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## **Plasmapaneler – Del 2-1: Mätmetoder – Optiska och optoelektriska**

*Plasma display panels –  
Part 2-1: Measuring methods –  
Optical and optoelectrical*

Som svensk standard gäller europastandarden EN 61988-2-1:2012. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61988-2-1:2012.

### **Nationellt förord**

Europastandarden EN 61988-2-1:2012

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61988-2-1, Second edition, 2012 - Plasma display panels - Part 2-1: Measuring methods - Optical and optoelectrical**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61988-2-1, utgåva 1, 2003 och SS-EN 61988-2-2, utgåva 1, 2003, gäller ej fr o m 2015-02-28.

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ICS 31.260

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

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### **SEK Svensk Elstandard**

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English version

**Plasma display panels -  
Part 2-1: Measuring methods -  
Optical and optoelectrical  
(IEC 61988-2-1:2012)**

Panneaux d'affichage à plasma -  
Partie 2-1: Méthodes de mesure -  
Mesures optiques et opto-électriques  
(CEI 61988-2-1:2012)

Plasmabildschirme -  
Teil 2-1: Messverfahren – Optisch und  
opto-elektrisch  
(IEC 61988-2-1:2012)

This European Standard was approved by CENELEC on 2012-02-28. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**CENELEC**

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 110/337/FDIS, future edition 2 of IEC 61988-2-1, prepared by IEC TC 110, "Flat panel display devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61988-2-1:2012.

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) 2012-11-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-02-28

This document supersedes EN 61988-2-1:2002 and EN 61988-2-2:2003.

EN 61988-2-1:2012 includes the following significant technical changes with respect to EN 61988-2-1:2002:

– EN 61988-2-1:2002 and EN 61988-2-2:2003 were combined and reconstructed in this document.

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 61988-2-1:2012 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 61988-2-1 | NOTE Harmonized as EN 61988-2-1. |
| IEC 61988-2-2 | NOTE Harmonized as EN 61988-2-2. |

**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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60107-1	-	Methods of measurement on receivers for television broadcast transmissions - Part 1: General considerations - Measurements at radio and video frequencies	EN 60107-1	-
IEC 61988-1	-	Plasma display panels - Part 1: Terminology and letter symbols	EN 61988-1	-
IEC 62087	-	Methods of Measurement for the power consumption of audio, video and related equipment	EN 62087	-
CIE 15	-	Colorimetry	-	-

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## PLASMA DISPLAY PANELS –

### Part 2-1: Measuring methods – Optical and optoelectrical

#### 1 Scope

This part of IEC 61988 determines the following measuring methods for characterizing the performance of plasma display modules (PDP modules):

- a) four per cent (4 %) window luminance;
- b) luminance uniformity;
- c) dark-room contrast ratio;
- d) bright-room contrast ratio 100/70;
- e) white chromaticity and chromatic uniformity;
- f) colour gamut in the centre box;
- g) module power and current consumption;
- h) module power consumption using video signal;
- i) module luminous efficacy, and
- j) panel luminous efficacy.

#### 2 Normative references

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.

IEC 60068-1, *Environmental Testing – Part 1: General and guidance*

IEC 60107-1, *Methods of measurement on receivers for television broadcast transmissions – Part 1: General considerations – Measurements at radio and video frequencies*

IEC 61988-1, *Plasma display panels – Part 1: Terminology and letter symbols*

IEC 62087, *Methods of measurement for the power consumption of audio, video and related equipment*

CIE 15:2004, *Colorimetry*