

Transmitted by the experts from The International  
Automotive Lighting and Light Signalling Expert  
Group (GTB)

Informal document **GRE-78-05**  
(78th GRE, 24-27 October 2017  
agenda item 6 (a))

The text reproduced below was prepared by the expert from GTB to correct errors and discrepancies in the text of the 05 and 06 series of amendments to UNECE Regulation 48. This document replaces ECE/TRANS/WP.29/GRE/2016/24, in response to requests for its improvement from GRE Experts during the 77th session.

The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

## I. Proposal

### **Proposal for Supplement [12] to the 05 series of amendments and Supplement [10] to the 06 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)**

*Note: the following amendments to the existing text of the Regulation apply to both the 05 and 06 series of amendments, except where specifically indicated to apply to either the 05 or the 06 series.*

*Paragraph 5.7.2.1., amend to read:*

“5.7.2.1. Single lamps as defined in paragraph **2.16.1.**, subparagraph (a), **the apparent surface of which is composed of two or more distinct parts,** shall be installed in such a way that:

- (a) either the total area of the projection of the distinct parts **of the apparent surface in the direction of the reference axis** on a plane tangent to the exterior surface of the outer lens and perpendicular to the reference axis shall occupy not less than 60 per cent of the smallest quadrilateral circumscribing the projection **of the said apparent surface in the direction of the reference axis;** or
- (b) the minimum distance between the facing edges of two adjacent/tangential distinct parts **of the apparent surface in the direction of the reference axis** shall not exceed 75 mm when measured perpendicularly to the reference axis.

These requirements shall not apply to a single retro-reflector.”

**Comment [DP1]:** If the SLR proposal to amend the definitions will be adopted (see GRE/2017/10), this reference will become **2.4.11.1.**

*In the 05 series of amendments, Paragraph 5.8., amend to read:*

5.8. The maximum height above the ground shall be measured from the highest point and the minimum height from the lowest point of the apparent surface in the direction of the reference axis.

In the case of dipped-beam headlamp, the minimum height in relation to the ground is measured from the lowest point of the ~~effective outlet of the optical system (e.g. reflector, lens, projection lens)~~ **apparent surface in the direction of the reference axis** independent of its utilization.

Where the (maximum and minimum) height above the ground clearly meets the requirements of the Regulation, the exact edges of any surface need not be determined.

*In the 06 series of amendments, Paragraph 5.8.2., amend to read:*

- 5.8.2. In the case of dipped-beam headlamp, the minimum height in relation to the ground is measured from the lowest point of the effective outlet of the optical system (e.g. reflector, lens, projection lens) **apparent surface in the direction of the reference axis** independent of its utilization.

*Paragraphs 5.10.1 and 5.10.2., amend to read:*

- 5.10.1. For the visibility of red light towards the front of a vehicle, with the exception of a red rearmost side-marker lamp, there shall be no direct visibility of the apparent surface of a red lamp if viewed by an observer moving within Zone 1 **in a transverse plane situated 25 m in front of the vehicle (see Annex 4)** as specified in Annex 4;
- 5.10.2. For the visibility of white light towards the rear of a vehicle, with the exception of reversing lamps and white side conspicuity markings **fitted to the vehicle**, there shall be no direct visibility of the apparent surface of a white lamp if viewed by an observer moving within Zone 2 in a transverse plane situated 25 m behind the vehicle (see Annex 4);

*Paragraph 6.2.9., amend to read:*

- “6.2.9. Other requirements
- 6.2.9.1.** The requirements of paragraph 5.5.2. shall not apply to dipped-beam headlamps.
- 6.2.9.2.** Dipped-beam headlamps with a light source or LED module(s) producing the principal dipped-beam ~~and~~ having a total objective luminous flux **for each headlamp** which exceeds 2,000 lumen shall only be installed in conjunction with the installation of headlamp cleaning device( s) according to Regulation No. 45 .
- 6.2.9.3.** With respect to vertical inclination the provisions of paragraph 6.2.6.2.2. above shall not be applied for dipped-beam headlamps with a light source or LED module(s) producing the principal dipped-beam and having an objective luminous flux **for each headlamp** which exceeds 2,000 lumens.

In the case of filament lamps for which more than one test voltage is specified, the objective luminous flux which produces the principal dipped-beam, as indicated in the communication form for the type approval of the device, is applied.

In the case of dipped-beam headlamps equipped with an approved light source, the applicable objective luminous flux is the value at the relevant test voltage as given in the relevant data sheet in the Regulation, according to which the applied light source was approved, without taking into account the tolerances to the objective luminous flux specified on this datasheet.

- 6.2.9.4.** Only dipped-beam headlamps according to Regulation Nos. 98 or 112 may be used to produce bend lighting.

If bend lighting is produced by a horizontal movement of the whole beam or the kink of the elbow of the cut-off, it shall be activated only if the vehicle is in forward motion; this shall not apply if bend lighting is produced for a right turn in right hand traffic (left turn in left hand traffic).”

*Paragraph 6.3.6.1.2.1., amend to read:*

- “**6.3.6.1.2.1.** When the total objective luminous flux of the light source **for each front fog lamp** does not exceed 2,000 lumens:”

*Paragraph 6.3.6.1.2.2., amend to read:*

“6.3.6.1.2.2. When the total objective luminous flux of the light source **for each front fog lamp** exceeds 2,000 lumens:”

*Paragraph 6.26.9.2., amend to read:*

6.26.9.2. At the request of the applicant and with the consent of the Technical Service the requirement of 6.26.9.1 may be verified by a drawing or simulation or deemed be satisfied if the installation conditions comply with paragraph **6.2.3. 6.2.2.** of Regulation No. 23, as noticed in the communication document in Annex 1, paragraph 9.

## **II Justification:**

The aim of this proposal is to clarify inconsistencies and unclear text or to correct the terminology in Regulation No. 48. It is proposed to introduce these clarifications into the 05 and 06 series of amendments, presently applicable to new type approvals, with a view to avoiding any different application of the paragraphs depending on the series of amendments used.

5.7.2.1. Editorial; alignment of terminology to the present definition and other requirements.

5.8. (R48/05) The present wording “Effective outlet of the optical system” is not defined in UNECE-R48.

The wording in paragraph 5.8 is now aligned and coherent with the one used in the definitions of paragraph 2.9.1.

5.8.2. (R48/06) The present wording “Effective outlet of the optical system” is not defined in UNECE-R48.

The wording in paragraph 5.8.2 is now aligned and coherent with the one used in the definitions of paragraph 2.9.1.

5.10.1. - 5.10.2. In the text of paragraphs 5.10.1. and 5.10.2., a reference to a “transverse plane” existed, but it was removed from paragraph 5.10.1., probably with the Supplement 12 to the 02 series of amendments, although a document covering this change on the WP.29 web site has not been found!

Since the absence of the reference to the “transverse plane” could give interpretation problems, and no apparent reason requesting its deletion nor evidence of the origin of this change exists, it is proposed to reinstate the original text as far as the “transverse plane” is concerned, as currently existing in paragraph 5.10.2..

For the total alignment of texts of the two paragraphs the small editorial change to paragraph 5.10.2. is proposed.

6.2.9. The changes proposed are intended to make the interpretation of this paragraph, as far as the 2000 lumen limit application is concerned, indisputable. In addition an editorial revision of the paragraph is proposed to separate the existing text into four sub-paragraphs, for better understanding.

6.3.6.1.2.1. As for paragraph 6.2.9. above, changes are proposed to make the interpretation of these paragraphs indisputable as far as the 2,000 lumen limit application is concerned.

6.26.9.2. Correction of a wrong reference.

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