



**ANSI C78.81-2016 (R2022)**

*American National Standard for Electric Lamps—  
Double-Capped Fluorescent Lamps—  
Dimensional and Electrical Characteristics*

Secretariat:

**National Electrical Manufacturers Association**

Approved: April 12, 2022

**American National Standards Institute, Inc.**

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**Foreword** (This foreword is not part of ANSI C78.81-2016 [R2022].)

Suggestions for improvement of this standard should be submitted to the Secretariat, C78 Committee, National Electrical Manufacturers Association, 1300 North 17<sup>th</sup> Street, Suite 900, Rosslyn, VA 22209.

This standard was processed and approved by the C78 Committee. Approval of the standard does not necessarily imply that all committee members voted for its approval.

**This standard features revisions to:**

1. The following data sheets

1. 17 Watt, 24-Inch T8, Fluorescent Lamp [7881-ANSI-1001-2] -3
2. 25 Watt 36 inch T8, Fluorescent Lamp [7881-ANSI-1002-2] -3
3. 25 Watt, 48-inch T8, Fluorescent Lamp [7881-ANSI-1028-2] -3
4. 32 Watt, 48-inch T8, Fluorescent Lamp [7881-ANSI-1005-3] -4
5. 28 Watt, 48-inch T8, Fluorescent Lamp [7881-ANSI-1029-2] -3
6. 30 Watt, 48-inch T8, Fluorescent Lamp [7881-ANSI-1030-2] -3
7. 40 Watt, 60-inch T8, Fluorescent Lamp [7881-ANSI-1007-2] -3
8. 15 Watt, 18-inch T8, Fluorescent Lamp [7881-ANSI-1031-1] -2
9. 15 Watt, 24-inch T8, Fluorescent Lamp [7881-ANSI-1032-1] -2
10. 21 Watt, 36-inch T8, Fluorescent Lamp [7881-ANSI-1033-1] -2

2. Annex D

3. Data sheet 7881-ANSI-1501-2

86-Watt, 96-inch T8, 0.4 A HF Rapid Start Fluorescent Lamp, pg. 115, revision and reformat

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## **PART I**

### **General Information and Requirements**

#### **1 Scope**

This standard sets forth the physical and electrical characteristics of the principal types of fluorescent lamps intended for application on conventional line frequency circuits and electronic high frequency circuits. Some data sheets may specify more than one circuit application. Specifications for the lamp itself and the interactive features of the lamp and ballast are given. Only double-based lamps of the regular linear shape are included. Single-based lamps, including compact, circular, square, and U-shaped, are found in ANSI C78.901.

Lamps for conventional systems relying on auxiliary support from external ballasts are described. These lamps are those designed for 60 Hz and/or high frequency operation.

Lamp color is not specified herein.

Certain lamp types covered in this standard may be similar to those in IEC 60081. However, additional types are included that are used only in North America and are not specified in the IEC standard.

##### **1.1 Important Patent Disclaimer**

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#### **2 General**

There are four parts to this standard:

- Part I**            Contains requirements and general information. Detailed descriptions, references, and explanations of the terms used in the lamp data sheets are given. Defines the principles of dimensioning lamps, both as finished lamps and for maximum outline purposes.
- Part II**            Contains dimensioning principles and lamp outline drawings.
- Part III**           Contains the annexes.
- Part IV**           Contains the lamp data sheets for the lamp classes covered in this standard. Sheets adopted from IEC are not included, but a source reference is listed.

##### **2.1 Normative References**

The following standards contain provisions that, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. 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.