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INTERNATIONAL
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AEROSPACE STANDARD

SAE AS50571

Issued 1999-04

Lights, Instrument, Individual, General Specification For

FSC 6220

NOTICE

This document has been taken directly from U.S. Military Specification MIL-L-5057F, Amendment 2 and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards. The initial release of this document is intended to replace MIL-L-5057F, Amendment 2. Any part numbers established by the original specification remain unchanged.

The original Military Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, and (b) the use of the existing government specification or standard format.

Under Department of Defense policies and procedures, any qualification requirements and associated qualified products lists are mandatory for DOD contracts. Any requirement relating to qualified products lists (QPL's) has not been adopted by SAE and is not part of this SAE technical document.

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1. SCOPE:

1.1 Scope:

This specification covers the general requirements for red and white individual instrument lights.

1.2 Classification:

The lights shall be suitable for clamp- or flange-mounted instruments or for polysign indicators as specified. The lights shall be furnished in the MS part numbers listed on the standard or for qualified lights which do not conform to any standard, the manufacturer's part numbers listed on the manufacturer's drawing (see 6.2).

2. APPLICABLE DOCUMENTS:

2.1 The following documents of the issue in effect on date of invitations for bids form a part of this specification to the extent specified herein.

SPECIFICATIONS

Federal

PPP-B-601	Boxes, Wood-Cleated Plywood
PPP-B-636	Box, Fiber

Military

MIL-P-116	Preservation-Packaging, Methods of
MIL-I-631	Insulation, Electrical, Synthetic-Resin Composition, Nonrigid
MIL-W-5086	Wire, Electric, Polyvinyl Chloride-Insulated, Copper or Copper Alloy
MIL-C-6390	Clamps and Instruments, Aircraft, Installation of
MIL-C-6818	Clamp, Instrument, Mounting, Aircraft
MIL-I-6839	Indicator, Symbol Indicating, Landing Gear, Position
MIL-C-25050	Color, Aeronautical, Lights and Lighting Equipment, General Requirements for
MIL-L-85762	Lighting, Aircraft, Interior, AN/AVS-6 Aviator's Night Vision Imaging System (ANVIS) Compatible

STANDARDS

Federal

FED-STD-595	Colors

2.1 (Continued):

Military

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	Marking for Shipment and Storage
MIL-STD-130	Identification Marking of U.S. Military Property
MIL-STD-810	Environmental Test Methods
MS 9006	Recesses - Cross, Low Torque Drive, Dimensions and Gage Dimensions for
MS 25237	Lamp, Incandescent, T-1-3/4 Bulb, Midget Flange Base
MS 27403	Indicator, Position, Landing Gear, 28 Volts DC
MS 33545	Case, Instrument, 5 x 5-1/4, Standard Dimensions for
MS 33549	Case, Instrument, 2-3/4 Dial, With Sump, Standard Dimensions for
MS 33556	Case, Aircraft Instrument, 3-1/4 Inch Size, Standard Dimensions for
MS 33638	Cases, Instrument, Flange-Mounted, Aircraft
MS 33639	Cases, Instrument, Clamp-Mounted, Aircraft

(Copies of specifications, standards, drawings, and publications required by contractors 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 document forms a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

CONSOLIDATED CLASSIFICATION COMMITTEE

Uniform Freight Classification Rules

(Application for copies of the above publication should be addressed to the Consolidated Classification Committee, 202 Chicago Union Station, Chicago, IL 60610.)

American Society of Testing and Materials (ASTM)

ASTM-D-3951 Packaging, Commercial

(Copies of ASTM-D-3951 should be obtained from the American Society of Testing and Materials, 1916 Race Street, Philadelphia, PA 19603.)

2.4 Streamlining:

This document has been streamlined. Appendix A to MIL-L-5057F lists those documents required for MIL-L-5057F acquisition and is a mandatory part of MIL-L-5057F. Those documents listed in Appendix A have the same status as those referenced directly in MIL-L-5057F (first tier documents). All other documents, referenced through tiering, may be used as guidance and information to supplement MIL-L-5057F.

3. REQUIREMENTS:

3.1 First article:

Unless otherwise specified, the lights furnished under this specification shall be a product which has been inspected and has passed first article inspection specified herein (see 4.3 and 6.3).

3.2 Precedence:

When the requirements of this specification and the applicable MS standard are in conflict, the requirements of the MS standard shall apply.

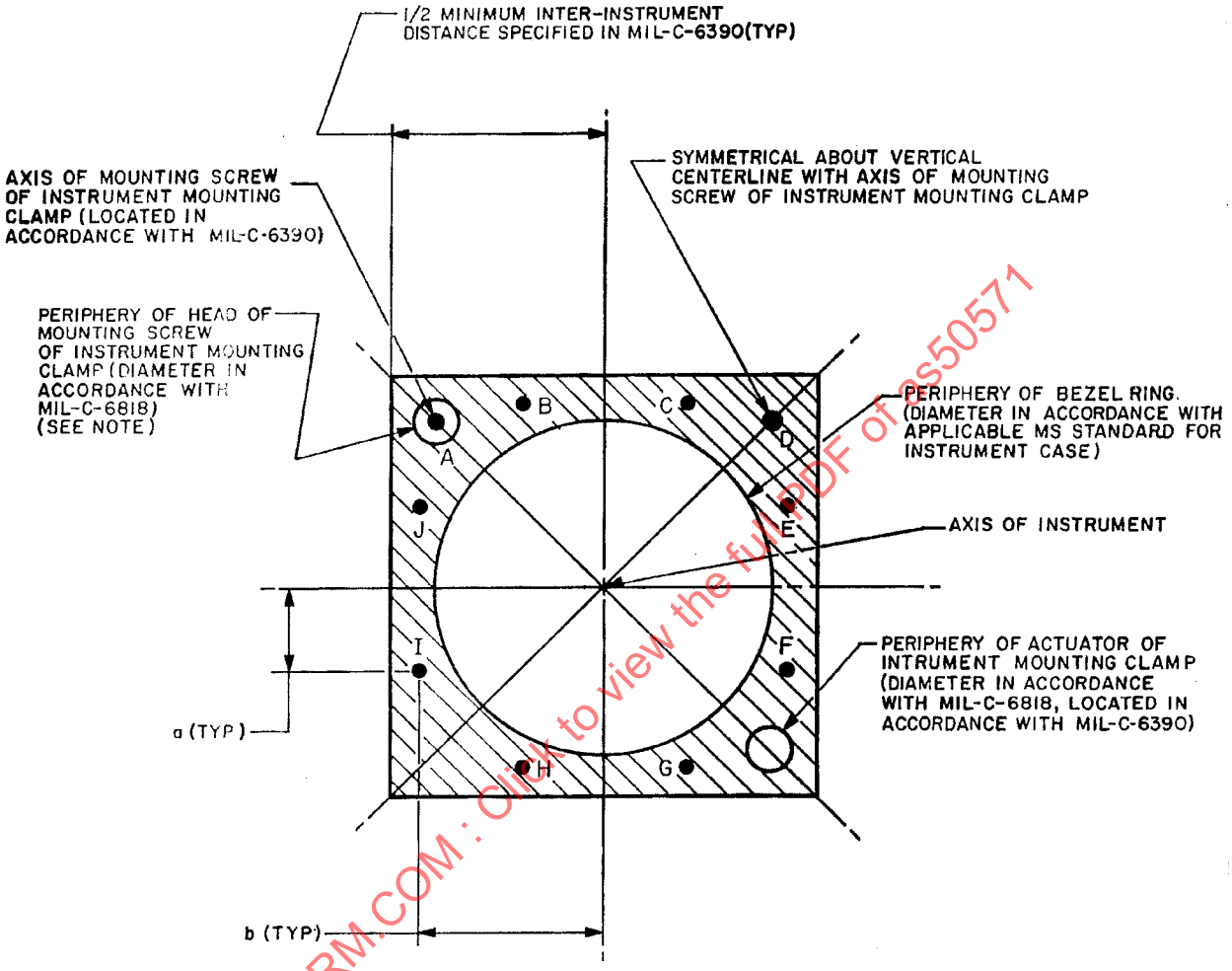
3.3 Materials:

The lights shall be made entirely of nonmagnetic materials.

3.4 Design and construction:

Lights shall conform to the MS standard or, for qualified lights which do not conform to any standard, to the manufacturer's drawing. Lights for clamp-mounted instruments shall be contained within the outline shown in figure 1. Lights for flange-mounted instruments shall be contained within the circumscribing square of the mounting flange of the instrument. Lights for polysign indicators shall be contained within the outline shown in figure 2. No part of any light shall be more than 0.875 inch forward (away from the instrument panel) from the extreme front surface of the instrument case, exclusive of knobs, pushbuttons, etc., nor contained within a right truncated circular cone, the axis of which is the axis of the case of the instrument, the periphery of the truncated end of which is the periphery of the aperture of the case of the instrument, and the side of which makes an angle of 30 degrees with its axis. Lights shall not interfere with operation of any adjusting knobs or screws on the instrument case.

3.4.1 Mounting: The light shall be mountable on an instrument panel of any thickness between 0.060 and 0.190 inch inclusive. Lights for clamp-mounted instruments and polysign indicators shall be mounted by means of one or two circular holes, each not more than 0.260 inch in diameter in the instrument panel in the locations indicated for capital letters in figures 1 and 2 as applicable. Lights for flange-mounted instruments shall be mounted by means of one or more of the mounting screws of the instrument, or by means of equivalent devices installed through the mounting holes of the instrument which are part of, or are furnished with the light, which shall serve to mount the instrument as well as the light.



DIMENSIONS IN INCHES. TOLERANCES ± .016.

LIGHT(S) SHALL BE CONTAINED IN SHADED REGION.

NOTE: IF THE LIGHT IS NOT MOUNTED IN THE MOUNTING LUG OF THE INSTRUMENT MOUNTING CLAMP OR BY MEANS OF A SCREW OR OTHER DEVICE SCREWED INTO THE MOUNTING LUG OF THE INSTRUMENT MOUNTING CLAMP, NO PART OF THE LIGHT SHALL BE CONTAINED WITHIN THE PERIPHERY OF THE HEAD OF THE MOUNTING SCREW OF THE INSTRUMENT MOUNTING CLAMP.

INSTRUMENT SIZE	a	b
1 - INCH	.400	.500
1½- INCH	.594	.766
2 - INCH	. 62	1.062
3 - INCH	1.047	1.500

Figure 1. Dimensions and mounting of lights for clamp-mounted instruments.

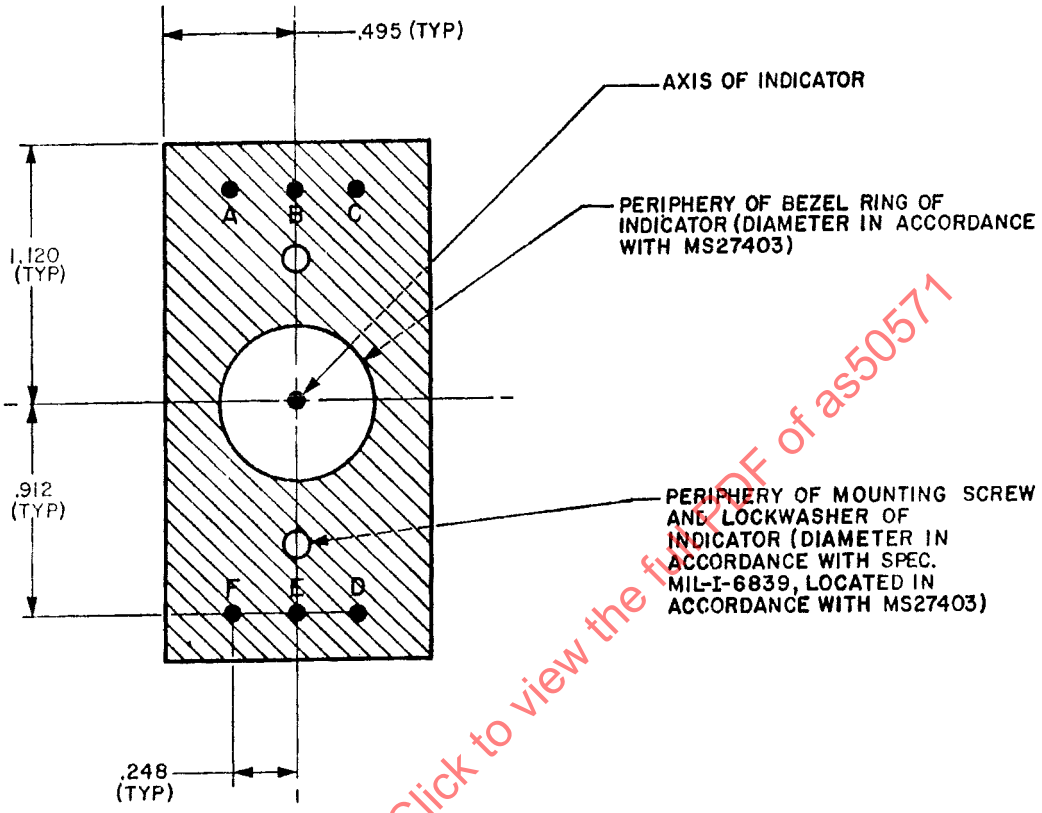


Figure 2. Dimensions and mounting of lights for polysign indicators.

3.4.1.1 Holes for lead wires: Lights for flange-mounted magnetic compasses may also employ one circular hole not more than 0.188 inch in diameter on the instrument panel, or two circular holes, each not more than 0.125 inch in diameter, in the instrument panel for lead wires. Lights for other instruments may also employ one circular hole not more than 0.125 inch in diameter in the instrument panel for a lead wire.

3.4.2 Lamp: The lights shall conform to this specification, except for the maximum weight requirement, with one or more MS25237-327 lamps installed, but shall not include any lamp unless so indicated by its part number. For lights including lamps, the dash number only for the lamp shall be added to the part number of the light. Part numbers of lights which include lamps shall be marked on their shipping containers only.

3.4.3 Electrical circuit: Electrical circuits of lights for flange-mounted magnetic compasses shall not be connected to the bodies, cases, frames, or means for mounting of the lights. Lights for all other instruments shall employ a ground return through the instrument panel for one side of their electrical circuits. If two or more lamps are used, they shall be connected parallel to each other. No light shall include any other part having any significant electrical parameter.

3.4.4 Lead wires: Lead wires shall conform to MIL-W-5086/1-20, and shall be at least 36 inches long. If the wire passes through a hole in the instrument panel, it shall be covered from inside the light to at least 2 inches from the panel with an insulating sleeving conforming to type F, form U, Grade A of MIL-I-631.

3.4.5 Use of tools: The lights shall be made so that the amount and distribution of the light output cannot be changed without the use of tools, but so that the lamp(s) can be removed and replaced without the use of tools.

3.4.6 Mounting screws: The mounting screws shall be in accordance with MS 9006.

3.5 Color of light:

Light provided by each red light shall conform to MIL-C-25050 for aviation red and also shall be not paler or yellower than NBS No. 3215 filter. Optical paths of white lights shall be color nonselective. When Instrument Panel Lighting (IPL) white or Air Force Blue white lighting are used, they shall be in accordance with MIL-C-25050.

3.5.1 Night vision goggle compatible lighting: When night vision goggle compatible lighting is required, it shall be in accordance with MIL-L-85762 (see 4.6.13.1).

3.6 Performance:

3.6.1 Dielectric: When tested in accordance with 4.6.4, there shall be no breakdown of insulation.

3.6.2 Operation: For all tests requiring operation of the light, energization shall be accomplished as specified below. The error of the voltmeter used for measuring the potential shall not exceed 0.05 volt (V). The lights shall conform to all requirements of this specification with a potential having an effective value of 28V and a frequency of 400 ± 20 cycles per second (cps), or direct current (DC), applied to its electrical connections (see 4.6.5 through 4.6.8).

3.6.2.1 Operation at low temperature: The light shall operate satisfactorily when subjected to the test specified in 4.6.6.

3.6.2.2 Operation at high temperature: The light shall operate satisfactorily when subjected to the test specified in 4.6.7.

3.6.2.3 Operation under vibration: The light shall operate satisfactorily, and shall show no signs of breakage when subjected to the test specified in 4.6.8.

3.6.3 Resistance to shock: The light shall show no signs of breakage, and shall operate properly when subjected to the test specified in 4.6.9.

3.6.4 Resistance to fungus: There shall be no noticeable effect of exposure to fungus when subjected to the test specified in 4.6.10.

3.6.5 Resistance to humidity: The light shall operate satisfactorily when subjected to the humidity test specified in 4.6.11.

3.6.6 Resistance to corrosion: The light shall operate satisfactorily after being subjected to the salt spray test specified in 4.6.12.

3.6.7 Light output: The light output shall be within the tolerances specified in 4.6.13 when tested as specified in 4.6.13.

3.6.8 Angle of visibility: Lights shall be such that, when mounted on the instrument, and located within a cone of visibility from 4 degrees above to 40 degrees below the horizontal axis of the observer and from 40 degrees on one side to 40 degrees on the other side of the straight forward direction of the observer, the light shall not reduce the instrument visibility which exists without a light (see 4.6.14).

3.6.9 Dimensions: The dimensions of the light shall be as specified on the applicable MS standard.

3.6.10 Weight: The weight of the light shall not exceed the value specified on the applicable MS standard or, for qualified lights which do not conform to any standard, on the manufacturer's drawing.

3.7 Finish:

All parts of the light, except those from which the light is emitted which are visible from the front (dial) side of the instrument panel when the light is installed, shall have a black finish conforming to Color No. 37038 of Federal Standard No. 595.

3.8 Identification marking:

Parts, subassemblies, and lights shall be marked for identification in accordance with MIL-STD-130.

3.9 Workmanship:

The light, including all parts and accessories shall be fabricated and finished in a thoroughly workmanlike manner. Particular attention shall be given to freedom from burrs and sharp edges, accuracy of dimensions, and marking of parts and assemblies.

3.9.1 Cleaning: The light shall be thoroughly cleaned, and loose, spattered, or excess solder, metal chips, and other foreign material removed during and after final assembly.

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 purchase 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 supplies and services conform to prescribed requirements.

4.4.1 Responsibility for compliance: All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.2 Classification of inspection:

The examination and testing of the lights shall be classified as follows:

a. First article. First article inspection consists of examinations and tests performed on samples which are representative of the production item after award of a contract to determine that the production conforms to the requirements of this specification (see 3.1 and 6.3).

b. Quality conformance inspection. Quality conformance inspection consists of examinations and tests performed on individual products or lots to determine conformance of the products or lots with the requirements set forth in this specification (see 4.4.1 and 4.4.2).

4.3 First article tests:

4.3.1 Sampling instructions: A sample for first article testing shall consist of at least two lights of a given manufacturer's part number. Samples shall be furnished as directed by the contracting officer. The following information shall be furnished with each sample:

a. Government designation (if any).

b. Manufacturer's designation.

c. Instrument case with which to be used.

d. Location(s) of any adjusting knobs and screws on the instrument case (for lights for use with MS33549 and MS33556 instrument cases only).

e. Aperture diameter and mounting hole style of instrument case (for lights for use with MS33545 instrument cases only).

f. Whether instrument is to be installed with mounting flange on front or back side of instrument panel (for flange-mounted instruments only).

g. For use with magnetic compasses (for lights used with flange-mounted magnetic compasses only).

h. Number of lights to be used with each instrument, and the positions (and orientations, if applicable) in which they are to be installed.

i. Manufacturer's drawing and installation instructions only for lights which do not conform to any standard).

4.3.2 Tests: The first article tests shall consist of all the tests specified under 4.6 Test methods, and shall be performed in the order listed.

4.4 Quality conformance tests:

The quality conformance tests shall consist of individual tests and sampling tests.

4.4.1 Individual tests: The lights shall be subjected to the following tests:

a. Examination of product (4.6.1)
b. Dimensions (overall) (4.6.2)
c. Weight (4.6.3)
d. Dielectric strength (4.6.4)
e. Operation (4.6.5)

4.4.2 Sampling tests: The lights shall be subjected to the following tests. Lot acceptance shall be in accordance with the sampling requirements of MIL-STD-105, Inspection level S-3, Acceptable Level (AQL) 1.5. A light with one or more defects shall be considered one defective light in the application of MIL-STD-105.

a. Operation at low temperature (4.6.6)
b. Operation at high temperature (4.6.7)
c. Operation under vibration (4.6.8)
d. Resistance to shock (4.6.9)

4.5 Test conditions:

4.5.1 Ambient temperature: Unless otherwise specified, all tests of this specification shall be performed at 70° ± 5°F.

4.5.2 Lamp luminous intensity: The lamps used shall be aged not less than 10 hours and shall be capable of emitting an average intensity of 0.34 ± 0.02 spherical candlepower per lamp when operated at rated voltage.

4.5.3 Mounting: When specified, the light shall be installed with an instrument case, in accordance with the applicable MS standard, figure 1 or 2, or the manufacturer's drawing, on a hard aluminum panel 0.125 ± 0.010 inch thick, and shall be tested with the panel vertical and the light and instrument in their normal orientations.

4.5.4 Light installation: The light shall be installed with an instrument case. The front (dial) side of the panel shall have a grey finish conforming to Federal Standard No. 505, Color No. 36231 for at least 2 inches in all directions from the instrument case and the light. The instrument case shall include a window glass, and shall contain a dial, parallel to the window glass of the case and at least as large as the window aperture of the instrument case. The visible side of the dial shall have a white finish conforming to Federal Standard No. 595, Color No. 37875. The distance from the extreme front surface of the instrument case, exclusive of knobs, pushbuttons, etc. but including the bezel ring, if any, to the visible side of the dial shall be as follows:

Instrument case	Depth of dial (inches)
MS33639 1-Inch	0.175 ± 0.015
MS33639 1½-Inch	0.225 ± 0.020
MS33639 2-Inch	0.275 ± 0.025
MS33639 3-Inch	0.325 ± 0.030
MS33638 1½-Inch	0.225 ± 0.020
MS33638 2-Inch	0.275 ± 0.025
MS33638 3-Inch	0.325 ± 0.030
MS33549	0.325 ± 0.030
MS33556	0.325 ± 0.030
MS33545	0.375 ± 0.035

4.5.5 Light measurements: All light measurements, both quantitative measurements and nonquantitative visual comparisons, shall be made in surroundings wherein the only source of light is that which is being measured.

4.5.6 Lamp failure: Failure of a lamp during any test shall not constitute failure of the light.

4.5.7 Light output: Unless otherwise specified, the following test procedures shall be followed:

a. Standardization of test lamps to related mean spherical intensity at rated operating voltage.
b. Evaluate chromaticity of red lights.
c. Test for contrast to establish minimum acceptable level.

4.6 Test methods:

4.6.1 Examination of product: The light shall be carefully examined to determine conformance to this specification with respect to all requirements not covered by specific tests.

4.6.2 Dimensions: The light shall be measured for conformance to the overall dimensions of the MS standard, or for lights which do not conform to any standard, to the manufacturer's drawing.

4.6.3 Weight: Each light shall be weighed for conformance to the applicable MS standard or manufacturer's drawing.

4.6.4 Dielectric strength: The lamp(s) shall be removed from the light. A potential of 750 ± 50 V at 400 ± 20 cps shall be applied between the ungrounded electrical connection(s) of the light and all other exposed metal parts of the light for 10 ± 2 seconds.

4.6.5 Operation: The light shall be installed with an instrument case and operated. During operation, the illumination of the instrument dial shall be compared with that of an identical installation which has been subjected to and has passed the test specified in 4.6.13, to determine whether the light is illuminating the instrument dial as required by 4.6.13.

4.6.6 Operation at low temperature: The lights shall be kept in a chamber maintained at -55° ± 2°C for 24 ± 1 hours. Then, while remaining in the chamber at this temperature, the lights shall be subjected to the tests of 4.6.5. The standard (quantitatively measured) installation shall be 70° ± 5°F, and shall not be in the chamber.

4.6.7 Operation at high temperature: The lights shall be subjected to the test of 4.6.6 with 70° ± 2°C substituted for -55° ± 2°C wherever it appears.

4.6.8 Operation under vibration: The light shall be vibrated along each of 3 mutually perpendicular axes at a double amplitude of 0.019 ± 0.001 inch for one hour in each of the 3 axes. The frequency of vibration shall be varied sinusoidally between 300 and 12,000 cycles per minute and returned once each minute for 1 hour. The light shall then be subjected to the test specified in 4.6.5 six times, approximately equally spaced but random with respect to the frequency of vibration, during the hour of vibration.

4.6.9 Resistance to shock: The lights installed with an instrument case, shall be subjected to three shocks, each having an acceleration of 30 ± 3g's and a duration of 7.5 ± 1.5 milliseconds, in each of three mutually perpendicular directions. The lights shall then be subjected to the test specified in 4.6.5.

4.6.10 Resistance to fungus: The lights shall be exposed to a suspension of freely sporulating mixed spores as follows: Distilled water, with or without a wetting agent, shall be introduced directly into a stock culture of one fungus and shaken gently without disturbing the agar. The spore suspension shall then be sprayed with an atomizer over all exposed parts of the lights. This procedure shall be repeated with four more fungi. Care shall be taken when spraying each fungus onto the lights that none of the previously applied fungi shall be washed off. One fungus from each of the following groups shall be used:

Group I Chaetomium globosum USDA 1042.4 or Myrothecium verrucaria USDA 1334.2

Group II Rhizopus nigricans S. N. 32 or Aspergillus niger USDA TC215 4247.

Group III Aspergillus flarus AMC No. 26 or Aspergillus terreus PQMD82J.

Group IV Penicillium luteum USDA 1336.1 or Penicillium sp. USDA 1336.2.

Group V Memnoniella echinata AMC No. 37 or Fusarium moniliforme USDA 1004.1.

The lights shall be placed in a mold chamber as soon as the five fungi have been applied to them. The temperature of the chamber shall be maintained at 30° ± 2°C with a relative humidity of 95 ± 5 percent. The lights shall be kept in the mold chamber for 14 days. At the conclusion of this exposure to fungus, the lights shall be visually examined. There shall not be any noticeable effect of the exposure to fungus. The lights shall then be subjected to the test specified in 4.6.5.

4.6.11 Humidity: The lights shall be subjected to humidity test Procedure I of MIL-STD-810.

4.6.12 Salt spray: The lights shall be subjected to salt spray test Procedure I of MIL-STD-810. The lights shall then be subjected to the test specified in 4.6.4 again.

4.6.13 Light output: After installing the instrument case and light on the panel, as specified in 4.5.8, the light shall be operated and the brightness of the dial in the instrument case shall be measured so that the dimmest and brightest points on the dial are found. The brightness of the dimmest point on the dial shall be at least 0.2 foot-lambert for red lights and at least 1 foot-lambert for white lights. The brightness of the brightest point shall not exceed 1 foot-lambert for red lights and shall not exceed 5 foot-lamberts for white lights. The brightness of the brightest point on the instrument case shall not exceed 0.08 foot-lambert for red lights and shall not exceed 0.4 foot-lambert for white lights. The brightness of the brightest point on the panel within 2 inches in any direction from the instrument case or the light shall not exceed 0.25 foot-lambert for red lights and shall not exceed 1.25 foot-lamberts for white lights.

4.6.13.1 Night vision compatible lighting: Night vision compatible lighting shall be tested in accordance with MIL-L-85762 (see 3.5.1).

4.6.14 Angle of visibility: Tests shall be made to determine that the graduations on the instrument dials are visible within the angles as specified in 3.6.8. With the lamp operating at 28V, and the instrument so mounted that its face is vertical (12 o'clock position on top), tests shall be made to determine that no direct light from the lamp is visible within the angle of visibility or at any point above the instrument.

4.7 Examination of preparation for delivery:

An examination of the preparation for delivery shall be performed to determine compliance with specified requirements. The lot shall consist of items, packages, or shipping containers, as applicable. The level shall be level S-2, as specified in MIL-STD-105, and the acceptable quality level (AQL) shall be 4.0 expressed as defects per hundred units. Any deviation from the requirements specified shall be classified as a defect. Sampling for inspection shall be in accordance with MIL-STD-105.

5. PACKAGING:

5.1 Preservation and packaging:

Preservation and packaging shall be levels A or C as specified (see 6.2).

5.1.1 Level A: Unless otherwise specified in the contract or order, each light shall be individually packaged in accordance with Method IC-2 of MIL-F-116. Preservative compound is not required.

5.1.2 Level C: Individual lights shall be packaged to afford adequate protection against damage during shipment from the supply source to the first receiving activity. This packaging may conform to the supplier's commercial practice in accordance with MIL-STD-1188 when such meets the requirements of this level.

5.2 Packing:

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

5.2.1 Level A: Unless otherwise specified in the contract or order multiple units shall be packed in a snug-fitting container conforming to PPP-B-601 cleated plywood box. Contents of the container shall not exceed the specified size and weight limitations of the type and class selected. Closure and reinforcement requirements shall be as specified in the appendix to the box specification.

5.2.2 Level B: Level B shall be the same as level A except that PPP-B-636, class weather-resistant fiberwood boxes may be used as shipping containers.

5.2.3 Level C: Lights packaged in accordance with 5.1.2 shall be packed in shipping containers conforming to Uniform Freight Classification Rules or regulations of other common carriers that will insure safe transportation, at the lowest rate, to the point of delivery. Commercial packing shall be in accordance with ASTM-D-3951.

5.3 Marking:

Interior and exterior containers shall be marked as specified in MIL-STD-129 as specified.

6. NOTES:

6.1 Intended use:

The lights covered by this specification are intended to be used as the primary lighting system of the aircraft cockpit instruments which are not integrally illuminated.

6.2 Ordering data:

Procurement documents should specify the following:

a. Title, number and date of this specification.
b. MS part number of manufacturer's part number of light desired (see 1.2).
c. Level of packaging and packing desires (see 5.1 and 5.2).
d. Marking(s) required (see 5.3).

6.3 First article:

When first article inspection is required, the indicator will be tested and should be a first article sample. The first article should consist of the samples specified in 4.3. The contracting officer should include specific instructions in acquisition documents regarding examinations, tests and approval of first article.

6.3.1 First article provision: The manufacturer of indicators on contract should not commence until the samples submitted are pronounced satisfactory by the acquiring activity. When a contractor is in continuous production of the indicator from contract to contract, the submission of further first article samples on the subsequent contracts may be waived at the discretion of the acquiring activity. Approval of first article samples or the subsequent contracts may be waived at the discretion of the acquiring activity. Approval of first article samples or the waiving of first article tests does not eliminate the requirement of quality conformance inspection.

6.4 Consideration of data requirements:

The following data requirements should be considered when this specification is applied on a contract. The applicable Data Item Description (DID) should be reviewed in conjunction with the specific acquisition to ensure that only essential data are requested/provided and that the DID is tailored to reflect the requirements of the specific acquisition. To ensure correct contractual application of the data requirements, a Contract Data Requirements List (DD Form 1423) must be prepared to obtain the data, except where DOD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

DID Number	DID Title	Reference Paragraphs
DI-MISC-80653	TEST REPORTS	4.3.1, 4.3.2, 4.4.1, 4.4.2

The above DID was cleared as of the date of this specification. The current issue of DOD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL), must be researched to ensure that only a current, cleared DID is cited on the DD Form 1423.

6.5 Subject term (key word) listing:

Lights, aircraft
Lights, instrument
Lamp luminous intensity

6.6 Streamlining:

For MIL-L-5057F acquisitions, the required portions of MIL-L-5057F tier reference documents shall be limited to the portions described in the “Applicability” column of Table I in Appendix A.

6.7 Tailoring:

When MIL-L-5057F is tailored in acquisition, Appendix A must be tailored accordingly. In particular, when Appendix A is tailored, specific attention must be given to the chain of referencing. For example, if a first tier reference document in MIL-L-5057F is tailored out, all of the reference documents which are tiered to that first tier reference document must be tailored out.

PREPARED BY SAE SUBCOMMITTEE A-20A/C, CREW STATION & INTERIOR LIGHTING

APPENDIX A
STREAMLINING INFORMATION

10. SCOPE:

10.1 Scope:

This Appendix is a list of documents referenced in MIL-L-5057F or tiered to documents referenced in MIL-L-5057F. These documents have the same status as those referenced directly in MIL-L-5057F (first tier documents). This Appendix is a mandatory part of this specification. The information contained herein is intended for compliance.

10.2 Application:

This Appendix identifies the applicability of the documents cited in MIL-L-5057F or tiered to documents referenced in MIL-L-5057F through the fifth tier. Only that portion of a document, listed in Table I of this Appendix and described in the “Applicability” column, is pertinent in the use of MIL-L-5057F. If MIL-L-5057F is tailored in acquisition, this Appendix must also be tailored.

20. DOCUMENTS:

20.1 Documents:

The documents listed herein and corresponding applicability data have been identified as required. All other documents referenced through tiering are not considered required and may be used for guidance and information.