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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

Sixty-third session

Geneva, 29 - 31 March 2010

Item 13 of the provisional agenda

**REGULATION No. 99**  
**(Gas-discharge light sources)**

**Proposal for Supplement 7 to Regulation No. 99**

**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) in order to remove some additional colour restriction from Regulation No. 99. The modifications to the existing text of the Regulation are marked in bold or strikethrough characters.

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\*/ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

A. PROPOSAL

Paragraph 3.9.1., amend to read:

"3.9.1. The colour of the light emitted shall be white or selective yellow. ~~Moreover the colorimetric characteristics, expressed in CIE chromaticity coordinates, shall lie within the boundaries given on the relevant data sheet.~~"

Annex 1, sheet DxR/4, amend to read:

" ...

...	...	...	...	...
Luminous flux	Objective	lm	2800	2800
	Tolerance		± 450	± 150
Chromaticity coordinates	Objective		$x = 0.375$	$y = 0.375$
	Tolerance area <del>3/</del>	Boundaries	$x = 0.345$ $x = 0.405$	$y = 0.150 + 0.640 x$ $y = 0.050 + 0.750 x$
		Intersection points	$x = 0.345$	$y = 0.371$
			$x = 0.405$	$y = 0.409$
			$x = 0.405$	$y = 0.354$
$x = 0.345$	$y = 0.309$			
Hot-restrike switch-off time	s	10	10	

... "

Annex 1, sheet DxS/4, amend to read:

" ...

...	...	...	...	...
Luminous flux	Objective	lm	3200	3200
	Tolerance		± 450	± 150
Chromaticity coordinates	Objective		$x = 0.375$	$y = 0.375$
	Tolerance area <del>3/</del>	Boundaries	$x = 0.345$ $x = 0.405$	$y = 0.150 + 0.640 x$ $y = 0.050 + 0.750 x$
		Intersection points	$x = 0.345$	$y = 0.371$
			$x = 0.405$	$y = 0.409$
			$x = 0.405$	$y = 0.354$
$x = 0.345$	$y = 0.309$			
Hot-restrike switch-off time	s	10	10	

... "

Annex 4, paragraph 10., amend to read:

"10. Colour

The colour of the light source shall be measured in an integrating sphere using a measuring system which shows the CIE chromaticity co-ordinates of the received light with a resolution of  $\pm 0.002$ . ~~The following figure shows the colour tolerance area for colour white and the restricted tolerance area for the gas discharge light sources D1R, D1S, D2R, D2S, D3R, D3S, D4R and D4S.~~"

B. JUSTIFICATION

In modern headlamps light sources of different technologies may be used. A uniform appearance of the white light sources requires colour temperature matching. Provisions in headlamp Regulations (including light emitting diode (LED) modules) and light source Regulation No. 37 for (halogen) filament lamps and Regulation No. 99 for gas discharge light sources allow for this. However, for gas discharge light source categories D1R, D1S, D2R, D2S, D3R, D3S, D4R and D4S, additional and tighter colour boundaries apply as specified by the respective datasheets. These are no longer necessary and hamper colour temperature matching. This proposal is aimed at removing these additional restrictions from Regulation No. 99.

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