

W-L-305D
May 12, 1976
SUPERSEDING
Int. Fed. Spec. W-L-00305C (GSA-FSS)
August 18, 1969 and
Fed. Spec. W-L-305A
April 23, 1957

FEDERAL SPECIFICATION

LIGHT SET, GENERAL ILLUMINATION (EMERGENCY OR AUXILIARY)

This specification was approved by the Commissioner,
Federal Supply Service, General Services Administration,
for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers emergency light sets and auxiliary light sets of unit equipment type. This equipment is not intended for use in hazardous locations as defined in article 500 NFPA No. 70.

1.2 Classification. Unit equipment light sets furnished under this specification shall be of the following types, classes, styles, and kinds, as specified (see 6.2).

Types (see 6.1):

- Type I - Emergency light set.
- Type II - Auxiliary light set.

Classes, styles, and kinds:

Class I - Rechargeable Storage battery-powered unit.

- Style D - Equipped with non-refillable nickel cadmium type battery.
- Style E - Equipped with non-refillable lead-calcium (free electrolyte) type battery.
- Style F - Equipped with non-refillable lead-acid (gel) type battery.

- Kind 1 - Single head unit.
- Kind 2 - Two head unit.
- Kind 3 - Three head unit.

Class III - Battery-powered unit for elevator cab use (type I only).

- Style B - Equipped with non-refillable nickel cadmium battery.
- Style C - Equipped with non-refillable lead-calcium (free electrolyte) type battery.

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issues in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications

- J-C-175 - Cable Assembly, Power, Electrical, (3-Wire, 3-Prong, Grounding Plug Connector for 125 - Volt Equipment).

PPP-B-601 - Boxes, Wood, Cleated-Plywood.
PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner.
PPP-B-640 - Boxes, Fiberboard, Corrugated, Triple-Wall.
PPP-F-320 - Fiberboard; Sheet, Stock, and Cut Shapes.

FSC 6230

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Federal Standards:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil agencies).
Fed. Test Method Std. No. 141 - Paint, Varnish, Lacquer, and Related
Materials; Methods of Inspection,
Sampling, and Testing.

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal Specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC, Atlanta, Chicago, Kansas City, MO, Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specification:

MIL-P-116 - Preservation, Methods of.

Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by
Attributes.
MIL-STD-129 - Marking for Shipment and Storage.

(Copies of Military specifications and Standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents for a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

Underwriters; Laboratories, Inc. Standards:

UL-924 - Emergency-Lighting Equipment.

(Application for copies should be addressed to the Underwriters' Laboratories, Inc., Walt Whitman Road, Melville, NY 11749; 207 East Ohio Street, Chicago, IL 60611; or 1655 Scott Blvd., Santa Clara, CA 95050.)

National Fire Protection Association (NFPA) Publication:

No. 70 - National Electrical Code.

(Application for copies should be addressed to the National Fire Protection Association, 60 Batterymarch Street, Boston, MA 02110.)

National Motor Freight Traffic Association, Inc., Agent:

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., Tariff Order Section, 1616 P Street, N.W., Washington, DC 20036.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

3. REQUIREMENTS

3.1 Preproduction inspection. The contractor shall make available at his expense one preproduction sample of each item to be delivered under the contract for inspection and determination by the Government as to compliance with this specification. The contractor shall without any additional charge provide all reasonable facilities for inspection of the sample. The samples shall be submitted together with the contractor's inspection and test reports.

Preproduction samples required by this contract must conform to all requirements of this specification. The acceptance of any previous preproduction samples or the granting of any deviations on previous preproduction samples or on supplies required by previous contracts for production samples or on supplies required by previous contracts for the same item(s) shall in no way be considered as justification for assuming that the preproduction samples submitted under this contract will be accepted unless they fully meet this specification or that deviations will be granted.

When the preproduction samples are approved, the Government shall notify the contractor of their acceptance in writing. After acceptance, the preproduction sample shall be retained by the contractor and made available to the Government without additional cost to the Government until completion of the contract at which time it may be declined in "like new" condition as part of the last scheduled delivery under this contract. In the event that the sample is not approved, the contractor shall submit a new sample for approval, or modify the existing sample so as to remove the deficiencies cited.

The Government reserves the right to waive the requirements for preproduction samples to those offerors offering a product which has been previously procured and approved by the General services Administration under this specification.

3.2 Fire and casualty Hazards.

3.2.1 Each contractor shall submit to the contracting agency proof that each light set he proposes to supply under this specification conforms to the requirements of UL 924 Emergency lighting equipment and the National Fire Protection Association Standard NFPA #70. The listing mark of the Underwriters' Laboratories, affixed to each fixture may be accepted as evidence that the product conforms to this requirement. Compliance with the above preliminary requirements in regard to fire, safety, and casualty hazards does not absolve the contractor from complete compliance with the other requirements of this specification in order to secure acceptance of his material or equipment.

3.2.2 In lieu of the label or listing with re-examination, the contractor may submit independent proof, satisfactory to the contracting agency, that his equipment conforms to the published standards, including methods of tests of UL 924.

3.3 Materials. Materials used in the light set furnished under this specification shall be as specified herein, and where material is not specified, a material shall be used which will meet the performance requirements of this specification.

3.3.1 Metal. Metals used shall be either corrosion resistant or suitably treated to resist corrosion.

3.3.2 Dissimilar metals. Dissimilar metals especially brass, copper or steel in contact with magnesium, aluminum or other alloys, shall be avoided wherever practicable.

3.4 General. Individual unit equipment shall consist of (1) a battery: (2) an indicators light; (3) battery-charging means: (4) one or more lamps as specified; (5) a self cleaning type relay, mercury relay or solid state device arranged to transfer the load automatically upon failure of the normal A.C. voltage to the building or space in which the unit is installed. The batteries shall be of suitable rating and capacity to supply and maintain, the total load associated with the unit for a period of at least 1-1/2 hours for class I or at least 4 hours for class III (see 4.7.1). Automobile-type batteries, dry cell batteries or refillable batteries are not acceptable. Type I equipment shall be of a design suitable for permanent installation in a fixed place and shall be arranged for connection to the electric lighting system of a building by any of the permanent wiring methods covered in chapter 3 of the National Electrical Code. Type II equipment shall be of the same design as the type I equipment, except it shall be provided with a 3 wire cable assembly in lieu of the permanent connection.

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3.5 Design.

3.5.1 Enclosure. The enclosure of the unit shall be constructed of either steel (see 3.5.1.1) or plastic (see 3.5.1.2). For class III, the enclosure shall be capable of supporting a dead weight of 200 pounds without causing malfunction of or damage to the unit.

3.5.1.1 Sheet steel. The sheet steel enclosure shall be not less than 18 U.S. Standard gauge, coated inside and out with a coating resistance to the electrolyte of the battery, and have a smooth finish. For access to the battery compartment the cover shall employ either a full piano hinge, captive lip or pin hinges, suitable latch, or held in place by "captive" type screws. The charger compartment must be easily accessible.

3.5.1.2 Plastic. The molded plastic enclosure shall conform to UL 924. The molded plastic enclosure shall be resistant to the electrolyte of the battery. For access to the battery compartment the cover shall employ either a full piano hinge, captive lip or pin hinges, suitable latch, or held in place by "captive" type screws. The charger compartment must be easily accessible.

3.5.2 Mounting device when specified (see 6.2). A mounting bracket or shelf of not less than 16 U.S. standard gauge steel of the same finish as the sheet steel enclosure described in paragraph 3.5.1.1 shall be furnished for each unit. Bolts or screws for fastening the mounting device to a plastered masonry wall shall be supplied with each device. When specified the wall face area of the bracket, or a separate mounting plate, shall have a minimum of 72 square inches and at least (3) three 1/4 inch diameter mounting holes. The mounting device shall permit ready inspection, test, and maintenance of the unit without the need for removing the unit from its mounting. It shall also permit easy removal of the unit when specified (see 6.2). A permanently fastened hasp for the insertion of a padlock, or similar deterrent shall be provided for each assembly to prevent unauthorized removal of the unit or battery.

3.6 Type I. The type I equipment shall be designed for installation on a nominal 120-volt or 277-volt (60 hertz) alternating current system, as specified (see 6.2).

3.6.1 Class I.

3.6.1.1 Style D. The type I, class I, style D equipment shall be a completely self-contained unit powered by either a 6 or 12 volt storage battery (see 6.2). The batteries shall have a minimum rating of 3.5 ampere hour at the 1 hour rate. The batteries shall be of a leak proof, spill proof, nonrefillable, nickel-cadmium construction. A means shall be provided to prevent accidental reversing of polarity i.e. different size posts or color coded electrical leads. The contractor shall provide evidence satisfactory to the Government, indicating that batteries of the same design and construction have been operating satisfactorily for 10 years and that their condition is such as to give a life expectancy of at least 15 years (see 6.3).

3.6.1.2 Style E. The type I, class I, style E equipment shall be the same as type I, class I, style D, except that the batteries shall be of a lead-calcium construction. The batteries shall have a minimum rating of 30 ampere hour at the 8 hour rate. The contractor shall provide evidence satisfactory to the Government, indicating that batteries of the same design and construction have been operating satisfactorily for 8 years and that their condition is such as to give a life expectancy of at least 10 years

(see 6.3).

3.6.1.3 Style F. The type I, class 1, style F equipment shall be the same as type 1, class , style D, except that the batteries shall have a minimum rating of 6 ampere hour at the 5 hour rate and be of a lead-acid construction. The contractor shall provide evidence satisfactory to the government, indicating that the batteries, of the same design and construction have been operating satisfactorily for 3 years and that their condition is such as to give a life expectancy of at least 5 years (see 6.3).

3.6.1.4 Charger for styles D, E, and F. The set shall contain a suitable battery charger which will maintain the battery in a full state of charge under normal power supply conditions and which after a power interruption and restoration will recharge the battery to a charged state within 12 hours after continuous discharge of 1-1/2 hours through the connected lamp load (see 3.10). The charger shall employ a solid state silicon or selenium rectifier and shall be of the multi-rate type. The charger shall without manual intervention, commence recharging the battery immediately after power restoration and continue until the battery has reached a full charged status and shall maintain that status.

3.6.2 Class III. The class III equipment shall consist of two components, a lamp unit and a battery power unit. The power unit shall be suitable for mounting on top (outside) of an elevator cab and the lamp unit shall be suitable for mounting on one of the walls or ceiling (inside) of the elevator cab. The unit shall have a minimum of 2 lamps of equal wattage providing 0.2 of a foot candle illumination when measured 4 feet above the car floor and approximately 1 foot in front of the car station. The power system shall be capable of maintaining the above light intensity for a period of 4 hours. The use of the existing fluorescent lamps within the cab is acceptable.

3.6.2.1 Style D. The type I, class III, style B batteries shall be the same as type I, class I, style D batteries as specified in 3.6.1.1.

3.6.2.2 Style C. The type 1, class III, style C batteries shall be the same as type I, class I, style E batteries as specified in 3.6.1.2.

3.6.2.3 Charger. The charger for styles 13 and C shall be as specified in 3.6.1.4 except that charger shall recharge the batteries to a charged state within 16 hours after continuous discharge of 4 hours through the connected lamp load.

3.7 Type II. The type II, class I equipment shall be the same as the type I, class I equipment, except it shall be provided with a cable assembly, and shall be for use on a 120-volt alternating current system only.

3.7.1 Cable assembly. The cable assembly consisting of a conductor cable and a plug connector, shall be 1 foot (30 centimeters) in length and shall conform to J-C-175, except that the color of the cord shall be black.

3.8 Lamp head and lamp.

3.8.1 Class I and class II. The lamp head(s) for class I units shall be mounted on the top of the unit and shall be adjustable in the horizontal and vertical planes. The mounting shall be so designed that horizontal rotation is limited to no more than 360 degrees nor less than 270 degrees in the horizontal plane and plus or minus 15 degrees minimum movement from the horizontal in the vertical plane. The lamp(s) shall be not less than 200 lumens capacity (initial output) at a nominal lamp voltage consistent with the D.C. voltage rating of the unit. Plastic lamp heads and swivels shall conform to UL 924.

3.8.2 Class III. Unless otherwise specified (see 6.2), the lamp unit for the class III set shall be suitable for mounting as specified in 3.6.2 and shall not protrude more than 3 inches from the cab wall.

3.8.3 Finish. Unless otherwise specified (see 6.2), the exterior housing of the metal lamp head(s) shall be coated with the same electrolyte

resistant paint, as specified in 3.5.1.1 or chrome plated.

3.9 Component parts.

3.9.1 Component parts for class I. Component parts such as relays, switches, and other parts containing contacts, shall be protected from dust, moisture, and oxidizing fumes from the battery. The relays shall be either the self cleaning type, if of electromechanical design. or the mercury or solid state type. On the exterior of the unit, preferably on the front panel, there shall be mounted an indicator light (see 3.10.1.1) to indicate when the A.C. power is on, and also a momentary test switch. The power-on indicator light shall be connected to the line side of the rectifier so that it does not impose a continuous drain on the rectifier or battery. An on-off switch on the outside of the housing is not acceptable.

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3.9.2 Components parts for class III. Components parts of the charger and emergency light control shall be solid state and shall be protected from dust, moisture and oxidizing fumes from the battery. Load relay if used and contacts shall be hermetically sealed and require no maintenance. A switch of the constant pressure type, that will automatically return to the off position when released, and a pilot light shall be provided for the periodic testing of battery and lamps.

3.10 Performance. The class I unit equipment shall be capable of supplying and maintaining the total associated load for a period of at least 1-1/2 hour after failure of the normal supply source. Class III unit equipment shall be capable of supplying and maintaining the total associated load for a period of at least 4 hours after failure of the normal supply source. A voltmeter reading taken after the 1-1/2 hour and 4 hour discharges shall not read below 5.25 volts on the 6 volt battery or 10.50 volts on the 12 volt battery. Class I units shall be capable of being recharged within 12 hours immediately after the 1-1/2 hours discharge period. Class III, styles D and C units shall be capable of being recharged within 16 hours immediately after the 4 hour discharge period. Units shall be tested for performance in accordance with 4.4.1.

3.10.1 Indicator light.

3.10.1.1 A.C. light. The A.C. power on indicator light, shall be illuminated to indicate the unit is receiving alternating current from the normal voltage supply. The indicator light shall be extinguished to indicate the unit is disconnected from the normal voltage supply.

3.11 Schematic and parts list. A basic schematic diagram of the charger, relays, switches, lights, controls, and battery, together with a parts list, shall be securely attached on the inside of the cover of each unit for quick reference and service. The diagram and list shall be suitably coated to prevent deterioration.

3.12 Marking. Each emergency light set or auxiliary light set shall be marked in accordance with UL-924.

3.13 Workmanship. The emergency light set or auxiliary light set shall be manufactured and finished in a thoroughly workmanlike manner in accordance with all applicable requirements of this specification.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.1.1 Inspection of materials and components. In accordance with 4.1 above, the supplier is responsible for insuring that materials and components used were manufactured, tested, and inspected in accordance with the requirements of referenced subsidiary specifications and standards to the extent specified herein, or, if none, in accordance with this specification.

4.1.2 Certification of compliance. When certificates of compliance are

submitted, the Government deserves the right to test such items to determine the validity of the certification. The certificate shall state that the items being procured are in full compliance with the specified requirements of this specification, and that the workmanship and materials conform with recognized standards of commercial quality. The certificate of compliance shall reference the contract or purchase order and shall be signed by a responsible officer of the contractor. The certificate shall also list specific test methods and results obtained.

4.2 Classification of inspection. Inspection shall be classified as follows:

- (a) Preproduction inspection.
- (b) Lot acceptance inspection.

4.3 Preproduction inspection. One emergency light-set of each type, size, and class, produced using the same tooling and production and assembly methods as proposed for production lots, shall be submitted for examination and test in accordance with 4.6 and 4.7 of this specification. Documentation consisting of the certifications and test data shall be presented for examination during performance of the reproduction inspection. Failure of the preproduction sample to pass the examination of one or more of the tests, the lack or required documentation or failure of the documentation to substantiate conformance to the requirements of this specification shall be cause for rejection.

4.4 Sampling for lot acceptance inspection.

4.4.1 Lot. All emergency light sets offered at one time shall be considered a lot for the purpose of acceptance, inspections and tests.

4.4.2 Sampling for inspection. A random sample shall be selected from each lot in accordance with the provisions of MIL-STD-105 at inspection level II.

4.4.3 Sampling for tests, sampling for tests shall be in accordance with MIL-STD-105, inspection level S-2, AQL 4.0.

4.5 Lot acceptance inspection. Lot acceptance inspection shall be applied to each item in accordance with 4.4.2 and 4.4.3 prior to being offered for acceptance under the contract. Lot acceptance inspection shall consist of the following:

- (a) Examination (see 4.6).
- (b) Tests (see 4.7.1 and 4.7.2).
- (c) Inspection or preparation for delivery (see 4.9).

4.6 Examination

4.6.1 Visual and dimensional examination. The completely assembled end item shall be examined for defects in finish, construction, workmanship, and marking. Defects shall be as classified in table I. The inspection level shall be level II with an Acceptable Quality Level (AQL) of 4.0 percent for major defects and 6.5 percent for total defects expressed in terms of defects per hundred units.

4.7 Performance.

4.7.1 Performance. The performance of the class I, style D, E, and F and class III, styles B and C unit equipment shall be tested in accordance with UL 924, paragraph 29.7, effective December 31, 1974. The batteries shall be fully charged in the unit equipment in accordance with the manufacturers instructions but not less than 24 hours prior to testing for performance. Any unit that fails to meet all the requirements of the above referenced UL standard is to be considered as having failed the test.

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TABLE I. Classification of defects

Examine	Defects	Classification	
		Major	Minor
Finish (see 3.5.1.1)	Not finished where required	X	
	Type of finish not as specified, or blistered, peeled, chipped, or area of no film or thin film.	X	
	Any component that is painted or otherwise coated where serviceability may be affected.	X	
	Significant rust.	X	
	Negligible rust.		X
Construction and workmanship, general (see 3.13)	Parts missing or not as specified.	X	
	Malformed, fractured, split, punctured, torn, dented, creased, deteriorated, bowed, sprung, or otherwise impaired.	X	
	Sharp burr, sliver, or splinter that may be injurious to personnel.	X	
	Component not readily accessible for servicing where required.	X	
Indicator light (see 3.10.1)	Part missing or not as specified.	X	
Welding or brazing (where required)	Missing, incomplete, burn holes, cracked, fractured, or otherwise not fused.	X	
	Slag inclusion, undercut, not smooth and uniform, scale, or flux deposits not removed.		X
Bolts, nuts, screws, studs, and other types fasteners	Missing, broken stripped, fractured.	X	
	Loose.		X
Assembly	Any component not properly assembled or secured.	X	
	Unit perceptibly out of square or alignment.	X	
Marking identification,			

(see 3.12)	Missing, incomplete, not legible, not as specified.	X
Schematic diagram (see 3.11)		
Maintenance manual	Missing, incomplete, not legible, not as specified.	X
Warranty card		

4.8 Housing finish.

4.8.1 Electrolyte resistance. Three 3 inch (7.62 centimeters) by 6 inch (15.24 centimeters) strips shall be cut from the 18 U.S. standard gauge sheet steel, and shall be prepared in accordance with the appropriate procedure of method 2011, Fed. Test Method Std. No. 141. Then draw down a 2 inch (5.06 centimeters) film of the gray coating (see 3.5.1.1) on each test panel as described in method 4061 of Fed. Test Method Std. No. 141 and allow to dry for 48 hours. At the end of this period place several drops of sulphuric acid (sp. gr. 1.300) on the coated panels. Cover the spots with watchglasses and allow the acid to remain in contact with the film for 6 hours. Wash the acid off the panels and examine the exposed areas for defects caused by the acid. No bubbling or deterioration of the paint shall be observed. A certificate of compliance shall be acceptable presented at the time of the preproduction inspection.

4.9 Inspection of preparation for delivery requirements. An inspection shall be made to determine whether the preservation, packaging, packing, and marking comply with the requirements in section 5 of this specification. Defects shall be scored in accordance with table II. For examination of interior packaging the sample unit shall be one shipping container fully prepared for delivery, selected at random just prior to the closing operations. Sampling shall be in accordance with MIL-STD-105. Defects of closure listed shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 with an acceptable quality level (AQL) of 4.0 defects per hundred units.

TABLE II. Classification of preparation for delivery defects

Examine	Defects
Markings	Omitted; incorrect; illegible; improper size, location, sequence, or method of application.
Materials	Any component missing or damaged.
Workmanship	Inadequate application of components such as incomplete closure of container flaps, loose strapping, inadequate stapling. Distortion of container.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. preservation and packaging shall be level A, B, or C as specified (see 6.2).

5.1.1 Level A.

5.1.1.1 Class I, light set without battery. Each class I, light set without battery shall be packaged in a close-fitting box conforming to PPP-B-636, class weather-resistant. Die-cut fiberboard blocking and bracing shall be used as necessary to prevent movement and damage during shipment and storage. The fiberboard material shall conform to PPP-F-320, type CF, class-domestic. The box shall be closed and water-proof sealed in accordance with the appendix to PPP-B-636.

5.1.1.2 Class III light sets. Each class III light set without battery shall be preserved and packaged in accordance with method IA-15 of MIL-P-116.

5.1.2 Level B.

5.1.2.1 Class I and III light set without batteries. Each class I and III light set without batteries shall be packaged in a close-fitting box conforming to PPP-B-636, class domestic. Die-cut fiberboard blocking and bracing shall be used as necessary to prevent movement and damage during shipment and storage. The fiberboard material shall conform to PPP-F-320, type CF, class domestic. The box shall be closed in accordance with the appendix to PPP-B-636.

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5.1.3 Level C. The light set shall be packaged to insure protection during shipment and safe delivery at destination. The batteries shall be packaged separately.

5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

5.2.1 Level A.

5.2.1.1 Class I and III light set without batteries, unit packages as specified in 5.1, of class I and III light sets of like description, in quantities as specified (see 6.2), shall be packed in a close fitting box conforming to PPP-B-601, overseas type; PPP-13-621, class 2; PPP-13-636, class weather-resistant or to PPP-B-640, class 2. The box shall be closed and strapped in accordance with the appendix to the applicable box specification. The gross weight shall not exceed 200 pounds.

5.2.1.2 Charged battery with electrolyte. The-charged battery with electrolyte shall be packed in a close-fitting box conforming to PPP-B-636, class domestic. The battery shall have a top frame made of built up fiberboard. Die cut fiberboard blocking and bracing shall be used as necessary to prevent movement. The box shall be closed and sealed in accordance with method 2 of the appendix to PPP-B-636.

5.2.1.3 Class I and III light sets. Each light set and applicable batteries, packaged as specified herein shall be shipped as one complete set.

5.2.2 Level B.

5.2.2.1 Class I and III light set. Unit packages as specified in 5.1, of class I and III light set without batteries, in quantities as specified (see 6.2) shall be packed in a close-fitting box conforming to PPP-B-636, class domestic or to PPP-B-640, class I. The box shall be closed and strapped in accordance with the appendix to the applicable box specification. The gross weights of the boxes shall not exceed 200 pounds or the weight limitations of the applicable box specification.

5.2.2.2 Charged batteries with electrolyte. The charged battery with electrolyte shall be packed in a close-fitting box conforming to PPP-B-636, class domestic. The battery shall have a top frame made of built up fiberboard. Die cut fiberboard blocking and bracing shall be used as necessary to prevent movement. The box shall be closed and sealed in accordance with method 2 of the appendix to PPP-B-636.

5.2.2.3 Class I and III light sets. Each light set and applicable batteries packages as specified herein shall be shipped as one complete set.

5.2.3 Level C. The light sets packages as specified in 5.1 shall be packed to comply with the National Motor Freight Classification Rules or the Uniform Freight Classification, Rules.

5.3 Marking. Marking shall be in accordance with 5.3.1 or 5.3.2 as specified (see 6.2).

5.3.1 Civil agencies. Marking shall be in accordance with Fed. Std. No. 123.

5.3.2 Military agencies. Marking shall be in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use.

6.1.1 Type I. The type I emergency light set is designed for installation in Article 700 of the National Electrical Code for permanent connection to the normal supply source.

6.1.2 Type II. The type II auxiliary light set is intended to provide auxiliary light by plug-in type connection to the normal supply source.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

- (a) Title, number, and date of this specification.
- (b) Type, class, style, and kind set required (see 1.2).
- (c) Mounting bracket when specified (see 3.5.2).
- (d) Strap and Hasp when specified (see 3.5.2).
- (e) AC supply voltage required (type I only, see 3.6).
- (f) Type of battery voltage desired (see 3.6.1.1 and 3.6.1.2).
- (g) Lamp unit, if other than specified (see 3.3.2).
- (h) Finish of lamp head(s) (see 3.8.3).
- (i) Level of preservation, packaging, and packing (see 5.1 and 5.2).
- (j) Quantity of unit packages in shipping container (see 5.2.1.1 and 5.2.2.1).
- (k) Marking, if other than specified (see 5.3).

6.3 Battery. Particular attention shall be directed to the batteries furnished with all the type I and the type II light sets. It shall be determined that the batteries are as specified in the invitation for bids and are in accordance with the applicable requirements of the appropriate battery specification. Batteries shall be readily identifiable as to manufacturer, model or part number, and manufacturer's stock number.

6.4 Service guarantee. A complete 1 year warranty for free replacement of all parts and batteries shall be provided by the manufacturer. The warranty shall date from the receipt by the manufacturer of the preaddressed warranty card provided with each light set. An additional 2 year warranty period commencing after the expiration of the initial 1 year period has expired shall also be provided by the manufacturer for a prorated replacement of all parts and batteries. Pre-addressed warranty cards, maintenance manuals and installation instructions shall be packed with the units inside the cartons.

Military Interests:

Review Activities:

Preparing Activity: GSA - FSS

Army - ME

Navy - SH

Air Force - 82

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

Orders for this publication are to be placed with General Services Administration, acting as an agent for the Superintendent of Documents. See section 2 of this specification to obtain extra copies and other documents referenced herein. Price 35 cents each.

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INTERIM AMENDMENT-1
June 29, 1977

INTERIM AMENDMENT

TO

FEDERAL SPECIFICATION

LIGHT SET, GENERAL ILLUMINATION
(EMERGENCY OR AUXILLIARY)

This interim amendment was developed by the General Services Administration, Federal Supply Service, Washington, DC 20406, based upon currently available technical information. It is recommended that Federal agencies use it in procurement and forward recommendations for changes to the preparing activity at the address shown above.

The General Services Administration has authorized the use of this interim amendment as a valid exception to Federal Specification W-L-305D, dated May 12, 1976.

PAGE 1

Paragraph 1.2, under "Class III" include the additional battery style immediately after the existing style B and C batteries as follows:

"Style G - Equipped with non-refillable lead-acid (gel) type battery".

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Paragraphs 3.6.1.1, 3.6.1.2, and 3.6.1.3, delete the last sentence in each of these paragraphs without replacement.

PAGE 5

Paragraph 3.6.2.1, delete in its entirety and replace with the following:

"3.6.2.1 Style B. The type I, class III, style B batteries shall be the same as the type I, class I, style D batteries specified in 3.6.1.1 except that the type I, class III, style B batteries shall provide the performance required of class III units per paragraph 3.10 of this specification."

Paragraph 3.6.2.2, delete in its entirety and replace with the following:

"3.6.2.2 styles C and G. The type I, class III, style C batteries shall be the same as the type I, class I, style E batteries specified in 3.6.1.2 except that the type I, class III, style C batteries shall provide the performance required of class III units per paragraph 3.10 of this specification. The type I, class III, style G batteries shall be the same as the type I, class I, style F batteries specified in 3.6.1.3 except that the type I, class III, style G batteries shall provide the performance required of class III units per paragraph 3.10 of this specification".

Paragraph 3.6.2.3, delete in its entirety and replace with the following:

"3.6.2.3 Charger. The charger for style B, C, and G shall be as specified in 3.6.1.4 except that charger shall recharge the batteries to a charged state within 16 hours after continuous discharge of 4 hours through

the connected lamp load."

Paragraph 3.8.1, delete the words "and class II" from paragraph title.

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Paragraph 3.9.1, last sentence, delete in its entirety and replace with the following:

"If an on-off switch is provided, such switch shall not be accessible from outside of housing."

Paragraph 3.10, next to last sentence delete in its entirety and replace with the following:

"Class III, styles B, C, and G shall be capable of being recharged within 16 hours immediately after the 4 hour discharge period."

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Paragraph 4.3, seventh line, change the wording "lack or required" to "lack of required."

Paragraph 4.5, subparagraph (b), delete in its entirety and replace with: "(b) Tests (see 4.7.1 and 4.8.1)".

Paragraph 4.7.1, first sentence, delete in its entirety and replace with the following:

"The performance of the class I, styles D, E, and F and class III, styles B, C, and G unit equipment shall be tested in accordance with UL 924, paragraph 29.7."

PAGES 9 and 10

Section 5, "PREPARATION FOR DELIVERY", delete in its entirety and replace with the following:

"5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A, or commercial as specified (see 6.2).

5.1.1 Level A.

5.1.1.1 Class I, light set without battery. Each class I, light set without battery shall be packaged in a close-fitting box conforming to PPP-B-636, class weather-resistant. Die-cut fiberboard blocking and bracing shall be used as necessary to prevent movement and damage during shipment and storage. The fiberboard material shall conform to PPP-F-320, class-domestic. The box shall be closed and water-proof sealed in accordance with the appendix to PPP-B-636.

5.1.1.2 Class III, light sets. Each class III light set without battery shall be Preserved and packaged in accordance with method IA-15 of MIL-P-116.

5.1.2 Commercial. The light set and applicable battery shall be packaged to insure protection during shipment and safe delivery at destination. The batteries shall be packaged separately.

5.2 Packing. Packing shall be level A, or commercial, as specified (see 6.2).

5.2.1 Level A.

5.2.1.1 Class I and III light set without batteries. Unit packages as specified in 5.1 of class I and III light sets of like description, in quantities as specified (see 6.2.), shall be packed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-621, class 2; PPP-B-636, class weather-resistant, or to PPP-B-640, class 2. The box shall be closed and strapped in accordance with the appendix to the applicable box specification. The gross weight shall not exceed 200 pounds.

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5.2.1.2 Charged battery with electrolyte. The charged battery with electrolyte shall be packed in a close-fitting box conforming to PPP-13-636, class domestic. The battery shall have a top frame made of fiberboard. Die cut fiberboard blocking and bracing shall be used as necessary to prevent Movement. The box shall be closed and sealed in accordance with method 2 of the appendix to PPP-B-63E.

5.2.1.3 Class I and III, lights sets. Each light set and applicable batteries packaged as specified herein shall be shipped as one complete set.

5.2.2 Commercial. The light sets and applicable batteries packed as specified in 5.1 shall be packed to comply with the National Motor Freight Classification Rules or the Uniform Freight Classification Rules and shall be shipped as complete sets.

5.3 Marking. Marking shall be in accordance with 5.3.1 or 5.3.2 as specified (see 6.2).

5.3.1 Civil agencies. Marking shall be in accordance with Fed. Std. No. 123.

5.3.2 Military agencies. Marking shall be in accordance with MIL-STD-129."

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Paragraph 6.2, subparagraph "(j)", delete the reference to "5.2.2.1".