



ANSI C78.79-2014 (R2020)

American National
Standard for Electric
Lamps — Nomenclature
for Envelope Shapes
Intended for Use with
Electric Lamps



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*American National Standard for Electric Lamps—
Nomenclature for Envelope Shapes
Intended for Use with Electric Lamps*

Secretariat:

National Electrical Manufacturers Association

Approved: January 17, 2020

American National Standards Institute, Inc.

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Foreword

[This foreword is not part of ANSI C78.79.-2014 (R2020)]

This is a revised and re-designated Standard reaffirmed by American National Standards Committee C78 on Electric Lamps.

Suggestions for improvement of this Standard should be submitted to the

Secretary, ASC C78
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1300 North 17th Street, Suite 900
Rosslyn, VA 22209

This Standard was processed and approved by Accredited Standards Committee on Electric Lamps, ASC C78. Committee approval of the Standard does not necessarily imply that all committee Members voted for that approval.

The purpose of the revision and re-designation of this horizontal Standard is to include solid state light sources that are functional applications of traditional lamps (incandescent, fluorescent and high intensity discharge lamps). This horizontal Standard was first developed in the 1940's by the Accredited Standards Committee (ASC) C79 under this secretariat. ASC C79 has been disbanded and consolidated into the work program of ASC C78.

The following represents some of the select changes incorporated into this proposed revision/re-designation:

- Change designation from ASC C79 to ASC C78
- A Patent Disclaimer statement
- The statement "glass bulb" replaced with "envelope shapes" for the electric lamp
- Inclusion of relevant normative Standards
- Inclusion of envelope shapes germane to solid state lighting. As an example, the "MRX" (multifaceted reflector, extended).

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1 Scope

This Standard describes a system of nomenclature that provides designations for envelope shapes used for all electric lamps. This system is shown in customary (inch-based) units and SI (metric-based) units. These envelope shapes are intended to be used with ANSI Standardized base and holder systems. These general shapes are not associated with specific base and holder systems; they may be used with one or more of these systems.

The nomenclature system is intended for application with LED lamps and glass bulbs that originate both as parts and as stock. As a part, a bulb is assembled directly into finished lamps without major alterations. As stock, a bulb may be re-worked or altered during lamp assembly, while maintaining its basic identifying characteristics.

1.1 Important Patent Disclaimer

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1.2 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.

The following normative reference Standards are the other ANSI lamp specific dimensional and performance Standards that should be used with this Standard.

ANSI C81.61-2009	<i>Bases (Caps) for Electric Lamps</i>
ANSI C81.62-2009	<i>Electric Lamp Holders</i>
ANSI C81.63-2009	<i>Codes for Electric Lamp Bases and Lampholders</i>
ANSI/IEC C81.64-2005	<i>Guidelines and General Information for Electric Lamp Bases, Lampholders and Gauges</i>

2 Definitions

2.1 Bulb

The outer envelope of glass or other material enclosing the essential components of an electric lamp. The material may be transparent, translucent, opaque, or of a surface emitting material.

2.2 Approximate Reference Line or CD Line

A construction line transverse to the axis through the neck of the bulb. It defines the approximate position at which the rim of a base, such as an Edison screw base, would meet the neck of a bulb. The sole purpose of the approximate reference line is to aid the establishment of technical definitions of bulb shapes. This line appears in figure 1 as a CD line. No such line exists for pressed glass bulbs.