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INTERNATIONAL STANDARD

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Laser displays –
Part 5-5: Optical measuring methods of raster-scanning retina direct projection laser displays

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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LASER DISPLAYS –

Part 5-5: Optical measuring methods of raster-scanning retina direct projection laser displays

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The text of this International Standard is based on the following documents:

Draft	Report on voting
110/1374/FDIS	110/1392/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts of the IEC 62906 series, under the general title *Laser 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.

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LASER DISPLAYS –

Part 5-5: Optical measuring methods of raster-scanning retina direct projection laser displays

1 Scope

This part of IEC 62906 specifies the standard measurement conditions and optical measuring methods for raster-scanning retina direct projection laser displays with light sources such as direct-emitting lasers, optionally equipped with higher-order harmonic generation devices. The hybrid light sources using both lasers and spontaneous-emission-based light sources are not considered.

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 of 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 TR 60825-14, *Safety of laser products – Part 14*: *A user's guide*

IEC 62595-2-4:2020, *Display lighting unit – Part 2-4: Electro-optical measuring methods of laser module*

IEC 63145-20-10:2019, *Eyewear displays – Part 20-10: Fundamental measurement methods – Optical properties*

IEC 63145-20-20:2019, *Eyewear displays – Part 20-20: Fundamental measurement methods – Image quality*

ISO/CIE 19476, *Characterization of the performance of illuminance and luminance meters*

CIE 233, *Calibration, Characterization and Use of Array Spectroradiometers*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions 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