GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – SUMMARY of the proposed changes

Informal document **GRE-84-15**
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Agenda item 4 (c)

Base document	Paragraph	Content of the proposed change
SLR-28-13	div.	proposal for improved and simplified photometry for all RID functions
SLR-28-08/Rev.1	annexes 5 and 6	introduction of new annexes regarding aiming and cut-off provisions
SLR-29-02/Rev.1		unified provisions for allowed re-aim of the beam patterns
SLR-29-08	par. 3.5 and 6, annexes 2 and 3	draft proposal for CoP provisions
SLR-31-05/Rev.1	par. 3.5 and 6; annexes 5 and 6	CoP provisions – restructering; aiming and cut-off provisions
SLR-32-07/Rev.2		introduction of technologically neutral requirements related to light sources, introduction of activation time for each function

SLR-41-15/Rev.2

GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – SUMMARY of the proposed changes

Base document	Paragraph	Content of the proposed change
SLR-32-13/Rev.1	par. 5.5 and 5.6	photometric requirements for front fog lamps and cornering lamps
SLR-32-14	par. 5.2 and 5.3	proposal for passing beams
SLR-32-15	par. 5.4	symmetrical passing beams
SLR-32-16	par. 5.1	new and harmonized driving beam requirements; introduction of auxiliary driving beam
SLR-34-09	par. 3.3.2.6.3.	module marking
SLR-35-04/Rev.1	par. 4.5.3.2.3. and 4.5.3.2.4.	light source and beam pattern flux
SLR-35-12	table 1	beams and their symbols
SLR-37-08	par. 6	changed CoP tables based on par. 5

GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – SUMMARY of the proposed changes

Base document	Paragraph	Content of the proposed change
SLR-39-11/Rev.1		provisions on matched pairs (system approach for photometric measurements)
SLR-43-06/Rev.1	all photometric tables; annexes 1 and 7	introduction of scientific notation
SLR-46-01/Rev.1, based on SLR-45-03 (R148)	par. 4.5. and 4.6.; annex 10	restructuring of provisions with regard to light sources

GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – detailed description of the proposed changes

1) SLR-28-13 **proposal for improved and simplified photometry for all RID functions**

Paragraph	Content
Table 1 and 2	introduction of revised and unified beam pattern and symbols for them
5 (Tables 5 to 20)	improved, simplified and unified photometric tables for driving beams, passing beams, AFS, front fog lamps and cornering lamps
	introduction of new passing beam classes C (based on and aligned with AFS country light of class C) and V (for slow moving vehicles, based on and aligned with AFS town light of class V) as a replacement of the existing classes A, B and D

GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – detailed description of the proposed changes

2) SLR-28-08/Rev.1; SLR-31-05/Rev.1 — **introduction of new annexes regarding aiming and cut-off provisions**

Paragraph	Content
Annex 5	Introduction of revised Annex 5 regarding visual aiming provisions for all road illumination devices including cornering lamps; Harmonisation of the re-aim tolerances
Annex 6	Introduction of revised Annex 6 regarding the instrumental aiming provisions for passing beam headlamps and front fog lamps; Provisions on the cut-off quality

3) SLR-29-02/Rev.1 unified provisions for allowed re-aim of the beam patterns

Paragraph	Content
annex 5, paragraph 4	unification of the provisions on the allowed re-aim of the beam patterns for photometric measurements

4) SLR-29-08; SLR-31-05/Rev.1 draft proposal for CoP provisions

Paragraph	Content
3.5 and 6	re-structuring the CoP provisions for road illumination devices by collecting them in paragraph 6

GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – detailed description of the proposed changes

5) SLR-32-07/Rev.2 **introduction of technologically neutral requirements related to light sources, introduction of activation time for each function**

Paragraph	Content
div.	Removed technology restrictions for certain light sources, e.g. with regard to technological neutrality „LED module“ was replaced by „light source module“ throughout the text
4.5.1., 4.6. and 5.6.3.	all provisions regarding testing with respect to light sources are moved to the new Annex 10 „Testing procedures with respect to light sources”
annex 10	since cornering lamps now are defined as road illumination devices it is proposed to accordingly change the test voltage for cornering lamps from 13.5V to 13.2V in order to be consistent throughout the regulation

6) SLR-32-13/Rev.1 **photometric requirements for front fog lamps and cornering lamps**

Paragraph	Content
5.6.1.	improved photometry for cornering lamps
5.5.2.	use of matched pair provision only for lines 8 and 9

7) SLR-32-14 **proposal for passing beams**

Paragraph	Content
5.2.	introduction of improved and simplified photometric table for classes C and V passing beams, unified with AFS
5.3.	introduction of improved and simplified photometric tables for passing beams of classes C, V, E and W

8) SLR-32-15 **symmetrical passing beams**

Paragraph	Content
5.4.	removal of class ES passing beams
	improved photometric table for classes CS and DS passing beams
	aiming provisions moved to annex 5

GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – detailed description of the proposed changes

9) SLR-32-16 **new and harmonized driving beam requirements; introduction of auxiliary driving beam**

Paragraph	Content
5.1.	removal of classes D and ES driving beams
	introduction of auxiliary driving beams
	introduction of improved photometric tables for classes A and B driving beams
	removal of primary driving beams
	unified photometric table for class BS, CS and DS driving beams

GRE IWG „Simplification of Lighting and Light-Signalling Regulations“
Reg. 149 Stage II, Step 1 – detailed description of the proposed changes

10) SLR-34-09 **module marking**

Paragraph	Content
3.3.2.6.3.	improved wording of the text regarding module marking

11) SLR-35-04/Rev.1 **light source and beam pattern flux**

Paragraph	Content
4.5.3.2.3. and 4.5.3.2.4.	introduction of a performance based alternative provision with regard to the minimum light source luminous flux for passing beams of classes C, V, AS, BS , CS and DS → contained now in paragraph 4.5.3.1.

12) SLR-35-12 **beams and their symbols**

Paragraph	Content
table 1	introduction of the revised passing and driving beams and their symbols

13) SLR-37-08 **changed CoP tables based on par. 5**

Paragraph	Content
6	revised photometric tables for CoP of passing beams, driving beams and AFS, based on the new photometric tables in paragraph 5.

14) SLR-39-11/Rev.1 provisions on matched pairs (system approach for photometric measurements)

Paragraph	Content
table 1	introduction of new symbols for devices being part of a matched pair
5.1.4. and 5.2.2.; 1.5. in annex 4	introduction of matched pairs for driving beams and class C and V passing beams with exceptions for several important measuring points
annex 1	introduction of the information of matched pairs in the communication forms

15) SLR-43-06/Rev.1 introduction of scientific notation

Paragraph	Content
4., 5. and 6.; tables 3-7, 10, 12-19, 21-36; annexes 1 and 7	introduction of scientific notation in order to assure that not more than 3 significant digits are shown for the required luminous intensity and luminous flux values → explanations on the advantages of scientific notation are given in SLR-40-05/Rev.1

16) SLR-46-01/Rev.1 restructuring of provisions with regard to light sources

Paragraph	Content
4.5. and 4.6.; annex 10	Simplified structure of the provisions and testing requirements with regard to the use of different light sources. In order to create technological neutrality the Regulation is proposed to be opened to all (including future) light source technologies and combinations of them, thus making the Regulation future-proof. Alignment and improvement of the testing conditions according to the different light source technologies.