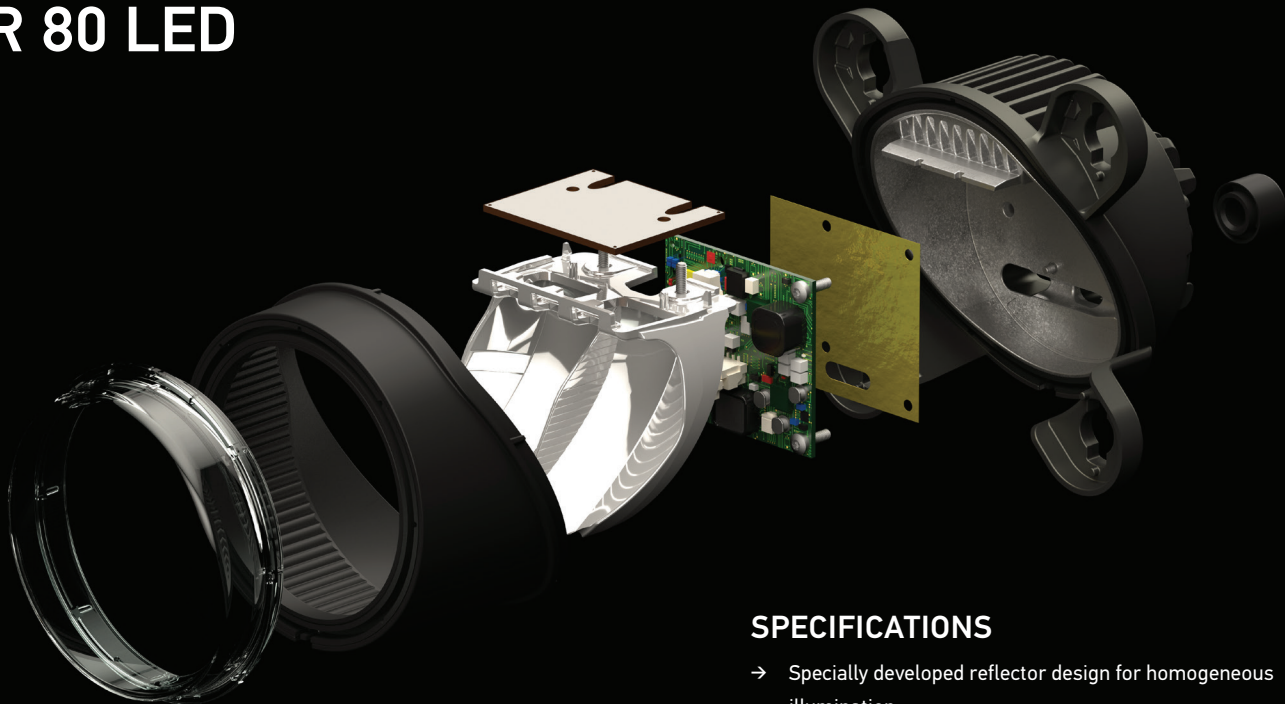
## 90 MM LED - ACCESSORIES AND SPARE PARTS



**169580011** Frame support  
**202117001** FEP to DT connector

FRONT LIGHTING MODULES

R 80 LED



SPECIFICATIONS

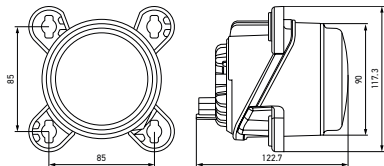
- Specially developed reflector design for homogeneous illumination
- Compact and robust design
- Enables a cost-effective switch from halogen to LED
- Optional FEP or DEUTSCH connector

Product image / Dimensions	Features	Technical Specifications	Part Number
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R 80 LED  
HIGH BEAM LED

LED

- High beam headlight module
- Polycarbonate lens
- Plastic housing
- Silver design cover
- Black finish cover
- Voltage: 9 - 32 VDC
- Power consumption: 20 Watt
- Integrated 4-pin DT connector
- Approval: ECE / SAE
- Protection: IP X9K, IP X4K, IP 5KX



- Mounting:
- Recessed

- Applications:
- Universal application
  - Headlight upgrade

- Contents:
- 1 headlight, assembly instructions and installation components

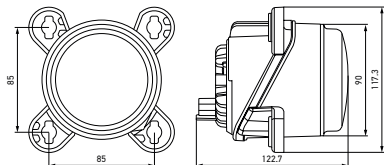
- 015050001\* ECE, connector DT
- 015050011\* ECE, connector DT
- 015050031\* SAE, connector DT
- 015050151\*\* SAE, connector DT
- 015050101\* ECE, connector FEP
- 015050111\* ECE, connector FEP
- 015050131\* SAE, connector FEP

\* Mounting kit 25416300 not included in delivery.  
\*\* Mounting kit 25416300 included in delivery.

R 80 LED  
LOW BEAM LED

LED

- Low beam headlight module
- Polycarbonate lens
- Plastic shell
- Silver design cover
- Black finish cover
- Voltage: 9 - 32 VDC
- Power consumption: 20 Watt
- Integrated 4-pin DT connector
- Approval: ECE / SAE
- Protection: IP X9K, IP X4K, IP 5KX



- Mounting:
- Recessed

- Applications:
- Universal application
  - Headlight upgrade

- Contents:
- 1 headlight, assembly instructions and installation components

- 015050021\* ECE, SAE, connector DT
- 015050141\*\* ECE, SAE, connector DT
- 015050121\*\* ECE, SAE, connector FEP

\* Mounting kit 25416300 not included in delivery.  
\*\* Mounting kit 25416300 included in delivery.

# A SOPHISTICATED SOLUTION: the smart module selector

Find the right headlamp module in just a few clicks:

Our smart module selector will make your search easier. Simply use the filter to select the required criteria, such as the lighting function or homologation, and you will see suitable products right away.

[www.hella.com/headlamp-modules](http://www.hella.com/headlamp-modules)



## + Simple menu structure and use

Our module selector is easy to use and makes it simple for original equipment manufacturers and end customers to find the right module – just like its predecessor, which has already proved its worth in practice. We have built on this and added further module types to the configurator.

## + Illumination comparison

Compare the lighting technology for selected main light functions: Spot the difference between halogen and LED with realistic images from Europe's largest light testing facility! Compare the light distribution and choose the one that suits your application.

## + Upgrade to modern LED technology

Existing halogen versions can be easily converted to LED modules. More detailed information is found in the assembly instructions supplied with the LED modules.

## + It is easy to order parts

Use the selector to easily create your order list and send it to HELLA.

## + Precise comparison

All key technical details for each module can be found in the detailed overview – including optional accessories!

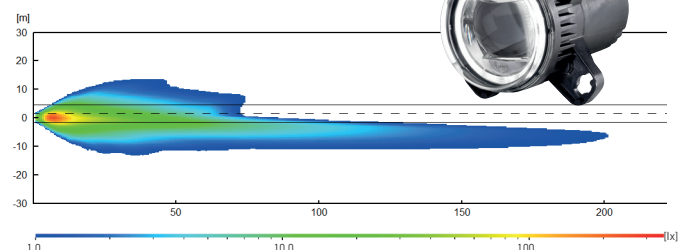


# 90 MM MODULE LIGHT DISTRIBUTIONS

## Low beam comparison

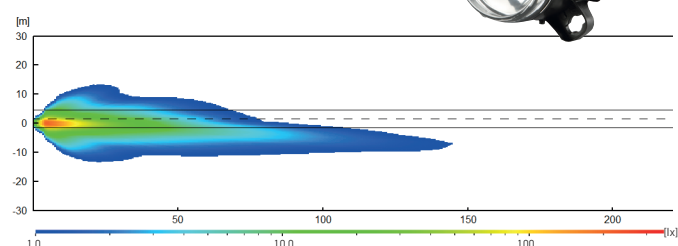
### LED Performance L 4060

(012 488)



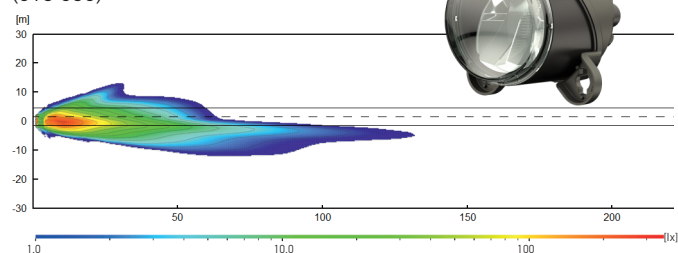
### Halogen Performance

(247 042)



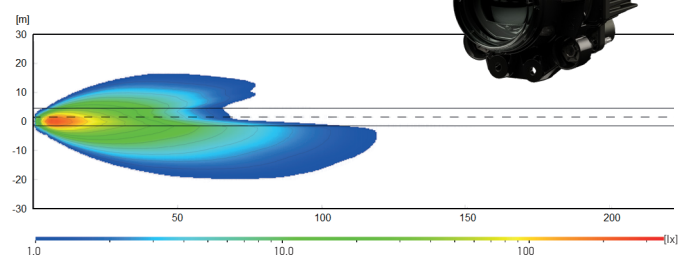
### LED Essential R 80

(015 050)



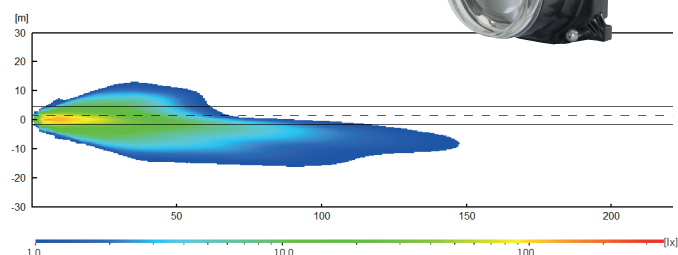
### Bi-LED Performance L 4565

(015 318)



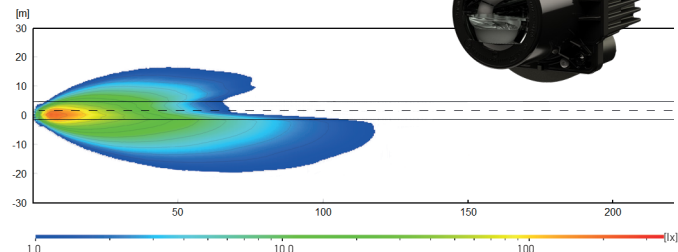
### Bi-halogen Performance

(009 998)



### Bi-LED Essential L 4565

(015 318)



#### Legend for isolux diagram (1 – 350 Lux)



#### Remarks

Mounting height of the headlamps: 0.65 m  
Distance between the headlamps: 1.20 m

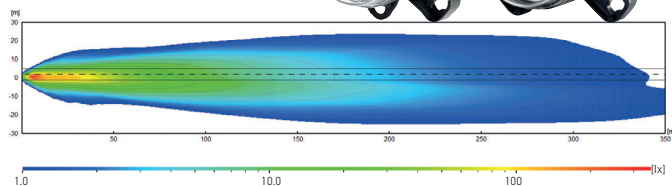


## 90 MM MODULE LIGHT DISTRIBUTIONS

# High beam comparison\*

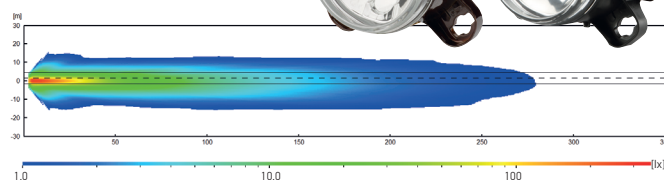
### LED Performance L 4060

(011 988 + 012 488)



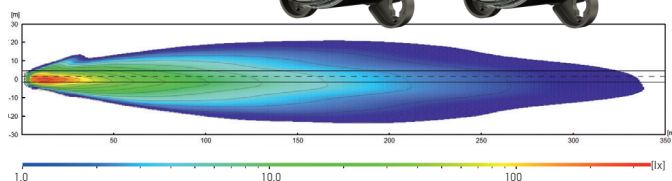
### Halogen Performance

(247 043 + 247 042)



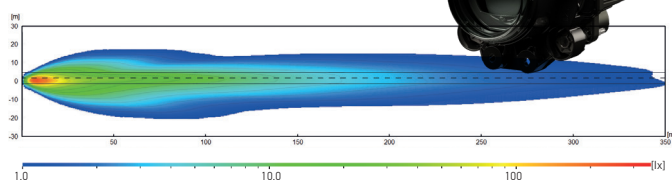
### LED Essential R 80

(015 050 + 015 050)



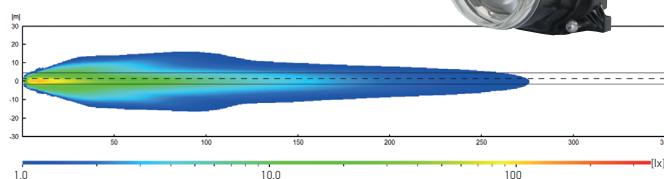
### Bi-LED Performance L 4565

(015 318)



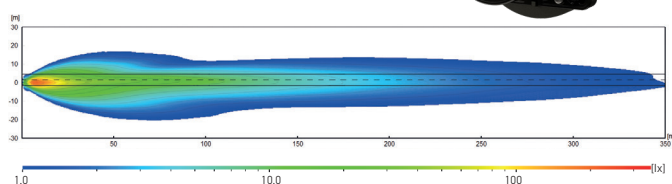
### Bi-halogen Performance

(009 998)



### Bi-LED Essential L 4565

(015 318)



#### \*Please note:

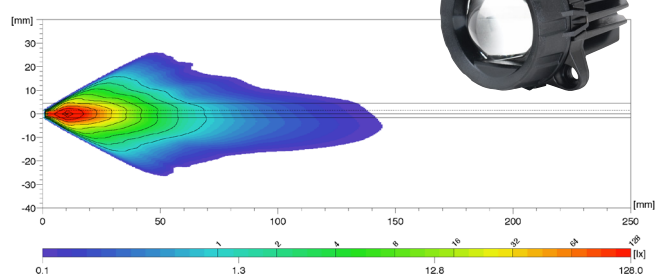
Representation of high beam including low beam, as high beam is supplemented by low beam during driving.

Bi-light distributions are generated when low beam is switched on and are only available as a bi-version.

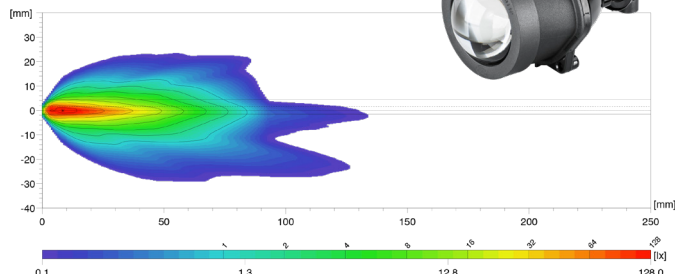
# 60 MM MODULE LIGHT DISTRIBUTIONS

## Low beam comparison

Module 60 LED (R149 Class DS)  
(998 670)

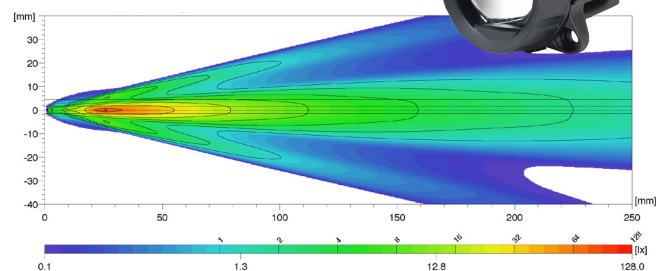


Module 60 Halogen (R149 Class DS)  
(998 570)

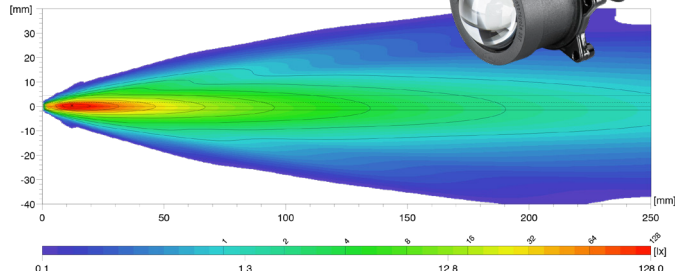


## High beam comparison

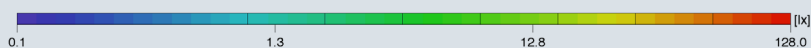
Module 60 LED (R149 Class DS)  
(998 670)



Module 60 Halogen (R149 Class DS)  
(998 570)



Legend, isolux diagram (0.1 – 128 Lux)

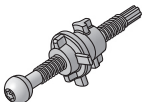


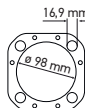
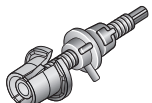
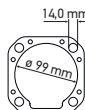
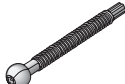


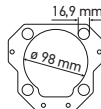
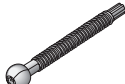





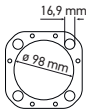
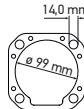


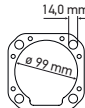

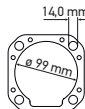


### Remarks

Mounting height of the headlamps: 0.65 m  
Distance between the headlamps: 1.20 m

# FOR THE 90 MM MODULE

## Mounting kits

Part number	Product image	PU	Fastening concept	Holder
254163001	3 x  3 x  3 x 	1 piece	Performance	
254163027	3 x 	200 pieces	Premium	
236655011	3 x  3 x  3 x 	200 pieces	Heavy Duty	
236655011	3 x  3 x  3 x 	200 pieces	Heavy Duty	No carrier frame required
202748001	3 x  3 x  3 x 	1 piece	Premium + Performance	 
169098017	3 x  2 x  Locking element for SAE version	100 pieces	Premium	
169098007	3 x 	200 pieces	Premium	

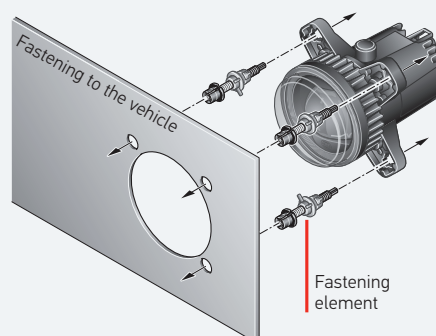
## Installation examples

### Important note:

The relevant country-specific statutory specifications and regulations for motor vehicles must be observed when installing headlamps!

### Installation example 1

Without carrier frame



Product features, specifications and availability are subject to change without notice.

**HELLA Automotive Sales, Inc.**

611 Highway 74 S, Suite 102

Peachtree City, GA, 30269

Tel.: +1 (877) 224-3552

Fax: +1 (770) 631-7574

[www.hella.com/us/](http://www.hella.com/us/)

[www.myhellalights.com](http://www.myhellalights.com)