

## STANDARD INFORMATION

**Standard:** UL 1838

**Standard ID:** Low Voltage Landscape Lighting Systems [UL 1838:2003 Ed.3+R:25Nov2025]

**Previous Standard ID:** Low Voltage Landscape Lighting Systems [UL 1838:2003 Ed.3+R:11Jul2023]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **November 25, 2027**

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 Reports not updated to this version by the effective date above will be withdrawn.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

- 2V DC Offset in Power Unit Temperature Test
- Class Y capacitor in an electronic power unit
- Potting Compound in Power Supply Units
- Withdrawal and replacement of ANSI/ISA MC96.1, Temperature-Measurement Thermocouples

Specific details of new/revise 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.***



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CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined-out</del> below.</i>
		<b><i>New section added;</i></b>
14A		<b>Polymeric Potting Compound</b>  Polymeric potting compound shall not leak, drip, or be released from a unit during any test conducted in accordance with this standard.  See standard for details.
22	Info	<b>Separation of Circuits</b>
22.3	Info	<b>Output circuit isolation</b>
		<b><i>New clause added;</i></b>
22.3.5		Other means that retain isolation between the primary circuit and output circuit in an electronic power unit are permitted, such as optical isolators that comply with the Standard for Optical Isolators, UL 1577, with a suitable isolation voltage rating, or Class Y capacitors that comply with Standard for Safety Requirements for Fixed Capacitors for Use in Electronic Equipment – Part 14: Sectional Specification – Fixed Capacitors for Electromagnetic Interference Suppression and Connection to the Supply Mains – UL 60384-14 (see Table 22.1).
		<b><i>New table added;</i></b>
Table 22.1		<b>Class Y capacitor</b>  See standard for details.
33	Info	<b>Temperature Test</b>
		<b><i>New clause added;</i></b>
33.1A		When the power unit includes a transformer or magnetic ballast, the power unit shall be:  a) Tested with 2-Volt dc offset as described in 33.10; b) Tested with a specific dimmer control with the control adjusted to result in maximum temperature and marked per 50.11A; or c) Marked in accordance with 50.11(a) or 50.11(b).
33.4		Thermocouples are to consist of wires not larger than 24 AWG (0.21 mm <sup>2</sup> ) and not smaller than 30 AWG (0.05 mm <sup>2</sup> ). It is standard procedure to employ



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		thermocouples consisting of 30 AWG iron and constantan wires and a potentiometer-type instrument; and such equipment is to be used whenever referee temperature measurements by thermocouples are necessary. The thermocouple wires are to conform with the requirements specified in the <u>Tolerances on Initial Values of EMF versus Temperature tables in the Standard Specification and Temperature-Electromotive Force (emf) Tables for Standardized Thermocouples, ASTM E230/E230M. Initial Calibration Tolerances for Thermocouples table in Temperature Measurement Thermocouples, ANSI/ISA MC96.1.</u>
		<b><i>New clause added;</i></b>
33.5A		For a unit with potting, it would be necessary to apply thermocouples to interior components prior to potting.  NOTE: A sample without potting may be used for temperature test if it is agreeable to all concerned.
		<b><i>New clause added;</i></b>
33.5B		When potting compound temperature is necessary to determine compliance with the criteria in Section 14A or Section 14B, the observed temperatures of the potting compound and components that are touching or submerged in the potting compound are used to calculate the average value of the potting compound temperature.
	Info	<b>MARKING</b>
50	Info	<b>Details</b>
		<b><i>New clause added;</i></b>
50.11A		A transformer or magnetic ballast power unit tested with a specific dimmer in accordance with 33.1A(b) shall be marked in Form B-3 to identify the dimmer manufacturer and catalog number.