

GTB

**Substitute Light Sources
Equivalence Reports for C5W and R5W**

In support of document ECE/TRANS/WP.29/GRE/2019/9

Equivalence Report

C5W

According to Regulation No. 128
Equivalence Requirements GRE-80-02

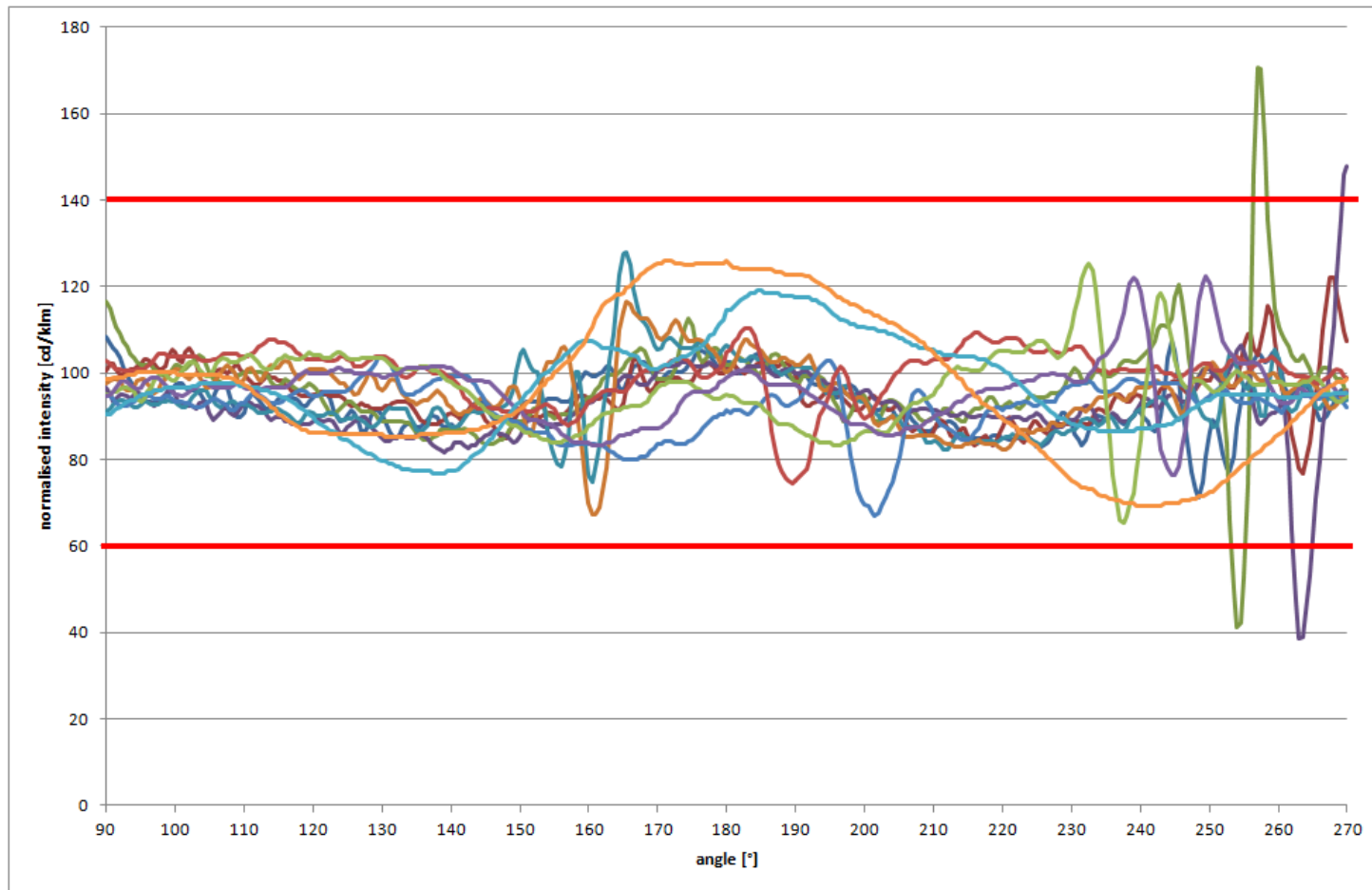
Checklist for Equivalence of Parameters

C5W

<u>Parameters</u>	<u>Check</u>
3.1. Parameters with the same values	
3.1.1. Holder (as in in accordance with the given IEC Publication 60061)	✓
3.1.2. Maximum lamp outline dimensions	✓
3.1.3. Electrical connector	n/a
3.1.4. Test voltage	✓
3.1.5. Objective luminous flux	✓
3.1.6. Colour of emitted light	✓
3.1.7. Light centre length	✓
3.1.8. Distortion free zone (if any)	n/a
3.2. Parameters with similar values	
3.2.1. Normalized luminous intensity distribution	see page 4 ✓
3.2.2. Size and position of the light-emitting-area	see page 5 ✓
3.2.3. Homogeneity of the light-emitting-area	see page 5 ✓
3.3. Parameters with different values	
3.3.1. Maximum electrical power consumption	2W ✓
3.3.2. The minimum voltage range	R128 Annex 4 (9-16V) ✓
3.3.3. The spectral content	R128 par. 3.12.4.** [in combination with functional interlock] ✓
3.3.4. Functional interlock between light source and application	IEC Cap: SVX8.5 ✓
3.4. Additional parameters	
3.4.1. Thermal behaviour	R128 Annex 4 ✓
4. Requirements regarding failure detection	
4.1 Failure detection	75 170 mA ✓
4.2 Failure behaviour	below 25 mA ✓
	no flash R128 3.12.3.** ✓

Normalised Intensity Distribution

C5W



Size, Position and Homogeneity of the Light-Emitting-Area C5W

R37: Filament length : **7.5mm min**, **15 mm max**

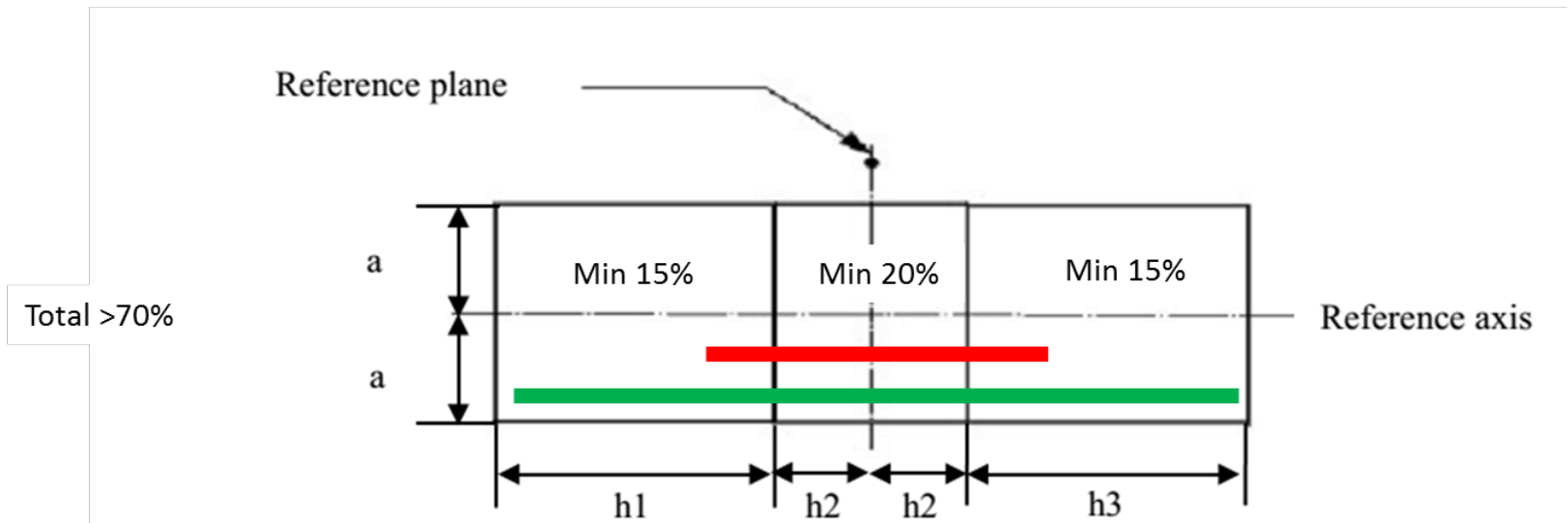


Table 2: Dimensions of the box system in figure 2 (Front, rear, top and bottom view)

Reference	a	h1, h3	h2
Dimension (mm)	2.5	6	2

Equivalence Report

R5W

According to Regulation No. 128
Equivalence Requirements GRE-80-02

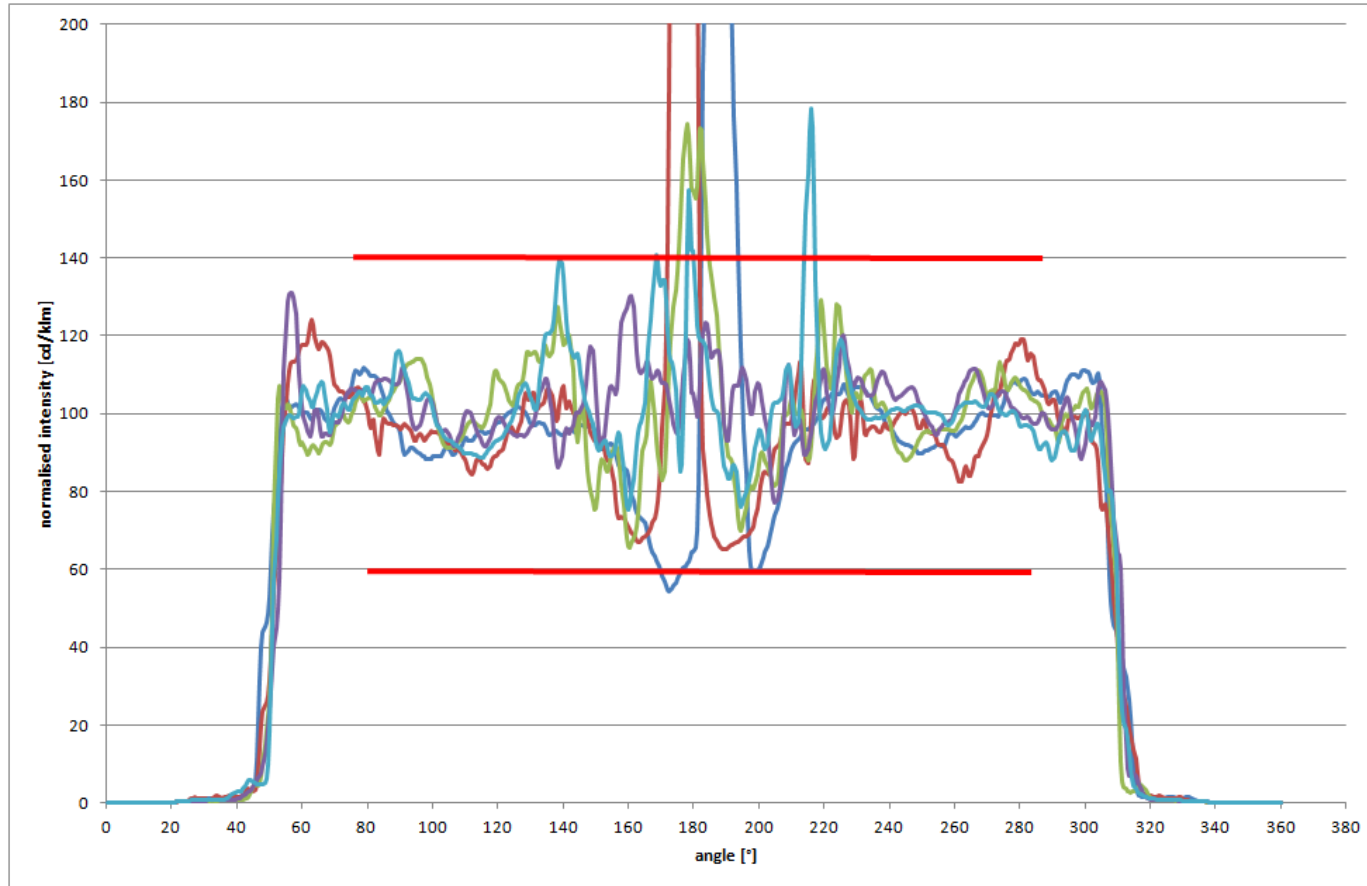
Checklist for Equivalence of Parameters

R5W

<u>Parameters</u>	<u>Check</u>
3.1. Parameters with the same values	
3.1.1. Holder (as in accordance with the given IEC Publication 60061)	✓
3.1.2. Maximum lamp outline dimensions	✓
3.1.3. Electrical connector	<i>n/a</i>
3.1.4. Test voltage	✓
3.1.5. Objective luminous flux	✓
3.1.6. Colour of emitted light	✓
3.1.7. Light centre length	✓
3.1.8. Distortion free zone (if any)	<i>n/a</i>
3.2. Parameters with similar values	
3.2.1. Normalized luminous intensity distribution	<i>see page 8</i> ✓
3.2.2. Size and position of the light-emitting-area	<i>see page 9</i> ✓
3.2.3. Homogeneity of the light-emitting-area	<i>see page 9</i> ✓
3.3. Parameters with different values	
3.3.1. Maximum electrical power consumption	<i>2W</i> ✓
3.3.2. The minimum voltage range	<i>R128 Annex 4 (9-16V)</i> ✓
3.3.3. The spectral content	<i>R128 par. 3.12.4.** [in combination with functional interlock]</i> ✓
3.3.4. Functional interlock between light source and application	<i>IEC Cap: BA15s-3(110°)</i> ✓
3.4. Additional parameters	
3.4.1. Thermal behaviour	<i>R128 Annex 4</i>
4. Requirements regarding failure detection	
4.1 Failure detection	<i>75 170 mA</i> ✓
4.2 Failure behaviour	<i>below 25 mA</i> ✓
	<i>no flash R128 3.12.3.**</i> ✓

Normalised Intensity Distribution

R5W



Size, Position and Homogeneity of the Light-Emitting-Area R5W

R37: no requirements for filament length and no box definition

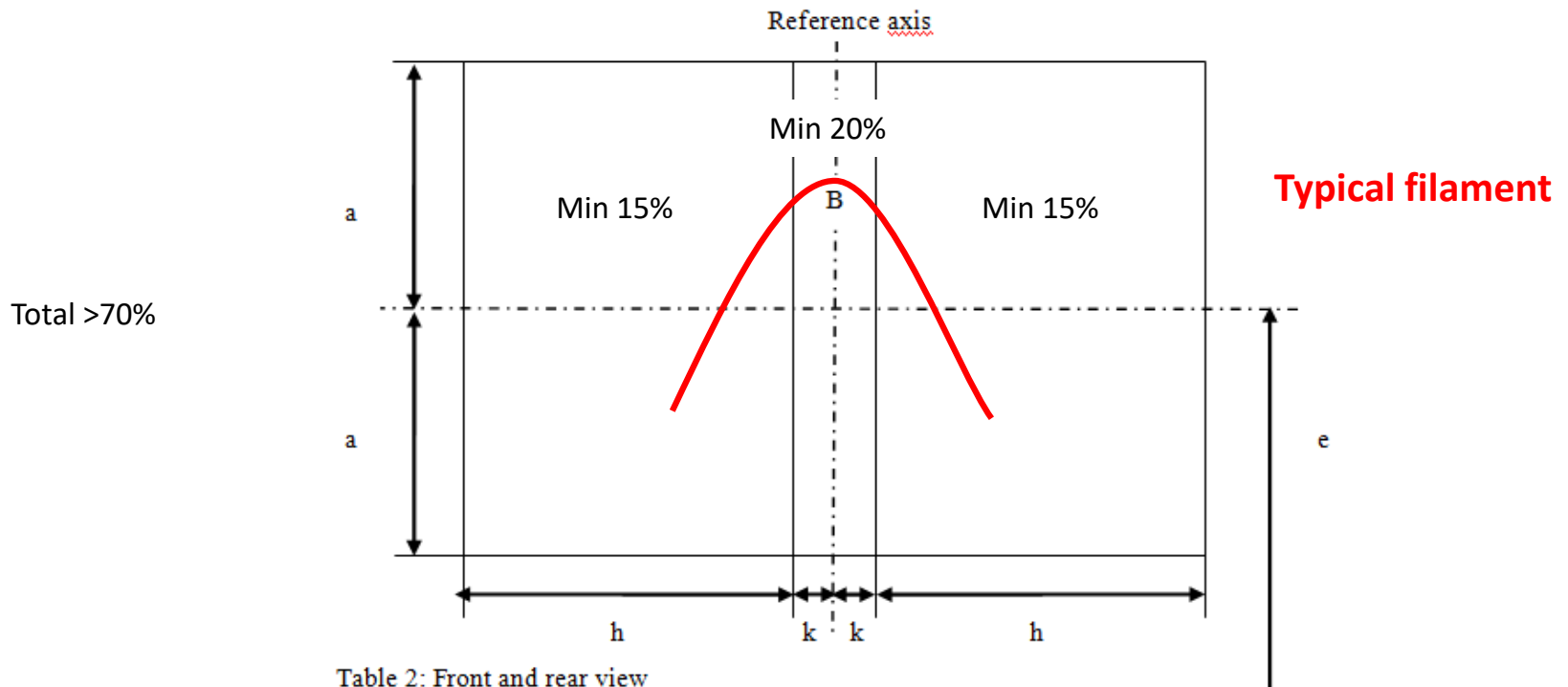


Table 2: Front and rear view

Reference	a	h	k
Dimension (mm)	3	4	0.5

END