

INCH-POUND

MIL-DTL-3661/53A
w/AMENDMENT 2
29 July 2024

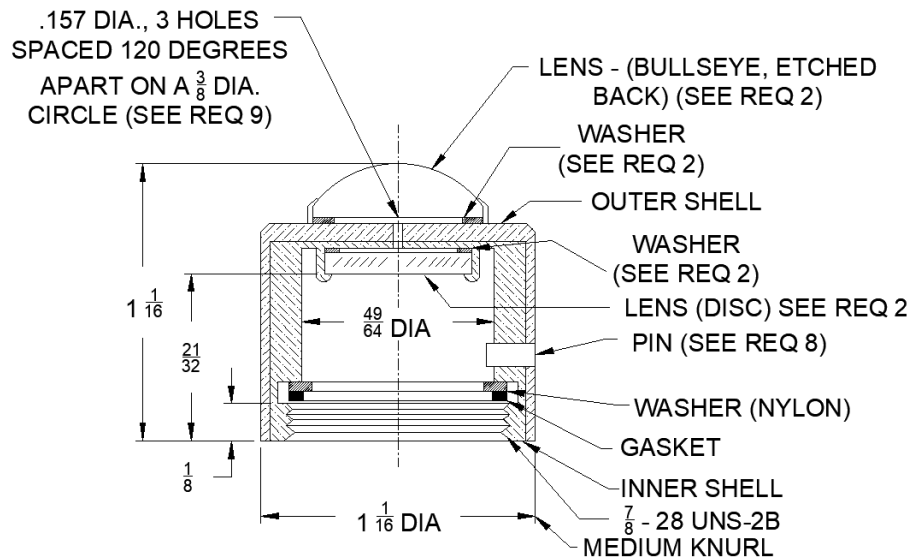
SUPERSEDING
MIL-L-3661/53A
28 May 1971
Amendment 1
24 June 2003

DETAIL SPECIFICATION SHEET

Lenses, Indicator Light, Dimmer, Style LC39

This specification is approved for use by all
Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and
MIL-DTL-3661.



Inches	mm
1/8	3.18
0.157	3.99
3/8	9.53
21/32	16.67
49/64	19.45
7/8	22.23
1-1/16	26.99

Figure 1 – Style LC39 Lenses.



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NOTES:

1. All dimensions are in inches. Unless otherwise specified, tolerances are $\pm 1/64$ inch (0.38mm) for fractions and ± 0.005 inch (0.13mm) for decimals.
2. Metric equivalents (to the nearest 0.01mm) are given for general information only and are based upon 1 inch = 25.4 mm.

REQUIREMENTS

1. Qualification: Not required.
2. Material: Material shall be as shown on the figure and as follows:
 - (a) Shell, pins: Brass
 - (b) Gasket, washer: Rubber
 - (c) Lens:
 - Bullseye: See Table I
 - Disc: Clear transparent heat resistant acrylic plastic having a minimum light transmittance of 91 percent.
3. Finish: All exposed metal parts, black nickel.
4. Design and construction: see Figure 1.
5. Knurl design: Optional.
6. Ozone: The lenses shall be subjected to ozone having a concentration of from 0.010 to 0.015 percent by volume for 2 hours at room temperature. At the end of this period, the samples shall be examined for evidence of deterioration such as cracking or discoloration.
7. Sealing: Dripproof.
8. Shell rotation: The outer shell shall rotate to provide for no illumination to maximum illumination through three holes as shown on the figure. A pin on the inner shell shall align these holes for no illumination when the pin is at one end of the slot and for maximum illumination when the pin is at the other end.
9. Temperature cycling:
 - Glass: -65° to 200°C.
 - Plastics: -55° to 125°C.

Table I – Style LC39 lenses.

Type Designation ^{1/}	Lens Material	Transmittance	Lens color
LC39CN3	Plastic	Nondiffusing	Colorless
LC39ED1	Glass	Diffusing	Red
LC39GD1	Glass	Diffusing	Green
LC39BD1	Glass	Diffusing	Blue
LC39YD1	Glass	Diffusing	Yellow
LC39CN1	Glass	Nondiffusing	Colorless

^{1/} The style LC 39 lenses shall mate with any of the indicator light housing shown on MIL-L-3661/61 through MIL-DTL-3661/65.

Supersession data: This specification sheet replaces Piece 50 of Drawing 9000-S6202-73907.

VERIFICATION

First article inspection:

Complete lampholder assembly: when lenses specified herein are procured as a part of an assembly, the lens with the indicator light housing shall be subjected to the applicable tests listed in MIL-DTL-3661. An ozone test to determine conformance with requirement 6 and light transmission to determine conformance with requirement 2(c) shall also be conducted. The light transmission test shall be conducted in accordance with SAE-AS25050.

Lenses: when lenses are procured separately, first article inspection shall consist of the following examination and tests:

- (a) Visual and dimensional examination.
- (b) Sealing.
- (c) Temperature cycling.
- (d) Ozone.

Conformance inspection: Conformance inspection shall consist of the following examination and test:

- (a) Visual and dimensional examination.
- (b) Sealing.

Sampling for conformance inspection: A random sample of lenses shall be selected from each lot in accordance with MIL-STD-1916, verification level I. Any lens in the sample containing one or more defects or failing to conform to the sealing test shall be rejected. If the number of nonconforming lenses in any sample exceeds the acceptance number for that sample, the lot represented by the sample shall be rejected.

Referenced documents. In addition to MIL-DTL-3661, this document references the following:

MIL-L-3661/61 MIL-DTL-3661/65
MIL-L-3661/62 MIL-STD-1916
MIL-L-3661/63 SAE-AS25050
MIL-L-3661/64

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

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CONCLUDING MATERIAL

Custodians:

Army – CR

Navy – SH

DLA – GS2

Preparing activity:

DLA – CC

(Project 6210-2024-007)

Reviewers:

Army – CR4

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