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Luminaires -
Part 2-24: Particular requirements - Luminaires with limited surface temperatures

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Luminaires -
Part 2-24: Particular requirements -
Luminaires with limited surface temperatures

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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This extended version (EXV) of the official IEC Standard provides the user with the full content of the Standard.

IEC 60598-2-24:2026 EXV includes the content of IEC 60598-2-24:2026 and the references made to IEC 60598-1:2024.

The specific content of IEC 60598-2-24:2026 is displayed on a blue background.

IEC 60598-2-24 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lighting. It is an International Standard.

This third edition cancels and replaces the second edition, published in 2013. This edition constitutes a technical revision.

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

a) the clause numbers and structure have been aligned with those of IEC 60598-1;
b) improved terms and definitions;
c) more detailed classification of luminaires;
d) indication of luminaire mounting positions and use locations;
e) thermal protection of built-in controlgear and other built-in devices required.

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

Draft	Report on voting
34D/1819/FDIS	34D/1828/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.

This document is to be used in conjunction with the latest edition of IEC 60598-1 and its amendment(s). It was established on the basis of the tenth edition (2024) of that standard.

NOTE When "Part 1" is mentioned in this document, it refers to IEC 60598-1.

Where this document states "*addition*", "*modification*" or "*replacement*", the relevant text of Part 1 is to be adapted accordingly.

Subclauses, additional to those in Part 1 are numbered starting from 101; supplementary annexes are entitled AAA, AAB, etc.

A list of all parts in the IEC 60598 series, published under the general title *Luminaires* can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be
– reconfirmed,
– withdrawn, or
– revised.

The content of the corrigendum 1 (2026-10) has been included in this copy.

INTRODUCTION

In general, this document covers safety requirements for luminaires. The object of this document is to provide a set of requirements and tests which are considered to be generally applicable to most types of luminaires and which can be called up as required by the detail specifications of the IEC 60598-2 series. This document is thus not regarded as a specification in itself for any type of luminaire, and its provisions apply only to particular types of luminaires to the extent determined by the appropriate part of the IEC 60598-2 series.

Each part of the IEC 60598-2 series details the requirements for a particular type of luminaire or group of luminaires. These parts of the IEC 60598-2 series are published separately for ease of revision and additional documents will be added as and when a need for them is recognized.

The IEC 60598-2 series comprises the following parts:

IEC 60598-2-1: Fixed general purpose luminaires

IEC 60598-2-2: Recessed luminaires and recessed air-handling luminaires

IEC 60598-2-3: Luminaires for road and street lighting

IEC 60598-2-4: Portable general purpose luminaires

IEC 60598-2-5: Floodlights

IEC 60598-2-6: Luminaires with built-in transformer for filament lamps (withdrawn)

IEC 60598-2-7: Portable luminaires for garden use (withdrawn)

IEC 60598-2-8: Handlamps

IEC 60598-2-9: Photo and film luminaires (non-professional) (withdrawn)

IEC 60598-2-10: Portable luminaires for children

IEC 60598-2-11: Aquarium luminaires

IEC 60598-2-12: Mains socket-outlet mounted nightlights

IEC 60598-2-13 Ground recessed luminaires

IEC 60598-2-14: Luminaires for cold cathode tubular discharge lamps (neon tubes) and similar equipment

IEC 60598-2-15: Not used at present

IEC 60598-2-16: Not used at present

IEC 60598-2-17: Luminaires for stage lighting, television and film studios (outdoor and indoor)

IEC 60598-2-18: Luminaires for swimming pools and similar applications

IEC 60598-2-19 Air-handling luminaires (safety requirements) (withdrawn)

IEC 60598-2-20: Lighting chains

IEC 60598-2-21: Rope lights

IEC 60598-2-22 Luminaires for emergency lighting

IEC 60598-2-23: Extra-low-voltage lighting systems for filament lamps

IEC 60598-2-24: Luminaires with limited surface temperatures

IEC 60598-2-25: Luminaires for use in clinical areas of hospitals and health care buildings

1 Scope

This part of IEC 60598 specifies requirements for luminaires for which limited surface temperatures are provided to counteract risks from combustible dusts (conductive or non-conductive) or ignition of materials that can be deposited on luminaires. The luminaires are for use with electric light sources on supply voltages not exceeding 1 000 V.

NOTE The risk of thermal effects (combustion or degradation caused by the luminaire) to the mounting surface is covered in Part 1 for all types of luminaires.

This document specifically excludes requirements for luminaires for use in explosive gas atmospheres and explosive dust atmospheres.

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.

IEC 60061-2, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 2: Lampholders*, available at http://std.iec.ch/iec60061

IEC 60061-3, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 3: Gauges*, available at http://std.iec.ch/iec60061

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