

Informal document **GRE-85-04**

85th GRE, 26-29 October 2021

Agenda item 4 (c)

This presentation supports the draft proposal for the
new 01 series of amendments to
UN Regulation No. 149
(GRE/2021/14)

Summary of the proposed changes.

Improved and unified photometry for all RID functions

- Introduction of revised and unified beam pattern for driving beams, passing beams, AFS, front fog lamps and cornering lamps as well as their symbols.
- 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.
- Introduction of improved and simplified photometric tables for passing beams of classes C, V, E and W.
- Removal of classes D and ES driving beams.
- Introduction of auxiliary driving beams (class RA).
- Improved and unified photometric tables for classes BS, CS and DS.
- Improved photometric tables for classes A and B driving beams.
- Revised photometric tables for CoP based on the new photometric tables in paragraph 5.

Introduce the “matched pair”

- Introduction of matched pairs for driving beams and passing beams with exceptions for several important measuring points
- Introduction of new symbols for devices being part of a matched pair

Technological neutrality

- All provisions regarding testing with respect to light sources are moved to the new Annex 10 „Testing procedures with respect to light sources”.
- Cornering lamps now are defined as road illumination devices. Test voltage is changed from 13.5V to 13.2V in order to be consistent throughout the regulation.
- 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.
- Inclusion of all light source technologies (including future ones) and combinations of them.
- Alignment and improvement of the testing conditions according to the different light source technologies.

Harmonisation and restructuring

- Introduction of revised Annex 5 regarding visual aiming provisions for all road illumination devices including cornering lamps and harmonisation of the re-aim tolerances
- Introduction of revised Annex 6 regarding the instrumental aiming provisions for passing beam headlamps and front fog lamps as well as the provisions on the cut-off quality
- Improved wording of the text regarding module marking
- New structure regarding homologation marking (aligned with R148.01 and R150.01)
- Re-structuring the CoP provisions for road illumination devices by collecting them in paragraph 6
- 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

Chronological overview of the proposed changes

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	revised annexes regarding aiming and cut-off provisions
SLR-29-02/Rev.1	Annex 5 , Par. 4.	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 – restructuring; aiming and cut-off provisions
SLR-32-07/Rev.2	div.	introduction of technologically neutral requirements related to light sources, introduction of activation time for each function

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

Base document	Paragraph	Content of the proposed change
SLR-39-11/Rev.1	par. 4.18. Photometric tables	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
SLR-49-06	par. 3.3.	restructuring of provisions with regard to homologation markings – alignment with R148.01 and R150.01 proposals