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Working Party on Lighting and Light-Signalling

Sixty-eighth session

Geneva, 16–18 October 2012

Report of the Working Party on Lighting and Light-Signalling on its sixty-eighth session

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I. Attendance

1. The Working Party on Lighting and Light-Signalling (GRE) held its sixty-eight session from 16 to 18 October 2012 in Geneva, under the chairmanship of Mr. M. Gorzkowski (Canada). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690 and Amend. 1): Austria; Canada; China; Czech Republic; Finland; France; Germany; Hungary; India; Italy; Japan; Luxembourg; Netherlands; Poland; Republic of Korea; Russian Federation; Serbia; Spain; Turkey and United Kingdom of Great Britain and Northern Ireland. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations also took part in the session: European Association of Automobile Suppliers (CLEPA); International Electrotechnical Commission (IEC); International Motorcycle Manufacturers Association (IMMA); International Organization of Motor Vehicle Manufacturers (OICA) and Society of Automotive Engineers (SAE). Upon the special invitation of the Chair, the experts from the International Automotive Lighting and Light Signalling Expert Group (GTB)" participated.

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRE/2012/24 and Add. 1,
Informal document GRE-68-24-Rev. 2.

2. GRE noted GRE-68-24-Rev.2 including all the informal documents and new agenda items 4(d) and 18(f) and adopted the agenda proposed for the sixty-eighth session (ECE/TRANS/WP.29/GRE/2012/24 as amended by Add.1 and GRE-68-24-Rev. 2).

III. Development of new global technical regulations (agenda item 2)

3. GRE noted that proposals on this subject are awaited and agreed to defer discussion to its April 2013 session.

IV. Regulation No. 37 (Filament lamps) (agenda item 3)

Documentation: ECE/TRANS/WP.29/GRE/2012/34,
ECE/TRANS/WP.29/GRE/2012/35,
Informal document GRE-68-07.

4. GRE adopted ECE/TRANS/WP.29/GRE/2012/34, as amended below and ECE/TRANS/WP.29/GRE/2012/35, not amended. In addition, GRE adopted GRE-68-07 as reproduced in Annex II to this report. GRE requested the secretariat to submit the proposals to the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Administrative Committee of the 1958 Agreement (AC.1) for consideration at their March 2013 sessions as draft Supplement 41 to the 03 series of amendments to UN Regulation No. 37.

Page 3, the table, sixth row, correct to read:

"...

Cap WU2.5x16q in accordance with IEC Publication 60061 (sheet 7004-104D-1)

..."

V. Regulation No. 48 (Installation of lighting and light-signalling devices) (agenda item 4)

A. Proposal for Supplement 10 to the 04 series of amendments

Documentation: ECE/TRANS/WP.29/GRE/2012/26
ECE/TRANS/WP.29/GRE/2012/28,
ECE/TRANS/WP.29/GRE/2012/29,
ECE/TRANS/WP.29/GRE/2012/38,
Informal documents GRE-68-05, GRE-68-13, GRE-68-16-Rev.1 and
GRE-68-22.

5. GRE considered ECE/TRANS/WP.29/GRE/2012/38 (amended by GRE-68-05) submitted by the expert from GTB revising the requirements on the replacement of light sources. GRE agreed to resume consideration of this subject at its next session on the basis of a revised proposal tabled by the expert from GTB, better addressing performance requirements and future technologies.

6. GRE considered a joint proposal from the experts of the Netherlands and the United Kingdom clarifying the test conditions related to the sensitivity of automatic/adaptive driving beam (ADB) sensor systems. GRE adopted this proposal (ECE/TRANS/WP.29/GRE/2012/28 amended by GRE-68-22) as amended below and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their March 2013 session as draft:

- (a) Supplement 11 to the 04 series of amendments to UN Regulation No. 48
- (b) Supplement 4 to the 05 series of amendments to UN Regulation No. 48
- (c) Supplement 1 to the 06 series of amendments to UN Regulation No. 48

Paragraph 6.1.9.3.1.2. last indent, amend to read:

"6.1.9.3.1.2. ...

To verify compliance with (a) and (b) above, the oncoming and preceding power driven vehicle (or vehicle-trailer combination) shall have position lamps **(if applicable)** and dipped-beam headlamps switched ON."

7. GRE considered ECE/TRANS/WP.29/GRE/2012/29 and GRE-68-16-Rev.1 clarifying the requirement for mandatory manual override for ADB control. GRE adopted the proposal as amended by Annex III to this report. GRE rejected GRE-68-13 proposing additional requirements in case of automatic reactivation. GRE requested the secretariat to submit the adopted proposal to WP.29 and AC.1 for consideration at their March 2013 sessions (see para. 6)

- (a) Supplement 11 to the 04 series of amendments to UN Regulation No. 48
- (b) Supplement 4 to the 05 series of amendments to UN Regulation No. 48
- (c) Supplement 1 to the 06 series of amendments to UN Regulation No. 48

8. GRE adopted ECE/TRANS/WP.29/GRE/2012/26, not amended, proposing to suppress the mandatory fitting of sensors for the adaptive main beam and Adaptive Front-lighting System (AFS) that detect retro-reflectors. The secretariat was requested to submit it to WP.29 and AC.1 for consideration at their March 2013 session as part of (see para. 6 and 7):

- (a) Supplement 11 to the 04 series of amendments to UN Regulation No. 48
- (b) Supplement 4 to the 05 series of amendments to UN Regulation No. 48
- (c) Supplement 1 to the 06 series of amendments to UN Regulation No. 48

B. Proposal for amendments the 05 series of amendments

Documentation: ECE/TRANS/WP.29/GRE/2012/27,
ECE/TRANS/WP.29/2011/99 and Corr.1
Informal documents GRE-68-20-Rev.1, GRE-68-31, GRE-68-32,
GRE-68-34, GRE-68-38, GRE-68-39 and GRE-68-40.

9. The Expert from Poland introduced ECE/TRANS/WP.29/GRE/2012/27 proposing to remove the present 2000 lm borderline and the Light Emitting Diodes (LED) automatic levelling requirement. The proposal received several comments (GRE-68-20, GRE-68-31, GRE-68-32 and GRE-68-34).

10. GRE agreed with the suggestion of the expert from the Netherlands to concentrate requirements only on the "initial aiming" (and leave out the other parts on labelling, photometrics, etc.). It was also suggested that the proposal would focus on possible overlaps to the headlamp mounting height and would consider this "new approach" for the initial aiming requirements as an alternative to the existing ("old approach") requirements in UN Regulation No. 48. GRE agreed to resume consideration of this subject at its next session on the basis of a revised proposal tabled by the expert from Poland including the suggestions mentioned above.

11. GRE noted that the World Forum (WP.29) referred back ECE/TRANS/WP.29/2011/99 and Corr. 1 for further consideration. GRE agreed to resume consideration of this subject at its April 2013 session. The expert from GTB introduced GRE-68-38, GRE-68-39 and GRE-68-40 providing a status report of the GTB's activities on Glare and Visibility

C. Other amendments to Regulation No. 48

Documentation: ECE/TRANS/WP.29/2012/114,
ECE/TRANS/WP.29/2012/115,
ECE/TRANS/WP.29/2012/73 and Corr.1
Informal documents GRE-68-04, GRE-68-21, GRE-68-36 and
GRE-68-37.

12. GRE endorsed ECE/TRANS/WP.29/2012/114, introducing the definition of "manufacturer" into UN Regulation No. 48. and withdrew ECE/TRANS/WP.29/2012/115 proposing a similar definition for the Special Resolution (S.R.1), not suitable for self-certification.

13. The expert from the European Commission confirmed his reservations on ECE/TRANS/WP.29/2012/73 and its corr.1 and did not provide further comments to the document.

14. The expert from Germany introduced GRE-68-04 proposing new provisions for the use of light source control gear in the case of halogen incandescent light sources

(introduction of a minimum operating voltage). The expert from OICA argued that the proposal could be in contradiction to UN Regulation No. 123 (GRE-68-21). GRE did not support either proposal and agreed to resume consideration of this subject on the basis of a revised proposal, if available.

15. Moreover, GRE resumed discussion on the interpretation of para. 5.9. The expert from GTB made a presentation (GRE-68-36) to introduce a practical demonstration of the variable direction indicator (Variable D.I.) with a variable apparent surface using Light Emitting Diodes (LED). The expert from the Netherlands raised the issue of prioritizing with lighting signals. GTB made a presentation on a research on this issue (GRE-68-37). GRE experts agreed in principle that LED technology has a faster response and flexibility of use that could lead manufactures to puzzling solutions. The expert from GTB informed GRE that work is underway in its Photometry and Signal Lamp task force and gave a verbal progress report. The expert from Spain expressed concerns on the lack of provisions in UN Regulations (i.e. Nos. 6 and 7) dealing with the type approval of components that do not prevent the use of unsafe solutions (concerning variable apparent surface). GRE confirmed the agreement reached on this subject at its March 2012 session (ECE/TRANS/WP.29/GRE/67 para. 58) that according to paragraph 5.9. of UN Regulation No. 48, the installation of a lamp with an intentional variation of the apparent surface would not be allowed and that the same interpretation should be carried over in the type approval of components and technical units (e.g. UN Regulations Nos. 6 and 7.) GRE agreed to resume consideration of this subject at its April 2013 session awaiting outcomes of studies, research and proposals from the expert of GTB.

D. Simplification and clarification of transitional provisions

Documentation: Informal documents GRE-68-09 and GRE-67-31.

16. The expert from GTB introduced GRE-68-09 proposing a new approach to simplify the current transitional provisions. Therefore he proposed to evaluate the possibility to create consolidated version of 03, 04, 05 and 06 series of amendments to UN Regulation No. 48 and to continue amendments only on the latest series of amendments to ensure simplifications of type approvals procedure according to UN Regulation No. 48. Some GRE experts supported in principle the proposal and agreed to resume discussion at its April 2013 session.

VI. Collective amendments (agenda item 5)

A. Simplification of the approval markings

Documentation: Informal document GRE-68-28.

17. The expert from GTB introduced GRE-68-28 reporting on the work progress of the informal group on Database for the Exchange of Type Approval documentation (DETA). The expert of GTB volunteered to continue working on this subject. GRE agreed to keep this item on the agenda.

B. Phantom light and colour washout phenomena in signalling and marking devices

18. The expert from GTB reported on the progress made on this issue. GRE agreed that sun-load effect seems to be a real concern for vehicle signalling. The expert from GTB

reported that the GTB Photometry Task Force will continue to investigate this. GRE agreed to resume consideration of this agenda item at its next session on the basis of a concrete proposal.

C. Regulations Nos. 4, 6, 7, 23, 38, 50, 77, 87, 91 and 119

Documentation: ECE/TRANS/WP.29/GRE/2012/20,
Informal documents GRE-68-03, GRE-68-06 and GRE-68-14.

19. GRE considered GRE-68-03 superseding ECE/TRANS/WP.29/GRE/2012/20, tabled by the expert from Germany, which introduced provisions for the usage of incandescent light sources for light modules and non-replaceable light sources. The proposal received positive comments from some GRE experts. GRE also considered GRE-68-14 improving the text of GRE-68-03. Taking into account the late submission of the proposal and its complexity, GRE agreed, at the request of CLEPA, to resume consideration at its April 2013 session on the basis of a revised proposal by the expert from Germany.

20. Finally, GRE noted GRE-68-06 proposed by the expert from IEC providing information on standards produced by his association.

D. Regulations Nos. 3, 4, 6, 7, 23, (27), 31, 38, 45, 50, 65, 69, 70, 77, 87, 88, 91, 98, 104, 112, 113, 119 and 123

Documentation: ECE/TRANS/WP.29/GRE/2012/19.

21. GRE considered ECE/TRANS/WP.29/GRE/2012/19 clarifying and updating the Conformity of Production (COP) provisions including the comments made during the March 2012 session of GRE. The expert from Germany summarized that the proposal needed further changes. GRE agreed to resume the discussion at its next session on the basis of a revised proposal.

E. Regulations Nos. 6 and 7

Documentation: ECE/TRANS/WP.29/GRE/2012/41.

22. The expert from GTB introduced ECE/TRANS/WP.29/GRE/2012/41 amending provisions concerning the requirements for geometric visibility of devices for adaptive rear lighting. GRE adopted ECE/TRANS/WP.29/GRE/2012/41 as amended below. The secretariat was requested to submit them to WP.29 and AC.1 for consideration at their March 2013 session as draft Supplement 24 to the 01 series of amendments to UN Regulation No. 6 and as draft Supplement 22 to the 01 series of amendments to UN Regulation No. 7.

Proposal A, paragraph 6.4.3. and 6.4.3.1., renumber as paragraphs 6.3.3. and 6.3.3.1.

Proposal B, paragraph 6.2.4.1., fifth line, for "0.08 cd" read "0.07 cd"

F. Regulations Nos. 3, 6, 7, 48, 77 and 91

Documentation: ECE/TRANS/WP.29/GRE/2012/42,
Informal document GRE-68-02-Rev.2. and GRE-68-17

23. The expert from GTB introduced ECE/TRANS/WP.29/GRE/2012/42 and its amendment GRE-68-02-Rev.2. GRE did not support GRE-68-17 and adopted ECE/TRANS/WP.29/GRE/2012/42 as amended by Annex IV to this report. The secretariat was requested to submit the proposal to WP.29 and AC.1 for consideration at their March 2013 session, as draft Supplement 14 to the 02 series of amendments to UN Regulation No. 3, as part of draft Supplement 24 to the 01 series of amendments to UN Regulation No. 6 (see para. 23), as part of draft Supplement 22 to the 02 series of amendments to UN Regulation No. 7 (see para. 23), as part of the draft Supplement 1 to the 06 series of amendments to UN Regulation No. 48 (see paras. 6, 7-8), as draft Supplement 16 to the 00 series of amendments to UN Regulation No. 77 and as draft Supplement 15 to the 00 series of amendments to UN Regulation No.91.

G. Regulations Nos. 48 and 119

Documentation: ECE/TRANS/WP.29/GRE/2012/43,
Informal document GRE-68-01.

24. The expert from GTB introduced ECE/TRANS/WP.29/GRE/2012/43 and GRE-68-01 proposing the deletion of the 1cd requirement for geometrical visibility. GRE adopted ECE/TRANS/WP.29/GRE/2012/43 as amended by Annex V to this report and requested the secretariat to submit them to WP.29 and AC.1 for consideration at their March 2013 session as part of the draft Supplement 11 to the 04 series of amendments to UN Regulation No. 48 (see para. 6-8 and 24), as part of the draft Supplement 4 to the 05 series of amendments to UN Regulation No. 48 (see para. 6-8 and 24), as part of the draft Supplement 1 to the 06 series of amendments to UN Regulation No. 48 (see para. 6-8 and 24) and as draft Supplement 3 to the 01 series of amendments to UN Regulation No. 119.

H. Regulations Nos. 38 and 87

Documentation: ECE/TRANS/WP.29/GRE/2012/36,
Informal document GRE-68-25.

25. The expert from GTB introduced ECE/TRANS/WP.29/GRE/2012/36 and GRE-68-25, updating the heat resistance test requirements. GRE agreed to resume the discussion at its next session based on an updated proposal including the comments received, which the expert from GTB volunteered to prepare.

I. Regulations Nos. 19, 48 and 98

Documentation: Informal document GRE-68-15.

26. The expert from Germany introduced GRE-68-15, proposing to delete the provisions on distributed lighting systems (DLS). GRE agreed to resume consideration of this subject at its April 2012 session on the basis of a revised document.

VII. Draft Horizontal Reference Document for light-signalling devices (agenda item 6)

Documentation: ECE/TRANS/WP.29/GRE/2008/32
Informal documents GRE-66-13 and GRE-66-14

27. Following the decision to suspend the work of the informal working group (see ECE/TRANS/WP.29/GRE/67 para. 34), GRE agreed that this subject might be resumed in the future activities on the International Whole Vehicle Type Approval (IWVTA) and the development of the “UN Regulation No. 0” if needed. Finally, GRE agreed to keep this item on the agenda of its April 2013 session.

VIII. Regulation No. 6 (Direction indicator) (agenda item 7)

Documentation: ECE/TRANS/WP.29/GRE/2012/31

28. The expert of GTB introduced ECE/TRANS/WP.29/GRE/2012/31 proposing to ensure that the requirements concerning the signal to indicate the activation of a failure tell-tale would not remain specific to a particular type of light source. GRE noted some comments and agreed to resume consideration of this subject at its April 2013 session on the basis of a document submitted by the expert from GTB.

IX. Regulation No. 7 (Position, stop and end-outline lamps) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRE/2012/30
Informal documents GRE-68-29 and GRE-68-33

29. The expert from China introduced ECE/TRANS/WP.29/GRE/2012/30 and GRE-68-33 proposing to modify requirements of the photometric performance concerning front position lamps incorporated with fog lamps as well as rear position lamps incorporated with rear fog lamps. GRE noted some comments about the need to maintain the current photometric ratios and agreed to resume consideration of this subject at its April 2013 session on the basis of a revised proposal.

30. The expert from Poland showed a lamp type approved according to UN Regulation No. 7 and clearly unsuitable to be installed on a vehicle. To prevent the use of such a lamp as aftermarket vehicle parts, he introduced GRE-68-29 and requested the secretariat to distribute GRE-68-29 with an official symbol.

X. Regulation No. 19 (Front fog lamps) (agenda item 9)

Documentation: ECE/TRANS/WP.29/GRE/2011/32

31. The expert from GTB introduced ECE/TRANS/WP.29/GRE/2011/32, proposing to amend the cut-off requirements. GRE adopted this proposal, not amended, and requested the secretariat to submit them to WP.29 and AC.1 for consideration at their March 2013 sessions as draft Supplement 5 to the 04 series of amendments to UN Regulation No. 19.

XI. Regulation No. 27 (Advanced warning triangle) (agenda item 10)

Documentation: ECE/TRANS/WP.29/GRE/2012/25
ECE/TRANS/WP.29/GRE/2011/46

32. The expert from CLEPA introduced ECE/TRANS/WP.29/GRE/2012/25 taking into account technical progress. He showed the efficiency of a new kind of hardware in both daytime and night-time ambient light conditions with a practical demonstration in the car park Level B of the Palais des Nations. He also raised the question of the use of private

standards and copyrights. GRE agreed to resume discussion on this subject at its next session on the basis of a revised proposal and, agreed to keep on the agenda ECE/TRANS/WP.29/GRE/2012/25 and ECE/TRANS/WP.29/GRE/2011/46 for further consideration.

XII. Regulation No. 31 (Halogen sealed headlamps) (agenda item 11)

Documentation: ECE/TRANS/WP.29/GRE/2012/33

33. The expert from GTB introduced ECE/TRANS/WP.29/GRE/2012/33, proposing to amend the title of the regulation. GTB volunteered to check a number of UN Regulations that are not used anymore for new type and to prevent their use in the future. GRE agreed to resume consideration at its April 2013 session.

XIII. Regulation No. 45 (Headlamps cleaner) (agenda item 12)

Documentation: ECE/TRANS/WP.29/GRE/2012/4

34. GRE resumed consideration for ECE/TRANS/WP.29/GRE/2012/4 tabled by the expert from GTB, clarifying the requirements on the number of test samples. GRE adopted the proposal and requested the secretariat to submit them to WP.29 and AC.1 for consideration at their March 2013 session as draft Supplement 7 to the 01 series of amendments of UN Regulation No. 45.

XIV. Regulation No. 65 (Special warning lamps) (agenda item 13)

Documentation: ECE/TRANS/WP.29/GRE/2011/48

35. GRE reconsidered ECE/TRANS/WP.29/GRE/2011/48 tabled by the expert of SAE clarifying the execution of the design and test requirements. The expert from GTB confirmed that GTB is cooperating with SAE on this issue. GRE agreed to resume consideration at its April 2013 session.

XV. Regulation No. 87 (Daytime running lamps)(agenda item 14)

Documentation: ECE/TRANS/WP.29/GRE/2012/39
ECE/TRANS/WP.29/GRE/2012/37
Informal document GRE-68-26

36. GRE considered proposals from GTB to introduced interdependent lamps ("Y" lamps) into the regulation to extend the application of "Y" lamps to daytime running lamps and also to update the requirements concerning the light-source failure. GRE adopted: ECE/TRANS/WP.29/GRE/2012/37 not amended and ECE/TRANS/WP.29/GRE/2012/39 (amended by GRE-68-26) as amended by Annex VI to this report. GRE requested the secretariat to submit both proposals to WP.29 and AC.1 for consideration at their March 2013 sessions as draft supplement 17 to UN Regulation No. 87.

XVI. Regulation No. 112 (Headlamps emitting an asymmetrical passing beam) (agenda item 16)

Documentation: ECE/TRANS/WP.29/GRE/2012/35
Informal documents GRE-68-35 and GRE-68-41

37. The expert from China introduced ECE/TRANS/WP.29/GRE/2012/35 and GRE-68-35, proposing to improve the resistance test of lens material to atmospheric agents. GRE noted some comments about the the impact of changed requirements and test methods on the re-qualification of existing approved materials, even if in principle the regulation could be updated. The expert from SAE provided the secretariat with written comments after the meeting (GRE-68-41) to the proposals tabled by the expert from China.

XVII. Regulation No. [127] (Light Emitting Diodes) (agenda item 15)

Documentation: ECE/TRANS/WP.29/GRE/2012/40
Informal document GRE-68-27

38. The expert from GTB presented ECE/TRANS/WP.29/GRE/2012/40 and GRE-68-27, proposing to introduce a new category LW2 and some editorial amendments to the existing text of the UN Regulation. GRE adopted ECE/TRANS/WP.29/GRE/2012/40 as amended by Annex VII to this report. GRE requested the secretariat to submit the proposal to WP.29 and AC.1 for consideration at their March 2013 sessions as draft Supplement 1 to the original version of UN Regulation No. 127.

XVIII. Other business

A. Amendments to the Convention on Road Traffic (Vienna 1968)

Documentation: Informal document GRE-68-11

39. The expert from Germany informed GRE about the outcome of the discussion of the Working Party on Road Traffic Safety (WP.1) at its September 2012 session (GRE-68-11). The Secretary to WP.1 reported on the work done by his group, especially on updating the new draft Annex 5 to the Vienna Convention, dealing with vehicle lighting and light signalling. GRE noted that the work progress of WP.1 in that case is slower than its own pace. Some expert remarked that this is causing a formal issue as the Vienna Convention might need a longer time to be updated and to take into consideration work progress of WP.29. The experts from CLEPA recalled that investments were deployed in the transport sector by the industry creating better safety and the environmental conditions. He mentioned, as an example, the framework of the United Nations activities on Intelligent Transport Systems and the activities on "road trains". He concluded that there is a need to find a more flexible consensus at WP.1 for ensuring adaptation of the Vienna Convention to the technical progress. The Secretary to WP.1 reported on the work ongoing in WP.1 on Advance Driver Assistance Systems (ADAS) and different issues like "road trains" or "google cars" and pointed out the difficulty of progressing *id est* the liability aspect in case of accident. GRE agreed to keep this item on its agenda for its next sessions, wishing fruitful outcome discussions from future WP.1 sessions.

B. Intelligent Transport Systems (ITS)

Documentation: WP.29-157-06
Informal document GRE-68-23

40. At the request of WP.29 at its June 2012 session (see ECE/TRANS/WP.29/1097 para. 14) the expert from OICA introduced GRE-68-23 proposing amendment to informal document WP.29-157-06 (Design principles for control systems of ADAS). GRE agreed to send comments on the basis of GRE-68-23 to the Chair and to the expert of OICA to provide a consolidated GRE proposal at the March 2013 session of WP.29.

C. Decade of action for road safety 2011-2020

41. GRE agreed differing discussion of this item at its April 2013 session.

D. Development of an international whole vehicle type approval (IWVTA)

Documentation: Informal document WP.29-156-21-Rev.1.

42. GRE considered WP.29-156-21-Rev.1. and nominated the delegation of the European Commission to ensure the task of Ambassador for GRE on IWVTA activities of WP.29.

43. The expert from Japan announced that he would make a comment at GRE in April 2013 concerning UN Regulation No. 4 (Registration plate lamps) and introduce the Japanese plate size into the regulation. GRE noted that this proposal would introduce a regional requirement in the Regulation.

E. Other business

Documentation: Informal document GRE-68-30

44. The expert from Germany introduced GRE-68-30 proposing to delete the exemption for vehicle of category M₁ and N₁ on the separation of the position lamps. GRE agreed to resume consideration of this subject at its April 2013 session and requested the secretariat to distribute GRE-68-30 with an official symbol.

F. Regulation No. 10 (Electromagnetic compatibility)

Documentation: ECE/TRANS/WP.29/GRE/2012/44
Informal documents GRE-68-08, GRE-68-12, GRE-68-18, and GRE-68-19.

45. The expert from OICA made a presentation (GRE-68-19) introducing ECE/TRANS/WP.29/GRE/2012/44. The proposal received several comments (GRE-68-08, GRE-68-12 and GRE-68-21). GRE agreed in principle with the proposal, however it was agreed to allow more time for experts to study the proposal in detail. GRE agreed to resume consideration of this subject at its next session on the basis of an updated document prepared by the expert from OICA.

XIX. Direction for future GRE Work

A. Work task of GRE

Documentation: Informal documents GRE-68-10, WP.29-157-12

46. The expert from GTB introduced GRE-68-10, providing GTB's initial response to the EU / Japanese initiative presented to WP.29 in June 2012 (see WP.29-157-12). The expert from GTB stated that his association was studying the feasibility of simplifying the current forty-one UN Lighting and Light-Signaling Regulations by grouping them. He also added that his association was also studying the feasibility of establishing GTR's for Lighting and Signaling Devices and their Installation introducing performance based requirements but noted the difficulties in doing so. He concluded that specific light source regulations might remain largely unchanged because of the need for specific technical provisions. GRE agreed to resume consideration at its next session, noting that GTB volunteered to play an active role in the discussion that would take place on this subject at the November 2013 session of WP.29.

B. Work progress of Working Party "Brussels 1952" task forces

47. GRE agreed to defer discussion on this agenda item at its April 2013 session.

XX. Election of officers

Documentation: TRANS/WP.29/690, Amends.1 and 2.

48. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690 as amended by Amendments 1 and 2) GRE called the election of officers on Tuesday morning. Mr. M. Gorzkowski (Canada) was unanimously elected Chair of GRE for the sessions scheduled for the year 2013. The Chair of GRE proposed to start consultations for candidates for vice chair.

XXI. Provisional agenda for the next session

49. GRE did not consider a provisional agenda for the sixty-ninth session of GRE, scheduled to be held from 8 (a.m.) to 12 (p.m.) April 2013. It was agreed that the Chair, with the secretariat, would propose a draft agenda. GRE noted that the deadline for submission of official documents to the UNECE secretariat was 11 January 2013, twelve weeks prior to the session.

Annex I

List of informal documents considered during the session

List of informal documents (GRE-68-...) of the session (English only)

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1	(GTB) Proposal for editorial correction to ECE/TRANS/WP.29/GRE/43	(b)
2r2	(GTB) Proposal for editorial correction to ECE/TRANS/WP.29/GRE/42	(b)
3	(Germany) Proposal for Collective amendments to UN Regulations Nos. 4, 6, 7, 23, 38, 50, 77, 87, 91 and 119	
4	(Germany) Proposal for amendment to UN Regulation No. 48	(f)
5	(GTB) Proposal for editorial correction to ECE/TRANS/WP.29/GRE/2012/38	(d)
6	(IEC) Proposal for modifications to GRE	(d)
7	(IEC) Proposal for Supplement 41 to the 03 series of amendments to UN Regulation No. 37 (Filament lamps)	(a)
8	(IEC) Proposal for Supplement 2 to the 04-series of UN Regulation No. 10	(f)
9	(GTB) UN Regulation No. 48 - Simplification and Clarification of the Transitional Provisions	(d)
10	(GTB) Global Harmonisation of Automotive Lighting Regulations	(f)
11	(Germany) Brief notes on the 64th WP.1 session	(f)
12	(Sec) Proposal for amendments to UN Regulation No. 10 with regard to Conformity of Production (COP) for components and electrical/electronic sub	(f)
13	(Italy) Proposal for amendment to UN Regulation No. 48	(f)
14	(Italy) Proposal for collective amendments (non replaceable light sources)	(e)
15	(Germany) Proposal for amendments to UN Regulations Nos. 19, 48 and 98	(e)
16r1	(OICA) Proposal for amendments to ECE/TRANS/WP.29/GRE/2012/29	(b)
17	(OICA) Proposal for amendments to ECE/TRANS/WP.29/02	(f)
18	(OICA) Proposal for amendments to GRE/2012/44	(f)
19	(OICA) Background information on GRE/2012/44	(f)
20	(OICA) Comments on GRE/2012/27	(f)
21	(OICA) Proposal for amendments to ECE/TRANS/WP.29/04	(f)
22	(OICA) Proposal for amendments to ECE/TRANS/WP.29/GRE/2012/28	(b)
23	(OICA) Proposal for amendment to informal document WP29	(d)
24r2	(Sec) Adopted agenda	(f)
25	(GTB) Proposal for editorial correction to ECE/TRANS/WP.29/GRE/2012/36	(d)
26	(GTB) Proposal for editorial correction to ECE/TRANS/WP.29/GRE/2012/39	(b)
27	(GTB) Proposal for editorial correction to ECE/TRANS/WP.29/GRE/2012/40	(b)
28	(GTB) Simplification of Approval Markings Through the Implementation of the "DETA" Database	(f)
29	(Poland) Proposal for amendment to UN Regulation No. 7 (front and rear position(side) lamps stop	(c)

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
30	(Germany) Proposal for amendment to UN Regulation No. 48	(c)
31	(Poland) Comments on OICA comments on GRE/2012/27	(f)
32	(Poland) Driver opinion pool	(f)
33	(China) Additional justifications for ECE/TRANS/WP.29/GRE/2012/30	(f)
34	(Poland) GRE/2012/27... adhoc modifications	(f)
35	(China) Proposal for revising paragraph 2.2.1. of annex 6 of Regulation R112	(d)
36	(GTB) Variable intensities direction indicators	(f)
37	(GTB) Study „direction indicator“	(f)
38	(GTB) Importance of Auto	(f)
39	(GTB) Literature studies regarding glare and visibility on road traffic of safety and visual performance	(f)
40	(GTB) Status report of the GTB task force "coordination of automotive visibility and glare studies"	(f)
41	(SAE) Written comments to GRE-68-35	(d)

Notes:

- (a) Submitted with no change to WP.29 for consideration.
- (b) Submitted with changes to WP.29 for consideration.
- (c) Resume consideration on the basis of an official document.
- (d) Kept as reference document/continue consideration.
- (e) Revised proposal for the next session
- (f) Consideration completed or to be superseded.

Annex II

Amendments to Regulation No. 37

Adopted on the basis of GRE-68-07, (see para. 4 of the report)

Sheet PR27/7W/1, the table, the cap designation, amend to read:

"...

Cap WU2.5x16q in accordance with IEC Publication 60061 (sheet 7004-104D-1)
--

..."

Annex III

Amendments to Regulation No. 48

Adopted amendments to ECE/TRANS/WP.29/GRE/2012/29 (see para. 7 of the report)

A. Supplement 11 to the 04 series of amendments to Regulation No. 48

Paragraph 6.1.7.2., amend to read:

"6.1.7.2. It shall always be possible to switch the main-beam headlamps ON and OFF manually and to manually switch OFF the automatic control of the main-beam headlamps.

Moreover, the switching OFF, of the main-beam headlamps and of their automatic control, shall be by means of a simple and immediate manual operation; ~~(multi step operations, such as the use of sub-menus is not allowed).~~"

Paragraph 6.22.7.1.3., amend to read:

"6.22.7.1.3. It shall always be possible to switch the main-beam headlamps, adaptive or non-adaptive, ON and OFF manually and to manually switch OFF the automatic control.

Moreover, the switching OFF, of the main-beam headlamps and of their automatic control, shall be by means of a simple and immediate manual operation; ~~(multi step operations, such as the use of sub-menus is not allowed).~~"

B. Supplement 4 to the 05 series of amendments and supplement 1 to the 06 series to Regulation No. 48

Paragraph 6.1.7.3., amend to read:

"6.1.7.3. It shall always be possible to switch the main-beam headlamps ON and OFF manually and to manually switch OFF the automatic control of the main-beam headlamps.

Moreover, the switching OFF, of the main-beam headlamps and of their automatic control, shall be by means of a simple and immediate manual operation; ~~(the use of sub-menus is not allowed).~~"

Paragraph 6.22.7.1.3., amend to read:

"6.22.7.1.3. It shall always be possible to switch the main-beam headlamps, adaptive or non-adaptive, ON and OFF manually and to manually switch OFF the automatic control.

Moreover, the switching OFF, of the main-beam headlamps and of their automatic control, shall be by means of a simple and immediate manual operation; the use of sub-menus is not allowed."

Annex IV

Amendments to Regulations Nos. 3, 6, 7, 48, 77 and 91

Adopted amendments to ECE/TRANS/WP.29/GRE/2012/42 (See para. 24 of the report):

A Proposal for Supplement 1 to the 06 series of amendments to UN Regulation No.48

Insert new paragraph 2.35. to read:

"2.35. "H plane" ..."

...

C. Proposal for Supplement 24 to the 01 series of amendments to UN Regulation No. 6

Annex 1, amend to read:

"...

In all cases, the minimum vertical angles of light distribution in space of direction indicator lamps are 15° above and 15° below the horizontal except:

- (a) Direction indicator lamps intended to be installed with the **H plane** ~~the reference axis~~ of the lamp at a mounting height of less than 750 mm above the ground, for which they are 15° above and 5° below the horizontal;
- (b) Optional direction indicator lamps intended to be installed with the H plane ~~the reference axis~~ of the lamp at a mounting height of more than 2100 mm above the ground, for which they are 5° above and 15° below the horizontal;
- (c) Direction indicator lamps of Category 6, ..."

"9. Concise description:

Category: 1, 1a, 1b, 2a, 2b, 3, 4, 5, 62

Number, category:

Voltage and wattage:

Light source module specific identification code:

~~Only for installation on M1 and/or N1 category vehicles: yes/no2~~

Only for limited mounting height of equal to or less than 750 mm above the ground: yes/no2

Geometrical conditions of installation and relating variations, if any:

D. Proposal for Supplement 22 to the 02 series of amendments to Regulation No.7

Annex 1, amend to read:

"...

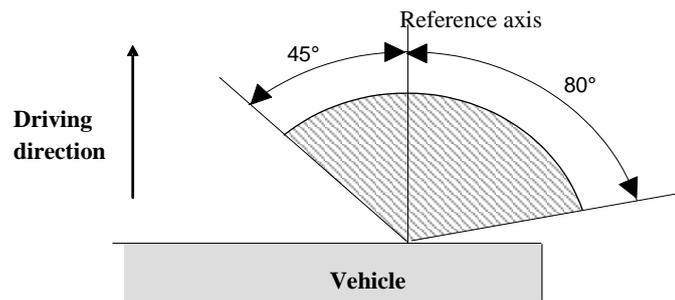
- (c) For category S3 or S4 stop lamp for which they are 10° above and 5° below the horizontal."

Minimum horizontal angles of light distribution in space

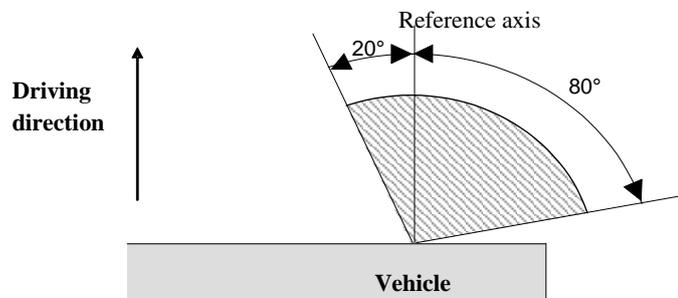
Front position lamps.

End outline marker

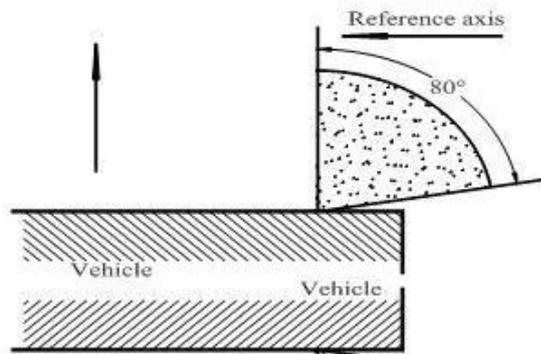
lamps



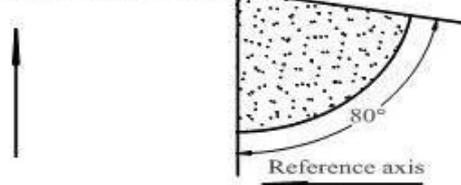
Under the H plane for front position lamps intended to be installed with this plane at a mounting height less than 750mm above ground.



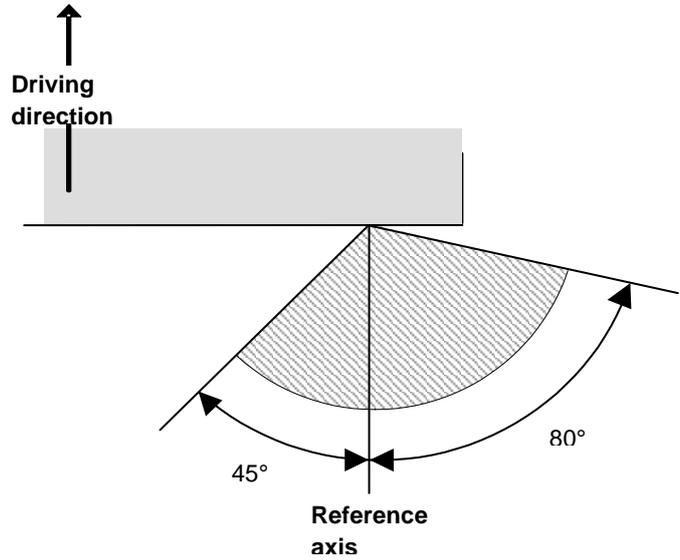
Front outline marker lamp (AM)



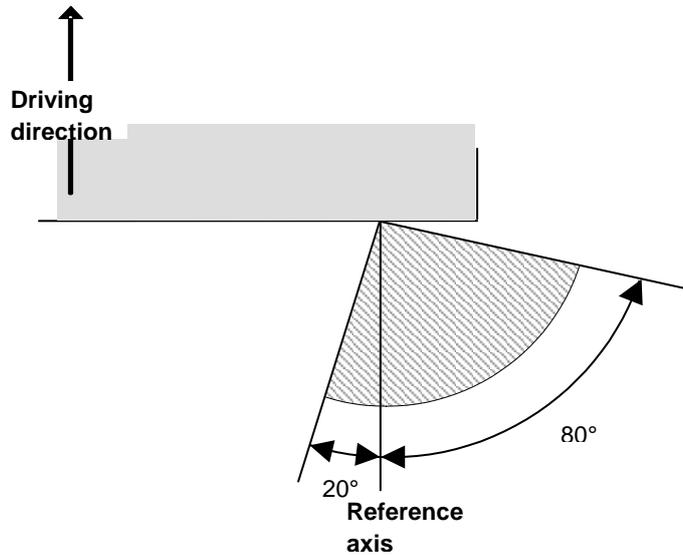
Rear end outline marker lamp (RM1, RM2)



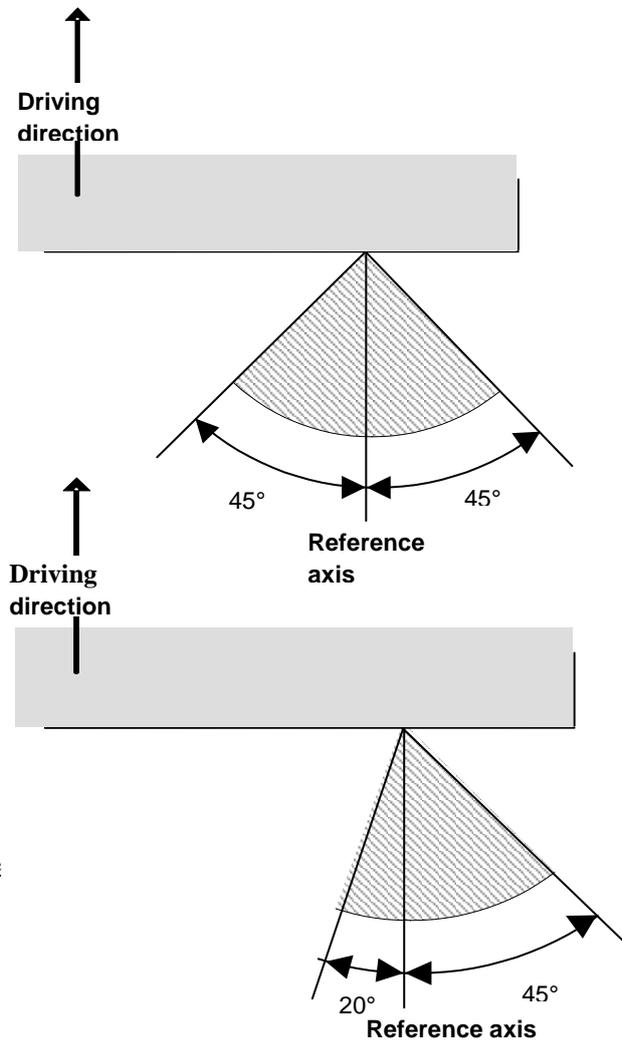
Rear position lamps,
end outline marker lamps



Under the H plane for rear position lamps intended to be installed with this plane at a mounting height less than 750mm above ground.

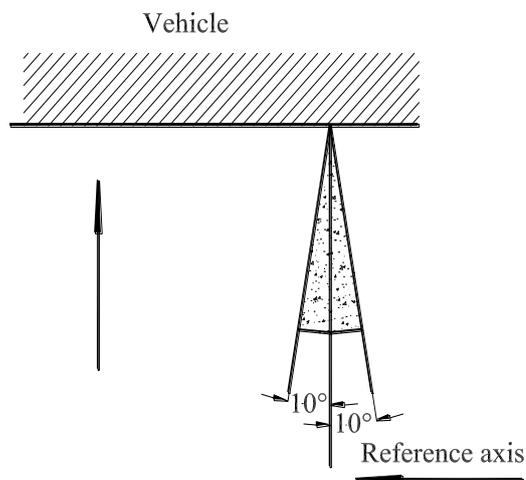


Stop-lamps (S1 and S2)



Under the H plane for stop lamps (S1 and S2) intended to be installed with this plane at a mounting height less than 750mm above ground.

Stop-lamps (S3 and S4)



"

Annex 2, item 9, amend to read:

"9. Concise description:

9.1. By category of lamp:

For mounting either outside or inside or both²:

Colour of light emitted: red / white ^{2/}

Number, category and kind of light source(s):

Voltage and wattage:

Light source module specific identification code:

~~Only for installation on M1 and/or N1 category vehicles: yes/ no ^{2/}~~

Only for limited mounting height of equal to or less than 750 mm above the ground: yes/no ^{2/}

Geometrical conditions of installation and relating variations, if any: "

E. Proposal for Supplement 16 to the 00 series of amendments to Regulation No.77

Annex 3, amend to read:

"MINIMUM ANGLES REQUIRED FOR THE LIGHT DISTRIBUTION IN SPACE

In all cases, the minimum vertical angles of light distribution in space are 15° above and 15° below the horizontal except for lamps intended to be installed with their H plane at a mounting height less than 750 mm above the ground, for which they are 15° above and 5° below the horizontal
..."

F. Proposal for Supplement 15 to the 00 series of amendments to UN Regulation No.91

Annex 1, amend to read:

"MINIMUM ANGLES REQUIRED FOR LIGHT DISTRIBUTION IN SPACE

.....
The angle of 10° below the horizontal may be reduced to 5° in case of lamps intended to be installed with their H plane at a mounting height less than 750 mm above the ground
..."

Annex V

Amendments to Regulations Nos. 48 and 119

Adopted amendments to ECE/TRANS/WP.29/GRE/2012/43 (See para. 25 of the report)

A. Proposal for Supplement 11 to the 04 series of amendments, Supplement 4 to the 05 serie of amendments and Supplement 1 to the 06 Series of amendments to Regulation No. 48

"6.2.5. Geometric visibility

Defined by angles α and β as specified in paragraph 2.13.:

$\alpha = 15^\circ$ upwards and 10° downwards,

$\beta = 45^\circ$ outwards and 10° inwards.

~~Since the photometric values required for dipped beam headlamps do not cover the full geometric field of vision, a minimum value of 1 cd in the space remaining is required for type approval purposes.~~ The presence of partitions or other items of equipment near the headlamp shall not give rise to secondary effects causing discomfort to other road users."

Paragraph 6.3.5., amend to read:

"6.3.5. Geometric visibility

... not give rise to secondary effect causing discomfort to the other road users ¹³"

...

Annex VI

Amendments to Regulation No. 87

Adopted amendments to ECE/TRANS/WP.29/GRE/2012/39 (See para. 37 of the report)

...

Paragraph 2.3., amend to read:

"2.3. "Daytime running lamps of different types" means ...

...

(b) the characteristics of the optical system, (levels of intensity, light distribution angles, category of **light source**, light source module, etc.);

A change of the colour of the **light source** or the colour of any filter does not constitute a change of type."

...

Paragraph 3.2.2., amend to read:

"3.2.2. a brief technical description stating, in particular, with the exception of daytime running lamps with non-replaceable light sources:

(b) The category or categories of **LED light source(s)** prescribed; this **LED light source category** shall be one of those contained in UN Regulation No. 127 and its series of amendments in force at the time of application for type approval; and/or

(c) The light source module specific identification code"

"3.2.3. two daytime running lamps..."

Paragraph 4.2., amend to read:

"4.2. with the exception of **daytime running** lamps with non-replaceable light sources, bear a clearly legible and indelible marking indicating:

(a) the category or categories of **light source(s)** prescribed; and/or

(b) the light source module specific identification code..."

...

Paragraph 6.5.2., amend to read:

"6.5.2. The design of the daytime running lamp ~~device~~ shall be such that **the light sources** can be fixed in no other position but the correct one."

...

Paragraph 10.1., amend to read:

"10.1. All measurements, photometric and colorimetric, **when not supplied by an electronic light source control gear, shall be carried out with an uncoloured or coloured standard light source of the category prescribed for the daytime running lamp, supplied with the voltage:**

- (a) **In the case of filament lamps, that is necessary to produce the reference luminous flux required for that category of filament lamp;**
- (b) **In the case of LED light sources of 6.75 V, 13.5 V or 28.0 V; the luminous flux value produced shall be corrected. The correction factor is the ratio between the objective luminous flux and the mean value of the luminous flux found at the voltage applied"**

...

Paragraph 11.1., amend to read:

"11.1. The **daytime running** lamp shall be subjected to a one-hour test of continuous operation following a warm-up period of 20 minutes. The ambient temperature shall be $23^{\circ}\text{C} \pm 5^{\circ}$. **The light source used shall be a light source** of the category specified for the **daytime running** lamp, and ..."

...

Annex 4

Paragraph 1.2., amend to read:

"1.2. With respect to photometric performances, the conformity of mass-produced lamps shall not be contested if, when testing photometric performances of any lamp chosen at random and equipped with **a standard light source** or when the lamps are equipped with non-replaceable light sources (filament lamps or other), and when all measurements are made at 6.75 V, 13.5 V or 28.0 V respectively:"

Paragraph 1.2.2., amend to read:

"1.2.2. If, in the case of a lamp equipped with ~~a~~ replaceable light sources and if results of the test described above do not meet the requirements, tests on lamps shall be repeated using another **standard light source**."

Paragraph 1.3., amend to read:

"1.3. The chromaticity coordinates shall be complied with when the lamp is equipped with ~~a~~ standard filament lamp(s), or for lamps equipped with non-replaceable light sources (filament lamps or other), when the colorimetric characteristics are verified with the light source present in the lamp."

Annex 5

Paragraph 1.2., amend to read:

"1.2. With respect to photometric performance, the conformity of mass-produced lamps shall not be contested if, when testing photometric performances of any lamp chosen at random and equipped with **a standard light source**, or when the lamps are equipped with non-replaceable light sources (filament lamps or other), and when all measurements are made at 6.75 V, 13.5 V or 28.0 V respectively:"

Paragraph 1.2.2., amend to read:

"1.2.2. If, in the case of a lamp equipped with ~~a~~ replaceable light source(s) and if results of the test described above do not meet the requirements, tests on lamps shall be repeated using another **standard light source**."

Paragraph 1.3., amend to read:

"1.3. The chromaticity coordinates shall be complied with when the lamp is equipped with **a standard light source**, or for lamps equipped with non-replaceable light

sources (filament lamps or other), when the colorimetric characteristics are verified with the light source present in the lamp..."

Annex VII

Amendments to Regulation No. 127

Adopted amendments to ECE/TRANS/WP.29/2012/40 (See para 39 of the report)

...

New paragraph 3.2.7.; amend to:

"3.2.7. The solid state junction(s) shall be the only element(s) of the LED light source that generate and emit light, either directly or via fluorescence-based conversion, when energized."

...
