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मानक

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IS 10322-5-1 (2012): Luminaires, Part 5: Particular requirements, Section 1: General purpose luminaires [ETD 24: Illumination Engineering and Luminaries]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

प्रदीपक

भाग 5 विवरणात्मक अपेक्षाएँ

अनुभाग 1 स्थिर सामान्य प्रयोजकों के प्रदीपक
(पहला पुनरीक्षण)

Indian Standard

LUMINAIRES

PART 5 PARTICULAR REQUIREMENTS

Section 1 Fixed General Purpose Luminaires

(*First Revision*)

ICS 29.140.40

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard (Part 5/Sec 1) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Illumination Engineering and Luminaires Sectional Committee had been approved by the Electrotechnical Division Council.

This standard was first published in 1985. This revision has been undertaken primarily to align the existing standard with latest International Standard.

This standard covers the requirements of fixed general purpose luminaires. This standard covers the safety and photometric requirements.

This standard is one among the series of Indian Standards which deals with luminaires. This series consists of the following Parts and Sections:

Part 1	General requirements
Part 5	Particular requirements
Section 2	Recessed luminaires
Section 3	Luminaires for road and street lighting
Section 4	Portable general purpose luminaires
Section 5	Flood lights
Section 6	Handlamps
Section 7	Lighting chains
Section 8	Luminaires for emergency lighting

This standard is to be read in conjunction with IS 10322 (Part 1) : 2010 'Luminaires: Part 1 General requirements'. For the sake of convenience, the clauses of this standard correspond to those of IS 10322 (Part 1), instead of reproducing full text of each clause; reference to relevant clauses of IS 10322 (Part 1) has been given.

This standard is based on IEC 60598-2-1 : 1979 + Amendment 1(1987) 'Luminaires — Part 2: Particular requirements, Section 1 Fixed general purpose luminaires' issued by the International Electrotechnical Commission (IEC) except for the following deviations:

Photometric requirements have been incorporated.

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 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***LUMINAIRES****PART 5 PARTICULAR REQUIREMENTS****Section 1 Fixed General Purpose Luminaires***(First Revision)***1 SCOPE**

This standard (Part 5/Sec 1) specifies requirements for fixed general purpose luminaires for use with tungsten filament, tubular fluorescent, LED, LED modules and other discharge lamps on supply voltage not exceeding 1 000 V. It is to be read in conjunction with those Sections of Part 1 to which reference is made.

2 REFERENCES

The standards listed below contain provision which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below.

<i>IS No.</i>	<i>Title</i>
10322 (Part 1) : 2010	Luminaires: Part 1 General requirements (<i>first revision</i>)
13383 (Part 1) : 1992	Methods of Photometry of luminaires: Part 1 For use in interior lighting

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 10322 (Part 1/Sec 1) shall apply.

4 GENERAL TEST REQUIREMENTS

The provisions of IS 10322 (Part 1/ Sec 0) shall apply.

The tests described in each appropriate section of Part 1 shall be carried out in the order listed in IS 10322 (Part 5/Sec 1).

5 CLASSIFICATION OF LUMINAIRES

Luminaires shall be classified in accordance with the provisions of IS 10322 (Part 1/Sec 2).

6 MARKING

The provisions of IS 10322 (Part 1/Sec 3) shall apply.

6.1 BIS Certification Marking

The luminaries may also be marked with the Standard Mark.

6.1.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

7 CONSTRUCTION

The provisions of IS 10322 (Part 1/Sec 4) shall apply.

8 CREEPAGE DISTANCES AND CLEARANCES

The provisions of IS 10322 (Part 1/Sec 11) shall apply.

9 PROVISION FOR EARTHING

The provisions of IS 10322 (Part 1/Sec 7) shall apply.

10 TERMINALS

The provisions of IS 10322 (Part 1/Sec 14 and Sec 15) shall apply.

11 EXTERNAL AND INTERNAL WIRING

The provisions of IS 10322 (Part 1/Sec 5) shall apply.

12 PROTECTION AGAINST ELECTRIC SHOCK

The provisions of IS 10322 (Part 1/Sec 8) shall apply.

13 ENDURANCE TESTS AND THERMAL TESTS

The provisions of IS 10322 (Part 1/Sec 12) shall apply.

14 RESISTANCE TO DUST AND MOISTURE

The provisions of IS 10322 (Part 1/Sec 9) shall apply.

15 INSULATION RESISTANCE AND ELECTRIC STRENGTH

The provisions of IS 10322 (Part 1/Sec 10) shall apply.

16 RESISTANCE TO HEAT, FIRE AND TRACKING

The provisions of IS 10322 (Part 1/Sec 13) shall apply.

17 PHOTOMETRIC TEST

The photometric performance shall be determined by the test method given in IS 13383 (Part 1). The general guidance regarding the photometric data to be provided by the manufacturers of luminaries is given in Annex A.

ANNEX A

(Clause 17)

PHOTOMETRIC DATA

A-1 Light distribution data is required for the purpose of,

- assessing the photometric performance of the lighting equipment; and
- designing lighting installations on a factual basis.

A-2 Some or all of the following items of information shall be provided by the manufacturer of the luminaire:

- Luminous intensity diagrams in the vertical places $C = 0^\circ$ and $C = 90^\circ$ of the reference coordinate system as indicated in Fig. 1;
- Light output ratio;

c) Upward light output ratio; and

d) Downward light output ratio.

NOTE — Results should be expressed for 1 000 lamp lumens and relate to the standard test conditions.

A-2.1 The above data shall be stated for the condition when a clean luminaire is equipped with a lamp (or lamps) with its (their) light centre(s) in the correct normal position(s) and each having a luminous output equal to the average luminous output throughout the life of such lamps, this reference value for luminous output will be taken therefrom or a correction factor provided for adjusting the data accordingly, if it has been prepared for a lamp output other than that specified.

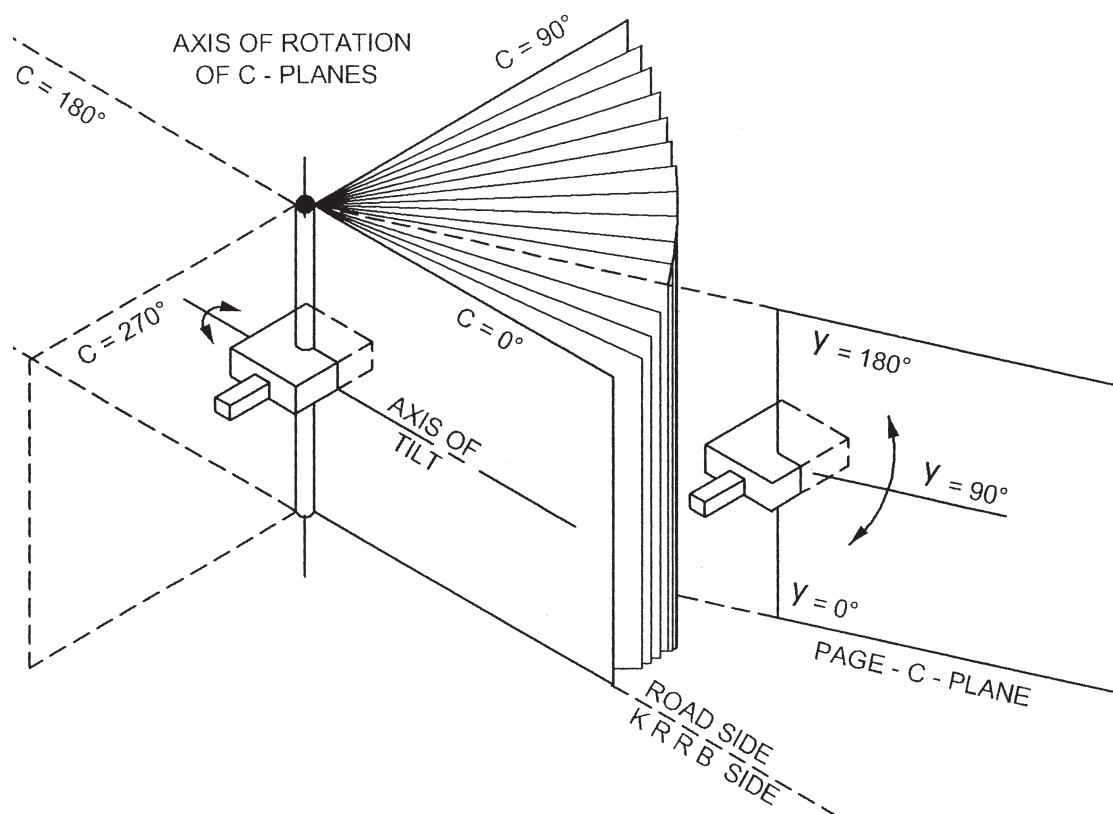


FIG. 1 C-γ-SYSTEM

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110 002

Telephones : 2323 0131, 2323 3375, 2323 9402

Website: www.bis.org.in

Regional Offices:

Telephones

Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 60 3843 60 9285
Southern	: C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

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