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Title: Draft BS EN 62595-2-1 Display lighting unit

Part 2-1: Electro-optical measuring methods of LED backlight unit

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

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IEC TC 110 : ELECTRONIC DISPLAYS		
SECRETARIAT: Japan		SECRETARY: Mr Yoshi SHIBAHARA
OF INTEREST TO THE FOLLOWING COMMITTEES:		HORIZONTAL FUNCTION(S):
ASPECTS CONCERNED:		

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TITLE:**Display lighting unit – Part 2-1: Electro-optical measuring methods of LED backlight unit****NOTE FROM TC/SC OFFICERS:**

Currently, the figure numbering in Annex starts from A.16, not from A.1, which will be fixed in future.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Display lighting unit –
Part 2-1: Electro-optical measuring methods of LED backlight unit****FOREWORD**

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International Standard IEC 62595–2–1 has been prepared by IEC technical committee 110: Electronic displays. It is an International Standard.

This second edition cancels and replaces the first edition published in 2016. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) updated the number of measurement locations from 25 to 9 in the optical measurement methods to harmonize with IEC 62977-2-1;
- b) added new measuring methods using multi block patterns for block-wise BLUs;
- c) added Annex A as informative examples of the new measuring methods for block-wise BLUs;
- d) revised some editorial errors.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
110/XX/FDIS	110/XX/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at http://www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at <http://www.iec.ch/publications>.

A list of all parts in the IEC 62595 series, published under the general title *Display lighting unit*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

Display lighting unit - Part 2-1: Electro-optical measuring methods of LED backlight unit –

1 Scope

This part of IEC 62595 specifies the standard measurement conditions and measuring methods for determining the electrical and optical parameters of LED backlight units for liquid crystal displays.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61747–30–1, *Liquid crystal display devices – Part 30-1: Measuring methods for liquid crystal display modules – Transmissive type*

IEC 62595–1–2, *Display lighting unit – Part 1-2: Terminology and letter symbols*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62595–1–2 apply.

3.2 Abbreviations

BLU backlight unit

FOV field of view

LMD light measuring device

LSF light spread function

4 General measurement conditions

4.1 Standard atmospheric conditions for LED BLU

Unless otherwise specified, all tests and measurements for LED BLU shall be carried out after sufficient warm-up time (see 4.3), under the standard environmental conditions, at a temperature of $25\text{ °C} \pm 3\text{ °C}$, a relative humidity of 25 % to 85 %, and an atmospheric pressure of 86 kPa to 106 kPa. When different environmental conditions are used, they shall be noted in the detail specification (see IEC 61747–30–1).

4.2 Measuring setup

Figure 1 shows a typical setup of a BLU, luminance meter, power source, block controller, voltmeters and current meters for electro-optical measurements for LED BLU.