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

(Held in the Physics Building, National Research Council, Ottawa, 31 October, 1969)

PRESENT:
Mr. W. Budde (President)
Mr. J.M. Chorlton
Prof. M.G. Currie
Mr. G.E. Davidson
Mr. G.F. Dean
Mr. W.F. Elliott
Mr. D.W. Frick
Mr. M. Galbreath
Mr. A. Ketvirtis
Mr. A.T. Orr
Dr. A.R. Robertson (Secretary)
Dr. C.L. Sanders
Mr. A. Whitehead
Dr. G. Wyszecki

ABSENT:
Mr. C. Boivin
Mr. E.H. Brezina
Mr. T.W. Christopher
Mr. G.E. Mulvey
Mr. J.C. Wilson

1. Call to Order

The President opened the meeting at 10:05 a.m. and announced that Messrs. Brezina, Mulvey and Wilson had given notice that they were unable to attend.

2. Minutes of the Last Meeting

The Secretary read the minutes of the thirteenth meeting which were then approved on a motion made by Mr. Dean and seconded by Mr. Whitehead.

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, 1969.

(b) The revised version of By-Law 11 was approved by the CNC with no dissenting votes in a letter ballot held in January and February, 1969.

(c) The new edition of the CNC/CIE booklet was printed and distributed to all IES members in Canada during January 1969 and to the manufacturing members of the Lighting Equipment Manufacturers Association later in the year. Several hundred copies are still available.

(d) After receiving the booklet, Mr. R. Shortreed of Reid, Crowther & Partners Ltd. of Calgary wrote to criticize the committee for having no members from Western Canada. As a result of the correspondence which followed, two people were found from the West who were interested and willing to be involved in CIE activities and Mr. Dean invited them both to become members of his subcommittee on Interior Lighting Practice.

(e) There was some correspondence between Mr. Dean and the President of the CNC concerning the invitation of sub-committee members to the annual meeting.

(f) Mr. J.J. Chappat has resigned as Deputy Secretary of the CIE and has been replaced by Mr. J. Maisonneuve.

(g) The Central Bureau of the CIE has been moved to:

Centre Scientifique et Technique du Bâtiment,
4, Avenue du Recteur Poincaré,
75 Paris 16^{e}.

(h) The Central Bureau asked that the CNC publicize in Canada the next session of the CIE which is to be held in Barcelona in 1971. I wrote to Mr. Hammond, the secretary of the U.S. National Committee, suggesting a co-ordinated press release in the technical journals. He replied that the U.S. Committee is opposed to any publicity in American technical journals because its by-laws put certain limits on the choice of delegates to a CIE session.

(i) The Executive Committee has held two letter ballots. In the first both Canadian members voted for the admission of the Iranian National Committee to the CIE. In the second the President voted in favour of Dr. Wyszecki's appointment to the Action Committee. The second Canadian member, Dr. Wyszecki himself, did not take part in this ballot.

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

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

The President asked that nominations for new subcommittee members be sent to the Secretary so that the President could ratify them according to the new By-Law 11. The Secretary announced that there had been three subcommittee appointments since the last meeting. They were Mr. W.M. Dillon to subcommittee E-3.3.6, Mr. F.R. Dorward to subcommittee E-3.1.2 and Mr. R. Shortreed to subcommittee E-3.1.2. Mr. Dean asked whether a complete list of names and addresses of all members, delegates and subcommittee members could be prepared since he found that such a list prepared by the U.S. National Committee was very useful.

The President announced that his discussions with Dr. Babbitt had revealed that new members of the CNC could only be appointed by the NRC and that the CNC should reactivate its old procedure of recommending the appointment of new members who would then normally be officially appointed by the NRC and would receive a letter to that effect. Mr. Ketvirtis asked whether the NRC might sponsor some of the activities of the CNC or whether the CNC might have its own budget with income from interested private and public organizations. This would avoid large demands on individual members or their companies and might enable the committee to work more effectively. The NRC members of the committee doubted whether such a system could easily be implemented.

The President reported that the Secretary had a complete set of CIE publications, as listed in the CNC/CIE booklet, and copies of the proceedings of all CIE General Sessions. These were available to members on short-term loan. Dr. Wyszecki said that he hoped that the document on

Colorimetry prepared by committee E-1.3.1 would soon be available. Mr. Chorlton's congratulations to Dr. Wyszecki for his work on this document were approved by the rest of the committee with acclamation.

The President asked for opinions on whether subcommittee members should be invited to CNC meetings. Dr. Wyszecki thought that they should only be invited if there was to be a discussion on their subject, but suggested that short seminars might sometimes be given by a subcommittee as part of a meeting. Mr. Dean suggested that subcommittee members should be free to attend meetings if they were interested and if they were in the vicinity at the time of a meeting. It was decided that invitations should be at the discretion of the subcommittee chairmen, but that all subcommittee members would receive copies of the minutes and of important notices.

Publicity for the Barcelona Session of the CIE in 1971 was discussed in the light of the attitude of the U.S. Committee. It was agreed that as many Canadians as possible should be encouraged to attend the Session and one suggestion was that a circular letter be sent to all IES members in Canada. The question of transport to Barcelona was also discussed, but decisions on both questions were postponed until the 1970 annual meeting.

5. Discussion of Reports From Experts and Corresponding Members

"No activities" were reported for committees E-1.3.3, S-1.4.1, E-2.1.2, E-3.3.3, E-3.3.5 and S-4.2. For the other committees, the members present gave short verbal accounts of activities and Mr. Mulvey's written report for Committee E-1.6 was read by the Secretary.

Dr. Sanders in his report, said that lack of funds in the CIE was inhibiting the publication of documents and he suggested increasing the fee for attendance at CIE General Sessions. Dr. Wyszecki suggested that the price of the publications could be increased. Professor Currie commented that Proceedings and documents should be much more widely available, particularly in libraries, and there was general agreement that the present method of publication and distribution is inadequate.

Mr. Ketvirtis said that Canadians should be encouraged to present papers at the Barcelona meeting. Dr. Wyszecki commented that papers should be sent to the officers of the CNC for selection as the number allowed from any one country would be limited. However, in previous years the officers had not received enough papers to make selection necessary.

After a luncheon adjournment from 12:30 p.m. to 1:15 p.m. the President gained the approval of the committee for a change in the agenda so that the appointment and re-appointment of members and other business could be dealt with before discussion of the University of Toronto Seminar.

In the continued discussion of members' reports Mr. Dean suggested that the distinction between "Expert" and "Corresponding Member" should be abolished. Dr. Wyszecki agreed as his experience had shown that a committee with a large roster could function effectively. Mr. Dean also said that in his experience the system of co-ordination between groups of CIE committees, introduced last year by the Action Committee, was not working well. It was generally agreed that co-ordination was desirable and that a parallel system might be set up by the CNC. One way of doing this would be by including in each CNC subcommittee the delegates to each of the other CIE committees in the same group.

6. Appointment and Re-appointment of Members

The committee voted, in secret ballots, in favour of the re-appointment of Mr. Chorlton and Mr. Wilson as members of the CNC for terms to expire at the end of 1973. Mr. Elliott said that he did not wish to be re-appointed as he expected to retire from the Federal Department of Transport before the end of another 4-year term, but he was persuaded to accept re-appointment at least until he does retire. In another secret ballot the committee voted in favour of Mr. Elliott's re-appointment.

The President announced that Mr. Brezina had written asking to be relieved of his post as delegate to Committee E-3.3.5 and suggesting Mr. H.J.T. Young of the Ontario Department of Transport as his replacement. Mr. Davidson, seconded by Mr. Orr, moved that the CNC accept Mr. Brezina's recommendation. The motion was passed and the President agreed to write to Mr. Young asking him to become the CNC delegate.

7. Other Business

The President said that he had received a letter from Dr. Yoshie of the Japanese National Committee asking for support for a bid to hold the 1975 CIE Session in Japan and had replied expressing his support for Japan as a meeting site. The committee was enthusiastic in its agreement with the President on this matter.

Dr. Wyszecki read some extracts from a letter he had received from Professor W.D. Wright outlining plans for the Barcelona Session in 1971. The meeting will last eight days and be divided into three parts: (i) sessions devoted to each of the technical committees with no parallel sessions, (ii) contributed papers, and (iii) six parallel sessions, each devoted to discussion of the work of committees in one of the co-ordinated groups.

Mr. Orr stressed the importance of publicity for CIE activities and said that ways of financing the CNC should be investigated.

8. University of Toronto Seminar on Visibility and Illumination in Highway Traffic

Mr. Ketvirtis gave a summary of the material to be presented at this seminar due to take place from 17 to 21 November, 1969 at the University of Toronto, and showed a large number of slides. There followed a short discussion of the need for lighting eduction in Canada, particularly for architects and civil engineers.

9. Meeting Adjourns

The meeting was adjourned at 4:10 p.m.

A.R. Robertson
4 November, 1969

ANNUAL REPORT

CIE COMMITTEE E-1.1 DEFINITIONS

There has been no indicated activity of CIE Committee E-1.1 on Definitions.

The Third Edition of the International Lighting Vocabulary is in the process of being published following its approval by both the CIE and the IEC.

G.E. Davidson, P.Eng, FIES
Member
CIE Committee E-1.1

REPORT ON E-1.2 PHOTOMETRY FOR CNC/CIE

By C.L. Sanders

October, 1969

There was a four-day meeting of E-1.2 in London, England in June 1969 at which the main topics were:

- The interim report on the "International Intercomparison of Measurements of Relative Spectral Sensitivities of Vacuum Photocells", by Budde and Sanders;

- the Draft Document on Measurements of Discharge Lamps, prepared by O.C. Jones, England;

- the measurement of luminance factor of pressed MgO and pressed $BaSO_4$, prepared by Korte, Germany and Kartachevskaia, U.S.S.R.;

- the proposed intercomparison of spectral irradiance scales, organized by Dr. Yoshie, Japan;

- the arrangements for an interlaboratory comparison of spectroradiometric measurements of fluorescent lamps, coordinated by Jerome, U.S.A. and Sanders, Canada.

The meeting was attended by about 30 experts, correspondents and consultants including Mr. Budde, Drs. Robertson and Wyszecki from Canada.

Satisfactory progress is being made on each item but no final results are available, although the next draft on the "Measurements of Discharge Lamps", scheduled for November, 1969 may be adopted.

Publication of the informal report on the Principles of Light Measurements, completed by E-1.2 two years ago, has been delayed by the Action Committee because of lack of funds but arrangements are being negotiated for its publication in a journal in England. The lack of funds in the CIE is necessitating rethinking of the method of ensuring that Documents prepared by CIE Committees are adequately publicized.

C. L. Sanders

REPORT ON ACTIVITIES OF E-1.3.1 (COLORIMETRY) FROM NOVEMBER, 1968 TO OCTOBER, 1969

E-1.3.1. held its 7th meeting last June in Stockholm, Sweden. Over fifty experts, corresponding members, and consultants attended.

The main items on the agenda were the

i) CIE document on colorimetry (final amendments were approved and processing of the document by the Action Committee and Central Bureau is anticipated soon).

ii) Degree of metamerism (an index is being worked out by a special subcommittee).

iii) Whiteness formulae (a subcommittee has been formed to investigate the problem).

iv) Standard sources for colorimetry (the chairman will publish a paper summarizing the state of the art).

Gunter Wyszecki
Chairman
E-1.3.1 (Colorimetry)

GW:rm

REPORT ON THE ACTIVITIES OF CIE COMMITTEE E-1.3.2 (COLOUR RENDERING)

(Prepared for the 1969 annual meeting of the CNC/CIE)

A meeting of E-1.3.2 was held in Stockholm, Sweden in June and I was able to attend this meeting together with Dr. Wyszecki. Since I have not yet received the minutes of the meeting, the following comments are prepared from my own notes.

1. Much of the discussion centred on changes to be made to the recommended method of calculating the colour-rendering index. New tables for the reflectances of the test objects, with values at 1 nm intervals over an extended range, were agreed on.

2. It was decided that the correction for chromatic adaptation when the test and reference sources have slightly different chromaticities should be made by a von Kries type of transformation using the Judd primaries. This replaces the simple translation in the chromaticity diagram which is recommended at present.

3. The question of tolerances and the possibility of inclusion of some fluorescent test colours were also discussed.

4. There was some preliminary discussion on the extension of the committee's interests to include the colour-matching properties of lamps, the colour-constancy properties of objects, and the assessment of colour rendering in the various fields of colour reproduction.

A joint meeting with E-1.3.1 (Colorimetry) was also held in Stockholm. The most important items discussed were:

1. Dr. Wyszecki's report on sources to represent the D-illuminants. Much interest was shown and Dr. Wyszecki was asked to prepare a paper on the subject for publication.

2. My report on the computation of correlated colour temperature from chromaticity co-ordinates. It was decided that since all the methods proposed were sufficiently accurate there was no need to choose one "recommended" method.

3. Chromatic adaptation corrections for large chromaticity differences. E-1.3.1 agreed to examine the problem in detail, beginning with a survey of the literature.

27 October, 1969

A. R. Robertson
Radiation Optics

University of Toronto
TORONTO 5, CANADA

DEPARTMENT OF ELECTRICAL ENGINEERING

ANNUAL REPORTS 1968 - 1969.

CIE COMMITTEE E - 1.5 FUNDAMENTALS OF LIGHTING CALCULATIONS

This is a new committee which was formed at the Plenary Session in Washington in 1967. There have not been any expert meetings this year but a letter has been received from Mr. Dourgnon outlining a course of action for the Committee. Comments were solicited on the suggested programme and on a paper which was enclosed (" On the Radiation Field" by Jean Dourgnon).

Corresponding Member.

CIE COMMITTEE E - 4.1.1 EDUCATION IN SCHOOLS

The Committee has been proceeding with the task of preparing a collection of teaching aids for students - " Fundamental Concepts of Lighting in Architecture". A preliminary showing of these aids was made in Washington in 1967. A final draft of the first 14 sheets was distributed this year for comment, so that the Swiss Committee could be assured of their usefulness. It is hoped that the complete edition will be finisned by the middle of 1971.

Expert Member.

M. G .Currie, October 31st., 1969.

mulvey engineering ltd.
CONSULTING ENGINEERS • 59 MOBILE DR. TORONTO 16 ONT.

October 31, 1969.

ANNUAL REPORT TO C.N.C., C.I.E.
on
E1.6 - FUNDAMENTALS OF PHYSICAL ENVIRONMENT

In March of this year, a letter was received from Mr. Van Gunst indicating that Prof. Rutgers proposed to call a meeting of the committee.

I wrote, indicating my willingness to attend, indicated a preference for September, also intended to attend PSALI conference in Czechoslovakia and the European Congress of Light in Strasbourg. I also forwarded two reprints of an I.E.S. article on Canada Trust, indicating my willingness to assemble and provide data on this and other buildings in Canada. I made all but final arrangements for the trip but had heard nothing further from Mr. Van Gunst. In July I wrote again and received a letter dated July 16 indicating that, because of "small number of reactions received", the meeting was to be postponed to a later date. I cancelled arrangements to travel, apologized to all, and am still awaiting further word. Comment - someone up there seems to be disinterested.

Please note our new Company name. Could records be adjusted to read:

Gerry Mulvey,
Mulvey Engineering Ltd.,
59 Mobile Drive,
Toronto 16, Ontario.

Thank you.

Yours very truly,

Gerry Mulvey

G. E. MULVEY

GEM/jb

October 31, 1969

Canadian National Committee, C.I.E.

Report of Committee E-3.1.1.2.
Causes of Discomfort In Lighting

A meeting of this Committee was held in Karlsruhe, Germany, May 29, 1969, the first since Washington.

I believe I should be perfectly frank with the CNC and report that no progress is being made by the Committee. The reason, in my opinion, is that the Chairman of the Committee Dr. S.K. Guth (U.S.A.) has been unable to entice the Committee to accept his calculational method for pre-determinging the percentage of occupants expected to be comfortable in a given luminous ~~xxxx~~ environment. I believe the Committee would accept one of the alternate methods, and there are several, but the Chairman has so far not given the Committee the opportunity to do this. The European members of the Committee attempted to get some progress started at Karlsruhebut were unsuccessful. I am afraid that so oong as the Chairmanship re ains in the U.S.A. no progress can be expected.

Respectfully Submitted,

J. M. Chorlton

Corresponding Member.

October 31, 1969

Canadian National Committee C.I.E.

Report of Committee E-3-1.1.3
Aesthetics of Lighting

A meeting of the Committee was held in Paris March 25 and 26, 1969. A summary of the minutes of the meeting appears in Bulletin No. 20 (May 1969) so need not be repeated in this report.

I have not been able to attend a meeting of this Committee since Washington 1967. The meetings are held in Europe and the only aopportunity I would have to attend a meeting would be if it were scheduled to accur near the same time as other C.ILE. meetings. The proposed meeting for 1970 is expected to coincide with a British I.E.S. Conference.

The work of the Committee consists in making appraisals of existing lighting installations and rating the installation according to the response to a set series of questions asked during the appraisal. Numerous appraisals have been made, particularly in the U.K. and Europe, but more recently in Japan, leading to a hope that some idea will be forthcoming about what makes a lighting environment " pleasant"¾

Although very interested in the aims and work of the Committee, I am unable myself to conduct appraisals and am therefore making no positive contribution to the Committee. I recommend that my place on this Committee be turned over to some person, such as Professor M. Currie, who has both the interest in the subject and the facilities to make appraisals.

Respectfully Submitted,

J. M. Chorlton,

Corresponfing Member

Report to Canadian National Committee C.I.E.

E-3.1.9.2 Stage and Studio Lighting

Progress in stage and studio lighting has been limited mainly to improvement to existing equipment and techniques. Worth noting:

Lighting levels for Television

Lighting levels for color TV production continue to go down, as camera sensitivity continues to improve. We are approaching conditions now where good lighting levels for direct visual purposes will be sufficient for color television production. For example an acceptable picture was produced at a recent night football game in Toronto, using existing lighting facilities and newly developed higher sensitivity cameras. However, the special lighting techniques for television production will still be required for good pictures in studio work.

Lamps

Tungsten halogen lamps are continuing to be improved for use in stage and studio lighting. Most of the standard type luminaires now have T-H lamps designed for them, while at the same time reflector and lens systems are being improved and adapted for use with these lamps.

Metallic halide discharge lamps continue to be favored for permanent installations for sports events. Lamps have been improved in life and color consistency. The most recent large installation of this lamp is at Jarry Park in Montreal, where 1008 - 1000 watt M-H luminaires were used.

E-3.1.9. Drama and Studio Lighting

Dimming Curves

Work is continuing on the development of suitable dimmer control curves (pilot controller position vs. light output). Using experienced technicians and multiple choice methods, two distinct control curves have emerged, one suitable for direct visual applications (e.g. theatre) and another for electronic use (television). Further work is being carried on by CBC to define the curves more closely and to establish tolerances.

Glossary of Dimmer and Control System Terms and Definitions

A proposed glossary was prepared and submitted to Expert Committee E-3.1.9.2. No further action can be reported at this time.

New Lighting Control System Installation

A new instant memory system for storing lighting cues has been introduced in Canada in the National Center for Performing Arts. See attached sheet.

A similar system from another manufacturer has been installed in Banff.

D. W. Frick, Eng.
E-3.1.9.2.

October 31, 1969.

National Centre of Performing Arts Ottawa.

This complex consists of an Opera House with 2300 seats, a Drama Theatre of 900 seats and an Experimental Theatre of 300 seats.

All three theatres are equipped with Automated Lighting Control Systems termined Strand Electric Instant Dimmer Memory Systems.

Partial facilities provided by the I.D.M. system are summarized thus:

1. Determine the lighting on the scene by operating appropriate dimmer controllers.

2. Give this determined lighting a cue number from 1 - 250, and the whole content is recorded instantly.

3. Select the cue number that is to playback, and the whole of that lighting content is available to fade in or switch in instantly complete exactly as recorded, and irrespective of whether the cue was called in or out of sequence.

4. Skipping forwards or backwards is a simple operation, all that is required is the cue number.

5. Instantaneous correction of any dimmer setting in any cue is possible at any time. This correction may be "temporary" or recorded as part of the cue.

Lighting cues are memorized by a 3000 r.p.m. magnetic drum, and associated coding and decoding logic for 250 memories each of 32 steps for a total of 250 channels.

Initial lighting cues are set by operating self illuminated rocker switches in place of potentiometers. Press this switch in the up position raises lighting level, press the switch in the down position reduces the level. Levels so established are recorded. This rocker switch has proved operationally satisfactory to the Lighting Directors and Technicians.

ANNUAL REPORT

CIE COMMITTEE E-2.3 - LUMINAIRE TESTING

This Committee is continuing its activities at a rather high level.

The final draft of a recommended procedure for the photometric testing of interior type fluorescent luminaires was considered at a meeting held last month in Sweden. No word has been received regarding this meeting.

Although there are some areas in which the CIE test procedure differs from the IES Guide on the same subject, the differences were not great and I voted in favour of the CIE draft document.

Problems with a 50-Hz, 240-volt supply of low distortion made it difficult to participate in a series of photometric tests on an industrial type two-lamp fluorescent luminaire.

The first draft of a recommended procedure for the photometric testing of street lighting luminaires has been received. Copies are being made for circulation to others in Canada who may have an interest in this subject. Any comments will be organized before being sent on to the Committee Secretary.

G.E. Davidson, P.Eng, FIES
Member
CIE Committee E-2.3

30 October 1969

REPORT ON COMMITTEE E 3.2 DAYLIGHT

There is little to report on the work of this Committee at this time. A meeting was held in Bratislava on 10th September but I have not yet received a report. The Committee is studying four broad areas with these titles:

(1) Standardization
(2) Interaction of natural and artificial lighting
(3) Communication of practical knowledge
(4) Daylight and architectural design.

Norbert Gaillreath

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

ANNUAL REPORT - 1969

This committee held two meetings in 1969 - the Spring meeting in Berlin, April 9-10 and the Fall meeting in Venice, September 11-12. Due to financial limitations the writer only attended the Venice meeting.

The activities of the C.I.E. Committee on Public Lighting for the period of 1969 can be mainly identified with the following subjects:

1. RECOMMENDATIONS FOR MOTORWAY LIGHTING

The recommendations for motorway lighting reached the final stage. The document is scheduled for publication early in 1970. This document covers various aspects of lighting related to public roads, including luminance intensities, uniformity, luminaire spacing, light source types, safety requirements and methods of installation for lighting systems. The recommendations when published will be made available to the participating countries and interested individuals.

2. RECOMMENDATIONS FOR VEHICULAR TUNNEL LIGHTING

The illumination of traffic tunnels is still one of the controversial subjects which has received considerable attention in various parts of the world. Eye adaptation at the tunnel entrance creates specific physiological conditions due to the abrupt reduction in the level of illumination under daylight conditions. A great deal of research work has been carried out to determine requirements for visual conditions at the tunnel portal and in the area immediately following the tunnel entry. Dr. Schreuder, as one of the most prominent reseachers in this field, was invited by the committee to draft recommendations for tunnel illumination. At the meetings in Berlin and Venice the proposed recommendations were discussed in detail. Considerable contribution was made by the Japanese and Canadian delegates. It is expected that the recommendations will be ready for publication before the General Meeting in Barcelona in 1971.

3. ROAD SURFACE REFLECTANCE

Mr. E. Frederiksen presented a report on research work carried out by a Danish outdoor lighting laboratory on the subject of road surface reflectance, classification and applications. The writer later visited the laboratory and discussed various aspects of road reflectance with respect to visibility under night conditions. Installations in the vicinity of Copenhagen were visited where special materials were incorporated in the aggregate to improve the reflective characteristics of the pavement. Some research work on this subject is also being carried out by the Department of Highways, Ontario.

4. DEFINITION OF LUMINAIRE GLAREMARK

The subject of luminaire glare was discussed in detail at the last three meetings of this committee. A proposal has been made by the Committee Chairman, Professor J.B. De Boer, to introduce a system for classifying luminaires with respect to their glare intensities. It is proposed that the luminaire Glaremark be determined by appraising a standard installation of previously agreed specific geometry and fixed level of luminance on the road surface. Glaremark would be used as a measuring unit. The characteristics for this standard installation were proposed as follows:

Mounting height	-	10 metres
Spacing	-	30 "
Eye level	-	1.5 "
Overhang	-	0 "
Average luminance level	-	1 cd metre^2

The conditions on the actual installations would often differ from this standard arrangement; therefore corrections would be introduced accordingly and assessed with respect to increase or decrease in luminaire glare intensities.

Professor J.B. De Boer stated at the last meeting that Philips Laboratories are conducting an appraisal of actual installations in Amsterdam. The results will be presented at the Spring meeting of the committee in Prague.

5. THE COMMITTEE'S PARTICIPATION IN THE WORLD MEETING OF THE INTERNATIONAL ROAD FEDERATION - MONTREAL, 1970

The Canadian delegate on this committee was instrumental in mediating between the I.R.F. Technical Advisory Committee and the Chairman of Committee E-3.3.1 with respect to participation in the I.R.F. World Meeting programme which will take place in Montreal in 1970. As a result of these negotiations Professor J.B. De Boer will be invited by the International Road Federation to be a guest speaker at the key session on Traffic Safety on October 8, 1970.

SUGGESTIONS AND RECOMMENDATIONS

a. In order to stimulate more activities in C.I.E. participation some financing to cover the expenses should be found. At the present time all expenses are covered by individual companies or partly by individuals themselves.

b. In connection with C.I.E. World Meeting in Barcelona in 1971 the Canadian Executive Committee of C.I.E. should start soliciting papers for Canadian contribution at this conference.

It would be interesting to note whether a sufficient number of people are planning to attend this conference to warrant arrangements for a chartered flight to reduce the cost.

Aud. Ketvirtis

A. Ketvirtis

October 8, 1969

EXTERIOR LIGHTING PRACTISE FOR 1969

A meeting of the experts was held in Bologna, Italy, March 31st and April 1st, 1969. This was attended by members from France, Germany, Great Britain, Italy, Japan and Switzerland.

At this meeting a recommendation was made to define beam angle and field angle

"(a) Field and Field-Angle - The points of the curve; where the candlepower is 10% of the peak, limit the field of the lighting unit. The angle between these points is the field-angle.

"(b) Beam and Beam angle - The points of the curve, where the candlepower is 50% of the peak, limit the beam of the lighting unit. The angle between these points is the beam-angle".

A copy of the report is available for Mr. G. Davidson for inclusion in his vocabulary committee E1.1.2.

The committee is concerned with making recommendations for Sports Lighting and have requested that we supply a list of sports, classified as the amount of interest shown in each sport in Canada. The subcommittee were therefore requested to fill in the survey form and we sent four copies of the form duly filled in indicating the range of interest across Canada.

Copies of the 1967 C.I.E. report on Exterior Lighting Practise were circulated to the subcommittee, together with the report on the Bologna meeting.

A meeting of the Experts was held in Paris, France on September 27, 1969 at which the recommendations for sports lighting were to be discussed. The report on that meeting has not yet been circulated, but when it is received, copies will be circulated to the subcommittee of E3.3.6.

In the July 1969 issue of Illuminating Engineering the "current recommended practise for Sports and Recreational Area Lighting" was printed as a transaction. This is currently being studied by a Canadian Standards Association Committee headed by C. J. Grey. Mr. W. Dillon who is a member of the #3.3.6 sub-committee is also a member of the CSA Committee, as is A. Whitehead.

In the IES recommended practise much attention has been paid to the require-ments for lighting for Colour T.V.

A. Whitehead,
Corresponding member
E 3.3.6

October 31, 1969

Canadian National Committee, C.I.E.

Report of Committee 4-1.4.2.
Visual Performance

A meeting of the Committee was held in Karlsruhe, Germany, May 29 and May 30.

The Committee continued to consider a draft of Proposed Official C.I.E. Report No. 19 entitled " A Standard Curve of Relative Contrast Sensitivity as a Function of Luminance and Its Use in Illuminating Engineering".

The draft was originally presented to the Committee in London, England during June 1968 (minutes appear in Bulletin No. 20 - May, 1969) after the outline was agreed upon at a meeting the previous year in Washington. The report, when finally approved by the Committee, will be the first of a series of reports collecting and summarizing technical material concerned with visual performance, each report being directed to a particular technical subject.

The final draft of the present report, still under consideration of the Committee, is concerned with the establishment of standard values expressing the relationahip between contrast sensitivity and luminance, which will be useful in the evaluation of various luminance characteristics of interiors environments.

The Committee has accepted the Blackwell curve which is a a logarithmic plot of relative contrast sensitivity as a function of luminance. The acceptance of the curve was a major step forward since there is not international agreement on the basic visual performance data. The curve is not of much use, however, to the practicing engineer or designer, until it is related to performance in terms of time, accuracy, etc. of seeing a particular visual task.

I would hope that at our next meeting, which will be held in Ghent June 1970, considerable progress will be made toward acceptance of criteria which will allow us to proceed with recommended

4- 1.4.2

illumination levels for particular tasks with specific performanee.

When the draft is completed and approved by the Committee of Experts it is my intention to form a Committee in Canada to review it and make a recommendation to the CNC prior to their vote. In the meantime I would like to know if there is not some young scientist working in the field of Light and Vision, as related to performance, who could work with me and hopefully take over this Committee assignment after the next Congress.

Respectfully Submitted,

J. M. Chorlton

Expert Member.