ICS 31.260
CCS L 50

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 43594-2023

General specification for uniform light source

均匀光源通用规范

Issued on: December 28, 2023 **Implemented on: July 1, 2024**

Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC

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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:

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This document was drafted by: Xi'an Institute of Optics and Precision Machinery, Chinese Academy of Sciences, China Institute of Metrology, Hangzhou Yuanfang Optoelectronics Information Co:, Ltd:, Changchun University of Science and Technology, China Jiliang University, Institute of Aerospace Information Innovation, Chinese Academy of Sciences, Shenzhen China Metrology Research Institute of Technology Innovation, Mulan Optical (Shanghai) Co:, Ltd:, and Guangdong Christi Optical Technology Co:, Ltd:

The main drafters of this document: Zhou Yan, Chang Ming, Zhao Jianke, Xu Yingying, Yang Xiong, Xu Xiping, Zhang Shuqin, Jiao Lulu, Wang Pu, Li Jing, Wang Pengfei, Qi Yulin, Fan Xiaolan, Wang Hua:

General specifications for uniform light sources

1 Scope

This document specifies the technical requirements for uniform light sources, packaging and transportation requirements, and describes test methods:

This document is applicable to structures with spherical, flat and collimated structures and optical radiation wavelengths or bands ranging from 220nm to 2500nm:

(Inclusive), Light sources with uniform radiation characteristics used for photoelectric measurement and calibration or illumination, for their classification, design and testing:

2 Normative reference documents

GB/T 19510

JJG963-2022

3 Terms and definitions

The following terms and definitions apply to this document: 3:1 It is composed of a light source, a power supply unit, a spherical uniform light device and a control unit: It has the characteristics of uniform radiance in a certain direction or angle: sexual device: 3:2 It is composed of a light source, a power supply unit, a flat-panel light uniformity device and a control unit: It has uniform radiance characteristics in a certain direction: device: 3:3 It is composed of light source, power supply unit, optical integrator, collimating mirror and control unit: It has high irradiation with collimation characteristics in a specific direction: degree device: 3:4 Spectral match spectrumspectralmatchfactor Matching of the emission spectrum of a uniform light source to the target spectrum:

Note: The target spectrum includes monochromatic spectrum, complex color spectrum, solar spectrum and specific spectrum, etc: 3:5 spatialnon-uniformity The relative deviation of the (spectral) radiance at different locations within the radiation surface of a uniform light source: 3:6 angular non-uniformityangularnon-uniformity The relative deviation of the radiant brightness at different angles (spectrum) in the normal direction of the center of the radiating surface of a uniform light source: