



Born to Work in the Toughest Conditions

Thanks to state-of-the-art technologies developed using OE expertise, HELLA work lights are able to withstand the most difficult of environmental conditions. And it is the sophisticated thermal management within the work light that especially makes for a very long service life. For only when the heat can be optimally dissipated from the high-power LED work lights can a high-power illumination performance take place unhindered. Go for the best quality and rev up your working efficiency.

This is where you can find out more about the latest work light innovations to come out of HELLA.

CoroSafe A new process combating corrosion



CoroSafe finish for when the going gets really tough.

HELLA is setting standards in work light durability and toughness with its new CoroSafe coating. Two additional layers of surface coating on the work lights greatly improve their robust durability. The sophisticated combination of various coating methods ensures a high level of corrosion resistance and improved protection against damage to the work lights. This means that the housing is well protected and ideal for use in harsh conditions and is particularly effective when exposed to large amounts of salt and water. CoroSafe is used primarily in HELLA LED work lights and LED reversing spotlights.

All HELLA work lights which have a CoroSafe coating can be instantly recognised by the exterior grey colour of their housing. It is therefore easy to differentiate them from the other HELLA work lights.

THFRMO PRO series A HELLA innovation



Special thermally conductive plastics dissipate the heat of the LEDs excellently.

The innovative plastic material of the THERMO PRO series boasts thermal conductivity properties similar to aluminum. This means that the LEDs can operate using the full power supply even if the ambient temperatures are high.

In addition, the THERMO PRO series impresses with its considerably reduced weight and improved vibration characteristics. Even in the toughest conditions, the omission of vulnerable aluminum and the use of synthetic material housings ensure a long service life and prevent corrosion.

Advantages:

- → Especially suitable when corrosion risk is high, e.g. corrosion of work lights caused by salts
- → Optimal vibration behavior thanks to reduced weight
- → Plastic material is resistant to external factors such as dust, dirt and water (IP 6K9K / IP 6K8 protection classes)





Optimal Working Conditions in Total Darkness

In order to guarantee the same safety and comfort in mines as experienced on the street, HELLA has developed a new optical system for work lights.

The **ZERO**GLARE system ensures that the driver of an oncoming vehicle is not dazzled. Unlike the usual LED work lights, the light/dark cut-off line appears very sharp here and the light of the **ZERO**GLARE work lights is targeted specifically onto the area in front of the vehicle.

HELLA's RokLUME 380 work light is now available with this new **ZERO**GLARE technology. The colour temperature of 5,000 kelvins is very similar to natural daylight and, as such, enhances the safety factor of working conditions. The housing is made of corrosionresistant aluminum protected by a special NanoSafe coating, which safeguards the work light against external influences. It also has the advantage of easy cleaning. Product details can be found on page 4.

Find out more about the new **ZERO**GLARE technology by visiting www.hellazeroglare.com





Video clip – **ZERO**GLARE

Scan the barcode and watch the video to learn more.





RokLUME 380

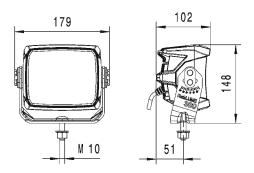
Product Features

- → Breathtaking light output
- → Developed for the toughest conditions
- → Heavy duty bracket for particularly high vibration resistance



Technical Details

Light output (measured): up to 7,500 lumens, power requirement: max. 84 watts, colour temperature: 5,000° kelvins, 24 volt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K / IP 6K8 (pressure cleaner-proof / submersible), high-quality aluminum housing, NanoSafe coating, ECE-R10, RCM approved.



Illumination



The ZEROGLARE system ensures that the driver of an oncoming vehicle is not dazzled.

1GA 996 197	-001	-011	-021
Voltage	22 – 32 V	22 – 32 V	22 – 32 V
Close-Range Illumination	X	X	_
Long-Range Illumination			X
Spot Illumination			-
Energy Consumption	max. 84 W	max. 84 W	max. 84 W
Lumen (hot)		7,500 lm	7,500 lm
Connection	150 mm cable and DT connector	150 mm cable and DT connector	150 mm cable and DT connector
Mounting, upright	X	X	X
Mounting, pendant	X	X	X
Mounting, lateral			
Bracket Width	152 mm	152 mm	152 mm
Other Features	ZEROGLARE optics	_	



Oval 90 LED Generation II

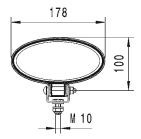
Product Features

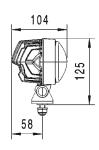
- → Light output above xenon level
- → Particularly wide illumination thanks to arched lens
- → Simple conversion made possible by its modular construction



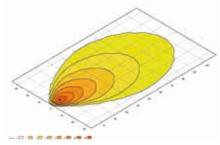
Technical Details

Light output (measured): 4,300 lumens, power requirement: 60 watts, colour temperature: 6,500° kelvins, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K / IP 6K8 (pressure cleaner-proof / submersible), ECE-R10 approved, high-quality aluminum housing, ADR/GGVS on request.

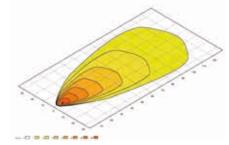




Illumination



Close-Range Illumination



Long-range Illumination

1GB 996 486	-001	-011
Voltage	9 – 33 V	9 – 33 V
Close-Range Illumination	X	_
Long-Range Illumination		X
Spot Illumination		-
Energy Consumption	60 W	60 W
Lumen (hot)	4,300 lm	4,300 lm
Connection	DT connector	DT connector
Mounting, upright	X	X
Mounting, pendant	X	X
Mounting, lateral		_
Bracket Width	36 mm	36 mm
Other Features		_



Oval 100 LED Generation II

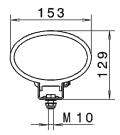
Product Features

- → Wide homogeneous illumination
- ightarrow Simple conversion made possible by its modular construction
- → For universal use



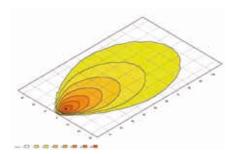
Technical Details

Light output (measured): 4,000 lumens, power requirement: 56 watts, colour temperature: 6,500° kelvins, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K / IP 6K8 (pressure cleaner-proof / submersible), ECE-R10 approved, high-quality aluminum housing, ADR/GGVS on request.

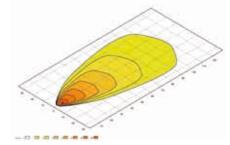




Illumination



Close-Range Illumination



Long-Range Illumination

1GA 996 761	-001	-011
Voltage	9 – 33 V	9 – 33 V
Close-Range Illumination	X	-
Long-Range Illumination	-	X
Spot Illumination	-	-
Energy Consumption	56 W	56 W
Lumen (hot)	4,000 lm	4,000 lm
Connection	DT connector	DT connector
Mounting, upright	X	X
Mounting, pendant	X	X
Mounting, lateral	_	_
Bracket Width	42 mm	42 mm
Other Features	-	_



Ultra Beam LED Generation II

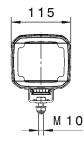
Product Features

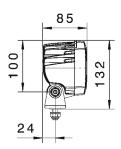
- → Light output surpasses xenon performance
- → Twice as much light as Generation 1
- → For universal use



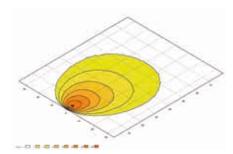
Technical Details

Light output (measured): 4,000 lumens, power requirement: 56 watts, colour temperature: 6,500° kelvins, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K / IP 6K8 (pressure cleaner-proof/ submersible), ECE-R10 approved, high-quality aluminum housing, ADR/GGVS tested.

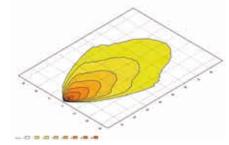




Illumination



Close-Range Illumination



Long-Range Illumination

1GA 995 606	-001	-011	-081	-091
Voltage	9 – 33 V	9 – 33 V	9 – 33 V	9 – 33 V
Close-Range Illumination	X	_	X	
Long-Range Illumination		X		X
Spot Illumination		_		_
Energy Consumption	56 W	56 W	56 W	56 W
Lumen (hot)	4,000 lm	4,000 lm	4,000 lm	4,000 lm
Connection	DT connector	DT connector	DT connector	DT connector
Mounting, upright	X	X	X	Х
Mounting, pendant	X	X	X	X
Mounting, lateral		_		_
Bracket Width	42 mm	42 mm	116 mm	116 mm
Other Features		_	Heavy duty surrounding bracket	Heavy duty surrounding bracket



Mega Beam LED Generation IV

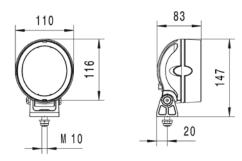
Product Features

- → Classic design
- → Simple conversion thanks to its modular concept
- → Also available with a handle

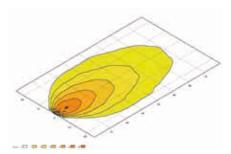


Technical Details

Light output (measured): 2,500 lumens, power requirement: 30 watts, colour temperature: 6,500° kelvins, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K/IP 6K8 (pressure cleaner-proof/ submersible), ECE-R10 approved, high-quality aluminum housing.



Illumination



Close-Range Illumination

Recommended Tilt Angle | Close-Range: 12°

1GM 996 136	-501	-511	-521
Voltage	9 – 33 V	9 – 33 V	9 – 33 V
Close-Range Illumination	X	X	X
ong-Range Illumination			-
Spot Illumination			_
Energy Consumption	30 W	30 W	30 W
_umen (hot)	2,500 lm	2,500 lm	2,500 lm
Connection	2,000 mm cable	2,000 mm cable	2,000 mm cable
Mounting, upright	X		X
Mounting, pendant		X	-
Mounting, lateral			
Bracket Width	42 mm plastic bracket	42 mm plastic bracket	42 mm plastic bracket
Other Features			with handle



Oval 100 LED TP

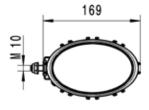
Product Features

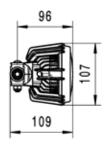
- → Lateral swivel joint for flexible mounting
- → Lightweight thanks to the Thermo Pro plastic housing
- → Suitable for mounting on mirror arm



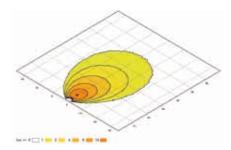
Technical Details

Light output (measured): 1,700 lumens, power requirement: 25 watts, colour temperature: 6,500° kelvins, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K / IP 6K8 (pressure cleaner-proof/ submersible), ECE-R10 approved.





Illumination



Close-Range Illumination

Recommended Tilt Angle | Close-Range: 12°

1GA 996 661	-031	-041	-501
Voltage	9 – 33 V	9 – 33 V	9 – 33 V
Close-Range Illumination	X	Х	X
Long-Range Illumination		-	-
Spot Illumination		-	_
Energy Consumption		25 W	25 W
Lumen (hot)	1,700 lm	1,700 lm	1,700 lm
Connection	DT connector	DT connector	DT connector
Mounting, upright		X	X
Mounting, pendant		Х	X
Mounting, lateral	X	-	_
Bracket Width	42 mm	42 mm	42 mm
Other Features	Lateral swivel mounting	_	Swivel joint underneath



Q90 Compact LED

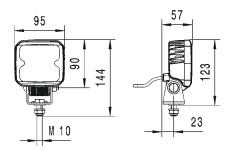
Product Features

- → High corrosion resistance thanks to its plastic housing
- → Compact design
- → Perfect halogen replacement

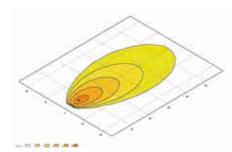


Technical Details

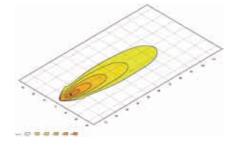
Light output (measured): 1,000 lumens, power requirement: 15 watts, colour temperature: 6,500° kelvins, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K/IP 6K8 (pressure cleaner-proof/submersible), ECE-R10 approved.



Illumination



Close-Range Illumination



Long-Range Illumination

1GA 996 284	-002	-012	-081	-091
Voltage	9 – 33 V	9 – 33 V	9 – 33 V	9 – 33 V
Close-Range Illumination	χ	_	X	_
Long-Range Illumination	_	X		X
Spot Illumination		_		_
Energy Consumption	15 W	15 W	15 W	15 W
Lumen (hot)	1,000 lm	1,000 lm	1,000 lm	1,000 lm
Connection	500 mm cable	500 mm cable	150 mm cable and DT connector	150 mm cable and DT connector
Mounting, upright	χ	X	X	X
Mounting, pendant	χ	X	X	X
Mounting, lateral		_		_
Bracket Width	42 mm	42 mm	42 mm	42 mm
Other Features			ADR/GGVS tested	ADR/GGVS tested



Module 50 LED - Colour Spot

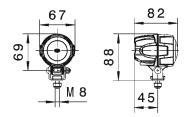
Product Features

- → Special use as a warning light
- \rightarrow Punctiform illumination on the ground
- → Increases working safety
- → Available in a choice of four colours



Technical Details

Power requirement: 15 watts, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K / IP 6K8 (pressure cleaner-proof/ submersible), ECE-R10 approved, high-quality aluminum housing, ADR/GGVS tested.



Illumination



Recommended Tilt Angle | 25°

1G0 995 050	-051	-061	-071	-081
Voltage	9 – 48 V			
Close-Range Illumination		_		_
Long-Range Illumination		-		_
Spot Illumination	X	X	X	X
Energy Consumption	15 W	15 W		15 W
Lumen (hot)		_		_
Connection	DT connector	DT connector	DT connector	DT connector
Mounting, upright	X	X	Х Х	X
Mounting, pendant	X	X	Х Х	X
Mounting, lateral		_		_
Bracket Width	27 mm	27 mm	27 mm	27 mm
Other Features / Colour	White	Blue	Green	Red



Q90 Compact LED Reversing Light

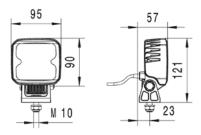
Product Features

- → Excellent corrosion resistance
- → Compact design
- → Wide, homogeneous illumination behind the vehicle

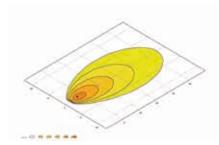


Technical Details

Light output (measured): 1,000 lumens, power requirement: 15 watts, colour temperature: 6,500° kelvins, multivolt, reverse polarity protection, overvoltage protection, thermal management, IP 6K9K/IP 6K8 (pressure cleaner-proof/submersible), ECE-R10 approved, ECE-R23 approved.



Illumination



Close-Range Illumination

Recommended Tilt Angle | See mounting instructions

2ZR 996 284	-501	-511	
Voltage	9 – 33 V	9 – 33 V	
Close-Range Illumination	X	Х	
Long-Range Illumination	-	-	
Spot Illumination	-	-	
Energy Consumption	15 W	15 W	
Lumen (hot)	1,000 lm	1,000 lm	
Connection	2,000 mm cable	500 mm cable and DT connector	
Mounting, upright	X		
Mounting, pendant	X	X	
Mounting, lateral	-	-	
Bracket Width	42 mm plastic bracket 42 mm plastic bracket		
Other Features		ADR/GGVS tested	



Thermal Management for Agricultural and Construction Machinery

Behr Hella Service combines a strong product range with outstanding service expertise — now also in the area of agricultural and construction vehicles. In 21st century thermal management, engine cooling and vehicle air conditioning go hand in hand — just as Behr, a leading name in these fields, with its OE product expertise goes hand in hand with HELLA's global sales organisation. The result is that the Behr Hella Service joint venture offers the perfect combination of price, performance and quality.

Your big advantage: all products and services are under the one roof - and now this also includes agricultural and construction machinery, too.

Engine Cooling



Reliable, efficient and optimum engine cooling.

Agricultural vehicles are frequently exposed to challenging weather conditions on a daily basis. The materials used must therefore satisfy stringent requirements. That also applies to their engines. Not only do these have to withstand adverse weather conditions but they are also faced with much mechanical stress and strain. So as to avoid problems during operation, reliable engine cooling must be ensured at all times. Because a period of downtime can become very costly!

Vehicle Air Conditioning



Comfortable climate. High productivity.

Extreme heat or cold makes working the land difficult and leads to increased tiredness among those working it. Misted up windows can also easily impair visibility. An efficiently functioning airconditioning system, with its reliable cooling or heating, can offer a great deal of help to make life easy and comfortable. Such help enhances the well-being and concentration of the driver and keeps the windows mist-free. Work is then performed efficiently by both man and machine.

With the products of Behr Hella Service, you are really in the driving seat. You get a top-flight portfolio of carefully selected both vehicle-specific and also universal parts, which are tailor-made for agricultural vehicles. But don't just take our word for it – your reward will be your customers' appreciation!

Have a word with your HELLA sales representative or visit the page at www.hella.com/agriculture.





Safe Whatever the Operation - with the HELLA Beacons

Beacons guarantee maximum safety for oneself and for others thanks to the intensive warning signals that they give out. This safety is achieved by the optimum light bundling and distribution, the long range achieved and also the very high luminous intensity.



K-LED 2.0 Beacon

The new HELLA K-LED 2.0 ensures the best possible warning effect and therefore optimum safety since it automatically provides 2.3 times more illumination during the day than at night. It is also the first HELLA beacon where you can choose between rotating or flashing warning signals either simply by switching over or by programming the required effect. In this way you have the right warning signal to suit every situation and every operation.

- → Two levels (ECE R-65): beacon with light sensor for automatic switch between day and night mode, for ultimate warning effectiveness
- ightarrow Functional safety: the first HELLA beacon to meet the requirements of IP 67
- → Extremely robust and highly compact

Multivolt 10-32 V, fixed attachment	2XD 011 557-101
Multivolt 10-32 V, airport fixed attachment	2XD 011 557-701
Multivolt 10-32 V, pipe socket fixing	2XD 011 557-201
Multivolt 10-32 V, magnetic mounting bracket	2XD 011 557-301



Rota LED Beacon

The Rota LED with rotating LED light function impresses with its high level of efficiency, its flat and compact design and, of course, with its rotating LED light function. Because of the shock-absorbing rubber foot, it boasts a high resilience against vibration and is thus perfectly suited for challenging applications.

- → ECE-R65 approved LED beacon with rotating warning signal
- → High vibration resistance and extremely robust
- → Exceptionally efficient

Multivolt 10-32 V, fixed attachment	2RL 010 979-001
Multivolt 10-32 V, flexible pipe socket fixing	2RL 010 979-011
Multivolt 10-32 V, magnetic mounting bracket	2RL 010 979-021



A Diverse Range of Accessories

Away from the roads, the demands made on man and machinery are particularly tough. HELLA branded accessories provide top quality and a huge selection of the most diverse spare parts and add-ons – for any situation.





Module Switches

Many rocker switch modules are specially designed for use in agricultural and construction machinery and also for special vehicles. There are more than 500 different switch symbols available for all switch series.

The new waterproof 3100 series for electrical systems is the latest addition to the HELLA rocker switch series. It meets the requirements of protection class IP 68. The lasered symbols are lit by integrated LEDs.

Horns and Backup Alarms

Horns and trumpet horns have a long tradition at HELLA. The company has been developing and producing acoustic signalling devices for almost 100 years. The product range includes signal horns, supertone horns, electric twin-tone trumpet horns and supercharger or compressed air trumpet horns.

Bulbs

The HELLA range of bulbs offers specifically developed bulb variations for every situation and application, e.g. Light Power with a particularly high light output or Lifetime with a very long service life.



For more information: www.hella.com/switch



For more information: www.hella.com/horns



An even bigger choice can be found at www.hella.com/bulbs



Wiper Blades

In the course of their lives, these small technical wonders wipe several thousand litres of water off the windshield and have to contend with snow, ice, insects and much more. A good reason to choose wiper blades from HELLA.



Ignition and Starter Switches

Without this nothing works. The ignition switch is chiefly responsible for reliably starting the engine. Reliability and durability are its key properties.



Battery Isolator Switches

These offer effective security against theft and fire in the event of accidents in the agricultural machinery industry. They are dust-resistant and also waterproof in line with IP 69. Switching is also partially possible under a 250 A load.





The Simple, Swift Move from Halogen to LED:

Step-by-step instructions

Converting to LED technology brings with it the following advantages:

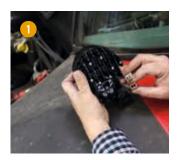
- → More efficient lighting increases safety, especially when manoeuvring, coupling units or working in difficult terrain.
- → The conversion to LEDs saves fuel and lightens the load on the alternator.
- → These robust LED headlamps not only have more than 130 times the service life of halogen but they are also reliable and entirely maintenance-free. All that also makes them an interesting alternative economically speaking.

How simply and quickly the changeover from standard halogen lights to modern LED technology is effected can be seen in the conversion example shown below.

In order to optimise light output, regular halogen lights found in standard equipment were replaced by state-of-the-art LED high-performance HELLA work lights. After this quick and easy conversion and then the optimal adjusting of the tilt angle, the vehicle is immediately equipped with significantly improved light output.

Often underestimated but it is very important: homogeneous and seamless illumination of the entire working area.

Conversion Procedure





▲ Module 90 LED (1G0 996 263-031)



▲ Crimp tool (8PE 863 807-851)



▲ Rota LED (2RL 010 979-011)



▲ Ultra Beam LED (1GA 995 506-031)



▲ Q90 LED (1GA 996 283-001)



Scan the QR code and watch the video with its complete conversion

Two Ultra Beam LED lights were fixed on the roof enabling long-range illumination. A further two Module 90 LEDs and two Q90 LED work lights were mounted on the vehicle for all-round, close-range illumination. The existing halogen beacons were also replaced by energy-saving Rota LED beacons from HELLA. The initial step was to replace the old halogen work light on the fender by a powerful Module 90 LED from HELLA. After disconnecting the system from the battery, the existing connection to the headlamp was unplugged and checked for any damage (1).

Then the old headlamp and its bracket were removed. The Module 90 LED is attached using a thicker screw, so the existing hole in the fender had to be enlarged to accommodate an M10 screw. Once that had been done, installing the new holder was easy (2).

Whenever a new device is connected to a vehicle, it is important to make sure that the connection is always watertight and well-insulated. A new dust-free and watertight connection is prepared for the Module 90 LED and its integrated Deutsch connector by





The light output with conventional halogen headlamps before the conversion. The current consumption here was 60.9 amperes.



The significantly improved light output after converting to LED headlamps.

The current consumption has been significantly reduced and is now 41.4 amperes.

a technician using a HELLA crimp tool (3). Now the new LED work light can be mounted and securely connected via the new plug-in connection.

In the same way, the HELLA Ultra Beam LED work light is then mounted at the rear of the cab roof (4). In contrast to the other products, the compact Q90 LED is fitted with a 500 mm cable. So as to make sure this also has a waterproof connection to the vehicle, a SUPERSEAL plug-in connector is mounted on the existing cable (5).

The last step is when the maintenance-free Rota LED beacon is mounted on the vehicle simply by way of the "plug and play" system (6).

For easy retrofitting HELLA offers a wealth of mounting articles as accessories, such as holders, wiring harnesses, connectors and fuses. Apart from standard tools, this retrofit only needs HELLA's crimping pliers.

Something Interesting:

More step-by-step conversion instructions can be found by visiting **www.hella.com/agriculture**

HELLA Products Used In The Conversion

Fender:

2 x Module 90 LED, close-range illumination (1G0 996 263-031)

Cab Entrance:

2 x Q90 LED, close-range illumination (1GA 996 283-001)

Roof:

2 x Ultra Beam LED, long-range illumination (1GA 995 506-031)

Beacon:

2 x Rota LED beacons (2RL 010 979-011)

Recommended Tool:

HELLA crimp pliers (8PE 863 807-851)

Service Tip

More information on crimping can be found in the following videos:







Crimp Tool – ABS/EBS



Configuration and Effects of Various Types of Illumination







Anyone wishing to work safely and efficiently in the dark fully realizes that high-performance work lights are an absolute must. In addition to a suitable lumen value, it is equally important that the light is evenly distributed in the work area. And in order to achieve such a homogeneous light distribution, it is advisable to combine work lights that offer different kinds of illuminating features. The HELLA reflector system ensures a smooth distribution of light between the various LED worklights — essential aspects for safe, productive work in the dark.

1. Close-Range Illumination

- → Usually work lights with a textured cover lens.
- → The lens widens the light beams and distributes them homogeneously in the area of work.
- → It is thus possible to generate intensive, large-scale illumination of the entire surrounding area.
- → And this is just as effective for the lighting up of equipment in and around the vehicle.

2. Long-Range Illumination

- → A narrow light pattern where the brightest point shines at the ground at least 30 40 m away from the vehicle.
- → This is recommended for fast-moving vehicles so you can safely work at night without worrying about an accident.
- → This enables a good view into the distance.

3. Combination

- → Ideal working lighting is brought about by a combination of these two illumination variations.
- → The tilt angle and lateral alignment of the individual devices must be adjusted accordingly.
- → The lamps are to be aligned in such a way that the long-range and close-range illumination work well together and the transition between them is smooth.
- → Dark areas hamper a person's ability to concentrate and can quickly lead to fatigue. So for this reason they should be avoided.



Online Services and Tools

Useful details relating to work lights, lighting technologies and suitable applications can be found in our online services und tools information package. And our service for when you are on-the-go – on your smartphone or tablet.





Agriculture Website

Informative, compact, interactive. Here you'll find all you need to know about the products and technologies for agricultural use.

www.hella.com/agriculture





ELIVER - The Light Comparison Tool

This online tool lets you compare many HELLA work lights on the basis of their illumination in a realistic, appealing environment.

www.hella.com/eliver





Work Light Configurator:

Which work light is the right choice for your application? The HELLA online configurator will provide you with suitable product suggestions including all the relevant information about the product.

www.hella.com/worklight-configurator



Work Lights App

Come this way into the interactive world of work lights and move through the fascinating spectrum of all the different lighting technologies, animations and lots, lots more. Simply download the app from iTunes or Google Play!

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