

**GTB**

**Substitute Light Sources  
Equivalence Reports for W5W and WY5W (12V and 24V)**

In support of document ECE/TRANS/WP.29/GRE/2019/10

# Equivalence Report

W5W, WY5W (12V, 24V)

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

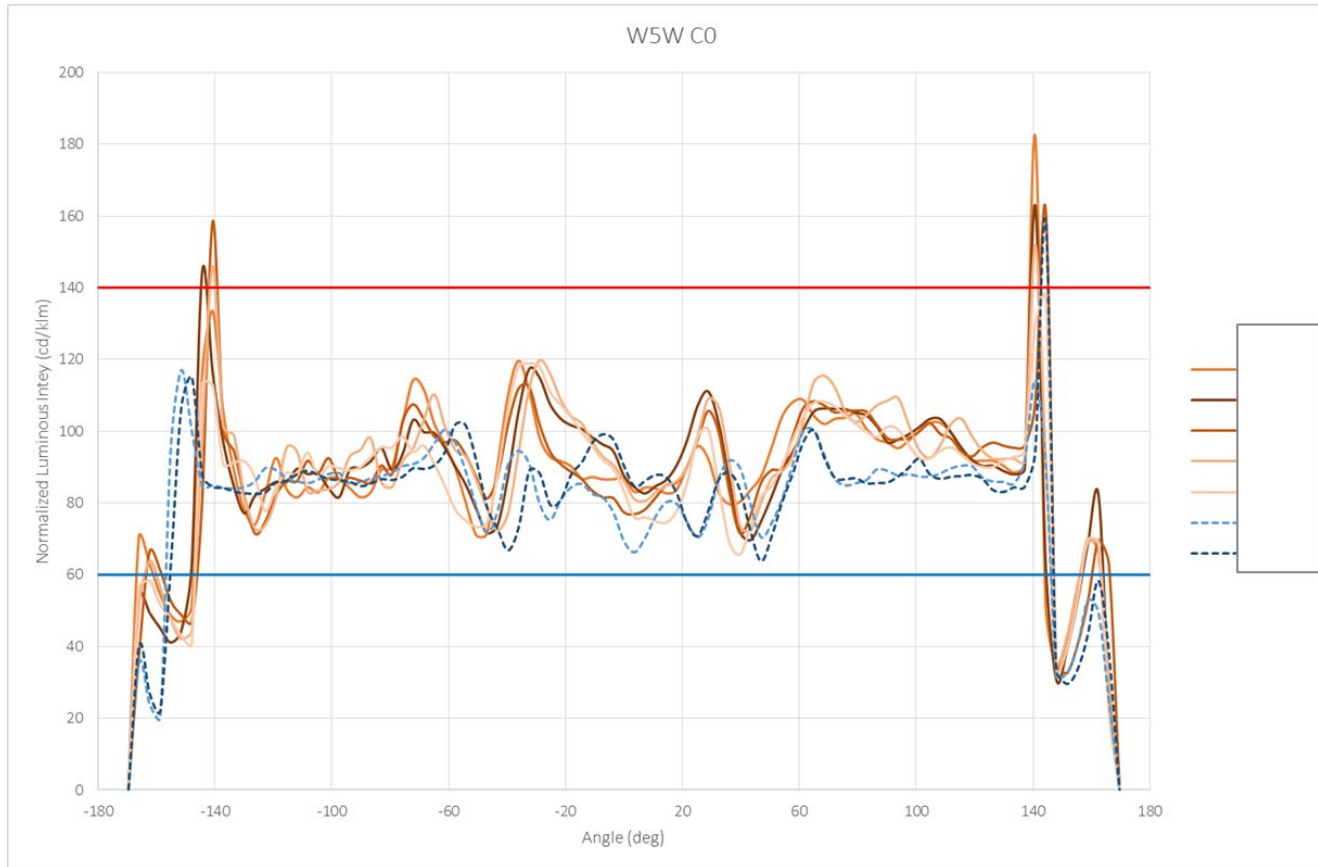
# Checklist for Equivalence of Parameters

## W5W, WY5W (12V and 24V)

Parameters	Check
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 and 5 ✓
3.2.2. Size and position of the light-emitting-area	see page 6 ✓
3.2.3. Homogeneity of the light-emitting-area	see page 6 ✓
3.3. Parameters with different values	
3.3.1. Maximum electrical power consumption	2W for 12V (2.5W for 24V) ✓
3.3.2. The minimum voltage range	R128 Annex 4 (9-16V (12V) and [16]-32V(24V)) ✓
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: WX2.1x9.5d ✓
3.4. Additional parameters	
3.4.1. Thermal behaviour	R128 Annex 4 ✓
4. Requirements regarding failure detection	
4.1 Failure detection	30 .... 185 mA ✓
4.2 Failure behaviour	below 10 mA ✓
	no flash R128 3.12.3.** ✓

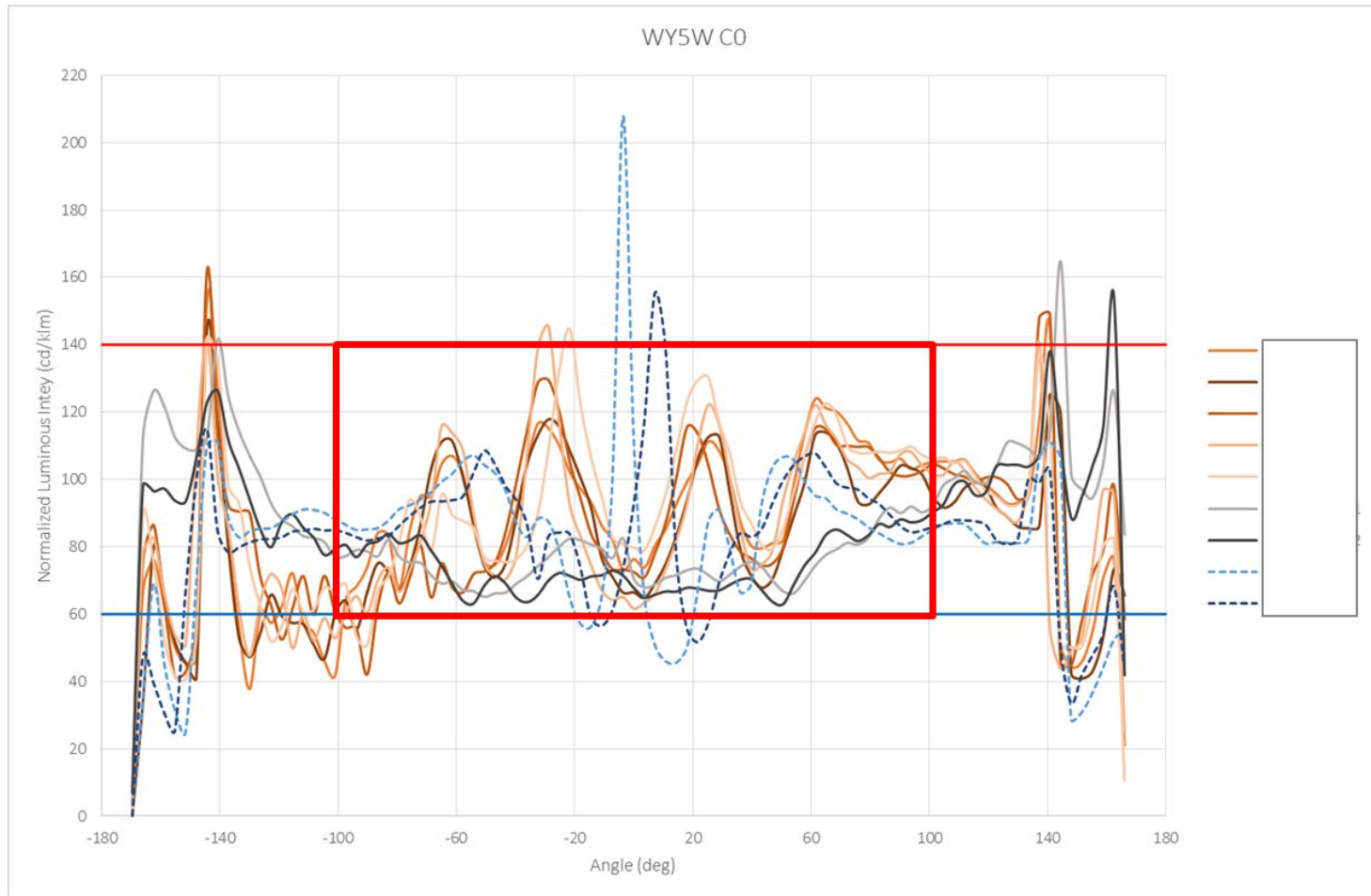
# Normalised Intensity Distribution

## W5W



# Normalised Intensity Distribution

## WY5W



# Size, Position and Homogeneity of the Light-Emitting-Area **W5W, WY5W**

Where:

$A=A1+A2+A3$  and  $B=B1+B2+B3$  and  $C=C1+C2+C3$

The proportion of the total luminous flux emitted into the viewing direction from the area(s)

A, B and C together shall be 70 per cent or more

B shall be 20 per cent or more

A and C shall each be more than 15 per cent

A1, B1 and C1 together shall be less than 50 per cent

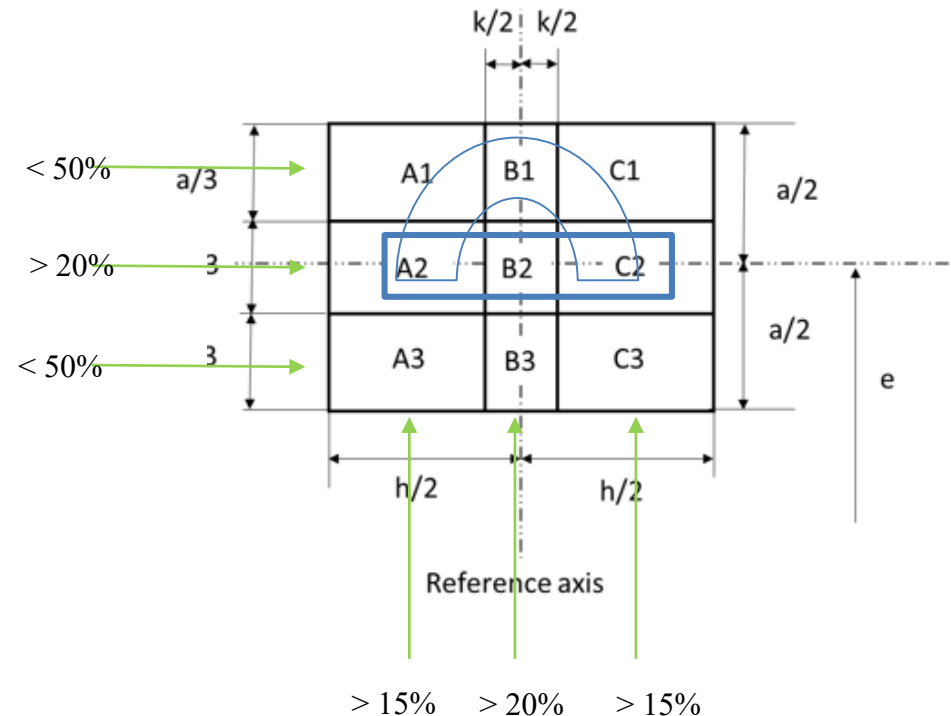
A2, B2 and C2 together shall be more than 20 per cent

A3, B3 and C3 together shall be less than 50 per cent

Table 2  
Dimensions of the box system in figure 2

Dimensions in mm	$a$	$h$	$k$
All views (as specified above)	6.0	8.0	1.5

Figure 2  
Box definition of the light emitting area



END