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Responsible committee: CPL/34/4 Luminaires

Interested committees:

Title: BS EN IEC 60570 Electrical supply track systems for luminaires

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



34D/1747/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 60570 ED5

DATE OF CIRCULATION:

2024-09-20

CLOSING DATE FOR COMMENTS:

2024-12-13

SUPERSEDES DOCUMENTS:

34D/1728/RR

IEC SC 34D : LUMINAIRES	
SECRETARIAT: United Kingdom	SECRETARY: Ms Shanti Conn
OF INTEREST TO THE FOLLOWING COMMITTEES:	HORIZONTAL FUNCTION(S):
ASPECTS CONCERNED: Safety	

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Recipients of this document are invited to submit, with their comments, notification of any local regulations or technical reasons that may exist and should be considered should this proposal proceed, recognizing that failure to address such requirements could result in the need for new or existing "In Some Countries" clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE:

Electrical supply track systems for luminaires

NOTE FROM TC/SC OFFICERS:

Project Leader: Fabrizio Tironi

Please find the proposal for alignment of IEC 60570 with IEC 60598-1 X edition after the Lumex meeting (June 2024).

In the proposal there are no technical changes than the present edition of the standard, IEC 60570:2003+AMD1:2017 +AMD2:2019 (IEC 2019)

In the draft there is also a new Annex B (Schedule of amended subclauses containing more serious or critical requirements which call for products to be retested), that at the present is empty.

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Introduction (not part of the proposal):

Please find the proposal for alignment of IEC 60570 with IEC 60598-1 X edition after the Lumex meeting (June 2024).

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL SUPPLY TRACK SYSTEMS FOR LUMINAIRES

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL SUPPLY TRACK SYSTEMS FOR LUMINAIRES

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IEC 60570 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lighting. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 2003, Amendment 1:2017 and Amendment 2:2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) The clause numbers have been aligned with those of IEC 60598-1:2024;

b)

The text of this International Standard is based on the following documents:

Draft	Report on voting
XX/XX/FDIS	XX/XX/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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~~This consolidated version of the official IEC Standard and its amendments has been prepared for user convenience.~~

~~This document contains IEC 60570 edition 4.2 (2019) with the changes necessary for its alignment to IEC 60598-1 X edition contains the fourth edition (2003-01) [documents 34D/770/FDIS and 34D/774/RVD], its amendment 1 (2017-04) [documents 34D/1221/CDV and 34D/1242A/RVC] and its amendment 2 (2019-12) [documents 34D/1502/FDIS and 34D/1517/RVD].~~

~~This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.~~

~~International Standard IEC 60570 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.~~

~~This fourth edition constitutes a minor revision.~~

~~This standard shall be used in conjunction with IEC 60598-1.~~

~~NOTE—In this standard, the following print types are used:~~

~~—requirements proper: in roman type;~~

~~—test specifications: in italic type;~~

~~—notes: in smaller roman type.~~

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~~• withdrawn,~~

~~• replaced by a revised edition, or~~

~~• amended.~~

ELECTRICAL SUPPLY TRACK SYSTEMS FOR LUMINAIRES

1 Scope

This ~~document~~International Standard applies to the following track systems with two or more poles for the connection of luminaires to the electrical supply consisting of, either

- a system with a rated voltage not exceeding 440 V between poles (live conductors) with provision for earthing (class I) and a rated current not exceeding 16 A per conductor, or
- a SELV system without provision for protective earthing (class III) and a rated current not exceeding 25 A per conductor, or
- a combination of the two systems mentioned above (mixed supply system) for the connection of both mains voltage luminaires (class I or II) and SELV supplied luminaires (class III) simultaneously, but in different sector openings (mains or SELV).

The track systems ~~may~~can also provide for the mechanical support of the luminaires.

It applies to track systems designed for ordinary interior use for mounting on, or flush with, or suspended from walls and ceilings. These track systems are not intended for locations where special conditions prevail as in ships, vehicles and the like and in hazardous locations, for example, where explosions are liable to occur.

This document does not cover operational or performance compatibility between different track systems. Protection against unsafe compatibility between Class I and Class III circuit is covered by this document.

The track system can be provided with auxiliary circuits for the purpose of a control or audio signal other than supply.

NOTE 1—At present, the following types of control systems are available on the market:

- control signal, with basic insulation to LV supply (e.g. digital addressable lighting interface, 1 V to 10 V DC signal);
- control signal, SELV/PELV insulated to LV supply (e.g. DMX);
- control signal, not insulated to LV supply (e.g. push button control/phase cut/step dim).

Track systems can also be provided with conductors specifically identified for emergency lighting luminaires.

NOTE 2—Requirements for PELV are under consideration, pending modification in IEC 60598-1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

~~The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.~~

IEC 60417-2, *Graphical symbols for use on equipment* available at <http://www.graphical-symbols.info/equipment> —Part 2: Symbol originals

~~IEC 60598-1:2014, Luminaires – Part 1: General requirements and tests –
IEC 60598-1:2014/AMD1:2017~~

IEC 60598-1:20~~2414XX~~, Luminaires – Part 1: General requirements and tests

~~NOTE The 9th edition of IEC 60598-1 is under preparation. Stage at the time of publication
IEC PRVC 60598-1:2019. This 9th edition provides a cross link between IEC 60598-1 and IEC 60570 for track
mounted luminaires.~~

~~IEC 60598-2-22:20~~2114~~, Luminaires – Part 2-22: Particular requirements – Luminaires for
emergency lighting
IEC 60598-2-22:2014/AMD1:2017~~

~~IEC 60598-2-22: 2021~~

IEC 61032:1997, *Protection of persons and equipment by enclosures – Probes for verification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60598-1 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

~~For the purposes of this standard, the definitions of Clause 3 section one of IEC 60598-1 apply, together with the following definitions.~~

~~NOTE The use of the term luminaire (see IEC 60598-1) hereinafter also includes components of the luminaire track system.~~

3.1

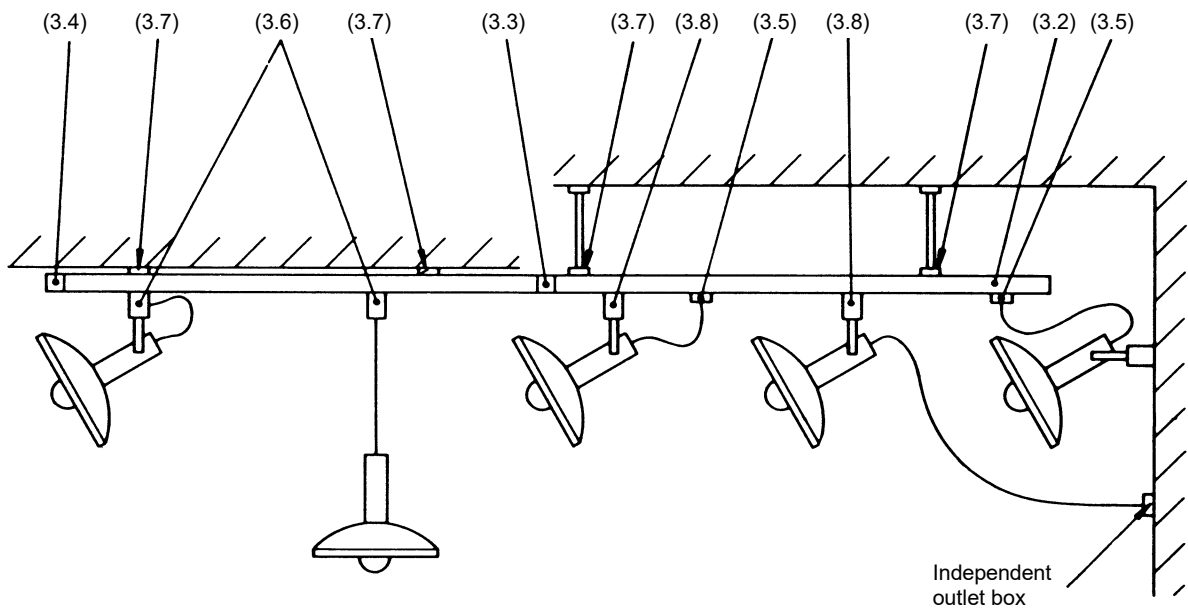
luminaire track system

system, including a track with conductors, for the connection of luminaires to an electrical supply in a range of different positions determined only by the length and location of the track and comprising some or all of the components defined in 3.2 to 3.14 (see also Figure 1)

Note 1 to entry: The track system may be provided with auxiliary circuits for the purpose of a control or audio signal other than supply; the track system may be used to supply luminaires where the control signals are injected via supply conductors or a circuit connected to the supply via separated conductors (e.g. powerline).

Note 2 to entry: The track system may be provided with circuits identified to ensure battery recharge (for self-contained emergency luminaires).

Note 3 to entry: The use of the term luminaire (see IEC 60598-1) hereinafter also includes components of the luminaire track system.



IEC 252/03

[3.2 Track.](#)

[3.3 Coupler.](#)

[3.4 Track supply connector – supply into track.](#)

[3.5 Luminaire supply connector – supply from track only.](#)

[3.6 Adaptor – Mechanical and electrical connection to track.](#)

[3.7 Track suspension device \(to ceiling or to suspension tubes\).](#)

[3.8 Luminaire suspension device – mechanical connection only to track.](#)

[NOTE](#) This drawing is for guidance only; it does not prescribe design features.

Figure 1 – Luminaire track systems (definitions)

3.2

track

generally linear assembly of conductors within a housing providing the electrical connection and in most instances mechanical support of luminaires

[Note 1 to entry:](#) [NOTE](#)—Luminaires can be positioned or repositioned along the length of track in a simple manner (that is, without the use of tools).

3.3

track* coupler

coupler

component enabling electrical or mechanical connection to be made between tracks, but electrically only on the same sector opening (mains voltage or SELV)

3.4

track* supply connector

supply connector

component used for the electrical connection of a supply to the track system, but always operating on one sector opening only

[Note 1 to entry:](#) [NOTE 1](#)—The function of a coupler and a track supply connector may be combined.

[Note 2 to entry:](#) [NOTE 2](#)—For the SELV sector, the track supply connector may incorporate a SELV convertor or safety isolating transformer supplied directly from the mains voltage sector.