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Test method on electromagnetic emissions – Part 2: Electronic control gear for discharge lamps excluding fluorescent lamps

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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TEST METHOD ON ELECTROMAGNETIC EMISSIONS –

Part 2: Electronic control gear for discharge lamps excluding fluorescent lamps

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CISPR 30-2, which is a technical report, has been prepared by CISPR subcommittee F: Interference relating to household appliances tools, lighting equipment and similar apparatus.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
CISPR/F/539/DTR	CISPR/F/578/RVC

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

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

A list of all parts of the CISPR 30 series can be found, under the general title *Test method on electromagnetic emissions*, on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

Requirements to limit radio-frequency disturbances from lighting equipment are standardized in CISPR 15. They are restricted to those kinds of lighting equipment which are considered as finished products and intended to be placed on the market for the end user, viz. luminaires, self-ballasted lamps and independent lamp control gear. No emission requirements apply to components intended to be built into luminaires.

Electronic control gears for discharge lamps are also built into a number of different types of luminaires; not only in luminaires of different manufacturers but also in different types of luminaires of one manufacturer.

All those luminaires are tested, although disturbance data of a certain luminaire can be predicted from other luminaire measurements equipped with the same electronic control gear and lamps.

This has led to the question whether a worst-case test luminaire could be designed in which the electronic control gear could be tested. In the event that this test luminaire complies with the relevant requirements, all luminaires where that particular electronic control gear is built in comply, and a great deal of superfluous testing can be avoided. This idea looks correct, simple and interesting, but leads to two comments:

- a worst-case luminaire is too strict. From pre-measurements it appeared that commercial electronic control gear did not pass some tests in a worst-case dummy luminaire, whereas they do in real luminaires;
- even if the electronic control gear passes the tests in a worst-case luminaire, the question remains who is responsible in case the real luminaire, where it is built in, does not comply.

The conclusion is that it is not advisable to change the basic principle of CISPR 15 that no emission requirements apply to components built into a luminaire.

There is, however, a need for an independent test method to check the behaviour of an electronic lamp control gear in the radiofrequency spectrum.

This first edition of CISPR/TR 30-2 is published in conjunction with CISPR/TR 30-1. Each part of CISPR 30 series is independent and describes the test set-up for electronic control gear use together with a special lamp family. The formatting into separately published parts provides for ease of future amendments and revisions. Additional requirements will be added as and when a need for them is recognised.

CISPR 30-2 is technical report for such a method, and it concerns electronic control gear for discharge lamps excluding fluorescent lamps.

TEST METHOD ON ELECTROMAGNETIC EMISSIONS –

Part 2: Electronic control gear for discharge lamps excluding fluorescent lamps

1 Scope

This part of CISPR 30, which is a technical report, details with the aid of reference luminaires, an independent method by which the radio disturbance characteristics of built-in electronic control gear for discharge (excluding fluorescent) lamp luminaires with protection classes I and/or II may be compared against the requirements of CISPR 15. The scope of the part is limited to electronic lamp control gear with an output power (lamp power) up to and including 150 W.

Independent electronic lamp control gears are not covered by this technical report; they are within the scope of CISPR 15.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CISPR 15:2005, *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment*
Amendment 1 (2006)
Amendment 2 (2008)