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

GB/T 46186-2025

**Lighting control interface for dimming - Analogue voltage
dimming interface for electronic current sourcing controlgear**

调光照明控制接口 电子电流源控制装置用模拟电压调光接口

(English Translation)

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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.

This document is modified to adopt IEC 63128:2024 "Dimming lighting control interface electronic current source control device analog voltage dimming interface".

This document has the following structural adjustments compared to IEC 63128:2024.

--- Added Appendix A;

--- Appendix B corresponds to Appendix A of IEC 63128:2024.

The technical differences between this document and IEC 63128:2024 and their reasons are as follows.

--- The term "control unit of control device" (see Chapter 3 of IEC 63128:2024) has been deleted to conform to my country's national conditions.

The following editorial changes have been made to this document.

--- Replaced IEC 61347 (all parts) with the informative reference GB/T 19510 (all parts) (see Chapter 1);

--- Replaced IEC 61347-1:2015 with the informative reference GB/T 19510.1-2023 (see

Chapter 3);

--- Replaced IEC 60050-845 with the informative reference GB/T 2900.65-2023 (see Chapter 3);

--- Added Appendix A (informative) "Warm light dimming control with analog dimming with linear output power and control voltage response".

1 Scope

This document specifies the analog control interface for a control device with output regulation function. The output of the control device is controlled by a voltage the device regulates the current between a minimum/off value and a maximum value.

This document does not specify the safety requirements for analog interfaces of control devices. The safety requirements are given in GB/T 19510 (all parts).

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

The URLs for terminology databases used for standardization maintained by ISO and IEC are as follows.

controlgear

(for electric light sources) a unit inserted between a power source and at least one light source to provide the light sources with (their) rated voltage or rated Electric current, consisting of one or more individual components.

NOTE 1 Control gear includes devices for ignition, dimming, power factor correction and radio interference suppression, as well as further control functions.

Note 2: The control device consists of a power supply and a control unit.

NOTE 3 The terms "controller" and "control gear" are interchangeable. In IEC standards, the term "control gear" is generally used.

An electronic control device that varies the operating characteristics of a lamp by means of a separate control input signal.

[Source: GB/T 19510.1-2023, 3.2.3, modified] 3.3 control terminal Terminals used to connect the product to a circuit or device that can provide or receive electronic control signals to the product.

NOTE Control inputs for other control signals [e.g. IEC 62386 (all parts), IEC 62756-1] are not included.

[Source. GB/T 2900.65-2023, 845-28-062, modified] 3.4 control signal A DC voltage used to set the output power of lamp control gear.