

MINUTES OF THE 29TH ANNUAL MEETING OF THE  
CANADIAN NATIONAL COMMITTEE OF THE CIE

Held in the Galbraith Building Room CB202 University of Toronto,  
Toronto Ontario, December 10, 1984.

PRESENT:

Prof. M. G. Bassett (University of Toronto), Toronto  
Ms. A. Chrysler (Mulvey & Banani Int'l Inc.), Toronto  
Mr. F. Clark (Fire Research Div. of Bldg. Res., NRC), Ottawa  
Mr. G. Falgate (Philips Electronics Ltd.), Toronto  
Mr. R. Jennings (Lighting Sciences Canada Ltd.), Waterloo  
Prof. P. Kaiser (York University), Toronto  
Mr. A. Ketvirtis (Fenco Engineers Inc.), Toronto  
Dr. A. Levy (Rose Technology), Toronto  
Mr. S. Mahanti (D. W. Thomson Consultants), Vancouver  
Mr. S. McKnight (Retired), Cambridge  
Mr. I. Pasini (P W C)  
Dr. A. Robertson (Div. of Physics, NRC), Ottawa  
Mr. S. Subotich (Canadian Standards Association), Toronto  
Dr. B. Tansley (Carleton University ), Ottawa  
Mr. D. Trotter (Mines Accident Prevention Association), North Bay  
Mr. E. Wotten (Consultant), Toronto  
Dr. G. Wyszecski (National Research Council), Ottawa

1. Call to Order and Approval of Agenda

The President, M. Bassett, opened the meeting at 10:15, D. Trotter acted as recording secretary. M. Bassett introduced guests I. Pacini, S. Mahanti, A. Chrysler, and F. Clark to the group and reported that White, Adrian, and Manning had sent their regrets. The order of the agenda as distributed was approved.

2. Minutes of 28th Annual Meeting

Moved by A. Ketvirtis, seconded by B. Tansley that the minutes of the 28th annual meeting be accepted. Carried.

3. Secretary's Report

Moved by R. Jennings, seconded by A. Robertson, that the Secretary's report be accepted. Carried.

4. President's Report

The President reviewed two recent amendments to the CIE Bylaws, relating to the nomination or appointment of people by the Division Director to help speed up the work of the Division. This generated much discussion among the group on the make-up of technical committees and the politics re appointments. Moved by P. Kaiser, seconded by S. McKnight that the President's report be accepted. Carried.

5. Report of the CIE Executive Committee

M. Bassett reported that only one report has been received, the minutes of the executive committee meeting in Amsterdam, and that this had been discussed at the 28th annual meeting.

6. Reports from Division Members

- Division 1 Vision and Colour.

P. Kaiser gave a verbal report on activities. This is an active division.

- Division 2 Physical Measurements

A. Robertson gave a verbal report. Another active division with 15 technical committees carrying on their work largely by correspondence. Some 13 documents are in various stages of production.

3 documents currently being printed.

2 documents in final draft stage.

3 documents in intermediate draft stage.

5 documents in preliminary draft stage.

A full divisional meeting is scheduled for June '85 in Nice, France.

- Division 3 Interior Lighting

R. Jennings distributed written copies of his report on division 3 work. This does not appear to be an active committee and a lack of communication seems evident.

6. Reports from Division Members Continued.....

- Division 4 Lighting for Transport

B. Tansley gave a verbal report on activities. With 18 working groups and 10 technical committees this division is active. D. Trotter read a letter from Dr. Adrian who attended a Division meeting. A. Ketvirtis reported on some of the work related to roadway lighting based on new standards for visibility index, and on a new method of working out tunnel lighting based on luminance.

- Division 5 Exterior Lighting

D. Trotter gave a verbal report on activities. There appears to be trouble communicating with technical committees, particularly with the three committees involved with mine lighting, who don't fit very well into the new Division structure.

- Division 6 Photobiology

No report available.

- Division 7 General Aspects

No report available.

7. Reorganization of the CNC/CIE

Several ideas were given. A summary of the more salient points follows:

- A. Robertson - Suggests an inner group guaranteeing wide representation and a wider group consisting of as many members as possible (advisory members).

Inner group to consist of:

- President
- Vice-President
- Secretary
- Past President
- 7 Divisional Members
- 5 Regional Members
- IES Canadian Region V.P.

One member could act in 2 or more capacities.

7. Reorganization of the CNC/CIE Continued.....

- A. Robertson - Stressed importance of division members in CNC/CIE structure and emphasized 4 duties.
- Keep all interested parties informed.
  - Make sure experts become members of technical committees.
  - Vote on Canada's behalf when required.
  - Attend Division meetings but not always possible and should not be a prerequisite.

Division members and Canadian members of technical committees should be encouraged to form advisory committees to assist them.

- A. Levy - Stressed #1 task in new Division structure is to keep all parties informed.
- Suggested an up-to-date pamphlet of what CNC/CIE is all about should be printed for distribution.
  - Pointed out contact with IES can be improved. Many Canadians active in IES and can contribute to the Canadian voice in CNC/CIE.

- M. Bassett - Pointed out CNC/CIE tends to be too much of the old guard and needs an influx of young, bright, lighting people to get involved in activities of CNC/CIE.

- E. Wotten - Pointed out difficulty in taking an active part in CIE because of demands on time, meetings in exotic places. Members have little idea of activities. A newsletter to members stressing technical aspects would be a great help.

- P. Kaiser - Suggested ways of advertising CNC.
- Announcement in IES on where to get information.
  - Report of our meeting in LD & E.

7. Reorganization of the CNC/CIE Continued.....

- B. Tansley - Stressed interest in documents once they are published by CIE technical committees. Need a better distribution method than what is presently available from CISTI.
- R. Jennings - Suggest publicizing in Office of Lighting Research.
- G. Wyszecski - Could get CIE publications distributed to IES chapters for display at local meetings and as a mini-library for members to borrow. This would ensure that information is properly distributed. Incoming president should discuss with C. Gauvreau re funding this project.
  - A booklet was issued at one time on CNC/CIE. Could be updated and include a supplement of reports of technical committees, list of publications, etc. Publications costs may be covered by NRC, International Relations Office.
- M. Bassett - Subcommittee to look at publication of booklet, dissemination of information, etc. can be set up from CNC/CIE members. Members defined as per A. Robertson's suggestion of what constitutes Inner Group. (See first suggestion).

There being general consensus to M. Bassett's suggestion, president then asked for termination of discussion. Members then adjourned for lunch.

8. Revised By-laws of the CNC/CIE

M. Bassett reported that 16 yes votes had been received by letter ballot regarding the mail-out of the revised by-laws to take into account the new Division structure. A. Robertson and W. Budde had since suggested some important editorial changes. A. Levy suggested this item be tabled for the incoming executive. Members concurred.

9. Membership to the CNC/CIE

B. Tansley asked if student membership is possible. It was suggested that they be called affiliated members.

9. Membership to the CNC/CIE Continued.....

Discussion ensued as to candidates for regional membership. Suggestions were:

B.C.	-	S. Mahanti
Prairies	-	
Ontario	-	Not required
Quebec	-	Tom Nutt, Art Mendel, Brian Jordan
Maritimes	-	Peter Manning, Ralph Smith, Dr. Makelian

10. Election to fill vacancies in CNC/CIE Executive

Terms of office have expired for M. Bassett, President and D. Trotter, Secretary.

For office of Secretary, M. Bassett nominated Allyson Chrysler, seconded by B. Tansley. Carried.

For office of President, M. Bassett nominated A. Robertson, seconded by P. Kaiser. Carried.

These terms of office to be reviewed at end of next quadrennial i.e. fall of 1987.

A. Robertson's position of Vice-President becomes vacant if taking over as President; B. Tansley nominated P. Kaiser for Vice-President. Seconded by A. Ketvirtis. Carried.

D. Trotter resigned as Canadian Delegate to Division 5. G. Szecker has agreed to take over Division 5 and relinquish his position as Delegate Division 6.

Division 6 now open. M. Bassett to contact Prof. Jim Tjusita, University of Guelph, to see if he will agree to being Canadian Delegate.

Committee members were reminded that Executive Committee appointments are made by NRC. D. Trotter to write C. Gauvreau requesting that above changes be made.

11. Other Business

D. Trotter reported on publications of CIE and arrangement with CISTI. A better reporting method is required regarding stock, prices, ordering of new publications.

11. Other Business Continued.....

G. Wyszecski reported on the state of the CIE Journal. The Journal may not continue in its present form and negotiations are presently underway to see if it can be a major vehicle for publishing illumination research and become a possible sponsor for international research.

It was agreed that M. Bassett would send a card to W. Budde on behalf of the CNC wishing him a speedy recovery.

P. Kaiser extended a vote of thanks to M. Bassett for past services. Members heartily agreed and showed their appreciation with a vigorous handclap.

There being no further business the meeting adjourned at 15:40.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Don Trotter', with a stylized, cursive script.

DT:ct

Don Trotter  
Secretary CNC/CIE

### C.I.E. DIVISION III: INTERIOR ENVIRONMENT AND LIGHTING DESIGN

Report to CNC/CIE 29th Annual Meeting  
University of Toronto  
December 10, 1984

This report consists of the following:

- |            |   |
|------------|---|
| Section 1. | Comments on C.I.E. Division III   |
| Section 2. | Report on T.C. No.7   |
| Section 3. | Report on U. S. Daylight Availability Work Group  |
| Section 4. | The Canadian position with regards to C.I.E. T.C. No.7,<br>Preparation of a Program of Work, etc. |

Section 1. C.I.E. Division III

Director: E. Barthes  
Centre Technique Mazda  
11 Quai de Dion Bouton  
F-92818 Pateaux Cedex, France.

Secretary: Mme. Pierette Chauvel  
C.S.T.B.  
11 Rue Henri Picherit  
F-44300, Nantes, France

Regretfully I must report no correspondence has been received from the Director or Secretary of Division III since the inaugural meeting of Division III, held in Amsterdam on September 8, 1983, which I attended. I am therefore unaware of the work program or studies being undertaken by the Division with the exception of T.C. No.7 reported in Section 2. I did hear indirectly of a meeting Division III held in Cambridge, England on April 18, but too late to attend. I have not received a copy of the minutes of this meeting.

I also checked to determine if our President or Secretary had received any correspondence, but received a negative reply.



Section 2. Preparation of a Programme of Work for International  
Collaboration on Daylight Availability Measurements.

Chairman: J. D. Kendrick  
University of Adelaide  
Box 498, G.P.O.  
Adelaide, South Australia, 5001

During the past few months considerable interest has developed in several countries of international collaboration and standardization in the measurement of daylight availability. It is anticipated these several countries will actively support the developing international program leading to the proclamation of an International Daylighting Year in 1989.

Please find attached a copy of:

- J. Kendrick's report dated April 3, 1984 to C.I.E. Division III, supposedly presented during the meeting in Cambridge, England on April 18 & 19, 1984, and referred to in Section 1 of this report.
- J. Kendrick's circular letter No.6 and attachment dated July 5, 1984.

T.C. No.7 is actively discussing several matters concerning the conceived Program of Work. Several technical papers and recommendations have been distributed to members. The committee hopes to meet the proposed schedule.

Section 3.

U.S. Daylight Availability Working Group

Chairman: Dr. Ross McCluney  
Florida Solar Energy Centre  
300 State Road 401  
Cape Canaveral, Florida 32920

The U.S. Daylight Availability Working Group, has held two meetings, one in May 1983 at the Lawrence Berkeley Lab. and the second in September, 1984 at FSEC. I attended both meetings; first to keep informed of the U.S. Working Group's progress and secondly to promote and coordinate a U.S./Canada effort in this very important work

The second meeting was very productive and resulted in plans being made to create a "U.S. Standard Practice for the Measurement and Reporting of Daylight Availability". Please find attached a proposed Table of Contents for this Standard.

Work in drafting these sections is well underway and it is expected the document will be completed in March 1985. It will then be submitted to the C.I.E. Technical Committee No. 7 for final revision and acceptance by participating countries.

Madame President, the U.S. Working Group has a very impressive list of members. It includes representatives from the:

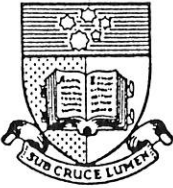
National Bureau of Standards  
Solar Energy Research Institute  
Atmospheric Sciences Research Centre, State University of N.Y.  
Lawrence Berkeley Labs.  
The AIA Foundation  
U.S. Department of Energy  
Several leading universities  
Florida Solar Energy Centre

The (U.S. Daylight Availability Working) Group includes several experts from research organizations, universities, etc. many of whom have received contracts from DOE or LBL to participate in this important program. I suspect the U.S. Group is far ahead of other countries in developing the Program of Work outlined in Section 2.

Section 4.        The Canadian position with regards to C.I.E. No.7,  
Preparation of a Program of Work, etc.

I am very concerned about Canada's participation in the global effort being made by C.I.E. T.C No.7, namely the Preparation of a Program of Work for International Collaboration in Daylight Availability Measurements and most importantly, implementing the actual program in Canada. This is a major program requiring considerable co-ordination amongst interested government departments, universities, etc. It will require extensive financial support over a period of years, which will have to be planned for in yearly budgets. It will not be an easy task in view of our present economical and political situation to interest the government in this program.

Madame President, I believe this to be a serious problem, which must be resolved as quickly as possible. I would therefore appreciate receiving comments from this committee which may assist me in planning a course of action.



# THE UNIVERSITY OF ADELAIDE

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Please address correspondence to  
Department of Architecture  
JDK:CDH

5 July 1984

T.C. CIRCULAR LETTER NO. 6

C.I.E. Division III: Interior Environment and Lighting Design  
Technical Committee No. 7: Preparation of a Programme of Work for  
International Collaboration in Daylight  
Availability Measurements

Dear Technical Committee Member,

I am very pleased to report to Members that the tempo of activity within the Committee has been stepped up since my last Circular Letter No. 5 on 1st June 1984. I have received correspondence from Peter Tregenza, Hans Allan Lofberg, Pierrette Chauvel and Nancy Ruck.

Peter Tregenza who represented the T.C. at the C.I.E. Division III meeting held in April at Cambridge in U.K. reports that as there were only two other T.C. members attending, a committee meeting was not held.

At the C.I.B.S. Cambridge meeting held before the Divisional meeting, one session was devoted to daylight and during the discussion on a paper by Paul Littlefair, Peter Tregenza mentioned this Technical Committee's activities concerned with co-ordination of international measurements and asked for comments. Peter reports that there was little by way of useful response on the needs for daylight data.

Peter also reported very briefly on the very useful and constructive meeting held by Division III, but I will await the receipt of the Minutes of the meeting before writing to Members.

Peter Tregenza also advises that he has held a meeting in Nottingham with U.K. daylighting researchers Sheila Secker (Committee Member) and Paul Littlefair (B.R.E., Watford) and that he hopes to prepare a paper for the T.C.

Hans Allan Lofberg made further welcome contact with me following the "Windows in Buildings and Maintenance" Conference held in Gothenburg (13th - 15th June 1984). I feel sure that he would be pleased to re-direct any orders from T.C. Members, for copies of the Conference Papers and Proceedings, to the appropriate person.

Both Hans Allan and Pierrette Chauvel have given advice on the date of the next meeting of Division III:

The next meeting of Division III will be held in Lausanne, Switzerland, on 11 and 12 September 1985 just after a Lux-Europa session.

*N.B.  
Not received  
by R.C. to  
Nov-18/84*

*N.B.*

This later date will, I propose, not change the planned programmed date for completion of the first draft of the work of this T.C. We will stick to the programmed date of March 1985. The greater interval of time between the originally envisaged date of the Division III meeting of May 1985 and the new date of September 1985 will permit distribution and discussion of the draft paper to occur. This should ensure a full discussion at Lausanne which is most desirable before the T.C. moves to a final draft following that meeting.

N/S  
The Lux-Europa meeting will be held on 9 to 11 September, ending about lunchtime on Wednesday 11 September and meetings of Divisions III and IV are tentatively planned for the afternoon of the 11th and on Thursday, 12 September. (The C.I.E. Executive is to meet on Saturday, 7 September 1985).

I have also been informed that the 21st Session of the C.I.E. will be held in Venice, Italy, in June, 1987.

In my last Circular Letter I advised T.C. Members that Dr Nancy Ruck (Australia) would be attending the Gothenburg Window Conference and I invited Members to contact her and to take the opportunity of holding a T.C. meeting. This meeting I am pleased to report was held on 15 June 1985 and was attended by three T.C. members and some other international daylighting experts.

... Dr Ruck has prepared a succinct report of that meeting at which many excellent contributions to the deliberations of this T.C. were made. I commend the report for the attention of members (Paper I, attached). May I now invite members' comments on this important paper.

Finally, may I express my thanks to Nancy for convening the meeting and for reporting the discussion so promptly.\*

Yours sincerely,



J.D. Kendrick

\* Dr Ruck has also prepared a report on the Gothenburg Window Conference and this will be included in the delayed issue of Daylighting Newsletter No 5 which it is hoped can be distributed shortly.

Informal Meeting of C.I.E. Division III, T.C. No. 7, held at  
Gothenburg, Sweden on 15 June 1984.

The meeting was convened by Dr Nancy Ruck (Australia) at the request of the T.C. Chairman and Dr Ruck reports as follows:

International Daylight Measurement Committee  
CIE Division III Interior Lighting

A brief meeting was held at Goteborg on Friday, 15th June, 1984. Those present were Richard Kittler, Czechoslovakia; Nancy Ruck, Australia; Stephen Selkowitz, Lawrence Berkeley Laboratory, USA; David McGowan, University of Washington, USA; Michael Glover, National Research Council Ottawa, Canada; and Hans Lofberg, National Swedish Research Institute of Building Research.

The following general comments were recorded:

- 1) That instrumentation should be stationed at meteorological stations
- 2) That as an addition/alternative, a portable instrumentation package should be developed (Selkowitz)
- 3) That data should be collected over at least a period of 5 years to record changes in pollution levels (Kittler)
- 4) That these data should be analysed in terms of monthly averages (Kittler)
- 5) That two different packages of data should be made for (a) annual energy consumption and window design, and (b) hour-by-hour simulation models to determine variability spread (Selkowitz)
- 6) That existing data should be compared to determine origin of differences and a comparison basis for future measurements (Selkowitz)
- 7) That possible comparison bases should be:
  - a) efficacy as a function of altitude (Glover)
  - b) zenith luminance as a function of horizontal illuminance (Kittler)
  - c) turbidity and water vapor content as a function of efficacy. (Ruck)
- 8) That processing of algorithms should be kept on a similar basis (Ruck)
- 9) That there should be "cross" calibration of instrumentation (Ruck)
- 10) That the committee should prepare a design scheme of instrumentation for each station by determining information required and how equipment is to be mounted. (Selkowitz)

The duration of the meeting was only 45 minutes due to the anticipated holding of a closing session of the conference.



# THE UNIVERSITY OF ADELAIDE

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Please address correspondence to

Department of Architecture  
JDK/da

3 April 1984

## REPORT TO C.I.E. DIVISION III (Interior Environment and Lighting Design)

from TECHNICAL COMMITTEE No. 7:

### Preparation of a Programme of Work for International Collaboration in Daylight Availability Measurements

#### Members:

Mr. J. Derrick Kendrick (Australia: Chairman)  
Dr. Nancy Ruck (Australia)  
Professor Dr.-Ing. Jurgen Krochmann (German Fed. Rep.)  
Dr. Peter Tregenza (Great Britain)  
Mrs. Sheila Secker (Great Britain)  
Dr. Hiroshi Nakamura (Japan)  
Ir. A.J. (Paolo) Hansen (Netherlands)  
Dr. Ross McCluney (U.S.A.)  
Mr. Robert Jennings (Canada)  
Professor K.R. Rao (Singapore)

Active work in the form of correspondence and discussions between members of the Technical Committee commenced soon after the 20th Session of the C.I.E. met in Amsterdam. The basic membership of the Committee derived from a Sub-Committee of the old T.C.-4.2 (Daylighting) which had been created at a meeting in Berkeley, California in February 1983. To this group invitations were extended to those other persons who had expressed interest. Thus it is that a fairly representative and international Technical Committee of appropriate size has been realised.

Circular Letters to members in February and March 1984 have initiated discussion on several matters concerning the Programme of Work. These include a Draft Statement of Goals and Purpose (McCluney); a Draft Paper on Daylight Availability Measurement Classes (McCluney); a Proposed timetable for Production of the Report (Kendrick); a Proposal for Daylight Measurements in Urban Areas (Secker); and a Review of Opinions Expressed by T.C.-4.2 Members at Berkeley (Kendrick). Also the question of the possibility of using a modified version of a Draft Document prepared for the "Daylight Guide" on Measurement of Daylight and Solar Radiation (Krochmann) is under consideration. An outline draft document proposing a Structure for the Final Report is in the course of preparation (Kendrick).

Report to C.I.E. Division III (cont.)

In broad summary: this Technical Committee will discuss and produce a document which examines the possibility of a world programme of coordinated activity concerned with, for example, evaluation of instruments, calibration, testing of measurement standards, comparisons of measured data and obtaining international daylight availability data for general and specific use in different situations. In other words, a period of time will be proposed to be devoted to international cooperative effort in measuring daylight availability. Accordingly, it is necessary to define the limits of activities, their scope and intention, the facilities and equipment required, standards and calibration, who is to participate and benefit, the likely cost involved, and the administration and management arrangements for such an activity.

The proposed target dates for undertaking this examination are that the first complete draft for initial Divisional debate should be completed by early March 1985; the discussion could then occur at the proposed Division III meeting at the proposed C.I.E. Intersessional Meeting in Lausanne, Switzerland in May 1985; thereafter modifications may be required and following this an international conference during 1986 in order to finalise a document for presentation to the 21st Session of C.I.E. in Italy in 1987.

Finally, I am grateful to Dr. Peter Tregenza who has agreed to represent this Technical Committee No. 7 at the C.I.E. Division III Meeting to be held 18 and 19 April 1984 at Cambridge, England.

J.Derrick Kendrick  
Chairman