

GRE Task Force LED Substitutes / Retrofits (TF SR)

Status report for GRE81

2019-04-12

K. Manz, DE (Chairman)

Ph. Bailey, UK (Vice-Chairman)

Ph. Plathner, IEC (Secretary)

Meetings

- 1st meeting: 2017-12-14, Aachen (report: TFSR-01-11)
- 2nd meeting: 2018-02-06, Bonn (report: TFSR-02-05)
- 3rd meeting: 2018-03-27, Brussels (report: TFSR-03-09)
- 4th meeting: 2018-06-06 Brussels (report: TFSR-04-09)
- 5th meeting: 2018-01-30 Aachen (report: TFSR-05-09)
- 6th meeting: 2019-05-15 ~~Brussels~~ Paris (scheduled)

Two-step approach:

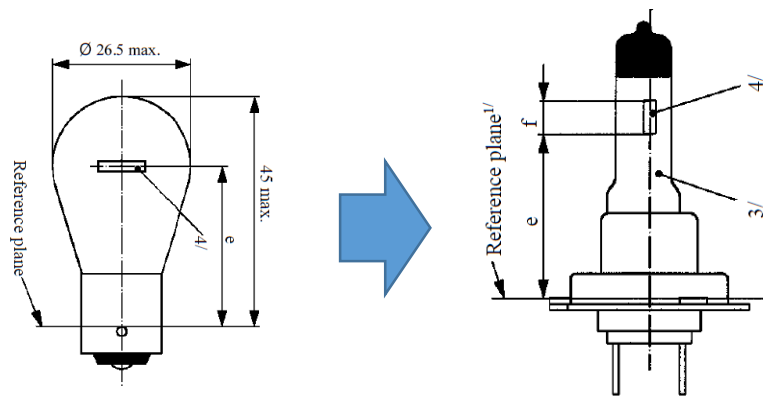
- Step 1: LED Substitutes
 - Step 1A: light signaling applications
 - Step 1B: road illumination applications
- Step 2: LED Retrofits
 - Technical items
 - Administrative items

Step 1A: LED Substitutes for light signaling applications

- Package of documents approved by GRE80
 - R128
 - RE5
 - R-LSD
 - R-Installation
- Approved by WP29 in March 2019

Step 1B: LED Substitutes for road illumination applications

- Detailed discussion started in the 5th TFSR meeting in Aachen on 30 January 2019
- Equivalence criteria have to be extended



TFSR-05-04

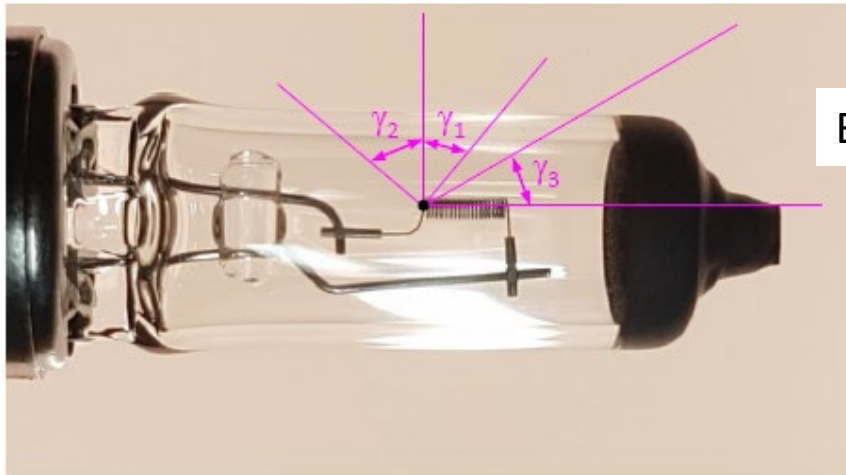
- Specific intensity distribution
- Specific homogeneity of LEA
- Contrast
- ...

GRE-80-02

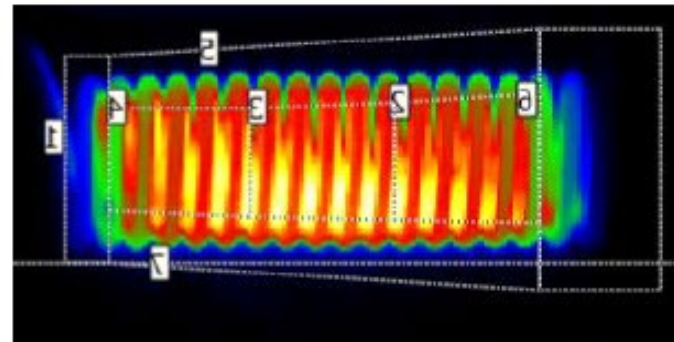
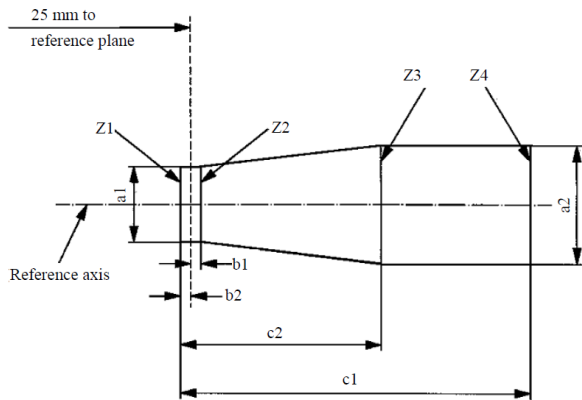
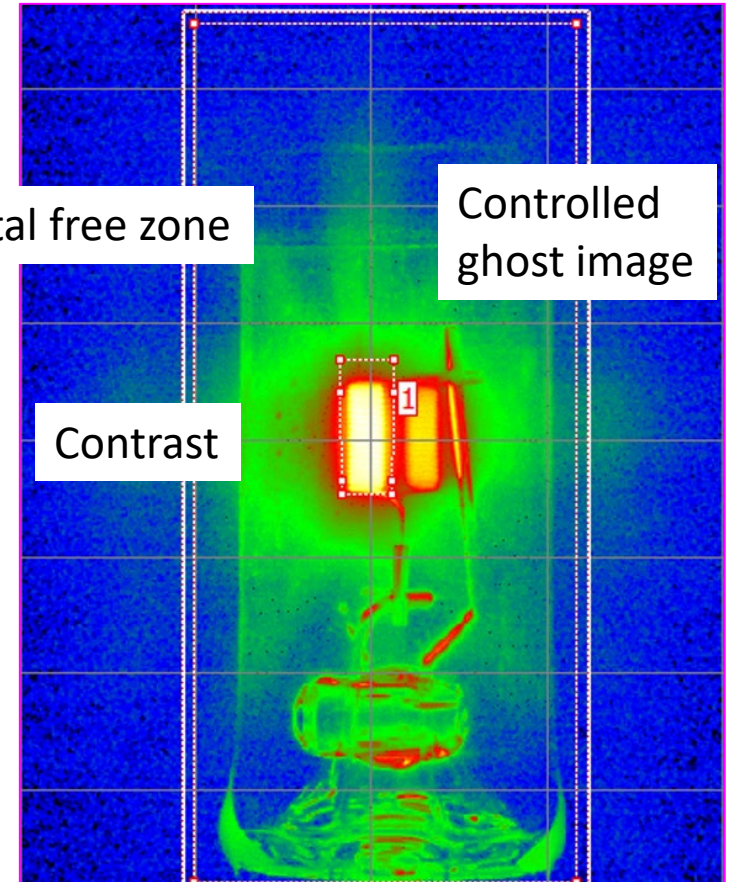
- Test voltage
- Luminous flux
- ...
- Intensity distribution
- Homogeneity of LEA
- ...
- Spectral content
- Thermal behavior
- ...

Specific aspects for road illumination

Distortion free area

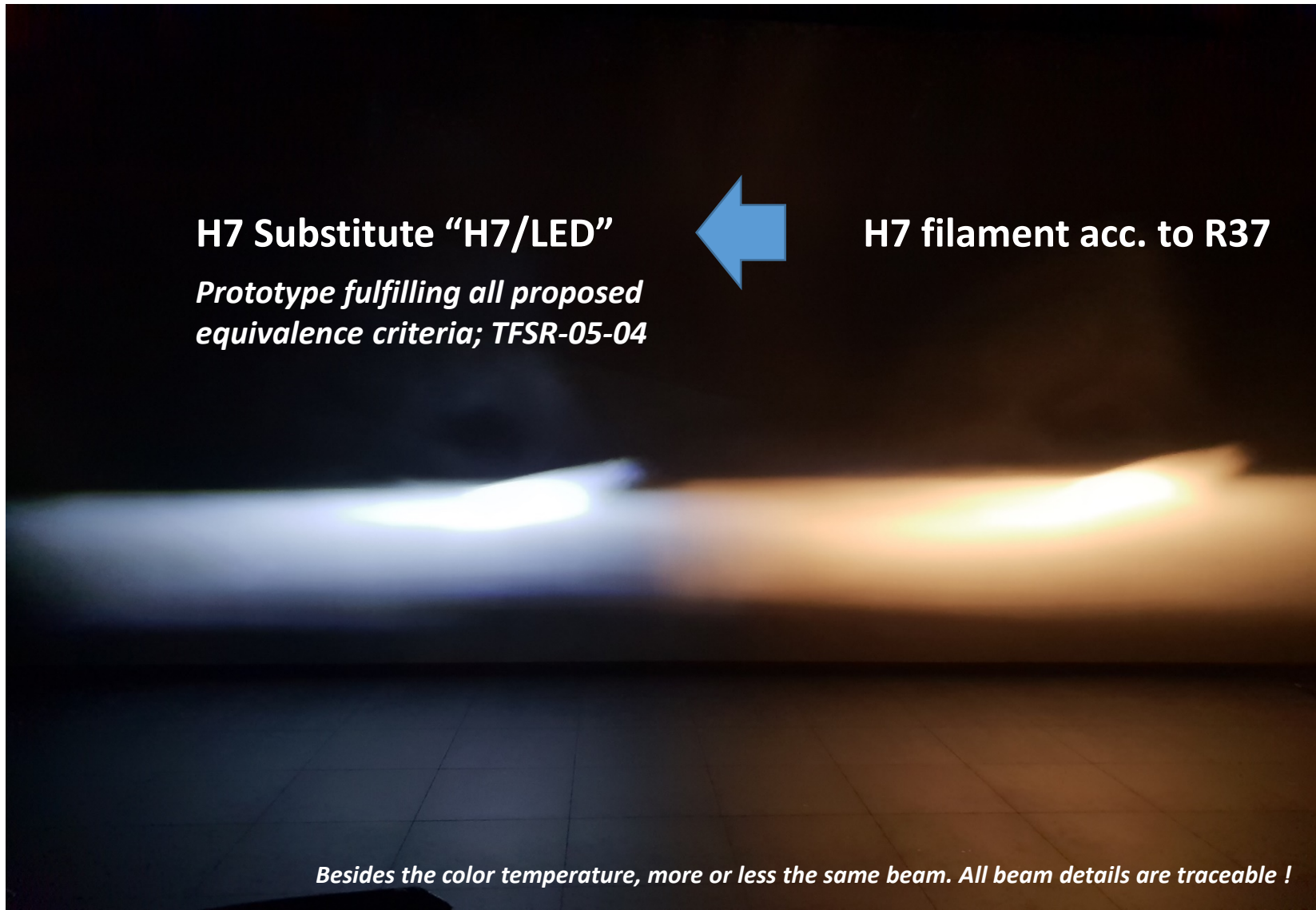


Black top



Tighter tolerances on filament shape, dimension, position and homogeneity

Demonstration of H7 headlamp



Next Steps for GRE TF S/R

- LED Substitutes for road illumination (*Step 1B*)
 - Next meeting scheduled (~~Brussels~~ *Paris*, 15 May 2019)
 - Submit formal documents to GRE82
 - Extended equivalence criteria document
 - RE5 with first category sheet
 - R-RID amendment
- LED retrofits (*Step 2*)
 - Technical equivalence
 - Relationship between UN/ECE and national/regional laws (“legal equivalence”)
 - Development of standardised failure detection