

MINUTES OF THE FIFTEENTH MEETING OF THE
CANADIAN NATIONAL COMMITTEE OF THE CIE

(Held in the Physics Building, National Research Council,
Ottawa, 29 October, 1970)

Present:

Members:	Mr. W. Budde	(President)
	Mr. J.M. Chorlton	
	Prof. M.G. Currie	
	Mr. G.E. Davidson	
	Mr. G.F. Dean	
	Mr. D.W. Frick	
	Mr. M. Galbreath	
	Mr. A. Ketvirtis	
	Dr. A.R. Robertson	(Secretary)
	Dr. C.L. Sanders	
	Mr. J.C. Wilson	
	Dr. G. Wyszecski	

Subcommittee

Members:	Mr. E.L. Burnham
	Mr. C. Rose

Absent:

Mr. C. Boivin
Mr. B.D. Cobley
Mr. W.F. Elliott
Mr. G.E. Mulvey
Mr. A.T. Orr
Mr. A. Whitehead
Mr. H.J.T. Young

1. Call to Order

The President declared the meeting open at 10.05 a.m. and announced that Mr. Elliott and Mr. Whitehead had given notice that they were unable to attend.

2. Minutes of the Last Meeting

The Secretary read the minutes of the fourteenth annual meeting. Mr. Frick moved that the minutes be approved, Professor Currie seconded, and the motion was carried unanimously.

3. Secretary's Report

- (a) The annual fee of \$1,100(U.S.) for Canadian membership in the CIE was paid by the National Research Council in January, 1970.
- (b) A copy of the CNC/CIE booklet was sent to each of nine Schools of Architecture in Canada, whose addresses were supplied by Professor Currie. Copies of the booklet were also given to all participants in the recent Seminar on The Measurement of Light and Color given by members of the Radiation Optics Section, Division of Physics, NRC. In addition some copies were sent to the secretary of the U.S. National Committee of the CIE, as suggested at the last CNC meeting.
- (c) After having received an enquiry from Mr. Dean concerning illuminance levels recommended in the National Building Code, the President contacted Mr. H.B. Dickens, who is in charge of the Codes and Standards Group of the Division of Building Research, NRC. Mr. Dickens agreed that in previous editions of the Building Code and in the one which is presently in print lighting is treated poorly. However, he promised that after the present edition has been published, he intends to reorganize the Committee on the National Building Code somewhat for starting work on the next edition. The President proposed that Mr. Dean should be consulted in these matters and Mr. Dickens agreed readily "to consider the possibility of additional assistance from Mr. Dean".
- (d) A request for proposals for papers to be presented at the Barcelona Session of the CIE was received in February and transmitted to all members, delegates and subcommittee members of the CNC. No proposals were received.
- (e) The President received from the Central Bureau the draft of a document "Recommendation for the Spectral Distribution and the Integrated Irradiance of Simulated Solar Radiation for Testing Purposes". This draft was submitted by Expert Committee E-2.1.2 (Sources of UV and IR Radiation and Measurement) and distributed to the National Committees for a vote of approval. The President, after having discussed the document informally with some members, voted against approval mainly because of the extremely poor editorial shape of the document, partly because of very confusing use of dimensions throughout and also because the percentage values in one table did not agree with the absolute values in the same table.

A revised draft was received but the President again voted against approval of this version of the document because some of the previous errors in the calculations were not corrected and some new errors in the dimensions had been added.

- (f) The President and Secretary visited Dr. R. Martineau who has replaced Dr. J.D. Babbitt as NRC Secretary for International Relations. The activities of the CNC were explained to Dr. Martineau who is interested in keeping in touch, at least by receiving copies of notices and of minutes of meetings. The possibility of financing the purchase and resale of CIE documents by the CNC was raised, but again no practical solution could be found. As a result of the meeting with Dr. Martineau, the President was asked to give a brief written account of the Committee's work.
- (g) I have received from the Central Bureau, one copy of CIE Document No. 16 on Daylight. This is available for loan in the same way as other CIE documents.

A motion made by Mr. Davidson and seconded by Mr. Wilson that the Secretary's report be accepted was carried unanimously.

4. Business Arising from the Minutes and the Secretary's Report

The treatment of lighting in the National Building Code was discussed. Mr. Galbreath pointed out that the Code was intended merely to give minimum requirements for safety rather than to give details of recommended practices, but the general opinion of the Committee was that more emphasis on lighting was probably desirable. The matter was left in Mr. Dean's hands.

The President explained in more detail his negative vote on the E-2.1.2 document. Dr. Wyszecski, speaking for the Action Committee, said that revisions had been made and that the document would be published. Mr. Budde had not seen the most recently revised version and members of the CNC were concerned that some of the errors might not have been corrected. The following motion was made by Mr. Davidson: "The Canadian National Committee of the CIE is in accord with the actions taken by its President with respect to the document 'Recommendation for the Spectral Distribution and the Integrated Irradiance of Simulated Solar Radiation for Testing Purposes' from E-2.1.2, and requests the President to express the concern of the Committee that the comments submitted have been considered and action taken." The motion was seconded by Mr. Dean and passed unanimously.

The President said that in his report to Dr. Martineau he had mentioned several instances of the incorporation of CIE Recommendations into Canadian Standards, Codes and other legislation. He would be interested to know of any other examples of which members were aware.

In discussing the question of the sale of CIE documents in Canada, Dr. Wyszecski suggested that the Queen's Printer might be willing to handle such documents. Professor Currie said that all major university libraries should be kept informed of the availability of CIE documents.

5. Discussion of Reports from Experts and Corresponding Members of CIE Committees

Written reports had been submitted by all members present, and by Mr. Elliott.

Mr. Ketvirtis pointed out the large disagreements between the recommendations of CIE Committee E-3.3.1 (Public Lighting) and current CSA recommendations for roadway lighting. He suggested that the illuminance levels recommended by the CSA should be raised and proposed that the President of the CNC/CIE should write to the CSA strongly suggesting that CSA recommendations be updated in view of recent CIE recommendations. The President agreed to do this if Mr. Ketvirtis would draft the letter for him.

Dr. Sanders and Mr. Rose expressed concern at the effect of glare from sources adjacent to roadways. There seemed to be no legislation in this field.

Dr. Sanders, in presenting his report for Committee E-1.2 (Photometry), commented on the difficulty of obtaining lamps suitable for use as photometric standards.

The meeting adjourned for lunch from 12.35 p.m. to 1.30 p.m.

During the discussion of Mr. Chorlton's report for Committee E-3.1.1.3 (Aesthetics of Lighting), Mr. Ketvirtis commented that in recent years the aesthetics of outdoor lighting had been considered more than in the past.

In presenting his report for Committee E-3.1.1.2 (Causes of Discomfort in Lighting) Mr. Chorlton said that complete deadlock seemed to have been reached due to a conflict of opinions within the Committee.

After Mr. Dean had given his report for Committee E-3.1.2 (Interior Lighting Practice), Dr. Wyszecski commented that liaison with other Committees was especially important for E-3.1.2.

Professor Currie said that Committee E-1.4.1 (Education in Schools) was likely to be disbanded. Regret was expressed by other CNC members who felt that there was a need for discussion and comparison of education methods. Dr. Wyszecski said that such discussions might be arranged for CIE Sessions, but that this did not necessitate the existence of a Committee.

6. Appointment and Re-appointment of Members

The President announced that, as recommended by the CNC, he had contacted Mr. H.J.T. Young, now with the Federal Ministry of Transport, to ask him to become the delegate to Committee E-3.3.5 (Automobile Headlights and Signal Lights). Mr. Young had accepted on a provisional basis.

The President also announced that Mr. Christopher had resigned as delegate to E-3.3.3 (Airborne Lighting and Signals) and had recommended Mr. B.D. Cobley of the Ministry of Transport as his replacement. The President had contacted Mr. Cobley who had agreed to become the new delegate.

The Secretary explained that six members were due to complete their terms of office on 31 December, 1971. This would break By-Law 14 of the CNC which stated that no more than one-third of the members may complete their term of office in one year. To avoid this Dr. Sanders and Dr. Wyszecski had agreed to resign one year early. The committee voted unanimously to recommend to the NRC that Dr. Sanders and Dr. Wyszecski be re-appointed for a further four-year term, expiring on 31 December, 1974.

The appointment of new members was discussed, but it was decided that it was better to wait until after the Barcelona Session of the CIE before recommending any new appointments.

The Secretary announced some changes in subcommittee membership. Mr. G. Cornish had resigned from subcommittee E-3.3.1 (Public Lighting) and Mr. J.H. Wright from subcommittee E-1.3.2 (Color Rendering). Mr. D.E. Macpherson of The Holophane Company had joined subcommittee E-3.1.2 (Interior Lighting Practice) and Mr. E.C. Rowsell of the City of Calgary Electric System and Mr. C. Rose of the Scarborough Public Utilities Commission had joined subcommittee E-3.3.1 (Public Lighting).

7. Arrangements for the Barcelona Session of the CIE

It was agreed that each member and subcommittee member will be asked to submit a list of names of persons deemed suitable to be delegates to the Barcelona Session. The President will then write individually to each person suggested, inviting him or her to be a delegate.

The President mentioned that the U.S. National Committee was attempting to organize one or more group flights to Barcelona and that Canadian delegates could be included if they so desired. The general feeling was that individual travel arrangements would be best for most Canadian delegates.

Dr. Sanders suggested that Dr. Wyszecski be nominated for President of the CIE, but Dr. Wyszecski felt that, as a fairly new member of the Action Committee, he did not have enough experience.

Dr. Wyszecski said that a request would soon be made for more short papers to be presented in Barcelona.

8. Other Business

Mr. Ketvirtis gave a brief description of research facilities in North America in the field of public lighting.

Dr. Wyszecski gave a brief account of the recent seminar on "The Measurement of Light and Color" given by members of the Radiation Optics Section, Division of Physics, NRC. He mentioned that there was considerable interest in the formation of a group or society of people concerned with photometry and colorimetry.

9. Meeting Adjourns

The meeting was adjourned at 4.15 p.m.

A. R. Robertson
3 November, 1970

REPORT TO CNC/CIE October, 1970

on

E-1.2 PHOTOMETRY

There were no meetings of the committee in the past year.

I sent a short reply to the questionnaire on photometric activity in Canada since the last CIE meeting.

The Committee activity in the past year has resulted in new drafts of the "Report on the Principles of Light Measurement" and of the document "Recommendations for Calibrating Discharge Lamps as Working Standards of Luminous Flux". I believe that both are now quite acceptable for publication but am not sure when publication will be arranged.

The Subcommittee on Spectroradiometry has proceeded with the plan to calibrate fluorescent lamps using incandescent lamps as standards. Mr. C. Jerome at Sylvania has received back and recalibrated most of the fluorescent lamps operated at 50 Hertz. We have received back and recalibrated all except one set of fluorescent lamps from laboratories using 60 Hertz. We have also recalibrated most of the tungsten lamps and returned them to the participating laboratories. It seems that most of the lamps have been sufficiently stable although a few have drifted or been broken in transit. A report will be available for discussion in Barcelona.

C L Sanders

CLS:rm

C. L. Sanders

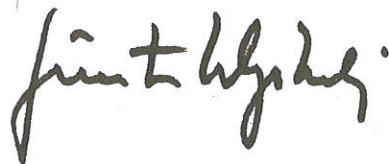
ANNUAL REPORT ON THE ACTIVITIES OF
C.I.E. COMMITTEE E-1.3.1 (COLORIMETRY)

During the period of October, 1969 to October, 1970, the CIE Committee E-1.3.1 (Colorimetry) conducted its work by correspondence.

The main items were:

- (a) a report on the development of standard sources for colorimetry prepared by the chairman of the committee and submitted for publication in Die Farbe;
- (b) a draft proposal for specifying the degree of metamerism when the illuminant is changed;
- (c) miscellaneous preparatory items for the forthcoming CIE Session at Barcelona (call for contributions for the official progress report and report on activities, etc.).

The chairman is also a member of the CIE Action Committee and as such will coordinate the activities of E-1.1 (Vocabulary), E-1.2 (Photometry), E-1.3.1 (Colorimetry), E-1.3.2 (Color Rendering), and E-1.4.1 (Vision). He attended the two last meetings of the Action Committee in April and September of this year.



Gunter Wyszecki
Chairman, E-1.3.1
(Colorimetry)

REPORT ON THE ACTIVITIES OF CIE COMMITTEE E-1.3.2

(COLOUR RENDERING)

(Prepared for the 1970 annual meeting of the CNC/CIE)

I received a questionnaire from the German National Committee concerning the Review of Progress for this subject. With the assistance of subcommittee members, I prepared answers to the questionnaire and forwarded them to Germany. A number of documents on the subject of colour reproduction appraisal, supplied by Mr. McRae of the CBC, were included with my reply.

I also received minutes of the meeting held in Stockholm in June, 1969, together with a number of other documents, including a draft for the second edition of CIE Publication No. 13 on the Colour-Rendering Index. Following this, I wrote to Mr. Munch, the Chairman of E-1.3.2 with a number of suggestions for improvement of the draft.

A meeting of E-1.3.2 was held in September in Vienna, but I was unable to attend.

29 October, 1970



A. R. Robertson
Corresponding Member,
E-1.3.2

REPORT TO THE ANNUAL MEETING OF THE
CANADIAN NATIONAL COMMITTEE OF THE CIE

Fundamentals of Light Signals
and Signs - E-1.3.3

The Technical Committee, headed by Mr. C.A. Douglas of the United States, is preparing a handbook of visual signalling and requested me to supply papers covering the original work being done in this country. The active area would be in highway signals and signs, but the Canadian Good Roads Association was not able to supply any material.

A further meeting was held in Amsterdam in June, but I have received no report of this meeting.



W.F. Elliott,
Corresponding Member,
Committee E-1.3.3

REPORT ON THE ACTIVITIES OF CIE COMMITTEE E-1.4.1

(Photopic, Mesopic and Scotopic Vision)

(Prepared for the 1970 annual meeting of the CNC/CIE)

This committee has been re-instated as an E-Committee with Dr. Jo Ann S. Kinney of the U.S.A. as Chairman.

I received questionnaires from Dr. Kinney concerning the working program of the committee and the Review of Progress. I prepared brief replies to these, with the assistance of subcommittee members, and sent them to Dr. Kinney.



29 October, 1970

A. R. Robertson
Corresponding Member,
E-1.4.1

University of Toronto

TORONTO 181, CANADA

DEPARTMENT OF ELECTRICAL ENGINEERING

ANNUAL REPORTS - 1969 - 70

CIE COMMITTEE E1.5 Fundamentals of Lighting Calculations

A meeting of Committee E1.5 was held in Paris on June 30th and July 1st of this year. Minutes of this meeting were received in August. The following decisions were made:

- (1) To send a note to the vocabulary committee with regard to definitions relating to the field of radiation and energy which had been published in a draft of the new vocabulary.
- (2) Messrs. Barthes, Cuttle and Dourgnon agreed to write a memorandum co-ordinating points of view on the distribution of light.
- (3) From the discussion of methods of calculations for artificial lighting of closed space in various countries it was agreed that there is a basic agreement in the theoretical and fundamental principles. Differences are due primarily to a difference in the presentation of the data. It was agreed that a standard method should be established which could serve as a model for future editions of national codes in different countries.

A questionnaire for the "Progress Review" of E1.5 at Barcelona has been received and will be returned to the Chairman shortly.

Another meeting of the Committee is planned before Barcelona but a date and location has not been decided upon yet.

MARION G. CURRIE,
Corresponding Member.

October 28, 1970

REPORT ON THE ACTIVITIES OF CIE COMMITTEE E-2.1.2
(UV and IR Sources and Measurement)

(Prepared from October, 1969 to October, 1970)

A draft for the "Recommendation for the Spectral Distribution and the Integrated Irradiance of Simulated Solar Radiation for Testing Purposes" was distributed to the members of the committee. Comments and proposals for editorial corrections in the English version were made in a letter to the Chairman of Expert Committee E-2.1.2.

The draft was then sent by the Central Bureau to the National Committees of the CIE for approval. A second revised draft was also sent to the National Committees for approval.

W. Budde

29 October, 1970

W. Budde

October 29, 1970.

CANADIAN NATIONAL COMMITTEE C.I.E.

Committee E-3-1.1.2 - Causes of discomfort in lighting

S.K. Guth, U.S.A., chairman

No meetings of the Committee have been held in the last twelve months. Committee activity seems to be at a stand-still.

A questionnaire was sent to member countries in May and I answered on behalf of the CNC. Presumably a summary of the answers received will form part of the committee report on progress at the Barcelona Congress.

J. M. Chorlton
Corresponding Member

October 29, 1970.

Canadian National Committee C.I.E.

Report of Committee E-3-1.1.3 Aesthetics of Lighting

H. Hewitt, U.K., chairman

A meeting of the committee was held at Languith College, York University, U.K., on April 12, 1970. I was unable to attend the meeting.

Individual committee members reported on progress of appraisals of lighting installations in their countries.

The U.K. appraisal questionnaire seems to be used in preference to the C.I.E. questionnaire.

A bibliography has been prepared by the Committee.

There is a possibility of a meeting January 26 & 27 1971 in Moscow following an invitation from Mme. Ivanova, the Russian expert on the committee.

J. M. Chorlton
Corresponding Member

G. Franklin Dean
144 Wantless Avenue
Toronto 12, Canada

CANADIAN NATIONAL COMMITTEE, C.I.E.
REPORT of COMMITTEE E-3.1.2.
INTERIOR LIGHTING PRACTICE

Three meetings of E-3.1.2. have been held since the last annual meeting at Ottawa on October 27, 1969. The meetings were at Eindhoven, Netherlands, November 3 and 4, 1969; at London, England, April 17, 1970 and at Paris, France, September 22 and 23, 1970.

Items of interest in the minutes follow.

EINDHOVEN MEETING

Item 20 - Mr. C. Dykes-Brown, Chairman of E-3.1.2., attended a meeting of E-3.3.6., Exterior Lighting Practice, held in Paris at which the chairman of E-3.3.6. commented that a report in preparation on Sports Lighting would be based on the current revision of our I.E.S. Recommended Practice on Sports Lighting. Mr. Dykes-Brown gave the approval of his committee E-3.1.2. to include the lighting for all indoor sports in the report of E-3.3.6.

Item 21 - Terms of Reference. From a question raised as to the terms of reference of the committee, the secretary provided a copy of the working program established at an earlier meeting. A copy is attached.

Item 22 - International Guide. The chairman reversed the order of the items on the working program in discussion of the Guide.

Several members failed to submit material for the sections assigned to them.

I - Relationship between Daylight and Artificial Light

Following discussion on material submitted by Mr. Barthes, it was arranged that he expand his material to include, Flow of light, Screening by canopies and venetian blinds, Prevailing trends in the use of 'thick' buildings, Daytime and nighttime use of interiors, Glare, Variation in the relationship throughout the world, PSALI applications.

II - Energy Control

Mr. Dorsey's material was considered to be lacking in basic technical material that would be useful from the international view point. It was agreed that excerpts from our I.E. S Handbook would satisfactorily cover factors such as the variation in solar gain due to differences in latitudes.

III - Lighting and Interior Decoration

Mr. Barthes was requested to base a revision on Mr. Oveson's contribution that would include, The effect of decoration on the efficiency of the installation, Visual comfort, The inter-relationship of light and colour, The researches of Helson (U.S.A.) and Barthes (France), The colour of the light source. This material would then be placed in Item IX Colour Rendering and Chromaticity.

IV - Cost Analysis

It was decided to have Dr. Fischer add fundamental background to the material provided by Mr. Dorsey. Comment was made that few of the Corresponding Members had responded to the request for information. Canada responded to the request.

IX - Colour Rendering and Chromaticity

The material presented by Dr. Fischer was accepted with a

few editorial changes and the addition of a paragraph on the relationship between lamp colour and daylight when artificial light and daylight are used together.

XI - The Evaluation of Glare

Dr. Fischer stated that there was a need for two systems viz: a glare limitation system and a glare evaluation system. For the former he proposed the Sollner system and for the latter the British system. It is of interest to note that our I.E.S. approved system (V.C.P.) was not included.

XIII - Values of Illuminance

Discussion centred on the illumination values and titles used in different countries. Titles varied as exemplified by the use of "recommended", "minimum", "recommended minimum". It was also suggested that mention should be made of the need to control the ratio of illumination values of adjacent areas such between office and corridors.

LONDON MEETING

Again as at the Eindhoven meeting material for many of the sections had not been prepared for the International Guide.

I - Daylight and Artificial Light

Mr. Barthes' revised report was accepted with additions proposed to include an expansion of Daylight Factor, reference to photocell control, increase of artificial illumination in a building core as daylight increases, the use of canopies to control sunlight and the inadequacies of canopies where low altitude sun is experienced.

X - Contrast Rendition

Mr. Barthes' contribution was approved with a change in the title to "Perception and Rendition of Contrast" and two other minor amendments.

XI - Evaluation of Glare

After considering the proposal made at the Eindhoven meeting to have a two part system, it was decided to recommend only the Zollner glare limitation system. This decision was due to the problem of international adoption of classification of luminaires.

XIII - Values of Illuminance

The secretary reported that only the following countries had responded to his request for information - Japan, Poland, Czechoslovakia, Yugoslavia and Canada. He was requested to write again to the other countries.

The secretary was requested to amend one part as follows:-
'Whilst this material is applicable to the selection of illumination values for individual specific tasks, its greatest value lies in indicating the basis on which recommended values have been arrived at in various parts of the world. In establishing a new or revised code, member countries of CIE are advised to refer to the recommendations of countries with long-established codes whose values are summarised in the table.'

The next meeting was scheduled for August 17 and 18, 1970 in either Amsterdam or Eindhoven but was changed later to Paris for September 22 and 23, 1970. The minutes of this meeting have not been received.

Communications between the Expert Committee and the Corresponding Members have improved greatly.

October 20, 1970


Corresponding Member, E-3.1.2.

WORKING PROGRAMME OF COMMITTEE E 3.1.3. - INTERIOR LIGHTING PRACTICE

To prepare eventually a CIE Guide on Interior Lighting Practice. This to cover aspects of interior lighting techniques as indicated below and on which work is to begin as soon as possible.

- (i) Levels of Illuminance.
- (ii) The Calculation of Illumination and Luminance.
- (iii) The Evaluation of Glare.
- (iv) Contrast Rendition.
- (v) Colour Rendering.
- (vi) Chromaticity of Light Sources.
- (vii) Modelling.
- (viii) Luminance Distribution.
- (ix) Performance Data on Luminaires.
- (x) Maintenance.
- (xi) Cost Analysis.
- (xii) Lighting and Interior Decoration.
- (xiii) Energy Control.
- (xiv) The Relationship between Daylight and Electric Light.

Co-operation to be encouraged with all other CIE committees impinging on the interior lighting applications subject and, in particular, Liaison to be set up with the informal Co-ordinating Group established at Washington.

AM/JLE/P
16 May 1968

Report to Canadian National Committee of the C.I.E.

E-3.1.9.2 Stage and Studio Lighting

Very little activity has taken place in C.I.E. E.3.1.9.2 during the past year. There has been no new work in Canada on theatres since the spurt of construction for the Canada Centennial. On the television side, activity seems to be solely to consolidate and assimilate the changes made for color television. Recent television work has been by way of refinement rather than new development.

Very little activity has been reported by the international members to the Secretariat, possibly for lack of new development. This has led the Chairman, Mr. K. R. Ackerman to suggest that E.3.1.9.2 revert to a Secretariat Committee status rather than that of an Expert Committee.


D. W. Frick, Eng.
E.3.1.9.2

October 30, 1970.

REPORT ON WORK OF COMMITTEE E 32 DAYLIGHT.

Two meetings of the committee of experts have been reported, one on the 15th to 18th September 1969 in Bratislava and another on the 23rd to 26th of September 1970 in Berlin.

The subjects considered were

(1) Standardization Amendments were made to the standard for luminous distribution of a clear sky already conditionally approved in Washington. Mr. Kittler agreed to undertake the study of the proposed standard for light transmitting properties of materials as this applies to diffusing materials.

The proposed standard for spectral distribution of natural light sources was amended following discussions with the president of committee E 2.1.2.

An inquiry, among the National Committees into the methods in use for predetermination of natural lighting of interiors under clear sky conditions was initiated. Mr. Longmore has been asked to prepare a chapter on permanent supplementary artificial lighting for a proposed Code of Good Practice in Daylighting.

(2) Information and Education It was decided that information should be gathered for a Code of Good Practice in Daylighting and that concepts used in natural lighting should be defined for future revisions of the International Lighting Vocabulary.

(3) Daylight and Architectural Design. Three areas of investigation were proposed: thermal discomfort, glare and agreeable luminous environment. Three experts have been assigned to prepare submissions on each of these subjects for the proposed Code of Good Practice in Daylighting.

The International Recommendations for the Calculation of Natural Daylight. Publication No. 16 has now been published at a cost of \$6.65 U.S.

C.I.E. COMMITTEE E-3.3.1 - PUBLIC LIGHTING

ANNUAL REPORT 1970

The Committee of Experts held 3 meetings in 1970 - January 29-30, Zuerich; June 10-11, Barcelona; October 8-9 Ajaccio, Corsica. The writer attended the meeting in Corsica.

Perhaps the most important work completed this year by the committee is the recommended practices for motorway and tunnel lighting. Both these documents are scheduled for publication before the 1971 General Meeting in Barcelona. Some of the aspects of these recommendations differ considerably from Canadian practice and therefore cause some concern.

Motorway Lighting Recommendations

The present illumination level used for motorways in Canada, as recommended by CSA Standards, is .6 fc. CIE's new recommendations suggest a minimum value of 2 candelas per square meter, or approximately 3 fc. Pole spacing, according to the new CIE publication, is restricted to a 3:1 ratio mounting height vs. spacing. The levels of illumination used on some recent projects already exceed the recommended values of CSA (Saint John Throughway, N.B. 1.2 to 1.5 fc; new section of lighting of the Q.E.W., Ontario, 1.8 fc). In view of the considerable disagreement between present CSA and new CIE recommendations, we would like to recommend that a meeting with the CSA Roadway Lighting Committee is initiated by the CIE/CNC Council and the possibility of adaptation of the new CIE recommendations explored.

Tunnel Lighting Recommendations

There is also major disagreement between present Canadian practice and new CIE recommendations, particularly with respect to levels of illumination at the tunnel entrance. The new CIE recommendations suggest a ratio of 10:1 between the levels at the entrance of the tunnel portal and the outdoor illumination level. Assuming that in Canada the levels of illumination can reach 10,000 fc, it would be necessary to provide 1,000 fc at the tunnel entrance. In practice this is a difficult task to accomplish.

The CGRA Geometric Design Manual revised chapter on illumination recommends 500 fc for high speed, high volume tunnels, and 150 fc for low speed, low volume tunnels. This is perhaps a reasonable compromise between CIE recommendations and Canadian practice. Perhaps it would be advisable to review the practice of tunnel recommendations in Canada with the CSA Roadway Lighting Committee also.

Other Major Subjects discussed at E-3.3.1 Committee Meetings

1. Road Surface Reflectance Properties (a report is being prepared by Mr. Frederiksen of Denmark, for the Barcelona meeting.)
2. Report on Sidelights and Low Beam Headlights in Built-Up Areas by Dr. Schreuder.
3. Questionnaires on public lighting.
4. Accidents on highways in various member countries.
5. Differences between motorway lighting practice and CIE recommendations.
6. Research work on pole impact testing and safety requirements and highway lighting design in Canada.

The next meeting of this committee is scheduled for June 1971 in Moscow.



A. Ketvirtis, P.Eng.
Chairman - Sub-Committee CNC/CIE
Public Lighting

University of Toronto

TORONTO 181, CANADA

DEPARTMENT OF ELECTRICAL ENGINEERING

CIE COMMITTEE E4.11 Education in Schools

Since the meeting in Vienna in 1963, the Committee has been engaged in preparing series of slides for lighting education and also some instruction sheets specifically for use in schools of architecture.

The first series of slides has been finished for some time and has been sold through a French publishing house. The sale of these has been very poor.

The second series of slides has been completed but there is not sufficient money to proceed with their reproduction for sale.

The third and fourth series have been discussed, but again, shortage of money has halted their progress.

The original information survey sent to architectural schools gave a positive response to the suggestion that specific material be prepared for architectural students. A great deal of work has been done by the Swiss Committee on this project and now a more recent questionnaire indicates a loss of interest by the architectural schools.

In a letter to CIE President Vermeulen this summer the Swiss Committee outlined their progress to date and the discouraging results they have experienced. They suggested that unless financial and promotional support can be obtained in the member countries by the Central Bureau for this work that it would be better to abandon the work programme of the Committee.

The decision on this matter has not been sent to me yet.

M. G. CURRIE,
Expert Member.

October 28, 1970