STANDARDS UPDATE NOTICE (SUN)
ISSUED: January 10, 2025

STANDARD INFORMATION

Standard: UL 1993 / CSA C22.2 No. 1993
Standard ID:
Self-Ballasted Lamps and Lamp Adapters [UL 1993:2024 Ed.6]
Self-ballasted Lamps and Lamp Adapters [CSA C22.2#1993:2024 Ed.4]
Previous Standard ID:
Self-Ballasted Lamps and Lamp Adapters [UL 1993:2017 Ed.5+R:26Mar2021]
Self-Ballasted Lamps and Lamp Adapters [CSA C22.2#1993:2017 Ed.3+U1;U2;U3

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **May 17, 2026**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Note: This SUN does not affect existing listing to UL 1993:2017 Ed.5+R:06Aug2018 / CSA C22.2#1993:2017 Ed.3+ U1;U2 unless a change is made to the product.

This standard contains Functional Safety requirements.

Overview of Changes:

- Flammability rating of polymeric lamp bases
- Lamps for use in elevated ambient temperatures
- Protective functions during the temperature test
- LED Lamps – Current Cascade Abnormal
- Special Use Lamps
- Revisions to production line test conditions

Specific details of new/revised requirements are found in table below

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.

STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		Additions to existing requirements are <u>underlined</u> and deletions are shown ~~lined out~~ below.
6	Info	**Electrical Construction**
6.1	Info	**Lamp bases and lampholders**
6.1.5		***New clause added;*** In addition to the requirements referenced in 6.1.1, the flammability rating of polymeric materials used to form the lamp base body shall comply with 5.3.3 if the materials form part of the device's enclosure. This does not apply to contact insulators on Edison lamp bases.
8	Info	**Tests**
8.5	Info	**Temperature test**
8.5.2		The maximum temperatures shall not exceed those specified in Table 8.2 when corrected to a room ambient temperature. Ambient temperature variations above or below the room ambient temperature be respectively subtracted from or added to temperatures recorded at points on the device. <u>The room ambient temperature shall be either 25 ±5 °C, or the elevated ambient temperature used in clauses 8.5.14 – 8.5.15.</u>
8.5.3		***New clause added;*** A protective device or function shall not operate during this test to reduce the current or power to the device, as determined by the measurements in 8.5.5, except as noted in 8.5.4.
8.5.4		***New clause added;*** Electronic circuits that operate during this test to reduce the current or power to the device shall comply with the Safety-related electronic circuit (SREC) requirements in UL 8750.
8.5.5		***New clause added;*** The device input supply electrical parameters (V, A, W) shall be recorded 15 minutes after the start of the test and again at the end of the test. The input current and power measurements shall comply with 8.2. The current and power measurements recorded at the end of the test shall be within 10 percent of the initially recorded values.

CLAUSE	VERDICT	COMMENT
8.5.6		A device shall be tested as follows: e) A device with an input rating greater than ~~50~~ 25 W and 1) Marked for installation in a fully enclosed luminaire with minimum lamp compartment dimensions in accordance with Table 10.1, Items 25 and 26, shall be normal temperature tested with the device mounted base up in the test fixture described in 9.5.2, 2) Marked for installation only in an open surface-mounted luminaire in accordance with Table 10.1, Item 27, shall be normal temperature tested with the device in a lampholder mounted to the outlet box on the insulated test ceiling described in 9.5.3 and depicted in Figure 9.2, or 3) Marked for installation in a specific luminaire only in accordance with Table 10.1, Item 28, shall be normal temperature tested in the specified luminaire in accordance with UL 1598 and CSA C22.2 No. 250.0 for the luminaire type.
8.5.17		***New clause added;*** A lamp may be optionally tested in an elevated room ambient above 25 °C, in 5 °C increments. The lamp shall be mounted in the appropriate test fixture and shall be: a) Tested using a source of heated air providing the elevated temperature for which the lamp will be marked. The maximum airflow past the lamp or test fixture shall be less than 9.1 m/min (30 ft/min). Maximum variations of 5 °C from the intended ambient temperature shall be added to or subtracted from the observed temperature readings; or b) Tested at an ambient temperature of 25 ±5 °C, and the full difference between the actual test ambient temperature and the intended elevated ambient temperature shall be added to the observed temperature readings.
8.5.18		***New clause added;*** Lamps tested per 8.5.17 that comply with the limits in Table 8.2 are permitted to be marked in accordance with Table 10.1, Item 31.

CLAUSE	VERDICT	COMMENT
Annex A	Info	**Supplemental Requirements for Light-Emitting Diodes (LED)**
A8	Info	**Tests**
A8.8	Info	**Drop impact test**
A8.8.4		With regard to A8.8.2, lamp breakage is acceptable when the damage is so extensive that it is unreasonable to assume an end-user would power the device after the impact, as determined by compliance with this clause. The test results are acceptable if: a) Three samples are subjected to the Drop Impact test; b) At least ~~75%~~ 50% of each sample's outer surface area above its base contacts breaks away or becomes permanently separated. The surface area of interest is illustrated by the rectangular dotted box around the lamps in Figure A8.1 ~~for lamps fabricated without a glass envelope and Fig. SA8.1 for lamps fabricated with a glass envelope~~; and c) The device packaging is marked per A10.4.3.
A8.22	Info	**LED lamp and driver abnormal condition tests**
A8.22.3		***New clause added;*** Lamps may contain integral circuitry to implement communication functions (i.e.: Bluetooth, etc.) or other ancillary features (i.e.: color control or dimming, etc.). Faults to this circuitry and associated functions shall be considered in the abnormal condition tests in A8.22.4 if it is determined that a circuit failure or other malfunction may result in a risk of fire or electric shock, either directly or by disabling a protective device or function.
A8.23	Info	**Rigidity after drop**
A8.23.1		~~Samples shall be subjected to the Drop impact test in Clause 8.8, modified as follows~~ Samples shall be prepared by first conducting either the Drop or Cold Impact test, as follows: a) If conducting the Drop test, three samples shall be used, with each sample dropped once. b) If conducting the Cold Impact test, six samples shall be used; three after cold conditioning and three unconditioned, with each sample dropped once. c) After each drop, any parts that dislodge or break off shall be reassembled to the lamp, as long as no tools are needed and the parts can hold themselves in place after reassembly (by friction, snapfit, etc.). d) Fluorescent lamp adapters shall be tested without their intended lamp installed.
A8.25		***New section added;*** **LED lamps – current cascade abnormal**
A8.25.1		This test applies to devices that employ parts (e.g. LED drivers, LED arrays, etc.) fully sealed within a glass or polymeric envelope (vessel).

<table>
<tr><th>CLAUSE</th><th>VERDICT</th><th>COMMENT</th></tr>
<tr><td>A8.25.2</td><td></td><td>Prior to testing, the highest normal operating current of the LED array shall be determined by energizing the LED lamp at the lamp's rated input voltage that results in the highest array current.</td></tr>
<tr><td>A8.25.3</td><td></td><td>The sample shall be modified so that the LED array, while sealed within its vessel, can be connected to and powered from a suitable external constant-current supply source.</td></tr>
<tr><td>A8.25.4</td><td></td><td>Using the setup described in A8.22.1, the sample shall be energized from the external supply source set to the array's highest normal operating current. After 15 minutes, the test current shall be raised by 50 % of its initial value. This step shall be repeated every 15 minutes until the LED device is no longer operable.</td></tr>
<tr><td>A8.25.5</td><td></td><td>With regard to A8.25.4, if the device's current regulation circuit is also sealed and inaccessible, then the test can be performed by varying the voltage instead.</td></tr>
<tr><td>A8.25.6</td><td></td><td>At the end of the test there shall be:

a) No rupture of the sealed vessel;
b) No charring of the cheesecloth; and
c) No emission of flame or molten material from the sample.</td></tr>
<tr><td>Annex C</td><td>Info</td><td>Additional Requirements for LED Lamps and Fluorescent Lamp Adapters Intended as Direct Replacements for Fluorescent Lamps</td></tr>
<tr><td>C5</td><td>Info</td><td>Markings and Instructions</td></tr>
<tr><td>C5.7</td><td></td><td>New clause added;

Devices shall be provided with the markings or instructions in Table C5.1, items 6 and 7, unless ballast is marked for this purpose.</td></tr>
<tr><td>Table C5.1</td><td>Info</td><td>List of Additional Markings and Instructions

<table>
<tr><th>Item</th><th>Additional Markings and Instructions</th><th>Text</th><th>Format</th><th>Reference</th></tr>
<tr><td>6</td><td>EXAMINE LUMINAIRE FOR DAMAGE BEFORE INSTALLING LED LAMP. IF LAMPHOLDERS OR OTHER PARTS ARE VISIBLY DAMAGED CONTACT A SERVICE PERSON.</td><td></td><td>S28-L2, S28- L1, or both</td><td>C5.7</td></tr>
<tr><td>7</td><td>DO NOT MIX FLUORESCENT AND LED LAMPS IN THE SAME LUMINAIRE unless Ballast is Marked for this Purpose.</td><td></td><td>S28-L2, S28- L1, or both</td><td>C5.7</td></tr>
</table>
</td></tr>
<tr><td>Annex E</td><td>Info</td><td>Special Use Lamps</td></tr>
<tr><td>Table E.1</td><td></td><td>New table added;

Product Markings Based on Hazard and Risk Group

See standard for details.</td></tr>
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CLAUSE	VERDICT	COMMENT
Table E.2		***New table added;*** **Packaging Markings Based on Hazard and Risk Group** See standard for details.
Annex J	Info	**Manufacturing and Production Tests**
J1	Info	**Dielectric Voltage-Withstand Test**
J1.10		***New clause added;*** A 500 V dc insulation resistance test can be considered representative of the dielectric voltage-withstand test and may be used as an alternative method.
J1.11		***New clause added;*** The insulation resistance measurement of J1.12 shall be made using a dc insulation tester capable of delivering the appropriate open circuit voltage (i.e., 500 V dc), or other suitable equipment. The test voltage should be applied for a minimum duration of 1 s. The measured resistance shall not be less than 2 M. For safety reasons, the test should be performed with the device disconnected from the power supply.
J1.12		***New clause added;*** Test records shall be retained for a period of at least six months, and shall include the name of the tests performed, test quantity, test dates, catalog or model numbers, test results, and disposition of any non-complying products.