



INSTRUCTION SHEET
for: **2ZR 980 889-xxx / 1468**

APPLICATION AND MOUNTING INSTRUCTIONS

LED REVERSING LAMP - HORIZONTAL MOUNT
2ZR 980 889-0xx / 1468: 12V DC Only
2ZR 980 889-2xx / 1468-24V: 24V DC Only

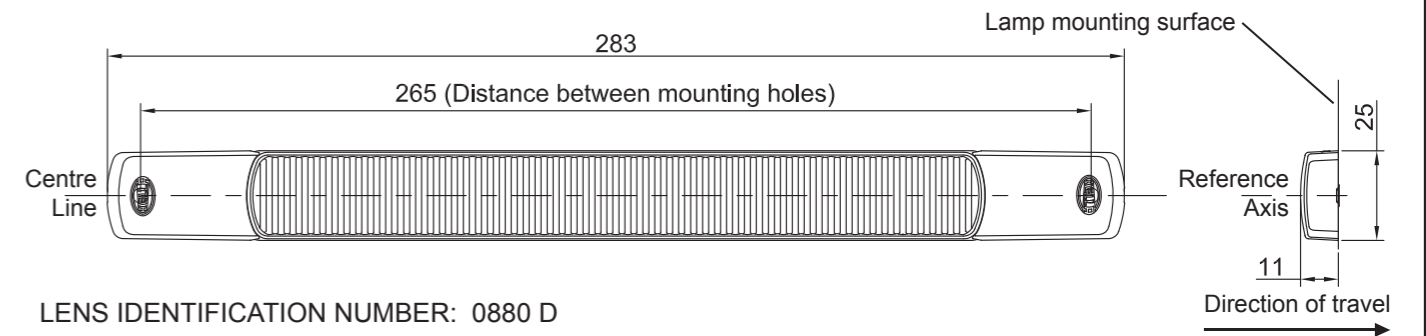
Lens Marking and Installation Requirements

This Reversing Lamp identified by lens marking (E24) 0027 and the HELLA logo was manufactured to comply with:

ECE Regulation 23 Category AR for Reversing Lamps.

- A tolerance of +/-3° applies on all mounting details.
- Lamp module mounting surface must be vertical to the ground and facing to the rear.
- Lamp module reference axis must be parallel to the vehicle longitudinal axis.
- Lamp must be visible from 45° inboard and 45° outboard, as well as from 15° above and to 5° below the horizontal axis.
- Lamp modules must not be mounted less than 250 mm and more than 1200 mm above the ground.
- Lamp is approved to be mounted horizontally with an allowable rotation of +/-10° (see diagram over page).

Note: Please refer to ECE Regulation No. 48 for more details.



LENS IDENTIFICATION NUMBER: 0880 D

Product Contents

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LED Reversing Lamp with 2.5 m cable	x1	x1
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Mounting Screw	x2	x2
Application and Mounting Instructions	x1	x1

Hella-New Zealand Limited, Auckland



HELLA KGaA Hueck & Co.

Technical description
Technische Beschreibung
Type: **2ZR 980 889**
Typ: **2ZR 980 889**

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Function(s): Reversing Lamp for Automobile
Beantragte Funktion(en): Rückfahrscheinwerfer für Kraftfahrzeuge
Shape of device: Rectangular, rounded
Form des Gerätes: Rechteckig, abgerundet
Remark: For left- or right hand horizontal flush- or surface mounting
Bemerkung: Für links- oder rechtsseitigen horizontalen Ein- oder Anbau

Description of the lens(es): <i>Beschreibung der Abschluss-Scheibe(n):</i>	Material	Colour Farbe	Optical system Optisches System	Light source Lichtquelle
	Plastic Kunststoff	Colourless Glasklar	Outside: Riffle optic Aussen: Riffloptik Inside: Fresnel optic Innen: Fresneloptik	10 LEDs

* If one LED fails, the remaining LEDs fulfil the requirements.
Beim Ausfall einer LED, erfüllen die verbleibenden LEDs die Bedingungen

Technical features:
Technische Merkmale:
Backplate, material: Plastic (PC, PMMA, ABS, ASA, PA...)
Grundplatte, Material: Kunststoff (PC, PMMA, ABS, ASA, PA...)

Backplate, surface: Untreated
Grundplatte, Oberfläche: Unbehandelt

Gasket between housing and outer lens: Fully sealed
Abdichtung zwischen Gehäuse und Lichtscheibe: Vollständig abgedichtet

Gasket between housing and car body: --
Abdichtung zwischen Gehäuse und Karosserie: --

Fastening the device to the automobile: With two screws
Befestigungsart der Leuchte an die Karosserie: Mit zwei Schrauben



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Mounting instruction
Anbauanweisung
Type: **2ZR 980 889**
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Belongs to approval no.: E24 0027
Gehört zu Gen.-Nr.:
Reversing Lamp for Automobile
Rückfahrscheinwerfer für Kraftfahrzeuge
Light source(s): 10 LEDs
Lichtquelle(n):

Test voltage: 13.5 V or / oder 28 V
Prüfspannung:

Nominal voltage: 12 V or / oder 24 V
Nennspannung:

Nominal wattage: 3 W
Nennleistung:

☒ = Centre of reference in accordance with the ECE-Regulation-No. 23.
Bezugspunkt nach der ECE-Regelung Nr. 23.

☆ = Centre of reference for the definition for illuminating surface in accordance with the Council Directive 76/756 EEC or ECE-Regulation No. 48 (see Annex A).
Bezugspunkt zur Bestimmung der Grenzen der leuchtenden Fläche nach 76/756 EWG bzw. ECE-Regelung Nr. 48. Markierung s. auf der Abschluss-Scheibe. Maße s. Anlage A.

Axis of reference: Parallel to the car centre line and parallel to the road.
Bezugsachse: Parallel zur Fahrzeuglängsachse und parallel zur Fahrbahn.

For left- or right hand horizontal flush- or surface mounting.
Für links- oder rechtsseitigen horizontalen Ein- oder Anbau.

Permissible rotation in direction a = 10° and in direction b = 10°.
Zulässige Drehung in Richtung a = 10° und in Richtung b = 10°.

The Lamp can be rotated 180° around the reference axis.



Mounting instruction
Anbauanweisung

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Typ:

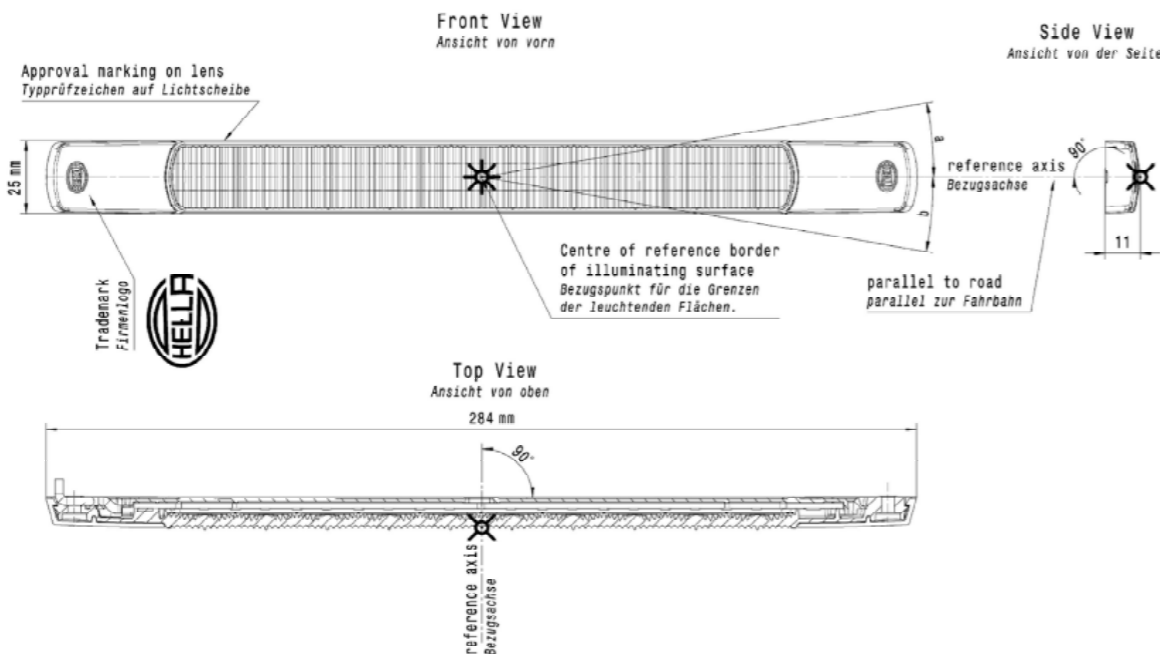
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Belongs to approval no.: **E24 0027**

Gehört zu Gen.-Nr.:

Reversing Lamp for Automobile
Rückfahrcheinwerfer für Kraftfahrzeuge



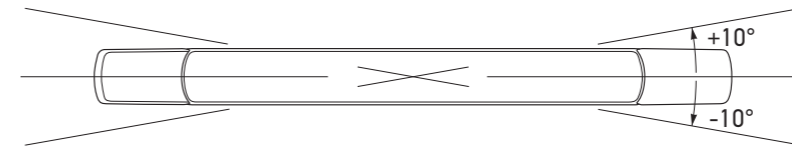
The device must be mounted according to the enclosed fitting documents (e. g. sketch + Annex A).
Der An- bzw. Einbau der Geräte hat nach anliegenden An- bzw. Einbauunterlagen (z. B. Skizze und Anlage A) zu erfolgen.

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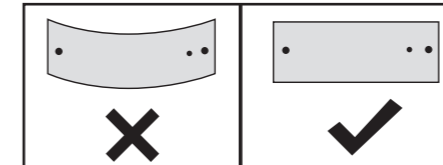
Mounting Tolerance

- Horizontal mount: +/- 10° rotation around lamp (and vehicle) axis.



Mounting Instructions

- Lamp must be mounted on a flat surface with no curvature.



- Drill two 3 mm Ø mounting holes at 265 mm centres through the mounting surface to allow fitment of the lamp. See previous page for correct positioning.
- If passing the cable through a hole, ensure there are no sharp edges to cut or chafe the cable. Alternatively, the cable can be routed through the end of the screw cap.
- Connect the wires as per the table below and test that the lamp functions correctly.
- Using the mounting screws tighten the lamp to the mounting surface (Maximum torque 1.5Nm).
- Fit screw caps.

Note: Do not overtighten the mounting screws in the plastic lens.
If it is necessary to remove the screw caps, lever them out with a small flat head screw driver.

Wiring Instructions

- Lamp is polarity conscious. The reversal of the polarity will not damage this product but will inhibit its function.
- HELLA recommends wire connections be soldered, and heat shrink tubing applied to seal the joint.

Wire Colour	Connect to	Power Consumption
Black	Earth (-)	-
Red	Reversing (+)	3 watts

Note: Lamp must be protected by a fuse rated at 3 amperes maximum.

Compatibility to existing electrical systems

It is important for the installer to ascertain the compatibility of the low power consumption LED lamps with the electrical and/or electronic systems of the complete vehicle, including trailers. In most cases the reduced power consumption is beneficial by imposing less demands on the entire electrical system.

For certain functions some electrical systems rely on a set power consumption for monitoring whether, for example, a trailer is connected.

Operation of this lamp using alternating current or modulated direct voltage will cause premature light failure. HELLA recommends connecting ADR or ECE certified LED signal and marker lamps to a continuous (unmodulated) 12V or 24V power supply to ensure safe light operation.

FIT AND FORGET - BY DESIGN



Congratulations, the product you have selected comes from **HELLA** - a world leader in LED lighting design.

Following the launch of the first LED automotive signal lamps in 1990, **HELLA** Design and Innovation continues to set new standards. **HELLA** innovative solutions have been incorporated into millions of lamps, engineered and tested to the most stringent standards, to suit the most demanding environmental conditions.

The cornerstone to the success of our products is our no compromise **Fit and Forget - by Design** philosophy which is incorporated into every step of the product life cycle.

In a world consuming finite resources at an ever faster rate, **Fit and Forget - by Design** is the right environmental choice that also makes perfect economic sense to customers that consider the total life cycle Cost of Ownership.

For general comments about Hella's products please contact us on E-mail at techfeedback@hella.co.nz