

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 37

(Filament lamps)

A.1. Alternative specificationAnnex 1.The list of categories of filament lamps and their sheets, amend to read:

"....	<u>Category</u>	<u>Sheet number(s)</u>
....	H9	<u>***</u> / H9/1 to 4
....	H9B	<u>***</u> / H9/1 to 4
....	...	
....	HIR1	<u>***</u> / HIR1/1 to 3
....	...	
....	only for signalling lamps:	<u>****</u> /
....	H21W	<u>****</u> / H21W/1 to 2
....	PSR24W	P24W/1 to 3
....	PSX24W	<u>****</u> / P24W/1 to 3
....	PSY19W	P19W/1 to 3
....	PSY24W	P24W/1 to 3
....	PX24W	<u>****</u> / P24W/1 to 3
....	PY19W	P19W/1 to 3
...."	

Insert new footnotes ***/ and ****/, to read:****/ **Not for use in front fog lamps marked "B" as defined in Regulation No. 19.******/ **Categories with reference to this footnote ****/ may also be used in front fog lamps marked "B" as defined in Regulation No. 19."**

Sheet H21W/1 the table, standard filament lamps, the reference luminous flux, amend to read (adding a value for the flux at approximately 12V):

"

Reference luminous flux at approximately	12V	415 lm
	13.5 V	600 lm

"

Sheet H27W/2, the table, standard filament lamps, the reference luminous flux, amend to read (adding a value for the flux at approximately 12V):

"

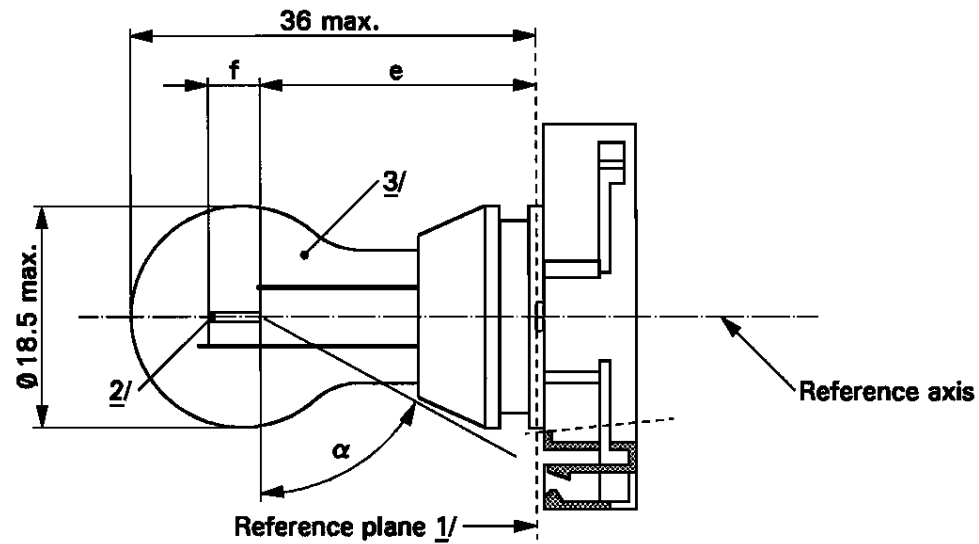
Reference luminous flux: lm at approximately	12 V	350 lm
	13.5 V	477 lm

"

Sheets P24W/1 to P24W/3 (existing), replace by the **new sheets P24W/1 to P24W/3**, to read (see below):

CATEGORIES P24W, PX24W, PY24W, PR24W, PS24W, PSX24W, PSY24W and PSR24W

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



- 1/ The reference plane is defined by the meeting points of the cap-holder fit.
- 2/ No actual filament diameter restrictions apply but the objective is $d \text{ max.} = 1.1 \text{ mm}$.
- 3/ The light emitted from normal production lamps shall be white for categories P24W, **PX24W**, PS24W and **PSX24W**; amber for categories PY24W and PSY24W; red for the categories PR24W and PSR24W.
(See also note 8/)

CATEGORIES P24W, PX24W, PY24W, PR24W, PS24W, PSX24W, PSY24W and PSR24W

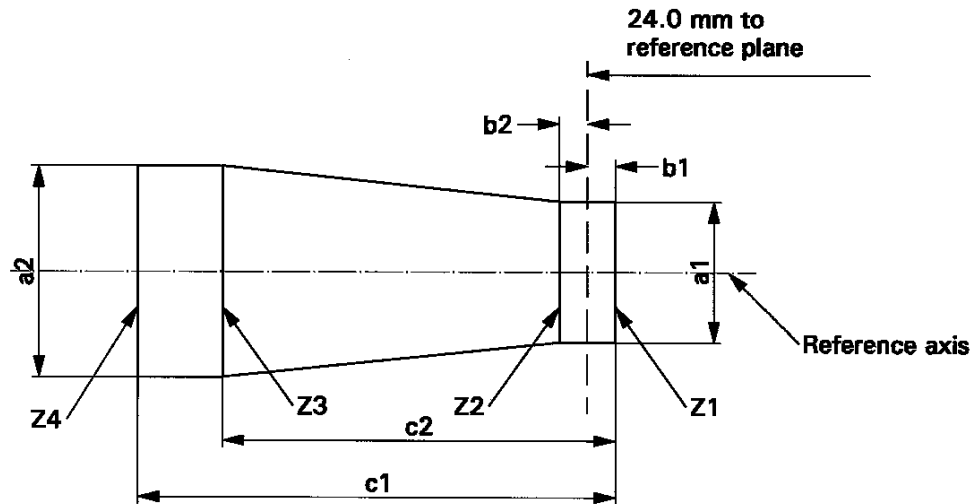
Dimensions in mm		Filament lamps of normal production			Standard filament lamp	
		min.	nom.	max.	<u>8/</u>	
<u>4/</u>						
<u>5/</u> <u>6/</u>			24.0		24.0	
<u>f</u> <u>5/</u> , <u>6/</u>	P24W, PY24W, PR24W, PS24W, PSY24W, PSR24W		4.0		4.0	
	PX24W, PSX24W		4.2		4.2	
<u>α</u> <u>7/</u>	P24W, PY24W, PR24W, PS24W, PSY24W, PSR24W	61.5°			61.5° min.	
	PX24W, PSX24W	58.5°			58.5° min.	
P24W Cap PGU20-3 PX24W Cap PGU20-7 PY24W Cap PGU20-4 PR24W Cap PGU20-6 PS24W Cap PG20-3 PSX24W Cap PG20-7 PSY24W Cap PG20-4 PSR24W Cap PG20-6 in accordance with IEC Publication 60061 (sheet 7004-127-2)						
ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS						
Rated values		Volts	12		12	
		Watts	24		24	
Test voltage		Volts	13.5		13.5	
Objective values		Watts		25 max.		
		Luminous flux	P24W PS24W	500 +10/-20 %		
			PX24W PSX24W	500 +10/- 15 %		
			PY24W PSY24W	300 +15/-25 %		
			PR24W PSR24W	115 +15/-25 %		
Reference luminous flux at approximately			12 V	White: 345 lm		
			13.5 V	White: 500 lm Amber: 300 lm Red: 115 lm		

- 4/ For categories PS24W, **PSX24W**, PSY24W and PSR24W, dimensions shall be checked with O-ring removed.
- 5/ The filament position is checked by means of a "box-system"; sheet P24W/3.
- 6/ The ends of the filament are defined as the points where, when the viewing direction is perpendicular to the plane through the filament lead-in wires as showed in the drawing on sheet P24W/1, the projection of the outside of the end turns crosses the filament axis.
- 7/ No part of the cap beyond the reference plane shall interfere with angle α . The bulb shall be optically distortion free within the angle $2\alpha + 180^\circ$.
- 8/ The light emitted from standard filament lamps shall be white for categories P24W, **PX24W**, PS24W and **PSX24W**; white or amber for categories PY24W and PSY24W; white or red for categories PR24W and PSR24W.

CATEGORIES P24W, PX24W, PY24W, PR24W, PS24W, PSX24W, PSY24W and PSR24W

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.



P24W, PY24W, PR24W, PS24W, PSY24W, PSR24W	a1	a2	b1, b2	c1	c2
Filament lamps of normal production	2.9	3.9	0.5	5.2	3.8
Standard filament lamps	1.5	1.7	0.25	4.7	3.8

PX24W, PSX24W	a1	a2	b1, b2	c1	c2
Filament lamps of normal production	1.9	1.9	0.35	5.0	4.0
Standard filament lamps	1.5	1.5	0.25	4.7	4.0

The filament position is checked in two mutually perpendicular planes, one of them being the plane through the lead-in wires.

The ends of the filament as defined on sheet P24W/2, note 6/, shall lie between Z_1 and Z_2 and between the lines Z_3 and Z_4 .

The filament shall lie entirely within the limits shown.

A.2. Additional specification

Annex 1,

Sheet P24W/2, the table, amend the values for dimension “f” and angle “ α ”, to read:

“

f	<u>5/ 6/</u>		4.2		4.2
α	<u>7/</u>	58.5°			58.5° min.

“

Sheet P24W/3, the table, amend to read:

“

	a1	a2	b1, b2	c1	c2
Filament lamps of normal production	1.9	1.9	0.35	5.0	4.0
Standard filament lamps	1.5	1.5	0.25	4.7	4.0

“

* * *

B. JUSTIFICATION

The categories P(S)24W are relatively young categories, originally specified by industry as the “future” (filament) light source for signalling lamps. The only known production has been dedicated to the OEM market. Improved specifications as proposed in TRANS/WP.29/GRE/2005/03* reflect the current status of production.

For these reasons it is not expected that in practice during a transitional period, front fog lamps approved for use of light sources with new reduced tolerances may become non-compliant when using current version of these light sources. Besides, in general, amendment of specifications in Regulation No. 37 does also apply to current production light sources after a transitional period of 12 months.

However, change of tolerances should normally require a new series of amendments, or in the case of Regulation No. 37, another category. To have such a possible specification at hand, the alternative under A.1 has been elaborated. The idea is to change the key of the cap and thus introduce the light sources with reduced tolerances as another category P(S)X24W. To strengthen justification of a new category a study was done that showed that the tolerances could be further reduced. Additionally, the angle “ α ” is reduced to create some room for improvement around the cap with negligible effect (-0,3%) upon the emitted luminous flux.

Though GTB presented this specification under A.1 as an alternative, GTB prefer the formal proposal in GRE/2005/03* since this is the most practical and simple approach. The mentioned improvements from A.1 are summarised under A.2. and may also be added to GRE/2005/03*.