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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 4 of the provisional agenda

**Simplification of lighting and light-signalling UN Regulations****Proposal for a Supplement to the 00 and 01 series of amendments to UN Regulation No. 150****Submitted by the Informal Working Group on Simplification of Lighting and Light-Signalling Regulations\***

The text reproduced below was prepared by the Informal Working Group on Simplification of Lighting and Light-Signalling Regulations (IWG SLR) with the aim to clarify and to correct the text of the 00 and 01 series of amendments to UN Regulation No. 150. The proposed modifications to the current text of the UN Regulations are marked in bold for new or strikethrough for deleted characters.

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\* 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.



## I. Proposal

### A. Proposal for a Supplement to the 00 series of amendments to UN Regulation No. 150

Annex 5,

Paragraph 7.3., amend to read:

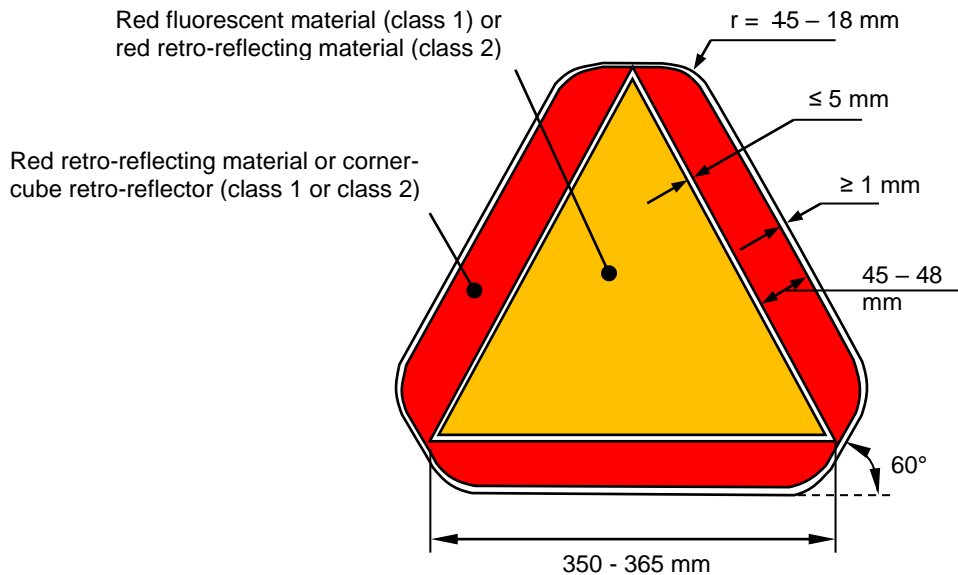
“7.3. Dimensions

The length of the base of the enclosed fluorescent triangle (class 1) or retro-reflective triangle (class 2) shall be: minimum 350 mm and maximum 365 mm. The minimum width of the light-emitting surface of the red retro-reflective border shall be 45 mm, the maximum width 48 mm. These features are illustrated in the example of Figure A5-VI ~~A5-VI~~ A5-VII.”

Figure A5-VI “Example of a slow-moving vehicle plate”, amend to read:

“Figure A5-VII

#### Example of a slow-moving vehicle plate



”

### B. Proposal for a Supplement to the 01 series of amendments to UN Regulation No. 150

Table 6, amend to read:

“Table 6

#### Minimum values for the Coefficient of Retro-reflection $R_A$

Observation angle $\alpha$ [°] $\alpha=0.33(20^\circ)$	Minimum values for the Coefficient of Retro-reflection $R_A$ in $\text{cd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$					
	Vertical $\beta_1$	$0^\circ$	$0^\circ$	$0^\circ$	$0^\circ$	$0^\circ$
Entrance Angle $\beta$ [°]	Horizontal $\beta_2$	$5^\circ$	$20^\circ$	$30^\circ$	$40^\circ$	$60^\circ$
Class C	Yellow	$3.00\cdot 10^2$	--	$1.30\cdot 10^2$	$7.5\cdot 10^1$	$1.0\cdot 10^1$
	White	$4.50\cdot 10^2$	--	$2.00\cdot 10^2$	$9.5\cdot 10^1$	$1.6\cdot 10^1$
	Red	$1.20\cdot 10^2$	$6.0\cdot 10^1$	$3.0\cdot 10^1$	$1.0\cdot 10^1$	--
Class F, 5	White	$4.50\cdot 10^2$	--	$2.00\cdot 10^2$	$9.5\cdot 10^1$	$1.6\cdot 10^1$

	Red	1.20·10 <sup>2</sup>		3.0·10 <sup>1</sup>	1.0·10 <sup>1</sup>	2·10 <sup>0</sup>
Class 1, 2, 3, 4	Yellow	3.00·10 <sup>2</sup>	--	1.80·10 <sup>2</sup>	7.5·10 <sup>1</sup>	1.0·10 <sup>1</sup>
	Red	1.0·10 <sup>1</sup>	--	7·10 <sup>0</sup>	4·10 <sup>0</sup>	--
Class SMV	Red of the outer border (class 1, 2)	1.20·10 <sup>2</sup>	<b>6.0·10<sup>1</sup></b>	<b>6.0·10<sup>1</sup></b> <b>3.0·10<sup>1</sup></b>	<b>3.0·10<sup>1</sup></b> <b>1.0·10<sup>1</sup></b>	<b>1.0·10<sup>1</sup></b> --
	Red of the enclosed triangle (class 2)	1.0·10 <sup>1</sup>	<b>7·10<sup>0</sup></b>	<b>7·10<sup>0</sup></b> <b>4·10<sup>0</sup></b>	<b>4·10<sup>0</sup></b> --	--

Note: If the sample is provided with an orientation mark, the specified values must only be observed for this orientation. Test samples without an orientation mark must be observed for values at 0° and 90° orientations as well.”

Annex 1, item 9, amend to read:

“9. **Remarks:**  
**Concise description:**  
**In isolation/part of an assembly of devices:** <sup>2</sup> .....  
**Colour of light emitted: white/red/amber:** <sup>2</sup> .....  
**Installation as an integral part of a lamp, which is integrated into the body of a vehicle: yes/no**<sup>2</sup>  
**Geometric conditions of installation and relating variations, if any: .....**  
**Only for limited mounting height of equal to or less than 750 mm above the ground: yes/no**<sup>2</sup>”

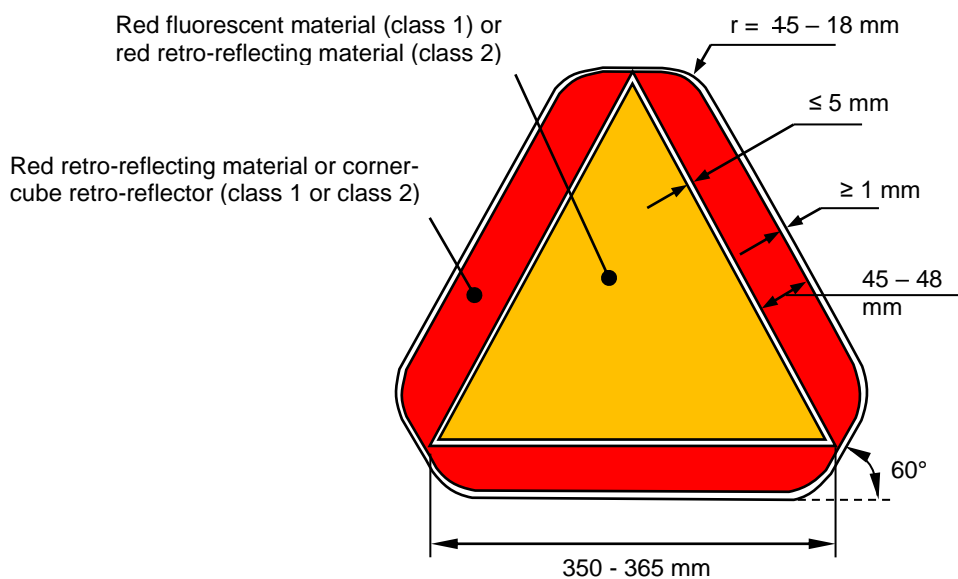
Annex 5,

Paragraph 7.3., amend to read:

“7.3. Dimensions  
The length of the base of the enclosed fluorescent triangle (class 1) or retro-reflective triangle (class 2) shall be: minimum 350 mm and maximum 365 mm. The minimum width of the light-emitting surface of the red retro-reflective border shall be 45 mm, the maximum width 48 mm. These features are illustrated in the example given in Figure A5-VI A5-VII.”

Figure A5-VII, amend to read:

“Figure A5-VII  
**Example of a slow-moving vehicle plate**



”

*Annex 6,*

*Part 1, paragraph 1,* amend to read:

- “1. Test procedure in the case of moulded plastics reflectors of retro-reflecting devices as Classes IA, IB, IIIA, IIIB, IVA, SMV **and Advance warning triangle of type 1:**  
...”

*Part 1, paragraph 2,* amend to read:

- “2. Test procedure in the case of use of flexible materials for Classes C, D, E, F, Marking plates of Classes 1, 2, 3, 4, 5 **and Advance warning triangle of type 2:**  
...”

*Part 6, paragraph 3,* amend to read:

- “3. The samples shall be exposed in accordance with EN ISO 4892-2:2013 using the parameters given in Table A6-1, ~~for a period of 500 hours:~~
- 3.1. in case of retro-reflective devices for a period of 500 hours,**
- 3.2. in case of fluorescent materials for a period of 100 hours.”**

## II. Justification

*00 series of amendments, Annex 5, paragraph 7.3.*

1. A wrong figure reference number is corrected.

*Figure A5-VI “Example of a slow-moving vehicle plate”*

2. By mistake there are two “Figures A5-VI” in the text of the 00 series of amendments to UN Regulation No. 150. The one entitled “*Example of a slow-moving vehicle plate*” has been renumbered as Figure A5-VII.
3. During the simplification process, the value “ $r = 5 - 18 \text{ mm}$ ” (as in the 02 series of amendments to UN Regulation No. 69, Annex 12), inadvertently became “ $r = 15 - 18 \text{ mm}$ ”. The proposal corrects this error.

*01 series of amendments, table 6*

4. For slow-moving vehicle (SMV) plates, specific coefficients of retro-reflection have been defined for the entrance angles  $5^\circ$ ,  $20^\circ$ ,  $30^\circ$  and  $40^\circ$  in the original series of amendments to UN Regulation No. 150. When merging separate tables with the requirements for specific coefficients of retro-reflection for the different retro-reflective devices in the 01 series of UN Regulation No. 150, the values were unintentionally inserted in wrong columns, i.e.  $5^\circ$ ,  $30^\circ$ ,  $40^\circ$  and  $60^\circ$ . The values have now been shifted to the correct columns, as in the original series.

*Annex 1*

5. In the original series of amendment to UN Regulation No. 150 the “concise description” of the retroreflector is required and it shall be the same in the 01 series as well. This proposal intends to reintroduce it.

*Annex 5, paragraph 7.3.*

6. A wrong figure reference number is corrected.

*Figure A5-VII*

7. During the simplification process, the value “ $r = 5 - 18 \text{ mm}$ ” (as in the 02 series of amendments to UN Regulation No. 69, Annex 12), inadvertently became “ $r = 15 - 18 \text{ mm}$ ”. The proposal corrects this error.

*Annex 6, Part 1*

8. The reference to the “Advance warning triangle” in paragraphs 1. and 2. was unintentionally omitted during the drafting of the 01 series of amendments. The proposed amendment intends to reinsert it as appropriate.

*Annex 6, Part 6, paragraph 3*

0. The requirements for fluorescent material were unintentionally omitted during the drafting of the 01 series of amendments. The proposed amendment intends to clarify which requirements apply to fluorescent material and which ones to retro-reflective devices.

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