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

GB/T 18595-2014

Replacing GB/T 18595-2001

**Equipment for general lighting purposes -- EMC immunity
requirements**

一般照明用设备电磁兼容抗扰度要求

(English Translation)

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1 Port Legend

Test levels in Table 5 Fast Transient --- DC power input/output port

Fast transient test levels Table 6 --- AC power input/output port

Test levels Table 9 RF common mode --- AC power input/output port

Foreword

This standard was drafted in accordance with the rules of GB/T 1.1-2009 and GB/T 20000.2-2009 given.

This standard replaces GB/T 18595-2001 "general lighting equipment electromagnetic compatibility immunity requirements" and GB/T 18595-2001 Compared to the main

technical changes are as follows.

- Remove the IEC foreword (see Version 2001 IEC foreword);
- Range "This standard applies to" modify "the present standards on electromagnetic immunity requirements apply to", "aids" to "attached Member "(see Chapter 1, Chapter 1, 2001 edition);
- Range will be "video display devices" to "multimedia device" (see Chapter 1, Chapter 1, 2001 edition);
- The "shall comply with the requirements of this standard" to "shall comply with the standard requirements for electromagnetic immunity" (see Chapter 1, 2001 Edition Chapter 1);
- Deleted the "standards and the corresponding basic standards and (or product standards used together)" (see Chapter 1, 2001 edition);
- Normative references corresponding to IEC standards cited GB developing and updating the status (see Chapter 2, 2001 Edition chapter 2);
- Order and generic EMC standards consistent with the definition of chassis port removed in Figure 1 ground port; the GB/T 18595-2001 Figure 1 notes to text under 5.1 Overview (see Version 3.2,5.1,2001 3.2,5.1);
- Impact on the life of the light source, to test the impact on the life of the device (see 4.4,2001 Version 4.4);
- The equipment immunity 360 claims involved "RF and power-related interference" with "power-related harassment" (see 5.1, 2001 version 5.1);
- Electrostatic discharge test voltage by the "8kV, 4kV" becomes " $\pm 8\text{kV}$, $\pm 4\text{kV}$ " (see 5.2,2001 Version 5.2);
- Fast transient, positive and negative pulse into a group consisting of a minimum of 2min 2min; signal/control port, and DC power output/input Test voltage port by "0.5kV (peak)" to " $\pm 0.5\text{kV}$ (peak)"; AC output/input electrical test port Pressure by the "1kV (peak)" to " $\pm 1\text{kV}$ (peak)" (see 5.5,2001 Version 5.5);
- Injection current, updated CDN name; signal/control and test port AC power input/output port test, scope of application Surrounded by "only applies to the total length of the cable connected thereto (according to the manufacturer's instructions) over 1m interface" to "apply only to Cable length connected to it (according to the manufacturer's instructions) over 3m Interface "(see 5.6,2001 Version 5.6);
- Surge, provides a lower level does not need to test; only peak measurements, remove the zero crossing of the AC voltage measurement requirements; test Voltage from "" to " $\pm$ "; request for additional comment on the lower level (see 5.7,2001 Version 5.7);

--- 5.8 title was changed to "voltage dips and short interruptions," clarifies the zero crossing of the voltage level change (see 5.8,2001 Version 5.8);

Range --- test requirements apply increased half-lamps (see 6.1);

--- Freestanding annex, Table 14 is simplified because most independent type attachment has the same performance indicators (see 6.3.3, 2001 Version 6.3.2);

--- Lamps, Table 15 is simplified because most luminaires have identical performance; Fixed gas discharge lamp electronic town Lamp current injection current level of performance from B to A; In addition, to meet the requirements of GB 7000.2 and used for high-risk work Emergency lighting district levels of performance to be updated (see version 6.3.4,2001 6.3.3);

--- Test conditions, the provisions of the supply voltage and the frequency of testing; deleted actuating means working conditions "under consideration"; to shrink Short time immunity test for equipment with a dimmer, from respectively at three light output levels to test only $50\% \pm 10\%$ of the light output level of testing (see Chapter 7, Chapter 7 2001 version).

This standard uses the translation method identical with IEC 61547:2009 "general lighting equipment electromagnetic compatibility immunity requirements." Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 4365-2003 Electrotechnical terminology Electromagnetic compatibility [IEC 60050 (161).1990, IDT]

--- GB/T 2900.65-2004 Electrotechnical terminology lighting (IEC 60050-845. 1987, MOD)

--- GB 7000.1-2007 lamps - Part 1. General requirements and tests (IEC 60598-1:2003, IDT)

--- GB 7000.2-2008 Luminaires - Part 2-22. Particular requirements for emergency lighting (IEC 60598-2-22:2002, IDT)

--- GB/T 17626.2-2006 Electromagnetic compatibility - Testing and measurement techniques - Electrostatic discharge immunity test (IEC 61000-4-2.

2001, IDT)

--- GB/T 17626.3-2006 Electromagnetic compatibility - Testing and measurement techniques RFEMS test (IEC 61000-4-3:2002, IDT)

--- GB/T 17626.6-2008 Electromagnetic compatibility - Testing and measurement techniques Immunity to conducted disturbances induced field (IEC 61000-4-6:2006, IDT)

--- GB/T 17626.8-2006 Electromagnetic compatibility - Testing and measurement

techniques - Power frequency magnetic field immunity test (IEC 61000-4-8.

2001, IDT)

--- GB/T 17799.1-1999 Electromagnetic compatibility - Generic standards for residential, commercial and light industrial environment - Immunity (IEC 61000-6-1:1997, IDT) for ease of use, this standard made the following editorial changes.

- a) 'this International Standard' to replace the word 'this standard';
- b) Remove IEC 61547:2009 Foreword.

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. China Quality Certification Center, Zhejiang Institute of Metrology, Hangzhou distance Optoelectronic Information Co., Ltd., Hui State NVC Lighting Technology Co., Ltd., Taizhou billion Ka Electronic Technology Co., Ltd, Shanghai Yaming Lighting Co., Ltd., Hangzhou Andhra Electronics Co., the company, Deqing County Metro Lighting Equipment Co., Ltd., Hangzhou Branch Photoelectric Co., Op Lighting Co., Ltd., Ningbo University, Hangzhou Austrian Lighting Appliance Co., Ltd., Zhejiang depth Optoelectronics Technology Co., Beijing Lighting Research Institute.

1 Scope

The standards for electromagnetic immunity requirements apply to lamps and related equipment, such as a low voltage power supply or battery-powered lamps, accessories and Lamps.

This standard does not apply to other IEC or CISPR standards for immunity requirements already laid down the equipment, such as.

- Transport vehicle lighting equipment;
- Entertainment lighting control apparatus for professional use;
- Other devices built in a lighting fixture, such as.
 - measurement or indicator lighting equipment;
 - photocopier;
 - Slide and projectors;
 - multimedia devices.

For those multifunction devices can work independently of other equipment lighting section shall comply with this standard electromagnetic immunity requirements.