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Item 5(j) of the provisional agenda

Collective amendments - Regulation Nos. 98 and 112

Proposal for Supplement 3 to the 01 Series of Regulation No. 98 and Supplement 3 to the 01 Series of Regulation No. 112

Submitted by the expert from the Working Party "Brussels 1952"*

The text reproduced below was prepared by the expert from the Working Party "Brussels 1952" (GTB) to correct the UV radiation requirements of LED modules and to clarify that they are of the "low UV" type. 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

Proposal for Supplement 3 to the 01 series of Regulation No. 98

Paragraph 2.2.5.2.2., amend to read:

"2.2.5.2.2. if provisions are taken to shield the relevant headlamp components from UV radiation, e.g. by glass filters, **or**;"

Insert new paragraph 2.2.5.2.3., to read:

"2.2.5.2.3. if low-UV-type LED modules are being applied as specified in Annex 11 of this Regulation."

Annex 11, Paragraph 4.1., amend to read:

"4.1. UV-radiation

The UV-radiation of a **low-UV-type** LED module shall be such that: ...

This value shall be calculated using intervals of one nanometer. The UV-radiation shall be weighted according to the values as indicated in the Table UV below:

Table UV

Values according to "IRPA/INIRC Guidelines on limits of exposure to ultraviolet radiation". Wavelengths (in nanometres) chosen are representative; other values should be interpolated.

λ	$S(\lambda)$	λ	$S(\lambda)$	λ	$S(\lambda)$
250	0.430	305	0.060	355	0.000 16
255	0.520	310	0.015	360	0.000 13
260	0.650	315	0.003	365	0.000 11
265	0.810	320	0.001	370	0.000 09
270	1.000	325	0.000 50	375	0.000 077
275	0.960	330	0.000 41	380	0.000 064
280	0.880	335	0.000 34	385	0.000 530 0.000 053
285	0.770	340	0.000 28	390	0.000 044
290	0.640	345	0.000 24	395	0.000 036
295	0.540	350	0.000 20	400	0.000 030
300	0.300				

"

Proposal for Supplement 3 to the 01series of Regulation No. 112

Annex 10, Paragraph 4.2., amend to read:

"4.2. UV-radiation

The UV-radiation of a low-UV-type LED module shall be such

This value shall be calculated using intervals of one nanometer. The UV-radiation shall be weighted according to the values as indicated in the Table UV below:

Table UV

Values according to "IRPA/INIRC Guidelines on limits of exposure to ultraviolet radiation". Wavelengths (in nanometres) chosen are representative; other values should be interpolated.

λ	$S(\lambda)$	λ	$S(\lambda)$	λ	$S(\lambda)$
250	0.430	305	0.060	355	0.000 16
255	0.520	310	0.015	360	0.000 13
260	0.650	315	0.003	365	0.000 11
265	0.810	320	0.001	370	0.000 09
270	1.000	325	0.000 50	375	0.000 077
275	0.960	330	0.000 41	380	0.000 064
280	0.880	335	0.000 34	385	0.000 530 0.000 053
285	0.770	340	0.000 28	390	0.000 044
290	0.640	345	0.000 24	395	0.000 036
295	0.540	350	0.000 20	400	0.000 030
300	0.300				

"

II. Justification

1. The UV radiation of a LED module, which is specified in the Annex 11 of Regulation No. 98 and Annex 10 of Regulation No. 112, is the definition of low-UV-types and does not represent a requirement. However, the current provisions of Regulation No. 98 could be interpreted that the UV radiation of a LED module shall meet the value of 10-5 W/lm. To avoid such a misunderstanding, it is proposed align Regulation No. 98 with the wording of Regulation No.112.

2. A typing error in the value of $S(\lambda)$ in the Table UV of Regulations Nos. 98 and 112 is also corrected.