

#### ENGINEERING INTERFACE LIMITED

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November 20, 1980

#### CANADIAN NATIONAL COMMITTEE/CIE

T0:

Members and Consultants

- 1. Enclosed Minutes and Delegate Reports from the 25th Annual Meeting.
- 2. Copy of CIE Newsletter No. 12 (Members only).
- Notice of "Symposium on Light and Radiation Measurement", May 1981.

A. W. Levy,

Secretary CNC/CIE

Principals: Robert Teudar Tamblyn James W. S. Rose

Ian A. Jarvis B. Thomas Tamblyn Alan W. Levy

# MINUTES OF THE 25TH ANNUAL MEETING OF THE CANADIAN NATIONAL COMMITTEE OF THE CIE

Held in the Energy and Services Building, Division of Building Research, National Research Council, Ottawa, 21st of October, 1980.

#### Present

Prof. M.G. Bassett (University of Toronto), President Mr. W. Budde (National Research Council) Mr. G.H. Cornish (City of Calgary) Mr. D.W. Frick (Consulting Engineer) Prof. P.K. Kaiser (York University) Mr. A. Ketvirtis (FENCO Consultants Ltd.) Dr. A.W. Levy (Engineering Interface Ltd.), Secretary Prof. P. Manning (Technical University of Nova Scotia) Mr. S. Mahanti (D.W. Thomson Consultants) Prof. D. Moizer (Carleton University) Mr. S.W. McKnight (Westinghouse Canada) Mr. G.E. Mulvey (Mulvey Engineering) Mr. A.T. Orr (Orcons Co.Ltd.) Dr. M. Rea (National Research Council) Dr. A.R. Robertson (National Research Council) Mr. Z.S. Subotich (CSA) Dr. B. Tansley (Carleton University) Prof. D. Trotter (McGill University) Prof. R. White (Concordia University) Mr. E. Wotton (Consulting Engineer) Dr. G. Wyszecki (National Research Council)

#### 1. Call to order and approval of agenda

The President opened the meeting at 10:15 a.m. The order of the agenda was approved. Apologies for absences had been received from Messrs. Adrian, Dean, Jennings, Jordan, Mendel, Prohaska and West.

#### 2. Minutes of 24th Annual Meeting

The Secretary read the minutes. It was indicated that the original minutes ommitted to mention Dr. Rea's appointment to TC-3.1 Visual Performance. This had been corrected in a subsequent mailing to members. Mr. Cornish moved that minutes be approved as amended, seconded by Mr. McKnight.

#### 3. Secretary's Report

The Secretary read his report, which is attached to these minutes. The report was approved on a motion by Dr. Robertson and seconded by Mr. Ketvirtis.

#### 4. President's Report, Report from CIE Executive

There was no President's Report nor a Report from the CIE Executive Committee as no business of consequence had occurred during the past twelve months.

#### 5. Reports from delegates to CIE Technical Committees and Study Groups

The President suggested a brief verbal summary of reports be given as detailed written material is provided at the meeting and subsequently mailed to members.

Reports are attached to these minutes.

Mr. Budde gave a verbal report for TC-2.3 (Materials) on behalf of Dr. B. Jordan. A U.S. committee meeting had been attended where earnest discussion had taken place on retroreflectors. Also discussed were the topics of fluorescence, reflectance standards, gloss measurements and psychometric issues.

Mr. Frick reported for Mr. Nutt (TC-4.3 Lighting for Theatre, Television and Film) concerning the use of HID sources and the compatability of lamp, luminaires, film and camera.

#### 6. Matters raised by CIE Central Bureau

Dr. Wyszecki encouraged members to contribute relevant material to future issues of the CIE Bulletin.

#### 7. NRC Office of Lighting Research

Dr. Wyszecki reported that the Canadian Light and Lighting, Research and Development Directory was in final draft form with over 50 entries. Subject to time for translation, it could be expected to be published within the next few months.

The Advisory Committee to the Office would be making it's final report to NRC concerning NRC research priorities and the future of the office. During the past year three lighting seminars were sponsored by the Office in Montreal, Edmonton and Halifax. In the future, NRC would consider sponsoring and organizing seminars entirely themselves.

#### 8. Appointments and Re-appointments

Mr. Subotich appointed as Canadian delegate to TC-4.7 Automobile Lighting. Mr. Mahanti appointed as Canadian delegate to TC-3.3 Physical Environment.

#### 9. Other business

Considerable discussion took place on the future of the NRC office of Lighting Research. In particular, in view of expiry of the NRC Advisory Committee, alternative mechanisms were proposed to sustain the momentum that the committee had generated. It was decided to form a CNC/CIE Advisory Committee chaired by Prof. Kaiser, to advise the CNC/CIE as to future actions regarding Canadian Light and Lighting issues and policies. The membership of the Advisory Committee would be the responsibility of its chairman. The terms of reference of a permanent Advisory Committee to the CNC/CIE will be presented to the 1981 CNC/CIE Annual Meeting.

#### 10. Adjournment

There being no further business, the meeting was adjourned at 5:00 p.m.

## Secretary's Report to the Canadian National Committee of the CIE

#### October 1980

- 1. The 1980 annual dues of \$1,949.20 (U.S.) for Canadian membership of the CIE were paid by the National Research Council in February and an adjustment of \$176.80 (U.S.) in August.
- 2. CIE Publications continued to be stocked and distributed by CISTI and NRC Publications. The current inventory is attached.
- 3. CIE Bulletins 37 & 38 and CIE Newsletters 9, 10, 10/2 and 11 were received from the Central Bureau and distributed to members.
- 4. Four new CIE Publications were announced during the year:
  - No. 44 Absolute Methods for Reflection Measurements
  - No. 45 Lighting for Ice Sports
  - No. 46 A Review of Publications on Properties and Reflection Values of Material Reflection Standards.
  - No. 47 Road Lighting for Wet Conditions.
- 5. The Central Bureau were informed of the following appointments:

Dr. Byron Jordan

TC-2.3. Materials

Mr. George Szeker

TC-4.5. Exterior Lighting
TC-1.8. Photochemistry and Plant Growth

Prof. Robert White

SG-1. Lighting Education and Information

Dr. Brian Tansley

TC-1.6. Visual Signalling

Prof. Werner Adrian

TC-3.4. Discomfort Glare

Mr. Bill Braun (Honeywell) and Mr. Dave Prohaska (PPG Industries, Canada) joined as consultants.

Resignations were received from:

Mr. Brian Clarkson (Philips)

Mr. F.R. Dorward (ABEL Consultants)

Mr. H.D. Nicholson (City of Vancouver)

6. Last year the CNC/CIE was invited to comment on a proposal to transfer Canadian international non-government representation from NRC to the Royal Society of Canada and the Canadian Council of Professional Engineers. The unanimous comments of the CNC/CIE Executive were that the present situation, with NRC having responsibility for international non-governmental representation should continue. We were therefore pleased to recently learn that in fact, NRC will continue with the present arrangements.

7. Two copies of a beautifully illustrated book, "Lighting in Japan" were received from the Japanese National Committee. One copy was presented to our President with the other remaining in the Division of Building Research Library where it is available for loan by the public.

A.W. Levy,

Secretary.

#### Purchase and Sale of CIE Publications 1979-80

CIE Pub. #	Bought	Sold	In stock
2.2	o s ***	2 1	1 0
12.2	3	1 1	5 13 3 0
15 15 (Suppl.1)		2 58 8	3 2 1 5 1 1 7
16	3	1 2 2	3 4 12
19 20 21B		2	5 4 6
22		3 _ 1	1 20 3
26		1 3 1	1 4 2 9
29 30	3	1 0 4 1	5 3 9
3 2 A		-	12 12 13
34	–	-	12 12 17
37 38 39		1 -	9 8 12
40		2 3 -	19 6 11
43	15	1 0 8 4	15 7 21
46	2.0	6 5	9 24

#### CIE TC-1.3 (Colorimetry)

Report to CNC/CIE, October 1980

A mail ballot has been conducted on the proposed Technical Report "A method for assessing the quality of daylight simulators for colorimetry". I voted "yes", with a few suggestions for editorial changes. Earlier drafts had been discussed in detail culminating in discussions at the Kyoto meeting in 1979. The results of the ballot have not been announced but it is likely that the document has been approved.

The next meeting of the Committee will be in September 1981 in Berlin or London.

A.R. Robertson Canadian Delegate Department of Psychology



#### FACULTY OF ARTS

4700 KEELE STREET, DOWNSVIEW, ONTARIO M3J 1P3

October 16, 1980

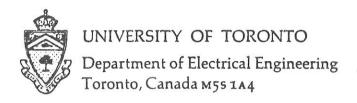
#### TC1.4, Vision

There was This is no substantial progress since the 1979 CNC/CIE Meeting.

On October 14, 1980, at the Optical Society Meetings in Chicago a Symposium on Brightness was conducted. This symposium was directly relevant to the activities of TC1.4, but was not, strictly speaking, initiated byt it. This Symposium was a joint venture between the ISCC and OSA being instigated by the delegates of the OSA to the ISCC. The connection to the CIE occurs in that many of the delegates from the OSA to the ISCC are also members of the CIE.

The next meeting of TC1.4, Vision will be held just prior to the next AIC meeting in Berlin, Germany. The meeting is scheduled for September 16, 1981.

C.K. Kaises



## CIE TC - 1.5 Lighting Calculations Report to CNC/CIE, October 1980

There has been only one communication received from the Chairman, Mr. De Graaf this year.

The Technical Report, "Calculations for Interior Lighting, Applied Method" required some further editorial work before the Action Committee would approve publication. The necessary changes have been made and approval for publication is being awaited.

The future working programme for the Committee, which was agreed upon at the Kyoto Session, was sent to the Action Committee. The Action Committee asked that the working programme be restricted to completion of the above mentioned Technical Report and that the Committee should eventually become a sub-committee of TC-4.1 Interior Lighting.

Marion G. Bassett
Member, CIE TC-1.5

#### SUMMARY OF MAJOR POINTS

#### Report of Technical Committee TC-1.6 "Visual Signalling" 1980

By Brian W. Tansley

Meeting held at the "Bundesanstalt fur Materialprufung" (B.A.M.)
Meeting date: March 27 and 28 Berlin (Federal Republic of Germany)

#### 1. Surface Colours (Walraven)

Dr. Walraven raised a number of issues that had arisen during the subcommittee on surface colours meeting. These are summarized below:

- 1. the "blue" limit of the definition of green was kept at y=0.493-0.524x
- 2. the "yellow" limit of the definition of signal green was not changed, although it was agreed to point out in the publication of surface colour recommendations that under certain conditions, for abnormal observers the green domain may need to be reduced.
- 3. luminance factor of "green": the proposal by the American Committee Member to retain several methods of calculating the luminance factor was rejected.
- 4. recommendations for retroreflective materials have been developed but there is, as yet, no recommendation for a signal colour for night viewing. Work will continue on this problem.
- 5. two classes of retroreflective materials is necessary because of differences in measurement techniques required to estimate the efficiency of each class.
- 6. conspicuity colours: Great Britain proposed that, on the basis of research carried out there, more conspicuity colours be accepted in recommendation from this committee. It was decided, after some discussion that the so-called "international flourescent red-orange" be left as the recommended conspicuity colour.
- 7. The technical report of luminous road signals was discussed and accepted from M. Schreuder of Holland. This document will go to press this year.
- 8. Mortimer (U.K.) reported on attempts of a group he is in charge of who are trying to reduce the vocabulary in the visual signals area from 240 to 55, and provide a standardized translation of terms in English, French and German.

9. Discussion was raised on a number of points related to the measurement of signal panels—a currently increasingly-used method of traffic control in Europe. Further work in this area is needed soon. Psychological variables, such as optimum information display parameters and dynamic sensitivity to the display (e.g. changes in sensitivity by drivers at different speeds and distances from the panel) are to be considered as well as physical measurements.

#### Proposed new topics for study:

- 1. The use of retroreflective materials in visual signalling
- 2. Effective intensity of flashing lights for signalling
- 3. Interaction of road signs and street lighting in modifying visibility of information for drivers.
- 4. Studies of Matrix Displays for traffic control applications
- 5. Vision in non-optimal atmospheric conditions

Conseil national de recherches Canada

Division of Physics

Division de physique

File Référence

#### Report on Activities of TC-1.7 - Actinic Effects

Dr. Schanda, Chairman of the CIE Action Committee had requested that CIE Publication No. 20 "Recommendation for the Integrated Irradiance and the Spectral Distribution of Simulated Solar Radiation for Testing Purposes" be reviewed and revised if necessary. This request will be discussed in the Subcommittee on Global Radiation in the near future.

 $\operatorname{Mr.}$  L. Thorington has submitted his resignation as chairman of TC-1.7.

No meeting was held.

November 1980

W. Budde

#### MENDEL, BRASLOFF, SIDLER

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MÉCANIQUE MECHANICAL

October 20, 1980

Dr. Allan Levy Secretary CNC/CIE Division of Building Research Energy & Services Section National Research Council Ottawa, Ontario KIA OR6

Re: International Commission

on Illumination

Technical Committee TC-2.1

Dear Sir,

We are in receipt of a letter from Y. Otani, Chairman of TC-2.1 putting out a draft dated June 12, 1980 which refers to the fourth draft of the definition for each item of lamp characteristics.

Items covered are:

THE FOURTH DRAFT OF THE DEFINITION FOR EACH ITEM OF LAMP CHARACTERISTICS

CIE TC-2.1 sub committee (II)

- 1. Rated Luminous Flux
- 2. Rated Lamp Wattage
- 3. Rated Lamp Efficacy
- 4. Average Luminance
- 5. Life
  - Life (of an individual lamp)
  - 5.2 Average Life (of a type of lamp)
  - 5.3 Rated Average Life (of a type of lamp)
  - Life to X% Failures (of a type of lamp) (where the manufacturer's declared life is to be judged)
  - 5.5 Rated Life to X% Failures (of a type of lamp)
  - 5.6 Life Test
- Lumen Maintenance 6.
  - 6.1 Lumen Maintenance
  - 6.2 Mean Lumens
- 7. Color Characteristic

21....

#### MENDEL BRASLOFF SIDLER

Dr. Allan Levy National Research Council CNC/CIE TC-2.1 October 20, 1980

Page Two

- Chromaticity Coordinates 8.
- 9. Color Temperature
- 10. Correlated Color Temperature
- 11. Color Rendering Index
- 12. Color Deviation From the Black-Body Line
- 13. Flicker
- Run up Time (Starting time) 14.
- 15. Restriking Time
- Infrared Radiation Ratio 16.
- Ultra violet Radiation Ratio 17.

Accompanying this also, is a report by a member B. Jasson, of a draft of a definition for each item of lamp characteristics.

#### DRAFT OF THE DEFINITION FOR EACH ITEM OF LAMP CHARACTERISTICS

B. Jansson

- A 1. Rated Luminous Flux
- A 2. Rated Lamps Wattage
- B 3. Rated Lamp Efficacy
- A 5. Life Definitions
  - Life (of an individual lamp)
  - Average Life (of a type of lamp)
  - Rated Average Life (of a type of lamp)
  - Life Test (draft IEV/ILV 45-40-047)
     Life to X% Failure

  - Rated Life to X% Failure
- A 6. Lumen Maintenance
- B 8. Chromaticity Coordinates x-y-z
- B 9. Colour Rendering Index
- C 10. Flicker
  - 1. Flicker Index
  - 2. Percent Flicker

#### MENDEL BRASLOFF SIDLER

Dr. Allan Levy National Research Council CNC/CIE TC-2.1 October 20, 1980

Page Three

A 12. Run Up Time (Starting time in the USA)

B 13. Restriking Time

B 15. IR Radiation (CIE 45-05-030)

G 15. Infrared Radiation Ratio

H 16. Ultraviolet Radiation Ratios

These are draft summaries of definitions and appear to be a move to get terminology entered and accepted.

In the Volume 12 #1 of the Lighting Research and Technology Journal issued by the CIBS in England, there is reference made by the committee chairman to TC-2.1 in which indication is that there has been little or no activity within the panel to date, however, that a number of papers on commercial lamp characteristics and design parameters have finally been agreed to be published in a form not likely to lead to financial loss in the CIE bulletin. These evidently are ones that we ourselves have recieved, and being new to the committee, we are not aware of any of the background.

Should any member of the committee wish a reprint of this preliminary report we can easily forward same to them.

Respectfully submitted,

Arthur H. Mendel

AHM/11v

Conseil national de recherches Canada

Division of Physics

Division de physique

File Reference

#### Report on Activities of TC-2.2 - Detectors

TC-2.2 held one meeting in September 1980 at Vienna under the new chairman, Dr. Hengstberger, South Africa. I was able to attend this meeting. The ninth draft on the Technical Report "Methods of characterizing the performance of radiometers (photometers)" was discussed briefly. This report is now ready to be forwarded to the Action Committee. A report was given on the intercomparison of spectral responsivity measurements. This report showed considerable differences between the results of the participants. The committee requested that these data be published as soon as possible in the open literature. Terminology was discussed briefly. For future work it was decided to start on a Technical Report on characterizing the performance of colorimeters and a report on goniophotometric flux measurements. The Subcommittee on Absolute Radiometers had been dormant because its position between TC-1.2 and TC-2.2 was uncertain. It was decided that it should continue working under TC-2.2, however it should keep the chairman of TC-1.2 informed of its activities.

November 1980

W. Budde

W. Budde

Telex 06-989344 / Cable Canstan

(416) 744-4257

CIE, TC-2.4 (Photometry of Luminaires)

Report to CNC/CIE November 21, 1980

This year again I received several written communications from the Secretary re meetings and the progress on new draft of the technical document.

There was a meeting in Berlin on May 8th and one in England, close to British Standard Institution, will be held on November 5th and 6th. I could not attend the meeting in Berlin, nor will I be going to the next one in November.

I received the new version of the technical document (Photometry of Luminaires), but only the first part.

The first part of this document covers the following items: Standard test conditions, photometric apparatus, other laboratory supporting apparatus, preparation of lamps, ballasts and luminaires for tests.

The second part which is now being revised will describe the following items: absolute and relative methods of measurements, luminous intensity, luminous flux, luminance measurements, photometric correction factors, selection of luminaires and possible sources of error.

This new edition will be much larger and more detailed than 1973.

Since I cannot participate directly in the work of this Committee I keep them well informed by supplying the latest data of North American IES, Testing Procedure Committee. I regularly attend such meetings twice a year and I feel that such exchange of technical data and points of view is the best possible action I can take.

By such exchange I am noticing that American Labs pay great attention to what  ${\sf CIE}$  is saying or doing and I am sure that  ${\sf CIE}$  Committee is doing the same.

I hope that the next year I will be able to report more progress.

Z. Subotich

Canadian Member

Subotiel

TC-2.4

#### CIE TC-3.1 (Visual Performance)

Report to CNC/CIE, October 1980

This committee held two meetings during the past year: Karlsruhe FRG 80/3/26-27, Brighton UK 80/9/3\*.

#### Officers:

Prof. Bodmann (FRG) replaces Dr. Blackwell (USA) as chairman.

Mr. P. Haubner (FRG) replaces Mr. Blackwell (USA) as secretary.

#### Topics:

#### Reorganization of CIE

TC 3.1 is now part of Group III with TC's 1.3, 1.4, 1.7 and 3.2.

#### CIE 19/2

This document represents a summary of the work completed by Dr. Blackwell and discussed by the committee during the last 15 years. It will be published by CIE under two covers, one as a description of the model and the other as a collection of supporting data. The committee proposed to prepare a forward to these documents to explain its limitations.

#### New areas of interest

- 1) Visibility level concept: The committee will attempt to coordinate investigations testing the visibility level concept as described in 19/2.
- 2) Dynamic vision: Fixation and saccadic eye movement data will be incorporated into the work of the committee.
- 3) Measurement of visibility: The committee will begin a comparison of visibility meters.
- 4) Case studies: The committee will begin to look into "problem areas" (e.g., Visual Display Units, VDUs).

M.S. Rea.

<sup>\*</sup> No information about this meeting has been sent.

#### CIE TC-3.2 (Color Rendering)

Report to CNC/CIE, October 1980

There have been no activities of this Committee in the past year. The next meeting is scheduled for 20--22 November 1980 in Paris. I will be unable to attend.

A.R. Robertson Canadian Delegate

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HOLOPHANE 8368 BOUGAINVILLE MONTREAL, QUE. H4P 2G3

Montreal, September 29,1980

Engineering Interface Limited

2, Sheppard Av. East - Suite 200
Willowdale, Ontario
M2N 5Y7

Attention: Dr. A.W. Levy

Subject: Canadian National Committee of the C.I.E

Dear Alan,

It is with regret that I must advise that I won't be able to attend the meeting as I will be in Florida at the same date attending a sales conference sponsored by Holophane.

As already discussed with you there has been nothing done this year from my part regarding my TC 3-3 Committee, therefore nothing to be reported about it. There has been rather little activities reported outside of Canada on TC3-3 besides what was reported at the meeting in Kyoto, Japan.

Best regards to my colleagues wishing to all a successful meeting.

Sincerely yours,

Camille Labrecque, ing.

RECEIVED

OCT 6 1980

ENGINEERING INTERFACE LTD.

### University of Waterloo

Professor Dr. W. Adrian



Waterloo, Ontario, Canada N21 3G1

faculty of Science School of Optometry 519/885-1211

October 7, 1980.

Ms. Lorna Silcox, Division of Physics. National Research Council, Ottawa, Ontario. K1A OR6.

REF: Meeting of the Canadian Committee of the CIE

Dear Ms. Silcox,

Unfortunately it will not be possible for me to attend the meeting on Tuesday, October 21st in Ottawa. I certainly would have liked to participate particularly as I have just immigrated into Canada a year ago and have not had the opportunity to meet my colleagues.

I was appointed to act as the Canadian expert in the committee TC3.4 discomfort glare which is under the chairmanship of J.C. Lowson from Australia. I also served as consulting member for many years to TC4.6 public lighting and I am now coorporating with the Canadian expert Tony Ketvertis who certainly is going to report on the activities in this group.

As long as I was appointed to work in FC3.4 there was no meeting held. I received a few letters from the chairman or secretary respectively and I am sorry that I cannot report on any further activity in that committee. I hope that I will be able to provide more information on our next meeting which I would wish to have it held closer to Waterloo so that I could participate.

Very kind regards.

Yours sincerely,

W. Adrian, Dr.-Ing.,

Professor.

WA/dm

I am sorry to say that I have been quite unable to take any direct personal part in the work of this committee during the past year.

The Committee's main focus is presently upon the development of a publishable CIE Technical Report on Environmental Lighting. This, it is recognized, may have to be in two "translations" for (a) researchers and (b) architects/designers, so that it may be of use to the different constituencies that have been brought together by the combination of TC 3.5 and SG A. The form of the report is expected to be:

- Part 1 Introduction and background, literature survey;
- Part 2 Philosophical statement establishing conceptual framework for Part 4;
- Part 3 Vocabulary;
- Part 4 Lighting design: prelude ("the heart of the developing technical report ... intended to aid the working designer".);
- Part 5 lighting design: method.

Parts 4 and 5 "are intended to guide the working designer concerning the effects of lighting on user impression and behaviour."

The chairman of TC 3.5 agreed with the President of CIE that TC 3.5 will take a major part in a CIE symposium on lighting, to be held in 1981 "somewhere in Europe", that will be specifically oriented towards the needs of architects. This symposium was to be discussed at the Daylight meeting in Berlin in July 1980; no report of that meeting has yet been seen.

A seminar on <u>Lighting and Building Design</u> has been organised to take place in Halifax on October 29 under the sponsorship of NRC Office of Lighting Research and Technical University of Nova Scotia.

In September I received a message from Ir. AJ Hansen, secretary of TC 3.5, informing me of the death of Professor John E Flynn of Pennsylvania State University, Chairman of this committee.

Peter Manning Technical University of Nova Scotia

1980 October 16

#### G. Franklin Dean, P. Eng. 144 Wanless Avenue Toronto 😥 Banada

MAN 1W2

#### 1980 ANNUAL REPORT

TC-4.1 INTERIOR LIGHTING, CNC/CIE

It was not possible for the Canadian delegate to attend the committee meetings which were all held in Europe. However, secretary A. B. de Graaf provides excellent minutes and from them the following condensed versions are given.

#### HIERGLINCY LICHTING

The final draft of several preliminary drafts was circulated to the National Committees for approval. It is a comprehensive document. In Canada it would be of interest but not of great importance since existing governmental are mandatory. Several comments and corrections were sugjested by the Canadian delegate.

MINUTES OF MEETING, JANUARY 23&24, 1980 EINDHOVEN, THE TETHERLANDS

#### Agenda Proposed

- 1. Opening
- 2. Minutes of last meeting
- 3. Follow-up Kyoto Session
- 4. Guide on Emergency Lighting
- 5. Questionnaire on National Recommendations
- 6. Revision of the CIE Guide on Interior Lighting
- 7. Application Monographs
- 8. Participation in ISO TC 159
- 9. Any other business
- 10. Clotting

The meeting was opened by Prof. de Boer, President of C.I.E. and of the Netherlands Illuminating Engineering Society.

#### Follow-up on Kyoto Session

#### Discussions:-

Illuminances, should they be single values or multiple choices? Veiling reflections, contrast rendering factors or reference conditions?

Glare limitation evaluation based on simplified or comprehensive systems?

Results on the above will be determined during the revision of the Guide on Interior Lighting

The ballot on Emergency Lighting gave a narrow margin of approval.

Questionnaire on-National Illuminance Recommendations. Since Mexico, U.S.A. and Canada all use the values of I.E.S.N.A. this delegate agreed that R. Dorsey, U.S.A. would answer for the three countries.

#### MEETING ON OCTOBER 7 AND 8, 1980 AT ELECTRICITY HOUSE COLSTON AVENUE BRISTOL GREAT BRITAIN

#### Agenda

1: Opening -

2: Minutes of last meeting

3. ISO Guide "Principles of Visual Ergonomics to be applied to the lighting of work systems" ----

4. Illuminance recommendations

5. Application Monographs

N.B. This is an announce-6. Cooperation with other CIE Committees ment only. The minutes haven't been rereived

7. Any other business

8. Closing \_ \_

There was a two page preamble under the headings of Selected scale of illuminances and Presentation of recommendations of illuminance hich were given as a draft in a separate 16 page document covering lux values of less than 20, 20, 50, 100, 200, 300, 500, 750, 1000, 1500, and 2000 or more. For each value there is a description of the applications and several examples. It should be noted that one footcandle is approximately equivalent to 10 lux.

#### Application Monographs

Industrial Lighting. Anew draft will be prepared for the next meeting.

Home Lighting. No report Office Lighting. Anadapted version will be prepared.

Lighting for merchandizing. An amended draft will incorporate types and sktches of lamp and luminaire types.

School Lighting. An adapted version will be circulated before the next meeting.

Museum Lighting. Some changes will be made for a final decision. Hospital Lighting. The C.I.B.S. Technical Report will be considered as a monograph.

Visual display units. A text will be prepared for the next meeting. Participation in ISO TC 159.SG5. A second draft will be discussed

by a sub-committee for a third draft for consideration by TC-4.1 A letter from the chairman of the Action Committee requested the opinion of TC-4.1 on a proposal for C.I.E. Statement.

It was decided to hold the next meeting at Bristol, England on October 7/8.

C.N.C. members who have a prime interest in Interior Lighting will receive all the pertinent documents from the undersigned on request with the basis, first come/first served.

G. F. Dean,

CNC/CIE, TC-4.1

October 17, 1980

#### REPORT OF THE TECHNICAL COMMITTEE TC-4.2 DAYLIGHTING

A.W. Levy

Two new members of the sub-committee were welcomed this year.

Professor Robert White, Concordia University Mr. David Prohaska, Canadian Pittsburgh Industries.

A successful symposium on "Daylight" was held in Berlin on July 9th and 10th, 1980. The symposium, which was not attended by a Canadian delægate, was addressed to the physical, psychological and architectural aspects of daylighting.

The next meeting of TC-4.2 will be held during "Lux Europa" in Granada, Spain, May 1981.

A number of draft documents were received in the series of publications mentioned in last years report. Some of these were reviewed by members.

A Canadian contribution from Mr. Jennings and Mr. Thrun was sent to the chairman. The work is entitled "Levels of performance Related Illumination Available from Daylight in Typical Office/School Interiors". It was also presented at the 1980 Annual IES conference in Dallas, in August.

C. I. E. T. C. 43 Lighting for Theater, Television and Film

This committee is concentrating for the present on developments in the use of High Intensity Discharge sources. Matters for consideration are: what development is being carried out, spectral response (compared to daylight or tungsten), luminaire requirements, control systems, and compatability of camera, lamp and luminaire

A meeting of the committee is scheduled in London July 8, 1981, and it is intended to have a Canadian in attendance.

T. C. Nutt

D. W. Frick

TC-4.4 Sports Lighting

Ocotber 14, 1980

Delegate: S. W. McKnight

Subcommittee: C. J. Courtney

G. F. Dean R. F. Hughes A. Lafontaine

T. Nutt

National Research Council Ottawa

Mr. R. C. Aldworth of Thorn Lighting, London, is now chairman of TC-4.4 as Mr. Weld of Germany has retired. The transfer was made during CIE meeting in Kyoto. Mr. Alan N. Maxwell of Haden Young Ltd., London, is secretary.

The main committee has just met September 9 - 13th in Moscow, USSR, and no minutes of the meeting have been received. I have sent my regrets as I could not attend that meeting.

Last years report indicated that some further information would be forth-coming from Mr. Wittwer of Switzerland on "Lighting for Swimming". In September I received a ten page section on artificial lighting, which is available and has been sent to my subcommittee.

Also, I have just received paper #57 by Mitin - Tsarkov - Shahparunianz - Kluev, USSR, "Stadia Lighting for color Broadcasting". This is the paper that was not given in Kyoto last year. Copies have been circulated and it is available, although no tables or figures mentioned have been received so this paper is still not complete. Further efforts are being undertaken to get more complete data.

#### CIE - TC-4.6 - ROAD LIGHTING

#### REPORT TO CNC/CIE - OCTOBER 21, 1980

The annual meeting of the Committee TC-4.6 was held on June 24-27, 1980 at Warsaw, Poland. Dr. W. Adrian attended the meeting.

At this meeting some changes in the format of the technical committee operations were introduced, reflecting the Action Committee decisions. At the present time the following working groups are active within the committee:

SC1	Performance	(Schreuder)
SC2	Accidents	(Fisher)
SC3	Tunnels	(Narisada)
SC4	Surfaces	(Kebschull)
SC6	Design	(Marsden)
SC7	Terminology	(de Boer)
SC8	High Level Affairs	(Marsden
SC9	Pedestrian & Cyclists	(Yates)
SC10	Road Markings	(Sorenson)

The working program approved for the period 1979-83 includes the following:

- 1. Establish relationship between visual performance, visual comfort, traffic efficiency and lighting parameters (in cooperation with TC3.1 and TC4.7).
- 2. Revise CIE Publication No. 8 "Street Lighting and Accidents".
- 3. Investigate outstanding problems of the role of the road surface in road lighting.
- 4. Investigate outstanding problems of lantern classification and installation design.
- 5. Investigate outstanding problems in tunnel lighting (in cooperation with PIARC).
- 6. Survey of warrants, their purpose and application.
- 7. Lighting of road environment (other than the carriageway of traffic routes) with TC4.5.
- 8. Reflection properties of road markings with TC1.6 and TC2.3.
- 9. Terminology.

PIARC in cooperation with TC-4.6 Committee has prepared a report on Tunnel Lighting with considerable difference in  $L_1/L_2$  ratios recommended by CIE ( $L_{sp}/L_{sp} = 1/15$  to 1/30).

The next committee meeting will be held in Mobil, Alabama. The tentative date is January 25-31, 1981.

Following the committee meeting a symposium on tunnel lighting will be held jointly with the IES Roadway Lighting Committee.

Millerinky.
A. Ketvirtis

TC-4.10 Mine Lighting

October 21, 1980

Delegate: D. Trotter

Sub-Committee: L. Laferriere

A. Ezenwa

G. Lobay B. Clarkson

G. Szeker

1. Changes in TC-4.10 Sub-Committee (Canada).

F. Dorward has resigned due to pressure of business. A. Job has retired from Energy, Mines and Resources and as well has resigned from the sub-committee. G. Lobay, B. Clarkson, and G. Szeker, have agreed to serve on the sub-committee.

Mr. Lobay is an electrical engineer presently employed with the Canadien Explosive Atmospheres Laboratory of Cannet Mining Research Laboratories. Part of his duties involve investigating the suitability of electrical equipment intended for use in coal mines of Canada.

Mr. Clarkson is marketing manager for Philips Electronics Ltd. and is a former member of two CNC-CIE technical sub-committees. Prior to joining Philips he carried out graduate research work in determining illumination levels desirable for mining tasks.

Mr. Szeker is also from the Philips company and in addition to serving on the TC-4.10 sub-committee, is CNC delegate to TC-4.5 Exterior Lighting and TC-1.8 Photochemistry and Plant Growth.

2. Summary of TC-4.10 activities (International)

The third annual meeting of TC-4.10 was held in Kokotek, Poland, on April 21 and 22, 1980, and was honoured by the presence of Dr. Janos Schanda, chairman of CIE Action Committee, and Mr. Jan Kossakowski, Vice President of CIE. In addition to some 20 observers, delegates were present from the following countries:

> Bulgaria Canada Czechoslovakia Finland Germany

Hungary Italy Poland South Africa

Items of business:

- the formation of National Committees on mine lighting in as many countries as possible to co-operate with TC-4.10. Up to now, committees have been formed in the United States, Poland, South Africa, and the Federal Republic of Germany.

- mine lighting measurement. There is a need to standardize. Some countries measure illuminance while others measure luminance so that compliance regulations of different countries are hard to compare. A sub-committee has been set up (SC-4.10A) chaired by W. Lewis of the U.S. to look into the problems of instrumentation, standardization, laboratory as field measurements, etc. Help will be sought from committee TC-2.2 Detectors.
- open-cast lighting. Sub-committee SC-4.10B has this task. After much discussion it was agreed to postpone any work until representatives of various countries had been appointed.

Collaboration with other Technical Committees.

Dr. Schanda presented the viewpoint of the Action Committee, and offered his support. Technical committees which will be approached for help with the unique problems encountered in mine lighting are TC-2.1 Light Sources, TC-2.2 Measuring Devices, TC-3.1 Visual Performance, TC-3.4 Discomfort Glare, TC-4.5 Exterior Lighting, TC-1.1 Terminology. In particular collaboration should be sought with TC-2.1. Manufacturers are relectant to develop new light sources for mining and TC-2.1 and 4.10 can collaborate to lobby for prototypes. (e.g. quartz halide miner's cap lamp.)

Future meetings of TC-4.10 were agreed upon.

4th - 1981 Beckley, West Virginia

5th - 1982 Johannesburg, South Africa

6th - 1983 Warsaw, Poland

#### 3. International Mine Lighting Conference

This was held April 23 after the CIE meeting. A total of 8 papers were presented to some 200-300 electrical engineers engaged in the Polish coal industry. Countries presenting were Poland (3), France, Germany, South Africa, Canada, Bulgaria. The Canadian paper was "How Canada Lights Its Mines".

#### 4. Coming Events

McGill University will be holding a 3-day seminar on Mine Lighting January 19-21, 1981. Canada's National Committee on Mine Lighting will meet January 22, following the seminar.

D. Trotter
Delegate to TC-4.10

#### REPORT FOR

SG-1 LIGHTING EDUCATION AND INFORMATION C.I.E./C.N.C.

October 21, 1980

This study group has been formed to (1) survey illuminating engineering education and exchange education; and (2) to make proposals for better interchange of illuminating engineering information. If the work of the Study Group determines that this subject is of continuing importance, a permanent technical committee will be formed. The committee will report to the next CIE World Congress in 1983. An interim report will be given to the World Congress of Architects, in Warsaw, next year.

Members of the Canadian Study Group include :

Professor R. White, Chairman, Concordia University, Montréal, Québec.

Professor M. Bassett, University of Toronto, Toronto, Ontario

Mr. R. F. Hughes, P.Eng., B.C. Hydro and Power Authority, Vancouver, British Columbia

Mr. A. Mendel, P.Eng., Mendel Brasloff Sidler, Montréal, Quebec

Professor D. Trotter, McGill University, Montréal, Québec

Anyone else who is interested in these educational issues is invited to join the committee.

The committee is currently assemblying a computerized mailing list of educational institutions, groups and contact persons for the survey to be sent in February, 1981. Any suggestions for the list are welcomed.

To date, we have some course descriptions and and addresses from  ${\tt Mr.}$  Hughes for B.C. and Professor Trotter for Québec. Organizations to be surveyed will include:

- a) Faculties of architecture and architectural technology
- b) Faculties of engineering
- c) Junior colleges, CEGEPS, and community colleges
- Industrial training courses public relations departments of lighting manufacturers and utilities
- e) Continuing education programs at universities
- f) Provincial government departments of occupational health and safety, and public works
- g) Local IES chapters
- h) Curriculum development departments in provincial school boards
- i) Provincial associations of architects and engineers
- j) Departments of optometry, mine safety, psychology, traffic engineering, industrial engineering, that might offer lighting related courses.

Since the survey is an opportunity to comprehensively examine lighting education in Canada, ideas for questions and data in addition to the World CIE needs are welcomed. For example, we might collect text books, titles, lab exercises, course outlines and other materials which would be deposited in a convenient reference library.

Robert W. White, CNC representative for SG-1

4 .

(and p. 9 and 12) SGI;

Canada: Prof. R. White, Center for Building Studies, Concordia University,
14/55 de Maisonneuve Blvd. W., Montreal P.Q. HyG HW

Great Britain: Dr. A.R. Bean, The Chelmer, Essex Institute of Higher

Education, Faculty of Technology, Victoria Road South,

Chelmsford, Essex CM1 1LL

USA: J.E. Kaufman, 111uminating Engineering Society, 345 East 47th St.

# V. Information

The South African National Committee on Illumination held its annual general meeting and congress on 25-27 August 1980 in Durban.

2. IEC - TC 25 : Quantities and Units and their letter symbols - new chairman : Mrs E. Hamburger (Switzerland)

# VI. Recent Publications

CIE Proceedings of the Symposium on "Daylight" (physical, psychological and architectural aspects) organized by CIE TC-3.5 and TC-4.2 and the German National Committee of the CIE.

9 and 10 July 1980 - Berlin (West) - Price: US \$20,00

For orders, apply to: Institut für Lichtechnik der Techn. Univ. Berlin, Einsteinufer 19 - D 1000 Berlin 10

- 61 - 3H (1980) 8th complement to Publication 61-3 (1969) Gauges for lamp caps and holders

- 598-2.22 (1980) Luminaires for emergency lighting

### IALA

Recommendations for the surface colours of aids to marine navigation (ordinary colours and fluorescent colours)
To be published in IALA Bulletin

The next News Letter (N° 13) will be circulated in Docember 1980. Please send in material for this News Letter to Central Bureau before 15 November 1980.

CUE NEWS LECTOR

### Nº 12

September 1980

# ATTENTION

Only one copy of each News Letter is sent to National Committees and Technical Committee Chairmen and Secretaries. Please circulate information to all members.

# I. Calendar of CIE Technical Committee Meetings

TC-1.3 18-19 September 1981 - Berlin, Germany (Fed.Rep.)
TC-1.6 April 1981 - Brussels, Belgium
TC-1.6 April 1981 - Warsels, Belgium
TC-2.2 12-13 September 1980 - Paris, France
TC-2.2 12-13 September 1980 - Paris, France
TC-2.3 5C Retroreflection - 25-26 Oct.1980 - Berlin, Germany (Fed.Rep.)
TC-3.2 5C November 1980 - Paris, France
TC - 21-22 November 1980 - Paris, France
TC-4.1 Autumn 1982 - Norsay
TC-4.1 7-8 October 1980 - Bristol, G.B.
TC-4.2 8 July 1981 - London, G.B.
TC-4.3 8 July 1981 - London, G.B.
TC-4.5 9 October 1980 - Genora, Switzerland
TC-4.5 10 cand 31 (Inlat Lay) January 1981 - Hobile, USA
TC - 30 and 31 (Inlat Lay) January 1981 - Hobile, USA
TC - 50 and 81 (Inlat Lay) Ranger Halphray Taminels Trailon, Februal Ills 41 - Washington, DC 20590, USA
Fortral Illighray Administration Ills 41 - Washington, DC 20590, USA

- 1982 - Finland - 1983 - Yugoslavia

TC-4.7 24 November 1901
TC-4.9 September 1981
TC-4.9 September 1981
TC-4.10 September 1981
September 1982
Such Africa i Beckley, W. Virginia USA
1982
1982
Such Africa i
16th Planary Session - 25-27 November 1980 - Frankfurt,
Grumany (Fed.Rep.)
CE 64 - March/April 1981

# Calondar of Technical Meetings of International Organizations

# 1. In liaison with CIE Liaison A

TC 22 Road Vehicles - 11-15 May 1981 - Paris? or 29 June-3 July 1981 - Geneva - 180

TC 159/SC5/WG2 Lighting: 27 New. 1980 Cologne, Germany (Fed.Rep.) 25-26 June 1981 - Vandoeuvre, France

- IEC General Meetings

15-17 June 1981 - Montreux, Switzerland 2nd fortnight Sept. 1982 - Rio de Janeiro, Brazil

- CIB

W51 Acoustics # 1981 W67 Energy conservation in buildings - Energy conservation in the built environment - 20-21 October 1980,

- 3rd Symposidum ; May-June 1982 - Dublin, Ireland Washington, USA

- AIC (International Colour Association)

4th Congress + 20-45 September 1981 - Berlin, Germany (Fed.Rep.) for information: Prof. M. Richter, Unter den Eichen 87, 1000 Berlin

- IALA (International Association of Lighthouse Authorities)

10th Conference : 10-21 November 1980 - Tokyo, Japan

- ICAO (Intermational Civil Aviation Organization) VAP : 3-21 November 1980 - Montreal, Canada

- ICO (International Commission for Optics)

General Conference : # August-5 September 1981 - Graz, Austria

- IMEKO

9th Congress : 24-28 May 19\$2 - Berlin, Germany (Fed.Rep.)

TC 36 Cinemat graphy - 17-24 May 1982 - Berlin, Germany (Fed.Rep.) TC 42 Photography - 7-14 May 1982 (?) - Berlin, Germany (Fed.Rep.)

- PRI (International Road Safety)

2nd International Congress on Vision and Road Safety: "Night driving conditions" - 20-22 November 1980 - Paris, France with the co-operation of the CIE

Liaison C

14th Congress - 15-21 June 1981 - Warsaw, Poland

- UIA (International Union of Architects)

2. Without liaison alth Cit

International Conference "Illamination - Power Economy" 14-17 September 1987 - Bicappest, linngary for Information: Mapyar Elektrotechnikal Egyesület - 1055 Budapest Kossuth Lajos tér, 6-8, linngary

3rd International Symposium on Incolorier thight Sources: April 1983 - Foulouss. Prance - Commission of Press D. Alero, Centre de Physique Athengae Mucléachae, Foulouse, France

# III. Calendar of meetings of National Organizations in the illuminating field

- LUX EUROPA (Belgium + France + Germany + Great Britain + Italy + Netherlands + Spain + Switzerland) 5-7 May 1981 Granada, Spain
  - USA + Canada (IES) 9-13 August 1981 Toronto, Canada 8-12 August 1982 Atlanta, Ga, USA 7-11 August 1983 Los Angeles, Cal, USA 5-9 August 1984 St Louis, Mis.USA
- Austria (1746) + Germany, Ped. Rep. (LiTG) + Netherlands (MSvV) + Switzerland (SLG): 27-29 October 1980 Berlin, Germany (Ped.Rep.)
  - 15-18 June 1982 Lugano, Switzerland
- German Democratic Republic National Conference on Illumination :
- 11-12 Permary 1981 for information: Remeer dor Technik, Besirksyorstand Karl-Marx-Stadt, att. Mr. Zimmermann, Annaberger Str. 24, DBC-9010 Karl-Marx-Stadt
- Denmark + Pinland + Iceland + Norway + Sweden : Nordic Lighting Congress 30-22 May 1981 Heisinki, Finland Farb-Info 80 : 9-11 October 1980, Zürich, Switzerland IV. Modifications to the Roster 1980

- p. 3 Dermark : Bjarne Nielsen and 1b Owesen
  18A : F. Grum and J.L. Rach

  p. 4, 25, 29, 45 Prof. L. Marreng, disavenue de Seine Corfif. B. 1948 Leevain
  p. 5, 69 A.J. Fisher, Department of Transport Engineering School of Civil

  Engineering, University of New South Wales Po Box 1, Kensington NSW 2033

  p. 7 Australia: President: J. Whittemore, Energy Authority of NSW 
  TC-3.2: B. Powell ILL To-4.4: S. Burrage (and p. 65)

  p. 12 Great Frican: Antional Illumination Committee arter 30 September 1980:

  Secretariet: The Chartered Institution of Building Services Delta House,

  222 Bahnan High Road, London SW12 9BS

  p. 20 USA: Tri-16 Kindle Marketish and Services Melta House,

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  p. 37 TC-17 Charteren : to be designated by Action Committee.
- p. 41
- TC-22. Germany. Tend pp. 20.

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  South William I. J. Smiliam T. Tidsch. PD Nox 1155,

  Good D. L. Mizabeth (and pp. 18).

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  TC-4.3 Denmark: Mr. C.E. Kern-Henren, TAA Laboratoffesektionen, TV-byen,
  indemn 23. NK 2860 Schorg (and pp. 10)
  - 2+, .d
- p. 63
- TC-4.7 Secretary : J.H. Bhuttels
  TC-4.10- Japan : W. Sharpely in the Amajorat Bearingh fractitute for Pallution
  TC-4.10- Japan : W. Sharpely, the Judustriat Science and Technology,
  Onegave, Yateley, Rapidat 307 Ania, 25 451 p. 71 p. 75

#### First Announcement

of the

#### SYMPOSIUM ON LIGHT AND RADIATION MEASUREMENT '81

organized by the

Illuminating Engineering Section of the Hungarian Electrotechnical Society

and the

Hungarian National Committee of the CIE

on the

27<sup>th</sup> and 28<sup>th</sup> may 1981 AT HAJDUSZOBOSZLÓ

in conjunction with the

CIE TC-1.2 meeting scheduled for the 25<sup>th</sup> and 26<sup>th</sup> May 1981 and the

CIE TC-2.2 meeting scheduled for the 29<sup>th</sup> and 30<sup>th</sup> May 1981 also at Hajduszoboszló

Invited papers will be read on the following topics:

Absolute radiometry

Spectroradiometry

Goniophotometry

Pulse-photometry

Photometry of light emitting diodes

Determining detector parameters

Contributed papers might be offered in above topics and on questions in the working program of CIE TC-1.2 and 2.2.

The First Circular with Call for Papers will be sent to those who return the attached sheet to the following address:

Dr. J. Schanda
Research Institute for Technical Physics
of the Hungarian Academy of Sciences
H-1325 Budapest, Ujpest 1, Pf. 76. Hungary
Tel.: (361) 690-462 Telex: 225.197 mohps-mfki

I am interested in the SYMPOSIUM ON LIGHT AND RADIATION MEASUREMENT '81.

I intend to partio	ipate at the*	×
	CIE TC-1.2 meeting	
	CIE TC-2.2 meeting	
	the Symposium	
*Please mark where	appropriate	
I intend to offer	a contributed paper on	the subject:
Please send the Fi	rst Circular with Call	for Papers.
Name:	Title:	
Address:	/Street/ .	/City/
/Sta	te/ /Pos	tal Code/
/Cou	ntry/	
Telex number:		
Telephone number:		

#### 25TH ANNUAL MEETING OF THE CNC/CIE

DATE:

TUESDAY, OCTOBER 21, 1980

TIME:

10.00 - 16.30

PLACE:

10.

Building M-24

Division of Building Research National Research Council

Montreal Road

Other business.

Ottawa, Ontario K1A OR6 Telephone: (613) 993-1421

#### PROPOSED AGENDA

1.	Call to order and approval of Agenda 🗸
2.	Minute of 24th Annual Meeting 🗸
3.	Secretary's Report √
4.	President's Report $\sqrt{}$
5.	Report from CIE Executive Committee
6.	Reports from Delegates to CIE Technical Committees and Study Groups
7.	Matters raised by CIE Central Bureau
8.	NRC Office of Lighting Research Clearing House for Information.
9.	Appointment and re-appointments on current research.