

INTERNATIONAL STANDARD

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

**Afficheurs à diodes électroluminescentes organiques (OLED) –
Partie 6-1: Méthodes de mesure des paramètres optiques et électro-optiques**



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CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references	6
3 Terms, definitions and units	6
4 Structure of measuring equipment	6
5 Standard measuring conditions.....	6
5.1 Standard measuring environmental conditions.....	6
5.2 Standard measuring dark-room conditions.....	6
5.3 Standard setup conditions	7
5.3.1 Adjustment of OLED display modules	7
5.3.2 Starting conditions of measurements	7
5.3.3 Conditions of measuring equipment.....	7
6 Measuring methods for optical parameters	8
6.1 Luminance and its uniformity	8
6.1.1 Purpose.....	8
6.1.2 Measuring conditions.....	9
6.1.3 Measuring methods.....	9
6.2 Dark room contrast ratio	12
6.2.1 Purpose.....	12
6.2.2 Measuring conditions.....	12
6.2.3 Measuring method	12
6.3 Chromaticity, colour uniformity, colour gamut and white field correlated colour temperature	13
6.3.1 Purpose.....	13
6.3.2 Measuring conditions.....	13
6.3.3 Measuring method	13
7 Measuring methods for power consumption	16
7.1 Purpose	16
7.2 Measuring conditions	16
7.3 Measuring method.....	17
7.3.1 Measuring the power consumption of the OLED display module	17
Annex A (normative) Response time of passive matrix display panels.....	19
Annex B (normative) Luminance current efficiency.....	21
Annex C (informative) Veiling glare frustum	23
Annex D (informative) Methods to obtain the correlated colour temperature (CCT) from chromaticity coordinates	24
Bibliography.....	27
Figure 1 – Layout diagram of measurement setup.....	8
Figure 2 – Luminance measuring pattern	10
Figure 3 – Measurement points.....	11
Figure 4 – Example of the colour gamut.....	14
Figure 5 – Colour of blackbody source at various temperatures	16
Figure 6 – Example of measurement setup of power consumption	17
Figure A.1 – Relationship between driving signal and optical response times.....	20

Figure B.1 – Example of a measurement configuration for measuring luminance current efficiency	22
Figure C.1 – Pattern for veiling glare frustum	23
Figure D.1 – CIE 1931 XYZ chromaticity diagram	25
Figure D.2 – Blackbody locus (Planckian locus) and isothermperature lines in CIE 1931 XYZ	26
Table 1 – Example of luminance non-uniformity	12
Table 2 – Example of chromaticity non-uniformity	15
Table 3 – Example of a module power consumption measurements summary sheet	18
Table D.1 – x_e , y_e , A_j and t_j for equation (D.3) and equation (D.4)	24

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ORGANIC LIGHT EMITTING DIODE (OLED) DISPLAYS –**Part 6-1: Measuring methods of optical and electro-optical parameters**

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International Standard IEC 62341-6-1 has been prepared by IEC technical committee 110: Flat panel display devices.

The text of this standard is based on the following documents:

FDIS	Report on voting
110/170/FDIS	110/179/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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 publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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 measurement conditions and measuring methods for determining optical and electro-optical parameters of organic light emitting diode (OLED) display modules, and where specified, OLED display panels, in the following areas:

- a) luminance and uniformity;
- b) dark room contrast ratio;
- c) chromaticity, colour uniformity, colour gamut and white field correlated colour temperature;
- d) power consumption.

2 Normative references

The following referenced documents are indispensable for the application of this document. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

CIE 15.2:1986, *Colorimetry (second edition)*

CIE S 014-1/E:2006, *Colorimetry – Part 1: CIE Standard Colorimetric Observers*

3 Terms, definitions and units

For the purposes of this part of IEC 62341, most of the definitions and units used comply with IEC 62341-1-2.

4 Structure of measuring equipment

The system diagrams and/or operating conditions of the measuring equipment shall comply with the structure specified in each item.

5 Standard measuring conditions

5.1 Standard measuring environmental conditions

Measurements shall be carried out under the standard environmental conditions at a temperature of $25\text{ °C} \pm 3\text{ °C}$, at a relative humidity of 25 % to 85 %, and pressure of 86 kPa to 106 kPa. When different environmental conditions are used, they shall be noted in the report.

5.2 Standard measuring dark-room conditions

With the OLED display turned off, the ambient illuminance at all points on the screen shall be less than 0,3 lx. When a higher ambient illuminance on the display is present, the background