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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 22148-2008

Replacing GB/T 22148-2008

Test method on electromagnetic emissions -- Part 1: Electronic control gear for single-and double-capped fluorescent lamps

单端和双端荧光灯用电子镇流器的电磁发射试验方法

(English Translation)

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Foreword

GB/T 22148 "Standard Test Method for electromagnetic emissions" contains the following sections.

--- Part 1. single-ended and double-ended fluorescent lamps with electronic control unit;

--- Part 2. discharge lamps (excluding fluorescent lamps) electronic control unit.

This part of GB/T 22148 Part 1.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 22148-2008 "electromagnetic emission test methods for electronic ballasts for single-ended and double-ended fluorescent", and GB/T 22148-2008 compared to the main changes are as follows.

--- Standard name from "single-ended and double-ended fluorescent lamps with electronic ballasts electromagnetic emissions test methods" to "Test side electromagnetic emissions Method Part 1. single-ended and double-ended fluorescent lamps with electronic control device ";

--- Added "For EMC compliance, luminaire manufacturers should also consider Chapters 6 and 7 of this section, as well as light control System means the manufacturer's installation instructions. "(See Chapter 3);

--- "Reference fixture with a thickness of 1mm ± 0.1mm metal plate made" to "reference lamps with a thickness of 1mm ± 0.5mm metal plate made ";

--- Increase Figure A.7 ~ Figure A.10 installation and wiring layout;

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--- Revised description of the ground (see 5.3);

--- Increase marking requirements (see Chapter 6).

This section uses the translation method identical with CISPR/T R30-1.2012 (Version 1.0) "Test methods for electromagnetic emissions - Part 1. Single and double - capped fluorescent lamps with electronic control unit. " the editorial changes made the following section.

--- In Chapter 1 Scope, CISPR/T R30-1.2012 for 230V/50Hz, this section according to the actual situation of China's power grid, the election Optional 220V/50Hz.

--- No. of Appendix A in FIG reorder.

Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB 17743-2007 Limits and methods of measurement of electrical lighting and similar equipment - Radio disturbance characteristics (CISPR 15.2005, IDT).

This part of the National Standardization Technical Committee on Radio Interference (SAC/TC79) and focal points.

This section drafted by. China Electric Apparatus Research Institute Co., Ltd., Hefei Refrigerator Co., Ltd., Dongguan City, Guangdong Province, the quality of supervision Governor Testing Center, Wacker Detection Technology Co., Ltd. Zhejiang Sunshine Lighting & Electrical Group Co., Ltd., Beijing Terrett Testing Services Co., Ltd., Shanghai Light Detection era Lighting Appliance Co., China Household Electrical Appliances Research Institute, Foshan City Electric Co., lighting the whole the company, Shenzhen Inspection and Quarantine Science Research Institute.

Introduction

CISPR15.2005 clearly defines the radio frequency disturbance limits lighting requirements, but only regarded as finished and scheduled to run Lighting equipment end-user market and make provision, for example, lamps, self-ballasted fluorescent lamps and stand-alone electronic control device. Intend to install no part in the fixture emission requirements.

Most lamps (tubular fluorescent lamps, low-voltage halogen lamps or HID lamps) electronic control unit are installed in different types of lamps, not only it is installed in a different manufacturer's lamps, and is installed in the same manufacturer of different types of fixtures.

Although the data can predict some type of harassment in other lighting fixtures measured with the same electronic control unit and lamp, but the these lamps should still be tested.

This begs the question, we can design a test fixture for the worst-case installation test

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electronic control device, in this case Under conditions of the test lamps meet the requirements, then the contents of the electronic control unit for all lamps meet the requirements, you can avoid a lot of unnecessary Test. The idea seems to be correct, simple and fun, but it leads to two opinions.

Lamps --- worst case too strict. It found that the electronic control unit mounted in the worst lighting conditions can not pass from a Forecasting Through certain tests, but in actual lamps through.

--- Even if the electronic control unit mounted on the fixture in the worst case by the trial, there is still a problem, if the electronic control Means mounted within the actual lighting does not meet the requirements, who will be responsible.

It is not appropriate to change CISPR15.2005 Basic Principles on the built-in lighting means no emission requirements.

However, within the radio spectrum necessary for a separate test to detect electronic control device performance.

It is independent and describes the use of an electronic control device in special lights type of testing arrangement. This separation will be published in order format in future revisions and modifications. When Recognizing the need, it will increase the corresponding additional requirements.

GB /other gas discharge lamp electronic control unit of EMC testing methods except fluorescent described as T 22148.2-2014 the reference relates to lamps.

Electromagnetic emission test methods - Part 1.

Single-ended and double-ended fluorescent lamps with electronic control unit

1 Scope

GB/T his part of the CISPR15 T 22148.2005 requirements, corresponding to the reference on the basis of the use of the lamps, a detailed description Independent Test Method I class and/or class II radio disturbance characteristics of fluorescent lamps with an electronic control device.

This section covers the use G5 or G13 lamp double capped fluorescent lamps and 2GX7,2G8,2G10,2G11,2GX13, G23, GX23, Single-ended G24q, GX24q, GR8 and GR10q fluorescent lamp electronic control unit.

Note: The above list includes only some typical for the lamp, and the lamp are not all represented.

This section applies specifically to devices connected to the 220V/50Hz power supply network. For other power supply system should be necessary modify.

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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.

CISPR15.2005 A1.2006 A2.2008 Limits and side of radio disturbance characteristics of electrical lighting and similar equipment Method (Limitsandmethodsofmeasurementofradiodisturbancecharacteristicsofelectricallightingand similarequipment) 3 to determine compliance If the electronic control unit and the corresponding reference lamp connected in line with CISPR15.2005 Table 2a and the terminal voltage limits

Table 3a, Table 3b or Table B.1 radiation disturbance limits, then considered to comply with CISPR15.2005 Radio disturbance limits. When the electronic lamp

The control device by an external device control, terminal disturbance voltage shall comply with CISPR15.2005 in Table 2c limits. Load terminal Disturbance voltage limits do not apply.

However, it should be noted that the reference was not a lamp fixture reference lamps use the worst case does not accurately reflect the actual lighting Performance. Built-in test the electronic control unit of the actual lighting, not directly considered to meet the CISPR15.2005 requirements.

For EMC compliance, luminaire manufacturers should also consider Chapters 6 and 7 of this section, and a control device lamp manufacturer Installation instructions.

Test Method 4

Follow the instructions in Chapter 5, the electronic control device is mounted within the reference lamps.

When the electronic control unit is designed to drive more than one lamp, all lamps should work simultaneously.

Reference lamps should be in accordance with CISPR15.2005 test method for measuring the 8.1,9.1 and 9.2 (or Appendix B) described above.

The test shall use an electronic control device is designed to match the lamp.

Working conditions apply CISPR15.2005 Chapter 6.

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