American National Standard

For Roadway and Area Lighting Equipment—Dimming Control Between an External Locking Type Photocontrol and Ballast or Driver

Secretariat:

National Electrical Manufacturers Association

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FOREWORD

At the time this standard was approved the ANSI C136 committee was composed of the following members:

Alabama Power                     LITES
American Electric Lighting       Mississippi Power
Caltrans                        National Grid
Ceravision                     OSRAM SYLVANIA Inc.
City of Kansas City, Missouri    Philips HADCO
City of Los Angeles, Bureau of Street Lighting Philips Lumec
Duke Energy                     PNNL
Duke Energy - Florida            ROAM/DTL
Eaton's Cooper Lighting          SELC Lighting
Edison Electric Institute        Shakespeare Composite Structures
EPRI                            South Carolina Electric & Gas
EYE Lighting International of N.A., Inc. SouthConn Technologies, Inc.
Florida Power and Light          StressCrete Ltd/King Luminaire Co., Inc.
FRE Composites (2005) Inc.       Sunrise Technologies, Inc./FP Outdoor Lighting Controls
GE Lighting                     TE Connectivity
Georgia Power Company            Toshiba International Corporation
Gulf Power Company               Utility Metals Division of Fabricated Metals, LLC
Hapco Aluminum Pole Products     Valmont Structures
Holophane An Acuity Brands Company Vamas Engineering and Consultants
Hubbell Lighting, Inc.           Xcel Energy
Inows Solar
Kauffman Consulting, LLC
LED Roadway Lighting
1 **SCOPE**

This standard describes methods of light level control between an external locking type photocontrol (or similar device) and a dimmable ballast or driver for street and area lighting equipment. Mechanical, electrical, and marking requirements are established for dimming, locking type photocontrols, and mating receptacles. All requirements of ANSI C136.10-2010 for photocontrols and receptacles shall apply except where specifically superseded by this standard.

2 **NORMATIVE REFERENCES**

This standard incorporates, by undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed below. For undated references, the latest edition of the publication referred to applies (including amendments).

ANSI C136.10-2010 *American National Standard for Roadway and Area Lighting Equipment – Locking-type Photocontrol Devices and Mating Receptacle – Physical and Electrical Interchangeability and Testing*

ANSI C136.31-2010 *American National Standard for Roadway and Area Lighting Equipment – Luminaire Vibration*

IEC 60929, Annex E Control Interface for Controllable Ballasts

IEC 62386 *Digital Addressable Lighting Interface*

ASTM B488-11 *Standard Specification for Electrodeposited Coatings of Gold for Engineering Uses*

NOTE ANSI Standards are available from IHS, 15 Inverness Way East, Englewood, CO 80112-5776 Phone: 303/397-7956, Fax: 303/397-2740, E-mail: global@his.com or www.global.his.com.

3 **INFORMATIVE REFERENCES**

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

IESNA DG-28 (formerly DG-13) *Guide for the Selection of Outdoor Lighting Controls*

IESNA TM-23-11 *Lighting Controls Protocols*

ANSI C136.2-2004 (R2009) *American National Standard for Roadway and Area Lighting Equipment – Luminaire Voltage Classification*

ANSI/IEEE C62.41-1991 *IEEE Recommended Practice on Surge Voltages in Low-voltage Power Circuits*


UL 94-1996 *Test for Flammability of Plastic Materials*

UL 773, Plug-In, *Locking Type Photocontrols*

4 **DEFINITIONS**

**Ballast**: Stabilizes the current through an electrical load. Generally refers to High Intensity Discharge (HID) luminaires such as High Pressure Sodium (HPS) and Metal Halide.