

Test Report No.: xx001

Page 1 of xx

Issue Date:

DD/MM/YYYY

<b>Manufacturer:</b>	<b>Applicant's Name</b>	
	<b>Applicant's Address</b>	
<b>Test item:</b>	<b>Audio/video, information and communication technology equipment</b>	
<b>Identification:</b>	<b>(Model No.)</b>	<b>Serial No.:</b>
<b>Receipt No.:</b>	<b>Date of receipt:</b>	
<b>Testing laboratory and its address:</b>	<b>Lab Name Lab</b>	
	<b>Address</b>	
<b>Test specification:</b>	<b>IS 16102-1:2026/ IEC 62560:2015</b>	
<b>Test Result:</b>	<i>The test item passed / failed the test specification(s).</i>	
<b>Other Aspects:</b> - <i>Brief description or additional details could be given by the labs here.</i>		
This test report relates to the test sample submitted and list of documents attached.		

<b>Tested by:</b>	<b>Approved by / Authorized Signatory:</b>	<b>Issued by:</b>
<b>(Name / Designation)</b>	<b>(Name / Designation)</b>	<b>(Name / Designation)</b>
<b>Date:</b>	<b>Date:</b>	<b>Date:</b>

<b>TEST REPORT</b>	
<b>IS 16102-1:2026/ IEC 62560:2015</b>	
<b>Audio/video, information and communication technology equipment Part 1: Safety requirements</b>	
<b>Report Reference No.</b> .....	<b>Xxxxxxxx 001</b>
Date of issue.....	(see cover page)
Total number of pages .....	(see cover page)
<b>Testing Laboratory</b> .....	<b>Lab Name</b>
Address .....	<b>Lab Address</b>
<b>Manufacturer's name</b> .....	<b>Applicant's Name</b>
Address .....	<b>Applicant's Address</b>
<b>Test specification:</b>	
Standard.....	<b>IS 16102-1:2026/ IEC 62560:2015</b>
Test procedure.....	:
Non-standard test method.....	:
<b>Test Report Form No.</b> .....	<b>BIS_ IS 16102-1_V2.0</b>
Test Report Form(s) Originator .....	Bureau of Indian Standards
Master TRF.....	XXXXX
<b>Test item description</b> .....	<b>Audio/video, information and communication technology equipment</b>
Trademark .....	:
Model/Type reference .....	:
Ratings .....	:
Other Documents submitted.....	Please refer to Table – List of Attachments at Page No. xx

<b>Tested by:</b>	<b>Approved by / Authorized Signatory:</b>	<b>Issued by:</b>
<b>(Name / Designation)</b>	<b>(Name / Designation)</b>	<b>(Name / Designation)</b>
<b>Date:</b>	<b>Date:</b>	<b>Date:</b>

**TEST REPORT**  
**IS 16102-1/IEC 62560**  
**Self-Ballasted LED-Lamp**  
**for general lighting services by voltage > 50V Safety specifications**

Report Number..... :

Date of issue..... :

Total number of pages .....

Name of Testing Laboratory preparing the Report :

Applicant's name .....

Address..... :

**Test specification:**

Standard..... :

**IS 16102-1:2026/ IEC  
62560:2015**

Test procedure .....

Non-standard test method .....

N/A

Test Report Form No. .... :

Test Report Form(s) Originator .... :

Master TRF..... :

**General disclaimer:**

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description..... :		
Trade Mark..... :		
Manufacturer..... :		
Model/Type reference..... :		
Ratings..... :		
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input type="checkbox"/> CB Testing Laboratory:		
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Approved by (name, function, signature)....:		
<b>Testing procedure: CTF Stage 1:</b>		
<input type="checkbox"/> Testing procedure: CTF Stage 1:		
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Approved by (name, function, signature)....:		
<b>Testing procedure: CTF Stage 2:</b>		
<input type="checkbox"/> Testing procedure: CTF Stage 2:		
Testing location/ address.....:		
Tested by (name + signature).....:		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature)....:		
<b>Testing procedure: CTF Stage 3:</b>		
<input type="checkbox"/> Testing procedure: CTF Stage 3:		
<b>Testing procedure: CTF Stage 4:</b>		
<input type="checkbox"/> Testing procedure: CTF Stage 4:		
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature)....:		
Supervised by (name, function, signature) :		

<b>List of Attachments (including a total number of pages in each attachment):</b>	
<b>Summary of testing:</b>	
<b>Tests performed (name of test and test clause):</b>	<b>Testing location:</b>
<b>Summary of compliance with National Differences (List of countries addressed):</b>	
<input type="checkbox"/> The product fulfils the requirements of _____ (insert standard number and edition and delete the text in parenthesis, leave it blank or delete the whole sentence, if not applicable)	


**Copy of marking plate:**

**The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.**

<b>Test item particulars</b> .....:	
<b>Classification of installation and use</b> .....:	
<b>Supply Connection</b> .....	
.....:	
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object..... : N/A	
- test object does meet the requirement..... : P (Pass)	
- test object does not meet the requirement..... : F (Fail)	
<b>Testing</b> .....:	
<b>Date of receipt of test item</b> .....	
<b>Date (s) of performance of tests</b> .....	
.....:	
<b>General remarks:</b>	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a <input type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60335-1:</b>	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....	<input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>Not applicable</b>
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies)</b> .....	
.....:	
<b>General product information and other remarks:</b>	
.....	

IS 16102-1:2026/ IEC 62560:2015			
Clause	Requirement + Test	Result - Remark	Verdict

4	GENERAL REQUIREMENTS		
4.1	The lamps shall be so designed and constructed that in normal use they function reliably and cause no danger to the user or surroundings.		
4.2	Self-ballasted LED-Lamp are non-repairable.		
4.3	In general, all tests are carried out on each type of lamp or, where a range of similar lamps is involved, for each wattage in the range or on a representative selection from the range, as agreed with the manufacturer.		
4.4	In general, all tests are carried out on each type of lamp or, where a range of similar lamps is involved, for each wattage in the range or on a representative selection from the range, as agreed with the manufacturer.		

5	MARKING		
5.1	Mandatory marking		
	- mark of origin		
	- rated supply voltage (V) .....		
	- rated wattage (W) .....		
	- rated frequency (Hz).....		
5.2	Addition marking		
	- rated current (A) .....		
	- weight significantly higher		
	- special conditions or restrictions		
	Not suitable for dimming; symbol  used		
	- not suitable for water contact		
5.3	Marking durable and legible		
	rubbing 15 s water, 15 s petroleum; marking legible		

6	INTERCHANGEABILITY		
6.1	Cap interchangeability in accordance with IS 9206		
	Gauge in accordance with IS 9206		

IS 16102-1:2026/ IEC 62560:2015			
Clause	Requirement + Test	Result - Remark	Verdict
<b>6.2</b>	<b>Bending moment and mass imparted by the lamp at the lampholder</b>		
	Bending moment imparted by the lamp at the lampholder (Nm)..... :		
	Mass not exceeding value table 2 or as specified in IS 16102-1 (kg)..... :		

<b>7</b>	<b>PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS</b>		
	Internal, basic insulated or live metal parts not accessible		
	Tested with a test finger with a force of 10 N		
	Compliance checked with appropriate gauges		

<b>8</b>	<b>INSULATION RESISTANCE AND ELECTRIC STRENGTH</b>		
8.1	In general, all tests are carried out on each type of lamp or, where a range of similar lamps is involved, for each wattage in the range or on a representative selection from the range, as agreed with the manufacturer.		
8.2	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (MΩ):		
	≥ 4 MΩ for double or reinforced insulation .....		
8.3	Immediately after clause 8.2 electric strength test for 1 min		
	Double or reinforced insulation, 4U + 2000 V		
	No flashover or breakdown		

<b>9</b>	<b>MECHANICAL STRENGTH</b>		
9.2.1	Torsion resistance of unused lamps		
	B15d or E14 Cap.....	1,15 Nm	
	B22d, E26, E26d or E27 Cap.....	3,0 Nm	
	E11 or E12 Cap.....	0,8 Nm	
	E17 Cap .....	1,5 Nm	
	E39 or E40 Cap.....	5,0 Nm	
	GX53 Cap .....	3,0 Nm	
<b>9.3</b>	<b>Compliance criteria</b>		
	Clause 8 shall comply after the mechanical strength test.		
<b>9.4</b>	<b>Axial strength of Edison caps</b>		
	After full insertion into the gauge an axial force of Table 4 is applied to the central contact (N) .....		

IS 16102-1:2026/ IEC 62560:2015			
Clause	Requirement + Test	Result - Remark	Verdict
	The insulation around the central contact shall remain intact		
<b>10</b>	<b>CAP TEMPERATURE RISE</b>		
	The cap temperature rise $\Delta t_s$ of the lamp shall not exceed 120 K.		
<b>11</b>	<b>RESISTANCE TO HEAT</b>		
	Parts of insulating material providing protection against electric shock, retaining live parts in position, ball-pressure test:	(see appended table)	
<b>12</b>	<b>RESISTANCE TO FLAME AND IGNITION</b>		
	External parts of insulating material preventing electric shock glow-wire test 650 °C	(see appended table)	
<b>13</b>	<b>FAULT CONDITIONS</b>		
13.2	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected	(see appended table)	
13.3	When operated under fault conditions the lamp		
	- does not emit flames or molten material		
	- does not produce flammable gases or smoke		
	- live parts not accessible		
	After the tests the insulation resistance with d.c. 1000 V complies with requirements of Cl. 8.1 ..... :		
<b>14 (16)</b>	<b>CREEPAGE DISTANCES AND CLEARANCES</b>		
	Creepage distances and clearances according to IS 15885 (Part 1)	(see appended table)	
	Conductive accessible parts according to IS 10322 (Part 1)	(see appended table)	
<b>15</b>	<b>ABNORMAL OPERATION</b>		
	Non-dimmable self-ballasted lamps are tested on a dimmer or an electronic switch according the test circuit shown in Figure 8		

<b>IS 16102-1:2026/ IEC 62560:2015</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	Operate the lamp for 8 h at most onerous dimming level		
	When operated under abnormal operation the lamp		
	- does not catch fire		
	- does not produce flammable gases		
	- live parts not accessible		

<b>16</b>	<b>TEST CONDITIONS FOR DIMMABLE LAMPS</b>		
	Test are carried out at maximum power setting for Clause 10 and Clause 17		

<b>17</b>	<b>PHOTOBIOLOGICAL SAFETY</b>		
<b>17.1</b>	<b>UV radiation</b>		
	The LED lamp doesn't exceed 2mW/klm		
<b>17.2</b>	<b>Blue light hazard</b>		
	Assessed according to IS 16661		
	LED lamps shall be RG0 or RG1		
<b>17.3</b>	<b>Infrared Radiation</b>		
	LED lamps are not expected to reach a level of infrared radiation where marking or other safety measurements are required		

<b>18</b>	<b>INGRESS PROTECTION</b>		
18.1	Lamps shall be suitable for water contact unless marked with Figure 2		
18.2	The lamp is subjected to an IPX4 test according to IS 10322 (Part 1).		
	The lamp complies with the compliance provisions of 9.2 of IEC 60598-1		
	Lamps constructed so that it is sealed to exclude water need not to be tested		

IS 16102-1:2026/ IEC 62560:2015			
Clause	Requirement + Test	Result - Remark	Verdict

11	TABLE: Ball Pressure Test of Thermoplastics			
Allowed impression diameter (mm) .....				—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Supplementary information:				

12	TABLE: Resistance to heat and fire - Glow wire tests			
Object/ Part No./ Material	Manufacturer/ trademark	Glow wire test (GWT); (°C)		Verdict
		650		
		te	ti	

13	TABLE: tests of fault conditions			
Part	Simulated fault	Result	Hazard	
			YES/NO	
			YES/NO	
			YES/NO	
			YES/NO	
			YES/NO	
			YES/NO	
			YES/NO	
			YES/NO	
			YES/NO	

14	TABLE: Clearance And Creepage Distance Measurements			
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IS 16102-1:2026/ IEC 62560:2015						
Clause	Requirement + Test			Result - Remark		Verdict
<b>clearance cl and creepage distance dcr at/of:</b>	<b>Up (V)</b>	<b>U r.m.s. (V)</b>	<b>Required cl (mm)</b>	<b>cl (mm)</b>	<b>required dcr (mm)</b>	<b>dcr (mm)</b>
Supplementary information:						

ANNEX 1 TABLE: Critical components information						
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>
<b>Description:</b>						
<b>Description:</b>						
<b>Description:</b>						
Supplementary information:						
<sup>1)</sup> Provided evidence ensures the agreed level of compliance. See OD-CB2039. The codes above have the following meaning: A - The component is replaceable with another one, also certified, with equivalent characteristics B - The component is replaceable if authorised by the test house C - Integrated component tested together with the appliance D - Alternative component						

