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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

World Forum for Harmonization of Vehicle Regulations

Working Party on Lighting and Light-Signalling

Sixty-second session  
Geneva, 6 - 9 October 2009  
Item 5(e) of the provisional agenda

**COLLECTIVE AMENDMENTS**

Regulations Nos. 7 and 48

Proposal for Supplement 17 to the 02 series of amendments to Regulation No. 7

Submitted by the expert from France \*/

The text reproduced below was prepared by the expert from France in order to ensure consistency between Regulations Nos. 7 and 48 as regards end-outline marker lamps geometric visibility. The proposal is based on a document without symbol (informal document No. GRE-61-38), distributed during the sixty-first session of the Working Party on Lighting and Light-Signalling (GRE) (see report ECE/TRANS/WP.29/GRE/61, para. 17). The modifications to the current text of Regulation No. 7 are marked in bold or strikethrough characters.

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\*/ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

A. PROPOSAL

Paragraphs 2.1.4., amend to read:

"2.1.4. Whether the device produces steady luminous intensity (category **R**, R1, **RM1**, S1 or S3) or variable luminous intensity (category R2, **RM2**, S2 or S4)."

Insert new paragraphs 4.2.2.3. and 4.2.2.4., to read:

**"4.2.2.3. On devices meeting the requirements of this Regulation in respect of the front end-outline marker lamps, the letters "AM";**

**4.2.2.4. On devices meeting the requirements of this Regulation in respect of the rear end-outline marker lamps, the letters "RM" followed by the figure "1" when the device produces steady luminous intensity and by the figure "2" when the device produces variable luminous intensity;"**

Paragraphs 4.2.2.3. to 4.2.2.7. (former), renumber as paragraphs 4.2.2.5. to 4.2.2.9.

Paragraph 4.2.2.7. (new), amend to read:

"4.2.2.7. On front or rear position lamps of which the visibility angles are asymmetrical with regard to the reference axis in a horizontal direction **and on front or rear end-outline marker lamps**, a horizontal arrow pointing towards the side on which the photometric specifications are met up to an angle of 80° H;"

Paragraph 4.3.1., amend to read:

"4.3.1. Independent lamps

Annex 3, paragraphs 1 to **6**, give examples of the approval mark with the above mentioned additional symbols."

Paragraph 4.3.15., amend to read:

"4.3.1.5. Example **7** of Annex 3 to this Regulation gives examples of an approval mark with the above-mentioned additional symbols."

Paragraph 4.3.2.5., amend to read:

"4.3.2.5. Paragraph **8** of Annex 3 to this Regulation gives examples of approval marks for grouped, combined or reciprocally incorporated lamps with all the above mentioned additional symbols."

Paragraph 4.3.3.2., amend to read:

"4.3.3.2. Paragraph **9** of Annex 3 to this Regulation gives examples of approval marks relating to lamps which are reciprocally incorporated with a headlamp.."

Paragraphs 5.7., renumber as paragraphs 5.8. and amend to read:

- "**5.8.** In case of failure of the variable intensity control of:
- (a) a rear position lamp category R2 emitting more than the maximum value of category R or R1;
  - (b) **a rear end-outline marker lamp category RM2 emitting more than the maximum value of category RM1;**
  - (c) a stop lamp category S2 emitting more than the maximum value of category S1;
  - (d) a stop lamp category S4 emitting more than the maximum value of category S3 requirements of steady luminous intensity of the respective category shall be fulfilled automatically.

Paragraphs 5.8. to 5.8.3., renumber as paragraphs 5.9. to 5.9.3.

Paragraph 6.1., amend to read:

"6.1. The light emitted by each of the two devices supplied shall be in the reference axis, of not less than the minimum intensity and of not more than the maximum intensity specified below:

|   | Minimum luminous intensity in cd | Maximum luminous intensity in cd when used as |   |   |
|---|----------------------------------|---|---|---|
|   |                                  | Single lamp                                   | Lamp (single) marked "D" paragraph (4.2.2.6.) | Total for the assembly of two or more lamps |
| 6.1.1. Front position lamps, front end-outline marker lamp<br><b>A or AM</b>                      | 4                                | 60  | 42  | 84  |
| 6.1.2. Front position lamps incorporated in a headlamp  | 4                                | 100   | -   | -   |
| 6.1.3. Rear position lamps, rear end-outline marker lamp<br>6.1.3.1. <b>R, R1 or RM1</b> (steady) | 4                                | 12  | 8.5   | 17  |
| 6.1.3.1. <b>R2 or RM2</b> (variable)  | 4                                | 30  | 21  | 42  |
| 6.1.4. Stop-lamps<br>6.1.4.1. S1 (steady)   | 60                               | 185   | 130   | 260   |
| 6.1.4.2. S2 (variable)  | 60                               | 521   | 365   | 730   |
| 6.1.4.3. S3 (steady)  | 25                               | 80  | 55  | 110   |
| 6.1.4.4. S4 (variable)  | 25                               | 114   | 80  | 160   |

6.1.5. ...

...."

Paragraph 6.4., amend to read:

"6.4. In the case of devices of categories R2, **RM2**, S2 and S4 the time that elapses between energising the light source(s) and the light output measured on the reference axis to reach 90 per cent of the value measured in accordance with paragraph 6.3. above shall be measured for the extreme levels of luminous intensity produced by the device. The time measured to obtain the lowest luminous intensity shall not exceed the time measured to obtain the highest luminous intensity."

Paragraph 8., amend to read:

"8. COLOUR OF LIGHT EMITTED

The colour of the light emitted inside the field of the light distribution grid defined in paragraph 2 of Annex 4 shall be red or white. For testing see Annex 5 to this Regulation. Outside this field, no sharp variation of colour shall be observed.

These requirements shall also apply within the range of variable luminous intensity produced by:

- (a) rear position lamps of category R2;
- (b) rear end-outline marker lamps of category RM2;**
- (c) stop lamps of categories S2 and S4."

Annex 1, amend to read:

"FRONT AND REAR POSITION LAMPS, END-OUTLINE MARKER LAMPS AND STOP-LAMPS: MINIMUM ANGLES REQUIRED FOR LIGHT DISTRIBUTION IN SPACE OF THESE LAMPS 1/

In all cases, ....

- ...
- (b) for category S3 or S4 stop lamp for which they are 10° above and 5° below the horizontal;

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1/ The angles shown in these diagrams are correct for devices to be mounted on the right side of the vehicle. The arrows point to the front of the vehicle.

Minimum horizontal angles of light distribution in space

Front position lamps,

End-outline marker lamps

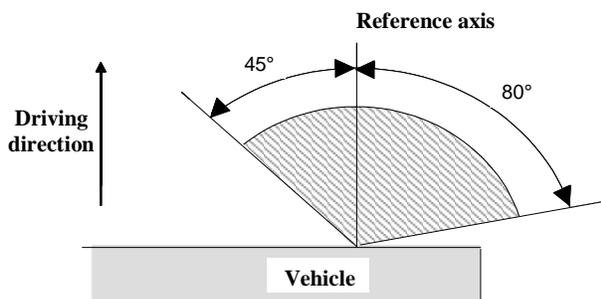
On and above the H plane for all lamps.

Under the H plane for

lamps intended for

M2, M3, N2 or N3

category vehicles.

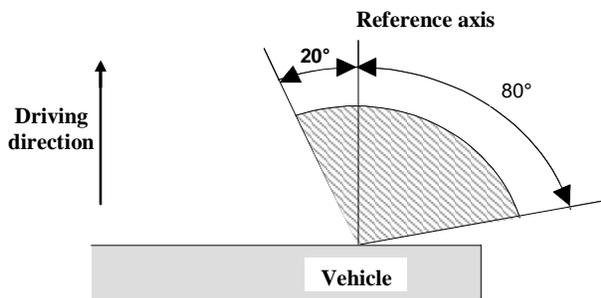


Front position lamps,

Under the H plane for

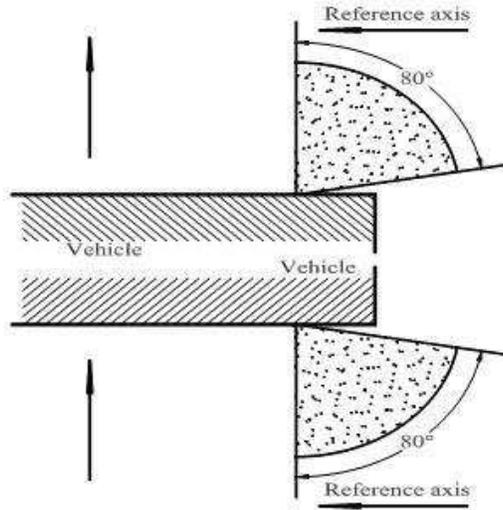
M1 or N1 category

vehicles.

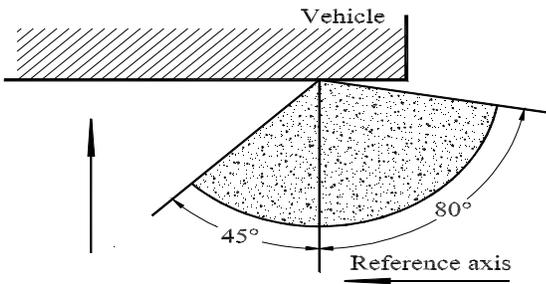


H plane: "horizontal plane going through the reference centre of the lamp"

**Front End-outline marker lamp**  
**(AM)**



**Rear End-outline marker lamp**  
**(RM1, RM2)**



**Rear position lamps,**  
**end-outline marker lamps**

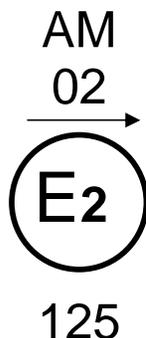
**Stop lamps (S1 and S2)**

.....

..."

Annex 3, insert new paragraphs 3 and 4 to read:

**"3. Front End-outline marker lamp**



The device bearing the approval mark shown above is a front end-outline marker lamp approved in France (E2) under approval number 125 pursuant to Regulation No. 7.

The number mentioned below the symbol "AM" indicates that approval was granted in conformity with the requirements of Regulation No. 7 as amended by the 02 series of amendments. The horizontal arrow indicates the side on which the required photometric specifications are met up to an angle of 80° H.

**4. Rear End-outline marker lamp**



The device bearing the approval mark shown above is a rear end-outline marker lamp with variable luminous intensity approved in Italy (E3) under approval number 122 pursuant to Regulation No. 7.

The number mentioned below the symbol "RM" indicates that approval was granted in conformity with the requirements of Regulation No. 7 as amended by the 02 series of amendments. The horizontal arrow indicates the side on which the required photometric specifications are met up to an angle of 80° H."

Annex 3, paragraphs 3 to 8 (former), renumber as paragraphs 5. to 10.

B. JUSTIFICATION

This proposal aims at insuring consistency between Regulations Nos. 7 and 48 as regards end-outline marker lamps geometric visibility.

In the current text of Regulation No. 7, the end-outline marker lamp has to comply with the requirements of position lamps (cf. paragraph 5.3.). The geometric visibility requirements for position lamps in Regulation No. 7 are the following:

|                      |     |
|----------------------|-----|
| Inside the vehicle:  | 45° |
| Outside the vehicle: | 80° |

For installation on a vehicle according to Regulation No. 48, the requirements for end-outline marker lamps installed on a vehicle are:

|                      |     |
|----------------------|-----|
| Inside the vehicle:  | 0°  |
| Outside the vehicle: | 80° |

The proposal introduces new categories of lamps in Regulation No. 7 (AM for front end-outline marker lamps, RM1 and RM2 for rear end-outline marker lamps), with a geometric visibility consistent with Regulation No. 48. However, the paragraph 5.3 will still allow the use lamps of categories A, R, R1 or R2 as end-outline marker lamps.

A combined proposal modifies Regulation No. 48 accordingly.

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