



ANSI C78.1433-2001 (S2018)

American National
Standard for Two-inch
(51mm) Dichroic Coated
Integral Reflector, Rim
Reference, Tungsten
Halogen Large Screen
Projection Lamps with
GX5.3 Bases



National Electrical Manufacturers Association
1300 North 17th Street, Suite 900 • Rosslyn, VA 22209
www.NEMA.org

Currently in preview, click buy full version



American National Standard

Approved: June 8, 2018

Secretariat: ANSLG-- National Electrical Manufacturers Association

Electric Lamps

Two-inch (51mm) Dichroic Coated Integral Reflector, Rim Reference, Tungsten Halogen Large Screen Projection Lamps with GX5.3 Bases

An American National Standard implies the consensus of those substantially concerned with its scope and provisions. It is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an American National Standard does not in any respect preclude anyone, whether it has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards. Users are cautioned to obtain the latest editions.

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.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time.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

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 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.

Printed and distributed by:

Information Handling Services/Global Engineering Documents
15 Inverness Way East, Englewood, CO 80112-5776
Under Contract with National Electrical Manufacturers Association

©2018 by American National Standard Lighting Group
In affiliation with National Electrical Manufacturers Association
All rights reserved.

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

(This language is not part of the American National Standard.)

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 17th Street, Suite 900, Arlington, VA 22209 or sent via the NEMA website (<http://www.nema.org>).

TABLE OF CONTENTS

	Foreword	iv
1	Scope	1
2	Normative References	1
3	Ratings.....	2
4	Performance.....	2
5	Restrictions	3
6	Cautionary Notice.....	3
7	Physical Characteristics.....	3
	7.1 Base specifications	3
	7.2 Dimensions	3
8	Test Procedures	3
	8.1 Life	3
	8.2 Illumination.....	4
	8.3 Seal temperature	5
	8.4 Bulb temperature	5

FIGURES

Figure 1	Working distance dimension for projection lamps.....	2
Figure 2	Typical photocell location for large screen photometry.....	4
Figure A1	Large screen projection lamp systems	A-3

ANNEXES

Annex A (Informative).....	A-3
Annex B (Informative).....	A-7

FOREWORD (This Foreword is not part of ANSI C78.1433-2001)

Suggestions for improvement of this standard will be welcome. They should be sent to the Secretariat, C78 Committee, National Electrical Manufacturers Association, 1300 North 17th Street, Suite 1847, Rosslyn, VA 22209. This standard was processed and approved for submittal to ANSI by Accredited Standards Committee on Electric lamps, C78, and its subcommittee, C78-1. Approval of the standard does not necessarily imply that all committee members voted for its approval. Information concerning the approval of this standard is based on the documents listed in the table below:

CDV	RV
C78(1)/3967	C78(1)/3968v2

At the time of publications the C78 committee consisted of the following members:

Al Rousseau, Chair C78

Bernie Rachel, Technical Coordinator
Randolph N. Roy, Secretariat
Ken Denton, Consulting Editor

Organization Represented:

Advance Transformer Company
Edison Electric Institute
GE Lighting
Illuminating Engineering Society
Intertek Testing Services, Inc.
MagneTek
National Electrical Manufacturers Association

Name of Representative:

Norman Grimshaw
William Maguire (Delegate)
Edward Yandek
Kira M. Harrold
David Ellis
Michael A. Stein
William Buckson (Delegate)
Don Miletich (Alternate Delegate)
Fred Carpenter (Alternate Delegate)
Peter Bleasby
Al Rousseau
David Belt

OSRAM SYLVANIA INC.
Philips Lighting Company
Underwriters Laboratories, Inc.

At the time of publications the C78-1 Sub-committee consisted of the following members:

Bernie Rachel, Chair C78-1

Organization Represented:

GE Lighting
OSRAM SYLVANIA INC.
Philips Lighting Company
Underwriters Laboratories, Inc.

Name of Representative:

Bernie Rachel
David Mullen
James Oetken (Alt.)
Al Rousseau
Duane Will (Alt.)
Alejandro Seyffert (Alt.)
David Belt
Ken Kempel (Alt.)

American National Standard

Two-inch (51mm) Dichroic Coated Integral Reflector, Rim Reference, Tungsten Halogen Large Screen Projection Lamps with GX5.3 Bases

1 Scope

This standard consolidates previous standards for certain low voltage two-inch (51mm) dichroic coated integral reflector, rim reference tungsten halogen lamp types with GX5.3 bases designed for large screen projection systems and used in 16mm projection, 16mm projection, slide projector, photo enlarger, and printing applications. The lamp types contained in this standard are not to be considered as interchangeable although they will all physically fit into two-inch integral rim reference centering systems and common GX5.3 lampholders. Photometry performance of each lamp depends upon the photometry appraisal system for which it was designed as well as the system in which the lamp is used. Photometry appraisal and use systems may or may not be the same.

Two-inch (51mm) integral reflector, rim reference tungsten halogen lamps with GX5.3 bases having ANSI lamp designations, DDM, EJM, and ELC are included in this Standard.

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 of this Standard edition dates of normative reference standards were valid. However, all reference standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to determine and apply the most recent editions of the normative reference standards listed below.

ANSI C78.1413-2001, *Two-inch (51mm) Integral Reflector, Rim Reference Projection Lamp Dimensions and Centering Systems*

ANSI C78.1450-1987 (R1994), *Incandescent Projection Lamps, Method for Life Testing*

ANSI C81.6-1990, *Electrical Lamp Bases*

ANSI IT7.201-1991, *Slide Projectors and Filmstrip Projectors - Illumination Tests*

ISO 11315-1 1997, *Photography – Projection in Indoor Rooms, Part 1; Screen Illumination Test for Still Projectors*

ANSI/IEC C78.682-1997, *Standard Method of Measuring the Pinch Temperature of Quartz Tungsten Halogen Lamps*

Other standards, not referred to in the text of this standard but may still provide additional relevant information, are listed in Annex B as informative references.