



The minutes of the Division 4 meeting in Athens, Greece, on the 18th in September 2006, 9.00 - 11.00, and on the 22nd in September 2006, 13.10 - 16.25

12 NC's were represented: Belgium, Finland, Germany, Hungary, Israel, Italy, Japan, Netherlands, Norway, Slovenia, Turkey and USA, ; altogether about 40 persons attended the meetings (appendix 1).

Monday 18.9.2006

1. Opening of the meeting of Division 4

Division director, Pentti Hautala, opened the Division meeting and welcomed everyone present. DD. also thanked our hosts about our invitation to Greece. Harry Kambezidis also welcomed everyone present and made a short presentation about some housekeeping items.

2. Approval of Draft agenda

Draft agenda, which had been published in DIV 4 web-pages was accepted as the agenda of the meeting.

3. Apologies for the absence

Division secretary had received nine messages of the absence: Jaroslav Kotek, Stuart Yerrell, Peter Blaser, János Schanda, Patrick Baldrey, Pieter Walraven, Elizabeth Alvarez, Sándor Almási and Elvo Calixto Burini Junior. DS had received two messages of absence on Monday: Axel Stockmar and Marko Bizjak.

4. Approval of the executive summary of the minutes of the last division meeting in León

The last meeting was held on the 16th in May and 17th in May 2005 in León, Spain. After some minor changes the summary was approved.

5. Announcements

No announcements

6. Report by the Division director

DD gave a short report:

- He mentioned that meeting in Athens is a usual working meeting. Next year in Beijing DIV 4 meeting will be together CIE Session and conference.
- At the previous meetings information from BA and GA are given. This was already done at D4 meeting in Leon.
- The planned BA Workshop on Divisional Structure is cancelled due to the lack of interest. Warren Julian did receive only three reactions to get input for the workshop. Cross divisional topics and inactivity of volunteers will be discussed at the next DD meeting. The problem is not in the structure but in the time key persons in CIE can

devote to CIE.

7. Secretary's announcements

The division secretary had some announcements:

- DS said some DIV members had told that there has been again some problems with emails. DS reminded about the sentence in DIV webpages: "Please include letters CIE in the subject of your email, so the secretary can separate your email from spam." He told he has to receive hundreds of spam emails every day which are automatically separated from other email, and it is quite impossible to find important emails among them, but it is easy to find emails with letters CIE in the subject.
- DS asked DD to tell more about TC 4-11 history. Division Director made a short summary of the history of TC 4-11..

7b. Other announcements

Our host, the President of Hellenic Illumination Committee Harry D Kambezidis welcomed everyone present and made a short presentation about some housekeeping items.

8 Editors report

Patric Paldrey was not in Athens but he had sent his report earlier to DS:

TC 4-16: Recommended File Format for Electronic Transfer of Luminaire Photometric Data. Has been balloted, vote deadline July 20,2006.

TC 4-19: Road Visibility in Fog. Has completed the editing process and is being formatted prior to the ballots.

TC 4-37: Road Transport Lighting for Developing Countries. As above..

9. The situation of TC:s which do not have meeting in Athens

Because there was some time left for the meeting time DD suggested to look about the situation of some TC:s that are not going to have meeting in Athens.

TC 4-10: Automobile lighting systems; Ad de Visser told:

There are two documents "nearly ready for publication" since many years. Dr. Karl Manz has now been reviewing and updating these documents to prepare for a Division and BA Ballot.

- *'Requirements for light beam pattern of front fog lamps'*

The draft report on front fog was voted positive, but with comments. As TCC, I have studied these comments and completed a standard summary form to CB concerning those results of the Division and BA ballot with my responses. One of the comments from one of the BA members concerned a possible relation to similar activities within the lighting committees of UN/ECE. Having studied this, my conclusion was that despite the positive ballot we should not publish this draft publication not to create confusion. The GTB proposal to GRE is based upon this CIE draft and in the mean time much more advanced. Dr. Karl Manz accepted; GTB agreed. According to the rules I did advise the DD to stop the procedures.

CB suggested storing the draft report in the CB archives for possible future reference. Since Dr. Karl Manz really spent a lot of effort and he is also the genius behind the ECE draft New Front Fog Regulation, we agreed that he could use the literature list that he produced as a reference in for instance the justification of the renewed draft ECE Regulation.

The trouble of all of this is that when TC4-10 restarted a few years ago, the CIE publications would have been appropriate, but in the mean time GTB did catch up.

- *'Definition of the cut-off of vehicle headlights'*

Dr. Karl Manz updated also this report. A GTB colleague delivered the French version of the summary. The division editor did the editing. I composed this all. There are still a few smaller items in the draft to be clarified and the official formatting still has to be done. After that, this report should be ready for a final ballot.

Difficulties like with front fog lamps are less likely since a definition of cut-off is not published as a separate ECE regulation but implemented in other regulations. Nevertheless, it should be considered to check once more a possible conflict of this intended CIE publication with ECE regulations.

After the short discussion it was decided:

- The first paper about the fog lamps should be stopped
- The second one about cut-off headlights should be finalized and after that sent to ballot.

After the ballot TC 4-10 should be abolished.

TC 4-16 Recommended File Format for Electronic Transfer of Luminaire Photometric Data:

DD told: D4 and BA ballot has been completed successfully.

TC 4-19 Road Visibility in Fog: DD told: Ready for ballot in the near future. Some corrections will be inserted as advised by Janos Makai.

TC 4-32: Surface Colours for Traffic Signs :

DS read email from Pieter Walraven:

Unfortunately I am not able to attend the Greece-meeting of Division 4. I did not call a TC 4-32 meeting there.

The progress last year of TC 4-32 was less than expected, but the goal, and the expectation, to have finished the document before the China Session of the CIE is still there.

I wish you a successful meeting in Greece. I am sorry that my attendance of the Div 4 meetings the last quadrennium was zero, but maybe I can make it for the China-meeting. I was never in China, and it is very attractive to attend your meeting there.

With cordial greetings, Pieter.

After discussion the meeting decided that this TC should be abolished in Beijing, if the final draft is not ready before Beijing meeting.

TC 4-37 Road Transport Lighting for Developing Countries:

DD read email from Stuart Yerrell:

TC Chairman's Report to the Divisional Meeting, Athens September 20th 2006

I am pleased to report that the final draft of TC 4-37's report has been produced and sent to the Divisional Chairman with a completed Form A. The Divisional Editor has also seen the document and commented favourably.

I regret it has taken so long to complete this report. There have been several reasons for this, some of which I imagine are experienced by other CIE committees:

1. A shifting and changing committee membership: it is particularly difficult to attract

and retain representatives from developing countries.

2. Older members retire from active employment and lose their 'external' funding: during the life of TC4-37 two secretaries had to resign for this reason.

3. Most importantly, the enthusiasm expressed at TC meetings is not sustained after the event: promises of action and pledges of contributions are not fulfilled. This is compounded by members not notifying changes of e-mail or postal addresses: many of the original committee members can no longer be contacted.

I myself have not been funded for the past four years, so regretfully this letter has also to constitute my resignation as Chairman. I will do what remains necessary to secure publication of our report, which does not fit easily into any of the CIE's traditional publication categories. Its target audience will look to road safety sources for the advice it contains, and would in general be unable to pay for it.

Because of this I approached the Global Road Safety Partnership this year with an earlier draft, and the GRSP Chief Executive commented 'I was impressed by the clarity with which it explains the technical issues, and the way in which it gives advice appropriate to developing countries. I would be very happy for the GRPS to assist in its dissemination'.

The practical steps to achieve this will be discussed by the Division and the Central Bureau. Personally I favour publication on the GRSP Website, with full acknowledgement to the CIE as the source.

Finally, I have enjoyed the friendship and companionship of Divisional and TC meetings. I extend my thanks to all of you for the help and encouragement I have received, and wish you well in your future activities. I believe that TC 4-37 has produced something of real value and practical help to those working for better road safety in developing countries.

J. Stuart Yerrell
Chairman TC 4-37
September 1st 2006

DD told: Committee TC 4-37 has prepared the final draft for Technical Report. It is accepted by the Committee. It is now ready for approval by Division and Board of Administration.

Document is excellent, but very different from a conventional Technical Report, both in its content and target audience. This audience is unable to pay for it. Therefore Division proposes that it should be made available via the CIE website free of charge, and heavily publicized through partner organization e.g. Global Road Safety Partnership.

The meeting agreed and it was decided to start the ballot.

TC 4-38: Roadsigns:

The opinion of the meeting was that DIV4 meeting in Beijing should abolish this TC.

TC 4-41: Crime and Road Lighting:

After discussion it was decided that Tom Webster should be the new chair of this TC.

TC 4-44: Management and Maintenance of Road Lighting:

The chair of this TC (Pentti Hautala) told that this TC is going to have a full day meeting on Thursday.

DD closed this part of the meeting (11.00)

Wednesday 20.9.2006

DD Pentti Hautala reopened the meeting on Wednesday 13.10.

9. Progress Reports by TC-chairmen

The next TC:s had meeting in Athens:

TC 4-15: Road Lighting Calculations, Test Data and Measurements:

The 3rd meeting of TC 4-15 "Road Lighting Calculations, Test Data and Measurements" has been done in Athens with 16 participants (11 members and 5 visitors) on 19th of September 2006 where the list of the participants is given below. It took just three hours between 9.13 am and 12.00 pm.

At the beginning of the meeting the membership list was presented. Some corrections made to the list especially for e-mail addresses. The minutes of last meeting in Leon were summarized and they were approved. A presentation was held by the chair to explain the current situation of the TC. Although several people agreed to submit the calculations, so far only Mr. Saito and Mr. Lecocq submitted calculations. Calculations were made in Turkey also by using three different software programs. We currently have 10 comparisons of calculations for the results. From these results calculation intervals were shown based on the Standard Deviation Criterion in the chairperson's presentation. The results show that more sensitive and accurate calculations intervals can be found by the new system. Many more calculations are required to further establish the intervals are required. This should be completed by the end of this year. The draft chapter should then be prepared.

Some difficulties were found in the transfer of the luminaire intensity files to the various programs some issues and inaccuracies in the data were found. To deal with this, a new luminaire file was established in EXCEL format as well as in some of the other programs to use as a standard format. This was made available on a CD by the chairperson.

It was agreed that a basic measurement chapter or paragraph should be included. But it was decided that based on the work already in hand for the measurement only a small paragraph should be added and not an entire document.

Everyone agreed that the TI calculation has an issue. The observer position is different for CIE and EN publication. These problems can be a result of the differing methods or problems in the computer programs. A section on the specification of the TI should be added. Any member with information should send information to the chairperson.

A presentation was made by Ron Gibbons about the STV method currently used in North America. The mathematical formulation of the Adrian model and the limitation of the STV methods were presented. A report was requested of the presenter to discuss the issues to add the publication.

It is decided that TC's work will be concentrated on the test data. A draft chapter of Test Data will be prepared for the next meeting. The next meeting will be in Beijing. Everyone is reminded to get the calculation results to the chairperson by the end of the year.

TC 4-21: Interference by Light with Astronomical Observations:

The TC 4-21 met on Sept. 19th in Athens. There were 14 participants. The meeting was fruitful and productive. Despite of the absence of any re-drafting work, research has progressed a lot in this field.

3 major contributions are today in our hands for the revision of our last draft:

1. An international (US, France, Belgium), research called OSP taking into consideration in whole lighting area.
2. A mathematical model produced by the French illumination association at aiming at reducing upward flux. This model has been accepted by many European countries.
3. A mathematical model produced by the Italian illumination association.

It was agreed within the TC to investigate these three institutions to produce a full description of these methods and to consolidate them in a draft to be presented in Beijing next July.

TC 4-24 Calculation and Measurement of Tunnel Lighting Quality Criteria:

It was informed that this TC will have some meetings in Bern to finalize the report.

TC 4-26 Systems for measurement of photometric quantities of road lighting installations:

Mr. Rossi suggested to change this TC to reportership. The meeting agreed.

TC 4-33 Discomfort glare:

The committee met for the first time since 2001. A new Chair and a Vice-Chair were selected and will be presented to the Division for approval.

The suggestion is:

Chair: Dr. Ronald B. Gibbons

Vice-Chair: Dr. Stephan Völker

The committee reviewed the terms of reference of the committee and modified it to clarify the addition of roadway and vehicle lighting in the scope of work. It is requested that terms of reference be changed to:

“To study the known mathematical description of the discomfort glare in road and vehicle lighting, its scaling and comparisons with field studies and to condense the outcome in a report that should result in methods for discomfort glare assessment.”

The committee reviewed membership and discussed the issues which they would like to have included in the report. A literature review of the material will be prepared over the next months. A draft outline of the document will be prepared by May 1, 2007 to have it be reviewed by the committee before the Beijing meeting.

The meeting agreed to propose new Chair and Vice-Chair to CIE Board.

TC 4-36 Visibility Design for Roadway Lighting:

Main objective is to get “visibility design for roadway lighting report” document finished by the Beijing July 2007 division meeting.

Members are committed to have all necessary documents by January 2007 via e-mail.

Document on chapters 2 & 5 to be combined to have a more concise report.

Document on measurement to be updated.

Document on visibility level & revealing power is almost complete.

All members committed to submit documents by January ‘07 - Thus to have completed document by March ‘07.

TC 4-43 Emergency lighting in tunnels:

Since last division meeting, we have had three meetings in November 05 in Boston, January 06 in London and today in Athens. We have produced two drafts since our meeting in Leon.

The progress is good and we shall be able to submit a document for vote within the TC before Beijing. Therefore a meeting is planned next December to produce the final document.

TC 4-40 Requirements for retroreflective traffic signs:*General*

Since the last div. 4 meeting in Leon, Spain, the TC held meetings in Darmstadt, Florida, Alphen and Athens.

Progress

The latest document is draft 11 that will be completed with input from the Athens meeting and circulated to the TC. In draft 11 the table of contents is hyperlinked, all tables and graphs are linked to the text and numbered in sequence. The whole document has been reformatted and a definition section has been added.

A complete draft is expected to be sent to the division for review before the Beijing meeting.

Next Meeting (to be decided)

- Ft. Lauderdale, US, Friday January 26th 2007 in conjunction with ASTM

or

- College Station, Texas, US, Thursday April 19th 2007 in conjunction with TRB visibility symposium

TC 4-45 Performance assessment method for vehicle headlamp:

This technical committee was established in August 2005 as a continuation of the GTB taskforce that had been working for two years with the objective of developing a headlamp performance rating system to be used by EuroNCAP. When EuroNCAP decided not to continue it was decided that the work undertaken by GTB should be transferred to CIE with a view to completing the study and publishing the conclusions.

During the duration of the GTB activity a total of 48 organisations within the GTB Global national delegations had contributed and 18 meetings had been held between August 2003 and April 2005.

A week long testing event had taken place at the IDIADA facilities in Spain in May 2005 with the validation of a number of the performance parameters but further work was indicated with regard to the assessment of range and glare.

Since the formation of the joint CIE TC4-45 and GTB Front Lighting Working Group activity the TC has met on four occasions with a fifth meeting planned for 20 September in Athens. The TC is now working on a refinement of the assessment of range and following a second validation test event at the Hella facilities in Lippstadt Germany in March 2006 the data collected is being analysed.

The next step will be a reconsideration of the methods of assessing glare and as it is envisaged that this will be the most difficult aspect of the study, an input from the CIE experts will be greatly appreciated.

A further updated report will be given during the Division 4 meeting on 20 September.

TC 4-46 300 mm Traffic Light:

1. The first meeting of TC 4-46 met in Kifissia, Athens, Greece from 9 – 11 a.m. Wednesday, September 20, 2006.

2. The committee developed draft terms of reference, with are provided to Division 4 for approval:

“Develop a CIE Standard, for proposal to ISO, providing the colorimetric and photometric properties of 300 mm road traffic control roundel signals.”

3. The committee will gather national and international standards related to road traffic control signals for review and consideration. While the proposed standard will be technology independent, it is generally agreed that considerations for signals based on solid-state lighting (LEDs) should be incorporated in Annexes. Accordingly, a task group was established to develop test procedures for LED signals. Additional work to be considered includes development of monitoring and maintenance guidelines to insure that LED signals continue to meet requirements established in the proposed standard. A second task group was established to develop guidance to road authorities on site-specific requirements.

4. A first draft of the standard will be provided to the committee by May 1, 2007. A second draft is anticipated to be prepared for review at the next meeting of the committee during the 26th Session of the CIE, scheduled for July 9 – 11, 2007 in Beijing, China.

It was decided to suggest to CIE Board the terms of reference of this new TC.

10. Progress Reports by Reporters

The next reports were presented in Athens:

R 4-14 Road Lighting and Accidents (Carl Andersen)

Carl Andersen gave a short speech about this reportership. The key thing is that Carl wants as much as possible input about the area of this reportership by email: carl.andersen@fhwa.dot.gov

R 4-24 Definition of an Eye Sensitivity Function in the Mesopic Region to be Used for the Calculation of Road Lighting Levels (Stefan Voelker)

Stefan gave a PowerPoint presentation: “Progress report of the mesopic vision”. This PP-presentation will be added to webpage.

Stefan also proposed his reporter status to be changed to a TC.

Task of the new TC should be: Writing a recommendation with the Topic: Influences of white light of safety and comfort under mesopic conditions this reportership to be changed to TC.

It was decided that the official “Terms of Reference” will be made and circulated among members.

R 4-25 Automotive lighting (Ad de Visser)

Ad de Visser suggested that DIV4 should skip this reportership because it is so close TC 4-45. This was agreed.

R 4-29 Collection of research programs (Dick Stark)

Dick gave a short speech about the situation of this reportership. The main problem is the lack of input. Every country should encourage people to send information about this topic to Dick.

11. New R&D reports

There was no new R&D reports.

12. Discussion of new items

No discussion of new items.

13. Liaison matters

The next liaison matters were discussed:

CEN/TC 226: Road Equipment (Pentti Hautala)

Pentti told that there has been no items related to road lighting.

GTB (Ad de Visser)*Automotive**Reports to GTB*

Regular reports to GTB regarding CIE activities were given.

New developments update

- Adaptive Front lighting Systems will enter into force by the beginning of next year. This will allow bend lighting modes, highway lighting, town lighting, adverse weather lighting etc. controlled by sensors and navigation systems.
- GRE approved a proposal for mandatory installation of dedicated DRL lamps in April 2006. The final ballot is scheduled for November 2006 by WP.29. The EU is also considering mandatory use of daytime running lights but was also awaiting technical provisions by the ECE.
- Proposals for signalling lamps with variable luminous intensity have been approved by GRE Spring 2006. Sensors for detecting rain, snow, fog, day/night and dirt control luminous output. The ballot is scheduled for November 2006 by WP.29.
- An emergency break light display (flashing red stop lamps) and automatic activation of hazard warning lamps (flashing amber direction indicators) has been approved by GRE Spring 2006. The ballot is scheduled for November 2006 by WP.29.
- LED headlamps are being developed and are being introduced into the regulations. Signalling lamps with LED's are on the market for some time. LED's can be non-replaceable or part of a so-called Light Source Module (LSM) that is a divisible part of the headlamp or signalling lamp. The drafting of a new Regulation for LED Light Sources, which can be replaced like filament lamps, has been started.
- Application of LED's cause questions about possible combinations of signalling lamps with (partly) the same luminous area, in particular when different colours are involved.
- "Phantom light and colour wash out tests" are under study. Reasons are the use of coloured filament lamps or LED's in signalling lamps with clear glass/outer lens.
- Provisions for a front fog lamp with improved beam pattern and cut-off were proposed by GTB to GRE.
- Usually, a few filament lamps are illuminating the (retro-reflective) rear registration plate from the side. New developments are plates that are emitting light itself (electroluminescent foil) or where the lighting is coming from behind the plate (trans-illuminated plates).
- Distributed lighting gas discharge headlamps have been approved already some time ago, but due to a long lasting discussion on fail safe provisions the use of one light source for two headlamps is still not really implemented in the regulations.
- A worldwide harmonised low and high beam pattern is still under consideration.
- There are quite some discussions on voltage control systems. Many new vehicles use PWM while filament lamps have been designed for DC operation. Further the effective value of the onboard voltage is often higher than 12V DC. Also dimming is being used like in a combined stop/tail function.
- A proposal was sent for approval by GRE to modify the notation of the colour specifications. The proposed notation is closer to as specified by CIE and does not only contain the colour boundaries but also the intersection points of the boundaries.

Standards

No items to report.

Websites

- ECE Regulations: <http://www.unece.org/trans/main/wp29/wp29regs.html>
- GTB working documents (password via head of national delegate):
<http://www.ass-cuna.org/>
- US FMVSS: <http://www.access.gpo.gov/>
- SAE standards (costs charged): <http://www.sae.org/servlets/index>

14. Officers for the next Quadrennium.

High-ranking officers for CIE were presented at the previous D4 meeting.

Division 4 situation:

DD told that in last summer he asked Division members to nominate their candidates to the post of the next Division Director.

He received six names. After checking who is willing to take on the role, there were two candidates left. They had support in the following order:

1. Ad de Visser, The Netherlands
2. Steve E. Jenkins, Australia

It was decided to propose that the Board considers this matter and makes the final nomination to GA.

14. Planning the future meetings**2007 meeting:**

Overview of the session in Beijing was presented.

The timetable is:

4.-7.7. Conference

9.-11.7. Division meetings

Link to “Beijing-pages” is in DIV4 webpage.

2008 meeting:

No invitations yet. It was suggested that Finland should host this meeting.
No decisions yet. (After this meeting the invitation was received from Finland.)

2011 meeting:

Invitation to Capetown, South Africa

**CIE DIV 4 meeting in Athens, Greece, on the 18th in September 2006
and on the 20th in September 2006**

Attendees:

Tapani Nurmi	Finland	Richard Stark	USA
Pentti Hautala	Finland	Jon M. Hart	USA
Ad de Visser	Netherlands	Haldun Demirdes	
Ton van den Brink	Netherlands	Takashi Saito	Japan
Carlo Rocca	Italy	Kohei Narisada	Japan
Giuseppe Rossi	Italy	Marc Gillet	Belgium
Eirik M. Bjelland	Norway	Nigel Pollard	UK
Tom Kristofersen	Norway	Marko Bizjak	Slovenia
Axel Stockmar	Germany	Stephan Voelker	Germany
Sermin Onaygil	Turkey	Larry Leetzow	USA
Carl K. Andersen	USA	Paul Carlson	USA
Cyril Chain	France	Geoff Draper	UK
Ans van den Broek	Netherlands	Henri Juslen	Finland
Péter Schwarcz	Hungary	Ron Gibbons	USA
Harry Kambezidis	Greece	Malcolm Nicolson	UK
Otto Letamendi	USA	Kenji Mukai	Japan
		Kazuto Tainoson	Japan
		George Birnbaum	Israel
		Kim Patten	USA
		Scott Davis	USA
		Georgios Paissidis	Greece
		Jaques Lecocq	France