

Locator lights for airborne applications —

Part 2: Specification for liferaft lights

UDC 629.7:629.125.5:628.975:621.352

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology, upon which the following bodies were represented:

- British Airways
- British Cable Makers Confederation
- British Rubber Manufacturers' Association
- Civil Aviation Authority (Airworthiness Division)
- Electronic Components Industries Federation
- Ministry of Defence
- Society of British Aerospace Companies Ltd.
- Coopted members

This British Standard, having been prepared under the direction of the Engineering Sector Board, was published under the authority of the Standards Board and comes into effect on 15 November 1995

© BSI 01-2000

The following BSI references relate to the work on this standard:
Committee reference ACE/6
Draft for comment 92/82312 DC

ISBN 0 580 23734 6

Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 References	1
3 Definitions	1
4 Individual specification sheet	1
5 Design	1
6 Performance	2
7 Type approval	3
8 Identification and marking	3
9 Quality assurance	3
Annex A (normative) Individual specification sheet	5
Annex B (normative) Performance tests	5
Annex C (normative) Storage tests	6
Annex D (normative) Safety tests (lithium batteries only)	7
Annex E (normative) Type approval programme	8
Figure E.1 — Type approval programme	8
List of references	Inside back cover

Foreword

This Part of BS G 247 has been prepared under the direction of the Engineering Sector Board and specifies the requirements for survivor location lights for fitting to liferafts used in airborne applications.

BS G 247 is published in the following separate Parts:

- *Part 1: Specification for lifejacket lights;*
- *Part 2: Specification for liferaft lights.*

Liferaft lights enable survivors to be located quickly during the hours of darkness and their failure to operate could jeopardize survival. It is essential, therefore, that good design and manufacturing practices are applied to the production of this equipment.

It has been assumed in the drafting of this British Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

The approving authority referred to in this standard is the body responsible for authorizing the manufacturer or supplier to issue certification, when “to certify” means to attest as meeting a standard.

WARNING. This British Standard calls for the use of substances and procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

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 8, an inside back cover 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.

1 Scope

This Part of BS G 247 specifies the design, performance, testing and quality requirements for survivor locator lights for fitting to liferafts used in airborne applications.

2 Normative references

This Part of BS G 247 incorporates, by reference, provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this Part of BS G 247 only when incorporated in it by updating or revision.

3 Definitions

For the purposes of this Part of BS G 247 the following definitions apply.

3.1

storage life

the period during which the unit may be stored, under specified conditions, and still meet all performance requirements in use

3.2

light unit

a complete assembly comprising light source, cabling, battery and associated components

3.3

primary battery

a source of electrical energy obtained by the direct conversion of chemical energy

NOTE When ready for delivery, a primary battery includes terminals and may include a case. The word "battery" can refer to one single complete cell.

3.4

active battery

a battery which is completely self-contained and requires no initiating action before delivering current

3.5

reserve battery

a battery which requires initiating action, usually that of introducing electrolyte, before delivering current

3.6

discharge

a procedure by which a cell or battery delivers current to an external circuit

3.7

end-point voltage (V_e)

the on-load voltage of a light unit battery at the end of discharge

4 Individual specification sheet

The manufacturer shall prepare an individual specification sheet, conforming to Annex A, for each type of light unit produced. The individual specification sheet shall define the values for parameters given in Annex A.

5 Design

5.1 Construction

Light units shall be constructed to conform to clauses 5 to 8.

5.2 Materials

Materials used in the manufacture of light units shall be:

- a) compatible with the materials used in the manufacture of liferafts; and
- b) rot and corrosion resistant and unaffected by sea water, oil or fungal attack.

5.3 Attachment

The light unit shall be capable of removal and replacement without causing damage to a liferaft, and shall not have any adverse effect on the performance of a liferaft to which it is attached.

5.4 Reflectors and lenses

Lenses or curved reflectors, if fitted, shall conform to 6.2.3.

5.5 Electronic components

Components of electronic circuits shall either:

- a) conform to the quality control requirements of BS 9000-1:1989; or,
- b) in cases where components conforming to this standard cannot be obtained, be covered by a Certificate of Conformity from the manufacturer of the components.

5.6 Battery

If a lithium battery is selected as the power source, it shall conform to the design requirements given in clause 6 of BS 2G 239:1992 when it is contained within the liferaft light unit.

WARNING. Some lithium batteries can be hazardous under certain conditions.

5.7 Switching

Light units shall switch on automatically upon the inflation of the liferaft on water, and shall be able to be switched off manually.