

**BUREAU OF INDIAN STANDARDS**

**DRAFT FOR COMMENTS ONLY**

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मसौदा भारतीय मानक  
प्रकाश संवेदनशील उपकरणों का मापन  
भाग 4: फोटो-मल्टीप्लायर्स की मापन विधियाँ  
(पहला परिशोधन)

*Draft Indian Standard*

*Measurement of Photosensitive Devices –  
Part 4: Methods of Measurement for  
Photo-Multipliers  
(First Revision)*

*ICS.No. 31.260*

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LITD 04 Electronic Display Devices and  
Systems Sectional Committee

**Last Date for Comments:** 30 September 2024

**NATIONAL FOREWORD**

(Formal clauses will be added later)

This Draft Indian Standard (Part 4) (First Revision) which is identical with IEC 60306-4:1971 'Measurement of photosensitive devices - Part 4: Methods of measurement for photo-multipliers' issued by the International Electrotechnical Commission (IEC) *will be* adopted by the Bureau of Indian Standards on the recommendation of Electronic Display Devices and Systems Sectional Committee and approval of the Electronics and Information Technology Division Council.

This standard was originally published in 1975 and assistance has been derived from the IEC Pub 306-4: 1971. The first revision aligns this Indian Standard with existing version of IEC 60306-4:1971, there is a need to align the formatting and appearance of the standard as per the current practice.

The following changes has been required in the standards under this revision:

- a) Adding Front cover page.
- b) Addition of Hindi Title.
- c) National foreword to be written as current practice.
- d) UDC Number to be changed to ICS code.

This standard (Part 4) is one of the parts of a series of standards on ‘Measurement of Photosensitive Devices’. The other parts in this series are:

Part 1: Basic Recommendations

Part 2: Methods of measurement of phototubes

Part 3: Methods of measurement of photoconductive cells for use in the visible spectrum

The text of IEC Standard *may be* approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

<b>International standards</b>	<b>Corresponding Indian standards</b>	<b>Degree of Equivalence</b>
IEC 60050-531: 1974 International Electrotechnical Vocabulary (IEV) - Part 531: Electronic tubes	IS 18123: 2023 Electro technical Vocabulary: Electronic tubes	Identical
IEC 60306-1:1969 Measurement of photosensitive devices - Part 1: Basic recommendations	IS 7146 (Part 1) Measurement of photosensitive devices - Part 1: Basic recommendations (Under Development)	Identical

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 'Rules for rounding off numerical values (*Second Revision*)'.

The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

### **SCOPE OF IEC 60306-4:1971**

“IEC 60306-4:1971 specifies the methods for measuring the performance of photo-multipliers, which are devices used to detect and amplify low levels of light. This part of the standard outlines procedures for assessing key characteristics of photo-multipliers, including their sensitivity, gain, and response to light signals. It provides guidelines for accurate and consistent measurement techniques to ensure the reliable performance and comparison of photo-multipliers in various applications. The standard is intended for use by manufacturers, researchers, and technicians involved in the testing and evaluation of photo-multipliers.”

**Note:** - The Technical content of this document has not been enclosed as these are identical with the corresponding IEC Standard. For details, please refer to IEC 60306-4:1971 or kindly contact.

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