

Division 3 Meeting of CIE, Reykjavik, Iceland
16 – 17 June 2001-07-06

Held at The Radisson SAS, Saga Hotel Reykjavík,
at/ Hagatorg, 107 Reykjavik.

Sunday June 17th 2001

The Previous day, Saturday June 16, 2001 there were meetings of TC's 3-25 Chairman D. Dumortier, 3-33 Chairman R. Mitanchey represented by Marc Fontoynt, 3-35 and 3-36 Chairman D. Dumortier.

Attendance

Chairman

Marc Fontoynt - Director Division 3
Dominique Dumortier - Divisional Director (Natural Lighting)
LASH-ENTPE, France
Sueko Kanaya - Divisional Director (Artificial Lighting)
Kanazawa Institute of Technology, Japan

Secretary

Geoff Cook - The University of Reading, UK

Werner Osterhaus - Victoria University of Wellington, N Zealand
Dilek Enarun - Istanbul Technical University, Turkey
Simon Simos - University of Applied Sciences, W Switzerland
Johan van Kemenade - Philips Lighting, Netherlands
Lou Bedocs - Thorn Lighting Ltd, UK
Masato Oki - Ashikaga Institute of Technology, Japan
Lisa Halonen - Technical University of Helsinki
Peter Dehoff - Zumtobel Staff Dornbira, Austria
Guy Newsham - NRC, Canada
Hayden Willey - New Zealand
Andrzej Kotlicki - University of British Columbia, Canada
Richard Kittler - Slovak Academy of Sciences, Slovakia
Heinrich Kramer - Germany
Jan Ejhed - Sweden
Allan Ottosson - Sweden
Yasuko Koga - Kyushu University, Japan
Rados Topalova - Ergonomics, Lighting & Visual Science, USA
Axel Stockmar - Germany

1 Opening of Meeting

The Director thanked the organizing committee of Lux Europa for their assistance in hosting the meeting of CIE Division 3. The Division Secretary [DS] to formally write to the Chairman of the Conference.

2 Approval of Agenda

The Agenda was formally approved.

3 Apologies for Absence

Apologies for absence were received from:

Stanislav Darula, Slovakia Representative

Hans-Allan Löfberg, President, Liaison Officer ISO/C160/SC2/WG2

Jennifer Veitch, Canada Representative, Chairman TC3-34.

Ivan Pasini, Canada Representative

Yoshi Uetani, Japanese Representative, Chairman of TC3-15, 3-37.

Martin Van Ooyen, Netherlands Representative.

Kit Cuttle, New Zealand Representative.

Lorne Whitehead, Canada Representative, Chairman TC3-30

Mojtaba Naavab, Chairman TC3-11, TC3-19, TC332 and TC3-11

Prof. Eliyahu Ne'eman, Israel Representative.

4 Approval of York Meeting Minutes

The minutes of the previous meeting of the Division in York in 2000 were approved.

5 Division Membership changes

The new Representative for Hong Kong is:

Mr Thomas Chan

Parsons Brinckerhoff (Asia) Ltd

23/F AIA Tower

183 Electric Road, North Point,

HONG KONG

The new representative for Germany is:

Dr Ing. Heinrich Kramer

LICHTDESIGN GmbH

Neusser Str. 27-29

50670 Köln

GERMANY

The new contact details for the Slovenia Member are:

Dipl.Ing.Boris Sovic

Drzavnizbor Republike Slovenije

Subiceva 4

SI 2000 Ljubljana

SLOVENIA

The new contact details for the Turkey Member are:

Dilek Enarun

Istanbul Technical University

TURKEY

6 **The Divisional Director & Associate Director's Report**

The Divisional Directors [DD] Report

The Director of the Division gave a report that focused on the work of the TC's within the Division. There was an emphasis on the successful completion of several Reporterships. Several final reports had been received. A range of new topics were summarized and the Director gave a general call for there to be new activities within the Division. The Division was reminded of the range of different outputs that are available to disseminate the work of Technical Committees and Reporterships.

The Divisional Director (Artificial Lighting)[DDAL] Report

The Divisional Director (Artificial Lighting) gave a report that highlighted the successful completion of the work of TC3-21. This committee has now produced an approved CIE/ISO Standard for the Lighting of Indoor Workplaces. The need for further work in the area of Overhead Glare and the finalization of the work of TC3-01 were cited as being priority activities for the Division.

The Divisional Director (Natural Lighting) [DDNL] Report

The Divisional Director (Natural Lighting) gave a report that examined the work of the TC's 3-15, 3-25, 3-36 and 3-37. The work of TC3-15 has been completed and the Division is required to consider the adoption of the new standard sky as developed by this committee. This would replace the existing CIE General Overcast Sky. In order for this to progress the Divisional Editor is required to review the final report of this TC.

The Deputy Director called for all of the measuring stations associated with the work of TC3-25 to measure zenith luminance and diffuse illuminance at one minute intervals in order to enhance the range of available data. In addition the Deputy Director called for sky luminance to be assessed in more detail in the work of this TC and in all other natural lighting studies concerned with sky measurements.

7 **TC Chairman reports**

TC3-01 Glare from small and large sources - Chairman H Einhorn

The work of this committee has been affected by the sad death of the Chairman. The division committee engaged in a wide-ranging discussion on the work and output of this TC. There was some evidence that a final report had been produced and that balloting of the Division had occurred. The content of the report was considered to address glare from small and large sources although there it was unclear if the work had also addressed the assessment of glare from windows. In order to establish the nature of the work and output of this TC DDAL and Lou Bedocs agreed to investigate and report to the DD.

Action: DDAL and Lou Bedocs

DS Update: Following further communications it has been confirmed that the content of the report from TC3-01 addresses glare from large and small artificial

sources. In addition it is confirmed from CIE HQ that this report, although cleared for publication in the main collection, is awaiting a report from TC1-50 on glare formula.

TC3-11 Daylight calculation methods - Chairman M Navvab

A one page report had been received from the TC Chairman. There was discussion concerning the work of this TC. In noting that a draft final report is prepared, the division committee was concerned that the opportunity to actively involve all members of the TC had not been taken. The DS was requested to contact the Chairman to ensure that this was carried out and also to remind the Chairman of the need to circulate the final report to all TC members and carry out a vote of TC members on the final text of the report.

Action: DS

TC3-15 Sky Luminance models - Chairman Y Uetani

The Board of Administration and Division ballot on the Draft Standard DS011.1E has been carried out and has received the necessary majority. The general comments associated with the voting have been addressed by the Chairman. The Division meeting decided that the existing standard S003/E is now superseded by this new standard.

TC3-19 Scale Model Photometry for Interior Lighting - Chairman M Navvab

A one page report had been received from the TC Chairman. There was discussion concerning the work of this TC. In noting that a draft final report is being prepared the division committee were concerned that the opportunity to actively involve all members of the TC had not been taken. The DS was requested to contact the Chairman to ensure that this was carried out and also to remind the Chairman of the need to circulate the final report to all TC members and carry out a vote of TC members on the final text of the report.

Action: DS

TC3-20 Lighting and Architecture - Chairman H Kramer

The Chairman made a presentation of the work of the TC to the division committee. This covered the wide ranging nature of the work and illustrated the psychological aspects of lighting. The TC chairman outlined the further work required to complete the report by September 2001. The division fully endorsed the need to publish the work of this TC within the main CIE collection. The division committee recognized that the proposed format is unlike the usual CIE published material. The DS was requested to contact VP Publications to obtain advice concerning publication.

Action: DS

TC3-21 CIE/ISO Interior Lighting Standards - Chairman L Bedocs

The Chairman gave a report of the work of the TC. This confirmed that the DS 008.3/E had been voted on and was due for release as a standard in July 2001. Comments received during the balloting have identified issues concerning the

applicability of UGR at spacings other than 1:1 and colour rendering and colour appearance. The latter has been identified as an issue of concern within North America.

The Director thanked the Chairman of the TC for the work of his committee.

**TC3-22 Museum Lighting and Protection against Radiation Damage
Chairman E Ne'eman.**

A report was tabled which indicated some progress in the work of this TC. The division committee requested that the DS write to the chairman asking for a copy of the draft guide circulated to TC members and also for a programme of work to provide a draft for Division balloting by early 2002.

Action: DS

**TC3-25 Co-ordination Development of the IDMP and its data
Chairman D Dumortier.**

The Chairman gave a report of the work of this TC. The output of this TC is a web server that is currently operating effectively. In order to formally complete the work of this TC it was agreed that a brief final report be produced for balloting of the division in the normal way.

Action: TC Chairman

TC3-30 Hollow Light Guides - Chairman L Whitehead

Dr. Kotlicki a member of the TC had been requested by the TC Chairman to give a verbal report of the work to date. This has concentrated on the production of a final report. There are, however, strong differences of opinion within the TC concerning the content of the report. The DD has been in communication with the TC Chairman and Prof Aizenberg with a view to producing an agreed final report. The division committee requires that the TC is balloted on the final report prior to any further balloting within the Division and CIE. Where the content of TC's final reports is contentious it is important that the views of all the TC members are reflected in the final report. The Division Committee requires the TC Chairman to consult with all TC members and produce a report which reflects their views. It is essential that final reports are academically rigorous and offer an un-biased commentary on issues relating to light and lighting. **The report is close from being finished, and it is urgent to solve the last critical issues. DD will contact TC Chairman**

Action: TC Chairman

TC3-31 Lighting for Real Spaces - Chairman D Carter

The Chairman of the TC gave a report of the work to date. A final version of the Technical Report has been voted on by the TC and this has been circulated to the DD and DDAL for comment. This version will be modified to accommodate all comments and passed to Division Ballot in the near future with responses required by September 2001.

**TC3-32 Validation of Algorithms for Daylight Outdoors
Chairman N Navvab.**

A one page report had been received from the TC Chairman. There was discussion concerning the work of this TC. In noting that a draft final report is being prepared the division committee were concerned that the opportunity to actively involve all members of the TC had not been taken. The DS was requested to contact the Chairman to ensure that this was carried out and also to remind the Chairman of the need to circulate the final report to all TC members and carry out a vote of TC members on the final text of the report.

Action: DS

TC3-33 Test Cases for the Assessment of Accuracy of Lighting Computer Programmes - Chairman R Mitanchey

The DD gave verbal report on the work of this TC. The Chairman, R Mitanchey, has resigned. The DD proposed that Fawaz Maamari be appointed to carry forward the work of this TC. This was agreed by the Division Committee and the DD to advise Fawaz Maamari of his appointment. The possibility of the terms of reference of the TC being changed was discussed. Any changes must be noted by the DD, CIE HQ informed and the Division 3 web server modified. General discussions followed concerning the availability of data from the BRE in the UK. The chairman of the TC was recommended to contact Anthony Slater at BRE.

Action: DD

TC3-34 Protocols for describing lighting - Chairman Jennifer Veitch

A report was tabled from the TC Chairman. Guy Newsham, a colleague of the TC Chairman, was in attendance and gave a verbal summary of the work of the TC. Progress was considerable and the final report should be ready for Divisional Ballot in 2003. This was agreed by the Divisional committee.

TC3-35 General evaluation of discomfort glare Chairman - Kai Sorensen

Following the resignation of the Chairman there has been no progress on the work of this TC. Following a wide ranging discussion concerning the activities of the Division with regard to Glare, it was noted that glare from windows had been considered by Reportership R3-19. Although glare from windows was not part of the work of TC3-01, this TC had examined glare from large and small sources. It was agreed that the Division did have a keen interest in work associated with glare and that two areas for further work were identified. These are glare from windows and overhead glare. Members of the division to be encouraged to support work in these areas. **Werner Osterhaus a TC member from New Zealand indicated a willingness to act as a focus glare from windows, and Prof S. Kanaya on overhead glare.**

TC3-36 Use of satellite images to derive daylight data.

Chairman: D. Dumortier.

The TC Chairman gave a verbal report on the work of this TC. This gave a review of the work to date and identified the need to broaden the membership of the TC to include countries outside the EU. It was the intention of the TC to

produce a CIE Standard, drawing from the report produced from Reportership R2-20. The TC is working to a completion date of 2004.

**TC3-37 Guide for the application of the CIE General Sky
Chairman: Y. Uetani.**

The work of this committee was reported by the DDNL. A draft report is under production which will address the need to provide design guidance concerning the CIE General Sky. The TC aims to complete their work in 2004.

8 Division Reporters Reports

R3-02 Stage and studio lighting - K R Ackerman

The DS gave a verbal report on the work of this Reportership. The main activity of this committee was the regular SHOWLIGHT conference. The latest conference was held in Edinburgh on 21st to 23rd May 2001. This had been a successful event. Details are available at: www.showlight.org.uk

R3-06 Accidents and lighting - R Topalova

The Reporter gave a verbal report of the work to date. Several difficulties had been encountered in the gathering of accurate data. As this is a key part of the work of this reportership the work could not proceed in a satisfactory manner. The Reportership was therefore closed.

R3-10 Maintenance of indoor lighting - L Bedocs

The Reporter gave a verbal report of the work to date. This reportership was established to monitor the feedback of comments concerning CIE Document 97. To date no major comments have been received.

R3-13 Lighting vocabulary - C Belcher

The Reporter has resigned. Since the Reporter is also the Division Editor there is an urgent need to make a new appointment. It was agreed that the DS write to Clay Belcher to confirm his retirement from these posts in Division 3 and also thank him for his contribution to the work of the Division.

Action: DS

R3-15 Lighting standards - S Simos

The Reporter gave a verbal report of the work to date. An extensive spreadsheet had recently been issued to all Division members calling for information concerning national standards and codes for lighting. All members are encouraged to complete this spreadsheet and return it to the Reporter.

R3-16 Lighting in developing countries - R Henderson

No report was received.

R3-17 Calculation of utilisation factors - R Topalova

A verbal summary of the work to date was delivered by the Reporter. The need to revise the CIE utilisation factor was explored. It was agreed that the Reporter produce a report for circulation and comment by the Division.

Action: R. Topalova

R3-18 Thermal Environment, outdoor climate and visual preferences - C. Laurentin

A verbal review was given by the DD. Members of the Division had not received the draft report and it was agreed that this should be re-circulated by the DS. Comments from the Division are required by September 2001.

Action: DS.

R3-19 Glare from windows - M.Velds

A verbal review was given by the DD. Members of the Division had not received the draft report and it was agreed that this should be re-circulated by the DS. Comments from the Division are required by September 2001.

Action: DS.

R3 20 The use of satellite images - Y.Koga

A final report from the work of this reportership was tabled by the Reporter. This to be circulated to members of the Division for comment by September 2001.

Action: DS

9 Liaison Officers Reports

9.1 CEC JOULE Projects: Liaison Officer - Marc Fontoynt

The Liaison Officer gave a verbal report which confirmed the generally lower priority being given to lighting within the JOULE Programme. Several areas associated with natural light and satellite data were, however, an active part of this programme.

9.2 CEN/TC169 Lighting Applications

Liaison Officer - Anthony Slater

WG1 Documents are being balloted within CEN

WG2 Progressing to a final enquiry

WG3 A draft for enquiry into photometric requirements is due for release.

WG4 A document has been released.

WG5 Work is progressing.

WG6 No report

WG7 A document which forms Part I of a CEN document has been published.

This is as CIE document 121.

WG8 A draft report is being produced.

9.3 International Association of Lighting Designers

Liaison Officer - Jules G Horton

No report was tabled. It was agreed that the DS contact the Liaison Officer to determine his willingness to engage in CIE activities. Should this not be forthcoming it was agreed that H. Kramer be appointed as Liaison Officer.

9.4 International Energy Agency

Liaison Officer - Nancy Ruck

A verbal report was delivered by the DD. The work of IEA 21 is now completed. The IEA has called for the development of new task areas within the next year.

These tasks are associated with:

- Occupant Satisfaction
- Design Guidelines
- Validating Tools for Simulation
- Promotion of the Quality of Natural Light

The Division is encouraged to contact the DD for further information.

9.5 ISO/TC159/SC5/WG2 Ergonomics Physics Environment Lighting

Liaison Officer - Lou Bedocs

The Liaison Officer gave a verbal report. The draft report containing symbols for safety are out for comment. This includes the CIE recommended colours.

ISO/159/SC4/WG3: Ergonomics/Signs and Controls, Workplace and Environment Liaison Officer - Lou Bedocs

The Liaison Officer gave a verbal report. Work is proceeding to align the work here with that of the new standard produced by TC3-21.

9.6 ISO/TC160/SC2/WG2 Glass in Buildings - Light and Energy

Transmission - Hans Allan Löfberg

A report was tabled confirming no new developments

9.7 ISO/TC59/SC159/SC3: Building Construction User

Requirements

Liaison Officer - Peter Tregenza

No report.

9.8 WMO - Liaison Officer Peter Valco

No report was received. It was suggested that the Liaison Officer had retired. It was agreed that the DS contact him to confirm this and report to the DD.

Action: DS

10 Review of Division 3 Publications

It was noted that the Division Editor [DE] had resigned. There is an urgent need to appoint a new DE and members of the Division were asked to consider a suitable candidate. In order to carry forward the editing role it was agreed that the following would carry out editing duties for the following TC's.

TC3-15 The DS; TC3-18 L. Bedocs; TC3.19 W. Osterhaus; TC3-20 DDNL and R. Perez; TC3-31 DD.

11 **Future work**

A wide ranging discussion of the division committee agreed that the following areas should be given priority in CIE Division 3 activities.

Overhead glare; Glare from windows; Lighting for the elderly; Producing a comprehensive approach to lighting design.

11.1 **New Technical Committees**

No new TC's were proposed.

1.3 Proposals for new reporterships

There were no new proposals for Reporterships.

12 **Any Other Business**

The DDNL gave a review of addition features available on or shortly to be available on the Division web server.

13. **Date of Next Meeting**

The possibility of meeting prior to Lux Pacifica in September 2002 in New Delhi was discussed. **A possibility to have the meeting organized at NRCC in Ottawa was also discussed.** The DS to contact the organizers and report to the DD.