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Item 4.9.5 of the provisional agenda

**1958 Agreement – Consideration of draft amendments
to existing Regulations submitted by GRE**

Proposal for Supplement 41 to the 03 series of amendments to Regulation No. 37 (Filament lamps)

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-eighth session (ECE/TRANS/WP.29/GRE/68, para. 4). It is based on ECE/TRANS/WP.29/GRE/2012/34 as amended by para. 4 of the report, ECE/TRANS/WP.29/GRE/2012/35 not amended. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee AC.1 for consideration.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and 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.

Annex 1, the list of categories of filament lamps and their sheets, amend to read:

"....

Group 2

...

PY21W	PY21W/1	(P21W/2)
PY21/5W	PY21/5W/1 to 3	
PY24W	P24W/1 to 3	

..."

The list of sheets for filament lamps and their sequence, amend to read:

"...

PY21W/1
PY21/5W/1 to 3
PY27/7W/1

..."

Sheet PR27/7W/1, the table, the cap designation, amend to read:

"...

Cap WU2.5x16q in accordance with IEC Publication 60061 (sheet 7004-104D-1)
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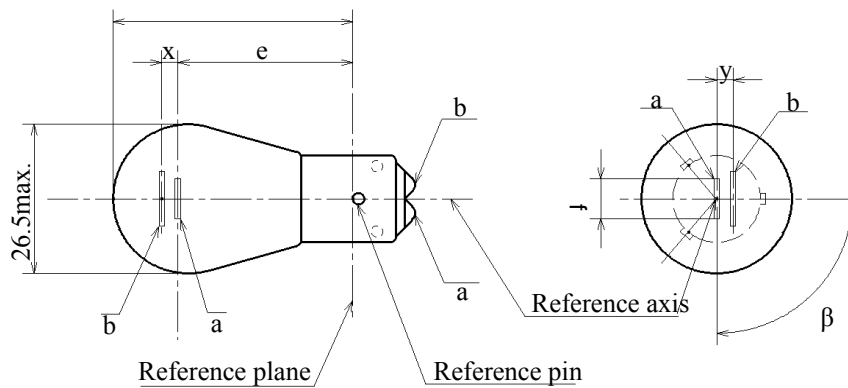
..."

*Insert new sheets PY21/5W/1 to 3, between sheet PY21W/1 and sheet PY27/7W/1, to read:
(see next pages)*

Category PY21/5W

Sheet PY21/5W/1

The drawings are intended only to illustrate the essential dimensions (in mm) of the filament lamp



Dimensions in mm	Filament lamps of normal production ^{3/}			Standard filament lamp
	min.	nom.	max.	^{4/}
e		28.6 ^{1/}		28.6 ± 0.3
f			7.0	7.0 + 0/- 2
Lateral deviation ^{2/}			^{1/}	0.3 max.
x, y		^{1/}		2.8 ± 0.3
β	75°	90°	105°	90° ± 5°
Cap BA15d-3 (100°/130°) in accordance with IEC Publication 60061 (sheet 7004-[xxx]-1)				
Electrical and photometric characteristics				
Rated values	Volts	12		12
	Watts	21	5	21/5
Test voltage	Volts	13.5		13.5
Objective values	Watts	26.5 max.	6.6 max.	26.5 and 6.6 max.
	Luminous flux	270	21	
	± %	20	20	
Reference luminous flux at approximately 13.5 V				White: 440 lm and 35 lm Amber: 270 lm and 21 lm

^{1/} These dimensions shall be checked by means of a "box-system". See sheets PY21/5W/2 and PY21/5W/3. "x" and "y" refer to the major (high-wattage) filament, not to the reference axis.

^{2/} Maximum lateral deviation of the major (high wattage) filament centre from two mutually perpendicular planes both containing the reference axis and one containing the axis of the reference pin.

^{3/} The light emitted from normal production lamps shall be amber (see also note 4/).

^{4/} The light emitted from standard filament lamps shall be white or amber.

Screen projection requirements

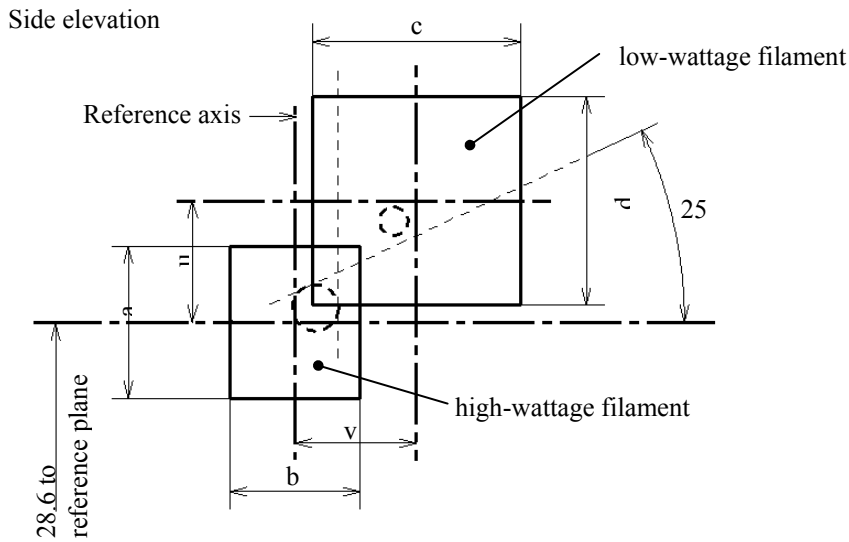
This test is used to determine, by checking whether:

- (a) The major (high wattage) filament is correctly positioned relative to the reference axis and reference plane and has an axis perpendicular, within $\pm 15^\circ$, to the plane through the centres of the pins and the reference axis; and whether
- (b) The minor (low wattage) filament is correctly positioned relative to the major (high wattage) filament, whether a filament lamp complies with the requirements.

Test procedure and requirements

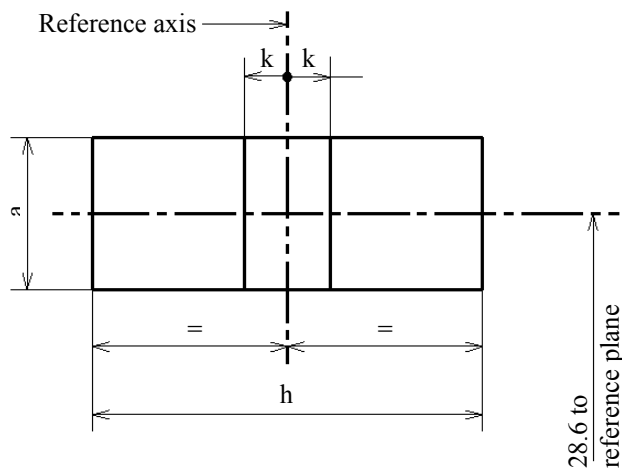
1. The filament lamp is placed in a holder capable of being rotated about its axis and having either a calibrated scale or fixed stops corresponding to the angular displacement tolerance limits. (i.e. 15°). The holder is then so rotated that an end view of the major filament is seen on the screen on which the image of the filament is projected. The end view of that filament shall be obtained within the angular displacement tolerance limits.
2. Side elevation
The filament lamp placed with the cap down, the reference axis vertical, the reference pin to the right and the major filament seen end-on:
 - 2.1. The projection of the major filament shall lie entirely within a rectangle of height "a" and width "b", having its centre at the theoretical position of the centre of the filament;
 - 2.2. The projection of the minor filament shall lie entirely:
 - 2.2.1. within a rectangle of width "c" and height "d" having its centre at a distance "v" to the right of and at a distance "u" above the theoretical position of the centre of the major filament;
 - 2.2.2. Above a straight line tangential to the upper edge of the projection of the major filament and rising from left to right at an angle of 25° .
 - 2.2.3. To the right of the projection of the major filament
3. Front elevation
The filament lamp being placed with the cap down and the reference axis vertical, the filament lamp being viewed in a direction at right angles to axis of the major filament:
 - 3.1. The projection of the major filament shall lie entirely within a rectangle of height "a" and width "h", centred on the theoretical position of the centre of the filament;
 - 3.2. The centre of the major filament shall not be offset by more than distance "k" from the reference axis.
 - 3.3. The centre of the minor filament axis shall not be offset from the reference axis by more than ± 2 mm (± 0.4 mm for standard filament lamps).

Dimensions in mm



Reference	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>u</i>	<i>v</i>
Dimensions	3.5	3.0	4.8		2.8	

Front elevation



Reference	<i>a</i>	<i>h</i>	<i>k</i>
Dimensions	3.5	9.0	1.0

Annex 5, Paragraph 2.3.3., amend to read:

"2.3.3. For filament lamps used in light signalling devices, measurements shall be made in directions around the filament lamp with exception of:

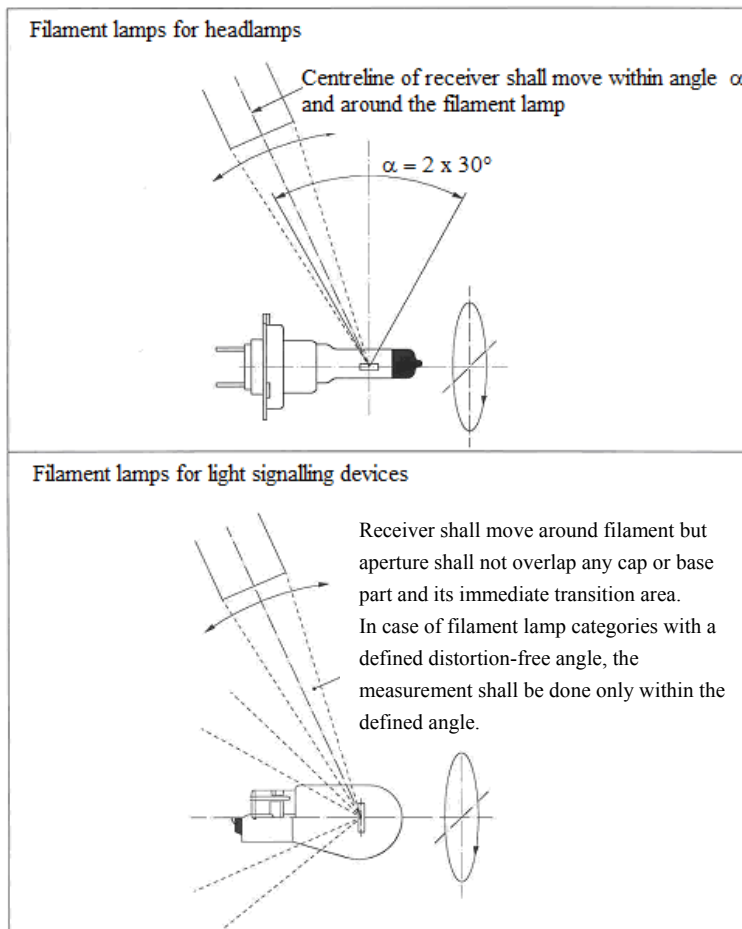
- (a) The area claimed or covered by the cap of the filament lamp; and
- (b) The immediate transition area along the cap.

In case of filament lamps with two filaments, the centre of the major filament shall be taken.

In case of filament lamp categories with a defined distortion-free angle, the measurement shall be done only within the defined angle."

The figure illustrating the positions of colorimetric receiver, the text in the lower part, amend to read:

"



"