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INTERNATIONAL STANDARD

colour inside

3D displays –
Part 52-1: Fundamental measurement methods of aerial display – Optical

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IEC 62629-52-1 has been prepared by IEC technical committee 110: Electronic displays. It is an International Standard.

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

Draft	Report on voting
110/1593/FDIS	110/1616/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/publications.

A list of all parts in the IEC 62629 series, published under the general title *3D displays*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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3D DISPLAYS –

Part 52-1: Fundamental measurement methods of aerial display – Optical

1 Scope

This part of IEC 62629 specifies the standard measurement methods and measurement conditions for determining the optical properties of aerial displays. This document excludes image quality of aerial displays, such as modulation transfer function (MTF) and resolution measurements.

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 62629-1-2:2021, *3D display devices – Part 1-2: Generic terminology and letter symbols*

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

3 Terms, definitions, abbreviated terms and letter symbols

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in 62629-1-2 and the following apply.

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

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

3.1.1
aerial display
display that forms a real image in mid-air by use of an incoherent light-source and a passive optical component to converge diverging light from the light-source

Note to entry: Details of aerial display, including the principles and typical optical components to form a real image, are given in IEC TR 62629-51-1 [1].

[SOURCE: IEC 62629-1-2:2021, 3.1.20, modified – in the definition, the term "display" is removed from the light source description because the light source is not limited to display, and Note 1 has been expanded.]

3.1.2
aerial image area
two-dimensional area in mid-air where the aerial display exhibits information via electrically generated images