

## Minutes

MEETING	NO. OF MEETING	DAY & DATE	TIME	VENUE
<b>Illumination Engineering and Luminaires Sectional Committee, ETD 49</b>	<b>10<sup>th</sup></b>	<b>18<sup>th</sup> April 2024 Thursday</b>	<b>1400 Hrs</b>	<b>Hybrid</b>

**CHAIRPERSON:** Prof. Saswati Mazumdar      **MEMBER SECRETARY:** Ms Neha Agarwal

### Member Present:

SI. No	Organization	Member Name	Physical/online
1.	Jadhavpur University, Kolkata	Dr Saswati Mazumdar	Physical
2.	ETD, BIS	Ms Neha Agarwal	Physical
3.	Binay Opto Electronics Private Limited, Kolkata	Shri Vineet Rohatgi	online
4.	Consumer Voice, New Delhi	Shri Harbans Wadhwa	online
5.	Crompton Greaves, Mumbai	Ms Uma lanka	online
6.	CSIR - National Physical Laboratory, New Delhi	Dr. Parag Sharma	online
7.	CSIR - National Physical Laboratory, New Delhi	Shri V K Jaiswal	online
8.	Electric Lamp and Component Manufacturers Association of India, New Delhi	Shri Santosh Agnihotri	Physical
9.	Electric Lamp and Component Manufacturers Association of India, New Delhi	Shri Amal Sengupta	Physical
10.	Electrical Research and Development Association, Vadodara	Shri Nitin Patel	online
11.	Energy Efficiency Services Limited, New Delhi	Shri Anil K Choudhary	online

12.	Havells India Limited, Noida	Ms Sudeshna Mukhopadhyay	Physical
13.	Havells India Limited, Noida	Shri Pankaj Mittal	Physical
14.	In Personal Capacity	Shri P K Mukherjee	online
15.	Indian Society of Lighting Engineers, New Delhi	Dr. Rajat Subhra Mandal	Physical
16.	Luminaries Accessories Components Manufacturers Association, Maharashtra	Shri Samkit Shah	Physical
17.	Signify Innovations India Limited, Gurugram	Shri Nitish Poonia	online
18.	Surya Roshni Limited, Delhi	Shri Amit Tyagi	online
19.	University of Engineering & Management, Jaipur	Dr Aniruddha Mukherjee	online
20.	Dixon	Shri Sumit Rai Gambhir	online

#### **Item 0 WELCOME ADDRESS BY THE CHAIRPERSON**

Prof. Saswati Mazumdar welcomed all the members present during the meeting in-person or through virtual mode. She wished all the members for fruitful discussion on all the agenda items.

Ms Neha Agarwal, Member Secretary welcomed the members present during the meeting.

The meeting started with brief introduction of all the members present during the meeting.

#### **Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

**1.1** In view of no comments received, the committee confirmed the minutes of the 09<sup>th</sup> meeting of Illumination Engineering and Luminaires Sectional Committee, ETD 49 held on 9<sup>th</sup> Nov 2023.

#### **1.2 Annual Program for Standardization (APS), 2024-25 for ETD 49**

Ms Neha Agarwal, Member Secretary explained the key elements of APS such as meeting calendar, NWIP (carried over & current), Standards under review (carried over & current), Standards under revision (carried over & current).

Members noted the Annual Program for Standardization (APS), 2024-25 for ETD 49.

#### **1.3 Process reforms in Standardization**

Members noted the information.

#### 1.4 Actions Arising Out of Previous Meetings

Sl. No.	Subject	Decision of the last meeting	Action/Remarks	Decision taken during the meeting
1.	Revision of IS 7785 Elevated type aerodrome lighting fittings	Shri Vidya Dutt, Vardhman Airports Solution was requested to prepare the revised drafts and to review regarding adoption of IEC TS 61827 'Electrical installations for lighting and beaconing of aerodromes –Characteristics of inset and elevated luminaires used on aerodromes and heliports' for revision of IS 11071 and IS 7785 series of standards.	As recommended by Vardhman Airports, IEC TS 61827 was wide circulated vide DGBIS letter dated 26 <sup>th</sup> Oct 2023 with last date of comments as 18 <sup>th</sup> Nov 2023.  Comments were received from Shri P K Mukherjee, VOICE and ISLE in favor of adoption of IEC TS 61827 as an Indian Standards.  Further, it was suggested to other tests like surge protection, THD % etc., from FAA EB 67D which are missing in IEC.	The committee deliberated the suggestion received from Vardhmar Airport regarding addition of other like surge protection, THD % etc which are missing in IEC TS 61827.  The members opined that specified values for THD and surge protection may be specified into the standard.  It was decided to take inputs from Airport Authority of India for further discussion on the subject.
2.	Revision of IS 1944 (Part 1 & 2) 'Code of Practice for Lighting of Public Thoroughfares'	The panel has submitted the revised draft comprising of all parts.  The draft has been circulated to all committee members through portal as well as through mail dated 02/05/2023 with last date of comments as 01/06/2023 for seeking comments/feedbacks.  All members may review and submit comments before last	2 <sup>nd</sup> Panel meeting was held on 14 September 2023 to discuss all the comments received from members.  Prof Suddhasatwa Chakraborty (Convenor) was requested to modify the document in consultation with Shri Madan Rawal inline with the changes as discussed during the meeting and	The modified document was circulated amongst panel members vide email dated 15 April 2024 for seeking comments.  Further, the committee recommended to divide the draft in two sections consisting separate section for tunnel lighting.  It was decided to circulate the draft under wide circulation.

		date.	submit the modified draft to BIS.  The modified document was received on 19/03/2024. The same will be circulated amongst members for seeking comments shortly.	
3.	Specification for Road Traffic Signals	The revised draft for IS 7537/ETD 49 (22191) "Specification for Road Traffic Signals first revision" was wide circulated vide DGBIS letter dated 31 March 2023 with last date of comments as 27 May 2023. `No comments received so far.  The committee decided to recirculate the draft for seeking comments.	The draft was recirculated vide email dated 6 <sup>th</sup> July 2023 with last date of comments as 5 <sup>th</sup> August 2023.  However, no comment was received.  The committee may consider.	The committee discussed the comments and decided the following:  a) To modify the scope as 'working voltages d.c. supplies up to 250 V or a.c. supplies up to 1000 V at 50 Hz'.  b) Specific lamp caps are not required.  c) Cl 4.14.3- Specify '10kV±3% for 50µs±20%' with note as 'applicable for a.c. luminaires only'.  With the above mentioned changes, the committee decided to send the draft for printing.
4.	Revision of National Lighting Code, SP 72	Shri Rajat Mandal, ISLE has now informed that draft chapters are ready. However, they need to be reviewed to identify technical gaps, if any, vis-a-vis existing NLC chapter, editorial errors, language part errors, missing content etc.  University of Engineering and Management, Jaipur has	Part 1 'Lighting Vocabulary' and Part 2 'Physics of Light' had been wide circulated vide DGBIS letter dated 26 <sup>th</sup> March 2024 with last date of comments as 20 <sup>th</sup> April 2024.  Other parts of revised National Lighting Code have been drafted and are	The committee noted the information. Member Secretary urged members to review the drafts and submit the comments.

		<p>kindly agreed to review the revised chapters of NLC.</p> <p>Shri Anirudhha Mukherjee, Dean Academics and his team has submitted few chapters after reviewing the same.</p> <p>The committee may note.</p>	<p>currently undergoing review. These parts will be circulated shortly.</p>	
5.	Revision of IS 10322 series	<p>The committee noted the information provided and decided to hold the revision of IS 10322 series till the publication of under revision IEC 60598-1. The revised version of IEC 60598-1 is expected to publish till April 2024.</p> <p>Shri P K Mukherjee may kindly update the status regarding revision of IS 10322 (Part 5/Sec 4) in line with the latest IEC standard.</p> <p>The committee may also update the status regarding the assigned task.</p>	<p>In order to revise IS 10322 series in line with latest IEC publications, a panel was constituted comprising of the following members:</p> <ol style="list-style-type: none"> <li>1. Mr. P.K. Mukherjee, Chairperson</li> <li>2. Mr. Parag Sharma, CSIR-NPL</li> <li>3. Mr. Nitish Poonia, Signify</li> <li>4. Mr. Santosh Agnihotri, Orient</li> <li>5. Mr. Amit Tyagi, Surya.</li> <li>6. Mr. Amal Sengupta, ELCOMA</li> <li>7. Central Power Research Institute, Bengaluru</li> </ol> <p>1<sup>st</sup> panel meeting was held on 21<sup>st</sup> Feb 2024. During the meeting, it was recommended to adopt IEC 60598 series with the following country specific deviations through adding National Annexures:</p> <ol style="list-style-type: none"> <li>a) Ambient temperature</li> <li>b) Inclusion of HFFR cable</li> <li>c) Sizing of internal wiring due to transformation to LED technology</li> </ol>	<p>Shri Nitish Poonia, Signify suggested to also include reference of IS 694 for PVC cables.</p> <p>Further, it was decided to circulate IEC 60598-1 along with National Annexure comprising changes in IEC as submitted by ELCOMA as P-draft amongst committee members.</p>

			<p>In order to prepare the National Annexures to IEC 60598 and the section 1 to section 8, ELCOMA was requested to submit the detailed inputs regarding country specific deviations with brief justification wherever required, latest by 15th March 2024.</p> <p>The inputs received from ELCOMA are placed at Annexure 2. The committee may consider.</p>	
6.	Revision of IS 3646 (Part 1): 1992 Code of practice for Interior illumination Part 1 General Requirements and Recommendations for Working Interiors	<p>The revised draft ETD 49 (22373) was circulated through portal and mail dated 1 May 2023 with last date of comments as 31 May 2023 amongst committee members for seeking comments/feedback.</p> <p>All members may review the draft and submit valuable feedback before last date.</p>	<p>Editorial comment were received from Shri Nitish Poonia.</p> <p>Further, no comments were received.</p> <p>The committee may approve the wide circulation of revised draft for IS 3646 (Part 1).</p>	The committee approved the draft for wide circulation.
7.	Formulation of Indian Standards on UV-C devices for Germicidal Applications	ETD 49 (21837) Doc. On 'Germicidal UV-C Irradiation Devices Part 1 Safety Requirements' was wide circulated on 23/01/2023 with last date of comments as 20 March 2023.	The document has been sent for printing.	The members noted the information.
8.	New Work Item Proposals (NWIPs)	Indian Standards on 'Intelligent & Connected LED Lighting' and Connectivity Protocols for Smart Lighting Systems.	<p>1<sup>st</sup> panel meeting was held on 11-08-2023.</p> <p>During the meeting, the panel thoroughly analyzed and deliberated on IEC standards, gaining a deeper</p>	The members noted the information.

			<p>understanding of their implications for the smart lighting industry.</p> <p>As decided during the meeting, IEC 62386 series "Digital addressable lighting interface" and IEC TC 34 Doc. 1034e "Outdoor Lighting Systems - Characteristics of selected applications" were shared with panel members for seeking their feedback for further development in this regard.</p> <p>The committee may consider.</p>	
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**Item 2 REVIEW OF COMPOSITION OF SECTIONAL COMMITTEE, ETD 49**

**2.1** The committee noted the composition of the sectional committee ETD 49. The following was decided:

- a) Update nominations from Havells India
- b) Delete Shri Deepak Kumar, In Personal Capacity
- c) Co-opt Intertek India Pvt Ltd, New Delhi

Further, Prof Saswati Majumdar requested all organizations to nominate second alternate member also.

**Item 3 APPROVAL OF DRAFT INDIAN STANDARDS FOR FINALIZATION/WC**

ETD 49 (23883)	Electrical Installations For Lighting And Beacons Of Aerodromes Characteristics Of Inset And Elevated Luminaires Used On Aerodromes And Heliports	WC Stage	Please refer Item 1.4(1)
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ETD 49 (22373)	Code Of Practice For Interior Illumination Part 1 General Requirements And Recommendations For Working Interiors First Revision	P Draft Stage	Please refer Item 1.4(6)
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#### **Item 4 PRESENT POSITION OF WORK**

**4.1** The committee noted the programme of work of ETD 49.

#### **4.2 Review of Standards - Taking up Revision of pre-2000 standards**

The committee noted the status of revision of pre-2000 standards. Please refer to Annexure 1 for discussion and decision taken against pre-2000 standards.

#### **Item 5 REVIEW/REAFFIRMATION OF PUBLISHED INDIAN STANDARDS**

The committee noted the information.

#### **Item 6 NEW SUBJECTS AND FUTURE PROGRAMME OF WORK**

**6.1** The committee noted the information.

#### **6.2 New Work Item Proposals (NWIPs)**

##### **1. Indian Standards on ‘Search Light’- by Shri Narender Reddy Beesu**

*The committee deliberated on the new subject received on search light. Member secretary also informed regarding existing Indian Standard on Flash light i.e. IS 2083: 1991.*

*It was decided to circulate the draft document as received from the proposer along with the copy of IS 2083 amongst members for further review.*

##### **2. Luminaires for Swimming Pools and Similar Applications**

**IEC 60598-2-18:2022** ‘Luminaires - Part 2-18: Particular requirements - Luminaires for swimming pools and similar applications’

*The committee agreed to take up the subject for formulation of Indian Standard. It was decided to circulate the concerned IEC as P-draft amongst committee members for seeking feedback.*

##### **3. Portable luminaires for children**

**IEC 60598-2-10: 2003** ‘Luminaires - Part 2-10: Particular requirements - Portable luminaires for children’



*The committee discussed that IEC 60598-2-10 covers the traditional light source which are obsolete and are not being used. Therefore, the committee did not approve the adoption of IEC 60598-2-10.*

**6.3 Closer examination of the New Work Item Proposals received from IEC SC 34D**

**6.4 Scientific and Periodic Journals to be subscribed**

The committee noted the information.

**6.5 Participation in National and International events related to Lighting**

The committee noted the information.

**Item 7 INTERNATIONAL ELECTROTECHNICAL COMMISSION**

**7.1 program of Work**

**7.1.1 India is having “P” membership in IEC committees: IEC/SC 34 D.**

The committee noted the information.

**Item 8 DATE AND PLACE FOR THE NEXT MEETING**

**8.1 Annual Calendar of ETD 49**

Committee	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ETD 49	19-04-2024	08/08/2024	25-10-2024	16/01/2025

The committee noted the annual meeting calendar of ETD 49.

**Item 9 ANY OTHER BUSINESS**

**9.1 Shri Amal Sen Gupta, ELCOMA proposed to constitute a small WG/Panel comprising 3-4 experts to examine the query received from Customs/Registration Department regarding coverage of various lighting products under CRO scheme.**

He was requested to submit a detailed proposal for taking further necessary actions in this regard.

In view of no other business, the meeting ended with vote of thanks to chair.



## ANNEX 1

### Review of Standards - Taking up Revision of pre-2000 standards

Sl No.	IS No.	Title	Decision taken during the previous meeting	Status	Decision taken during the meeting
1.	IS 1944 : Part 5 : 1981	Code of practice for lighting of public thoroughfares Part 5 lighting for grade separated junctions bridges and elevated road Group D	Please refer Item 1.4 (2) of agenda.		Please refer Item 1.4 (2).
2.	IS 1944 : Part 6 : 1981	Code of practice for lighting of public thoroughfares Part 6 lighting for town and city centers and areas of civic importance Group E			
3.	IS 1944 : Part 7 : 1981	Code of practice for lighting of public thoroughfares Part 7 lighting for roads with special requirements Group F			
4.	IS 1944 : Part 1 and 2 : 1970	Code of practice for lighting of public thoroughfares First Revision			
5.	IS 2672 : 1966	Code of practice for library lighting	To be Archived		The committee approved the same.
6.	IS 3646 : Part 1 : 1992	Code of practice for interior illumination Part 1 general requirements and recommendations for working interiors First Revision	The committee noted the information provided and requested ELCOMA to expedite the preparation of draft revision document.	Please refer Item 1.4 (6) of agenda.	Please refer Item 1.4 (6).
7.	IS 4347 : 1967	Code of practice for hospital lighting	To be Archived		The committee approved the same.
8.	IS 6665 : 1972	Code of practice for industrial lighting	To be Archived		The committee approved the same.

9.	IS 7537 : 1974	Specification for road traffic signals	Under revision	Please refer Item 1.4 (3) of agenda.	Please refer Item 1.4 (3).
10	IS 7785 : Part 1 : 1975	Specification for elevated type aerodrome lighting fittings Part 1 general requirements	Under revision	Please refer Item 1.4 (1) of agenda.	Please refer Item 1.4 (1)
11	IS 7785 : Part 2 : 1976	Specification for elevated type aerodrome lighting fittings Part 2 fixed focus high intensity bi-directional runway edge lighting fittings	Under revision		
12	IS 7785 : Part 3 : 1976	Specification for elevated type aerodrome lighting fittings Part 3 low intensity runway edge lighting - Fittings	Under revision		
13	IS 7785 : Part 4 : Sec 1 : 1981	Specification for elevated type aerodrome lighting fittings Part 4 angle of approach lights Sec 1 visual approach slope indicators	Under revision		
14	IS 7785 : Part 5 : Sec 1 : 1981	Specification for elevated type aerodrome lighting fittings Part 5 approach lighting fittings Sec 1 high intensity elevated approach lighting fittings	Under revision		
15	IS 7785 : Part 6 : Sec 1 : 1981	Specification for elevated type aerodrome lighting fittings Part 6 taxiway lights Sec 1 low intensity omni - Directional elevated taxiway lighting fittings	Under revision		
16	IS 10894 : 1984	Code of practice for lighting of educational institutions	To be Archived		The committee approved the same.
17	IS 10947 : 1984	Code of practice for lighting for ports and harbours	To be Archived		The committee approved the same.
18	IS 11071 : Part 1 : 1984	Specification for inset type aerodrome lighting fittings Part 1 general requirements and tests	Under revision	Please refer Item 1.4 (1) of agenda.	Please refer Item 1.4 (1)
19	IS 11071 : Part 2 : 1984	Specification for inset type aerodrome lighting fittings Part 2 runway centre line lighting fittings	Under revision		
20	IS 11071 : Part 3 : 1984	Specification for inset type aerodrome lighting fittings Part 3 approach lighting fittings	Under revision		

21	IS 11071 : Part 4 : 1984	Specification for ikset type aerodrome lighting fittings Part 4 touch down zone lighting fittings	Under revision		
22	IS 11116 : 1984	Code of practice for lighting for airport aprons	To be Archived		The committee approved the same.
23	IS 12309 : Part 1 : 1988	Code of practice for installation and maintenance of aerodrome lighting fittings	M/s Vardhman Lighting Solutions has been requested to prepare draft revision documents	Awaited	Reminder mail to be sent. Airport Authority of India will also be requested to review and suggest modifications.
24	IS 12309 : Part 2 : 1988	Code of practice for installation and maintenance of aerodrome lighting fittings Part 2 maintenance	M/s Vardhman Lighting Solutions has been requested to prepare draft revision documents		
25	IS 13383 : Part 1 : 1992	Photometry of luminaires - Method of measurement Part 1 luminaires for use in interior lighting	The committee requested for NPL, UL and ERDA to provide the draft revision documents.	Awaited.	The committee approve the archiving of IS 13383 series.
26	IS 13383 : Part 2 : 1992	Photometry of luminaires - Method of measurement Part 2 luminaires for road and street lighting			
27	IS 13383 : Part 3 : 1992	Photometry of luminaires - Methods of measurement Part 3 luminaires for floodlighting			