

C78.1460-2004 (R2015)

American National Standard for Electric Lamps— Single-Ended Tungsten-Halogen Lamps GZ9.5 Base, T6 Bulb, 36.5mm LCL, 76.2mm MOL with Proximity Reflector

Secretariat:

National Electrical Manufacturers Association

Approved: November 20, 2015

American National Standards Institute, Inc.

NOTICE AND DISCLAIMER

The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

ANSI standards and guideline publications, of which the document contained herein is one, are developed through a voluntary consensus standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While NEMA administers the process to promote fairness in the development of consensus, it does not write the document and it does not independently test, evaluate, or verify the accuracy or completeness of any information or the soundness of any judgments contained in its standards and guideline publications.

NEMA disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, application, or reliance on this document. NEMA disclaims and makes no guaranty or warranty, expressed or implied, as to the accuracy or completeness of any information published herein, and disclaims and makes no warranty that the information in this document will fulfill any of your particular purposes or needs. NEMA does not undertake to guarantee the performance of any individual manufacturer or seller's products or services by virtue of this standard or guide.

In publishing and making this document available, NEMA is not undertaking to render professional or other services for or on behalf of any person or entity, nor is NEMA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances. Information and other standards on the topic covered by this publication may be available from other sources, which the user may wish to consult for additional views or information not covered by this publication.

NEMA has no power, nor does it undertake to police or enforce compliance with the contents of this document. NEMA does not certify, test, or inspect products, designs, or installations for safety or health purposes. Any certification or other statement of compliance with any health- or safety-related information in this document shall not be attributable to NEMA and is solely the responsibility of the certifier or maker of the statement.

AMERICAN NATIONAL STANDARD

Approval of an American National Standard requires verification by the American National Standards Institute, Inc. (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.

ANSI 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 ANSI. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on this title page.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of ANSI 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 ANSI.

Published by

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

© 2015 National Electrical Manufacturers Association

All rights, including translation into other languages, reserved under the Universal Copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works, and the International and Pan American copyright conventions.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of the publisher.

Printed in the United States of America

C78.1460-2004 (R2015) Page ii

Foreword (This foreword is not part of American National Standard C78.1460-2004)

Suggestions for improvement of this standard should be submitted to:

Secretariat C78 National Electrical Manufacturers Association 1300 North 17th Street, Suite 900 Rosslyn, Virginia 22209

This standard was processed and approved by Accredited Standards Committee on Electric Lamps, C78, and its Sub-Committee, C78 WG 01. Committee approval of the standard does not necessarily imply that all committee members voted for that approval.

CONTENTS

Forewordi			ii
1	Scope)	1
2	Norma	ative References	1
3	Lamp	Designations	1
4	Physical Characteristics		1
	4.1 4.2 4.3 4.4 4.5	Base specifications Bulb designations Lamp characteristics Dimensions Life	1 2 2 2 2
5	Restri	ctions	2
	5.1 5.2 5.3 5.4	Operating position Seal temperature Bulb wall temperature Shielding	2 2 3 3
6	Test F	Procedures	3
	6.1 6.2 6.3	Life Seal (pinch) temperature Operating temperature	3 3 3
7	Inform	ation for luminaire design	3
Figure	e 1	Dimensions of GZ9.5 based T-H projection lamps	4
Table	1	GZ9.5 based, single-ended T-H lamps with T6 (T19) bulbs, 36.5 mm LCL, 76.2 mm MOL, and proximity reflector	5
Table	2	Maximum seal temperature	5
Annex A		(Informative)	6

< This page intentionally left blank. >

1 Scope

This standard defines the dimensional, physical, and other characteristics to assist in the proper application of tungsten-halogen lamps with GZ9.5 bases, T6 (T19) bulbs at 36.5 mm LCL and 76.2 mm maximum overall length with internal proximity reflectors. Lamps of various wattage and voltage designs are included.

The grouping of lamps in this standard is based on general physical characteristics. It does not imply that the lamps listed are interchangeable with each other in a particular application.

Lamps included in this standard are intended for photographic projection applications.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.

ANSI C78.370-1997, Method for the Designation of Photo Lamps

ANSI C78.1450-1983, Method for Life Testing Incandescent Projection Lamps

ANSI C79.1-2002, Nomenclature for Glass Bulbs Intended for Use with Electric Lamps

ANSI C81.61-2003, Electric Lamp Bases

ANSI/IEC C78.682-1997, Standard Method for Measuring the Seal (pinch)Temperature of Quartz Tungsten-Halogen Lamps

3 Lamp designations

The systems for assigning lamp designations, as defined in ANSI C78.370 is commonly employed for the lamps described in this standard.

4 Physical characteristics

4.1 Base specifications

Finished lamps employing the GZ9.5 base shall comply with the requirements given in ANSI C81.61.

4.2 Bulb designations

¹ Informative: In general, the lamps in this standard are compatible with those in IEC Publication 60357.