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Item 4.6.11 of the provisional agenda

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

Proposal for Supplement 42 to the 03 series of amendments to Regulation No. 37 (Filament lamps)

Submitted by the Working Party on Light and Light-signalling*

The text reproduced below was adopted by the Working Party on Light and Light-signalling (GRE) at its sixty-ninth session (ECE/TRANS/WP.29/GRE/69, paras. 5 and 51). It is based on ECE/TRANS/WP.29/GRE/2013/6 as amended by paragraph 5. of the report and by paragraph 51. of the report. 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.

Paragraph 2.4.2., amend to read:

"2.4.2. ...

This will be followed by an identification code comprising not more than three characters. Only the Arabic numerals and capital letters listed in footnote 3 shall be used ..."

Paragraph 3.6.3., amend to read:

"3.6.3. The colour of the light emitted ... direction from a point of choice on the Planckian locus (CIE 015:2004, 3rd edition). Filament lamps for use in light signalling devices shall meet the requirements as specified in paragraph 2.4.2. of IEC Publication 60809, Edition 3."

Annex 1, Sheet PY21/5W/1, the row indicating the cap data, amend to read:

"...

Cap BA15d-3 (100°/130°) in accordance with IEC Publication 60061 (sheet 7004-173-1)

..."

Annex 1, the list of categories of filament lamps, grouped and their sheet numbers, amend to read:

"

Group 2		
Only for use in signalling lamps, cornering lamps, reversing lamps and rear registration plate lamps:		
Category	Sheet number(s)	
...		
WR21/5W	WR21/5W/1	(W21/5W/2 to 3)
WT21W	WT21W/1 to 2	
WT21/7W	WT21/7W/1 to 3	
WTY21W	WT21W/1 to 2	
WTY21/7W	WT21/7W/1 to 3	
WY5W	*6 WY5W/1	
...		

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

"

Sheet number(s)

...
 WR21/5W/1
 WT21W/1 to 2
 WT21/7W/1 to 3
 WY2.3W/1
 ...

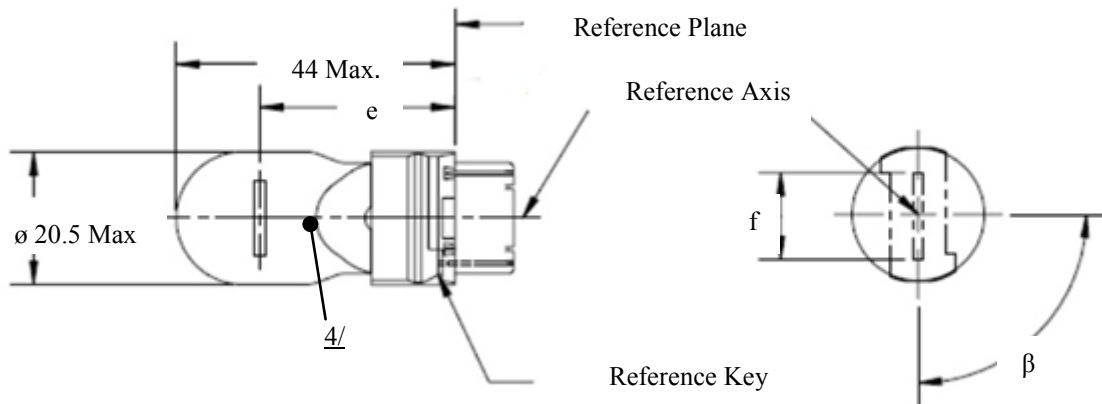
"

Insert new sheets WT21W/1 to 2 and WT21/7W/1 to 3 between sheet WR21/5W/1 and sheet WY2.3W/1, to read: (see next pages):

Category WT21W AND WTY21W

Sheet WT21W/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			Standard filament lamp
		min.	nom.	max.	5/
e	12V		27.9 ^{3/}		27.9 ± 0.3
	24V	26.9	27.9	28.9	
f				7.5	7.5 + 0/ - 2
Lateral deviation ^{2/}	12V			^{3/}	0.0 ± 0.4
	24V			1.5	
β		75° ^{3/}	90°	105° ^{3/}	90° ± 5°
Cap: WT21W: WUX2.5x16d		in accordance with IEC Publication			(sheet 7004-[....]-1)
WTY21W: WUY2.5x16d		60061			(sheet 7004-[....]-1)
Electrical and photometric characteristics					
Rated values	Volts	12	24	12	
	Watts	21			21
Test voltage	Volts	13.5	28.0	13.5	
Objective values	Watts	26.5 max.	29.7 max.	26.5 max.	
	Luminous flux	WT21W	460 ± 15 %		
		WTY21W	280 ± 20 %		
Reference luminous flux at approximately 13.5 V:					White: 460 lm Amber: 280 lm

^{1/} The reference axis is defined with respect to the reference keys and is perpendicular to the reference plane.

^{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 through the reference keys.

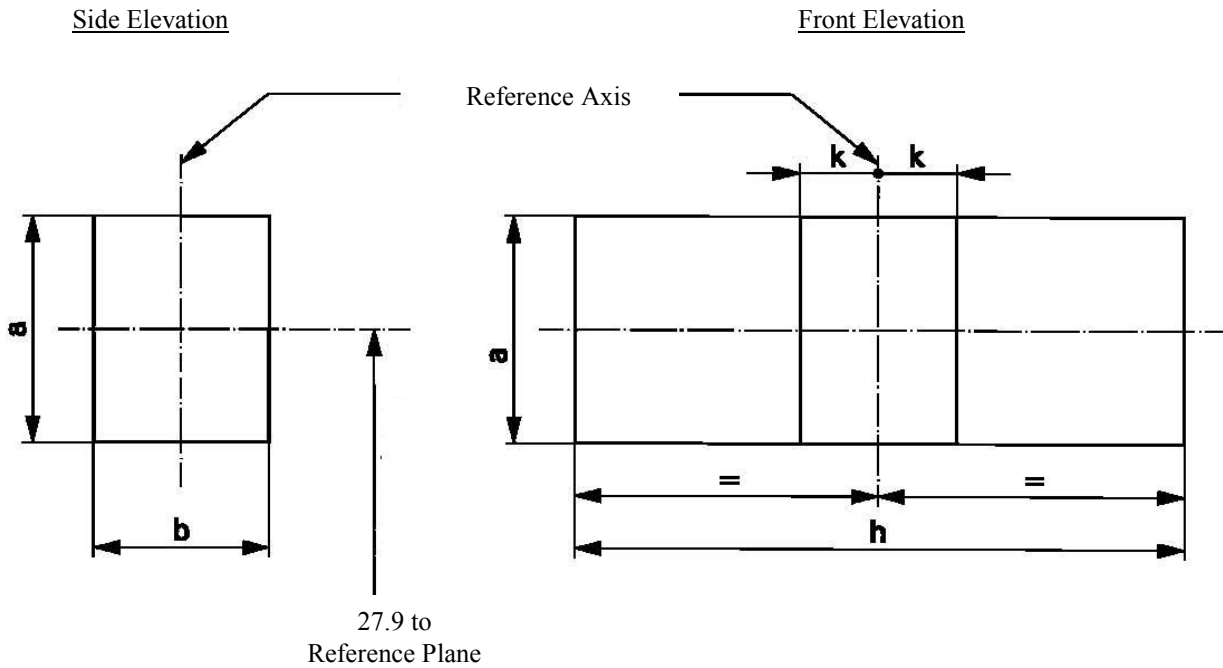
^{3/} To be checked by means of a "Box-System", sheets WT21W/2.

^{4/} The light emitted from filament lamps of normal production shall be white for category WT21W and amber for category WTY21W (see also note 5).

^{5/} The light emitted from standard filament lamps shall be white for category WT21W and white or amber for category WTY21W.

Screen projection requirements

This test is used to determine, by checking whether the 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 keys and the reference axis, whether a filament lamp complies with the requirements.

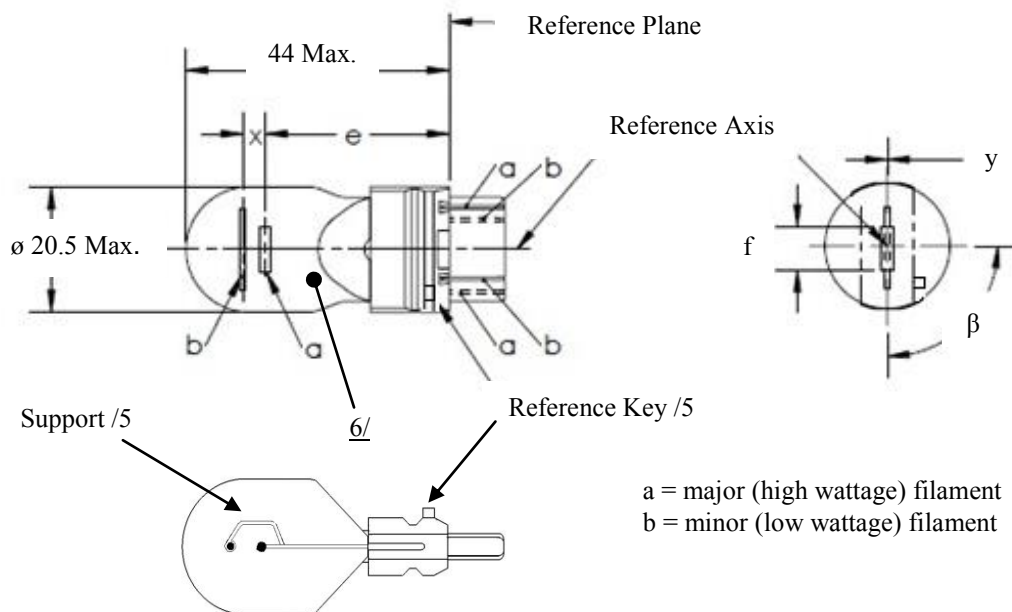


Reference Dimension	a	b	h	k
	3.5	3.0	9.5	1.0

Test procedures 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. The holder is then so rotated that an end view of the filament is seen on the screen on to which the image of the filament is projected. The end view of the filament shall be obtained within the angular displacements tolerance limits.
- 2 Side elevation
The filament lamp placed with the cap down, the reference axis vertical and the filament seen end-on, the projection of the 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.
- 3 Front elevation
The filament lamp placed with the cap down and the reference axis vertical, the filament lamp being viewed in a direction at right angles to the filament axis:
 - 3.1. The projection of the filament shall lie entirely within a rectangle of height "a" and width "h", having its centre at the theoretical position of the centre of the filament.
 - 3.2. The centre of the filament shall not be offset by more than distance "k" from the reference axis.

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



Dimensions in mm	Filament lamps of normal production 6/			Standard filament lamp 7/	
	min.	nom.	max.		
E		27.9 ^{3/}		27.9 ± 0.3	
F			7.5	7.5 + 0/ - 2	
Lateral deviation ^{2/}			^{3/}	0.0 ± 0.4	
x ^{4/}		5.1 ^{3/}		5.1 ± 0.5	
y ^{4/}		0.0 ^{3/}		0.0 ± 0.5	
β	75° ^{3/}	90°	105° ^{3/}	90° ± 5°	
Cap:	WT21/7W: WZX2.5x16q WTY21/7W: WZY2.5x16q			in accordance with IEC Publication 60061 (sheet 7004-[...]-1)	
Electrical and photometric characteristics					
Rated values	Volts	12		12	
	Watts	21	7	21	7
Test voltage	Volts	13.5		13.5	
Objective values	Watts	26.5 max.	8.5 max.	26.5 max.	8.5 max.
	Luminous flux	440 ± 15 %	35 ± 20 %		
		280 ± 20 %	22 ± 20 %		
Reference luminous flux at approximately 13.5 V:			White: 440 and 35 lm Amber: 280 and 22 lm		

For the notes see sheet WT21/7W/2.

- ^{1/} The reference axis is defined with respect to the reference keys and is perpendicular to the reference plane.
- ^{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 through the reference keys.
- ^{3/} To be checked by means of a "Box-System", sheets WT21/7W/2 and 3.
- ^{4/} "x" and "y" denote the offset of the axis of the minor (low wattage) filament with respect to the axis of the major (high wattage) filament.
- ^{5/} If the minor filament is positioned using an asymmetric support similar to the one shown then the reference key and support structure must be located on the same side of the filament lamp.
- ^{6/} The light emitted from filament lamps of normal production shall be white for category WT21/7W and amber for category WTY21/7W (see also note 7).
- ^{7/} The light emitted from standard filament lamps shall be white for category WT21/7W and white or amber for category WTY21/7W.

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 keys 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. 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

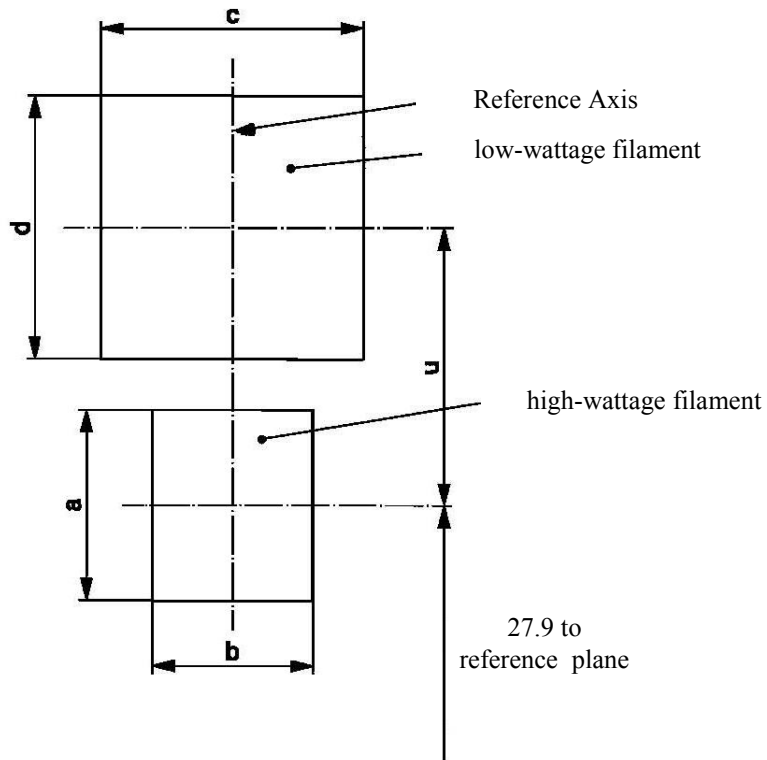
The filament lamp placed with the cap down, the reference axis vertical, the reference key to the right and the major filament seen end-on:

 - 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 within a rectangle of width "c" and height "d" having its centre at a distance "u" above the theoretical position of the centre 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:

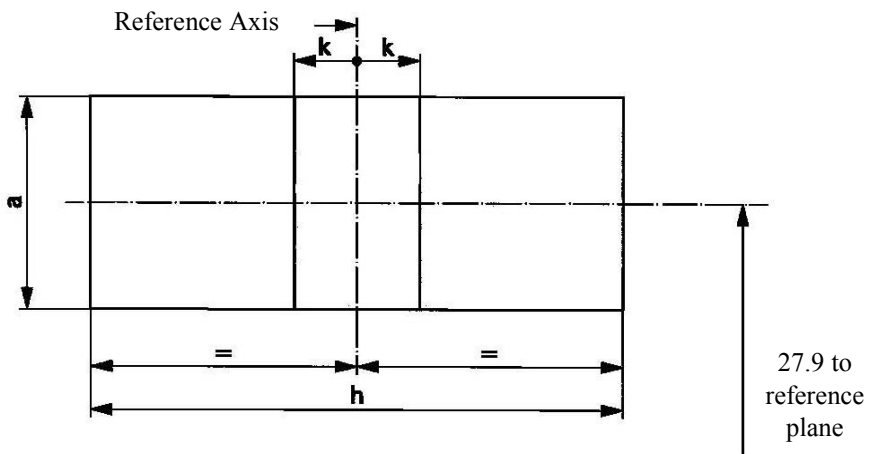
 - 3.1. The projection of the major filament shall lie entirely within a rectangle of height "a" and width "h", centred on the theoretical position of the centre of the filament;
 - 3.2. The centre of the major filament shall not be offset by more than distance "k" from the reference axis;
 - 3.3. The 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).

Side Elevation



Reference	a	b	c	d	u
Dimensions	3.5	3.0	4.8		5.1

Front Elevation



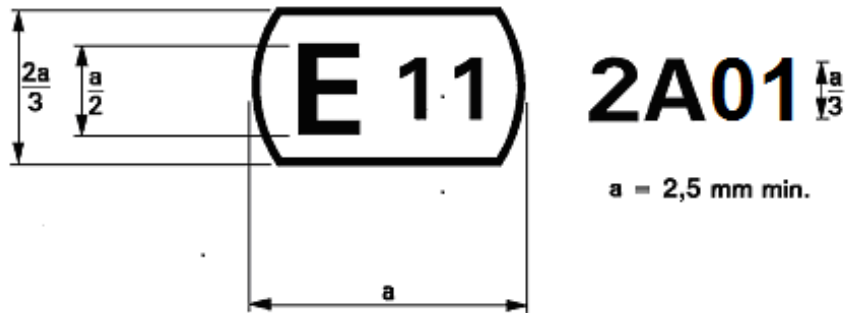
Reference	a	h	k
Dimensions	3.5	9.5	1.0

Annex 3, amend to read:

"Annex 3

Example of the arrangement of the approval mark

(see paragraph 2.4.3)



The above approval mark affixed to a filament lamp indicates that the lamp has been approved in the United Kingdom (E11) under the approval code A01.

The first character of the approval code indicates that the approval was granted in accordance with the requirements of Regulation No 37 as amended by the 02 and 03 (*) series of amendments."