

Standard Information

Standard Number: CSA C22.2 No. 74

Standard Name: Equipment for use with electric discharge lamps

Standard Edition and Issue Date: 5th Edition Dated April 1, 2016

Date of Issue: April 1, 2016

Date of Previous Revision of Standard: 4th Edition Issued 1996, Reaffirmed 2015

Effective Date of New/Revised Requirements

Effective Date: July 1, 2018

Impact, Overview, Fees and Action Required

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

Overview of Changes:

- spacings requirements – Clause 4.20.5, Part 1
- inrush current – Clause 4.24.4, Part 1
- risk of electric shock test – Clause 6.11, Part 1
- anti arcing test method – Clause 6.12, Part 1 and
- harmonics proposal – Clause 4.25, Part 1 and Clause 4.19, Part 2

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

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

Client Action Required:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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

Description of New/Revised Technical Requirements

Clause	Verdict	Comment
4.20.5, Part 1	Info	<p>Subject: Electrical spacings Ballast Type: Fluorescent ballasts</p> <p>Description: Added requirements that reduce the investigation and testing of circuits, or parts of a circuit, where there are no hazards of electric shock or fire.</p>
4.24.4, Part 1		<p>Subject: Inrush current [*] Ballast Type: Fluorescent ballasts</p> <p>Description: New requirements have been added for electronic ballasts to comply with inrush current limits for capacitor charging. Maximum allowable bulk energy capacitances are now defined for 120, 277, and 347Vac systems. Electronic ballasts shall demonstrate a means to limit peak inrush current in accordance with values that were developed from industry research for 120, 277, and 347Vac distribution systems. <i>Note: Compact fluorescent self-ballasted lamps certified in Class 3321 02 to standard CSA C22.2 No. 1993-12, Self ballasted lamps and lamp adaptors, which requires construction to meet CSA C22.2 No. 74, are affected by this update for bulk capacitance and inrush current specifications.</i></p>
4.25, Part 1 and 4.19, Part 2		<p>Subject: Input current harmonic distortion (electronic and magnetic ballasts) Ballast Type: Fluorescent and High Intensity Discharge (HID) ballasts</p> <p>Description: The specification for harmonic distortion limits has been changed to ANSI NEMA C82.77-10 <i>Harmonic Emission Limits — Related Power Quality Requirements for Lighting Equipment</i>, which provides limits specific to product type and application (such as residential, commercial, industrial, roadway, and stage/studio lighting equipment).</p>
6.11, Part 1		<p>Subject: Risk of electric shock test Ballast Type: Fluorescent ballasts</p> <p>Description: Requirements have been incorporated from TIL B-68 for fluorescent lamp ballasts where a shock hazard condition may exist during lamp replacement without disconnecting the power supply to the luminaire.</p>

Clause	Verdict	Comment
6.12, Part 1		<p>Subject: Fluorescent ballast arc mitigation Ballast Type: Fluorescent ballasts</p> <p>Description: New test requirements have been added for fluorescent ballasts marked for use in a commercial cabinet where vibration can occur (commonly known in the industry as "Type CC").</p>
		<p>Subject: Additional requirements Ballast Type: Electronic fluorescent T4 and T5 lamp ballasts</p> <p>Description: In addition to the requirements of CSA C22.2 No. 74-16, electronic ballasts for fluorescent T4 and T5 lamps shall comply with testing for end of lamp life, as previously announced in the Notice Lighting Products No. 48, dated August 15, 2006.</p> <p>Three tests to simulate end of lamp life effects are described in CAN/CSA-E61347-2-3:03 Lamp Controlgear - Part 2-3: Particular Requirements for A.C. Supplied Electronic Ballasts for Fluorescent Lamps (including Amendment 1:2005). The three tests are as follows:</p> <ul style="list-style-type: none"> a) asymmetric pulse test b) asymmetric power dissipation test; and c) open filament test <p>Any one of the three tests may be used to evaluate electronic ballasts, as determined by the ballast manufacturer according to their ballast circuit design.</p> <p>Details of the test methods and test circuit diagrams can be found in Section 17, "Behavior of the ballast at the end of lamp life", of CAN/CSA-E61347-2-3:03 – Lamp Controlgear - Part 2-3: Particular Requirements for A.C. Supplied Electronic Ballasts for Fluorescent Lamps (including Amendment 1:2005).</p>

Clause	Verdict	Comment
Info		The information below was previously announced in the Notice Lighting Products No. 48, dated August 15, 2006, and is provided as a reminder the requirements below although not specifically describes in the CSA C22.2 No. 74, do apply to product employing electronic ballasts for fluorescent T4 and T5 lamps.
CAN/CSA-E61347-2-3:03		<p>Three tests to simulate end of lamp life effects are described in CAN/CSA-E61347-2-3:03 Lamp Controlgear - Part 2-3: Particular Requirements for A.C. Supplied Electronic Ballasts for Fluorescent Lamps (including Amendment 1:2005). The three tests are as follows:</p> <ul style="list-style-type: none"> a) asymmetric pulse test b) asymmetric power dissipation test; and c) open filament test <p>Any one of the three tests may be used to evaluate electronic ballasts, as determined by the ballast manufacturer according to their ballast circuit design. Details of the test methods and test circuit diagrams can be found in Section 17, "Behavior of the ballast at the end of lamp life", of CAN/CSA-E61347-2-3:03 – Lamp Controlgear - Part 2-3: Particular Requirements for A.C. Supplied Electronic Ballasts for Fluorescent Lamps (including Amendment 1:2005).</p>
		CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.