

ICS 91.140.70

CCS P 40



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

GB/T 44755-2024

Low pressure high output ultraviolet (UV) lamp

低压高强紫外线灯

Issued on: October 26, 2024

Implemented on: May 1, 2025

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

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Classification and labeling	3
5 Technical Requirements	3
6 Test methods	5
7 Inspection Rules	7
45 Reference	46

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed by the Ministry of Housing and Urban-Rural Development of the People's Republic of China. This document is under the jurisdiction of the National Technical Committee for Standardization of Urban Water Supply and Drainage (SAC/TC434). This document was drafted by: Foshan Kewei Optoelectronics Co., Ltd., Tsinghua University, Guangzhou Municipal Engineering Design and Research Institute Co., Ltd., Shanghai Municipal Engineering Design and Research Institute (Group) Co., Ltd., Jiangsu Juguang Optoelectronics Technology Co., Ltd., Signify (China) Investment Co., Ltd. Co., Ltd., Heraeus (Shenyang) Special Light Source Co., Ltd., Guangmingyuan Light Technology Co., Ltd., Shanghai Leso Special Light Source (Group) Co., Ltd. Hebei Guanyu Environmental Protection Equipment Co., Ltd., Fuzhou Xinchuangrong Economic and Trade Co., Ltd., Fudan University, Institute of Ecology and Environment, Chinese Academy of Sciences Center, Guangzhou Water Investment Group Co., Ltd., Tsinghua Suzhou Environmental Innovation Institute, Shandong Urban Water Supply and Drainage Water Quality Monitoring Center, Shenzhen Haichuan Industrial Co., Ltd. The main drafters of this document are. He Zhiming, Fu Zhimin, Sun Wenjun, Yin Wenxuan, Zhang Xin, Zhang Shanduan, Zhou Yaoqing, Ni Wei, Ye Hui, Hong Yannan, Li Mengkai, Li Ni, Wang Guoqiang, Zhou Jianhua, Kang Liping, Cui Lifeng, Jia Ruibao, He Weiping, and Ye Liying. Low-pressure high-intensity ultraviolet lamp

1 Scope

GB/T 44755-2024 is the Chinese standard for low pressure high output ultraviolet lamps, the amalgam lamps that do the germicidal work in municipal water treatment, wastewater disinfection, air disinfection and UV photochemistry. Its jurisdiction, the urban water supply and drainage committee rather than a lighting committee, tells you what the document is really for: a UV disinfection system is validated on a dose, and the dose depends entirely on the lamp's 254 nm output, on how that output holds up over thousands of hours and on how it varies with the temperature of the water around the sleeve. The standard sets the classification and designation, the technical requirements, the test methods, the inspection rules and the marking, packaging, transport and storage. Its annexes carry the substance: the lamp cap types and dimensions, the lamp dimensions and photoelectric characteristic parameters, the reference electronic driver used for testing, the test methods for the 254 nm parameters of single-wavelength lamps and for the 185 nm and 254 nm parameters of dual-wavelength lamps, the temperature characteristic curves for both, the method for measuring parameters in water, and the method for the ultraviolet radiant power maintenance and the average life. It applies to the design and manufacture of straight tube lamps of 75 W to 1000 W nominal power.

This document specifies the classification, requirements, test methods, inspection rules, marking, packaging, transportation and storage of low-pressure high-intensity ultraviolet lamps. This document is applicable to straight tube type with nominal power of 75W~1000W used in water disinfection, air disinfection, ultraviolet light chemistry and other occasions. Design and manufacture of low-pressure, high-intensity ultraviolet lamps (hereinafter referred to as lamps).

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 191 Pictorial markings for packaging, storage and transportation

GB/T 2828.1-2012 Sampling procedures for inspection by attributes Part

3 Terms and Definitions

For the purposes of this document, the terms and definitions defined in GB/T 19258.1-2022 and the following apply.

3.1 The input power per unit arc length is greater than 0.5W/cm, and the discharge

produces a main wavelength of 253.7nm, or produces 185nm and 253.7nm Low-pressure mercury vapor discharge lamps that radiate ultraviolet radiation at two wavelengths.

3.2 A low-pressure, high-intensity UV lamp that produces ultraviolet radiation with a main wavelength of 253.7nm. Note

chinastandards.org · PREVIEW