

**GRE Informal Working Group on  
Simplification of the UN Lighting and Light Signalling Regulations (SLR)**

**69<sup>th</sup> meeting**

Tokyo, 10-12 September 2024

**REPORT**

		Documents
1.	<p><b>Welcome and opening remarks</b></p> <p>The Chairman opened the meeting by welcoming all the participants to the 69<sup>th</sup> SLR session. He noted with pleasure that this is the third time the SLR has met in Tokyo and thanked Japan for the excellent cooperation, demonstrated by the considerable support provided to the SLR over the years.</p> <p>Mr. Ryuichi Ito (MLIT) officially welcomed SLR to Tokyo and acknowledged the important achievements made by SLR over the years. He also invited all the SLR participants to a reception, on 11 September 2024, to celebrate the 10<sup>th</sup> anniversary of SLR, whose first meeting was held exactly on 11 September 2014.</p>	
2.	<p><b>Introduction of participants and organisations</b></p> <p>A list of all participants is available in Annex 1 to this Report.</p>	
3.	<p><b>Adoption of the agenda</b></p> <p>The agenda was adopted with the insertion of new documents. A revised agenda, reflecting the agreed modifications, was circulated as document SLR-69-03/Rev.2.</p>	<b>SLR-69-03/Rev.1</b>
4.	<p><b>Approval of the reports of the previous sessions</b></p> <ul style="list-style-type: none"> <li>- Report 63<sup>rd</sup> meeting - Brussels (BE), 30 August - 1 September 2023</li> <li>- Report 64<sup>th</sup> meeting - Brussels (BE), 8-10 November 2023</li> <li>- Report 65<sup>th</sup> meeting - Brussels (BE), 13-15 December 2023</li> <li>- Report 66<sup>th</sup> meeting - Brussels (BE), 7-9 February 2024</li> <li>- Report 67<sup>th</sup> meeting - Brussels (BE), 3-5 April 2024</li> <li>- Report 68<sup>th</sup> meeting - Brussels (BE), 26-29 July 2024</li> </ul> <p>SLR approved the reports on the 63<sup>rd</sup>, 64<sup>th</sup> and 65<sup>th</sup> sessions without modifications. The approval of the remaining SLR reports was postponed to the next session.</p> <p>The representative of OICA suggested to start issuing the pending reports from the most recent one and going back, since the availability of old reports after much time is only for the records but cannot be used by the experts for the progress of work.</p> <p>The Chairman acknowledged the need to issue all the reports without exception and informed that efforts are made to shorten the list of pending reports. Nevertheless he recalled that, shortly after each SLR session, the Secretary always issues follow-up notes summarising the main conclusions, arguing that the tasks to be done and the deadlines are always timely available. This always allowed SLR to deliver inputs to GRE in due time over the years.</p>	<p><b>SLR-63-10</b></p> <p><b>SLR-64-12</b></p> <p><b>SLR-65-11</b></p> <p><b>SLR-66-12</b></p> <p><b>SLR-67-14</b></p> <p><b>SLR-68-17</b></p>

	<p>In order to allow a faster issuance of the reports, the Vice-Chairman suggested to reduce the details, providing only the conclusions rather than reflecting all the debates. As an alternative, the follow-up notes could be expanded and converted into SLR documents for information on the website.</p> <p>The Secretary apologised for the delays in issuing the reports and thanked the participants for the constructive suggestions provided, that will be used to improve the situation.</p>	
5.	<p><b>Correction of errors in Reg. 150</b></p> <p>Mr. Ewald introduced document SLR-69-06 providing a comprehensive explanation of the identified errors which need to be corrected.</p> <p>The “Homework Team R-150” will draft a proposal for a Supplement to R150 (both 00 and 01 series) for consideration at SLR-70. This proposal will address the corrections indicated in doc. SLR-69-06 as well as the references to the tables for coefficient of retro-reflection in Par. 4.2. of R150-01 (references to Table 9 and 10 should be to Table 6 and 7 respectively).</p>	SLR-69-06
6.	<p><b>GTB proposal to align mounting height requirements between parking lamp and front position lamp</b></p> <p>The expert from GTB briefly recalled the situation about the proposal (SLR-68-02) to align the mounting height requirements for parking lamp (Par. 6.12.4.2.) with those of front position lamp (Par. 6.9.4.2.). He reported that GTB will further discuss the proposal, and its possible extension to the previous series of amendments, and will report at SLR-70.</p> <p>Depending on the outcome of discussion at SLR-70, GTB may be invited to consider the submission of this proposal to GRE as a regular amendment to R48.</p>	SLR-68-02
7.	<b>Stage 2 / Step 2</b>	
7.1	<p><b>Documents for information and reference only</b></p> <ul style="list-style-type: none"> <li>- Grouping and prioritising of topics</li> <li>- Dutch presentation on Apparent surface</li> <li>- SAE presentation on EPLLA “Effective Projected Luminous Lens Area”</li> <li>- SAE justification for minimum 50 cm<sup>2</sup> required EPLLA for a stop and rear turn signal lamps (<i>for information, ref. UMTRI-98-19</i>)</li> <li>- Dutch input on specific items: Apparent surface</li> <li>- Appearance of signal lamps (experimental study in 2011)</li> <li>- Apparent surface; Measurement approach</li> <li>- Dutch discussion document on Apparent Surface</li> <li>- Apparent surface and angles of geometric visibility in R48</li> <li>- Use cases allowed in Germany according to national legislation</li> </ul>	SLR-64-01/Rev.1 SLR-54-08 SLR-54-14 SLR-68-16  SLR-57-03 SLR-58-05 SLR-61-05 SLR-61-03 SLR-62-14 SLR-65-01
7.2	<p><b>Harmonisation of requirements – “Prohibited if not allowed”</b></p> <ul style="list-style-type: none"> <li>- Proposal for R48, as amended during 64<sup>th</sup>, 65<sup>th</sup>, 67<sup>th</sup>, 68<sup>th</sup> SLR sessions; further consideration</li> </ul> <p>SLR continued the discussion, on the basis of doc. SLR-69-04, concerning the introduction of provisions in Reg. 48, to clarify that devices not allowed in the regulation are prohibited (in line with Regs. 53 and 74).</p> <p>The representative of OICA reiterated that there is no need for this amendment since there is no problem. Among the proposed options, “B” was the one OICA preferred as the option “A” could lead to discussion with type-approval authorities.</p> <p>The representative of Finland pointed out that it would be important to have a clarification in the text and suggested to seek advice to GRE as part of the SLR status report.</p>	SLR-69-04

	<p>The representative of EC agreed that what is not mentioned in the regulation should not be allowed. He also recognised the importance to discuss this matter at GRE.</p> <p>The representative of CEMA agreed to clarify the text but observed that maybe it would be more suitable to insert the proposed text under Par. 3.</p> <p>The discussion will continue at GRE-91 on the basis of the summary document prepared during SLR-69 (see doc. SLR-69-14). This document will be uploaded on the SLR website by 13 September 2024 for final check and editorial polishing until 19 September 2024. It will then be submitted to GRE-91 for guidance and feedback.</p>	
7.3	<p><b>Technological neutrality for light sources</b></p> <ul style="list-style-type: none"> <li>- Paper to support the proposal (<i>for information</i>)</li> <li>- Replaceability of light source modules (<i>for information</i>)</li> <li>- Revised proposal for Regs. 48, 148 and 149, based on SLR-67-03/Rev.1 and SLR-67-11 from Japan</li> <li>- How to implement lifetime requirements</li> <li>- Decision on requesting GTB to further discuss the lifetime requirement and associated “data sheet” in GTB rather than in SLR</li> </ul> <p>After a brief status report provided by the Chairman, the participants confirmed the SLR intention to pursue technological neutral requirements. Nevertheless, it was observed that Type-Approval Authorities, in case of doubts, would request to repeat the testing.</p> <p>The participants commented that lifetime requirements were introduced to protect consumers but there would be no need to introduce lifetime requirements for LEDs since they already fulfil them. Moreover, there are other parts that can fail such as electronics, heat-sink, etc. A clarification of the proposed requirement is therefore necessary to avoid misunderstandings associated with the lifetime requirements that may lead to unnecessary repetition of testing.</p> <p>SLR agreed to continue the discussion at SLR-70 on the basis of input from GTB. Discussions at SLR-68 and SLR-69 will also be taken into account.</p>	<p><b>SLR-65-04</b>  <b>SLR-65-05</b>  <b>SLR-68-10</b></p> <p><b>SLR-68-11</b></p>
7.4	<p><b>Improvements of the definitions in Regs. 53 (and 74)</b></p> <ul style="list-style-type: none"> <li>- IMMA updated document, based on SLR-68-15</li> </ul> <p>The expert from IMMA introduced an updated comparison table between the definitions in Reg. 48-09 and Reg. 53-04 (see doc. SLR-69-10).</p> <p>IMMA will prepare for SLR-70 a draft proposal for Reg. 53, based on SLR-69-10 and taking into account the comments made at SLR-69. Par. 2.5 will be finalised after conclusion of the discussion on apparent surface but will remain a separate definition. IMMA will also draft for SLR-70 a table, based on SLR-69-10, to compare definitions between R48-09 and R74-03.</p>	<b>SLR-69-10</b>
7.5	<p><b>Baseline document for Stage 2 / Step 2 work on Reg. 48</b></p> <ul style="list-style-type: none"> <li>- Latest draft text, based on SLR-68-01/Rev.1</li> <li>- Collection of editable Figures</li> </ul> <p>The Secretary presented doc. SLR-69-05 pointing out the main improvements made to the text. Regarding the insertion of a brief introductory paragraph at the start of Par. 2 to provide a general reference to the R.E.3, instead of having several footnotes throughout the regulation, SLR expressed general support for the new text suggested by the Secretariat. However, it was decided to seek advice from GRE on the use of a dynamic reference instead of referring to a specific revision of R.E.3.</p> <p>SLR also considered an alternative text for Par. 4.2, suggested by the Secretariat (in line with the new 07 series of amendments to Reg. 10). The text was improved during the session and finally endorsed by SLR. It was decided to seek advice from GRE on whether it would be useful to consider a “horizontal correction” - issued by the Secretariat - and applicable in a consistent way to all UN Regulations.</p>	<p><b>SLR-69-05</b>  <b>SLR-69-07</b></p>

	<p>It may also be useful to know how other GRs are dealing with this matter since the existing text of Par. 4.2 was found in various UN Regulations not only on lighting (e.g. R145, R162, R166).</p> <p>SLR furthermore drafted an improved version of Par. 5.18. All SLR members were invited to review the proposed amendments in the context of the intended meaning of the word “only” at the end of the paragraph.</p> <p>All the improvements agreed so far, as well as several comments and suggestions of improvements for consideration have been reflected in doc. SLR-69-05/Rev.1 which represents the latest baseline document for Reg. 48. This is a living document that will be updated regularly after each GRE and WP.29 session to reflect the latest text. This document shall be used by SLR member as a basis for any further proposal to SLR concerning Reg. 48.</p> <p>The next revision of this document will also include the updated summary tables of lamp positioning and geometric visibility (Annexes 17 and 18) as reproduced in doc. SLR-68-13/Rev.3 (<i>see item 7.8 below</i>).</p> <p>Advice from GRE will be sought on the proposed new preamble to the definitions (Par. 2) and on the approval number information (Par. 4.2). Both points will be mentioned in the SLR progress report to GRE-91.</p>	
7.6	<p><b>Baseline document for Stage 2 / Step 2 work on Regs. 53, 74, 86</b></p> <p>This item was put on the agenda as a placeholder for future discussion.</p>	
7.7	<p><b>Apparent surface</b></p> <ul style="list-style-type: none"> <li>- Updated input by Netherlands</li> <li>- Dutch paper addressing OICA comments on luminance threshold (SLR-67-10)</li> <li>- OICA comments on apparent surface by luminance measurement</li> <li>- Special SLR meeting on “Apparent surface”</li> <li>- Other proposals and ideas: <ul style="list-style-type: none"> <li>- Apparent surface measurement; New proposed method by Dr. Kooß</li> </ul> </li> </ul> <p>The expert from Netherlands provided a comprehensive introduction of the updated input (doc. SLR-69-01) pointing out all the improvements made to the previous document. He explained that the proposed luminance method for signalling lamps is intended as an alternative to the existing method, for which simplified wording is proposed (Par. 2.10.2.1.). He also reported that the proposal was still based on Reg.48-08 but the future drafts will need to be updated to the 09 series.</p> <p>Document SLR-69-02 was also presented to show how the OICA comments in SLR-67-10 have been addressed by Netherlands.</p> <p>Document SLR-68-09 was not discussed.</p> <p>The expert from Netherlands will prepare for SLR-70 an updated proposal, based on SLR-69-01, taking into account the discussion and comments at SLR-69. A paper addressing the OICA comments and concerns indicated in doc. SLR-69-12 will also be prepared for SLR-70.</p> <p>All SLR members were invited to study these documents in preparation for the discussion that will continue at the Special session on “Apparent surface”. Any input and ideas for consideration shall be sent to the Secretary prior to SLR-70.</p>	<p><b>SLR-69-01</b>  <b>SLR-69-02</b>  <b>SLR-69-12</b></p> <p><b>SLR-68-09</b></p>
7.8	<p><b>Summary tables of lamp positioning and geometric visibility (Annexes 17, 18)</b></p> <ul style="list-style-type: none"> <li>- Revision of latest proposal (see SLR-68-13/Rev.1)</li> <li>- Addition of references to measurement instructions</li> </ul> <p>The expert from GTB introduced the updated summary tables including references to measurement instructions (doc. SLR-68-13/Rev.2).</p> <p>SLR agreed to introduce these new Annexes in the baseline document for Reg. 48, with the indication that are both intended “for information only”, as reflected in doc. SLR-68-13/Rev.3. This was added to avoid confusion in the unlikely occurrence</p>	<p><b>SLR-68-13/Rev.2</b></p>

	that the values in the tables may differ from those in the main body text (for instance in case of inadvertent oversight in a future amendment). The values in the main body text are legally binding while these new Annexes represent only a useful tool for the users.	
7.9	<p><b>Improve the visibility of DI</b></p> <ul style="list-style-type: none"> <li>- Continue discussion on German proposal (see also SLR-66-09 and SLR-68-14)</li> <li>- New discussion material and examples (including videos) <ul style="list-style-type: none"> <li>- Input from Germany</li> <li>- Input from OICA</li> </ul> </li> </ul> <p>SLR resumed the debate on how to ensure the visibility of DI when activated in conjunction with the stop lamp, on the basis of some real examples (photos and videos) provided by the experts from Germany and from OICA (docs. SLR-69-15 and SLR-69-08 respectively).</p> <p>The participants concluded that the visibility of the DI can be improved by a combination of factors such as distance, intensity and luminance while forcing the DI always in the most outboard position would not solve the problem. The final goal shall be to improve the visibility of the DI without being unnecessary restrictive.</p> <p>The suggestion proposed by Mr. Grigorescu to have minimum 50% of the D.I. apparent surface at more than 25 mm from the STOP, aimed at safeguarding the current good solutions, was made available as SLR-69-13 and will be further considered at the next session.</p> <p>Germany and OICA offered to provide more material and examples, such as photos and videos during night-time from different angles, in addition to SLR-69-08 and SLR-69-15, for consideration at SLR-70.</p>	<p><b>SLR-66-08/Rev.1</b></p> <p><b>SLR-69-15</b></p> <p><b>SLR-69-08</b></p>
7.10	<p><b>Other topics from the “green list” in SLR-64-01/Rev.1</b></p> <ul style="list-style-type: none"> <li>- Par. 5.7. “Grouped, combined or reciprocally incorporated or single lamps”</li> <li>- Harmonise requirements with other regions where possible</li> <li>- Simplify requirements for “sequential (DI) lamps”</li> </ul> <p>The Chairman recalled the remaining topics on the “green list” of priorities for the Stage 2 / Step 2. He explained that this item was put on the agenda as a placeholder, in order not to forget to work also on these topics. He added that it could also be included in the status report.</p>	
8.	<p><b>Draft contents of SLR status report to GRE-91</b></p> <p>The Officers have summarised the main contents that will be included in the SLR status report to GRE-91. They recalled that, as agreed by SLR, the status report will follow the same format of the last sessions but this time it will also include a request for guidance and advice (<i>see item 7.5 above</i>).</p>	
9.	<p><b>Next meeting(s)</b></p> <p>The SLR agreed the following meeting schedule:</p> <ul style="list-style-type: none"> <li>➤ <b>Special session on “Apparent surface”</b> - Hybrid in Brussels, 11 Dec 2024</li> <li>➤ <b>70<sup>th</sup> SLR meeting</b> - Hybrid in Brussels, on 12-13 December 2024</li> <li>➤ <b>71<sup>st</sup> SLR meeting</b> - Hybrid in Brussels, on 5-7 February 2025</li> <li>➤ <b>72<sup>nd</sup> SLR meeting</b> - Hybrid in Brussels, on 9-11 April 2025</li> <li>➤ <b>73<sup>rd</sup> SLR meeting</b> - Hybrid in Brussels, on [4-6 or 10-12 June] 2025</li> </ul>	
10.	<b>Any Other Business</b>	
10.1	<p><b>Japanese Survey on Standards for Automotive Lamps in Aging Society</b></p> <p>Further to the consideration of the Japanese presentation (doc. SLR-69-09), SLR did not consider this important subject to pertain to the Stage 2 / Step 2 simplification, as reflected in document SLR-64-01/Rev.2. Japan was invited to consider providing input to GRE, where this may be well received in the context of the glare discussion.</p>	<b>SLR-69-09</b>

<p><b>10.2</b></p>	<p><b>Proposal for simplification of paragraphs 6.x.4. and 6.x.5.</b></p> <p>The expert from GTB provided a general introduction of the basic idea to simplify paragraphs 6.x.4. and 6.x.5. (doc. SLR-69-11). The participants showed some interest for this proposal and agreed to resume the discussion at SLR-70, pending further input from GTB.</p>	<p><b>SLR-69-11</b></p>
<p><b>10.3</b></p>	<p><b>Implementation of QR code on reflective tapes</b></p> <p>The expert from CLEPA informed about the implementation of QR codes on reflective tapes in India for avoiding counterfeiting products. The participants failed to see the benefits for such a QR code since it would not prevent counterfeiting. It was concluded that the subject does not fall within the scope of SLR.</p>	
<p><b>11.</b></p>	<p><b>Closure</b></p> <p>The Chairman thanked all the participants in person and also those who joined online despite the time difference. A special thanks was addressed to JASIC for the great hospitality, the wonderful reception and for the seamless organisation of the whole event.</p>	

**Participation at 69<sup>th</sup> SLR meeting  
Tokyo + WebEx, 10-12 September 2024**

Participant	Delegation	In person	Online
Mr. Derwin ROVERS	The Netherlands (Chair)	X	
Mr. Aleksander LAZAREVIC	EC (Vice-Chair)	X	
Mr. Davide PUGLISI	GTB (Secretary)	X	
Mr. Yoshiro AOKI	Japan	X	
Ms. Silke BARTON	CLEPA		X
Mr. Thomas BAUCKHAGE	CLEPA		X
Mr. Ziya Metin COSKUN	OICA		X
Mr. Jürgen EWALD	CLEPA	X	
Mr. Sebastian FAHR	OICA		X
Mr. Marc FISCHER	Germany	X	
Ms. Kiyomi FUJIMOTO	Japan	X	
Mr. Teruyoshi FUJITA	Japan	X	
Mr. Takaaki FUKUSHIMA	IMMA	X	
Mr. Manabu FUSHIMI	Japan	X	
Mr. Valter GENONE	GTB		X
Mr. Mark GRAINGER	OICA	X	
Mr. Beny GRIGORESCU	GTB		X
Mr. Kotaro HASHIMOTO	Japan	X	
Mr. Frédéric HAY	CLEPA		X
Mr. Pere HERNANDEZ	IMMA	X	
Mr. Ryuichi ITO	Japan	X	
Mr. Atsushi KAMO	IMMA		X
Mr. Satoshi KANAGAWA	Japan	X	
Mr. Timo KÄRKKÄINEN	Finland	X	
Mr. Yoko KATO	Japan	X	
Ms. Miwako KOBAYASHI	Japan	X	
Mr. Takahiro KOHYAMA	Japan	X	
Mr. Ryutaro KURODA	Japan	X	
Mr. Minoru MARUO	IMMA		X
Mr. Takuya MINAGAWA	IMMA	X	
Mr. Kota NAKAHIRA	Japan	X	
Mr. Seiji NEMOTO	Japan	X	
Mr. Masanobu OGAWA	Japan		X
Mr. Philipp PLATHNER	IEC		X
Ms. Sangthawan SAKOLWAN	Japan	X	
Mr. Michiaki SEKINE	Japan	X	
Mr. Walter SCHLAGER	IEC		X
Mr. Lukas SCHWENKSCHUSTER	GTB		X
Mr. Takuya SHIBAYAMA	IMMA		X
Mr. Soichi SUDO	Japan	X	
Ms. Sonia SUDRIE	OICA		X
Mr. Takashi SUGIURA	IMMA	X	
Mr. Kasai TAKAKI	Japan	X	
Mr. Naoki TAKEDA	Japan	X	
Mr. Tomasz TARGOSIŃSKI	Poland		X
Mr. Naoki TERADA	Japan	X	
Mr. Christophe TISSIER	CEMA		X
Mr. Wilfried VAN LAARHOVEN	The Netherlands	X	
Mr. Hiroaki YAMAGUCHI	Japan	X	
Mr. Shoki YAMAGUCHI	Japan	X	