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

GB/T 23110-2008

Photometry for floodlights

投光灯具光度测试

(English Translation)

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Foreword

This standard is equivalent to using CIE43-1979 "Floodlights photometric test." for ease of use, this standard made the following editorial changes.

The term --- the "Technical Report" to "this standard";

--- Instead of using the decimal point as a decimal point ", ". ";

--- Remove CIE43-1979 preface.

The Standard Appendix A, Appendix B, Appendix C, Appendix D are normative appendix.

The standard proposed by China National Light Industry Council.

This standard by the National Standardization Technical Committee of electrical lighting (SAC/TC224) centralized.

This standard was drafted. National Lighting Fitting Quality Supervision and Inspection Center, the National Electric Light Source Quality Supervision and Inspection Center (Shanghai), Shanghai era Lighting Appliance Co., Ltd. detection.

Introduction

The main purpose of this standard is recommended adoption Floodlights testing methods so that it can provide acceptable photometric properties measured and reported.

This standard is intended to provide the basis for a unified national standard, and test instruments for industrial select photometric laboratory, test operation and presentation Floodlights light of performance data to provide guidance.

This is not the official views of the CIE standard, this standard is recommended for any suggestion rather than mandatory.

GB/T 23110-2008/CIE43-1979 Floodlights photometry

1 Scope

1.1

These recommendations are intended to cover the photometric test for indoor and outdoor lamps for light, and light cast light using incandescent or discharge lamps (Includes a tubular fluorescent lamps) or lamp with reflector. Similar methods can be used using a gas or oil lamps for light. These recommendations apply only to on Visual stable lighting fixtures does not apply to flash.

1.2

Recommended standard photometric test method does not include for the purpose of signaling searchlight road lights, car headlights (some of which are made Other document processing), not including the "image" of the optical apparatus, although a similar approach has been applied to the photometric well to these devices.

1.3

This standard does not include the angle between the light intensity peak and semi-peak direction by less than 2° (ie, $2 \times 2^\circ$, or half-peak divergence angle of 4° symmetrical beam Beam) lamps, they require special methods photometric measurements. These measurements information can be found in literature, for example.

- a) J. M. Waldram, "searchlight photometry", Trans. Illuminating Engineering Society (London), 16,187,1951
- b) "searchlight on the seminar", the Illuminating Engineering Society (London) published in 1948
- c) "IES photometric testing on Searchlight Guide", lighting, 53,155,1958
- d) "National Bureau of Standards. Searchlight photometry", NBS Technical Note 198, published on 1963-12-17

1.4

This article describes the results of photometric light intensity value, light intensity distribution curve, and other light intensity graph or table suitable for computer calculations to express. The light intensity value is at a distance estimated by the inverse square law established illuminance measurements derived. See 4.4.2. In some cases, Other measurements photometric data may be more appropriate, such as flat lighting illuminance distribution from very close, like "wall washer" like lamps. This standard this measure does not involve, by a separate document to deal with.

2 Definitions

2.1,2.2,2.3 and 2.4 definitions for a single peak and the light intensity distribution angle increases continuously with decreasing case, more than one Special beam shape of the peak is still under consideration.

Contains all of the light intensity on the selected plane polar curves of the radius vector is greater than 50% of the peak beam angle range.

The maximum light intensity and the angle between the direction of the selected 50% of the maximum light intensity on the direction of the half-plane measured.

Note: When the light intensity distribution is only one plane of symmetry or asymmetry, half-peak corners is particularly important. In the Cartesian rectangular coordinates shown in FIG. 1, the ab plane in the half-plane light intensity distribution on a half-peak corner of β_1 , in the upper half plane half peak b corners of β_2 , then half-peak divergence angle ($\beta_1 + \beta_2$).

Test test distance and angle number 6.12 4.4.3 by smaller one half the peak corners β_1 decision.

Practical application, the spot lights half-peak corners can be expressed as follows.

"This plane ab lamps on the corners for the half-peak $+\beta_1$ and $-\beta_2$ ".

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