



ANSI C78.54-2019 (R2023)

*American National Standard for Electric Lamps—
Specification Sheet for Tubular Fluorescent
Replacement and Retrofit LED 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 C78.54-2019 (R2023))

This is not a new standard. It is a reaffirmation of a previous standard (ANSI C78.54-2019).

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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Introduction

With the rapidly changing light-emitting diode (LED) light sources for general illumination, there is a need for a Standardized Tubular LED (TLED) Lamp specification sheet format that allows for the direct comparison of common TLED characteristics across manufacturers. Currently, many TLED specification sheets contain different sets of data and information that can cause confusion when users compare products. Therefore, it is necessary for the American National Standards Institute (ANSI) to provide guidelines for TLED manufacturers when creating TLED specification sheets.

The purpose of this standardized specification sheet format is to communicate the features and performance of TLEDs to users in a consistent manner throughout the industry.

This document recommends the performance, operational, physical, and electrical characteristics that shall be a part of any TLED specification sheet. Manufacturers have the flexibility to provide supplemental information in order to assist users further. Standardizing the features and performance data to be reported by manufacturers is intended to enable comparisons of key features and performance of TLED sources.

For TLED information related to compatible ballasts or drivers (as applicable), internet addresses or hyperlinks from the specification sheet to supporting documents is an acceptable practice within the TLED specifications sheet requirements listed in this document.

1. Scope

The purpose is to standardize the Tubular LED (TLED) Lamp specification sheet, or data reporting format, as the means of communication of critical lamp characteristics such as:

- a. Intended use ballasts (if applicable)
- b. Reference circuit (if applicable)
- c. Input voltage requirements (for use with mains voltage)
- d. Other characteristics may include physical dimensions and/or temperature ratings for operation.

This standard will cover all types of fluorescent replacement and retrofit TLED systems. This includes Ballast Driven (commonly referred to as Type A), Mains Voltage Driven (commonly referred to as Type B), External Driver Driven (commonly referred to as Type C), or hybrid type replacements. Lamps that do not fit existing replacement sockets, i.e., new lamp configurations, are not part of this standard. Required contents and format of the specification sheet are provided. Manufacturers can include additional information.

2. Normative References

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/IES LS-1	Nomenclature and Definitions for Illuminating Engineering
ANSI/IES LM-79	Electrical and Photometric Measurements of Solid-State Lighting Products
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 Base (Caps) for Electric Lamps
UL 1993	Self-Balasted Lamps and Lamp Adapters

3. Informative References

ANSI/IES LM-80	Approved Method for Measuring Lumen Maintenance of LED Light Sources
ANSI C78.377	Specifications for the Chromaticity of Solid State Lighting Products
ANSI C82.16	American National Standard for Light-Emitting Diode Drivers—Methods of Measurement