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

GB/T 41423-2022

**LED packages - Long-term luminous and radiant flux
maintenance projection**

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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 of Standardization Documents" drafted.

This document is equivalent to IEC 63013.2017 "Calculation of Long-term Luminous Flux and Radiant Flux Maintenance Rate of LED Packages".

The following minimal editorial changes have been made to this document.

--- Incorporates the amendments to IEC 63013.2017/Amd1.2021, the clauses involved in these amendments have been adopted on the outside

The vertical double line (|) in the margin position is indicated.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the test procedures and conditions for the luminous flux maintenance of LED packages. This document also provides information based on the limited

The program and conditions (criteria) of the luminous flux maintenance rate test data to calculate the long-term maintenance rate of luminous flux. This document also applies to radiative fluxes

and calculation of the long-term maintenance rate of photon flux.

This document applies to LED packages for general lighting and plant lighting.

The test data used in the calculation methods in this document are collected in accordance with the methods of ANSI/IESLM-80-20 (LM-80).

The long-term maintenance rate estimation procedure is based on the exponential fit function in ANSI/IESTM-21-19 (TM-21), and is

When the exponential fitting function of TM-21-19 is not applicable, another boundary function procedure is given.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

IEC 62504 General lighting LED products and related equipment terms and definitions (General lighting-Light emitting

Note. GB/T 24826-2016 Terms and Definitions of LED Products and Related Equipment for General Lighting (IEC 62504.2014, IDT)

ANSI/IESLM-80-20 IES Approved Method. Test Method for Luminous Flux and Color Retention of LED Packages, Arrays and Modules

Arrays and Modules)

3 Terms and Definitions

The terms and definitions defined in IEC 62504 and the following apply to this document.

Standardized terminology databases for ISO and IEC at.

3.1

case temperature

The temperature value of the contact point of the thermocouple as specified by the manufacturer.

4 Test method, data collection and sample size

Luminous flux maintenance test data shall be collected in accordance with the methods specified in ANSI/IESLM-80-20.