

**BUREAU OF INDIAN STANDARDS**  
**DRAFT FOR COMMENTS ONLY**

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*Draft Indian Standard*

**Standard method of measurement of lamp cap temperature rise**

*(First Revision)*

(ICS 29.140. 10)

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Lamps and Related Equipments  
Sectional Committee, ETD 23

Last date for comments- 17/01/2025

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NATIONAL FOREWORD

This draft Indian Standard (First Revision) which is identical with IEC 60360: 1998 ‘Standard method of measurement of lamp cap temperature rise’ issued by the International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Lamps and Related Equipments Sectional Committee and approval of the Electrotechnical Division Council.

This standard was originally published in year 1978 to align it with the IEC 60360: 1971. The first revision has been undertaken to align it with the latest version of IEC 60360: 1998.

The temperature rise of the lamp cap of a tungsten filament lamp is, in practice, very dependent on the mounting of the lamp and the condition of the cap.

For this reason, it has been necessary to define a method of measurement based on the use of a standard test lampholder. The temperature rise  $\Delta t_s$ , measured on the standard test lampholder is then taken as the lamp cap temperature rise for the purpose of this standard.

Compared with the measurement of the temperature rise of the bare lamp cap, the measurement of the temperature rise of a standard test lampholder has the following advantages:

- a) A better approximation to actual operating conditions;
- b) Improved reproducibility, as there is less influence from lamp cap material, finish and surface conditions (which also have little influence in actual operating conditions );
- c) Levelling of the temperature of various parts of the cap, giving a better over-all picture of the influx of heat from the lamp to the fitting; and
- d) Reduced duration of measurements, as the thermocouple is permanently fixed to the test

lampholder.

The text of the IEC Standard has been 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.

The technical committee has reviewed the provision of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
IEC 60432	Safety specification for incandescent lamps

Only English language text has been retained while adopting it in this Indian Standard, and as such the page numbers given here are not the same as in the International Standard.

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, 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 the same as that of the specified value in this standard.

NOTE — The technical content of their document has not been enclosed as there are identical with the corresponding IEC standards for details, please refer the corresponding IEC 60360: 1998 or kindly contact:

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