



IEC 62868-2-2

Edition 1.1 2025-05
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

**Organic light emitting diode (OLED) light sources for general lighting – Safety –
Part 2-2: Particular requirements – Integrated OLED modules**



THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2025 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

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

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

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search -

webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will also have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) Online.

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General	6
4.1 General requirements	6
4.2 General test requirements	6
4.3 Other requirements	6
5 Marking	6
5.1 Contents and location	6
5.2 Durability and legibility of marking	7
6 Construction	7
7 Mechanical hazard	7
8 Fault conditions	7
9 Insulation resistance and electric strength after humidity treatment	7
9.1 General requirements	7
9.2 Insulation resistance	7
9.3 Electric strength	7
10 Thermal stress	8
11 Creepage distances and clearances	8
12 Resistance to heat and fire	8
12.1 Resistance to heat	8
12.2 Resistance to flame and ignition	8
13 Photobiological safety	8
14 Terminals	8
15 Information for luminaire design	9
16 Protection against accidental contact with live parts	9
17 Screws, current-carrying parts and connections	9
18 Resistance to corrosion	9
19 Provisions for protective earthing	9
Annex A (informative) Examples of integrated OLED modules	10
Annex B (informative) Classification of OLED modules	12
B.1 Power supply classification	12
B.2 Installation method classification	12
Bibliography	13
Figure A.1 – Independent OLED module for luminaire	10
Figure A.2 – Built-in OLED module for lighting	11

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ORGANIC LIGHT EMITTING DIODE (OLED) LIGHT SOURCES FOR GENERAL LIGHTING – SAFETY –

Part 2-2: Particular requirements – Integrated OLED modules

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, accept IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 62868-2-2 edition 1.1 contains the first edition (2020-08) [documents 34A/2193/FDIS and 34A/2200/RVD] and its amendment 1 (2025-05) [documents 34A/2192/FDIS and 34A/2199/RVD].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 62868-2-2 has been prepared by subcommittee 34A: Electric light sources, of IEC technical committee 34: Lighting.

IEC 62868-2-2 has been prepared in parallel with IEC 62868-2-1.

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

FDIS	Report on voting
34A/2193/FDIS	34A/2200/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62868 series, published under the general title *Organic light emitting diode (OLED) light sources for general lighting – Safety*, can be found on the IEC website.

In this document, the following print type is used:

– *compliance statements: in italic type.*

The committee has decided that the contents of this document and its amendment 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.

ORGANIC LIGHT EMITTING DIODE (OLED) LIGHT SOURCES FOR GENERAL LIGHTING – SAFETY –

Part 2-2: Particular requirements – Integrated OLED modules

1 Scope

This part of IEC 62868 specifies the safety requirements for integrated organic light-emitting diode (OLED) modules for use on ripple free DC supplies up to 1 000 V or AC supplies up to 1 000 V RMS at 50 Hz or 60Hz.

NOTE 1 The classification of OLED modules is given in Annex B.

NOTE 2 The examples of integrated OLED modules are shown in Annex A.

NOTE 3 The classification of OLED modules according to the power supply method is illustrated in IEC 62868-1:2020, Annex D and IEC 62868-1:2020/AMD1:2024, Annex D.

NOTE 4 The flexible OLED tiles or panels, or the OLED tiles or panels complying with this document are deemed to comply with the requirements of IEC 62868-2-3 or IEC 62868-2-4, unless otherwise specified 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 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 60598-1:2014, Luminaires – Part 1: General requirements and tests –
IEC 60598-1:2014/AMD1:2017~~

~~IEC 60838-2-2, Miscellaneous luminaires – Part 2-2: Particular requirements – Connectors for LED modules~~

IEC 61347-1:2015, Lamp control gear – Part 1: General and safety requirements
IEC 61347-1:2015/AMD1:2017

IEC 62504, General lighting – Light emitting diode (LED) products and related equipment – Terms and definitions

IEC 62868-1:2020, Organic light emitting diode (OLED) Light sources for general lighting – Safety – Part 1: General requirements and tests
IEC 62868-1:2020/AMD1:2024

IEC TS 62972, General lighting – Organic light emitting diode (OLED) products and related equipment – Terms and definitions

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62504, IEC 62868-1 and IEC TS 62972 and the following apply.

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