



**Limits and methods of measurement of
radio disturbance characteristics of
electrical lighting and similar equipment
(CISPR 15:2013 + AMD1:2015 (ED.8.1)
MOD)**

STANDARDS
Australia



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Australian Standard[®]

**Limits and methods of measurement of
radio disturbance characteristics of
electrical lighting and similar equipment
(CISPR 15:2013+AMD1:2015 (ED.8.1)
MOD)**

Original as AS/NZS 4051:1992.
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PREFACE

This Standard was prepared by the Australian members of Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Interference, to supersede AS/NZS CISPR 15:2011, *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment (CISPR 15, Ed.7.2 (2009) MOD)*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify the limits and methods of test for the measurement of radio disturbance characteristics of electrical lighting and similar equipment. The frequency range covered is 9 kHz to 400 GHz.

This Standard is an adoption with national modifications and has been reproduced from CISPR 15:2013 AMD1:2015 CSV (ED.8.1), *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment*, and has been varied as indicated to take account of Australian conditions. The modifications are specified in Appendix Z.

The variations are related to the suitability of the CDN test method, which has been limited for use for products producing broadband noise disturbances only. This limitation was put in place because the CDN test method fails to consider the VSWR (voltage standing wave ratio) present on the products cables especially for narrowband emissions. Therefore, the CDN test method given in Annex B is not suitable for narrowband emission measurements.

As this Standard is reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex or appendix to which they apply. A 'normative' annex or appendix is an integral part of a Standard, whereas an 'informative' annex or appendix is only for information and guidance.

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FOREWORD

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This Consolidated version of CISPR 15 bears the edition number 8.1. It consists of the eighth edition (2013-05) [documents CISPR/F/583/ISH and CISPR/F/591/RVD] and its amendment 1 (2015-03) [documents CIS/F/654/FDIS and CIS/F/660/RVD]. The technical content is identical to the base edition and its amendment.

This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.

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

- inclusion of LED light sources and luminaires, clarification of test supply voltage and frequency, and improvements to clause 5 relating to the application of limits to the various types of lighting equipment covered under the scope of CISPR 15;
- notes relating to Japan in Tables 2a and 3a have been removed;
- introduction of requirements for flashing type emergency lighting luminaires utilizing xenon lamps;
- introduction of requirements for neon and other advertising signs;
- clarification of the requirement for radiated disturbances between 30 MHz and 300 MHz in case the operating frequency of the light source is below 100 Hz.

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

The committee has decided that the contents of the base publication and its amendment 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,
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AUSTRALIAN STANDARD

Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment (CISPR 15:2013+AMD1:2015 (ED.8.1) MOD)**1 Scope**

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

- all lighting equipment with a primary function of generating and/or distributing light intended for illumination purposes, and intended either for connection to the low voltage electricity supply or for battery operation;
- the lighting part of multi-function equipment where one of the primary functions of this is illumination;
- independent auxiliaries exclusively for use with lighting equipment;
- UV and IR radiation equipment;
- neon advertising signs;
- street/flood lighting intended for outdoor use;
- transport lighting (installed in buses and trains).

Excluded from the scope of this standard are:

- auxiliaries intended to be built into lighting equipment;
- lighting equipment operating in the ISM frequency bands (as defined in Resolution 63 (1979) of the ITU Radio Regulation);
- lighting equipment for aircraft and airports;
- apparatus 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 1 Examples of exclusions are:

- built-in lighting devices for display back lighting and signalling;
- range hoods, refrigerators, freezers;
- photocopiers, projectors;
- lighting equipment for road vehicles.

The frequency range covered is 9 kHz to 400 GHz.

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

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

NOTE 2 Examples of equipment with a secondary lighting function may be range hoods, fans, refrigerators, freezers, ovens and TV with ambient lighting.

The limits in this standard have been determined on a probabilistic basis to keep the suppression of disturbances within economically reasonable limits while still achieving an