



**Economic and Social  
Council**

Distr.  
GENERAL

ECE/TRANS/WP.29/GRE/2006/54  
21 July 2006

Original: ENGLISH  
ENGLISH AND FRENCH ONLY

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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Lighting and Light-Signalling (GRE)

Fifty-seventh session

2-6 October 2006

Item 17.2. of the provisional agenda

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 23

(Reversing lights)

Submitted by the expert from France

Note: The text reproduced below was prepared by the expert from France in order to introduce in the Regulation measurement provisions for reversing lamps with non-replaceable light sources. The modifications to the existing text of the Regulation (up to Supplement 13 to the original version) are marked in **bold** characters.

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Note: This document is distributed to the Experts on Lighting and Light-Signalling only.

A. PROPOSAL

Text of the Regulation,

Paragraph 6.5., amend to read:

"6.5. In the case of a single lamp containing more than one light source, the lamp shall comply with the minimum intensity required when any one light source has failed and when all light sources are illuminated the maximum intensities shall not be exceeded. **All light sources, which are connected in series, are considered to be one light source.**"

Paragraph 7., amend to read (including the insertion of a reference to a new footnote 3/ and a new footnote 3/):

"7. TEST PROCEDURES

7.1. **All measurements, photometric and colorimetric, shall be made:**

7.1.1. **In the case of a lamp with replaceable light source, if not supplied by an electronic light source control gear, with an uncolored standard filament lamp of the category prescribed for the device, supplied with the voltage necessary to produce the reference luminous flux required for that category of filament lamp.**

7.1.2. **In the case of a lamp equipped with non-replaceable light sources (filament lamps and other), at 6.75 V, 13.5 V or 28.0 V respectively.**

7.1.3. **In the case of a system that uses an electronic light source control gear, being part of the lamp 3/ applying at the input terminals of the lamp the voltage declared by the manufacturer or, if not indicated, 6.75 V, 13.5 V or 28.0 V respectively.**

7.1.4. **In the case of a system that uses an electronic light source control gear not being part of the lamp the voltage declared by the manufacturer shall be applied to the input terminals of the lamp.**

7.2. **The Technical Service shall require from the manufacturer the light source control gear needed to supply the light source and the applicable functions.**

7.3. **The voltage to be applied to the lamp shall be indicated in the communication form, specified in Annex 1 of this Regulation.**

7.4. **For any lamp, except those equipped with filament lamps, the luminous intensities measured after one minute and after 30 minutes of operation, shall comply with the minimum and maximum requirements. The luminous intensity distribution after one minute of operation can be calculated from the luminous**

intensity distribution after 30 minutes of operation by applying at each test point the ratio of luminous intensities measured at HV after one minute and after 30 minutes of operation.

7.5. The limits of the apparent surface in the direction of the reference axis of a light-signalling device shall be determined.

3/ For the purpose of this Regulation "being part of the lamp" means to be physically included in the lamp body or to be external, separated or not, from the lamp body but supplied by the lamp manufacturer as part of the lamp system."

Annex 1,

Item 9., amend to read:

"9. Concise description:  
**Number, category and kind of light source(s):** .....  
**Voltage and wattage:** .....  
**Application of an electronic light source control gear:**  
(a) being part of the lamp: yes/no 2/  
(b) being not part of the lamp: yes/no 2/  
**Input voltage(s) supplied by an electronic light source control gear:** .....  
.....  
**Electronic light source control gear manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body):** .....  
Light source module: yes/no 2/  
Light source module specific .... "

Annex 3,

Paragraph 3., amend to read:

"3. Photometric measurement of lamps equipped with several light sources

The photometric performance shall be checked:

3.1. For non-replaceable light sources (filament lamps and other):

with the light sources present in the lamp, in accordance with **relevant subparagraphs of paragraph 7.1.** of this Regulation.

3.2. For replaceable filament lamps:

.... "

Annex 4, amend to read:

" .... on Illumination (ICI) shall be used.

**These colorimetric characteristics, shall be measured under conditions described in paragraph 7. of this Regulation.**

However, for lamps equipped with non-replaceable light sources (filament lamps and other), the colorimetric characteristics should be verified with the light sources present in the lamp, in accordance with **relevant subparagraphs of paragraph 7.1.** of this Regulation."

Annex 5,

Paragraph 1.2., amend to read:

"1.2. With respect to photometric performances, the conformity of mass-produced lamps shall not be contested if, when testing photometric performances of any lamp chosen at random **according to paragraph 7. of this Regulation**, respectively:"

Paragraph 1.3., amend to read:

"1.3. The chromaticity coordinates shall be complied when **tested under conditions of paragraph 7. of this Regulation.**"

Annex 6,

Paragraph 1.2., amend to read:

"1.2. With respect to photometric performances, the conformity of mass-produced lamps shall not be contested if, when testing photometric performances of any lamp chosen at random **according to paragraph 7. of this Regulation**, respectively:"

Paragraph 1.3., amend to read:

"1.3. The chromaticity coordinates shall be complied when **tested under conditions of paragraph 7. of this Regulation.**"

B. JUSTIFICATION

Regulation No. 23 has not been amended to introduce measurement method for lamps equipped with non-replaceable light sources such as LED.

A complete revision of the test procedures for all photometric and colorimetric measurements is proposed in order to align these procedures to those described in other signalling lamps Regulations.

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