

Distr.
GENERAL

TRANS/WP.29/GRE/2002/15
29 January 2002

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Lighting and Light-Signalling (GRE)

(Forty-eighth session, 9-12 April 2002,
agenda item 2.11.)

PROPOSAL FOR DRAFT AMENDMENTS (SUPPLEMENT 9) TO REGULATION No. 4

(Illumination of rear registration plates)

Transmitted by the Expert the Working Party "Brussels 1952" (GTB)

Note: The text reproduced below was prepared by the expert from GTB in order
to amend the test procedure in the Regulation.

Note: This document is distributed to the Experts on Lighting and Light-Signalling only.

GE.02-20402

A. PROPOSAL:

Paragraphs 5. to 5.2.1., replace by the following text:

"5. GENERAL SPECIFICATIONS

Each device shall satisfy the provisions of paragraph 9. */

- 5.1. The devices for the illumination of rear registration plates shall be so constructed that the whole surface of the plate will be visible within the angles given in annex 4.
- 5.2. All measurements shall be made with the standard filament lamp of the category prescribed by the manufacturer, the supply voltage being so regulated as to produce the reference luminous flux. All measurements on the devices with non-replaceable light sources shall be made at 6.75 V, 13.5 V or 28.0 V respectively.
- 5.3. In the case of light sources supplied by a special power supply, the above test voltages shall be applied to the input terminals of that power supply. The test laboratory may require from manufacturer the special power supply needed to supply the light sources."

Paragraph 7., amend to read:

".....intended to be illuminated by the device concerned.

When the device has one outer edge of the illuminating surface that is parallel to the surface of the registration plate, the extremity of the illuminating surface of the device which is furthest from the surface of the plate is the middle point of the edge of the illuminating surface, which is parallel to the plate and is furthest from the surface of the plate.

The device must be so designed that no light is emitted"

Paragraph 8., amend to read (including a new footnote 4/): */

- "8. Luminance measurements shall be made on a diffuse colourless surface with known diffuse reflection factor. 4/ The diffuse colourless surface shall have the dimensions of the registration plate or the dimension exceeding one measuring point. Its centre shall be placed in the centre of the positions of the measuring points.

This diffuse colourless surface(s) shall be placed in the position normally occupied by the registration plate and 2 mm in front of its holder.

Luminance measurements shall be made perpendicularly to the surface of the diffuse colourless surface with the tolerance of 5° in each direction at the points shown in annex 3 to this Regulation, each point representing a circular area of 25 mm in diameter.

*/ Note by the secretariat: The proposal did not indicate if the currently existing footnote 3/ should be preserved (not affected by the amendment), or deleted. This may affect the number of the new footnote in paragraph 8.

The measured luminance shall be corrected for the diffuse reflection factor 1.0.

4/ CIE Publication No 17 - 1970 Paragraph 45-20-040."

* * *

B. JUSTIFICATION:

The present text of the Regulation is not clear in respect of defining "the point of the illumination surface of the device which is furthest from the surface of the rear registration plate".

The reflection factor should be more clearly defined in order to reduce the differences in measuring results between laboratories.

The reference luminous flux shall be applied by measurements of luminance, as it is the case in other Regulations e.g. in Regulation No. 50.

When measuring luminance on slightly curved registration plates, it is difficult to obtain perpendicular position of the measuring head of the photometer to the surface of the plate.
