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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 20143-2026

Replacing GB/T 20143-2006

Procedure for use in the preparation of maximum lamp outlines

灯最大外形尺寸图的制定程序

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 20143-2006 "Procedure for the Development of Maximum External Dimension Drawings for Lamps". Compared with GB/T 20143-2006, except for...

Aside from structural adjustments and editorial changes, the main technical changes are as follows.

---Added a method for drawing the maximum external dimensions of an edge-fixed integrated reflector (see 10.1);

---Added steps for drawing the structure diagram of the integrated reflector with fixed edges (see 10.2);

---Added steps for drawing the final diagram of the integrated reflector with fixed edges (see

10.3).

This document is modified to adopt IEC 61126:2005 "Procedure for the preparation of maximum external dimensions of lamps".

Compared with IEC 61126:2005, this document has undergone the following structural adjustments.

- Chapter 1 corresponds to section 1.1 of IEC 61126:2005;
- Chapter 2 corresponds to section 1.2 of IEC 61126:2005;
- A new Chapter 3, "Terminology and Definitions," has been added;
- Chapter 5 corresponds to section 1.4 of IEC 61126:2005;
- Chapter 6 corresponds to Chapter 2 of IEC 61126:2005;
- Chapter 7 corresponds to Chapter 3 of IEC 61126:2005;
- Chapter 8 corresponds to Chapter 4 of IEC 61126:2005;
- Chapter 9 corresponds to Chapter 5 of IEC 61126:2005;
- Chapter 10 corresponds to Chapter 6 of IEC 61126:2005;
- Appendix A corresponds to Appendix B of IEC 61126:2005;
- Appendix B corresponds to Appendix A of IEC 61126:2005.

The technical differences between this document and IEC 61126:2005, and the reasons therefor, are as follows.

---IEC 60630 (see 6.3.3, 7.3.3 and 8.3.3) has been replaced with the normatively referenced GB/T 7249 to facilitate inter-standard coordination.

application;

---The normative appendix "Replacement Method for Drawing the Maximum External Dimensions of Lamps" is changed to an informative appendix (see Appendix B).

The international standard is incorrect.

The following editorial changes have been made to this document.

---IEC 60061-3 has been replaced with GB/T 1483.1 (see 5.1.6, 5.2.1) for informational reference;

---IEC 60061-1 (see 10.2) has been replaced with GB/T 1406 (all parts) as cited in the informational reference;

--- IEC 60061-2 (see 10.2) has been replaced by GB/T 19148 (all parts) as cited in the informational reference.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Light Industry Council.

1 Scope

This document establishes the maximum external dimension drawing of the lamp and the procedure for creating such a drawing, describing how to draw a uniform, accurate, and simple drawing.

The method for drawing the maximum external dimensions of a lamp provides guidance for drawing the maximum external dimensions of lamps with a specific glass shell shape and a specified lamp base.

This document is primarily used for the development of lamp standards.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 7249 Maximum External Dimensions of Incandescent Lamps (GB/T 7249-2016, IEC 60630:2009, IDT)

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 General Instructions

The drawings should include all types of glass shells, lamp holders, and the total length of the lamp. The space defined in each dimension drawing should be suitable for different manufacturers' production processes.

Mechanical interchangeability of lamps.

The relationship between luminaires and their holders and the lamps varies depending on the method of mounting and the type of lamp. Appendix A provides...

Various different situations were considered and the required lamp specifications were specified, including the maximum external dimensions of the lamps based on different coefficients.

Although this document primarily concerns the maximum external dimensions of lamps with screw-in lamp holders, lamps with bayonet lamp holders have also been considered.

It also includes a method for determining the dimensions of single-ended push-type fluorescent lamps. This method is easily adaptable to other types of lamp holders.

5.1 Definition of the maximum external dimensions of the lamp

5.1.1

The maximum external dimension drawing of the lamp uses a simplified planar method to represent its three-dimensional volume. The design of this dimension drawing must be combined with the lamp's dimensions.

The total length, dimensions of the spherical portion and neck of the glass bulb, and the maximum variation in the offset of the glass bulb relative to the lamp holder. All these variations are in terms of position.

The drawing uses a fixed lamp holder as a reference. It does not consider tolerances for the relative positions of the lamp holder and the lamp fixture, nor does it take into account ventilation, heat shielding, or the tools used during installation.

Due to special needs such as the space reserved, the maximum external dimensions of the lamp cannot be regarded as showing the internal technical features and assembly dimensions of the lamp.

Product image.

5.1.2

Maximum External Dimensions of Lamps The portion of the drawing representing the maximum space occupied by any particular type of lamp is shown as a solid line outline. This...

Simplified dimensional drawings reduce the number of secondary shape curves on the glass shell. Dimensional drawings should only show the main external features and use straight lines as much as possible.

5.1.3

The dimensions on the maximum external dimension drawing of the lamp are unidirectional values that specify the maximum space occupied by the lamp. Any negative tolerances are included in this value.

Maximum space. Dimensions are in millimeters (mm) unless otherwise specified.