American National Standard

for electric lamps –

EML projection lamp

Approved February 26, 1991

Secretariat: National Electrical Manufacturers Association

Lamp description

Designation code: EML
Type: Single-ended tungsten-halogen
Base: G5.3
Bulb: T4 (T13)
Application: Microfilm

Ratings

Wattage ..... 175 watts
Voltage.. ..... 24 volts
Life ..... 125 hours
Correlated color temperature ..... 3200 K

Performance

Spherical lumens ..... 5000 nominal

Restrictions

Operating position ..... Base down to horizontal
Seal temperature ..... 350°C maximum
Bulb temperature ..... 250°C minimum

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. An American National Standard 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 he has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard. American National Standards are subject to periodic review and 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CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time.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 to reaffirm, revise, or withdraw this standard no later than five years from the date of approval. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

ANSI C78.1419-1991

Copyright National Electrical Manufacturers Association
Provided by IHS under license with NEMA
No reproduction or networking permitted without license from IHS

Not for Resale

Shielding: To assure maximum safety during handling and use of the subject lamps, the following notices should be observed:

– Tungsten-halogen lamps operate at high temperature and at internal gas pressures above atmospheric pressure. Consequently, a lamp could shatter. Certain lamps may also emit some amount of ultraviolet radiation. Therefore a suitable protective shield, screening technique, or both shall be used with the luminaire to protect people and surroundings from both hazards;

– Information contained in the lamp manufacturer's caution notice shall always be read and observed.

Physical characteristics

Base specifications: See *American National Standard for Electrical Lamp Bases*, ANSI C81.61-1990.

Bulb designation: See *American National Standard Nomenclature for Glass Bulbs Intended for Use with Electric Lamps*, ANSI C79.1-1980 (R1984).

Dimensions for EML projection lamp are shown in figure 1.

Test procedures

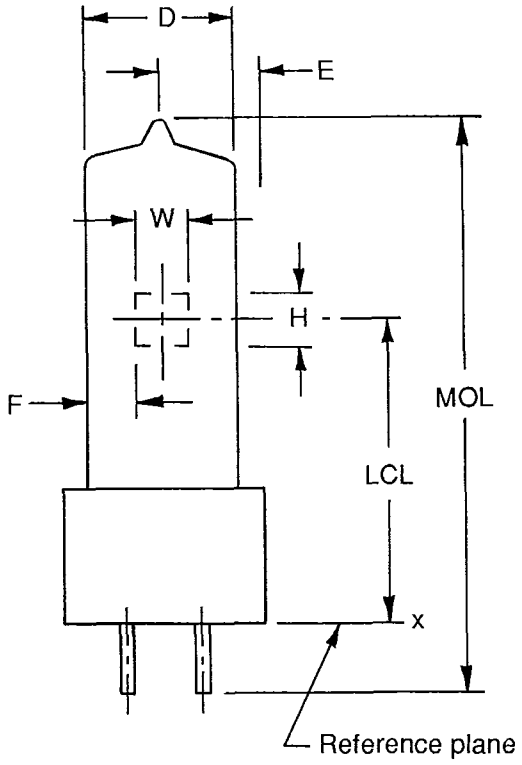
Life ..... Open rack, horizontal burning position with cooling to maintain temperature limits in accordance with *American National Standard for Electric Lamps - Incandescent Projection Lamps - Method for Life Testing*, ANSI C78.1450-1983 (R1989).

Illumination ..... See LM45, *IES Approved Method for Electrical and Photometric Measurements of General Service Incandescent Filament Lamps.*

Seal temperature ..... Measurement procedure is defined in *Standard Method of Measuring the Pinch Temperature of Quartz-Tungsten-Halogen Lamps*, IEC Publication 682 (1980).

Operating temperature ..... Standard methods of measuring other lamp operating temperatures (bulb and base) are under consideration.

Copyright National Electrical Manufacturers Association
Provided by IHS under license with NEMA
No reproduction or networking permitted without license from IHS
Not for Resale



Reference	Standard dimensions (mm)		
	Min.	Nom.	Max.
D	–	–	14.3
E [1]	–	–	8.33
F [2]	3.18	–	–
LCL	–	27	–
MOL	–	–	54
W [3]	–	–	7.2
H [3]	–	–	6.6
T [3]	–	–	3.0

NOTE–In microfilm application, bulb quality (lack of stria, inclusions, bubbles, scratches, etc.) has been found to be important.

[1] Dimension E is the radius of a cylindrical space that defines the limit of bulb excursion relative to the centerline between the base pins.

[2] Dimension F is a limit on the separation between the filament and the bulb wall (outside diameter) at the LCL.

[3] The light source dimensions width (W), height (H), and thickness (T) define a volume centered on the light center length (LCL) and the base centerline within which all luminous parts of the filament shall be located. This is a maximum volume accounting for all possible positions of the filament. Actual filament size may be significantly smaller than the defined light source volume.

Figure 1 - Dimensions for EML projection lamp

Copyright National Electrical Manufacturers Association
Provided by IHS under license with NEMA
No reproduction or networking permitted without license from IHS
Not for Resale