Proposal for Supplement 6 to the 01 Series of Regulation No. 123 (Adaptive front lighting system)

Submitted by the expert from the International Automotive Lighting and Light Signalling Expert Group (GTB)

The text reproduced below was prepared by the expert from GTB to update the photometric test requirements relating to the type approval of the AFS driving beam. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106, ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.
I. Proposal

Delete paragraph 6.2.5.2., and renumber the subsequent paragraphs 6.2.5.3 to 6.2.5.5.1 to become, respectively, paragraphs 6.2.5.2 to 6.2.5.4.1.

Paragraph 6.3.4.1., amend to read:

"6.3.4.1. the lighting unit(s) of the right side and of the left side each provide each at least 16,200 cd at the point HV, thus half of the minimum luminous intensity value of the driving beam as specified by the paragraph 6.3.2. above."

Annex 3, Table 1, delete the reference to footnote 6 and renumber the subsequent footnotes accordingly.

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Annex 9, paragraph 1.8.1., amend to read:

"1.8.1. However in those cases where a provision is specified for one side only, the division by the factor of 2 does not apply. These cases are: paragraphs 6.2.5.3., 6.2.5.2., 6.2.8.1., 6.3.2.1.1., 6.3.2.1.2., 6.3.4.1., 6.4.6. and note 4 of Table 1 of Annex 3.1.9.""

Annex 9, paragraph 3.1.1.1., amend to read:

"3.1.1.1. Compliance with the requirements of paragraphs 6.2.5.2., 6.2.5.3, 6.2.5.2. and 6.2.5.5.1.6.2.5.4.1. of this Regulation shall be checked for both category 1 and category 2 bending modes without additional horizontal re-aim."

II. Justification

1. The GTB Photometry Working Group has found that the measurement procedure defined in paragraph 6.2.5.2. of UN Regulation No. 123 is redundant when the beams meet the light intensity distribution requirements. It is therefore proposed to delete paragraph 6.2.5.2.

2. The proposed amendment to paragraph 6.3.4.1., relating to the driving beam photometry currently requires a minimum contribution from each side of a system at all test points. This requirement is outdated in the context of AFS systems and is more stringent than the corresponding requirement for the passing beam where only one characteristic test point (50V) is specified. Consequently, it is proposed to specify only one characteristic point (HV) which should contribute at least 50 per cent of the required minimum from each side.

3. This proposal will remove an unnecessary restriction to the design of the driving beam and will also simplify the complicated test routines to be carried out during type approval.