CAN/ULC-S8754-13-R2018
(Reaffirmed 2018)

STANDARD FOR HOLDERS, BASES, AND CONNECTORS FOR SOLID-STATE (LED) LIGHT ENGINES AND ARRAYS

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ANSI/UL 8754-2014 (R2018)

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Standard for Organic Light Emitting Diode (OLED) Panels, CAN/ULC-S8754-13-R2018

First Edition, Dated July 2013

Summary of Topics

This revision of CAN/ULC-S8754 is being issued to update the title page to reflect the reaffirmation of this First Edition National Standard of Canada. No changes in requirements are involved.

The requirements are substantially in accordance with Proposal(s) on this subject dated February 16, 2018.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD. IN THOSE INSTANCES, THE RELEVANT VERSIONS ARE AVAILABLE FOR PURCHASE.

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Prepared by:

ULC Standards
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First Edition

Underwriters Laboratories Inc.
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First Edition

Standard for Holders, Bases, and Connectors for Solid-State (LED) Light Engines and Arrays

July 31, 2013

(Title Page Reprinted: August 3, 2018)

ANSI/UL 8754-2014 (R2018)

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This ANSI/UL Standard for Safety consists of the First Edition including revisions through August 3, 2018.

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ULC Preamble

International Classification for Standards (ICS): 29.140.01; 29.140.40; 31.080.10

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This Standard is intended to be used for conformity assessment.

This First Edition National Standard of Canada was based on the First Edition including Amendment 1, and has now been reaffirmed.

This CAN/ULC-S8754 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

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Preface

This is the common UL and ULC Standard for Holders, Bases, and Connectors for Solid-State (LED) Light Engines and Arrays. It is the First edition of both CAN/ULC-S8574 and ANSI/UL 8754.

This Joint Standard was prepared by Underwriters Laboratories Inc., ULC Standards, and the Technical Committee on Field-Replaceable LED Light Engines. The standard was formally approved by the UL/ULC Technical Committee on Field-Replaceable LED Light Engines. The efforts and support of the Technical Committee are gratefully acknowledged.

Only metric SI units of measurement are used in this Standard. If a value for measurement is followed by a value in other units in parentheses, the second value may be approximate. The first stated value is the requirement.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

Annex A and Annex B, are identified as normative, as such, form mandatory parts of this Standard. Annex C is an informative (non-mandatory) part of this Standard and is not part of the ANSI approved standard.

> **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 between UL and ULC Standards. An identical standard is a standard that is the same in technical content except for conflicts in Codes and Governmental Regulations. Presentation shall be word for word except for editorial changes.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard shall be 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 shall 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 specifies the requirements applicable to holders, bases and connectors intended for solid-state (LED) light engines and arrays for installation in lighting equipment, provided that they employ a configuration not typically found on incandescent or fluorescent light sources.

1.2 This standard does not cover lampholders with screw, bayonet or pin-type bases intended to be compatible with incandescent or fluorescent lamps. Such lampholders are covered under CSA C22.2 No. 43 / UL 496.

1.3 This standard does not cover wire connectors. Such connectors are covered under CAN/CSA-C22.2 No. 65 / UL 486A-486B or CSA C22.2 No. 2459 / UL 2459.

2 Definitions

2.1 For the purpose of this standard, the following definitions apply:

2.2 BASE – That part of a lampholder that is used for mounting of the device.

2.3 CURRENT-INTERRUPTING DEVICE – A component (such as a switch or breaker) intended to stop the flow of current in a lampholder circuit.

2.4 ENCLOSURE – That part or parts of a lampholder that:

a) Renders inaccessible all or any parts of the equipment that may otherwise present a risk of electric shock, or

b) Retards propagation of flame caused by electrical disturbances occurring within.

2.5 INSULATION, BASIC – The insulation necessary to provide basic protection against the risk of electric shock. This insulation may be in the form of vulcanized fiber, an inorganic or polymeric material, or an air gap.

2.6 INSULATION, DOUBLE – An insulation system comprised of both basic insulation and supplementary insulation.

2.7 INSULATION, REINFORCED – A single insulation system with such mechanical and electrical qualities that it, in itself, provides the same degree of protection against the risk of electric shock as does double insulation.

Note: The term "single insulation system" does not necessitate that the insulation must be in one homogeneous piece. The insulation system may comprise two or more layers that cannot be tested as supplementary or basic insulation.

2.8 INSULATION, SUPPLEMENTARY – An independent insulation provided in addition to the basic insulation to provide protection against the risk of electric shock in case of breakdown of the basic insulation.

2.9 LAMP BASE – The part of a lamp that engages the lampholder and makes contact with the electrical circuits of the lampholder.

2.10 LAMP CONNECTOR – A type of lampholder that provides electrical connection to a lamp but does not provide mechanical support; sometimes known as a lamp-supported lampholder.

2.11 LAMPHOLDER – A wiring device intended for making connection to the electrical circuits of a lamp and, in some cases, providing support.

2.12 LAMPLOCK – A feature intended to keep a lamp from being removed except by a person having a key or special tool.

2.13 LED ARRAY (LED MODULE) – An assembly of one or more LED packages or dies on a printed circuit board or substrate, possibly with optical elements and additional thermal, mechanical, and electrical interfaces that are intended to connect to the load side of an LED driver.

2.14 LED LIGHT ENGINE (LIGHT ENGINE) – An integrated assembly comprised of an LED array (LED module), LED driver, and other optical, thermal, mechanical and electrical components. The device is intended to connect directly to the branch circuit through a custom or industry-standard lamp base. This lamp base shall be of a type not typically found on incandescent or fluorescent light sources.[a]

[a]With permission from ANSI/IES RP-16, Nomenclature and Definitions for Illuminating Engineering, by the Illuminating Engineering Society of North America.

2.15 LIMITED APPLICATION DEVICE (LAD) – Lampholders that:

a) Are only suitable for connection to low voltage, low energy circuits supplied from a Class 2 or LVLE source; or

b) Are solely used to provide mechanical support to the light engine and its components, and provide no direct support of live parts.

Note: The following clauses contain requirements, exceptions or notes applicable to limited application devices: 4.2.3, 4.2.6, 4.5.2, 4.8.5.2, 4.9.10, 4.12.3, 5.1.1, 5.3.1, 5.3.3, 6.2, and 7.3.3.

2.16 LIVE PART – A metal or other conductive part that, during intended use, has an electrical potential difference with respect to earth ground or any other conductive part. By definition, the grounded (or neutral) mains supply conductor is considered to be a live part.

2.17 LOCATION, DAMP – An interior or exterior location that is normally or periodically subject to condensation of moisture, including partially protected locations. The interior of a luminaire or sign intended for wet locations is considered a damp location.

Note: Examples of damp locations include partially protected locations under canopies, marquees, roofed open porches, and interior locations subject to moderate degrees of moisture, such as some basements, some barns, and some cold storage warehouses.

2.18 LOCATION, DRY – A location not normally subject to dampness. Dry locations include locations subject to temporary dampness, as in the case of a building under construction, provided ventilation is adequate to reduce the likelihood of accumulation of moisture.

2.19 LOCATION, WET – A location in which water or other liquid can drip, splash, or flow on or against a device.

Note: Examples include vehicle washing areas, showers, or unprotected locations exposed to weather.

2.20 RATED CURRENT – The current declared by the manufacturer to indicate the highest current for which the device is rated.