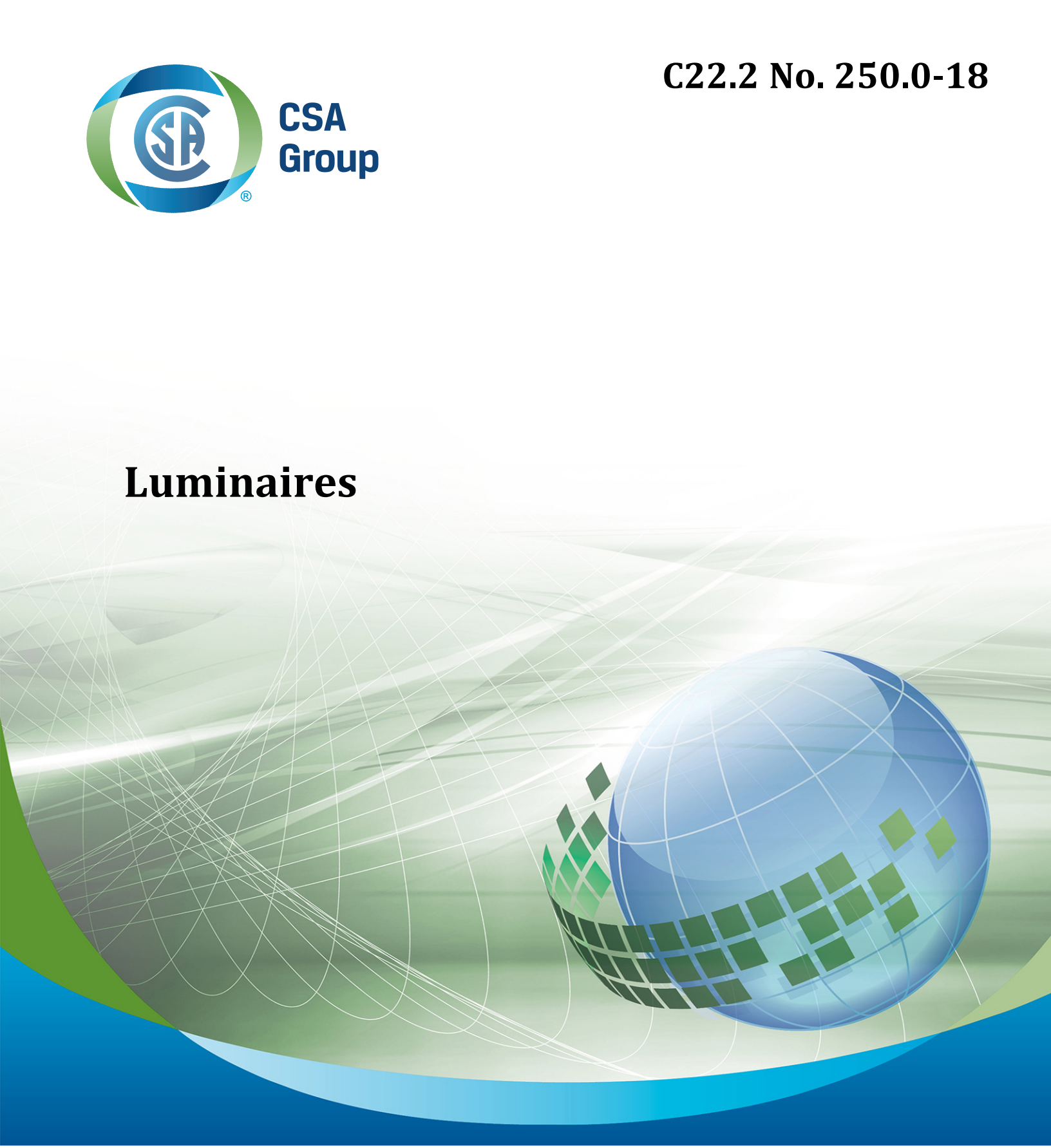
CSA Group

C22.2 No. 250.0-18

# Luminaires



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# *C22.2 No. 250.0-18*
# ***Luminaires***




*ISBN 978-1-4883-0293-0*

Fourth Edition, Dated August 28, 2018

***Summary of Topics***

***This new edition of includes the following changes in requirements:***

***Added requirements for mechanical joints and fastenings; luminaires for use in clothes closets; recessed luminaires for installation in air-handling spaces; LED Type Non-IC inherently protected recessed luminaires; supplementary requirements for LED luminaires; reference UL 8750 for requirements; LED components and subassemblies; spacings options using requirements from UL 840; and a new Section (CAN) for polymeric light diffusers and lenses compliance with the National Building Code of Canada***

***Revised requirements for enclosures; combination HID/incandescent lamp replacement marking for remote ballasted HID luminaires; Rain and Sprinkler Test Methods; self-threading screw torque; polymeric material requirements for LED optics; thermal protection for LED recessed luminaires; electrical spacings to include USA requirement for printed wiring board; flammability requirements for an LED lens and diffuser; factory production-line tests and dielectric voltage-withstand testing (DVWT); to include wall-mounted luminaires; definition of User Maintenance; and font size requirements for product labels***

***Clarify requirements for luminaires using lampholders having cellulosic fiber husks and use of flexible cord and attachment plugs for connecting luminaires to the branch circuit***

**Association of Standardization and Certification**
**NMX-J-307/1-ANCE**
**Third Edition**

**CSA Group**
**CSA C22.2 No. 250.0-18**
**Fourth Edition**

**Underwriters Laboratories Inc.**
**UL 1598**
**Fourth Edition**

# Luminaires

August 28, 2018

**ANSI/UL 1598-2018**

**Commitment for Amendments**

This standard is issued jointly by the Association of Standardization and Certification (ANCE), the Canadian Standards Association (operating as "CSA Group"), and Underwriters Laboratories Inc. (UL). Comments or proposals for revisions on any part of the standard may be submitted to ANCE, CSA Group, or UL at anytime. Revisions to this standard will be made only after processing according to the standards development procedures of ANCE, CSA Group, and UL. CSA Group and UL will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue. ANCE will incorporate the same revisions into a new edition of the standard bearing the same date of issue as the CSA Group and UL pages.



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This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquires@csagroup.org and include ″Proposal for change″ in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

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This ANSI/UL Standard for Safety consists of the Fourth Edition. The most recent designation of ANSI/UL 1598 as an American National Standard (ANSI) occurred on August 28, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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# Preface

This is the harmonized ANCE, CSA Group, and UL standard for Luminaires. It is the third edition of NMX-J-307/1-ANCE, the fourth edition of CSA C22.2 No. 250.0-18, and the fourth edition of UL 1598. This edition of NMX-J-307/1-ANCE supersedes the previous edition published on September 17, 2008. This edition of CSA C22.2 No. 250.0-18 supersedes the previous edition(s) published in 2008, 2004 and 2000. This edition of UL 1598 supersedes the previous edition(s) published on September 17, 2008.

This harmonized standard was prepared by the Association of Standardization and Certification, (ANCE), CSA Group and Underwriters Laboratories Inc. (UL).

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

The present Mexican standard was developed by the CT 34 – Illumination from the Comite de Normalizacion de la Asociacion de Normalizacion y Certificacion, A.C., CONANCE, with the collaboration of the Luminaires manufacturers and users.

This Standard was reviewed by the CSA Integrated Committee on Lighting Products, under the jurisdiction of the CSA Technical Committee on Consumer and Commercial Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee.

### Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

> **Note: Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.**

### Level of Harmonization

This standard is published as an equivalent standard for ANCE, CSA Group and UL.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

### Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

## 1 Scope

1.1 This Standard applies to luminaires for use in non-hazardous locations and that are intended for installation on branch circuits of 600 V nominal or less between conductors in accordance with the *Canadian Electrical Code, Part I (CEC)*, CSA C22.1, with the U.S. *National Electrical Code (NEC)*, ANSI/NFPA 70, and with the Mexican National Electrical Code, NOM-001-SEDE.

1.2 This Standard does not apply to luminaires covered by other standards. The luminaries not covered by this Standard include:

Amateur Movie Lights;
Aquarium Lights;
Cabinet Lights;
Decorative Lighting Strings;
Combination Fan/IR Lamps Used for Heating;
Electric Signs;
Exit Signs;
Junction Boxes for Swimming Pool Fixtures;
Lamp Adapters;
Low-Level Path Marking and Lighting Systems in the United States;
Low-Voltage Landscape Lighting as follows:

For products intended for installation in Canada, landscape lighting systems that are 30 V nominal or less; and

For products intended for installation in Mexico, low-voltage landscape lighting devices that are 24 V nominal or less.

For products intended for installation in the United States, low-voltage landscape lighting devices that are of 15 V nominal or less;

Low Voltage Lighting Fixtures for Use in Recreational Vehicles;
Low Voltage Marine Lighting;
Luminaires for Hazardous Locations;
Luminaires for Recreational Vehicles in the United States;
Marine Navigational Lights;
Marine-Type Fixtures;
Portable Electric Displays;
Portable Hand Lamps;
Portable Luminaires;
Portable Sun/Heat Lamps;
Self-Ballasted Lamps and Lamp Adapters;
Stage and Studio Luminaires;
Submersible Luminaires;
Swimming Pools Luminaires;
Temporary Lighting Strings;
Therapeutic Lamps;
Track Lighting Systems;
Under-cabinet Lights in Canada and Cord-connected Under-cabinet Lights in the United States; and
Unit Equipment for Emergency Lighting.

1.3 Requirements applicable to light emitting diode (LED) components and subassemblies integral to a luminaire covered by this standard are provided in UL 8750 and CSA C22.2 No. 250.13.