

## STANDARD INFORMATION

**Amendment 1:** See updated effective date in blue text below.

**Standard:** UL 8750

**Standard ID:** Standard for Safety Light Emitting Diode (LED) Equipment for Use in Lighting Products [UL 8750:2015 Ed.2+R:11Oct2019]

**Previous Standard ID:** Standard for Safety Light Emitting Diode (LED) Equipment for Use in Lighting Products [UL 8750:2015 Ed.2+R:30Jul2019]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** ~~February 1, 2022~~ August 1, 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:

- New Supplement for Type IC LED drivers
- New Supplement for Special Use LED arrays
- Revisions to Grounding and bonding

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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>
7	Info	<b>Electrical Construction</b>
7.2A	Info	<b>Grounding and bonding</b>
7.2A.1	Info	<b>General</b>
		<b><i>New clause added;</i></b>
7.2A.1.2		When LED equipment is provided with a grounding connection means, it shall be conductively bonded to a ground termination point in the product. The ground termination point may be a metal enclosure, an internal non-current-carrying metal part or a metallized polymeric part.
		<b><i>New clause added;</i></b>
7.2A.1.3		When LED equipment include a grounding connection feed through at the output, the feed through circuit shall be subject to the requirements in 7.2A.1.4 and 7.2A.2 as applicable.
		<b><i>New clause added;</i></b>
7.2A.1.4		The ground path from the grounding connection to its ground termination point in the product shall comply with the bonding circuit impedance test of 8.21.
7.2A.2	Info	<b>Grounding</b>
		<b><i>New clause added;</i></b>
7.2A.2.7		When the path between the grounding connection means and the ground termination point in the product includes PWB traces, the construction is to be evaluated per the bonding conductor tests in 8.23.



CLAUSE	VERDICT	COMMENT
7.2A.3	Info	<b>Bonding</b>
		<u>Bonding refers to connection of non-current-carrying metal parts and metallized polymeric parts to the ground termination point in the product. Bonding is required if these parts are accessible (during normal use, installation, user maintenance or component replacement) and can involve the risk of shock. A bonding means shall consist of one of the following:</u>
7.2A.3.1		<ul style="list-style-type: none"> <li>a) A pigtail lead bonding conductor of at least 18 AWG (0.82 mm<sup>2</sup>),</li> <li>b) A terminal,</li> <li>c) A welded, soldered, or brazed joint,</li> <li>d) A screw, rivet, or welded stud,</li> <li>e) A pressure terminal connector,</li> <li>f) An assembly of bolt, nut, and lockwasher or starwasher, or other compressive fastener that complies with the bonding circuit impedance test of 8.21, or</li> <li>g) An equivalent conductive path that complies with the bonding circuit impedance test of 8.21.</li> </ul>
8	Info	<b>Performance Tests</b>
		<b><i>New section added;</i></b>
8.23		<b>Bonding conductor tests</b>
		This section contains requirements for the bonding conductor tests (see standard for details).
Supplement SG		<b>DESIGNATION OF TEMPERATURE VALUE AT THE TEMPERATURE MEASUREMENT POINT T<sub>c</sub></b>
SG4	Info	<b>Performance</b>
		During the Temperature Test, Section 8.3, temperatures at TC point is monitored. Testing is performed at ambient temperatures noted in Table 8.2. The Measured T <sub>ref</sub> and the Calculated T <sub>ref</sub> max value is determined as follows:
SG4.1		<ul style="list-style-type: none"> <li>a) The temperature measured at TC is normalized per 8.3.4 as necessary. The result is designated as the Measured T<sub>ref</sub>. When the equipment under test is subject to multiple temperature tests based on the requirements of this standard, the <u>T<sub>ref</sub> value for test is recorded as T<sub>ref1</sub>. . . T<sub>refn</sub>. highest measured T<sub>ref</sub> value is designated.</u></li> <li>b) The difference between the maximum permitted temperature (per Table 8.1) and the measured temperature is calculated for each component (ΔT1. . . ΔTn). The values are normalized per 8.3.4 as necessary. The smallest difference is designated ΔT. When the equipment under test is subject to multiple temperature tests based on the requirements of this standard, the Calculated ΔT values shall be determined for each test ΔTt1. . . ΔTtn. <del>The loest value for all tests is ΔT.</del></li> </ul>



CLAUSE	VERDICT	COMMENT
		<p>c) <u>Each <math>\Delta T</math> value is added to its corresponding Measured Tref at TC for Calculated Tref max1. . . Calculated Tref maxn. The lowest value from the series is designated as the Calculated Tref max. This <math>\Delta T</math> is added to the Measured Tref at TC. The result is designated as the Calculated Tref max.</u></p> <p>d) The Measured Tref and the Calculated Tref max values are to be rounded to the nearest 1°C (1.8°F).</p>
		<p><b><i>New supplement added;</i></b></p>
Supplement SI		<p><b>REQUIREMENTS FOR TYPE IC LED DRIVERS</b></p> <p>These requirements apply to Type IC LED drivers. These requirements cover LED drivers with specific construction features, additional performance requirements and additional marking requirements. See standard for details.</p>
		<p><b><i>New supplement added;</i></b></p>
Supplement SJ		<p><b>SPECIAL USE LED ARRAYS</b></p> <p>These requirements apply to LED arrays intended for integration into equipment for purposes other than general illumination. See standard for details.</p>