# Economic and Social Council 

## Economic Commission for Europe

Inland Transport Committee<br>World Forum for Harmonization of Vehicle Regulations<br>$\mathbf{1 5 6}^{\text {th }}$ session<br>Geneva, 13-16 March 2012<br>Item 4.9.13 of the provisional agenda<br>1958 Agreement - Consideration of draft amendments<br>to existing Regulations submitted by GRE

## Proposal for Supplement 3 to the 01 series of amendments to Regulation No. 123 (Adaptive front lighting systems (AFS))

## Submitted by the Working Party on Lighting and Light-Signalling *

The text reproduced below was adopted by the Working Party on Lighting and Light-Signalling (GRE) at its sixty-sixth session in order to simplify the photometric test requirements, clarify the heat test requirements and revise the definition of "LED Modules". It is based on ECE/TRANS/WP.29/GRE/2011/38, not amended, ECE/TRANS/WP.29/GRE/2011/39, as amended by paragraph 20 of the report, and ECE/TRANS/WP.29/GRE/2011/57, not amended (ECE/TRANS/WP.29/GRE/66, paras. 19, 20, and 39). It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration.

[^0]Paragraph 2.2.2(k),(ii), amend to read:

## "2.2.2.

(k) ...
(ii) A drawing with dimensions and the basic electrical and photometric values and the objective luminous flux and for each LED module a statement whether it is replaceable or not;
..."
Paragraph 5.3.3., amend to read:
"5.3.3. The class $C$ (basic) passing beam shall be equipped only with replaceable light sources or replaceable or non replaceable LED modules."

Insert a new paragraph 5.3.4., to read:
"5.3.4. In the case of replaceable LED module, the removal and replacement of this LED module, as described in Annex 10 paragraph 1.4.1, shall be demonstrated to the satisfaction of the technical service."

Insert a new paragraph 5.15., to read:
"5.15. A LED module shall be:
(a) Only removable from its device with the use of tools, unless it is stated in the communication sheet that the LED module is non replaceable and,
(b) So designed that regardless of the use of tool(s), it is not mechanically interchangeable with any replaceable approved light source."

Annex 1, item 9.2.1., amend to read:
"9.2.1. Number and specific identification code(s) of LED module(s) and for each LED module a statement whether it is replaceable or not: yes $/ \mathrm{no}^{2 \prime}$

Annex 3, Table 1, amend to read:

| tabled requirements expressed in cd |  |  |  | Position /deg |  |  | passing beam |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | horizontal |  | vertical | class C |  | class V |  | class E |  | class W |  |  |
|  | No | Element |  | at/ from | to | at | min | max | min | max | min | max | min | max |  |
|  | 1 | B50L |  | L 3.43 |  | U 0.57 | $50^{4}$ | 350 | 50 | 350 | 50 | 625 | 50 | 625 |  |
|  | 3 | BR |  | R 2.5 |  | U 1 | $50^{4}$ | 1750 | 50 | 880 | 50 | 1750 | 50 | 2650 |  |
|  | 8a | S50 + S50LL + S50RR | 5 |  |  | U 4 | $190{ }^{7}$ |  |  |  | $190^{7}$ |  | $190^{7}$ |  |  |
|  | 9a | S100 + S $100 \mathrm{LL}+$ S 100 RR | 5 |  |  | U 2 | $375^{7}$ |  |  |  | $375^{7}$ |  | $375^{7}$ |  |  |
|  | 18 | Emax ${ }^{3}$ |  |  |  |  | 16900 | 44100 | 8400 | 44100 | 16900 | 79300 | 29530 | 70500 | 2 |



Annex 4, paragraphs 2.2.1. and 2.2.2, amend to read:
"2.2.1. The result expressed in milliradians (mrad) shall be considered as acceptable for a passing beam headlamp when the absolute value $\Delta r_{1}=\left|r_{3}-r_{60}\right|$ recorded on the headlamp is not more than $1.0 \mathrm{mrad}\left(\Delta \mathrm{r}_{1} \leq 1.0 \mathrm{mrad}\right)$ upward and not more than $2.0 \mathrm{mrad}\left(\Delta \mathrm{r}_{1} \leq 2.0 \mathrm{mrad}\right)$ downwards.
2.2.2. However, if this value:

| movement |  |
| :--- | :--- |
|  | more than 1.0 mrad but not more than |
| upward | 1.5 mrad |
|  | $\left(1.0 \mathrm{mrad}<\Delta \mathrm{r}_{\mathrm{I}} \leq 1.5 \mathrm{mrad}\right)$ |
|  | more than 2.0 mrad but not more than |
| downward | 3.0 mrad |
|  | $\left(2.0 \mathrm{mrad}<\Delta \mathrm{r}_{\mathrm{I}} \leq 3.0 \mathrm{mrad}\right)$ |

a further sample of a headlamp shall be tested as described in paragraph 2.1. after being subjected three consecutive times to the cycle as described below, in order to stabilize the position of mechanical parts of the headlamp on a base representative of the correct installation on the vehicle:
Operation of the passing beam for one hour, (the voltage shall be adjusted as specified in paragraph 1.1.1.2.),

After this period of one hour, the headlamp type shall be considered as acceptable if the absolute value $\Delta \mathrm{r}$ measured on this sample meets the requirements in paragraph 2.2.1. above."

Annex 5., paragraph 1.2.1.1., amend to read:
"1.2.1.1. For the following values of the passing beam and its modes, the maximum unfavourable deviation may be respectively:
(a) Maximum values at point B50L 170 cd equivalent 20 per cent and 255 cd equivalent 30 per cent;
(b) Maximum values at zone III and segment BLL: 255 cd equivalent 20 per cent and 380 cd equivalent 30 per cent;
(c) Maximum values at segments E, F1, F2 and F3: 170 cd equivalent 20 per cent and 255 cd equivalent 30 per cent;
(d) Minimum values at BR, P, at the groups S $50+\mathrm{S} 50 \mathrm{LL}+\mathrm{S} 50 \mathrm{RR}$ and S $100+$ S 100LL + S 100RR, and those required by footnote $4 /$ of Table 1 in Annex 3 of this Regulation (B50L, BR, BRR, BLL): half of the required value equivalent 20 per cent and three quarter of the required value equivalent 30 per cent."

Annex 7., paragraph 1.2.1.1., amend to read:
"1.2.1.1. For the following values of the passing beam and its modes, the maximum unfavourable deviation may be respectively:
(a) Maximum values at point B50L 170 cd equivalent 20 per cent and 255 cd equivalent 30 per cent;
(b) Maximum values at zone III and segment BLL: 255 cd equivalent 20 per cent and 380 cd equivalent 30 per cent;
(c) Maximum values at segments E, F1, F2 and F3: 170 cd equivalent 20 per cent and 255 cd equivalent 30 per cent;
(d) Minimum values at BR, P, at the groups $\mathrm{S} 50+\mathrm{S} 50 \mathrm{LL}+\mathrm{S} 50 \mathrm{RR}$ and S $100+$ S 100LL + S 100RR, and those required by footnote $4 /$ of Table 1 in Annex 3 of this Regulation (B50L, BR, BRR, BLL): half of the required value equivalent 20 per cent and three quarter of the required value equivalent 30 per cent."


[^0]:    * 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.

