

INCH-POUND

MIL-DTL-3661/54A

w/Amendment 2

29 July 2024

SUPERSEDING

MIL-L-3661/54A

28 May 1971

Amendment 1

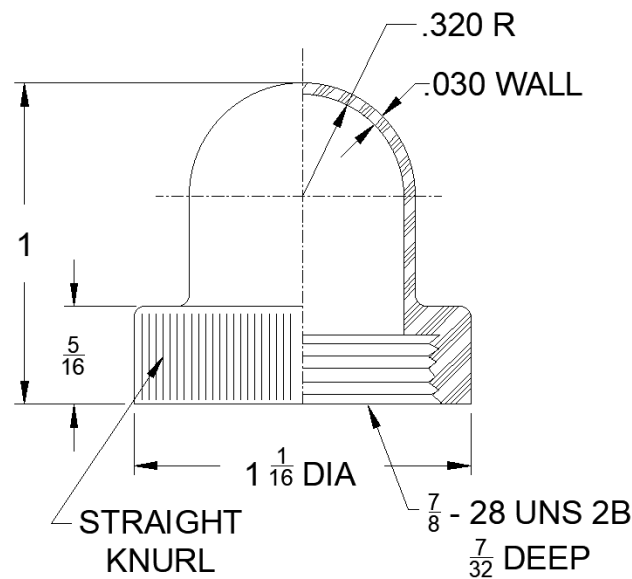
24 June 2003

DETAIL SPECIFICATION SHEET

Lenses, Indicator Light, Style LC40

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
0.030	0.76
$\frac{7}{32}$	5.56
$\frac{5}{16}$	7.94
0.320	8.13
$\frac{7}{8}$	22.23
1	25.40
$1-\frac{1}{16}$	26.99

Figure 1 – Style LC40 Lenses.

AMSC N/A

DISTRIBUTION STATEMENT A: Approved for public release; Distribution is unlimited.

FSC 6210



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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.

REQUIRMENTS:

1. Qualification: Not required.
2. Material: Plastic, heat-resistant conforming to Group 01, Class 2 of ASTM D4066.
3. Design and construction: See figure 1.
4. Knurl design: Straight.
5. The translucent white shall be such as to be readily recognized as white and that the light is "ON" when the lens is installed on an energized indicator light of any style (see Table I).
6. The color of the red, yellow, green, and blue lens shall conform to those specified for category I (aviation lighting) by FED-STD-3.
7. The inside of the lens shall be frosted or pebbled so as to give a slight diffusing effect for all type designations except LC40TN3.
8. The combination of diffusion and colors shall be such that when a lens is installed on any energized mating indicator light specified in Table I under an ambient of 50 foot-candles, a normal observer can readily tell, at a distance of 10 feet, whether the light is "ON", accurately distinguish the color and tell whether one or two lamps are lit.
9. Dealing: Dripproof.
10. Temperature cycling: Minus 55° to plus 125°C.
11. Random sampling from production runs shall be conducted after moisture content equilibrium (2-1/2 percent by weight) has been reached, and after coloring (if required). Inspection shall be conducted as follows:
 - (a) Thread checks with standard "GO" and "NOT-GO" gauges conforming to FED-STD-H28.
 - (b) Dimensional checks:
 - (1) Inner diameter of lens shall insure lamp clearance.
 - (2) Inner diameter of flange shall insure contact pin switch operation.
 - (c) Specific gravity check shall conform to ASTM D792.
12. Melting point property shall be tested and may be conducted as removed from mold.
13. When shock and vibration tests are conducted on the indicator light fixture, the lens shall remain intact during the test with no evidence of thread slippage.

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Table I – Style LC40 lenses.

Type Designation ^{1/}	Lens Material	Transmittance	Lens color	Superseding Data ^{3/}	
				MS17128	9000-S6202-74222
LC40CN3	Plastic	Transparent	Colorless	Part No. 1	Piece No. 82
LC40WT3	Plastic	Transparent	White	2	81
LC40EN3	Plastic	Transparent	Red	3	77
LC40YN3	Plastic	Transparent	Yellow	4	80
LC40GN3	Plastic	Transparent	Green	5	79
LC40BN3	Plastic	Transparent	Blue	6	78
^{2/} LC40TN3	Plastic	Nondiffusing-unfrosted	Colorless	7	

1/ The style LC40 lenses shall mate with any of the indicator light housings shown on MIL-L-3661/61 through MIL-DTL-3661/65.

2/ Type designation LC40TN3 is the same as type designation LC40CN3 except the inside of the lens shall not be frosted or pebbled (see requirement 7).

3/ Supersedes piece 10 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.

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

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.

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

MIL-L-3661/61	MIL-DTL-3661/65	FED-STD-3
MIL-L-3661/62	MIL-STD-1916	FED-STD-H28
MIL-L-3661/63	ASTM-D4066	
MIL-L-3661/64	ASTM-D792	

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.

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – SH
DLA – GS2

Preparing activity:

DLA – CC

(Project 6210-2024-008)

Reviewers:

Army – CR4

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.