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

GB/T 24823-2024

Replacing GB/T 24823-2017

**LED modules for general lighting - Performance specification
(English Translation)**

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Table of Contents

Preface	
1 Scope	
2 Normative references	
3 Terms and Definitions	
4 General requirements	
5 Logo	
6 Size	
7 Test conditions	
8 Electrical parameters of LED modules	
9 Light output	
10 Color coordinates, correlated color temperature (CCT) and color rendering	10
11 LED module lifespan	
12 Inspection Rules	
13 Lighting design information	
Appendix A (Informative) Explanation of the recommended LED product life measurement method	
Appendix B (Normative) Explanation of optical parameter codes	
Appendix C (Normative) Use of ANSI/IESLM-80-15 Luminous flux maintenance and color coordinate maintenance data	
Appendix D (Normative) Test methods for LED module characteristics	
Appendix E (Normative) Measurement of displacement coefficient	
Appendix F (Informative) Explanation of the coefficient of variation	
Appendix G (Informative) Luminaire Design Information	
Appendix H (Informative) Test equipment for temperature measurement	
Reference	

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 replaces GB/T 24823-2017 "Performance requirements for LED modules for general lighting" and is consistent with GB/T 24823-2017.

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

- Changed the voltage range of LED module type 1 (see Chapter 1, Chapter 1 of the 2017 edition);
- Deleted the description of individual percentages in the scope (see Chapter 1, Chapter 1 of the 2017 edition);
- Modified and added some terms and definitions (see Chapter 3, Chapter 3 of the 2017 edition);
- Added general requirements, and moved the description of protection and normal module startup and operation in Chapter 1 of the 2017 edition to the general requirements Find the middle (see Chapter 4, Chapter 1 of the 2017 edition);
- Changed the marking requirements (see Chapter 5, Chapter 4 of the 2017 edition);
- Changed the requirements for light efficiency (see 9.3, 8.3 of the 2017 edition);
- Changed the requirements for color rendering index (see 10.3, 9.3 of the 2017 edition);
- Changed the general requirements for the LED module characteristics test method (see D.1, A.1 of the 2017 edition);
- Changed the test method for electrical characteristics (see D.2, A.2 of the 2017 edition);
- The test method for photometric characteristics has been changed (see D.3, A.3 of the 2017 edition).

This document is modified to adopt IEC 62717:2019 "Performance requirements for LED modules for general lighting purposes".

This document has made the following structural adjustments compared to IEC 62717:2019.

- Added Chapter 4 "General requirements" to include the protection and normal startup and operation of modules in the scope of Chapter 1 of IEC 62717:2019 the description is moved to Chapter 4;
- Appendix A corresponds to Appendix C in IEC 62717:2019;
- Appendix B corresponds to Appendix D in IEC 62717:2019;
- Appendix C corresponds to Appendix I in IEC 62717:2019;
- Appendix D corresponds to Appendix A in IEC 62717:2019;
- Appendix G corresponds to Appendix B in IEC 62717:2019;
- Deleted Appendix G in IEC 62717:2019.

The technical differences between this document and IEC 62717:2019 and their reasons are as follows.

--- The description of type test and the description of individual percentages have been deleted from the scope (see IEC 62717:2019

1) to adapt to the specific conditions of our country;

--- Replaced IEC 60050-845 with the normative reference GB/T 2900.65 to facilitate the coordinated use of standards (see Chapter 3, Chapter 3 of IEC 62717:2019);

--- Replaced IEC 62504 with the normative reference GB/T 24826 to facilitate the coordinated use of standards (see Chapter 3, Chapter 3 of IEC 62717:2019);

--- Deleted the definition of test voltage, current or power (see Chapter 3 of IEC 62717:2019);

--- Deleted the definition of luminous flux attenuation of LED products (see Chapter 3 of IEC 62717:2019);

--- Replaced IEC 61347-2-13 with the normative reference GB/T 19510.213 to facilitate the coordinated use of standards (see Chapter 4, Chapter 1 of IEC 62717:2019);

--- Replaced IEC 62384 with the normative reference GB/T 24825 to facilitate the coordinated use of standards (see Chapter 4, Chapter 1 of IEC 62717:2019);

--- Replaced IEC 60598-1 with the normative reference GB/T 7000.1 to facilitate the coordinated use of standards (see Chapter 4, Chapter 1 of IEC 62717:2019);

--- Replaced IEC 62031 with the normative reference GB/T 24819 to facilitate the coordinated use of standards (see 5.1 and 7.1, 4.1 and 6.1 of IEC 62717:2019);

--- Replaced IEC 60068-2-14 with the normative reference GB/T 2423.22 to facilitate the coordinated use of standards (see 11.3, 10.3 of IEC 62717:2019);

--- Replaced IEC 60068-3-5:2001 with the normative reference GB/T 2424.5 to facilitate the coordinated use of standards (see 11.3, 10.3 of IEC 62717:2019);

--- Replaced IEC TR61341 with the normative reference GB/T 19658 to facilitate the coordinated use of standards (see D.3, A.3 of IEC 62717:2019);

--- Added requirements for light efficiency (see 9.3) to adapt to the specific technical conditions of my country;

--- Change the informative Appendix I to normative Appendix C (see Appendix C, Appendix I of IEC 62717:2019) to adapt to the specific requirements of my country Technical conditions.

The following editorial changes were made to this document.

- The name was changed to "Performance Specification for LED Modules for General Lighting";
- Added the source of terms and definitions (see 3.1);
- Changed the term and definition "Note" of "composite failure rate" (see 3.9, 3.11 of IEC 62717:2019);
- Explanation of tc, replace 3.10 of IEC 62031:2009 with 3.38.9 of GB/T 24826-2016 (see 3.14 and 3.15);
- Deleted the "Note" of the term and definition "LED chip" (see 3.16, 3.18 of IEC 62717:2019);
- Deleted the "Note" for regional requirements in Table 1 (see 5.1, 4.1 of IEC 62717:2019);
- Replaced IEC 61000-3-2:2005 and IEC 61000-3-2 with the informative reference GB/T 17625.1-2022.
- 2005/AMD2:2009 (see 8.2 and E.3);
- Deleted the "Note" used for explanation in Figure 2 (see 11.2, 10.2 of IEC 62717:2019);
- Deleted the "Note" about constant luminous flux LED modules in A.6 (see A.6, C.6 of IEC 62717:2019);
- Replaced IEC 61000-4-7 with the informative reference GB/T 17626.7 to facilitate the coordinated use of standards (see E.3).

1 Scope

This document specifies the performance requirements for LED modules, as well as the test methods and test conditions for verifying their compliance.

This document applies to the following types of LED modules (see Figure 1).

- Type 1.Integrated type powered by 250V or less DC or 1000V or less 50Hz or 60Hz AC power supply LED modules;
- Type 2.It is driven by a control device connected to the mains voltage and contains internal components that enable it to operate at a constant voltage and constant (Semi-integrated) LED modules with control gear for current or constant power;
- Type 3.All control devices used to control the module to operate in a constant voltage, constant current or constant power state are independent of Module (non-integrated) LED module.

The power supply of the semi-integrated LED module (Type 2) control device is an electronic device that can control the current, voltage or power within the designed range.