

2117328-QUA/PHO 08-144

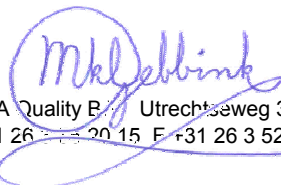
**Extensional approval testing of a front
position lamp marked Hella
type 2PF 340.825-00**

Arnhem, June 24, 2008

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QUA/PHO

By order of Hella Leuchtensysteme GmbH. in Paderborn, Germany.

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SUMMARY

The tested samples of the front position lamp marked Hella type 2PF 340.825-00 were found to continue to comply with the requirements in ECE Regulation No. 7-02.

REMARK

The approval tests on the original front position lamp are described in our report 2092377-QUA/PHO 06-078, dated April 13, 2006.

1. APPLICATION FOR APPROVAL TESTING

On June 12, 2008, Hella Leuchtensysteme GmbH. in Paderborn, Germany submitted two samples of a front position lamp marked HELLA type 2PF 340.825-00. The samples are designed for a rated voltage of 12 V, the rated wattage is 0.6 W. Each front position lamp is equipped with 2 non-replaceable light sources (LED's). The two LED's are connect in series. The device is designed for exterior mounting.

The difference between this device and the original is the rated voltage and rated wattage.

A brief technical description (Annex 1) and a drawing (Annex 2) accompanied the samples, which are sufficiently detailed to permit identification of the model.

The samples were mounted on a test fixture simulating the mounting position on the vehicle.

The applicant desired an examination to check whether this model continues to comply with the requirements of the ECE Regulation No. 7-02.

2. EXAMINATION

The examination was carried out in accordance with the relevant clauses of the regulation concerned.

The tests were performed taking into consideration the manufacturer's information concerning centre and axis of reference.

The tests were performed at a test voltage of 13.5 V, taking in consideration the manufacturer's information concerning centre and axis of reference.

The device is tested to comply from 80° left to 80° right and can also be fitted upside down.

The distance of measurement was 4 m and the diameter of the sensitive area of the receiver 30 mm.

The chromaticity co-ordinates of the light emitted were measured by means of a trichromatic colorimeter.

3. RESULTS OF EXAMINATION

The results of the tests are summarised in Annex 3. Detailed results of the examination are presented in Annex 4, tables 1 and 2.

4. SUPPLEMENTARY REMARKS

The approval having been granted, the product shall continue to bear, besides other markings prescribed, the approval mark as indicated below (with regard to the ECE requirement):



These markings must be indicated on the cover of the lamp, in the space as detailed in the drawings.

The vertical and horizontal outlines of the illuminating surfaces, in accordance with ECE Regulation No. 48-03, are shown in Annex 1 of the original report.



Hella Trailer System GmbH

Technical Description
Type: 2PF 340 825-00

HLS-E-LTLT Ke
34 141
2008-06-12

Function(s): Front Position Lamp

Shape of device: Round shaped

Remark: See on the enclosed drawings

Description of the lens(es):

<u>Function</u>	<u>Material</u>	<u>Colour</u>	<u>Optical System</u>	<u>Bulb type</u>
Front Position Lamp	Plastic PMMA	Clear	Free form lens system	2 LEDs 12V / 0,6 W

Description of the reflector

<u>Function</u>	<u>Type of the reflex system</u>	<u>Material</u>	<u>Coated surface</u>
-	-	-	-

Technical Features


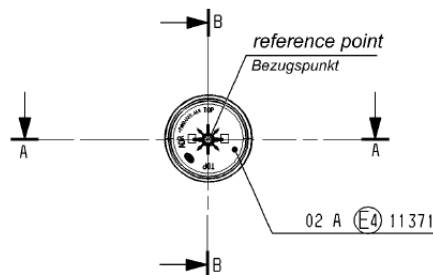
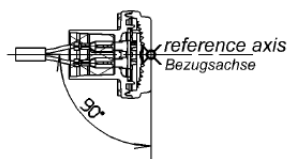
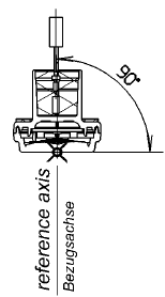
Housing, material: Plastic >ABS-PC<

Housing, surface: Untreated

Gasket between outer lens and housing: Parts are welded

Gasket between housing and vehiclebody: Rubber gasket

Fastening the device to the automobile: Mounting of the whole device on the vehicle through plug in connection.

 Hella Trailer System GmbH	Type / Typbezeichnung: 2PF 340 825-00	
Belongs to approval no: E4 11371 <i>Gehört zur Gen.-Nr.:</i>		Mounting instruction no: <i>Einbauanweisung Nr.:</i>
Front Position Lamp for automobile <i>Begrenzungsleuchte für Kraftfahrzeuge</i>		
Light source: <i>Lichtquelle:</i>		
Front Position Lamp <i>Begrenzungsleuchte</i>	2 non replaceable light emitting diodes <i>2 nicht austauschbare LEDs</i>	
Design voltage: 13,5V <i>Prüfspannung:</i>	Supply voltage: 12V <i>Versorgungsspannung:</i>	Nominal power: 0,6W <i>Nennleistung:</i>
<p> ✧ = Centre of reference in accordance with the ECE-regulation-no. 7. <i>Bezugspunkt nach der ECE-Regelung Nr. 7.</i> </p> <p> ✧ = Centre of reference for the definition for illuminating surface in accordance with the Council Directive 76/756EEC or ECE-regulation-No. 48 (see Annex A). <i>Bezugspunkt zur Bestimmung der Grenzen der leuchtenden Fläche nach 76/756 EEC oder ECE Regelung-Nr.48.</i> <i>Markierung s. auf der Abschluss-Scheibe. Maße s. Anlage A.</i> </p> <p> Axis of reference: Parallel to the car center line and parallel to the road. <i>Bezugsachse: Parallel zur Fahrzeuglängsachse und parallel zur Fahrbahn.</i> </p>		
<p> The Lamp can be mounted also rotated 180° <i>Das Gerät darf 180°gedreht angebaut werden.</i> </p>		
<p style="text-align: center;">Front - View <i>Ansicht von vorn</i></p> 	<p style="text-align: center;">Side - View (Section B-B) <i>Ansicht von der Seite (Schnitt B-B)</i></p> 	
<p style="text-align: center;">Top - View (Section A-A) <i>Ansicht von oben (Schnitt A-A)</i></p> 		
<p> The device must be surface-mounted or flush-fitted according to the enclosed surface-mounting or flush fitting documents (e. g. sketch). <i>Der An- bzw. Einbau der Geräte hat nach anliegenden An- bzw. Einbauunterlagen (z. B. Skizze und Anlage A) zu erfolgen.</i> </p> <p style="text-align: right;">2008-06-12</p>		

Examination of a front position lamp marked HELLA type 2PF 340.825-00 carried out in accordance with the relevant clauses of Regulation No. 7-02.

Clause No.	Subject of the relevant clause	Judgement of the device	Remark
3	Markings: a trade name or mark b indication of the recommended lamp type c space reserved for the approval mark, including number and symbol	complies complies complies	
5	General specifications: a intensity and colour of the light emitted b maintenance of satisfactory operation and of photometric characteristics	complies under 6 and 8 complies	see below by inspection only
6	Intensity of the light emitted	complies	see also tables 1 and 2
8	Colour of the light emitted	complies	1)

1) sample 1: x=0.353 and y=0.364
sample 2: x=0.363 and y=0.382

Measuring date: June 20, 2008

Luminous intensity distribution of sample No. 1
Mounting side: left or right
Both LEDs operated at 13.5 V
Minimum luminous intensities measured after 30 min.
ECE Regulation No. 7, front position (side) lamp

Position test point	Luminous intensity (cd)		
	Required \geq	Measured	
10° U	5° L	0.8	4.7
	5° R	0.8	4.9
5° U	20° L	0.4	3.5
	10° L	0.8	4.3
	V	2.8	7.8
	10° R	0.8	4.5
	20° R	0.4	3.7
H	10° L	1.4	4.0
	5° L	3.6	6.4
	V	4.0	8.3
	5° R	3.6	6.3
	10° R	1.4	4.2
5° D	20° L	0.4	3.2
	10° L	0.8	3.7
	V	2.8	6.8
	10° R	0.8	3.8
	20° R	0.4	3.3
10° D	5° L	0.8	4.1
	5° R	0.8	4.2

	Luminous intensity (cd)	
	Required	Measured
Overall min.(after 30 min.)	≥ 0.05	0.14
Overall max.(after 1 min.)	≤ 60	8.5

Remark: The LEDs are connected in series. If one LED fails, both LEDs stop operating.

Measuring date: June 20, 2008

Luminous intensity distribution of sample No. 2
Mounting side: left or right
Both LEDs operated at 13.5 V
Minimum luminous intensities measured after 30 min.
ECE Regulation No. 7, front position (side) lamp

Position test point	Luminous intensity (cd)	
	Required \geq	Measured
10° U	5° L	4.9
	5° R	5.0
5° U	20° L	4.0
	10° L	4.5
	V	7.4
	10° R	4.4
H	20° R	3.8
	10° L	4.3
	5° L	7.2
	V	7.7
	5° R	5.5
5° D	10° R	3.8
	20° L	3.6
	10° L	4.0
	V	7.2
10° D	10° R	3.9
	20° R	3.4
	5° L	4.6
	5° R	4.5

	Luminous intensity (cd)	
	Required	Measured
Overall min. (after 30 min.) \geq 0.05		0.20
Overall max. (after 1 min.) \leq 60		8.5

Remark: The LEDs are connected in series. If one LED fails, both LEDs stop operating