



ANSI C81.64-2005 (R2014, S2020)

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American National  
Standard for Guidelines  
and General Information  
for Electric Lamp  
Bases, Lampholders,  
and Gauges



**National Electrical Manufacturers Association**  
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*American National Standard for  
Guidelines and General Information for Electric Lamp Bases,  
Lamp Holders, and Gauges*

Secretariat:

**National Electrical Manufacturers Association**

Approved: April 3, 2020

**American National Standards Institute, Inc.**

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*Published by*

**National Electrical Manufacturers Association  
1300 North 17th Street, Suite 900,  
Rosslyn, Virginia 22209**

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Printed in the United States of America

## **Foreword for American National Standard ANSI C81.64-2005 (S2020)**

(This foreword is not part of American National Standard ANSI C81.64-2005 (S2020).)

This American National Standard, Guidelines and General Information for Electrical Lamp Bases, Lampholders, and Gauges, ANSI C81.64-2005 (S2020), gives guidance and information to designers and testing personnel on the use of ANSI C81.61, ANSI C81.62, and ANSI C81.63.

This Standard takes into account the work done by the ANSI C81 committees to adopt IEC Standard sheets from IEC 60061-1, 60061-2 and 60061-3 and adopts, in large part, IEC 60061-4 with certain United States deviations.

It includes the designation system, a guide to the selection of bases and general information regarding bases, lampholders, and gauges.

This Standard is being maintained under the stabilized maintenance option. Proposals for modification or improvement of this Standard are welcome. They should be sent to the National Electrical Manufacturers Association, 1300 N 17<sup>th</sup> Street, Suite 900, Arlington, VA 22209 or sent via the NEMA website (<http://www.nema.org>).

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee on Electric Lamp Bases and Holders, C81. Committee approval of the standard does not necessarily imply that all committee members voted for its approval.

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## Part 1

### General

#### 1 Scope

This American National Standard gives guidance and information to designers and testing personnel on the use of ANSI\_IEC C81.61, ANSI\_IEC C81.62 and ANSI\_IEC C81.63 and their supplements. It includes the designation system and general information regarding bases (caps), lampholders and gauges. Many parts of this standard reference the adopted parts of IEC 60061-4 *Lamp Caps and Holders Together with Gauges for Control of Interchangeability and Safety-Part 4: Guidelines and General Information*.

This standard is intended for use by standards engineers. In those cases where new proposals have to be prepared, so as to achieve uniformity in base/ lampholder/gauge standards and testing procedures. It contains information from ANSI and the IEC in regard to bases (caps) and holders in general use today, together with their relevant gauges. The gauges illustrated, although generally accepted in principle, are not necessarily the only form in which they can be made.

This standard is applicable to bases, lampholders and gauges with the object of securing international interchangeability and safety.

#### 2 Normative References

The following standards contain provisions, which 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.

ANSI\_IEC C78.81, *American National Standard For Electric Lamps-- Double-capped Fluorescent Lamps-Dimensional and Electrical Characteristics*

ANSI\_IEC C81.61, *American National Standard for Electric Lamp Bases*

ANSI\_IEC C81.62, *American National Standard for Electric Lampholders*

ANSI\_IEC C81.63, *American National Standard for Gauges for Electric Lamp Bases and Lampholders*

ANSI C78.1413, *American National Standard for Electric Lamps - Two Inch (51mm) Integral-reflector-rim Reference Projection Lamps - Dimensions of Centering Systems*

ANSI C78.1417, *American National Standard for Electric Lamps - 1.625-inch (42-mm) Integral Reflector Projection Lamps with GX5.3 or GY5.3 Bases - Dimensions and Centering System*

ANSI C78.142, *American National Standard for Electric Lamps - Dimensions and Centering Systems for Projection Lamps - 35mm Integral Reflector Rim Reference Lamps with GZ4 Bases*