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Draft Indian Standard

**ELECTRICAL INSTALLATIONS FOR LIGHTING AND BEACONING OF AERODROMES –
CHARACTERISTICS OF INSET AND ELEVATED LUMINAIRES USED ON AERODROMES AND
HELIPORTS**

Illumination Engineering and Luminaries

Last Date of Comments: 18 November 2023

Sectional Committee ETD 49

NATIONAL FOREWORD

This draft Indian Standard which is identical with IEC/TS 61827:2004 ‘Electrical Installations For Lighting And Beaconing Of Aerodromes – Characteristics Of Inset And Elevated Luminaires Used On Aerodromes And Heliports ’ issued by the International Electrotechnical Commission (IEC) would be adopted by the Bureau of Indian Standards on the recommendation of the Illumination Engineering and Luminaries Sectional Committee and approval of the Electrotechnical Division Council.

This standard supersedes IS 7785 Series ‘Specification for Elevated Type Aerodrome Lighting Fittings’ and IS 11071 ‘Specification for Inset Type Aerodrome Lighting Fittings’.

The text of the IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to International Standards for which Indian Standards also exists. The corresponding Indian Standards, which are to be substituted, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60068-2-5 Environmental testing – Part 2: Tests. Test Sa: Simulated solar radiation at ground level	IS/IEC 60068-2-5 : 2018 Environmental Testing Part 2 Tests Section 5 Test S: Simulated solar radiation at ground level and guidance for solar radiation testing and weathering	Identical
IEC 60598-1: 2003, Luminaires – Part 1: General requirements and tests	IS 10322 (Part 1) : 2014 Luminaires: Part 1 general requirements and tests (First Revision)	Identical with IEC 60598-1: 2003
IEC 61000-6-2, Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments	IS 14700 (Part 6/Sec 2) : 2019 Electromagnetic Compatibility (EMC) Part 6 Generic Standards Section 2 Immunity standard for industrial environments (First Revision)	Identical with IEC 61000-6-2 : 2016

The technical committee has reviewed the provisions of the following international standards referred in this adopted standard and decided that they are acceptable for use in conjunction with this standard.

<i>International Standard</i>	<i>Title</i>
IEC 60068-2-9	Environmental testing – Part 2: Tests. Guidance for solar radiation testing
IEC 60068-2-11	Environmental testing – Part 2: Tests. Test Ka: Salt mist
IEC 60068-2-52	Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)
IEC 60417-DB:20021	Graphical symbols for use on equipment
IEC 61000-6-4	Electromagnetic compatibility (EMC) – Part 6: Generic standards – Section 4: Emission standard for industrial environments
IEC 61821	Electrical installations for lighting and beaconing of aerodromes – Maintenance of aeronautical ground lighting constant current series circuits
IEC 61822	Electrical installations for lighting and beaconing of aerodromes – Constant current regulators
IEC 61823	Electrical installations for lighting and beaconing of aerodromes – AGL series transformers
ISO 2859 (all parts)	Sampling procedures for inspection by attributes
ICAO Annex 14	Aerodromes – Volume I: Aerodrome Design and Operations [Annex 14 to the Convention on International Civil Aviation, International Standards and Recommended Practices]
ICAO Annex 14	Aerodromes – Volume II: Heliports [Annex 14 to the Convention on International Civil Aviation, International Standards and Recommended Practices]
ICAO 9137	Airport Services Manual (Doc 9137) Part 9 — Airport Maintenance Practices
ICAO 9157	Aerodrome Design Manual (Doc 9157) Part 4 — Visual Aids
ICAO 9157	Aerodrome Design Manual (Doc 9157) Part 5 — Electrical Systems

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test, shall be rounded off in accordance with IS 2: 1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Note: The technical content of the document is not available on website. For details, please refer the corresponding IEC/TS 61827:2004 or kindly contact:

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Scope

This standard defines the requirements and testing procedures for inset and elevated luminaires with lamps used in aeronautical ground lighting systems and excluding luminaires for general lighting.