

GRE Task Force on Substitutes / Retrofits (TF S/R)**17th meeting**

15 June 2023, 10:00 – 16:00 CEST

Lumileds Germany GmbH
 Philipsstr 8
 D-52068 Aachen
 Germany

DRAFT REPORT

		Documents
1	Welcome and opening remarks	
	<p>Mr. Bailey, the chair of the meeting, opened the meeting and welcomed the participants.</p> <p>Mr. Schlager, on behalf of Lumileds, welcomed the participants to Aachen and gave some organisational information.</p> <p>It was noted that an Online session vis TEAMS will be made available in the afternoon, for those who could not join in person.</p>	
2	Organisational issues	
	<p>Apologies:</p> <p>R. Krautscheid, DE</p> <p>M. Fischer, DE</p> <p>M. Grainger, OICA</p> <p>B. Böttcher, FIA</p>	
2.1	Introduction of participants	
	<p>The participants introduced themselves and were noted by the secretary.</p> <p>Ph. Bailey, UK, co-chair</p> <p>K. Manz, DE, co-chair</p> <p>P. Plathner, IEC, secretary</p> <p>D. Rovers, NL</p> <p>W. Schlager, IEC</p> <p>B. Terburg, GTB, SAE</p> <p>J. Schug, GTB</p> <p>W. Halbritter, IEC</p> <p>R. Bertram, IEC expert</p> <p>F. Wagner, IEC expert</p> <p>Th. Targosinski, PL (online, only in the afternoon)</p> <p>Th. Bauckhage, CLEPA (online, only in the afternoon, partly)</p> <p>J-M Prigent, OICA (online, only in the afternoon)</p>	

	Au. Bertel, OICA (online, only in the afternoon)	
3	Adoption of the agenda	TFSR-17-01rev1
	Mr Schlager announced that he had prepared an additional presentation to be shown under agenda item 7.1 The updated agenda was adopted.	
4	Report of 16 th meeting	TFSR-16-04
	The report was reviewed on the screen together and confirmed.	
5	Review of the discussion at GRE 88	GRE-88-13 Report GRE-88
	Document GRE-88-13 was briefly reviewed on the screen together and the discussion and feedback of GRE-88 was reviewed. Also the GRE88 report was noted.	
6	New equivalence approach for high-flux LEDr categories	
6.0	Basic technical considerations for bi-direction designs Including lab demo	TFSR-16-02
	Document TFSR-16-02 was reviewed in some detail, focussing on the halogen light source emission characteristics compared with a bi-directional LEDr approach. Also the principles of the reflector optics were reminded on the basis of this document, and it was explained how the demonstrators in the lab related to these general considerations.	
	The participants then moved to the lighting laboratory and several H7 headlamp (low beam) demonstrators were shown. All the shown headlamps had approvals according R112. Photos were taken of this demonstration and the photos, including some explanations, were compiled into a presentation after the meeting by the organisers of the demonstration, see TFSR-17-05, which included <ul style="list-style-type: none"> • Basic principles of lights source interaction with reflector optics (pin-hole images) • Regulatory requirements for the combination of replaceable light sources and headlamps • LEDr 2-sided design performance 	TFSR-17-05
	Mr. Bailey, Mr. Rovers and Mr. Manz confirmed after the demonstration that this demonstration does help to build confidence and gives re-assurance in the performance of bi-directions LEDr. Also taking into account the many headlamps which had been tested as part of the national approval process for Germany and France. Based on the question, how such bi-directional light sources could be adequately described in an RE5 sheet, it was decided to go to agenda item 7.1	
6.1	Poland Comments	TFSR-16-03
	This document was not discussed due to lack of time. It was agreed to keep this document on the agenda for the next meeting.	
6.2	OICA questions / comments	TFSR-17-02

	<p>Document TSFR-17-02 was discussed partially.</p> <p>It could be clarified that the type approval of the headlamp was not affected by the activity of modifying the RE5 category sheet.</p> <p>It was confirmed that there were no “administrative concern” when switching from “R37 approved halogen lamp” to “R37 approved LED lamp” of the same category.</p> <p>It was confirmed that the headlamp approval and also COP testing is carried out with Halogen etalon light sources.</p> <p>The “legal equivalence” between “R37 approved Halogen light source of e.g. category H11” with “R37 approved LED light source of category H11” was again confirmed, re-confirming that the introduction of LED replacement light sources into R37 did not have any impact on the headlamp approval procedure and the use of LEDr does not trigger an approval extension.</p> <p>Concerns were raised by the experts from OICA that a headlamp equipped with an R37 approved LED replacement lamp may not fulfil all the photometric requirements defined by the car maker (so called “OEM requirements”).</p> <p>This concern was noted; however it was reminded that the focus of the discussion should be on UNECE regulated, safety related topics, not additional OEM requirements.</p> <p>It was further reminded that in case of replacement light sources, it is the car owner who makes the decision about the replacement product. This is also the case for halogen lamps, where different versions are available e.g. longlife version or high performance version; also with halogen replacement light sources, the choice of light source version will have an effect on beam performance, colour temperature, lifetime etc and this same principle also applies when deciding between halogen or LEDr light source.</p>	
7	R.E.5	
7.1	H11 category sheet changes	
	<p>Mr. Schlager introduced a presentation to explain the needed changes to the existing H11-LEDr sheet for a bi-directional LEDr design, as shown during the laboratory demonstration.</p> <p>The document was distributed after the meeting with document number TFSR-17-03.</p> <p>It was agreed to replace the word “embodiment” by “configuration”.</p> <p>Main changes needed to enable bi-direction emission:</p> <ul style="list-style-type: none"> • LEA check only from view “A” and “-A” • Additional control parameter “z” for the distance of the LEDs in view B • Modified intensity distribution to account for bi-direction emission with “two spheres” 	TFSR-17-03
8	Next meeting(s)	
	<p>11 July at 12:00 to 14:00</p> <p>Online meeting only</p>	
9	Closure	
	The chair thanked the participants and closed the meeting	