INCH-POUND

MIL-DTL-24560A(SH) 5 February 1999 SUPERSEDING MIL-L-24560(SH) 10 September 1979

DETAIL SPECIFICATION

LIGHTS AND GLASSWARE FOR NAVIGATION, SIGNAL, AND WARNING, NAVAL SHIPBOARD USE, GENERAL SPECIFICATION FOR

This specification is approved for use by the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 <u>Scope</u>. This specification covers light assemblies and associated glassware used for navigation, signal, and warning purposes on Naval ships.

1.2 <u>Classification</u>. Light assemblies and glassware covered by this specification will be of the following types and classes, as specified (see 6.2):

Light Assemblies: TYPE I - Splashproof. TYPE II - Submersible. Glassware: CLASS 1 - Fresnel type lens. CLASS 2 - Globe, roundel, and lens. CLASS 3 - Fresnel globe.

2. APPLICABLE DOCUMENTS

2.1 <u>General</u>. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Sea Systems Command, SEA 03Q, 2531 Jefferson Davis Highway, Arlington, VA 22242-5160 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 6220 DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

2.2 Government documents.

2.2.1 <u>Specifications, standards, and handbooks</u>. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

DEPARTMENT OF DEFENSE MIL-S-901 - Shock Tests, H.I. (High-Impact) Shipboard Machinery, Equipment, and Systems, Requirements for. MIL-E-917 - Electric Power Equipment Basic Requirements. MIL-S-8660 - Silicone Compound, NATO Code Number S-736. MIL-I-17214 - Indicator Permeability, Low-Mu (Go-No-Go). MIL-T-22361 - Thread Compound, Antiseize, Zinc Dust-Petrolatum.

(See supplement 1 for list of specification sheets.)

STANDARDS

DEPARTMENT OF DEFENSE
MIL-STD-108 - Definitions of and Basic Requirements for Enclosures for Electric and Electronic Equipment.
MIL-STD-167-1 - Mechanical Vibrations of Shipboard Equipment (Type I - Environmental and Type II - Internally Excited).
MIL-STD-202 - Test Methods for Electronic and Electrical Component Parts. MIL-STD-278 - Welding and Casting Standard.
MIL-STD-2175 - Castings, Classification and Inspection of.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Defense Automated Printing Service (DAPs), 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 <u>Non-Government publications</u>. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

> AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) ANSI B46.1 - Surface Texture (Surface Roughness, Waviness, and Lay).

(Application for copies should be addressed to the American National Standards Institute, Inc., Attn: Customer Service, 11 West 42nd Street, New York, NY 10036.)

AMERICAN SOCIETY FOR QUALITY (ASQ) ASQC Z1.4 - Sampling Procedures and Tables for Inspection by Attributes. (Application for copies should be addressed to the American Society for Quality, 611 East Wisconsin Avenue, Milwaukee, WI 53202-4606.)

ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) IESNA Lighting Handbook.

(Application for copies should be addressed to the Illuminating Engineering Society of North America, 120 Wall Street, Floor 17, New York, NY 10005-4001.)

INTERNATIONAL ORGANIZATION FOR STANDARDS (ISO) ISO/CIE 10527 - CIE Standard Colorimetric Observers.

(Application for copies should be addressed to the American National Standards Institute, Inc., Attn: Customer Service, 11 West 42nd Street, New York, NY 10036.)

> UNDERWRITERS LABORATORIES (UL) UL 486A - Wire Connectors and Soldering Lugs for Use with Copper Conductors.

(Application for copies should be addressed to the Underwriters Laboratories, Inc., Publications Stock, 333 Pfingsten Road, Northbrook, IL 60062.)

2.4 <u>Order of precedence</u>. In the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 <u>Specification sheets</u>. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheet. In the event of any conflict between requirements of this specification and the applicable specification sheet, the latter shall govern.

3.2 <u>First article</u>. When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.2.

3.3 <u>Parts and materials</u>. Parts and materials shall be as specified herein and in the applicable specification sheets. Where a definite material is not specified, a material shall be used which will enable the light assembly or glassware to meet the requirements of this specification.

3.3.1 <u>Recycled</u>, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.3.2 <u>Metals</u>. Metals shall be of the corrosion-resistant type as specified in the applicable specification sheet, or they shall be treated to resist corrosion as specified in MIL-E-917. Dissimilar metals in contact with each other shall be in accordance with MIL-E-917.

3.3.2.1 <u>Aluminum</u>. Unless otherwise specified (see 3.1), aluminum alloys, except castings, shall conform to American Society for Testing and Materials (ASTM) standards. Aluminum alloy castings shall be manufacturer's choice except sand castings and permanent mold castings shall conform to class 4 of MIL-STD-2175; grade shall be manufacturer's choice.