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

GB/T 46472-2025

**Discharge lamps (excluding fluorescent lamps) for horticulture
lighting - Performance specifications**

植物照明用放电灯（荧光灯除外）性能规范

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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. 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. This document is under the jurisdiction of the National Technical Committee on Standardization of Lighting Appliances (SAC/TC224). This document was drafted by: Hangzhou Hanguang Lighting Co., Ltd., Shenzhen Lighting and Display Engineering Industry Association, and ProSign Electric (China). Limited Company, Zhejiang Hanlan Optoelectronics Co., Ltd., National Electric Light Source Quality Supervision and Inspection Center (Beijing), Dongguan Lideda Optoelectronic Technology Co., Ltd. Company, Zhejiang Mengtai Lighting Co., Ltd., Nanjing Gaoxin Jingwei Electric Co., Ltd., Shenzhen Fulewo Optoelectronic Technology Co., Ltd., Jucan Optoelectronic Technology Co., Ltd. Technology Co., Ltd., Guangdong Lianyu Intelligent Technology Co., Ltd., Shenzhen Huahaode Electronics Co., Ltd., Zhejiang Xinguangyang Lighting Co., Ltd. The company, Beijing Electric Light Source Research Institute Co., Ltd., and the National Energy Conservation Center. The main drafters of this document are. Wang Qiang, Zhao Fei, Liu Kai, Wu Yongqiang, Yang Jianlin, Chen Xiaoyan, Ke Dong, Gu Rong, Liu Fangrong, Xu Zhijun, and Wang Shengquan. Huang Huiteng, Zhai Jianyue, Ran Ran, Zhang Yunpeng, Yang Biyu. Discharge lamps for plant lighting (excluding fluorescent lamps) Performance Specifications

1 Scope

GB/T 46472-2025 is the Chinese national standard covering the high pressure sodium and metal halide lamp for growing plants - the photosynthetic photon flux rather than the lumens, the spectral distribution over the wavelengths a plant actually uses, the lumen and PPF maintenance over life, and the burning position. Photometric units built for the human eye say nothing useful about plant growth. First edition, in force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026.

This document specifies the classification and models of discharge lamps (excluding fluorescent lamps) for plant lighting, and stipulates the requirements, inspection rules, marking, and packaging. Transportation and storage, with corresponding test methods described. This document applies to high-pressure sodium lamps, metal halide lamps, and ceramic metal halide lamps used for plant lighting.

Note. In this document, "lamp" refers to "discharge lamp (excluding fluorescent lamp)" unless otherwise specified.

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 191 Packaging and Storage Graphic Symbols

GB/T 1406.1 Types and dimensions of lamp holders - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 2900.65 and GB/T 44941, as well as the following terms and definitions, apply to this document.

3.1 The power rating of a given model of lamp as claimed by the manufacturer or distributor when operating under specified conditions.

Note. Rated power is measured in watts (W).