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Working Party on Lighting and Light-Signalling (GRE)

(Forty-eighth session, 9-12 April 2002,  
agenda item 2.10.)

PROPOSAL FOR DRAFT AMENDMENTS (SUPPLEMENT 8) TO REGULATION No. 23

(Reversing lamps)

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

Note: The text reproduced below was prepared by the Expert from GTB in order to make possible the type approval of reversing lamps with a larger visibility distance. The proposal avoids the need for two classes of reversing lamps and the use of front fog lamps as reversing lamps on heavy vehicles and trailers. The inserted text is in **bold** characters.

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

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**A. PROPOSAL**

Insert a new paragraph 3.6., to read:

"3.6 Lamps operating at voltages other than the nominal rated voltages of 6 V, 12 V or 24 V respectively, by the application of an additional supply system, must bear a marking denoting the rated design voltage, if the additional supply is not part of the device."

Paragraph 6.3., amend to read:

"6.3. The intensity of the light emitted in all directions in which the light can be observed shall not exceed:

300 candelas in directions in or above the horizontal plane;

and, in directions below the horizontal plane:

600 candelas between h-h and 5°D and  
8000 candelas below 5°D."

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**B. JUSTIFICATION**

Reversing lamps meeting the requirements of Regulation No. 23 have been designed to signal to other road users, that the vehicle is in reverse operation. The luminous intensity was not intended to provide rearward visibility for the vehicle driver. However, there is an increasing demand by vehicle drivers, especially by truck drivers, to provide seeing light to the rear of the vehicle, while in reverse operation. This proposal is intended to cover that demand.

By removing the current 600 cd maximum for light intensity below the horizontal, drivers will be able to enjoy the benefits of enhanced rear visibility while in reverse operation. Removal of this restriction will permit lamps to be designed with enhanced rear visibility and provide design flexibility to meet the existing package sizes and costs, without degrading current safety restrictions on glare values.

This will also fully harmonize the photometric requirements of Regulation No. 23 with safety standards C/FMVSS 108.

Regarding the maximum mounting tolerances on vehicles, as specified in Regulation No. 48, of about  $\pm 3^\circ$  and the glare and aiming problem, the simplest solution is an angular limitation for the specified maximum of luminous intensity. The value of 5°D was found after the discussion in the GTB Kyoto Meeting. This angle of 5°D gives more safety in relation to glare and installation tolerances.

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