

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Luminaires –
Part 2-20: Particular requirements – Lighting chains**

**Luminaires –
Partie 2-20: Exigences particulières – Guirlandes lumineuses**





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LUMINAIRES –

Part 2-20: Particular requirements – Lighting chains

FOREWORD

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IEC 60598-2-20 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 2014. This edition constitutes a technical revision.

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

- a) specific provisions for temporarily installed protected lighting (TPL) chains have been added;
- b) new terms and definitions have been added.

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

| Draft | Report on voting |
|---------------|------------------|
| 34D/1646/FDIS | 34D/1651/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/standardsdev/publications.

This Part 2-20 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 ninth edition (2020) of the standard.

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

NOTE 2 In this document, the following print types are used:

– *compliance statements: in italic type.*

A list of all the 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 www.store.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition of the standard,
- amended.

INTRODUCTION

This new edition includes the following technical changes:

- a) Inclusion of specific provisions for temporarily installed protected lighting (TPL) chains.

This form of lighting chain was not previously addressed with specific provisions in previous editions of the standard. A temporarily installed protected lighting chain is a physical impact protected rough service lighting chain intended for temporary installation on building sites during the construction or demolition phases of a building project.

- b) Addition of terms and definitions

New terms and definitions have been added to include the expanded typology for lighting chains and to include a connector with breaking capacity (CBC).

- c) Inclusion of graphical depictions of lighting chains

Graphical depictions have been added to clarify and differentiate the construction and installation configurations of the various different types of lighting chains. Verbal descriptions alone had limitations in clearly and precisely defining the characteristics of the numerous variants in this luminaire sector.

The illustrations show the three main types of lighting chains: permanently installed lighting chains, temporarily installed lighting chains and temporarily installed protected lighting (TPL) chains, as well as further differentiating by installation and/or fixing method where applicable.

LUMINAIRES –

Part 2-20: Particular requirements – Lighting chains

20.1 Scope

This part of IEC 60598 specifies requirements for lighting chains fitted with series, parallel or a combination of series/parallel connected light sources for use either indoors or outdoors on supply voltages not exceeding 250 V.

For combinations where rope lights (also known as sealed lighting chains) are included, see IEC 60598-2-21.

Lighting chains provided with fixed or detachable attachments for example ornamental or decorative, are considered to be covered by this document.

For lighting chains fitted with lampholders of the push-in type, the appropriate requirements of this document applies.

This document covers the following lighting chains:

- a) permanently installed lighting chains;
- b) temporarily installed lighting chains;
- c) temporarily installed protected lighting (TPL) chain.

NOTE 1 Festoon lighting chain – a lighting chain that is supported by the supply cable or fixed at the lampholder and is permanently connected to the fixed wiring. Festoon lighting chains are primarily suitable for permanent indoor or outdoor lighting applications.

NOTE 2 Decorative lighting chain – a lighting chain that is supported by the supply cable and is temporarily connected to the fixed wiring. Decorative lighting chains are primarily suitable for domestic, indoor or indoor/outdoor temporary lighting applications, see Figure 1 for examples.

NOTE 3 Temporarily installed protected lighting (TPL) chain – a lighting chain where each lampholder is fixed to the building or structure and the light source is enclosed by a protective enclosure and is temporarily connected to the fixed wiring. Temporarily installed protected lighting chains are primarily suitable for use in rough service lighting applications.

For lighting chains with non-standardized lamps (e.g. lamps of the push-in type) the lamps are regarded as a part of the lighting chain and consequently included in the testing.

NOTE 4 For products where the lighting chain is permanently fixed to a frame or pre-lit Christmas tree the relevant clauses of IEC 60598-2-4 can also apply.

NOTE 5 In some countries the term "strings" is used instead of "chains".

NOTE 6 Candlestick luminaires are tested according to IEC 60598-2-4.

20.2 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 60227-5:2011, *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Part 5: Flexible cables (cords)*