

## STANDARD INFORMATION

**Standard:** UL 2108

**Standard ID:** Low Voltage Lighting Systems [UL 2108:2015 Ed.2+R:30Dec2021]

**Previous Standard ID:** Low Voltage Lighting Systems [UL 2108:2015 Ed.2+R:06Dec2019]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **March 31, 2024**

## 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 Reports not updated to this version by the effective date above will be withdrawn.

### Overview of Changes:

- New requirements for batteries
- Additional requirements for enclosures
- Polymeric Recessed Housing
- Insulation Piercing Terminal Temperature Test
- Recessed Power Unit Mounting Options
- Temperature Test for Luminaires
- Recessed abnormal temperature test
- Manufacturing and Production Tests
- Revisions to markings
- Mounting of recessed luminaires
- Cord suspended luminaires

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined-out</del> below.</i>
9	Info	<b>Enclosure</b> <i><b>New clause added;</b></i>  An enclosure shall be assembled to provide the mechanical strength required to resist the expected conditions of use without resulting in a risk of fire, electric shock, or injury to persons due to total or partial failures that cause reduction of spacings (electrical or thermal), loosening or displacement of parts, or other serious defects. Where an enclosure relies on adhesive, the adhesive shall be suitable for the associated temperature, environmental exposure, surface materials, and mechanical forces.
11	Info	<b>Recessed Housings</b> <i><b>New clause added;</b></i>
11.5		A recessed housing shall comply with Section 10, Openings. <i><b>New clause added;</b></i>
11.6		The recessed housing of a product marked for use in poured concrete or in ground shall contain no open holes. <i><b>New clause added;</b></i>
11.7		The recessed housing of a product marked "TYPE IC RECESSED" shall contain no open hole as a slot or louver larger than 3/16 in (4.8 mm) in width. Any other shape of an open hole shall be such that it does not permit the entrance of a 1/4 in (6.4 mm) diameter rod. <i><b>New clause added;</b></i>
11.8		The recessed housing of a product marked "TYPE NON-IC RECESSED" shall contain no open hole as a slot or louver larger than 3/8 in (9.5 mm) in width. Any other shape of an open hole shall be such that it does not permit the entrance of a 1 in (25.4 mm) diameter rod. <i><b>New clause added;</b></i>
11.9		The total area of all open holes in a recessed luminaire housing shall be no more than 15 % of the area of the inside diameter of the recessed housing or plaster frame where the housing or frame passes through the hole in the mounting surface.



CLAUSE	VERDICT	COMMENT
		<b><i>New clause added;</i></b>
11.10		A polymeric recessed housing shall be marked as specified in 48.5.7.
22	Info	<b>Accessibility to Live Parts</b>
22.1		An uninsulated current-carrying part or a splice connection involving a risk of shock as defined by 3.19 shall be inaccessible to unintentional contact by persons during use. <u>Any parts removable without a tool are to be removed prior to making the accessibility determination.</u>
31	Info	<b>Mounting Means</b>
31.4		A recessed power unit shall be provided with means for mounting <u>suitable for holding the power unit in place under the expected conditions of use.</u> The <u>mounting means for a recessed power unit that weighs more than 2.2 lbs (1 kg)</u> shall include hanger bars for mounting between wood joists, a plaster frame, ring, brackets, or the equivalent for direct attachment of the power unit to the building.
34	Info	<b>Normal Temperature Test</b>
34.2	Info	<b>Power units</b>
34.2.2		The power unit shall be operated with nominal output load at rated input voltage and frequency. <u>If there is more than one supply wire connection opening, the connection location that will generate the highest supply wire temperatures shall be used.</u>
34.3	Info	<b>Additional test conditions</b>
34.3.2	Info	<b>Recessed mounted</b>
34.3.2.1		A recessed mounted product marked “Type Non IC Recessed” in accordance with 48.5.2 shall be installed as required and subjected to the Normal Temperature Test – Type Non-IC recessed luminaire (not intended for thermal insulation contact) as specified in UL 1598, Clause 15.5. <u>A recessed mounted luminaire marked for specific installation spacings in accordance with 67.3.5 shall instead be installed and tested as specified in UL 1598 Clause 15.6.</u>
	Info	<b>MARKING</b>
48	Info	<b>Details</b>
48.2	Info	<b>Power units</b>
		<b><i>New clause added;</i></b>
48.2.12		A product complying with the wet location requirements of Damp and Wet Locations, Section 13 is able to be marked “Suitable for Wet Locations”. Form A3.
		<b><i>New clause added;</i></b>
48.2.13		A product complying with the damp location requirements of Damp and Wet Locations, Section 13 is able to be marked “Suitable for Damp Locations”, Form A3.



CLAUSE	VERDICT	COMMENT
54	Info	<b>Mounting Means</b> <i>New clause added;</i>
54.1.1		A class 2 luminaire intended for recessed installation in a suspended ceiling and weighing more than 50 lb (22.7 kg) shall have provision for support independent of the ceiling grid.
59	Info	<b>Supply Connections</b> A Class 2 luminaire shall be constructed so it is able to be connected to the secondary wiring of a Class 2 power unit by one of the following means. Luminaires intended to be installed where the supply wiring is concealed shall comply with options (a) or (b) only. <u>The supply end of the cord or wiring in options (c) or (d) shall not include a plug suitable for direct branch circuit connection or for connection to a USB (Universal Serial Bus) power unit. Proprietary connector types are permitted if the power unit is provided or is specified by manufacturer and model number, per 67.3.2.</u>
59.2		a) Provision for mounting over a standard outlet box, connection to conduit or cable, or other means in accordance with Chapter 3 of NFPA 70; b) A length of power limited cable <u>that complies with UL 13 (CL2, CL3, and similar) or communication cable that complies with UL 444 (CM and similar) or equivalent, or wiring terminals suitable for connection of such cable;</u> c) A length of flexible cord identified in NEC Table 400.4 and that <u>complies with UL 62, permanently connected to the luminaire, or detachable using a mating plug and connector; or</u> d) A length of appliance wiring material suitable for external use in accordance with UL 758, permanently connected to the luminaire or detachable using a mating plug and connector.  <u>Informational note for (d): See 13.1.2 of UL 758 for the characteristics and related performance requirements for AWM suitable for external use.</u>
60	Info	<b>Normal Temperature Test</b>
60.1		A luminaire shall be subjected to a normal temperature test in accordance with 34.1 and 34.3. <u>Where the light source is replaceable, the lamp shall be as marked per 67.1.3.</u>
60.2		The luminaire shall be spaced no less than 12 in (305 mm) away from the power unit and shall be positioned so that the highest temperature on the mounting surface is achieved. <u>An exposed bare conductor luminaire shall be installed per the manufacturer's instructions and using no less than 24 in (610 mm) of exposed bare conductor.</u>
61	Info	<b>Abnormal Recessed Temperature Test</b>



CLAUSE	VERDICT	COMMENT
61.1		A recessed luminaire marked "Type Non-IC" in accordance with 48.5.2 shall be installed as required and subjected to the Abnormal Temperature Test – Type Non-IC recessed luminaire (not intended for thermal insulation contact) as specified in UL 1598 Clause 16.2. <u>If marked for specific installation spacings in accordance with 67.3.5, the test setup shall instead be as specified in UL 1598 Clause 16.3.</u>
	Info	<b>MARKINGS</b>
67	Info	<b>Details</b>
67.3	Info	<b>Class 2 luminaires</b>
		<i>New clause added;</i>
67.3.5		In addition to the markings specified in 48.5.2, a Type Non-IC luminaire intended for installation with specific minimum spacings shall be marked to identify the minimum spacings required to comply with the temperature test conducted under 34.3.2.1. The spacings shall be determined as described in UL 1598 Clause 12.8.3.1.
	Info	<b>CONSTRUCTION</b>
		<i>New section added;</i>
79		<b>General</b>  Secondary cells and batteries shall comply with the applicable requirements of one (or more) of the following: See standard for details.
		<i>New section added;</i>
80		<b>Battery Charge Rate Measurement</b>  The battery(ies) shall be installed in the equipment and fully discharged by any convenient means. The charging cycle shall then be initiated. See standard for details.
		<i>New section added;</i>
81		<b>Battery Charging Circuit Abnormal Tests</b>  The tests of 81.2 and 81.3 shall not result in any of the following: See standard for details.
		<i>New section added;</i>
82		<b>Temperature Test</b>  Equipment with secondary battery(ies) and battery charging system shall be operated through two complete cycles of charge and discharge. See standard for details.



CLAUSE	VERDICT	COMMENT
	Info	<b>MARKINGS AND INSTRUCTIONS</b> <i>New section added;</i>  <b>General</b>  83 Equipment with secondary batteries intended for user replacement shall be marked in Form A-1 with the following or equivalent: "Caution – Replace battery with ____ only" with the ____ (blank) identifying the battery manufacturer(s) and catalog number(s) determined to be compliant with this Part IV. See standard for details.
		<i>New appendix added;</i>  <b>MANUFACTURING AND PRODUCTION TESTS</b>  Appendix B These tests apply to power units with accessible dead metal parts or low voltage output circuits. It is anticipated that this testing will be performed on 100% of production. See standard for details.