C22.2 No. 1993-17

Self-ballasted lamps and lamp adapters

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Revision History

C22.2 No. 1993-17, Self-ballasted lamps and lamp adapters — originally published January 2017

Note: *For information about the* ***Standards Update Service*** *or if you are missing any updates go to* ***www.csagroup.org/store/*** *or* ***techsupport@csagroup.org****.*

Revisions issued: Update No. 1 — May 2017 and Update No. 2 — August 2018

Update No. 3 — March 2021	**Revision symbol (in margin)**
Title page, copyright page, preface, Clauses 1.6, 2.1.1, 4.5.1.2, 5.1.3, 5.5, 6.1.2, 6.1.5–6.1.7, 6.2.2, 8.10A, 8.20–8.23, SA1.6, SA3.10A, SA5.4.2, SA5.13.4, SA6.14A, SA8.5.3, SA8.5.5–SA8.5.7, SA8.8.4, SA8.19.3, SA8.24, SA10.2.8, SA10.4.3–SA10.4.5, and SC4.1.2–SC4.1.4, Tables 5.2, 6.0A, 6.0B, 8.1, 8.3, 8.4, SA8.5.1, and SA10.1, Figures 6.1 and SA8.0, and Supplements SD, SE, and SF **Note:** *Only the revised pages have been provided.*	|

Self-Ballasted Lamps and Lamp Adapters

Fifth Edition, Dated January 27, 2017

Summary of Topics

This revision dated March 26, 2021 includes the following changes in requirements:

– Copper-alloy screw bases and moist ammonia air stress cracking test option for copper alloys; 6.1.2, Table 6.0A, Table 8.1, 8.20 and Table 8.3

– Maximum conductive length of Edison screw bases; 6.1.5, 6.1.6, Table 6.0B, Figure 6.1 and 8.10A

– Evaluation of tack-soldered electrical connections; 6.2.2 and 8.21

– Drop impact test determination for severely damaged lamps; SA8.3.2, SA8.3.4, Figure SA8.0, Table SA10.1 and SA10.4.3

– Thickness of meal G5 and G13 lamp bases; 5.1.3, 6.1.7 and 6.1.7

– Lamps with movable joints; 5.5, Table 8.1, 8.22, 8.23 and Table 8.4

– Revision to Type A lamps – Revisions to HF test source; SC4.1.2, SC4.1.3 and SC4.1.4

– Additional requirements for evaluating LED lamps as direct replacements for specific high intensity discharge (HID) lamps; 2.1 and Supplement SD

– Type A/B tube lamp markings; SA10.1.4, SA10.2.8 and Table SA10.1

– Linear LED lamps; SA1.6, SA1.5.4.2, SA8.5.3, SA8.5.6, SA3.10A, SA6.14A, SA8.24 and SA8.5.5

– Temperature Test - LED lamps; SA8.5.6 and SA8.5.7

– Addition of Supplement SE - Special Use Lamps; 1.6, Table 5.2, and Supplement SE

– New Test, Construction, and Marking requirements for LED Lamps with Integral Rechargeable Batteries; Supplement SF

– Miscellaneous editorial updates; 4.5.1.2, SA6.13.4, SA8.19.3

Association of Standardization and Certification
NMX-J-578/1-ANCE
Third Edition

CSA Group
CSA C22.2 No. 1993-17
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Underwriters Laboratories Inc.
UL 1993
Fifth Edition

Self-Ballasted Lamps and Lamp Adapters

January 27, 2017

(Title Page Reprinted: March 26, 2021)

Approved American National Standard

ANSI/UL 1993-2021

CONTENTS

SUPPLEMENT SA - SUPPLEMENTAL REQUIREMENTS FOR LIGHT-EMITTING DIODES (LED)

SUPPLEMENT SB - ADDITIONAL REQUIREMENTS FOR SOLID-STATE LAMPS CONTAINING SILICONE FLUID

SUPPLEMENT SC - ADDITIONAL REQUIREMENTS FOR LED LAMPS AND FLUORESCENT LAMP ADAPTERS INTENDED AS DIRECT REPLACEMENTS FOR FLUORESCENT LAMPS

ANNEX A (normative) Standards for Components

ANNEX B (CAN) (normative) Markings – French Translations

ANNEX C (MEX) (normative) Markings – Spanish Translations

ANNEX D (normative) Manufacturing and Production Tests

ANNEX E (CAN) (normative) Printed Circuit Boards

ANNEX F (informative) Pictograms

ANNEX G (informative) Metric Conversion Information

Preface

This is the harmonized ANCE, CSA Group, and UL Standard for Self-Ballasted Lamps and Lamp Adapters. It is the third edition of NMX-J-578/1-ANCE, the third edition of CSA C22.2 No. 1993, and the fifth edition of UL 1993. This edition of CSA C22.2 No. 1993 replaces the previous edition published in 2012. This edition of UL 1993 supersedes the previous edition published in 2012.

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This harmonized standard was prepared by the Association of Standardization and Certification (ANCE), CSA Group, and Underwriters Laboratories Inc. (UL). The efforts and support of the Technical Harmonization Committee for Self-Ballasted Lamps of the Council of the Harmonization of Electrotechnical Standards for the Nations of the Americas (CANENA), are gratefully acknowledged.

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 – Iluminación from the Comite de Normalizacion de la Asociacion de Normalizacion y Certificacion, A.C., CONANCE, with the collaboration of the lamps and ballasts 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.

In Canada, for general information on the Standards of the Canadian Electrical Code, Part II, see the preface to CAN/CSA-C22.2 No. 0.

This standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

A UL standard is current only if it incorporates the most recently adopted revisions, all of which are itemized on the transmittal notice that accompanies the latest set of revised requirements.

Where reference is made to a specific number of samples to be tested, the specific 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 CSA Group and UL and a proposed equivalent standard for ANCE. 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 These requirements are intended to cover both self-ballasted lamps and self-ballasted lamp adapters rated 120 to 347 V AC nominal for connection to screw-base, pin-base, or recessed single contact (RSC or R7) lampholders. These devices are intended for use in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code Part I, CSA C22.1, in non-hazardous locations, and the Instalaciones Eléctricas (utilización), NOM-001-SEDE.

1.2 These devices incorporate resistance, reactance, or electronic (solid-state) type ballasts or power supplies. These devices employ various lamp technologies including, but not limited to, incandescent, fluorescent, high-intensity discharge lamps, light-emitting diodes.

1.3 These requirements also include Supplemental Requirements for Light-Emitting Diodes (LED), Supplement SA, for:

a) Self-contained LED lamps, rated 120 to 347 V AC nominal for connection to screw-, pin-base, and recessed single contact (RSC or R7) lampholders,

b) Lamps for replacement of an ANSI standardized fluorescent lamp, and consisting of light-emitting-diode (LED) lamp technologies, with control circuitry, and a driver or power supply. The LED driver and control circuitry will be either integral with the lamp or remote from the lamp, and

c) Component LED lamps, with or without control circuitry, an ANSI base other than bases mentioned in (a), for connection to LED driver having a low voltage output, such as replacement for tungsten-halogen, MR11 and MR16 shaped lamps.

1.4 This standard does not apply to medium-to-medium base (E26) fittings that incorporate controls such as photocells, motion detectors, radio controls, or dimmers covered by other standards.

1.5 These devices are not intended for use with emergency exit fixtures or emergency exit lights.

2 Reference Publications

2.1 Normative references

2.1.1 For undated references to standards, such reference shall be considered to refer to the latest edition and all revisions to that edition up to the time when this standard was approved. For dated references to standards, such reference shall be considered to refer to the dated edition and all revisions published to that edition up to the time the standard was approved.

ANCE (Mexican National Standards)

NMX-J-024-ANCE
Iluminación – Portalámparas roscados tipo Edison – Especificaciones y métodos de prueba

NMX-J-325-ANCE
Iluminación – Portalámparas para lámparas fluorescentes – Especificaciones y métodos de prueba

NMX-J-565/2-11-ANCE
Prueba de riesgo de incendio – Parte 2-10: Métodos de prueba basados en hilo incandescente/caliente – Método de prueba de inflamabilidad de hilo incandescente para productos finales