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Item 7 (b) of the provisional agenda

Device UN Regulations: UN Regulation No. 149 (Road illumination devices)

Proposal for a Supplement to the 01 series of amendments to UN Regulation No. 149

Submitted by the experts from the International Automotive Lighting and Light-Signalling Expert Group *

The text reproduced below was prepared by the experts from the International Automotive Lighting and Light-Signalling Expert Group (GTB) with the aim to clarify the measurement of the quality of the "cut-off". The proposed modifications to the current text of the UN Regulations are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2024 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



I. Proposal

Annex 6, paragraph 2.2., amend to read:

“2.2. Measurement of the quality of the "cut-off"

To determine the minimum sharpness, measurements shall be performed by vertically scanning through the horizontal part of the "cut-off" in angular steps of 0.05° at either a measurement distance of:

- (a) 10 m with a detector having a diameter of approximately 10 mm; or
- (b) 25 m with a detector having a diameter of approximately 30 mm.

The measuring distance at which the test was carried out shall be recorded in item 9. of the communication form (see Annex 1 to this Regulation).

To determine the maximum sharpness **and linearity**, measurements shall be performed by vertically scanning through the horizontal part of the "cut-off" in angular steps of 0.05° exclusively at a measurement distance of 25 m and with a detector having a diameter of approximately 30 mm.

The "cut-off" quality shall be considered acceptable if the requirements of paragraphs 2.2.1. to 2.2.3. comply with at least one set of measurements.”

II. Justification

The current text of the 01 series of amendments to UN Regulation No. 149 (Annex 6, paragraph 2.2.) describes a clear measurement method, with angular steps of 0.05°, only to determine the sharpness of the “cut-off”. Nevertheless, this step width is also important for the linearity measurement (Annex 6, paragraph 2.2.3.), in order to obtain comparable measurement results in all laboratories.
