



BRIEF INFORMATION

LED combination headlamp C240

- › Combination headlamp with high beam, low beam, daytime running light, position light, front direction indicator and side direction indicator (cat. 5) in 100 % LED
- › Specially designed for construction vehicles
- › Available in essential series offering symmetrical light distribution and performance series offering asymmetrical light distribution
- › Offers flexibility to choose from bottom mounting and center mounting options

PRODUCT FEATURES

HELLA's new combination headlamp offering high beam, low beam, daytime position light, position light, front direction indicator and side direction indicator (cat. 5) in 100 % LED technology. The C240 LED meets all ECE and SAE requirements and is ideal for use almost anywhere in the world. Additional approvals are possible for China and India. The housing of the C240 LED is made of PBT GF30 and an aluminium element at the top, which features excellent thermo management and contributes to a longer product life.

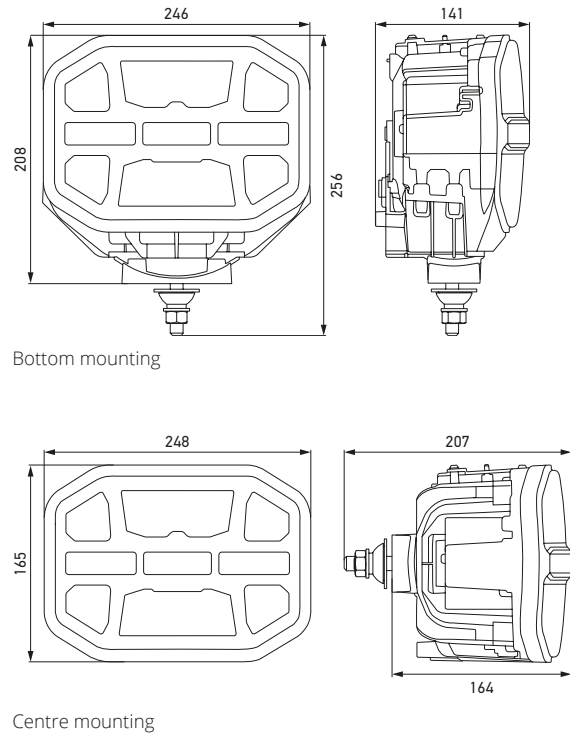
A specially developed thermal design with temperature sensors prevents the headlamp from overheating. In addition, it is possible to engrave a customer logo in the center of the headlamp. With its robust lens made of shatterproof plastic, the headlamp is particularly resistant to vibration and impact. Ideal for the tough conditions on construction vehicles (strong vibrations, dust, wetness, mechanical shock, etc.). The C240 LED offers the flexibility to choose from the essential series offering symmetrical light distribution and the performance series offering asymmetrical light distribution.

TECHNICAL DETAILS

Technical data

| | |
|-------------------------|---|
| Operating voltage range | Multi voltage (9 – 32 V) |
| Rated voltage | 12 V and 24 V |
| Light function | High beam, low beam, daytime running light, position light, front direction indicator and side direction indicator (cat. 5) |
| Light source | LED |
| Housing | PBT GF30 |
| Weight | Centre mounting: 2,400 g Bottom mounting: 2,500 g |
| Temperature range | -40 °C to +50 °C |
| Protection class | IP 6K9K |
| Approved | ECE ES / LES: R149.01 ECE symmetric: R149.01 class CS ECE R148.01 FMVSS 108, ECE-R10.06 |
| Conform | CISPR 25.06 class 5 |
| Mounting | M12 x 50 Bolt |
| Connection | 6-pin DEUTSCH connector |

Dimensional sketch



Current / Power Consumption

| | Input Voltage (V) | | | | | | Input Current (A) | | | | | | Power Consumption (W) | | | | | | | | | | | | | | | | | | | |
|----------|-------------------|----|----------|----|---------------------------------|----|-----------------------|----|----------------|----|-----------------------------------|----|-----------------------|----|----------|------|---------------------------------|------|-----------------------|------|----------------|------|-----------------------------------|------|------|------|----|----|----|------|---|-----|
| | High beam | | Low beam | | Front direction indicator light | | Daytime running light | | Position light | | Side direction indicator (cat. 5) | | High beam | | Low beam | | Front direction indicator light | | Daytime running light | | Position light | | Side direction indicator (cat. 5) | | | | | | | | | |
| SAE | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 2.12 | 0.70 | 1.43 | 0.49 | 1.43 | 0.51 | 1.08 | 0.35 | 0.14 | 0.06 | 0.08 | 0.07 | 25 | 17 | 16 | 12.5 | 1 | 2.5 |
| ECE-ASYM | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 2.04 | 0.69 | 1.44 | 0.49 | 0.90 | 0.32 | 1.07 | 0.35 | 0.13 | 0.06 | 0.08 | 0.07 | 25 | 17 | 12 | 12.5 | 1 | 2.5 |
| ECE-SYM | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 13.5 | 28 | 1.32 | 0.46 | 0.71 | 0.27 | 0.90 | 0.32 | 1.08 | 0.35 | 0.13 | 0.06 | 0.08 | 0.07 | 17 | 10 | 12 | 12.5 | 1 | 2.5 |

Pin assignment – 6-pin DEUTSCH connector

| PIN | Function | ASIL (ISO 26262) | Safety goal (SG) |
|-----|------------------------------|------------------|---|
| 1 | Ground | ASIL B | LB SG01 – The unique identification as a 2-track vehicle shall be given (safety goal on vehicle level) * |
| 2 | Low beam | | LB SG02 – Sufficient illumination of the lane shall be ensured * |
| 3 | High beam | - | - |
| 4 | Position light | - | - |
| 5 | Direction indicator / cat. 5 | ASIL B | DI SG03 – The driver shall be informed about any loss of the indicator function |
| 6 | Daytime running light | | |

* Note: It is assumed, that left and right tail light are controlled by separate lines each.

LIGHTING FUNCTIONS

Unmistakable design coupled with specially designed light pattern suitable for field applications defines the essence of HELLA's new combination headlamp.



Side direction indicator (cat. 5)



European direction indicator (ECE)



American direction indicator (SAE)



Daytime running light



Low beam, high beam, position light



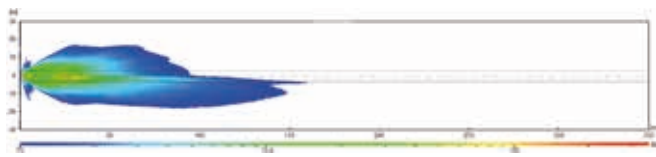
Low beam, position light



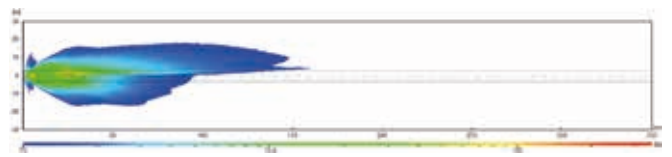
Position light

LIGHT DISTRIBUTION

ECE - Low beam right-hand traffic asymmetric



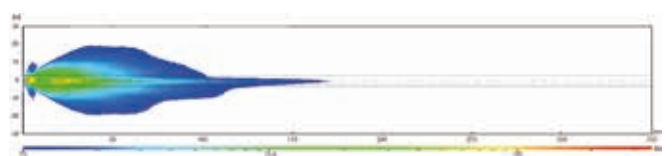
ECE - Low beam left-hand traffic asymmetric



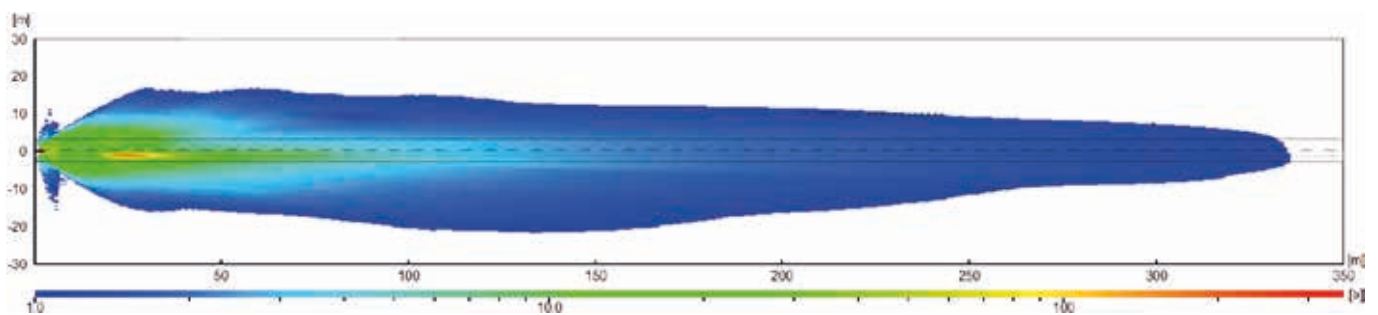
ECE - Low beam symmetric



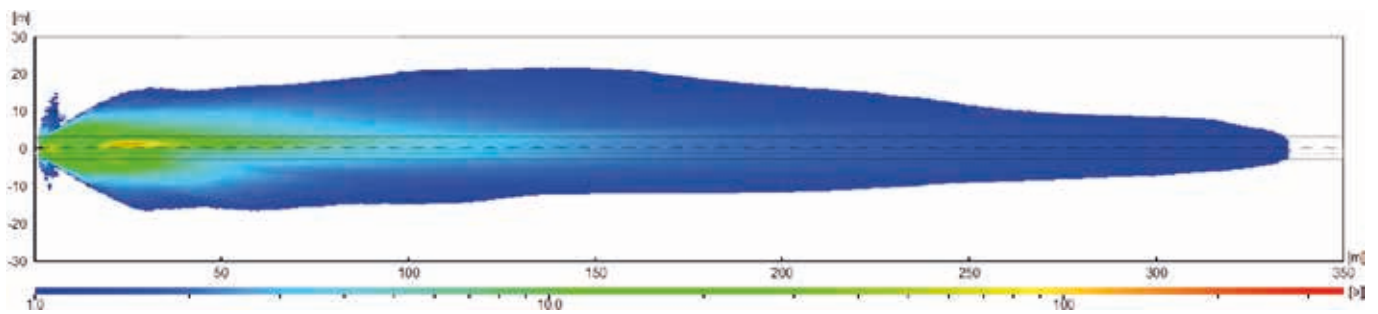
SAE - Low beam asymmetric



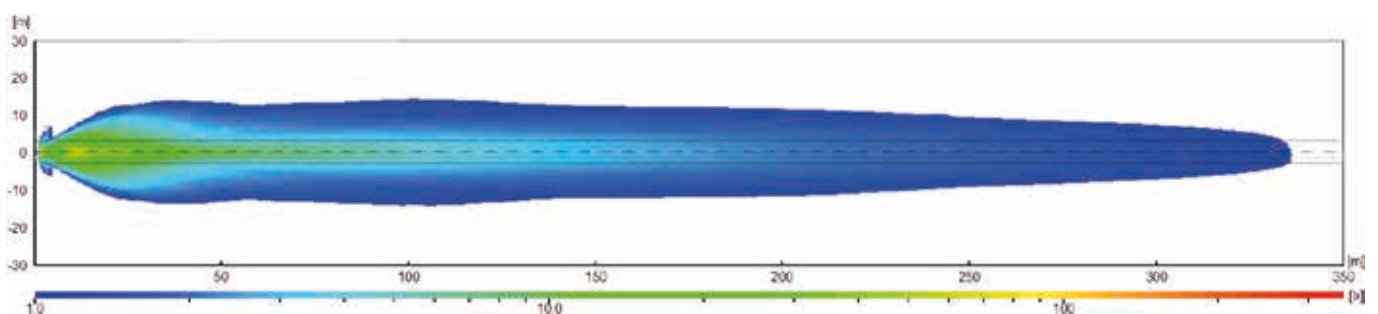
ECE - High beam right-hand traffic asymmetric



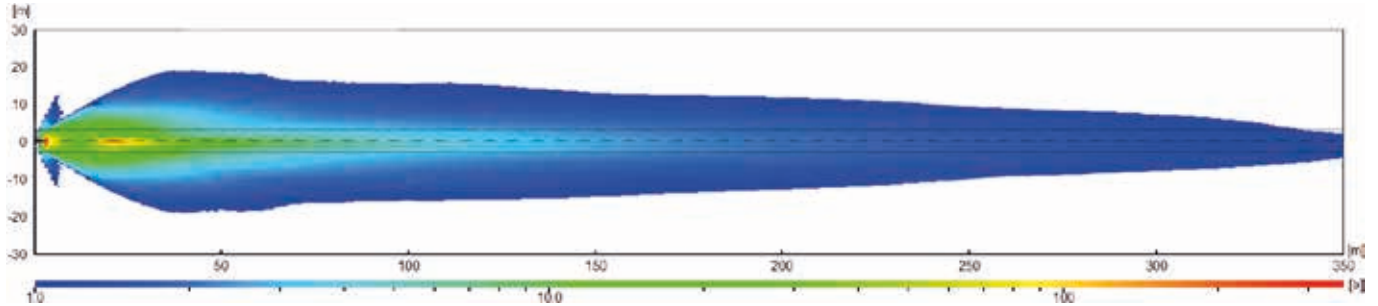
ECE - High beam left-hand traffic asymmetric



ECE - High beam symmetric



SAE - High beam asymmetric

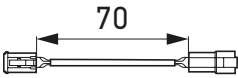


PROGRAM OVERVIEW

| Type approval | Description | Variant | Part number | VPE* |
|-------------------|--|---------|-----------------|------|
| ECE – Essential | Class C symmetric, central mount | Left | 1SF 328 550-011 | 1 |
| | | Right | 1SF 328 550-021 | 1 |
| | Class C symmetric, bottom mount | Left | 1SF 328 550-031 | 1 |
| | | Right | 1SF 328 550-041 | 1 |
| | Cat. 5 with DRL, class C symmetric, central mount | Left | 1SF 328 550-491 | 1 |
| | | Right | 1SF 328 550-501 | 1 |
| ECE – Performance | Class B asymmetric, ES, central mount | Left | 1EF 328 550-131 | 1 |
| | | Right | 1EF 328 550-141 | 1 |
| | Class B asymmetric, ES, bottom mount | Left | 1EF 328 550-151 | 1 |
| | | Right | 1EF 328 550-161 | 1 |
| | Cat. 5 with DRL, class B asymmetric, ES, bottom mount | Left | 1EF 328 550-231 | 1 |
| | | Right | 1EF 328 550-241 | 1 |
| | Class B asymmetric, LES, central mount | Left | 1LF 328 550-251 | 1 |
| | | Right | 1LF 328 550-261 | 1 |
| | Class B asymmetric, LES, bottom mount | Left | 1LR 328 550-271 | 1 |
| | | Right | 1LR 328 550-281 | 1 |
| | Cat. 5 with DRL, class B asymmetric, LES, bottom mount | Left | 1LF 328 550-351 | 1 |
| | | Right | 1LF 328 550-361 | 1 |
| SAE – FMVSS | Central mount, DI 10 LEDs | Left | 1EF 328 550-371 | 1 |
| | | Right | 1EF 328 550-381 | 1 |
| | Bottom mount, DI 10 LEDs | Left | 1EF 328 550-391 | 1 |
| | | Right | 1EF 328 550-401 | 1 |
| | Cat. 5 with DRL, bottom mount, DI | Left | 1EF 328 550-471 | 1 |
| | Cat. 5 with DRL, bottom mount, DI 10 | Right | 1EF 328 550-481 | 1 |

* Packaging unit

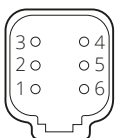
ACCESSORIES

| Product picture | Description | Part number | VPE* |
|---|-----------------------------------|-----------------|------|
|  | Pinning adapter from C240 to C220 | 8KA 328 135-071 | 1 |

* Packaging unit

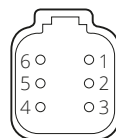
Pin configuration & alignment

Connector DT06-6p



- Pin 1: Ground
- Pin 2: Low beam
- Pin 3: High beam
- Pin 4: Position light
- Pin 5: Direction indicator light / cat. 5
- Pin 6: Daytime running light

Connector DT04-6p



- Pin 1: Daytime running light
- Pin 2: Low beam
- Pin 3: High beam
- Pin 4: Position light
- Pin 5: Direction indicator light / cat. 5
- Pin 6: Ground