



Edition 4.0 2025-05 COMMENTED VERSION

# INTERNATIONAL STANDARD

Organic light emitting diode (OLED) displays – Part 6-1: Measuring methods of optical and electro-optical parameters

IEC 62341-6-1:2025-05 CMV(en)

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### INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### ORGANIC LIGHT EMITTING DIODE (OLED) DISPLAYS -

### Part 6-1: Measuring methods of optical and electro-optical parameters

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This commented version (CMV) of the official standard IEC 62341-6-1:2025 edition 4.0 allows the user to identify the changes made to the previous IEC 62341-6-1:2022 edition 3.0. Furthermore, comments from IEC TC 110 experts are provided to explain the reasons of the most relevant changes, or to clarify any part of the content.

A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text. Experts' comments are identified by a blue-background number. Mouse over a number to display a pop-up note with the comment.

This publication contains the CMV and the official standard. The full list of comments is available at the end of the CMV.

IEC 62341-6-1 has been prepared by IEC technical committee 110: Electronic displays. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2022. This edition constitutes a technical revision.

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

- a) The standard average picture level (APL) RGBCMY test pattern is modified, and the variable signal loading RGBCMY test pattern is added.
- b) Chromaticity gamut area and colour gamut volume are modified.

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

Draft	Report on voting
110/1690/CDV	110/1735/RVC

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 <a href="https://www.iec.ch/members\_experts/refdocs">www.iec.ch/members\_experts/refdocs</a>. The main document types developed by IEC are described in greater detail at <a href="https://www.iec.ch/publications">www.iec.ch/publications</a>.

A list of all the parts in the IEC 62341 series, under the general title *Organic light emitting diode* (OLED) displays, 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.

## ORGANIC LIGHT EMITTING DIODE (OLED) DISPLAYS -

### Part 6-1: Measuring methods of optical and electro-optical parameters

### 1 Scope

This part of IEC 62341 specifies the standard—measuring measurement conditions and measuring methods for determining the optical and electro-optical parameters of organic light emitting diode (OLED) display modules, and where specified, OLED display panels displays 1. These methods are limited to flat displays measured in a dark room. Except for the power consumption method, all methods are intended for unbounded input signals measured in the flat regions of the display in a dark room. 2

#### 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 60050-845, International Electrotechnical Vocabulary – Part 845: Lighting

IEC 61966-2-1, Multimedia systems and equipment – Colour measurement and management – Part 2-1: Colour management – Default RGB colour space – sRGB

IEC 62341-1-2, Organic light emitting diode (OLED) displays – Part 1-2: Terminology and letter symbols

IEC 62341-6-2:2015, Organic light emitting diode (OLED) displays — Part 6-2: Measuring methods of visual quality and ambient performance

IEC 62087-3, Audio, video, and related equipment – Determination of power consumption – Part 3: Television sets

CIE 15:2004, Colorimetry, 3<sup>rd</sup> edition

CIE S 014-1, Colorimetry - Part 1: CIE Standard Colorimetric Observers



Edition 4.0 2025-05

# INTERNATIONAL STANDARD

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ICS 31.260

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## Part 6-1: Measuring methods of optical and electro-optical parameters

### 1 Scope

This part of IEC 62341 specifies the standard measurement conditions and measuring methods for determining the optical and electro-optical parameters of organic light emitting diode (OLED) displays. Except for the power consumption method, all methods are intended for unbounded input signals measured in the flat regions of the display in a dark room.

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