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PROPOSAL FOR A DRAFT CORRIGENDUM TO REGULATION No. 37

(Filament lamps)

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

Note: The text reproduced below was prepared by the expert from GTB, in order to introduce a number of editorial corrections. The corrections to the current text (up to Supplement 26 to the 03 series of amendments) are marked in **bold** characters.

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

A. PROPOSAL

Text of the Regulation,

Paragraph 3.7., amend to read:

"3.7. UV radiation

The UV radiation of a halogen lamp shall be such that:

$$k_1 = \frac{\int_{\lambda=315 \text{ nm}}^{400 \text{ nm}} E_e(\lambda) \cdot d\lambda}{k_m \cdot \int_{\lambda=380 \text{ nm}}^{780 \text{ nm}} E_e(\lambda) \cdot V(\lambda) \cdot d\lambda} \leq 2 \cdot 10^{-4} \text{ W/lm}$$

$$k_2 = \frac{\int_{\lambda=250 \text{ nm}}^{315 \text{ nm}} E_e(\lambda) \cdot d\lambda}{k_m \cdot \int_{\lambda=380 \text{ nm}}^{780 \text{ nm}} E_e(\lambda) \cdot V(\lambda) \cdot d\lambda} \leq 2 \cdot 10^{-6} \text{ W/lm}$$

where:

$E_e(\lambda)$ (W/nm) is the spectral distribution of the radiant flux;
 $V(\lambda)$ (1) is the spectral luminous efficiency;
 $k_m = 683$ (lm/W) is the photometric radiation equivalent;
 λ (nm) is the wave length.

This value shall be calculated using intervals of five nanometres."

Annex 1,

Sheet H7/2, footnote 7/, amend to read:

"7/ The obscuration shall **extend at least to** the cylindrical part of the bulb on the whole bulb top circumference. **It shall moreover extend at least to a plane parallel to the reference plane where γ_3 crosses the outer bulb surface (view B as indicated on sheet H7/1).**"

Sheet H8/2, footnote 7/, amend to read:

"7/ The obscuration shall **extend at least to** the cylindrical part of the bulb on the whole bulb top circumference. **It shall moreover extend at least to a plane parallel to the reference plane where γ_3 crosses the outer bulb surface (view B as indicated on sheet H8/1).**"

Sheet H10/1, footnote 6/, amend to read:

"6/ Glass bulb periphery shall be optically distortion-free axially **and cylindrically** within the angles γ_1 and γ_2 . This requirement applies to the whole bulb circumference within the angles γ_1 and γ_2 **and does not need to be verified in the area covered by the obscuration.**"

Sheet H11/2, footnote 7/, amend to read:

"7/ The obscuration shall **extend at least to** the cylindrical part of the bulb on the whole bulb top circumference. **It shall, moreover, extend at least to a plane parallel to the reference plane where γ_3 crosses the outer bulb surface (view B as indicated on sheet H11/1).**"

Sheet H12/1, footnote 6/, amend to read:

"6/ Glass bulb periphery shall be optically distortion-free axially **and cylindrically** within the angles γ_1 and γ_2 . This requirement applies to the whole bulb circumference within the angles γ_1 and γ_2 **and does not need to be verified in the area covered by the obscuration.**"

Sheet H12/2, the table, for dimension "f", column "Tolerance", "Filament lamps of normal production" replace the reference to footnote 11/ by a minimum value to read: "**4.8 min**".

Sheet H13/2, footnote 6/, amend to read:

"6/ Glass bulb shall be optically distortion-free axially **and cylindrically** within the angles β and δ . This requirement applies to the whole bulb circumference within the angles β and δ **and does not need to be verified in the area covered by the opaque coating.**"

Sheet H13/2, footnote 7/, amend to read:

"7/ The opaque coating shall **extend at least to** the cylindrical part of the bulb on the whole bulb top circumference. **It shall moreover extend at least to a plane parallel to the reference plane where γ crosses the outer bulb surface (view B as indicated on sheet H13/1).**"

Sheet H14/2, footnote 4/, amend to read:

"4/ Glass bulb shall be optically distortion free within the angles γ_1 and γ_2 . This requirement applies to the whole bulb circumference within the angles γ_1 and γ_2 **and does not need to be verified in the area covered by the obscuration.**"

Sheet H14/2, footnote 5/, amend to read:

"5/ The obscuration shall **extend at least to** the cylindrical part of the bulb on the whole bulb top circumference. **It shall, moreover, extend at least to a plane parallel to the reference plane where γ_3 crosses the outer bulb surface (view B as indicated on sheet H14/1).**"

Sheet HB4/2, footnote 7/, amend to read:

"7/ Glass bulb periphery shall be optically distortion-free axially **and cylindrically** within the angles γ_1 and γ_2 . This requirement applies to the whole bulb circumference within the angles γ_1 and γ_2 **and does not need to be verified in the area covered by the obscuration.**"

B. JUSTIFICATION

In the formulas in paragraph 3.7. the unit (lm/W) of the photometric radiation equivalent is missing. This is corrected by introduction of the expression $k_m = 683$ lm/W as specified in Regulation No. 99.

For categories H10, H12, H13, H14 and HB4 there is an overlap of the angles specifying the distortion free area and the area to be covered by the obscuration. As it is not possible to check light sources for distortions in this overlap area, a clarifying note should be introduced.

Moreover, the required minimum area to be covered by the obscuration is to be clarified. The angle γ_3 for categories H7, H8, H11, H14 and angle γ for H13 defines the distance to the reference plane to which the obscuration shall at least extend.

A value of the minimum filament length, which is usually specified, is missing for H12. It is proposed to introduce a minimum value of 4.8 mm, which value has been derived from the existing mean and maximum value of filament length.
