

American National Standard for Lighting Systems— Interoperability of LED Drivers and Other Connected Devices Via the Digital Addressable Lighting Interface

Secretariat:

National Electrical Manufacturers Association

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American National Standards Institute, Inc.

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Foreword (This foreword is not a part of ANSI C137.4-2021)

This standard specifies a digital interface between a driver and other devices, such as a sensor or a controller, based on a wired digital interface according to IEC 62386 (Digital Addressable Lighting Interface) with the following additional characteristics:

- In addition to the IEC 62386 BPS (Bus Power Supply) capability, the interface specified in this document provides an optional additional, separate source of power to the connected device(s). This standard specifies the electrical requirements for this AUX (auxiliary) power supply, which may be provided by a driver or other device.
- The IEC 62386 standard specifies the exchange of information, such as status and measurement information, through a concept of memory banks. This standard improves the interoperability between devices by defining a data model to be used to represent certain data elements as well as the memory banks (and locations) in which they shall be stored.

A fully operational digital interface can be successfully achieved by specifying power characteristics as well as memory banks and providing interoperability between drivers and devices (such as sensors and networked lighting controllers, or NLCs).

This is a revision of the previous standard, ANSI C137.4-2019.

Proposals for modification or improvement of this standard are welcome. Please send to:

NEMA Technical and Industry Affairs Department National Electrical Manufacturers Association 1300 North 17th Street, Suite 900 Rosslyn, VA 22209

Or send via the NEMA website (http://www.nema.org).

This standard was processed and approved for submittal to ANSI by the C137 Lighting Systems Committee. Approval of the standard is not meant to imply that all Committee members voted to approve it.

1 Scope

This standard specifies the minimum requirements for devices such as drivers, AUX power supplies, controls, sensors, luminaire mounted control devices, and communication devices supporting a digital interface between devices.

This standard builds on the digital addressable lighting interface as specified in the IEC 62386 series of standards to specify the requirements for memory bank usage, logic signal interface, energy reporting, diagnostic information, as well as requirements for auxiliary power supplies that may be integrated into an LED driver.

1.1 Important Patent Disclaimer

NOTE—The user's attention is called to the possibility that compliance with this standard could require the use of an invention covered by patent rights.

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