

This document is a review generated by EVS

Organic light emitting diode (OLED) panels for general lighting - Performance requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 62922:2017 sisaldab Euroopa standardi EN 62922:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 62922:2017 consists of the English text of the European standard EN 62922:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 17.02.2017.	Date of Availability of the European standard is 17.02.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 29.140.99

Standardite reproduutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

February 2017

ICS 29.140.99

English Version

Organic light emitting diode (OLED) panels for general lighting -
Performance Requirements
(IEC 62922:2016)

Panneaux à diodes électroluminescentes organiques
(OLED) destinés à l'éclairage général - Exigences de
performance
(IEC 62922:2016)

Organische-Licht-emittierende-Dioden- (OLED-) Panels -
Anforderungen an die Arbeitsweise
(IEC 62922:2016)

This European Standard was approved by CENELEC on 2016-12-23. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 34A/1942/FDIS, future edition 1 of IEC 62922, prepared by SC 34A "Lamps" of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62922:2017.

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) 2017-09-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-12-23

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 62922:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-20:2008	NOTE	Harmonized as EN 60068-2-20:2008 (not modified).
IEC 60068-2-21:2006	NOTE	Harmonized as EN 60068-2-21:2006 (not modified).
IEC 60749-14:2003	NOTE	Harmonized as EN 60749-14:2003 (not modified).
IEC 61747-10-1:2013	NOTE	Harmonized as EN 61747-10-1:2013 (not modified).

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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-845	-	International Electrotechnical Vocabulary (IEV) - Chapter 845: Lighting	-	-
IEC 62868	-	Organic light emitting diode (OLED) panels for general lighting - Safety requirements	EN 62868	-
IEC/TR 62732	-	Three-digit code for designation of colour rendering and correlated colour temperature	-	-
IEC/TS 62972	-	General lighting - Organic light emitting diode (OLED) products and related equipment - Terms and definitions	-	-
ISO 11664-5/ CIE S 014-5/E	2009	Colorimetry - Part 5: CIE 1976 L*u*v* Colour space and u', v' uniform chromaticity scale diagram	EN ISO 11664-5	2011 ¹
CIE 013.3	1995	Method of measuring and specifying colour-rendering properties of light source	-	-
CIE TN 001	2014	Chromaticity difference specification for light source	-	-

¹ Superseded by EN ISO 11664-5:2016 (SO/CIE 11664-5:2016).

CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 General statement and test conditions	7
4.1 General statement	7
4.2 General test conditions	7
4.3 Stabilization	8
4.3.1 General requirements for stabilization.....	8
4.3.2 Current-driven stabilization	8
4.3.3 Voltage-driven stabilization.....	8
5 Marking	8
5.1 Contents and location	8
5.2 Information on reliability of electrical connection	9
6 Input power	9
7 Initial photometric characteristics.....	9
7.1 General.....	9
7.2 Luminous flux	10
7.3 Luminous efficacy.....	10
7.4 Chromaticity coordinates.....	10
7.5 Correlated colour temperature (CCT).....	10
7.6 Colour rendering index (CRI)	10
7.7 Luminance uniformity.....	11
7.7.1 Average luminance (L_{av})	11
7.7.2 Luminance uniformity (U).....	11
7.8 Luminous intensity distribution	11
7.9 Surface chromaticity uniformity	12
7.10 Angular chromaticity uniformity	12
8 Maintained photometric characteristics	12
9 Reliability	13
9.1 High temperature – high humidity operation	13
9.2 High temperature – high humidity storage	13
9.3 Reliability of connection	13
10 Information for controlgear design	14
Annex A (informative) Use of regional standards.....	15
Annex B (informative) Measuring method of angular chromaticity uniformity	16
Annex C (normative) Measuring method for luminous flux	18
C.1 General.....	18
C.2 Integrating sphere measurements	18
C.2.1 Integrating sphere methods and installation position.....	18
C.2.2 Size of the integrating sphere	18
C.3 Goniophotometric measurements	19
Annex D (informative) Tests of robustness of terminations and connectors	20
D.1 General.....	20
D.2 Wire terminations and pin type connectors	20

D.2.1	General	20
D.2.2	Tensile test.....	20
D.2.3	Bending test	20
D.2.4	Torsion test	20
D.3	Flexible flat terminations	20
D.3.1	General	20
D.3.2	Peel test A.....	21
D.3.3	Peel test B.....	21
D.4	Soldering	21
Annex E (informative)	Information for controlgear design	22
E.1	General.....	22
E.2	Operation.....	22
E.3	Characteristics of the driver output current.....	22
E.4	Characteristics of the driver output voltage	23
E.5	Dimming	23
E.6	Short-circuit protection.....	23
Annex F (informative)	Information for luminaire design	24
Bibliography.....		25
Figure C.1 – 4π geometry (left), 2π geometry sphere (centre) and 2π geometry hemisphere (right).....		18
Figure D.1 – Schematic diagram of peel test A.....		21
Figure E.1 – Voltage and luminance behaviour at constant current operation.....		22
Table 1 – Contents and location of marking		9
Table B.1 – Chromaticity coordinates for all viewing angles between 0° and 80° in 5° steps.....		16
Table B.2 – Colour difference between all chromaticity coordinate pairs		17