

Cinematography —

Part 7: Production and presentation —

Section 7.1 Light sources and lighting —

Subsection 7.1.1 Specification for exciter lamps

Co-operating organizations

The Cinematograph Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Association of Specialised Film Producers
- Board of Trade
- British Broadcasting Corporation
- British Film Institute
- British Film Producers' Association
- British Kinematograph Society*
- Cinematograph Exhibitors' Association of Great Britain and Ireland*
- Federation of British Film Makers
- Home Office
- Illuminating Engineering Society
- Incorporated Association of Kinematograph Manufacturers*
- Independent Television Companies Association
- Kinematograph Renters' Society
- Royal Photographic Society
- War Office

The scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- Electric Lamp Industry Council
- Manufacturers of cinematograph projectors

This British Standard, having been approved by the Cinematograph Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 20 June 1961 as BS 1015

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Foreword

This standard makes reference to the following British Standards:

BS 52, *Dimensions of bayonet lamp-caps, lampholders and lampholder-plugs (B.C. adaptors) for voltages not exceeding 250 volts.*

BS 354, *Photometric integrators.*

The British Standard for exciter lamps for 35 mm projectors, prepared under the authority of the Cinematograph Industry Standards Committee in response to a request from the Cinematograph Exhibitors' Association, was first published in 1942.

In this revision the range of lamps has been extended to meet the current requirements of the manufacturers of 16 mm as well as 35 mm projectors, whilst some of the lamps in the previous edition, now no longer in current use, have been omitted. Approximate dimensions of the filaments are now included, and the requirements relating to the position of the filament when burning have been clarified and amplified.

As all British Standards on cinematography are to become eventually Sections or Subsections of BS 5550, this Standard, which was confirmed (as BS 1015) in 1977, has been renumbered as BS 5550-7.1.1. BSI Sectional List 1, obtainable free from BSI Sales Department, catalogues the British Standards on cinematography. The latest edition of SL 1 should be referred to particularly in view of this development.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 9 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Section 1. General

1 Scope

This British Standard covers exciter lamps for 16 mm and 35 mm motion picture projectors, as shown in Table 1.

2 Definitions

For the purposes of this British Standard the following definitions apply:

2.1 batch

all the lamps of one type put forward at one time for test

2.2

inspection test quantity (I.T.Q.)

the number of lamps to be tested to determine whether a batch satisfies the mechanical and physical requirements

2.3

rating test quantity (R.T.Q.)

the number of lamps to be tested to determine whether a batch satisfies the requirements for initial readings

2.4

life test quantity (L.T.Q.)

the number of lamps to be tested to determine whether a batch satisfies the requirements for life and for lumen maintenance

2.5

light centre length

the distance from the geometrical centre of the filament to a specified position on the cap

2.6

lumen

the unit of luminous flux. The flux emitted in a solid angle of one steradian by a point source having a uniform intensity of one candela. (Abbreviation: lm)

2.7

initial readings

the photometric and electric measurements, made at the end of the ageing period

2.8

life

the number of hours a lamp operates to burn-out or to any other criterion of life performance under the conditions laid down in this British Standard

2.9

specified life

the life in hours given in the appropriate schedule

2.10

lumen output maintenance

the light output of a lamp at a specified time in its life expressed as a percentage of its initial light output

2.11

rated voltage

the voltage marked on the lamps

2.12

rated amperage

the amperage marked on the lamps

2.13

axis of lamp

a line coincident with the axis of the cap or the pre-focus flange

2.14

vertical plane of lamp

for a lamp with a bayonet cap, the plane containing the axis of the cap and passing through the centre line of the cap pins. For a lamp with a pre-focus flange, the plane containing the axis of the flange and making an angle of 37° with the plane which passes through both the axis of the flange and the centre of the locating notch

2.15

horizontal plane of filament

the plane which passes through the geometrical centre of the filament and is at right angles to the axis of the (transverse filament) lamp

Section 2. Requirements

3 General

When exciter lamps are supplied as being in accordance with this British Standard, they shall be taken from a batch which has been found to satisfy the conditions of Section 4 of this Standard. Alternatively, by arrangement between purchaser and manufacturer, the lamps shall individually comply with the requirements of Clauses 4 to 9 inclusive as well as being taken from a batch which has been found to satisfy the conditions of Section 4 of this Standard.

4 Standard exciter lamps

The range of British Standard exciter lamps shall be as given in Table 1.

5 Dimensions

The lamps shall conform to the dimensions given in Columns 7, 8 and 9 of Table 1.