Minutes of the 17th Annual Meeting of the
Canadian National Committee of the CIE

(Held in Hart House, University of Toronto,
27 October, 1972)

Members present:	Prof. M.G. Bassett
	Mr. W. Budde (President)
	Mr. G.E. Davidson
	Mr. G.F. Dean
	Mr. D.W. Frick
	Dr. P.K. Kaiser
	Mr. A. Ketvirtis
	Dr. P. Manning
	Dr. J.D. Moreland
	Mr. A.T. Orr
	Dr. A.R. Robertson (Secretary)
	Dr. C.L. Sanders
	Mr. C.W. Shearer
	Mr. J.C. Wilson
Guests present:	Mr. R. Bolton (Sylvania)
	Mr. W.M. Dillon (Crouse-Hinds, Subcommittee 4.1)
	Mr. S.W. McKnight (Westinghouse)
	Mr. Z.S. Subotich (CSA, Subcommittee 2.4)
Members absent:	Mr. J.M. Chorlton
	Mr. F.R. Dorward
	Mr. M. Galbreath
	Mr. G.E. Mulvey
	Dr. G. Wyszecki

1. Call to Order

The President declared the meeting open at 10:08 am, and thanked Mr. Dean for making arrangements for the meeting room. He welcomed a new member, Dr. Manning, and four guests, Messrs. Bolton, Dillon, McKnight and Subotich.

2. Minutes of the Last Meeting

The Secretary read the minutes of the 16th annual meeting which were approved unanimously on a motion by Dr. Manning, seconded by Mr. Wilson.

3. Secretary's Report

The Secretary read his report, which is attached to these minutes. Mr. Davidson moved approval of the report, Dr. Moreland seconded, and the motion was carried unanimously.

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

The President explained that he had received one further comment on his "Draft Proposal for a Memorandum on Research in Lighting in Canada" but had taken no further action. A lengthy discussion followed on lighting research in Canada. There was agreement that more such research is very necessary. Questions discussed included whether such research should be distributed amongst universities, government and industry, or centralized in a special institute; how such research could be initiated; and which projects should be given priority. It was suggested that a list might be compiled of experts in various fields of lighting who would be willing to give advice on particular practical problems. In summing up, the President thanked members for an interesting discussion and promised to develop the document along the lines suggested.

The Secretary reported on the sale of CIE publications in Canada and mentioned plans for selling future publications. Mr. Ketvirtis had been unable to buy a copy of the International Lighting Vocabulary from the U.S. National Committee and the Secretary promised to look into the matter.

The President reported that the document on solar radiation from committee TC-2.2 (formerly E-2.1.2) had been delayed in order to incorporate new data.

The President said that the 3rd edition of the CNC/CIE booklet would be prepared as soon as Canadian delegates had been appointed to all the CIE Technical Committees. Mr. Orr suggested a tear-out page which people could return to indicate interest in CIE activities.

The President reported that the Canadian Society for Color had been founded, as planned, and that both the President (Dr. Wyszecki) and the Vice-President (Dr. Moreland) were members of the CNC/CIE.

5. Discussion of Reports from Members of CIE Technical Committees

Each CNC delegate to a CIE Technical committee presented his annual report. A brief discussion followed each report.

The President commented that the main purpose of TC-1.1 should be to coordinate suggestions from the other technical committees.

Mr. Dean asked whether TC-1.2 published data on lamps made by different manufacturers. Dr. Sanders answered 'No'.

Dr. Sanders asked whether the report being prepared by TC-1.4 included data applicable to small sources such as are used in computer displays, and whether there were any data applicable to the necessary level for colored signals. Although both questions are rather complex, Dr. Kaiser thought that the report would include some relevant data.

Although Canada had no official representative on TC-1.6, Dr. Sanders had had some correspondence with the chairman, Mr. C.A. Douglas of the U.S.A., concerning a proposed revision of CIE Publication No. 2 (Colors of Signal Lights). Dr. Sanders asked what procedure was usually followed in determining the CNC vote on proposed CIE publications. The President replied that he consulted with selected members of the CNC, including the delegate to the committee concerned, and then communicated the CNC opinion to the Central Bureau. This procedure had worked satisfactorily for several years. Mr. Dean suggested that CNC members who wished to see a proposed CIE publication should be allowed to do so, but that it was not necessary for all members to see every proposed publication.

Dr. Sanders asked whether TC-2.1 and TC-2.2 intended to be active committees or to continue simply as "reporting" committees. No answer was available.

The meeting was adjourned for lunch from 12:20 pm to 1:20 pm.

Mr. Ketvirtis asked whether the recommendations of TC-4.1 were followed in Canada. Mr. Dean said that they were because they largely agreed with IES recommendations. Dr. Manning asked whether the guide being prepared by TC-4.1 was to be in simple language to help non-experts. Mr. Dean said that it was but would incorporate the latest data.

Mr. Frick mentioned that there was some overlap in the subject areas of TC-4.3 and TC-4.4 because most sports lighting was designed with television in mind.

In reporting on the activities of TC-4.6, Mr. Ketvirtis again emphasized the differences between CIE recommendations and North American practice.

6. Appointment of Delegates to CIE Technical Committees

Dr. Moreland was appointed as delegate to TC-1.6, replacing Mr. Elliott who had resigned.

Mr. Galbreath had written to say that he wished to resign from the CNC and from TC-4.2 at the end of 1972 when his term of office as a member of the CNC expired. He had suggested Mr. D. McGowan of Richmond, British Columbia, as his successor on TC-4.2. With the committee's approval, the President said that he would write to Mr. McGowan asking him to become the Canadian delegate to TC-4.2.

Mr. McKnight said that he was willing to become the delegate to TC-4.4 but that the approval of his superiors would have to be obtained. Pending such approval Mr. Frick would continue as acting delegate.

Mr. Dillon was suggested as delegate to TC-4.5 to replace Mr. Whitehead who had resigned. However, he too would have to seek the approval of his superiors.

Mr. G.L. Snider of British and Overseas Imports Ltd., Calgary, was suggested as delegate to TC-4.7 to replace Mr. Young who had resigned. The President said that he would contact Mr. Snider.

The President explained that the CNC could also appoint delegates to the three CIE Study Groups but was not obligated to do so. No members felt that they would be able to attend meetings of the study groups, but the following agreed to keep in touch with the groups by correspondence:

Study Group A - Dr. Kaiser
Study Group C - Mr. Orr
Study Group D - Mr. Subotich

7. Appointment and Reappointment of Members

The appointments of Messrs. Davidson, Dean, Galbreath, Ketvirtis and Mulvey were due to end on 31 December, 1972. Mr. Galbreath had expressed his desire to resign, but the other four were willing to be reappointed. The committee voted unanimously to recommend to the National Research Council these four re-appointments for further four-year terms.

There were no recommendations for new appointments.

8. Discussion of Formation of CNC Executive Committee

The members present agreed that the By-Laws should be modified to allow the formation of an executive committee whenever the CNC as a whole thought it necessary. However it should not be mandatory to form such a committee.

9. Discussion of Proposed New By-Laws

The proposed new By-Laws of the CNC were discussed. Various modifications were suggested and the Secretary agreed to work out suitable wordings and to circulate the proposals for further comments before final voting.

Noting that the existing By-Law No. 4 allowed extra officers, Mr. Orr proposed that Dr. Sanders be appointed as Vice-President of the CNC to carry out the duties of the President should the President himself be unable to do so. This proposal was accepted unanimously.

10. Other Business

Discussion of ways of expanding illuminating engineering research in Canada was resumed, and several proposals were made. A subcommittee consisting of Mr. Orr (Chairman), Prof. Bassett, Dr. Kaiser and Mr. Ketvirtis was established to prepare recommendations on the coordination and expansion of lighting research in Canada. The subcommittee was charged with the responsibility of preparing a report by 1 January, 1973.

11. Meeting Adjournment

Mr. Frick, seconded by the Secretary, made a motion to thank Mr. Dean for arranging the meeting place and for his hospitality. This motion was carried by acclamation and the meeting was adjourned at 3:58 pm.

A.R. Robertson

A.R. Robertson.

November 1972.

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

October, 1972

(a) The annual dues of $1,100 (U.S.) for Canadian membership in the CIE for 1972 were paid by the National Research Council in January, 1972.

(b) In November, 1971, a request was received from the French National Committee for a list of lighting journals published in Canada. The President replied that, except for one or two manufacturer's bulletins, there were no such journals. We rely on journals published in the USA.

(c) In November, 1971, the President sent a summary of members' comments on the Barcelona Session to the Central Bureau.

(d) Canada has been assigned responsibility for CIE Technical Committee TC-1.2 (Photometry). Dr. C.L. Sanders will be the chairman of this committee.

(e) The President and Secretary were invited to attend a meeting of the NRC Committee for International Affiliations (CIA) on 3 March, 1972, to participate in a discussion of the affairs of the CNC. The following matters were discussed.

(i) The CNC/CIE has more members than other Canadian National Committees. The President explained that this was due to the large number of technical committees within the CIE. The CIA accepted this explanation but suggested the formation of a small executive committee.

(ii) Could another organization such as the Canadian Standards Association or the Canadian Society of Engineers take over responsibility for the CNC? The President explained why NRC was the most suitable organization and the CIA accepted this.

(iii) Why are officers restricted to NRC employees? The President explained that this by-law was imposed by NRC when the CNC was founded in 1957. Dr. R. Martineau, NRC Secretary for International Relations, agreed to look into this.

On 16 August, 1972, the President and Secretary met with Dr. Martineau and his assistant, Mr. Gauvreau, to discuss these recommendations. Dr. Martineau explained that CNC officers could be chosen from the entire membership of the CNC although it would be convenient if the Secretary was stationed in Ottawa. The formation of an executive committee was entirely at the discretion of the CNC.

(f) During the meeting with Dr. Martineau, the President enquired about the availability of travel grants for CNC members. Dr. Martineau explained that grants for university personnel to attend General Assemblies of the CIE were sometimes available for CIA-approved delegates, but that other requests by the CNC for travel funds would almost certainly be refused.

(g) A total of $84.00 was collected from CNC members for the Urbanek fund set up by the CIE in memory of Prof. Urbanek of Hungary who died while attending the Barcelona Session. A letter of thanks from Mr. W.R. Stevens, President of the CIE was received in April, 1972.

(h) Four re-appointments and six new appointments to the CNC were made by NRC, as recommended by the CNC at its November, 1971, meeting.

(i) Mr. W.F. Elliott, Mr. H.J.T. Young and Mr. A. Whitehead have resigned from the CNC since November, 1971.

(j) The President and Dr. G. Wyszecki, the Canadian members of the CIE Executive Committee voted in the following way in letter ballots during the last year.

  (i) In favour of the appointment of Mr. A.G. Fisher (Australia) and Dr. J. Schanda (Hungary) to the Action Committee.

  (ii) In favour of the acceptance of Mr. P. Nugent of Dublin, Ireland, as an Associate Member of the CIE.

  (iii) In favour of a revised CIE budget for 1971-5.

(k) In April, 1972, the President, acting for the CNC, voted in favour of publication of the document "CIE Recommendation for a Special Index of Metamerism" as Supplement No. 1 to CIE PublicationNo. 15 (Colorimetry, Official Recommendations of the CIE).

(l) Over a hundred copies of CIE Publication No. 15 (Colorimetry, Official Recommendations of the CIE) have now been sold by the NRC Publications Office. Similar arrangements are being made to sell the following publications:

  (i) Publication No. 19 (A Unified Framework of Methods for Evaluating Visual Performance Aspects of Lighting)

(ii) Publication No. 15, Supplement No. 1 (CIE Recommendation for a Special Index of Metamerism)

(iii) Publications No. 21A and 21B.(Proceedings of the 17th Session of the CIE, Barcelona, 1971).

A.R. Robertson.

October, 1972

Annual Report

CNC/CIE/SC on TC-1.1

Definitions and Vocabulary

There has been no correspondence from the Chairman of CIE/TC-1.1 since just before the CIE Sessions at Barcelona.

At the same time, there has been no activity by IEC/TC-1 through its Subcommittee on Chapter 845 of the IEV.

The IES Nomenclature Committee expects to begin work next year in updating ANSI Standard Z 7.1 - 1967, Nomenclature and Definitions for Illuminating Engineering. Thus, this will become an excellent starting point in considering revisions and additions for the next edition of the ILV.

G.E. Davidson, P.Eng.

Report for CNC/CIE

on

TC-1.2 Photometry and Radiometry

by

C.L. Sanders

Following the November, 1971, suggestion by CNC/CIE to the Action Committee, Canada was given the responsibility for the committee in November, 1971. The Terms of Reference were established as follows:

> To study and develop standard procedures for the measurement of UV, visible and IR radiation.
>
> The Working Program is:
>
> 1. Absolute reflectance of white diffusers.
> 2. Photometric characteristics of photoelectric detectors.
> 3. Spectroradiometry of fluorescent lamps.
> 4. Preparation of CIE Publication "Procedures for Spectroradiometry".
> 5. Intercomparison of National Scales of spectral irradiance.
> 6. Terminology.

In May, 1972, the Action Committee suggested that we add to the program a revision of the document "Principles of Light Measurements" to separate the recommendations from the notes.

None of the three items which were still to be prepared for publication are yet in final form. The report on the spectroradiometric comparison of fluorescent lamps for which I had prime responsibility, has just been revised for publication and sent to the participants. In the past year it was possible to draw some additional tentative conclusions about the methods used and related suggestions to some participants resulted in new measurements by them which are closer to the mean of all the laboratories. This indicates that the report should make a useful addition to the literature. In addition I have encouraged and assisted M. Nonaka to prepare a paper in English on his spectroradiometric methods and corrections. It will appear in Metrologia in January.

The report on the Spectral Sensitivity Comparison is now only a few weeks away from completion in a form suitable for publication. Budde and I have practically given up any hope of including two additional laboratories. As a beginning of the work of the subcommittee on Detectors under the chairmanship of W. Budde a fairly detailed outline of the working program of the subcommittee was prepared. Twenty people have expressed an interest in helping with the program.

Halstead, Jones and Moore have prepared an outline of a Technical Report "Principles and Procedures for Spectroradiometry". This document will require considerable effort but by distributing the writing it should be possible to have a draft of most of it by 1975.

TC-1.3 Colorimetry

The working program agreed upon for TC-1.3 is being pursued by correspondence. On July 9 and 10, 1973, the committee will hold a formal meeting at London, England, immediately following the International Conference on Photometry and Colorimetry at Varna, Bulgaria, and the AIC Conference "Colour 73" at York, England. It is anticipated that all these meetings will bring about progress in the work of TC-1.3.

Gunter Wyszecki,
Chairman, TC-1.3.

Report on the Activities of CIE TC-2.2
Sources of UV and IR Radiation

The technical committee held a session on 13 October, 1972, at Hamburg, Germany. Item 1 of the Agenda was: "Submission of the report CIE No. 20, TC-2.2 1972: Recommendations for the Integrated Irradiance and the Spectral Distribution of Simulated Solar Radiation for Testing Purposes". I have not seen the final version of this report, however, Mr. Steck, Coordinator for this Committee, has promised that our objections had been taken into consideration.

I was unable to attend this meeting and have not yet received any minutes.

W. Budde

W. Budde,
Canadian Member of TC-2.2.

WB/jg

Report on the Activities of TC-2.3
Photometric Characteristics of Materials
1972

This technical committee held a meeting in June, 1972, at Budapest, which I attended.

In preparation for this meeting I met with two members of the US TC-2.3 (F. Grum and F. Billmeyer) to coordinate our views on policy and work of TC-2.3.

At Budapest 11 Members and 7 guests met and discussed the following items:

1. The title of the committee should be changed from that originally proposed by the Action Committee to the one given above.

2. The Technical Report on the "Radiometric and Photometric Characteristics of Materials and their Measurement" was revised except for the chapter on the measurement of the characteristics. It was agreed that F. Billmeyer, F. Grum and W. Budde should rewrite this whole chapter and also provide the English version of the Report.

3. Five subcommittees were established concerning: 1 Gloss (chairman W. Budde); 2 Fluorescent Materials (J. Schanda); 3 Ageing effects (J.A. Keitch); 4 Turbid Media (F. Billmeyer); 5 Polarization (F. Grum).

After this meeting I met again with members of US TC-2.3 and at that occasion the new version of the chapter on the measurement of radiometric and photometric characteristics was prepared. The translation of the Technical Report is in progress.

W Budde

W. Budde,
Canadian Member of TC-2.3.

WB/jg

University of Toronto
TORONTO 181, CANADA

DEPARTMENT OF ELECTRICAL ENGINEERING

ANNUAL REPORT 1971-72

CIE COMMITTEE TC-2.4, LUMINAIRES

This Committee was formerly CIE E-2.3, Photometry of Luminaires and has now been renamed as shown above with Mr. E. Fredericksen of Denmark as Chairman.

A Committee meeting was held in Aachen on April 24th and 25th. The working programme for 1971-75 was agreed upon and discussions relating to recommendations on the "Photometry of Luminaires for Street Lighting" and the "Photometry of Indoor Type Luminaires with Tubular Fluorescent Lamps" were held. Work is also underway on Photometry of Floodlight and Measurement on Ventilated Luminaires.

I was not able to attend the Aachen meeting but fortunately Mr. Fredericksen is visiting North America this month and spent a day with me at the University. We discussed the draft proposal for the Photometry of Street Lighting Luminaires in some detail as well as the other work of the Committee. Mr. Fredericksen gave a very interesting talk to my undergraduate students and some traffic engineering graduate students on the work of his Laboratory.

CIE COMMITTEE TC-1.5, FUNDAMENTALS OF LIGHTING CALCULATIONS

I have had no correspondence from the Chairman this year so I have no progress to report.

Marion G. Bassett,
Canadian Member C.I.E.

October 27, 1972

Report on the Activities of
CIE TC-3.2 (Colour Rendering)

(presented to the October, 1972, meeting of the CNC/CIE)

I have received no correspondence from TC-3.2 in the past year and in fact still await the minutes of the Barcelona meetings.

In September, 1972, I was a guest at a meeting in Ottawa of the IES Color Committee (Chairman Mr. C.W. Jerome), which doubles as the U.S. National Committee for TC-3.2. The main items discussed were:

(i) Preparation of a series of short articles explaining the colour-rendering index for possible publication in Lighting Design and Application.

(ii) Evaluation of the Colour-Flattery Index.

(iii) The relation between colour rendering and illumination level (i.e. Quality vs. quantity).

(iv) Development of improved ways of calculating the "quantity of light" to replace the present use of the $V(\lambda)$ curve.

Items (iii) and (iv) were suggested as suitable long-term projects for the IES Color Committee.

A.R. Robertson,
Canadian Member of TC-3.2.

ARR/jg

CANADIAN NATIONAL COMMITTEE OF CIE

CIE Committee TC3.5: Lighting and the environment

Annual Report by Canadian Member

Mr. Hewitt (UK), Chairman of TC3.5 wrote on April 10, 1972 that he planned "...to write a short paper to review the past work of the Committee and to outline a possible approach to its new working programme..." This has not yet been received.

A meeting of the Committee was held in Paris in September 1972. Though I had originally hoped to attend I was unable to do so and by cable asked to be kept informed. No report has yet arrived.

No other information has been received and no other correspondence has occurred.

Dr. Peter Manning, Director
School of Architecture
Nova Scotia Technical College
Halifax, Nova Scotia

October 25, 1972

CANADIAN NATIONAL COMMITTEE of C.I.E.

REPORT of INTERIOR LIGHTING PRACTICE COMMITTEE T.C.4.1

ANNUAL MEETING, OCTOBER 27, 1972

The main committee under the chairmanship of Mr. C. Dykes-Brown of Great Britain, is still engaged in developing an international guide on interior lighting. Meetings of the committee were held at Eindhoven, Netherlands 25th and 26th of January, 1972 and at London, England 20th and 21st of September, 1972.

Some changes have been made to the headings of the sections which now are:-

Introduction and Contents
Section 1 - Values of Illuminance
" 2 - Perception and Contrast Rendering of the Task
" 3 - Discomfort Glare
" 4 - Modelling
" 5 - Luminance Distribution and Interior Decoration
" 6 - Chromaticity and Colour Rendering of Light Sources
" 7 - Interaction of Daylight and Artificial Light
" 8 - Depreciation and Maintenance
" 9 - Integration of Lighting and Heating
" 10 - Calculation of Values of Luminance and Illuminance

Discussions at the meetings have resulted in treatment differing from the original draft. Following are outlines of some of the new material that may be of interest.

Section 1 - Values of Illuminance

A new Table 1.1 of a Scale of Recommended Illuminances shows a range in three main categories and nine minor categories of visual tasks from 20 to 2000 lux. Within the ranges countries with varying economic levels may select suitable levels.

Figure 1.1 shows eight curves from different researches on percent of observers satisfied with various illuminance levels. The curves are similar in shape but vary in minimum and maximum values as well as the peak levels. The average peak level was 2000 lux.

Section 2 - Perception and Contrast Rendering of the Task

A new statement on "illumination uniformity" is "Uniformity is considered acceptable if the minimum values over the local working area do not fall by more than 25% below the average."

Luminance ratio was re-written to "The surround of the task should have a luminance not less than 1/3 of the task and not more than the task.

Section 3 - Discomfort Glare

A brief description is given of the direct discomfort glare control systems of various countries including our I.E.S. V.C.P. system. A new system has been developed and is shown by one table and two diagrams. It appears to have considerable merit and takes into account luminaire luminance, class of visual task and room reflectances.

Section 5- Luminance Distribution and Interior Decoration

From a suggestion by the C.N.C., reference to the problems created by extreme values of reflectance will be included.

Section 6 - Chromaticity and Colour Rendering of Light Sources

This section has been re-written and expanded. One statement to which exception has been taken is "By definition, the colour rendering index of incandescent lamps is high - - low."

Section 8 - Depreciation and Maintenance

This section will use a considerable part of the I.E.S. concept of Light Loss Factors.

Section 9 - Integration of Lighting and Heating

A draft for this new section is to be prepared by MR. A. B. deGraaff of the Netherlands for the London meeting.

Section 10 - Calculation of Values of Luminance and Illuminance.

This new section was deemed necessary by two members from France who wished refinements in calculation procedures to produce more accurate utilization factors. Three members accepted the assignment to formulate an agreed method.

The chairman of this Canadian Committee T.C. 4.1 was not able to attend the meetings but sent many comments and suggestions for both meetings. Many of the suggestions for the Eindhoven meeting were accepted. It is not known if any of the proposals for the London meeting were approved since the minutes of that meeting have not been received.

It appears that the main committee is making considerable progress and that there is a good prospect of having a C.I.E. International Guide on Interior Lighting completed in time for the next quadrennial session which will be held at London, England in 1975.

Frank Dean

October 20, 1972

G. F. Dean, Chairman
C.N.C. Sub-committee T.C. 4.1

INTERNATIONAL COMMISSION ON ILLUMINATION

RE WORK OF COMMITTEE 4.2

I do not have much to report on the work of this committee during the past year. The members of the committee have been working toward standardization of basic meteorological data for use in daylight calculations. A meeting has been held on 7 September, but I do not yet have a report of that meeting.

M. Galbreath,
Corresponding Member.

Report to Canadian National Committee, October 1972.

Reference TC-4.3 Lighting for Stage and Studio

The major installations reported last year are mainly in operation with varying degrees of success in commissioning.

Most new systems put into operation during the past year have been smaller in size with manual or preset control systems especially designed for hotels and restaurants.

I have not received any working documents from the chairman of TC-4.3 but propose a sub-committee of C.N.C./C.I.E. composed of three persons, reference proposed by-law 11, to assist in creating more Canadian activity in this work. I wish to contact someone active in film lighting in Canada to become the third member. I will then request the approval of the President of a sub-committee member for theatre lighting, a member for film lighting and myself for television.

The C.B.C. Maison de Radio Canada television studio installation is proceeding with all lighting systems now operational.

A working group of C.B.C. Operations and Engineering personnel has completed the first stage of a study of the infra-red hazards to vision of lighting personnel who look directly at luminaires in the normal routine of their work. Because further investigations will take considerable time the Corporation has confirmed the recommendation that interim precautionary measures, involving the wearing of approved sun-glasses, be taken as soon as possible. The approved neutral density lenses have a 20 percent transmission factor in the visual spectrum with approximately 8 percent transmission around 1000 nanometers.

The recommendation also advised against the wearing of the approved sun glasses for other work under normal lighting levels and strongly advised against the use of unapproved lenses.

The working group received considerable assistance from Dr. P. D. Carmen of the National Research Council and Dr. M. Millodot Dean of the School of Optometry, University of Montreal.

Oct 27, 1972 C. William Shearer Eng.

CIE COMMITTEE TC-4.6 - STREET LIGHTING

ANNUAL REPORT

1. As reported in the review of this Committee's activities for the year of 1971 the Recommendations for Motorways and the Recommendations for Tunnel Illumination have been approved and submitted to CIE Headquarters for publishing. Unfortunately the publication of Tunnel Lighting Recommendations at the present time are suspended due to objections raised by PIARC.

2. The programme for TC-4.6 Committee's activities for the next quadramium has been prepared by the Chairman, Professor J.B. de Boer. It will mainly consist of revisions to CIE Document No. 12 "International Recommendations for Lighting of Public Thoroughfares".

   Special working groups were already formed to prepare the material for such topics as road surface characteristics, luminaire glare, uniformity, photometrics, etc.

3. In the next four-year period special attention will be paid also to street lighting accidents, vehicle headlights and traffic signs. Revisions to CIE Document No. 8 "Street Lighting and Accidents" are also planned.

4. Following the discussion regarding the possibility of having committee meetings in Canada at the last annual meeting of CNC, an invitation was

extended to TC-4.6 to hold a meeting (perhaps Spring 1973) in Canada. At the TC-4.6 Committee meeting in Malmö, however, it was decided that it would be too expensive for all members to travel to Canada just for a two-day meeting.

5. The chairman of TC-4.6, J.B. de Boer, visited Toronto in September 1972 and discussed CIE TC-4.6 activities in a presentation at the Symposium on Visibility and Illumination at York University. While discussing the Canadian participation at this and other committees he urged we increase our activities and attendance at the meetings.

A. Ketvirtis

Chairman of
CIE/CNC Sub-Committee of TC-4.6