UL 1029

STANDARD FOR SAFETY

High-Intensity-Discharge Lamp Ballasts

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UL Standard for Safety for High-Intensity-Discharge Lamp Ballasts, UL 1029

Fifth Edition, Dated May 25, 1994

Summary of Topics

This revision of ANSI/UL 1029 dated October 11, 2024 includes the added new Section 27B, Risk of Electric Shock During Relamping, and Supplement SA, Requirements for Electronic High-Intensity-Discharge Lamp Ballasts.

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The new requirements are substantially in accordance with Proposal(s) on this subject dated May 5, 2023, May 10, 2024, and August 16, 2024.

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UL 1029

Standard for High-Intensity-Discharge Lamp Ballasts

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Fifth Edition

May 25, 1994

This ANSI/UL Standard for Safety consists of the Fifth Edition including revisions through October 11, 2024.

The most recent designation of ANSI/UL 1029 as an American National Standard (ANSI) occurred on October 11, 2024. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

The Department of Defense (DoD) has adopted UL 1029 on April 30, 1994. The publication of revised pages or a new edition of this Standard will not invalidate the DoD adoption.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 Scope

1.1 The requirements in this standard cover indoor and outdoor ballasts, including starting circuits for the operation of high-intensity-discharge lamps, and associated equipment, in accordance with the National Electrical Code, from an alternating-current power supply with nominal input ratings of 600 V rms or less. High-intensity-discharge lamps include mercury, metal halide, high-pressure sodium, and similar types. For convenience, although technically not HID lamps, low-pressure sodium lamps are included with the group.

1.2 The requirements for ballasts consisting of resistance only are excluded from this standard.

1.3 An open core and coil ballast is acceptable only for use when in a lighting fixture, sign, or other enclosure acceptable for its intended application.

1.4 A product that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard, and that involves a risk of fire or of electric shock or injury to persons shall be evaluated using appropriate additional component and end-product requirements to maintain the level of safety as originally anticipated by the intent of this standard. A product whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this standard does not comply with this standard. Revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this standard.

2 Glossary

2.1 For the purpose of this standard the following definitions apply.

2.2 BALLAST, NONRECESSED – A ballast intended to be mounted in a remote location, such as an equipment closet, that would not come in contact with building thermal insulation.

2.3 BALLAST, REACTANCE – A ballast, the impedance of which is provided by:

a) Inductive reactance,

b) Capacitive reactance, or

c) Both inductive and capacitive reactance.

2.4 BALLAST, REACTOR (SIMPLE REACTANCE) – A reactance type ballast in which the impedance (inductive reactance) is provided by a single coil and core– not a transformer.

2.5 BALLAST, RECESSED – A thermally protected ballast intended to be mounted in a recessed space and may be remote from a fixture. All insulation is intended to be spaced at least 3 inches (76.2 mm) from the sides of the ballast, however if insulation does come in contact with the ballast it is provided with thermal protection that will prevent it from overheating.

2.6 BALLAST, REMOTE – A ballast that is not intended to be mounted on a fixture or that is intended to be mounted on the fixture 18 inches (457 mm) or more from the housing as measured from the nearest point on the ballast to the nearest point (other than an incidental projection) on the housing. The ballast may be either recessed or nonrecessed.

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