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Working Party on Lighting and Light-Signalling (GRE)
(Fifty-first session, 15-19 September 2003,
agenda item 1.1.4.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 37
(Filament lamps)

Transmitted by the expert from the Working Party "Brussels 1952" (GTB)

Note: The text reproduced below was prepared by the expert from GTB, in order to update the bulb data sheets annexed to the Regulation. The text is based upon: Revision 3 of Regulation No. 37 up to the proposal for draft Supplement 23, adopted by WP.29 in June 2003 (TRANS/WP.29/2003/48).

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

A. PROPOSAL

Text of the Regulation,

Annex 1,

List of categories of filament lamps, amend to read (footnote **/ not amended):

"	<u>Category</u>		<u>Sheet number(s)</u>	
.....				
	WR5W	<u>**/</u>	W5W/1	
	WR21/5W	<u>**/</u>	WR21/5W/1	(W21/5W/2..3)
	WY2.3W		WY2.3W/1	
....."				

List of sheets for filament lamps, amend to read:

"	<u>Sheet number(s)</u>
.....	
	WP21W/1..2
	WR21/5W/1
	WY2.3W/1
....."	

Sheets HIR2/1..3, replace by the new sheets HIR2/1..3; (see next pages)

Insert new sheet WR21/5W/1 (between sheet WP21W/2 and sheet WY2.3W/1 as indicated in the list of sheets above), to read: (see next pages)

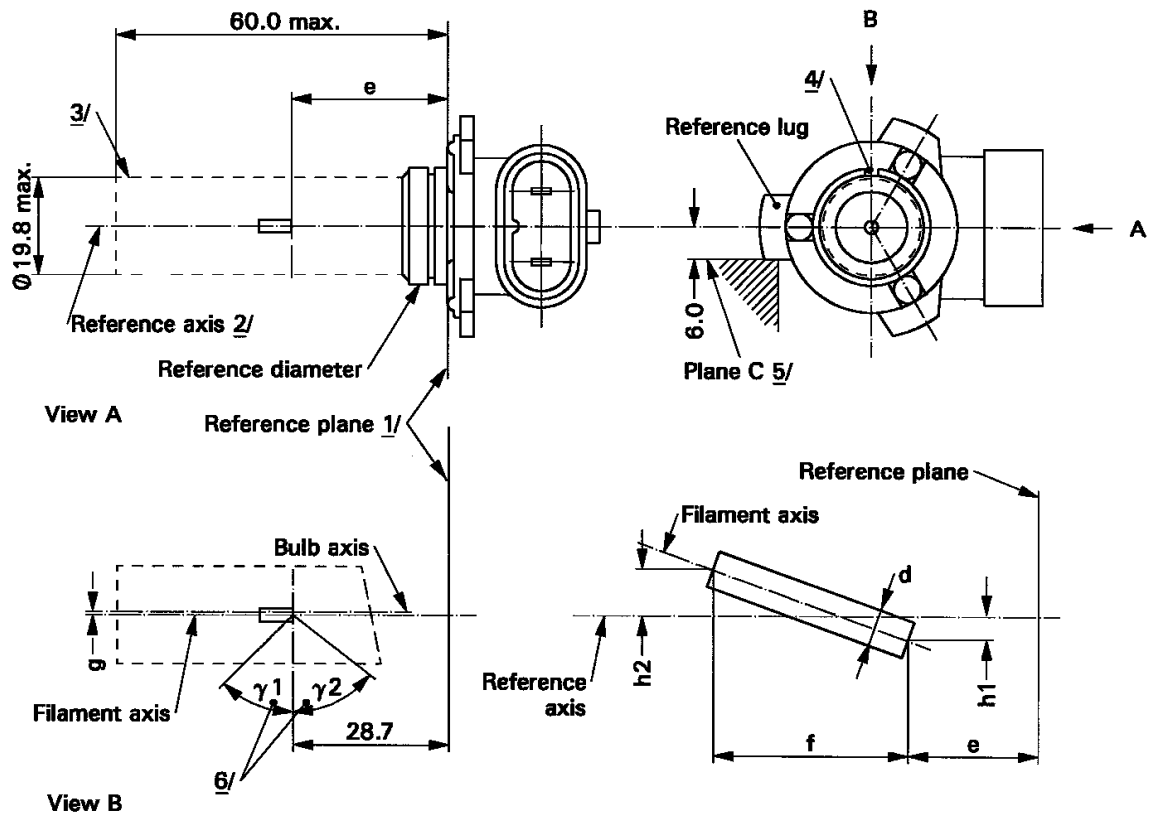
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B. JUSTIFICATION

The proposed draft amendments concern the addition of a new red wedge base double filament lamp. It is a red version of the existing W21/5W.

For HIR2 an amendment of the dimension "e" is proposed. Parallel to this proposal, an amendment for HIR2 was proposed in the United States of America such that the eventual specifications of HIR2 are harmonized. The change of $e = 28.9$ mm into $e = 28.7$ mm was part of the drawings and a table, being difficult to edit; the new sheets HIR2/1..3, only differing in the value of "e", should replace the existing sheets.

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



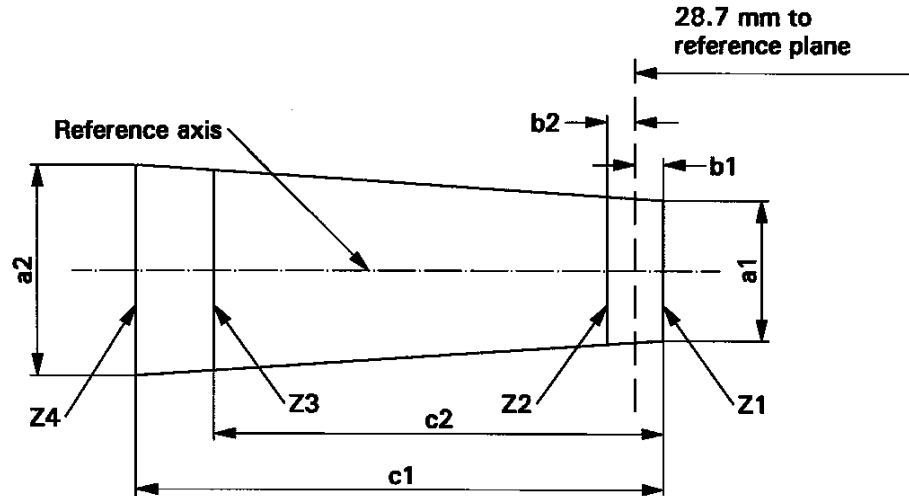
- 1/ The reference plane is the plane defined by the three meeting points of the cap holder fit.
- 2/ The reference axis is perpendicular to the reference plane and passes through the centre of the reference diameter of the cap.
- 3/ Glass bulb and supports shall not exceed the envelope. The envelope is concentric to the reference axis.
- 4/ The keyway is mandatory.
- 5/ The filament lamp shall be rotated in the measuring holder until the reference lug contacts plane C of the holder.
- 6/ Glass bulb periphery shall be optically distortion-free axially within the angles $\gamma 1$ and $\gamma 2$. This requirement applies to the whole bulb circumference within the angles $\gamma 1$ and $\gamma 2$.

Dimensions in mm <u>11/</u>		Tolerances		
		Filament lamps of normal production	Standard filament lamp	
e	<u>8/ 10/</u>	28.7	<u>9/</u>	± 0.16
f	<u>8/ 10/</u>	5.3	<u>9/</u>	± 0.16
g	<u>8/</u>	0	+ 0.7 / - 0.0	+ 0.4 / - 0.0
h1, h2		0	<u>9/</u>	± 0.15 <u>7/</u>
d		1.6 max.	-	-
γ1		50° min.	-	-
γ2		50° min.	-	-
Cap PX22d in accordance with IEC Publication 60061 (sheet 7004-32-2)				
ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS				
Rated values	Volts		12	12
	Watts		55	55
Test voltage	Volts		13.2	13.2
Objective values	Watts		63 max.	63 max.
	Luminous flux		1875 ± 15 %	
Reference luminous flux: 1355 lm at approximately 12 V				

- 7/ The eccentricity is measured only in viewing directions A and B as shown in the figure on sheet HIR2/1. The points to be measured are those where the projection of the outside of the end turns nearest to or furthest from the reference plane crosses the filament axis.
- 8/ The viewing direction is direction B as shown in the figure on sheet HIR2/1.
- 9/ To be checked by means of a "Box-System"; sheet HIR2/3.
- 10/ The ends of the filament are defined as the points where, when the viewing direction is defined in note 8/ above, the projection of the outside of the end turns crosses the filament axis.
- 11/ Dimensions shall be checked with O-ring removed.

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, whether a filament lamp complies with the requirements.

	a1	a2	b1	b2	c1	c2
12 V	$d + 0.4$	$d + 0.8$	0.35		6.6	5.7

d = diameter of filament

The filament position is checked solely in directions A and B as shown on sheet HIR2/1.

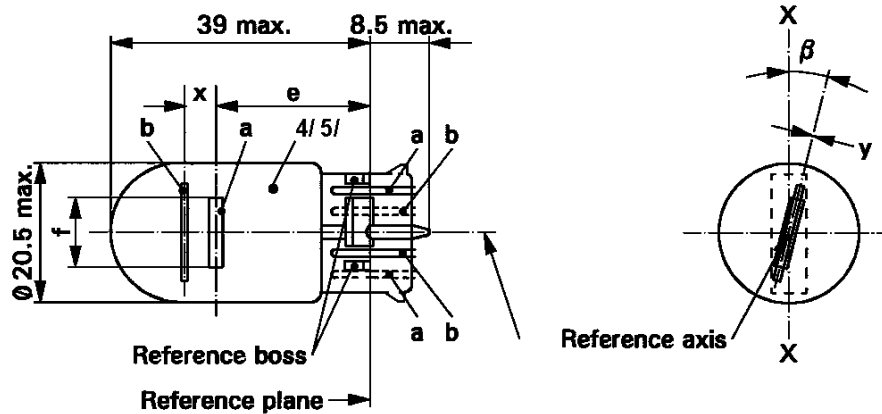
The ends of the filament as defined on sheet HIR2/2 note 10/ shall lie between lines Z1 and Z2 and between lines Z3 and Z4.

CATEGORY WR21/5W

Sheet WR21/5W/1

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

a= major (high wattage) filament
b= minor (low wattage) filament



Dimensions in mm	Filament lamps of normal production			Standard filament lamp		
	min.	nom.	max.			
e		25.0 ^{1/}		25.0 ± 0.3		
f			7.5	7.5 + 0/ - 2		
Lateral deviation ^{2/}			^{1/}	0.3 max.		
x ^{3/}		2.8 ^{1/}		2.8 ± 0.3		
y ^{3/}		0.0 ^{1/}		0.0 ± 0.3		
β	-15° ^{1/}	0°	+15° ^{1/}	0° ± 5°		
Cap WY3x16q in accordance with IEC Publication 60061 (sheet [7004-...-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 max.	6.6 max.	
	Luminous flux	105 ± 20 %	8 ± 25 %			
Reference luminous flux at approximately 13.5 V	White:	440 lm and 35 lm				
	Red:	105 lm and 8 lm				

^{1/} To be checked by means of a "Box-System"; sheets W21/5W/2 and 3.

^{2/} Maximum lateral deviation of filament centre from two mutually perpendicular planes both containing the reference axis and one containing axis X-X.

^{3/} "x" and "y" denote the offset of the axis of the minor filament with respect to the axis of the major filament.

^{4/} The light emitted from normal production lamps shall be red (See also note ^{5/}).

^{5/} The light emitted from standard filament lamps shall be white or red.