for incandescent lamps:

Tungsten Halogen Lamps (non-vehicle)
American National Standard

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer. An American National Standard implies a consensus of those substantially concerned with its scope and provisions. Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution. The existence of an American National Standard does not in any respect preclude anyone, whether s/he has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards. It is intended as a guide to aid the manufacturer, the consumer, and the general public.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the Committee Secretariat referred to on the title page.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.
FOREWORD (This Foreword is not part of ANSI_ANSLG C78.357-2010)

Suggestions for improvement of this standard will be welcome. They should be sent to the Secretariat, C78 Committee, American National Standard Lighting Group, 1300 North 17th Street, Suite 1752, Rosslyn, VA 22209.

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee on Electric lamps, C78, and its Work Group, C78WG01. Approval of the standard does not necessarily imply that all work group members voted for its approval.

Lamp Code Designations (LCDs) are not ANSI standards. The reader is cautioned to explore other resources, such as lamp manufacturers, when building their LCDs.

The reader should refer to C78.370 for the methodology of constructing LCDs. The data provided in an original LCD application may be changed by consensus.

This standard is the result of a ten-year project. No new updated information will be accepted. If there are technical changes, these are to be submitted by Correspondence (“C”) document only.

Information concerning approval of this standard is based on the documents listed in the table below.

<table>
<thead>
<tr>
<th>Amendment / Change</th>
<th>CDV</th>
<th>RV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision/Consolidation/Redesignation</td>
<td>78_4306</td>
<td>78_4307</td>
</tr>
</tbody>
</table>

Andy Jackson, Chair, C78
Bernie Rachel, Technical Advisor
Randolph N. Roy, ANSLG Committee Secretariat
Matt Clark, Senior Editor
# Table of Contents

Foreword .......................................................................................................................... 3

## PART 1 General Information......................................................................................... 5

1 Scope ............................................................................................................................... 5

2 Normative references ................................................................................................. 5

3 Definitions ...................................................................................................................... 7

4 Lamp designations ....................................................................................................... 9

5 Bulb designations ......................................................................................................... 9

6 Bulb finish .................................................................................................................... 10

7 Requirements .............................................................................................................. 10

8 Caution Notice ........................................................................................................... 11

9 Assessment .................................................................................................................. 11

10 Information for luminaire design .............................................................................. 11

11 Lamp data sheets, reference standards and numbering system............................... 11

11.1 General data sheets .................................................................................................. 12

11.2 Projection lamps ...................................................................................................... 13

11.3 Photographic lamps ................................................................................................ 15

11.4 Floodlight lamps ...................................................................................................... 16

11.5 Special purpose lamps ............................................................................................ 16

11.6 General lighting service lamps ................................................................................ 17

11.7 Stage and studio lamps ........................................................................................... 19

## PART II Lamp Data Sheets............................................................................................ 21

## Annexes ....................................................................................................................... 36

Annex A Test methods for photometry, maintenance, and life ......................................... 37

Annex B Information for luminaire design ....................................................................... 43

Annex C Bulb wall temperature measurement .................................................................. 45

Annex D Informative References .................................................................................... 46
PART I   General Information

1   Scope

This standard specifies performance requirements for various single-ended, double-ended, integral reflector, and PAR tungsten halogen lamps, with rated voltages up to 277V, and used for projection, photographic, (floodlight), special purpose, general lighting service (GLS), and stage-studio lighting applications.

This standard, similar to IEC 60357, provides dimensional and performance information pertinent to general lighting and specialty tungsten halogen lamps used in North America. This information is provided in C78.357 lamp data sheets, by reference to other ANSI tungsten halogen lamp specific standards, or by reference to adopted IEC 60357 lamp data sheets.


1.1 Important Patent Disclaimer

It is possible that some of the elements of this document may be the subject of patent rights. When this document was approved for publication, ANSLG (American National Standard Lighting Group) did not know of any patent applications, patents pending, or existing patents. ANSLG shall not be held responsible for identifying any or all such patent rights.

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 C78.20-2003, A, G, PS, and Similar Shapes with E26 Medium Screw Bases

ANSI C78.21-2003, PAR and R Shapes

ANSI C78.260-2002, Tubular Tungsten Halogen Lamps – Physical Characteristics

ANSI C78.370-1997, Method of Designation for Electric Lamps - Photographic, Stage, and Studio