



ANSI/NEMA C82.4-2017

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# American National Standard for Lamp Ballasts— Ballasts for High-Intensity- Discharge and Low-Pressure Sodium Lamps



**National Electrical Manufacturers Association**  
**1300 North 17th Street, Suite 900 • Rosslyn, VA 22209**  
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*American National Standard for Lamp Ballasts—  
Ballasts for High-Intensity-Discharge and  
Low-Pressure Sodium Lamps*

Secretariat:

**National Electrical Manufacturers Association**

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**American National Standards Institute, Inc.**

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**Foreword** (This foreword is not part of ANSI C82.4-2017)

Suggestions for improvement of this standard should be submitted to the Secretariat C82, American National Lighting Group of the National Electrical Manufacturers Association, 1300 North 17<sup>th</sup> Street, Suite 900, Rosslyn, VA 22209.

This standard was processed and approved by Accredited Standards Committee on Lamp Ballasts, C82. Committee approval of the standard does not necessarily imply that all committee members voted for that approval.

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## 1 Scope

This standard provides specifications for and operating characteristics of magnetic ballasts for metal-halide, mercury, high-pressure sodium, and low-pressure sodium lamps. The ballasts operate from multiple supply sources of 600 volts maximum at a frequency of 60 hertz. They may be designed for operation in either indoor or outdoor conditions.

The following types of ballasts are excluded from this standard:

- a. Ballasts consisting of resistance only.
- b. All electronic ballasts that use semiconductors to control the lamp power.

## 2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ANSI C78.40-2016 *American National Standard for Electric Lamps—Specifications for Mercury Lamps*

ANSI C78.41-2016 *American National Standard for Electric Lamps—Guidelines for Low-Pressure Sodium (LPS) Lamps*

ANSI C78.42-2009 (R2016) *American National Standard for Electric Lamps—High-Pressure Sodium (HPS) Lamps*

ANSI C78.43-2013 *American National Standard for Electric Lamps—Single-Ended Metal Halide Lamps*

ANSI C78.44-2016 *American National Standard for Electric Lamps—Double-Ended Metal Halide Lamps*

ANSI C78.380-2016 *American National Standard for Electric Lamps—High-Intensity Discharge (HID)—Method of Designation*

ANSI C82.6-2015 *American National Standard for Lamp Ballasts—Ballasts for High-Intensity Discharge (HID) Lamps—Methods of Measurement*

ANSI C82.9-2016 *American National Standard for Lamp Ballasts—High-Intensity Discharge (HID) and Low-Pressure Sodium (LPS) Lamps—Definitions*

ANSI C82.77-5-2015 *American National Standard for Lighting Equipment—Voltage Surge Requirements*

ANSI/UL 1029-2012 *Standard for Safety High Intensity Discharge Lamp Ballasts*