



ANSI C136.25-2019

American National
Standard for Roadway
and Area Lighting
Equipment— Ingress
Protection (Resistance
to Dust, Solid Objects,
and Moisture) for
Luminaire Enclosures
and Devices



National Electrical Manufacturers Association
1300 North 17th Street, Suite 900 • Rosslyn, VA 22209
www.NEMA.org





ANSI C136.25-2019
A revision of ANSI C136.25-2013

*American National Standard for
Roadway and Area Lighting Equipment—
Ingress Protection (Resistance to Dust, Solid Objects,
and Moisture) for Luminaire Enclosures and Devices*

Secretariat:

National Electrical Manufacturers Association

Approved December 9, 2019

American National Standards Institute, Inc.

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Published by

**National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, Virginia 22209**

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Printed in the United States of America

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Foreword

At the time this Standard was approved, the ANSI C136 committee was composed of the following Members:

Acuity Brands	JEA
Alabama Power Company	Kauffman Consulting, LLC
Atlas Lighting Products, Inc	LED Roadway Lighting Ltd.
California Lighting Technology Center, University of California Davis	Legrand, North America
CIMCON Lighting	Leotek Electronics USA, Inc.
City of Kansas City, Missouri	Light Smart.
City of Los Angeles, Bureau of Street Lighting	Littelfuse, Inc.
Cree Lighting	Lumispec Consulting
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EYE Lighting International of N.A., Inc.	Ripley Lighting Controls
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GE Current, a Daintree Company	Stresscrete/King Luminaire
Graeme Lister Consulting	Sunrise Technologies, Inc.
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Intelligent Illuminations	Valmont Industries, Inc.
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Intertek USA, Inc.	Watthour Engineering Company, Inc.
Itron, Inc	Westire Technology Limited Inc.
.	Xcel Energy

1 Scope

This Standard details the requirements for ingress protection of luminaires in roadway and area lighting equipment, installed for their intended use and specified by end-user. While these requirements are suitable for most types of lighting equipment, it should not be assumed that all the listed degrees of protection apply to a particular type of equipment. The manufacturer of the equipment should be consulted to determine the degrees of protection available.

The adoption of this Standard should promote uniform methods of describing the protection provided by the lighting equipment (luminaire) enclosure.

Note—The basis for this Standard is IEC 60529, *Degrees of protection provided by enclosures (IP Code)*; and IEC 60598-1, *Luminaires—Part 1: General requirements and tests*, Section 9, Resistance to dust, solid objects, and moisture. Tables 1, 2, and 3, in particular, are based on IEC 60529.

The types of protection covered by this Standard are as follows:

- a. Protection of persons against contact with, or approach to, energized electrical components inside the light fixture (luminaire) enclosure, and protection of the equipment against ingress of solid foreign bodies; and
- b. Protection of the equipment inside an enclosure against harmful ingress of water, solid foreign objects, or dust

It should be noted that the IP rating of a luminaire has no bearing on its dirt depreciation characteristics. Testing is performed on new luminaires and is not an indicator of the life or reliability of the luminaire during its service life. Some components, such as seals and gaskets, deteriorate over time with exposure to heat and the environment and should be evaluated separately.

2 Informative References

This Standard is intended to be used in conjunction with the following publications. The latest edition of the publication applies (including amendments).

IEC 60529, Edition 2.1, *Degrees of protection provided by enclosures (IP Code)*

IEC 60598-1, Edition 8.1, *Luminaires—Part 1: General requirements and tests*, Section 9, Resistance to dust, solid objects, and moisture.

3 Definitions

Degrees of protection: The extent of protection provided by a lighting fixture (luminaire) enclosure against ingress of foreign objects or water, verified by standardized test methods.

Direct contact: Contact of persons with energized components.

Enclosure: A part that provides protection of equipment against external effects and direct contact.

Hazardous live part: A part that, when energized, presents a danger to human touch.

Hazardous part: A part that presents a danger to human touch.