

STANDARD INFORMATION

Standard: CSA C22.2 No. 250.13

Standard ID: Light Emitting Diode (LED) Equipment for Lighting Applications [CSA C22.2#250.13:2020 Ed.4]

Previous Standard ID: Light Emitting Diode (LED) Equipment for Lighting Applications [CSA C22.2#250.13:2017 Ed.3+E1]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **May 25, 2022**

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.

Overview of Changes:

- Added Abnormal switching tests
- Addition of Annex G with requirements for temperature-limited LED controlgear Type TL
- Addition of Annex I with requirements for light-emitting diode (LED) packages
- Addition of Annex J with requirements for LED equipment with wired control circuits
- Addition of Annex L with requirements for LED controlgear with phase-cut dimming

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<p>Additions to existing requirements are <u>underlined</u> and deletions are shown lined out below.</p>
5	info	<p>Safety functions incorporating electronic technology</p> <p><i>New clause added;</i></p> <p>In reference to Clause 5.1, the following applies when evaluating equipment to CSA C22.2 No. 0.8:</p> <p>a) Software safety functions shall be evaluated as Software Class B.</p> <p>b) The thermal cycling test shall be performed using the ambient operating temperature range designated by the manufacturer or the temperature parameters below, whichever is more severe:</p> <p style="padding-left: 40px;">i) The lower parameter shall be -35 °C (-31 °F) for wet location products, 0 °C (32 °F) for damp location products, and 10 °C (50 °F) for all other products.</p> <p style="padding-left: 40px;">ii) The upper parameter shall be 40 °C (104 °F).</p> <p>c) Radio-frequency electromagnetic field immunity tests shall be conducted in accordance with Test Level 3.</p> <p>d) The ring wave test shall be conducted at test voltage of 2.5 kV for rated voltages of up to 480 V. See Note 1.</p> <p>e) The test for influence of supply frequency variations shall only be for controls that rely on mains supply frequency for correct operation.</p> <p>f) The test for power frequency magnetic field immunity shall only be for controls that use Hall effect devices.</p> <p>Note: For more information regarding surge voltage limits, refer to ANSI C82.77-5.</p> <p><i>New clause added;</i></p> <p>During and at the end of each test required in CSA C22.2 No. 0.8, the equipment under test shall comply with either of the following conditions, and there shall be no loss of safety functions:</p>
5.3		
5.4		<p>a) The unit continues to operate normally.</p> <p>b) The unit may proceed to a safety shut-down or a lockout, in which case all safety outputs shall be in their defined safe state. After a safety shut-down, the control may resume operation, operating in accordance with the safety-related specifications in the end-product standard. After a lockout, the system shall not become operational except with operator intervention.</p> <p>c) The unit permanently ceases to function regardless of operator intervention.</p>



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
5.5		With respect to the evaluation criteria of the applicable tests in CSA C22.2 No. 0.8, the electrical spacing or dielectric strength test requirements shall be in accordance with this Standard or those of the end-product standard when they are more severe.
7	Info	Mechanical construction
7.1	Info	General
		<i>New clause added;</i>
7.1.2		In addition to complying with the construction requirements specified in this Standard, a direct plug-in unit shall comply with the applicable requirements specified in CSA C22.2 No. 223.
		<i>New section added;</i>
7.8		Metal enclosures intended for conduit connection This section contains requirements for metal enclosures. See standard for details.
8	Info	Electrical construction
8.10	Info	Protective devices
		<i>New clause added;</i>
8.10.5		Thermostatic protectors that are relied as limiting controls shall be evaluated as control for fluorescent ballast as per requirements in CSA C22.2 No. 24, or CAN/CSA E60730-1 and CSA C22.2 No. 0.8.
		<i>New clause added;</i>
8.10.6		Testing for a fusible resistor shall include the limited short circuit test while installed in the application, unless the test was previously conducted in accordance with CAN/CSA-C22.2 No. 61058-1:17, using a 20 A test circuit with a 200 A short-circuit capacity. If a clearance to combustible materials was used during the overload test, the clearance shall be maintained, or the overload test shall be conducted while the resistor is installed in the application.
9	Info	Tests, procedures, and apparatus
		<i>New section added;</i>
9.15		Abnormal switching test This section contains requirements for the abnormal switching test. See standard for details.



CLAUSE	VERDICT	COMMENT
		<i>New Annex added;</i>
Annex G		Requirements for temperature-limited LED controlgear (Type TL) This Annex applies to LED controlgear with a “Type TL” designation and are supplementary to other requirements of this Standard. See standard for details.
		<i>New Annex added;</i>
Annex I		Requirements for light-emitting diode (LED) packages This Annex applies to LED packages and are supplementary to other requirements of this Standard. There shall be additional considerations as LED packages are integrated into end devices. See standard for details.
		<i>New Annex added;</i>
Annex J		Requirements for LED equipment with wired control circuits This Annex contains requirements for LED equipment with wired control circuits and are supplementary to other requirements of this Standard. See standard for details.
		<i>New Annex added;</i>
Annex L		Requirements for LED controlgear with phase-cut dimming This Annex is applicable to LED controlgear with phase-cut dimming. LED controlgear marked or otherwise indicated by the manufacturer to be dimmable using a solid-state electronic dimming control that is electrically wired in series with the mains supply is subject to additional temperature testing procedures. See standard for details.