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**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations**

**Working Party on Lighting and Light-Signalling**

**Eighty-ninth session**

Geneva, 24-27 October 2023

Item 7 (a) 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 [[1]](#footnote-2)\*

The text reproduced below was prepared by the experts from the International Automotive Lighting and Light-Signalling Expert Group (GTB) with the aim to modify the photometric stability test point of the passing beam and adaptive front-lighting system (AFS) Class C. The proposed modifications to the current text of the UN Regulations are marked in bold for new or strikethrough for deleted characters.

I. Proposal

*Annex10, Table A10-1*, amend to read:

“ Table A10-1

**Points in time for additional testing**

|  |  |  |
| --- | --- | --- |
| *Lamp (function)* | *Time after activation (seconds)* | *Test point* |
| Driving-beam *(Headlamp producing only driving-beam)* | 1 | HV |
| Passing-beam a | 4 | ~~50V~~  **25V(V, 1.72**°**D)** |
| AFS class C a | 4 | ~~50V~~  **25V(V, 1.72**°**D)** |
| Front fog | 4 | **V**, 2.5°D |
| Cornering lamp | 1 | 45°L 2.5°D  resp.  45°R 2.5°D |

a After 1 second it shall meet at least 25 % of the requirement at the test point”

II. Justification

1. The test points for light emitting diodes (LED) photometric stability of the passing beam and AFS Class C were ‘50V’ until Supplement 3 to the 01 series of amendments to UN Regulation No. 112 and Supplement 3 to the 01 series of amendments to UN Regulation No. 123. The test point 50V is located too close to the cut-off line, so it could be easily affected by other factors. Therefore, the test points for LED photometric stability of the passing beam and AFS Class C were amended to 25R and 25RR respectively through ECE/TRANS/WP.29/GRE/2012/10.

2. According to the justification in ECE/TRANS/WP.29/GRE/2012/10, due to the intensity gradient through the cut-off, at the test point 50V a small vertical movement in the beam pattern, not caused by temperature variations, and within the allowed limits can easily lead to a change of more than 10 per cent of the measured luminous intensity value.

3. The proposed test point 25V (V, 1.72°D) is less affected by other factors than the 50V (V, 0.86°D) for measuring temperature stability and is located at the centre of the passing beam patterns.

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1. \* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2023 (A/77/6 (Sect. 20), table 20.6), 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. [↑](#footnote-ref-2)