



## Solid-state dimming controls



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# ***Revision History***

## **CSA C22.2 No. 184.1:15, Solid-state dimming controls**

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Outside front cover, National Standard of Canada text, title page, and preface.
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ICS 29.120.40  
ISBN 978-1-4883-0254-1

# Revision History

C22.2 No. 184.1-15, Solid-state dimming controls — originally published October 2015

**Note:** For information about the *CSA Standards Update Service*, go to [store.csagroup.org](http://store.csagroup.org) or e-mail [techsupport@csagroup.org](mailto:techsupport@csagroup.org).

**Revision issued:**  
**Update No. 1 — November 2017**

Update No. 2 — July 2020	Revision symbol (in margin)
<p>Cover, Copyright page, Clauses 1.1, 5.5.11, 7.1.6, 7.2.6, 7.2.7, and A.1.1</p> <p><b>Note:</b> Only the revised pages have been provided.</p> <ul style="list-style-type: none"><li>• Update your copy by inserting these revised pages.</li><li>• Keep the pages you remove for reference.</li></ul>	

The following is a list of revisions, additions and deletions to C22.2 No. 184.1-15:

**Update No. 2 — July 2020**

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Standard for Safety for Solid-State Dimming Controls

Second Edition, Dated September 25, 2015

**Summary of Topics**

***This revision of dated July 31, 2020 includes the following:***

***Clarification of Requirements in Clause [7.1.6](#) for Multi-unit Ganged Installation Derating Factors***

***Addition of Requirements for Manufacturer's Recommended Terminal Tightening to Paragraph [7.2.7](#)***

***Inclusion of References to "Replacement or Retrofit Application Only" in Paragraph [7.2.6](#)***

***Editorial corrections; Clauses [1.1](#), [5.5.11](#) and [A1.1](#)***

***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.***



CSA Group  
CSA C22.2 No. 184.1-15  
Second Edition



Underwriters Laboratories Inc.  
UL 1472  
Second Edition

## Solid-State Dimming Controls

September 25, 2015

(Title Page Reprinted: July 31, 2020)



ANSI/UL 1472-2020



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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 1 (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.