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## ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE
World Forum for Harmonization of Vehicle Regulations (WP.29)
(One-hundred-and-twenty-fifth session, 6-9 November 2001, agenda item 5.2.3.)

PROPOSAL FOR DRAFT SUPPLEMENT 10 TO THE 01 SERIES OF AMENDMENTS TO REGULATION No. 6<br>(Direction indicators)<br>Transmitted by the Working Party on Lighting and Light-Signalling (GRE)

Note: The text reproduced below was adopted by GRE at its forty-fourth, forty-fifth and forty-sixth sessions and is transmitted to WP. 29 and AC. 1 for consideration. It is based on documents TRANS/WP.29/GRE/2000/4, not amended, TRANS/WP. 29/GRE/2000/5, as amended, TRANS/WP.29/GRE/2000/13, not amended, TRANS/WP. $29 / \mathrm{GRE} / 2000 / 22$ and Add.1, as amended, and TRANS/WP. $29 / \mathrm{GRE} / 2001 / 18$, as amended (TRANS/WP. 29/GRE/44, paras. 19 and 21; TRANS/WP. 29/GRE/45, para. 31; TRANS/WP. 29/GRE/46, paras. 27, 29, 30 and 32). The presentation of the trichromatic coordinates was aligned with that used in Regulation No. 6.

[^0]Paraqraph 2.1., amend to read:
"....... of two lamps of the same category. At the choice of the applicant, it will also specify that the device may be installed on the vehicle with different inclinations of the reference axis in respect to the vehicle reference planes and to the ground or rotate around its reference axis; these different conditions of installation shall be indicated in the communication form."

Paragraph 2.2.1., amend to read:
"..... geometrically in what position(s) the direction indicator may be mounted on the vehicle; the axis of ......."

Annex 2, item 9., amend to read:
"9. Concise description: 3/

Category: 1, 1a, 1b, 2a, 2b, 3, 4, 5, 6. $\underline{2} /$

Number and category of filament lamp(s):

Geometrical conditions of installation and relating variations, if any: ...................................................

Annex 4, add a new paragraph 1.3., to read:
"1.3. In the case where the device may be installed on the vehicle in more than one or in a field of different positions the photometric measurements shall be repeated for each position or for the extreme positions of the field of the reference axis specified by the manufacturer."

Paragraph 6.1, footnote $3 /$, amend to read:
"3/ 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, except for category $2 a$.

When an assembly of two or more lamps having the same function is deemed to be, for the purpose of installation on a vehicle, a "single lamp" (following the definition of Regulation No. 48 and its series of amendments in force at the time of application for type approval), this assembly shall comply with the minimum intensity required when one lamp has failed, and, all the lamps together shall not exceed the admissible maximum intensity (last column of the table).

In the case of a single lamp containing more than one light source:
(i) all light sources which are connected in series are considered to be one light source;
(ii) the lamp shall comply with the minimum intensity required when any one light source has failed. However, for front or rear direction indicator lamps designed for only two light sources, 50 per cent of the minimum intensity in the axis of reference of the lamp shall be considered sufficient, provided that a note in the communication form states that the lamp is only for use on a vehicle fitted with an operating tell-tale which indicates when any one of these two light sources has failed.
(iii) when all light sources are illuminated the maximum intensity specified for a single lamp may be exceeded provided that the single lamp is not marked "D" and the maximum intensity specified for an assembly of two or more lamps (last column of the table) is not exceeded."

Paragraph 6.3., amend to read:
"6.3. In general the intensities shall be measured with the light source(s) continuously alight.

However, depending on the construction of the device, for example, the use of light-emitting diodes (LED), or the need to take precautions to avoid overheating, it is allowed to measure the lamps in flashing mode.

This must be achieved by switching with a frequency of $f=1.5 \pm 0.5 \mathrm{~Hz}$ with the pulse width greater than 0.3 s , measured at 95 per cent peak light intensity.

In the case of replaceable filament lamps, the filament lamps shall be operated at reference luminous flux during on time. In all other cases the voltage as required in paragraph 7.1.1. shall be switched with a rise time and fall time shorter than 0.01 s ; no overshoot is allowed.

In the case of measurements taken in flashing mode the reported luminous intensity shall be represented by the maximum intensity."

Annex 4, paragraph 3.2., amend to read:
"3.2. For replaceable filament lamps:
when equipped with filament lamps at $6.75 \mathrm{~V}, 13.5 \mathrm{~V}$ or 28.0 V the luminous intensity values produced shall be corrected. The correction factor is the ratio between the reference luminous flux and the mean value of the luminous flux found at the voltage applied ( $6.75 \mathrm{~V}, 13.5 \mathrm{~V}$ or 28.0 V ). The actual luminous fluxes of each filament lamp used shall not deviate more than $\pm 5$ per cent from the mean value. Alternatively a standard filament lamp may be used in turn, in each of the individual positions, operated at its reference flux, the individual measurements in each position being added together."

Annex 5, the trichromatic co-ordinates, amend to read:

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"Limit towards green : y # x - 0.120
Limit towards red : y $ 0.390
Limit towards white : y # 0.790 - 0.670 x"
For checking these colorimetric ....."
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[^0]:    This document is a working document circulated for discussion and comments. The use of this document for other purposes is the entire responsibility of the user. Documents are also available via the INTERNET: http://www.unece.org/trans/main/welcwp29.htm

