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INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE
COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES

**Limits and methods of measurement of radio disturbance characteristics of
electrical lighting and similar equipment**

**Limites et méthodes de mesure des perturbations radioélectriques produites
par les appareils électriques d'éclairage et les appareils analogues**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

LIMITS AND METHODS OF MEASUREMENT OF RADIO DISTURBANCE CHARACTERISTICS OF ELECTRICAL LIGHTING AND SIMILAR EQUIPMENT

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International Standard CISPR 15 has been prepared by subcommittee CIS/F: Interference relating to household appliances tools, lighting equipment and similar apparatus, of IEC technical committee CISPR: International special committee on radio interference.

This ninth edition cancels and replaces the eighth edition published in 2013 and its Amendment 1:2015. This edition constitutes a technical revision.

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

- a) full editorial revision and restructuring;
- b) the restriction to mains and battery operation is deleted in the scope;
- c) radiated disturbance limits in the frequency range 300 MHz to 1 GHz have been introduced;

- d) the load terminals limits and the CDNE (alternative to radiated emissions) limits have changed;
- e) deletion of the insertion-loss requirements and the associated Annex A;
- f) introduction of three basic ports: wired network ports, local wired ports and the enclosure port;
- g) introduction of a more technology-independent approach;
- h) replacement of Annex B (CDNE) by appropriate references to CISPR 16-series of standards;
- i) modified requirements for the metal holes of the conical housing;
- j) new conducted disturbance measurement method for GU10 self-ballasted lamp;
- k) addition of current probe measurement method and limits for various types of ports (in addition to voltage limits and measurement methods);
- l) introduction of the term 'module' (instead of independent auxiliary) and requirements for measurement of modules using a host (reference) system;
- m) modified specifications for stabilization times of EUTs;
- n) for large EUT (> 1,6 m), addition of the magnetic field measurement method using a 60 cm loop antenna at 3 m distance (method from CISPR 14-1) as an alternative to the 3 m and 4 m LAS.

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

FDIS	Report on voting
CIS/F/733/FDIS	CIS/F/736/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.

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LIMITS AND METHODS OF MEASUREMENT OF RADIO DISTURBANCE CHARACTERISTICS OF ELECTRICAL LIGHTING AND SIMILAR EQUIPMENT

1 Scope

This document applies to the emission (radiated and conducted) of radiofrequency disturbances from:

- lighting equipment (3.3.16);
- the lighting part of multi-function equipment where this lighting part is a primary function;

NOTE 1 Examples are lighting equipment with visible-light communication, entertainment lighting.

- UV and IR radiation equipment for residential and non-industrial applications;
- advertising signs;

NOTE 2 Examples are neon tube advertising signs.

- decorative lighting;
- emergency signs.

Excluded from the scope of this document are:

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

NOTE 3 See CISPR 30 (all parts) for built-in controlgear.

- lighting equipment operating in the ISM frequency bands (as defined in Resolution 63 (1979) of the ITU Radio Regulation);
- lighting equipment for aircraft and airfield facilities (runways, service facilities, platforms);
- video signs;
- installations;
- equipment for which the electromagnetic compatibility requirements in the radio-frequency range are explicitly formulated in other CISPR standards, even if they incorporate a built-in lighting function.

NOTE 4 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;
- lighting equipment for road vehicles (in scope of CISPR 12).

The frequency range covered is 9 kHz to 400 GHz. No measurements need to be performed at frequencies where no limits are specified in this document.

Multi-function equipment which is subjected simultaneously to different clauses of this document and/or other standards need to meet the provisions of each clause/standard with the relevant functions in operation.

For equipment outside the scope of this document and which includes lighting as a secondary function, there is no need to separately assess the lighting function against this document, provided that the lighting function was operative during the assessment in accordance with the applicable standard.