



**CSA
Group**

CAN/CSA-C22.2 No. 250.13-17
National Standard of Canada

Light emitting diode (LED) equipment for lighting applications



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Light emitting diode (LED)
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Preface

This is the third edition of CAN/CSA-C22.2 No. 250.13, *Light emitting diode (LED) equipment for use in lighting applications*, one of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*. It supersedes the previous editions published in 2014 and 2012.

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For general information on the Standards of the *Canadian Electrical Code, Part II*, see the Preface of CAN/CSA-C22.2 No. 0, *General Requirements — Canadian Electrical Code, Part II*.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Integrated Committee on Lighting Products, under the jurisdiction of the Technical Committee on Consumer and Commercial Products and the Strategic Steering Committee on Requirements for Electrical Safety and has been formally approved by the Technical Committee. This Standard has been approved as a National Standard of Canada by the Standards Council of Canada.

Interpretations: The Strategic Steering Committee on Requirements for Electrical Safety has provided the following direction for the interpretation of standards under its jurisdiction: “The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA Group’s procedures for interpretation shall be followed to determine the intended safety principle.”

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CAN/CSA-C22.2 No. 250.13-17

Light emitting diode (LED) equipment for lighting applications

1 Scope

1.1

The requirements specified in this Standard cover light emitting diode (LED) equipment that is an integral part of a luminaire or other lighting equipment, and which operates in the visible light spectrum between 400 and 700 nm. These requirements also cover the component parts of LED equipment, including LED controlgear, controllers, arrays, modules, and packages, as defined in this Standard.

1.2

These lighting products are intended for installation on branch circuits of 600 V nominal or less, in accordance with the *Canadian Electrical Code, Part I*, and for connection to isolated (non-utility connected) power sources such as generators, batteries, fuel cells, solar cells, and the like.

1.3

1.3.1

LED equipment is utilized in lighting products that comply with the end-product standards listed in this Clause. The requirements specified in this Standard are intended to supplement those in other end-product standards.

1.3.2

LED luminaires comply with the following end-product standards:

- a) CSA C22.2 No. 207;
- b) CSA C22.2 No. 12;
- c) CSA C22.2 No. 89;
- d) CSA C22.2 No. 141;
- e) CSA C22.2 No. 166;
- f) CSA C22.2 No. 9;
- g) CSA C22.2 No. 250.0;
- h) CSA C22.2 No. 256;
- i) CSA C22.2 No. 250.7;
- j) CSA C22.2 No. 1993;
- k) CSA TIL B-31B; and
- l) CSA TIL B-39.

1.3.3

LED controlgear complies with the following end-product standards:

- a) CAN/CSA-C22.2 No. 223; and
- b) CAN/CSA-C22.2 No. 60950-1.

1.4

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

1.5

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

2 Reference publications

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Note: *In cases where the editions listed below are amended, replaced by new editions, or superseded by another standard during the life of this referencing Standard, it is the responsibility of the users of this Standard to investigate the possibility of applying those amendments, new editions, or superseding standards.*

CSA Group

C9-02 (R2011)

Dry-type transformers

C22.1-15

Canadian Electrical Code, Part I

CAN/CSA-C22.2 No. 0-10 (R2015)

General requirements — Canadian Electrical Code, Part II

C22.2 No. 0.2-93 (R2013)

Insulation coordination

C22.2 No. 0.8-12

Safety functions incorporating electronic technology

C22.2 No. 0.15-15

Adhesive labels

CAN/CSA-C22.2 No. 0.17-00 (R2013)

Evaluation of properties of polymeric materials