ANSI C78.53-2019 (R2023)

American National Standard for Electric Lamps— Performance Specifications for Direct Replacement LED (Light Emitting Diode) 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 C78.53-2019 (R2023))

This is not a new standard. It is a reaffirmation of a previous standard (ANSI C78.53-2019).

Suggestions for improvement of this standard will be welcome. They should be sent to the National Electrical Manufacturers Association, 1300 North 17th Street, Suite 900, Rosslyn, VA 22209.

This standard was developed and approved for submittal to ANSI by the C78 Committee. Approval of this standard is not meant to imply that all Committee Members voted to approve it.

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1 Scope

This standard describes the electrical, mechanical, and photometric characteristics of LED lamps that are direct replacements for existing ANSI standardized non-LED lamps. Lamps covered in this standard contain LED-based light sources. Direct replacement is defined as LED lamps that shall not require modification of existing equipment. This standard addresses general illumination products.

1.1 Important Patent Disclaimer

At the time of publication, it is possible that some of the elements of this document may be the subject of patent rights. When this standard was approved for publication, the National Electrical Manufacturers Association (NEMA) did not know of any patent applications, patents pending, or existing patents. NEMA shall not be held responsible for identifying any or all such patent rights.

2 Normative References

ANSI C78.377	*American National Standard for Electric Lamps—Specifications for the Chromaticity of Solid State Lighting (SSL) Products*
ANSI C78.380	*American National Standard for Electric Lamps—High-Intensity Discharge (HID)—Method of Designation*
ANSI C78.40	*American National Standard for Electric Lamps—Specifications for Mercury Lamps*
ANSI C78.41	*American National Standard for Electric Lamps—Guidelines for Low-Pressure Sodium (LPS) Lamps*
ANSI C78.42	*American National Standard for Electric Lamps—High-Pressure Sodium (HPS) Lamps*
ANSI C78.43	*American National Standard for Electric Lamps—Single-Ended Metal Halide Lamps*
ANSI C78.44	*American National Standard for Electric Lamps—Double-Ended Metal Halide Lamps*
ANSI C78.52	*American National Standard for Electric Lamps—LED (Light Emitting Diode) Direct Replacement Lamps— Method of Designation*
ANSI C78.62612	*American National Standard for Electric Lamps--Self-ballasted LED Lamps – Performance Specifications*
ANSI C78.81	*American National Standard for Electric Lamps—Double-Capped Fluorescent Lamps—Dimensional and Electrical Characteristics*
ANSI C81.61	*American National Standard for Electrical Lamp Bases—Specifications for Bases (Caps) for Electric Lamps*
ANSI C82.2	*American National Standard for Lamp Ballasts—Method of Measurement of Fluorescent Lamp Ballasts*
ANSI C82.5	*American National Standard for Reference Ballasts—High-Intensity-Discharge and Low-Pressure Sodium Lamps*
ANSI C82.6	*American National Standard for Lamp Ballasts—Ballasts for High-Intensity Discharge (HID) Lamps—Methods of Measurement*
ANSI C82.11	*American National Standard for Lamp Ballasts—High Frequency Fluorescent Lamp Ballasts*