IEC 61547

Edition 3.0 2020-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Equipment for general lighting purposes – EMC immunity requirements

Équipements pour l'éclairage à usage général – Exigences concernant l'immunité CEM

IEC 61547:2020-03(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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International Standard IEC 61547 has been prepared by IEC technical committee 34: Lamps and related equipment.

This third edition cancels and replaces the second edition, published in 2009. This edition constitutes a technical revision

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

a) extension of scope with end-user replaceable modules and the combination of end-user replaceable module and independent auxiliary;
b) clarification of module testing in a host system;
c) increased ESD and surge test levels for road and street lighting equipment;
d) the introduction of ESD testing under normal operation and handling conditions;
e) removal of line to ground surge test for self-ballasted lamps ≤ 25 W.

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

FDIS	Report on voting
34/676/FDIS	34/689/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This document is to be read in conjunction with the relevant basic and/or product standard(s).

A list of all parts in the IEC 61547 series, published under the general title *Equipment for general lighting purposes – EMC immunity requirements*, 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 "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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EQUIPMENT FOR GENERAL LIGHTING PURPOSES – EMC IMMUNITY REQUIREMENTS

1 Scope

This part of IEC 61547 which deals with electromagnetic immunity requirements, applies to lighting equipment which is within the scope of IEC technical committee 34, including apparatus such as lamps, luminaires, and modules.

Excluded from the scope of this document are:

– components or modules intended to be built into lighting equipment and which are not end-user replaceable;

– equipment for which the electromagnetic compatibility requirements in the radio-frequency range are explicitly formulated in other product immunity standards, even if they incorporate a built-in lighting function.

NOTE Examples of exclusions are:

– equipment with built-in lighting devices for display back lighting, scale illumination and signaling;

– SSL-displays;

– range hoods, refrigerators, freezers;

– photocopiers, projectors;

– electronic switches for fixed installations;

– lighting equipment for road vehicles (within the scope of CISPR 12);

– lighting equipment for aircraft and airfield facilities.

However, in multi-function equipment where the lighting function operates independently from other functions, the electromagnetic immunity requirements of this document apply to the lighting function only.

Lighting equipment with a wireless control function are also within the scope of this document. However, the test is limited to the control of the lighting function only. Radio properties like frequency stability or spurious emissions are not assessed.

EXAMPLE Colour/light level control via a wireless interface are meant to stay intact after an immunity test.

Also included in the scope of this document is lighting equipment that interfaces with systems or installations other than common power supply networks.

The requirements of this document are based on the requirements for domestic, commercial and light-industrial environments as given in IEC 61000-6-1:2016, but modified to lighting engineering practice.

It can be expected that lighting equipment complying with the requirements of this document will operate satisfactorily in other environments. In some special cases, measures can be taken to provide higher immunity. In this document it is impracticable to deal with all these possibilities. Such requirements can be established by contractual agreement between supplier and purchaser.