UL 1472

STANDARD FOR SAFETY

Solid-State Dimming Controls

UL Standard for Safety for Solid-State Dimming Controls, UL 1472

Second Edition, Dated September 25, 2015

Summary of Topics

This revision of ANSI/UL 1472 dated November 18, 2024 includes the following changes in requirements:

– Addition of Requirements for Push-In Terminal for Grounding in 4.6.1A

– Clarification of Requirements for Dimmer Grounding Terminal in 4.6.3

As noted in the Commitment for Amendments statement located on the back side of the title page, UL and CSA are committed to updating this harmonized standard jointly.

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated August 9, 2024.

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Solid-State Dimming Controls

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Approved American National Standard

ANSI/UL 1472-2024

Commitment for Amendments

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

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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 Second edition including revisions through November 18, 2024.

The most recent designation of ANSI/UL 1472 as an American National Standard (ANSI) occurred on November 18, 2024. 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 ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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PREFACE

This is the harmonized CSA Group and UL Standard for Solid-State Dimming Controls. It is the second edition of CSA-C22.2 No. 184 and the second edition of UL 1472. This harmonized standard has been jointly revised on November 18, 2024. For this purpose, CSA Group and ULSE are issuing revision pages dated November 18, 2024.

This harmonized Standard was prepared by a Task Force comprised of members representing CSA, ULSE, NEMA (National Electrical Manufacturers Association) and the EFC (Electro-Federation of Canada).

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

This standard was reviewed by the CSA Subcommittee on Integrated Committee on Wiring Devices, under the jurisdiction of the CSA Technical Committee on Wiring Products and the CSA Strategic Steering Committee on requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee. This standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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 identical standard for CSA Group and ULSE.

An identical standard is a standard that is exactly the same in technical content except for national differences resulting from conflicts in codes and governmental regulations. 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.

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Solid-State Dimming Controls

1 Scope

1.1 These requirements cover permanently installed devices, hereafter referred to as dimmers, that employ a dimming function intended for control of lighting loads of the magnetic ballast, transformer, electronic ballast, self-ballasted lamp, tungsten-filament type, or light-emitting-diode (LED), and are intended to be installed in a wallbox or are provided with an enclosure for flush or surface mounting in accordance with the Canadian Electrical Code, Part I (CE Code), and the National Electrical Code (NEC), ANSI/NFPA 70.

1.2 These requirements cover dimmers, other than touch dimmers, rated 600 volts ac or less, for installation on a 20-ampere or less branch circuit.

1.3 These requirements cover touch dimmers rated 120 volts ac or less for installation on a 20-ampere or less branch circuit.

1.4 These requirements cover dimmers, including touch dimmers, and electronic switches, having a minimum power rating of 300 watts incandescent or 300 volt-amperes in increments of 50 watts or 50 volt-amperes.

1.5 Devices may have additional current ratings based upon the additional lighting loads as specified by the manufacturer.

1.6 A device incorporating other functions (for example, speed control) in addition to a dimming function is investigated on the basis of compliance with the applicable requirements for the dimming function in this Standard as well as requirements for the other functions in the applicable standards.

1.7 These requirements do not cover dimmers that use only a resistor or a transformer to perform the dimming function.

1.8 These requirements do not cover modular, cabinet or console type constructions.

1.9 These requirements do not cover dimmers intended primarily for use in theaters. Dimmers for use in theaters are covered by the Standard for Industrial Control Equipment, UL 508/CSA C22.2 No. 14.

2 Definitions

2.1 The following definitions apply in this Standard.

Actuating member – Part of the operating mechanism that is used for the dimming control functions. This member may also be used to operate the air-gap switch.

CFL – Compact Fluorescent Lamp.

CCFL –Cold Cathode Fluorescent Lamp.

Dimmer – A device intended to change lighting to various intensities. For the purposes of these requirements, the term "dimmer" refers to all products covered by this Standard.

Dimmer, Modular Assembly – A device consisting of a separable terminal assembly and dimmer.