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

GB/T 29296-2012

Self-ballasted LED reflector lamps - Performance requirements

反射型自镇流LED灯 性能要求

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Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. Please note that some of the content of this document may involve patents. Distribution of this document Institutions do not assume the responsibility to identify these patents. 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 Electric Light Source Quality Supervision and Inspection Center (Beijing), Beijing Semiconductor Lighting Technology Promotion Center (National semiconductor Body Lighting Industry Alliance), Zhejiang Sunshine Lighting & Electrical Group Co., Ltd., Shanghai Semiconductor Lighting Engineering Research Center, Zhejiang brilliance Lighting Co., Ltd., Zhejiang glazing Lighting Co., Ltd., Foshan Electrical and Lighting Co., Ltd., Hengdian Group State Lighting Co., Ltd., Zhejiang Chen Hui Lighting Co., Ltd., Hangzhou Branch Photoelectric Co., Dongguan, Shangchong Guang Technology Co., Ltd. Changzhou City, product quality supervision, inspection, Shenzhen Bang Beier Electronics Co., Ltd., Dongguan Kingsun Optoelectronic Co., Ltd., Huizhou City Seaton Industrial Development Co., Ltd. Hangzhou Hongyan electrical Co., Ltd, Nanjing Henderson Technology Co., Ltd., Beijing Institute of electric light. Drafters of this standard. Hua Shuming, Zhang Wei, Ruan Jun, Gao Wei, Lu Jun, Yang Jiexiang, Shen Kam-cheung, Kejian Feng, Zhong Xincal, NL strong, Yang Jiabi, Yan Qian Jun, Ma Guoming, Zhang Hong, He Lin, Liangming Juan, Chen Shi, Wang meters into, Zhou Ming, Duan Yan Fang, Zhao Xiurong. Reflective self-ballasted LED lamp performance requirements

1 Scope

China's national performance requirements for self-ballasted LED reflector lamps. It specifies the performance requirements and the associated test methods for the LED lamps with an integrated control gear and a reflector form, intended to replace conventional reflector lamps in existing luminaires. A reflector lamp is a directional lamp: it produces a beam rather than a general glow, and it is used in spotlights, downlights and display lighting where the light has to go somewhere in particular. That makes its performance requirements different from those of a general service lamp, and the difference is the point of a separate standard. What a purchaser is buying is the beam - its intensity at the centre,

its angle, and the uniformity within it - and none of those follows from the lamp's total luminous flux. A lamp that produces more lumens and spreads them wider is worse at the job, not better. So the requirements cover the centre beam intensity and the beam angle alongside the flux and efficacy, and they cover them as declared values that the lamp must meet rather than as marketing figures. The rest of the performance set is what an LED lamp has to prove because the technology is new to the buyer and its failure modes are unfamiliar. Colour: the chromaticity, the correlated colour temperature and the colour rendering, since early LED lamps failed commercially on colour rather than on light output. Maintenance: how much flux is left after a stated number of hours, because an LED lamp usually dims rather than failing, and a lamp that reaches half its output in a year has failed while still lighting. And the electrical behaviour: the power factor and the switching endurance, since a directional lamp in a display fitting is switched several times a day for years. Issued on 31 December 2012 and in force since 1 September 2013.

This standard specifies the reflective self-ballasted LED lights terms and definitions, product classifications and nomenclature, technical requirements, test methods, inspection regulations Then, signs, packaging, transport and storage. This standard applies to similar shape reflective tungsten halogen lamps, in domestic, commercial and similar applications as general lighting, local lighting or positioning The lighting, the stable ignition components integrated as one of the LED lights. Scope is as follows:

- Rated voltage AC220V Frequency 50Hz;
- In line with GU10, B22, E14 or E27 lamp requirements;
- PAR16, PAR20, PAR30, PAR38 LED light.

Note 1. PARxx series lights corresponding to the diameter of xx/8in1).

Note 2. This standard appears in the "light" on behalf of "reflective self-ballasted LED lights," unless otherwise specifically stated by other types of lamps. 1) 1in = 25.4mm.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2828.1 Sampling procedures for inspection - Part 1. by acceptance quality limit (AQL) retrieval batch inspection sampling plan

GB/T 2829 periodic inspection Sampling procedures and tables (suitable for process stability test)

GB/T 7249 incandescent Maximum dimensions

GB 17625.1 Electromagnetic Compatibility Limits for harmonic current emissions

(equipment input current $\leq 16\text{A}$) Limits and methods of measurement of radio disturbance characteristics of

GB 17743 electrical lighting and similar equipment

GB/T 18595 Equipment for general lighting EMC immunity requirements Light biosafety

GB/T 20145 lamps and lamp systems

GB 24906 for general lighting 50V or more self-ballasted LED lamp safety requirements

GB/T 29295-2012 reflective self-ballasted LED lights performance test methods

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Reflective self-ballasted LED lamp self-balastedLEDreflectorlamps Cap in line with GU10, B22, E14 or E27 request, containing the LED light source and to maintain its stable ignition element necessary to make it As one of the functions similar to conventional reflector lamps for general lighting lamps, lamp pistr solid angle (corresponding to the cone angle of the cone of 120°) within a set In at least 80% of the luminous flux, the lamp without damaging its structure is not removable.

3.2 Rating ratedvalue Lights under the specified operating conditions its particular value, the value and conditions prescribed by the standard, or specified by the manufacturer or responsible vendor.