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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ZHAGA INTERFACE SPECIFICATION BOOK 1 AND BOOK 12

FOREWORD

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IEC PAS 63328 has been processed by subcommittee 34A: Electric light sources, of IEC technical committee 34: Lighting.

The text of this PAS is based on the following document:	This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document
Draft PAS	**Report on voting**
34A/2195/DPAS	34A/2205/RVDPAS

Following publication of this PAS, which is a pre-standard publication, the technical committee or subcommittee concerned may transform it into an International Standard.

This PAS shall remain valid for an initial maximum period of 2 years starting from the publication date. The validity may be extended for a single period up to a maximum of 2 years, at the end of which it shall be published as another type of normative document, or shall be withdrawn.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This PAS is a reproduction of Zhaga Book 1 Edition 1.8 and Book 12 Edition 1.2 with no changes introduced.

The document layout, terms and definitions, etc within this PAS therefore do not follow the normal IEC drafting rules that would be applied for an International Standard.

Subdivision 1 comprises Zhaga Book 12 Edition 1.2 – Rectangular LED arrays with circular LES and corresponding holders.

Subdivision 2 comprises Zhaga Book 1 Edition 1.8 – Overview and common information, which is essential to the interpretation of Zhaga Book 12 (and future Zhaga books).

The future intention is for the content of this PAS to be incorporated within one or more International Standards and at this time any conflict with IEC Directives and drafting rules will be addressed.

Subdivision 1

Zhaga Interface Specification Book 12

Summary (informative)

Background

The Zhaga Consortium is a global lighting-industry organization that aims to standardize components of LED luminaires, including LED light engines, LED modules, LED arrays, holders, electronic control gear (LED drivers) and connectivity fit systems.

Zhaga has created a set of interface specifications, known as Books. Each Book defines one or more components of an LED luminaire by means of the mechanical, photometric, electrical, thermal, and control interfaces of the component to its environment. This makes such products interchangeable in the sense that it is easy to replace one product with another, even if they have been made by different manufacturers.

Contents

This Book 12 defines LED arrays with a rectangular shape and a circular light emitting surface. For each LED array, this Book 12 also defines the mechanical interface between the LED array and the corresponding holder. The mechanical interface between the holder and the luminaire is defined in another Zhaga book.

This book should be read together with Zhaga Book 1.

Intended Use

The LED arrays defined in this specification are intended to be mounted on a heat sink by means of a holder and to be connected to a separate electronic control gear. The light output is essentially Lambertian to enable the luminaire optics to shape the application’s desired light distribution from a defined input.

The LED arrays and holders defined in this Book 12 are intended to be installed and replaced by luminaire manufacturers only.

1 General

1.1 Introduction

The Zhaga Consortium is a global organization that aims to standardize components of LED Luminaires. A LED Luminaire is a lighting fixture for general lighting that contains a light source based on solid-state technology. Such light sources, including LED Modules and LED Light Engines, typically consist of one or more LEDs combined with an Electronic Control Gear (LED driver). Other components of LED Luminaires include LED Arrays, Holders, and connectivity fit systems.

Zhaga has created a set of interface specifications, known as Books, which define the interfaces between a component and its environment. Book 1 is a special Book in the sense that it provides common information, which is relevant to all other Books in the series. In addition, Book 1 defines requirements and compliance tests, which are applicable across multiple Zhaga books. Such Books refer to those requirements and compliance tests as applicable.

1.2 Scope

This Book 12 defines LED Arrays with a rectangular shape and a circular light emitting surface. For each LED Array, this Book 12 also defines the mechanical interface between the LED Array and the corresponding Holder. The mechanical interface between the Holder and the Luminaire (e.g. outline, OCA and mounting holes) is defined in [Book-10].

The LED Arrays defined in this specification are intended to be mounted on a heat sink by means of a Holder and to be connected to a separate Electronic Control Gear. The light output is essentially Lambertian to enable the Luminaire Optics to shape the application's desired light distribution from a defined input. The LED Arrays and Holders defined in this Book 12 are intended to be installed and replaced by Luminaire manufacturers only.

Although this Book 12 has been developed with "Chip-on-board" in mind, the specification is in no way limited to this technology.

1.3 Conformance and references

1.3.1 Conformance

All provisions in the Zhaga interface Specifications are mandatory, unless specifically indicated as recommended, optional or informative. Verbal expressions of provisions in the Zhaga interface specifications follow the rules provided in Clause 7 of ISO/IEC Directives, Part 2:2018. For clarity, the word "shall" indicates a requirement that is to be followed strictly in order to conform to the Zhaga interface specifications, and from which no deviation is permitted. The word "should" indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required, or that (in the negative form) a certain possibility or course of action is deprecated but not prohibited.

1.3.2 References

For references which are not listed in this section, see [Book 1]. For undated references, the most recently published edition applies.

[Book 1] Zhaga Interface Specification, Book 1: Overview and Common Information.

[Book 10] Zhaga Interface Specification, Book 10: Circular LED modules for spot lighting.