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PROPOSAL FOR SUPPLEMENT 12 TO THE 02 SERIES OF AMENDMENTS TO  
REGULATION No. 7

(Front and rear position (side) lamps, stop lamps and end-outline marker lamps)

Submitted by the Working Party on Lighting and Light-Signalling (GRE)

Note: The text reproduced below was adopted by GRE at its fifty-sixth session. It is based on TRANS/WP.29/GRE/2005/41, not amended. It is submitted to WP.29 and AC.1 for consideration (ECE/TRANS/WP.29/GRE/56, para. 48).

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Paragraph 1.6., amend to read:

- "1.6. "Front and rear position lamps, stop-lamps and end-outline marker lamps of different type" means lamps which differ in each said category in such essential respects as:
- (a) the trade name or mark;
  - (b) the characteristics of the optical system, (levels of intensity, light distribution angles, category of filament lamp, light source module, etc.);
  - (c) the variable intensity control, if any.

A change of the colour of the filament lamp or the colour of any filter does not constitute a change of type."

Paragraph 2.1.3., amend to read:

- "2.1.3. In the case of a category S3 or S4 stop lamp, whether it is intended to be mounted outside or inside (behind the rear window) the vehicle."

Insert a new paragraph 2.1.4., to read:

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

Paragraph 2.1.4. (former), renumber as paragraph 2.1.5.

Paragraph 2.2.1., amend to read:

- "2.2.1. Drawings, in triplicate, in sufficient detail to permit identification of the type of the device and showing in what geometrical position(s) the device (and if applicable for category S3 or S4 lamps the rear window) may be mounted on the vehicle; the axis of observation to be taken is the axis of reference in the tests (horizontal angle  $H = 0^\circ$ , vertical angle  $V = 0^\circ$ ); and the point to be taken as the centre of reference in the said tests. The drawings shall show the position intended for the approval number and the additional symbols in relation to the circle of the approval mark;"

Paragraph 2.2.2., amend to read:

- "2.2.2. A brief technical description .... Regulation No. 37; in the case of a category S3 or S4 stop lamp, which is intended to be mounted inside the vehicle, the technical description shall contain the specification of the optical properties (transmission, colour, inclination, etc.) of the rear window(s);"

Paragraph 2.2.3., amend to read:

- "2.2.3. In the case of a lamp with variable luminous intensity, a concise description of the variable intensity control, an arrangement diagram ....."

Paragraph 2.2.4., amend to read:

"2.2.4. .... or only on the left side of the vehicle.

In the case of a lamp with variable luminous intensity the application shall also be accompanied by the variable intensity control or a generator providing the same signal(s)."

Paragraph 2.2.5., amend to read:

"2.2.5. In the case of a category S3 or S4 stop lamp which is intended to be mounted inside the vehicle, a sample plate or sample plates (in case of different possibilities) having the equivalent optical properties corresponding to those of the actual rear window(s)."

Paragraph 3.4., amend to read:

"3.4. In the case of lamps with an electronic light source control gear or a variable intensity control and/or non-replaceable light sources and/or light source module(s), bear the marking of the rated voltage or range of voltage and rated maximum wattage."

Paragraph 3.5., amend to read:

"3.5. Lamps operating at voltages other than the nominal rated voltages of 6 V, 12 V or 24 V respectively, by the application of an electronic light source control gear or a variable intensity control being not part of the lamp, or having a secondary operating mode, must also bear a marking denoting the rated secondary design voltage."

Paragraph 3.6.3., amend to read:

"3.6.3. the marking of the rated voltage or range of voltage and rated maximum wattage."

Insert a new paragraph 3.7., to read:

"3.7. An electronic light source control gear or a variable intensity control being part of the lamp but not included into the lamp body shall bear the name of the manufacturer and its identification number."

Paragraph 4.2.2.2., amend to read:

"4.2.2.2. .... (side) lamps, the letter "R" followed by the figure "1" when the device produces steady luminous intensity and by the figure "2" when the device produces variable luminous intensity."

Paragraph 4.2.2.3., amend to read:

"4.2.2.3. On devices meeting the requirements of this Regulation in respect of the stop-lamps, the letter "S" followed by the figure:

- "1" when the device produces steady luminous intensity;
- "2" when the device produces variable luminous intensity;
- "3" when the device meets the specific requirements for category S3 stop-lamps and produces steady luminous intensity
- "4" when the device meets the specific requirements for category S4 stop-lamps and produces variable luminous intensity;"

Paragraph 4.2.2.4., amend to read:

"4.2.2.4. ...., the letters "R1" or "R2" and "S1" or "S2" as the case ..."

Insert a new paragraph 5.7., to read:

- "5.7. 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 R1;
  - (b) a stop lamp category S2 emitting more than the maximum value of category S1;
  - (c) 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."

Paragraph 6.1., amend the table to read:

“

<u>3/</u>	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 <u>4/</u>
.....				
6.1.3. Rear position lamps, rear end-outline marker lamps				
6.1.3.1. R1 (steady)	4	12	8.5	17
6.1.3.2. R2 (variable)	4	30	21	42
6.1.4. Stop-lamps				
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

”

Footnote 4/ after the table, amend to read:

"4/ The total value of maximum intensity for an assembly of two or more lamps is given by multiplying by 1.4 the value prescribed for a single lamp.

When an assembly ...."

Paragraph 6.2.4.1., amend to read:

"6.2.4.1. Throughout the fields defined in the diagrams in Annex 1, the luminous intensity of the light emitted must be not less than 0.05 cd for front and rear position (side) lamps and end-outline marker lamps, not less than 0.3 cd for stop-lamps;"

Paragraph 6.2.4.2., amend to read:

"6.2.4.2. If a rear position (side) lamp is reciprocally incorporated with a stop-lamp producing either steady or variable luminous intensity, the ratio between the luminous intensities actually measured of the two lamps when turned on simultaneously at the intensity of the rear position (side) lamp when turned on alone should be at least 5 : 1 in the field delimited by the straight horizontal lines passing through  $\pm 5^\circ$  V and the straight vertical lines passing through  $\pm 10^\circ$  H of the light distribution table.

If the rear position (side) lamp or the stop lamp or both contain more than one light source and are considered as a single lamp as defined in note 2 of the table in paragraph 6.1. above, the values to be considered are those obtained with all sources in operation;"

Paragraph 6.4., amend to read

"6.4. In the case of devices of categories R2, 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."

Insert a new paragraph 6.5., to read:

"6.5. The variable intensity control shall not generate signals which cause luminous intensities:

6.5.1. outside the range specified in paragraph 6.1. above and

- 6.5.2. exceeding the respective steady luminous intensity maximum specified in paragraph 6.1. for the specific device
- (a) for systems depending only on daytime and night time conditions: under night time conditions
  - (b) for other systems: under standard conditions 5/.

5/ Good visibility (meteorological optical range MOR > 2,000 m defined according to WMO, Guide to Meteorological Instruments and Methods of Observation, Sixth Edition, ISBN: 92-63-16008-2, pp 1.9.1/1.9.11, Geneva 1996 ) and clean lens."

Paragraph 6.5. (former), renumber as paragraph 6.6.

Paragraph 7. to 7.6., amend to read:

"7. TEST PROCEDURE

- 7.1. All measurements, photometric and colorimetric, shall be made:
- 7.1.1. In case of a lamp with replaceable light source, if not supplied by an electronic light source control gear or a variable intensity control, with an uncolored or colored standard filament lamp of the category prescribed for the device, supplied with the voltage necessary to produce the reference luminous flux required for that category of filament lamp,
  - 7.1.2. In the case of a lamp equipped with non-replaceable light sources (filament lamps and other), at 6.75 V, 13.5 V or 28.0 V respectively.
  - 7.1.3. In the case of a system that uses an electronic light source control gear or a variable intensity control, being part of the lamp 6/ applying at the input terminals of the lamp the voltage declared by the manufacturer or, if not indicated, 6.75 V, 13.5 V or 28.0 V respectively.
  - 7.1.4. In the case of a system that uses an electronic light source control gear or a variable intensity control, not being part of the lamp the voltage declared by the manufacturer shall be applied to the input terminals of the lamp.
- 7.2. However, in the case of light sources operated by a variable intensity control to obtain variable luminous intensity, photometric measurements shall be performed according to the applicant's description.
- 7.3. The test laboratory shall require from the manufacturer the light source control gear or a variable intensity control needed to supply the light source and the applicable functions.
- 7.4. The voltage to be applied to the lamp shall be noted in the communication form in Annex 2 of this Regulation.

- 7.5. The limits of the apparent surface in the direction of the reference axis of a light-signalling device shall be determined.
- 7.6. In the case of a category S3 or S4 stop lamp, which is intended to be mounted inside the vehicle a sample plate or sample plates (in case of different possibilities) as supplied (see paragraph 2.2.5.) shall be positioned in front of the lamp to be tested, in the geometrical position(s) as described in the application drawing(s) (see paragraph 2.2.1.)."

Footnote 5/ (former), renumber as footnote 6/ and amend to read:

"6/ For the purpose of this Regulation "being part of the lamp" means to be physically included in the lamp body or to be external, separated or not, but supplied by the lamp manufacturer as part of the lamp system."

Paragraph 8., amend to read:

" ... 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) stop lamps of categories S2 and S4."

Paragraph 12., amend to read:

"12. REMARKS CONCERNING COLOURS AND PARTICULAR DEVICES

The Parties to the Agreement to which this Regulation is annexed are not precluded by Article 3 of that Agreement from prohibiting, for devices installed on vehicles registered by them, certain colours for which provision is made in this Regulation, or from prohibiting for all categories or for certain categories of vehicles registered by them stop-lamps having only steady luminous intensity."

Annex 1, first sentence, amend to read:

" ....

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

Annex 2,

Item 9., amend to read:

"9. Number, category and kind of light source(s): .....

Voltage and wattage: .....

Application of an electronic light source control gear/variable intensity control:

-being part of the lamp : yes/no 2/

-being not part of the lamp : yes/no 2/

Input voltage(s) supplied by an electronic light source control gear/ variable intensity control: .....

Electronic light source control gear/variable intensity control manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body): .....

Variable luminous intensity .....yes/no 2/"

Footnote 3/, should be deleted.

Annex 3,

Item 2., the figure, amend the symbol "RD" to read "R1D".

Item 2., second paragraph, amend to read:

"... the symbol "R1D" indicates that ...."

Item 4., the figure, amend the symbol "RD-S2 D" to read "R2D-S2 D".

Item 4., first paragraph, amend to read:

" ... and a stop-lamp with variable luminous intensity, approved in ..."

Item 4., second paragraph, amend to read:

"The number mentioned below the symbol "R2D-S2D" indicates ..... stop lamp, both with variable luminous intensity, which may also ..."

Item 5., inscriptions in Models A, B and C, replace "2a" by "2b", "R" by "R2" and "F" by "F2".



The second note after item 5., amend to read:

".... and comprises:

A rear direction indicator lamp with variable luminous intensity (category 2b) approved in accordance with the 01 series of amendments to Regulation No. 6,

A red rear position (side) lamp with variable luminous intensity (R2) approved in accordance with the 02 series of amendments to Regulation No. 7,

A rear fog lamp with variable luminous intensity (F2) approved in accordance with Regulation No. 38 in its original version,

A reversing lamp (AR) approved in accordance with Regulation No. 23 in its original version,

A stop-lamp with variable luminous intensity (S2) approved in accordance with the 02 series of amendments to Regulation No. 7."

Annex 4, paragraph 3.1., amend to read:

"3.1. For non-replaceable light sources (filament lamps and other):  
with the light sources present in the lamp, in accordance with the relevant sub-paragraph of paragraph 7.1. of this Regulation."

Annex 5, amend to read:

" .....  $y \leq -x + 0.992$

For checking these colorimetric characteristics, the test procedure described in paragraph 7. of this Regulation shall be applied.

However, for lamps equipped with non-replaceable light sources (filament lamps and other), the colorimetric characteristics should be verified with the light sources present in the lamp, in accordance with the relevant sub-paragraph of paragraph 7.1. of this Regulation.

In the case of a category S3 or S4 stop lamp, which is intended to be mounted inside the vehicle, the colorimetric characteristics shall be verified with the worst case combination(s) of lamp and rear window(s) or sample plate(s)."

Annex 6,

Paragraph 1.2., amend to read:

"1.2. With respect to photometric performances, the conformity of mass-produced lamps shall not be contested if, when testing photometric performances of any lamp chosen at random according to paragraph 7. of this Regulation, respectively:"

Paragraph 1.3., amend to read:

"1.3. The chromaticity coordinates shall be complied when tested under conditions of paragraph 7. of this Regulation."

Annex 7.

Paragraph 1.2., amend to read:

"1.2. With respect to photometric performances, the conformity of mass-produced lamps shall not be contested if, when testing photometric performances of any lamp chosen at random according to paragraph 7. of this Regulation, respectively:"

Paragraph 1.3., amend to read:

"1.3. The chromaticity coordinates shall be complied when tested under conditions of paragraph 7. of this Regulation."

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