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INTERNATIONAL STANDARD

colour inside

Electronic paper displays –
Part 3-3: Optical measuring methods for displays with integrated lighting units

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CONTENTS

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ELECTRONIC PAPER DISPLAYS –

Part 3-3: Optical measuring methods for displays with integrated lighting units

FOREWORD

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International Standard 62679-3-3 has been prepared by IEC technical committee 110: Electronic display devices.

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

CDV	Report on voting
110/723/CDV	110/780/RVC

Full information on the voting for the approval of 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 parts in the IEC 62679 series, published under the general title *Electronic paper displays*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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- withdrawn,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.

A bilingual version of this publication may be issued at a later date.

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.

ELECTRONIC PAPER DISPLAYS –

Part 3-3: Optical measuring methods for displays with integrated lighting units

1 Scope

This part of IEC 62679 specifies the standard measurement conditions and measurement methods for determining the optical performance of electronic paper display (EPD) devices which have an operating integrated lighting unit (such as a front light). The scope of this document is restricted to EPDs using segmented or matrix structures with either monochromatic or colour type displays. The measurement methods are intended for EPDs operated in a reflective mode with the integrated lighting unit (ILU) turned on in a dark or indoor ambient lighting environment. Colour systems beyond three primaries are not covered in this document.

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 for 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 62679-1-1, *Electronic paper displays – Part 1-1: Terminology*

IEC 62679-3-1:2014, *Electronic paper displays – Part 3-1: Optical measuring methods*

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

CIE 15, *Colorimetry*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62679-1-1, IEC 60050-845, and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1.1
ILU
integrated lighting unit
light source integrated into an EPD device to provide supplementary illumination to compensate for the lack of adequate ambient illumination