Irish Standard
I.S. EN 61747-30-1:2012

Liquid crystal display devices -- Part 30 -1: Measuring methods for liquid crystal display modules - Transmissive type (IEC 61747-30-1:2012 (EQV))

I.S. EN 61747-30-1:2012

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S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

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Liquid crystal display devices - Part 30-1: Measuring methods for liquid crystal display modules - Transmissive type

(IEC 61747-30-1:2012)

Dispositifs d'affichage a cristaux liquides - Partie 30-1: Méthodes de mesure pour les modules d'affichage à cristaux liquides - Type transmissif
(CEI 61747-30-1:2012)

Flüssigkristall-Anzeige-Bauelemente - Teil 30-1 Messverfahren für Flüssigkristall-Anzeigemodule - Transmissive Ausführung
(IEC 61747-30-1:2012)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 110/364/FDIS, future edition 1 of IEC 61747-30-1, prepared by IEC/TC 110 "Electronic display devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61747-30-1:2012.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2013-04-30
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2015-07-30

This document supersedes EN 61747-6:2004.

EN 61747-30-1:2012 includes the following significant technical changes with respect to EN 61747-6:2004:

a) the document structure was brought in line with EN 61747-6-2; and

b) various technical and editorial changes were made.

This standard is to be read in conjunction with EN 61747-1:1999, to which it refers, which gives details of the quality assessment procedures, the inspection requirements, screening sequences, sampling requirements, and the test and measurement procedures required for the assessment of liquid crystal display modules.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61747-30-1:2012 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60050	Series	International electrotechnical vocabulary	-	-
IEC 61747-1	-	Liquid crystal and solid-state display devices - Part 1: Generic specification	EN 61747-1	-
IEC 61747-6-2	-	Liquid crystal display devices - Part 6-2: Measuring methods for liquid crystal display modules - Reflective type	EN 61747-6-2	-
ISO 9241-307	-	Ergonomics of human-system interaction - Part 307: Analysis and compliance test methods for electronic visual displays	EN ISO 9241-307	-
ISO 11664-2	-	Colorimetry - Part 2: CIE standard illuminants	EN ISO 11664-2	-
CIE 15	2004	Colorimetry	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIQUID CRYSTAL DISPLAY DEVICES –

Part 30-1: Measuring methods for liquid crystal display modules – Transmissive type

FOREWORD

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International Standard IEC 61747-30-1 has been prepared by IEC technical committee 110: Electronic display devices.

This first edition cancels and replaces IEC 61747-6 published in 2004. This edition constitutes a technical revision.

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

a) the document structure was brought in line with 61747-6-2; and

b) various technical and editorial changes were made.

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

FDIS	Rapport de vote
110/364/FDIS	110/380/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 61747 series, under the general title *Liquid crystal display devices*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

This standard is to be read in conjunction with IEC 61747-1 (1998), to which it refers, which gives details of the quality assessment procedures, the inspection requirements, screening sequences, sampling requirements, and the test and measurement procedures required for the assessment of liquid crystal display modules.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication 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

In order to achieve a useful and uniform description of the performance of liquid crystal display (LCD) devices, specifications for commonly accepted relevant parameters are put forward. These fall into the following categories:

a) general type specification (e.g. pixel resolution, diagonal, pixel layout);

b) optical specification (e.g. contrast ratio, response time, viewing-direction, crosstalk, etc.);

c) electrical specification (e.g. power consumption, electromagnetic compatibility);

d) mechanical specification (e.g. module geometry, weight);

e) specification of passed environmental endurance test;

f) specification of reliability and hazard / safety.

In most of the cases a) to f), the specification is self-explanatory. For some specification points however, notably in the area of optical and electrical performance, the specified value may depend on the measuring method.

The purpose of this standard is to indicate and list the procedure-dependent parameters and to prescribe the specific methods and conditions that are to be used for their uniform numerical determination. It is assumed that all measurements are performed by personnel skilled in the general art of radiometric and electrical measurements as the purpose of this standard is not to give a detailed account of good practice in electrical and optical experimental physics. Furthermore, it shall be assured that all equipment is suitably calibrated as is known to people skilled in the art and records of the calibration data and traceability are kept.