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# Display lighting unit

Part 1-5: Electrical signal interface of LED BLU

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# TECHNICAL REPORT

colour inside

## Display lighting unit –
## Part 1-5: Electrical signal interface of LED BLU

INTERNATIONAL
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# DISPLAY LIGHTING UNIT –

# Part 1-5: Electrical signal interface of LED BLU

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IEC TR 62595-1-5 has been prepared by IEC technical committee 110: Electronic displays. It is a Technical Report.

The text of this Technical Report is based on the following documents:

| Draft | Report on voting |
|---|---|
| 110/1445/DTR | 110/1465A/RVDTR |

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 Technical Report 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 www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/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 "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
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# DISPLAY LIGHTING UNIT –

# Part 1-5: Electrical signal interface of LED BLU

## 1 Scope

This part of IEC 62595, which is a Technical Report, provides information for the future standardization of the electrical signal interface of LED backlight units for liquid crystal display television sets, which include control signals, control data and LED driver interface. This document only provides information about 2-D local dimming LED backlight units, with or without local boosting.

NOTE All values and parameters of this document are examples.

## 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 62595-1-2:2016, *Display lighting unit – Part 1-2: Terminology and letter symbols*

## 3 Terms, definitions, and abbreviated terms

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

### 3.1 Terms and definitions

**3.1.1**
**local dimming**
manipulation of luminance over an area of a two-dimensionally divided backlight unit in response to the image that is going to be displayed on the LC device at the same area

Note 1 to entry: In this document, "local dimming" refers to 2-D dimming.

[SOURCE: IEC 62595-1-2:2016,3.7.4, modified – in the terms “block dimming, two-dimensional dimming and 2-D dimming” have been removed, the term “(spatially)” has been deleted in the definition and Note 1 to entry has been added.]

**3.1.2**
**local boosting**
<LED backlight unit> dynamic and location-specific increase to peak luminance across the backlight unit in response to image content