

# ENGINEERING CHANGE PROPOSAL (ECP), PAGE 1

1. DATE (YYMMDD) 000216		2. PROCURING ACTIVITY NO.		3. DODAAC	
4. ORIGINATOR a. NAME LITTON ELECTRO-OPTICAL SYSTEMS		b. ADDRESS 12024 FORRESTGATE DALLAS, TX 75243		5. CLASS OF ECP II	
				6. JUST. CODE D	
				7. PRIORITY R	
8. ECP DESIGNATION					
a. MODEL/TYPE AN/PVS-4		b. CAGE CODE 27777	c. SYSTEM DESIGNATION		d. ECP NO. EIGN409005
e. TYPE F		f. REV	9. BASELINE AFFECTED [ ] FUNCTIONAL [ ] ALLOCATED [ X ] PRODUCT		
10. OTHER SYS./CONFIG. ITEMS AFFECTED [ X ] YES [ ] NO					
11. SPECIFICATIONS AFFECTED					
		CAGE CODE	SPECIFICATION/DOCUMENT NO.	REV.	SCN
a. SYSTEM					
b. DEVELOPMENT					
c. PRODUCT					
12. DRAWINGS AFFECTED					
CAGE CODE		NUMBER	REVISION	NOR NUMBER	
80063		SM-B-850513	B	001	
13. TITLE OF CHANGE REPLACE PAINT					
14. CONTRACT NO. AND LINE ITEM DAAB07-01-C-N409			15. PROCURING CONTRACTING OFFICER		
			a. NAME RACHEL BOGNER	732-532-1103	
			b. CODE AMSEL-ACCA-RT-F	c. TELEPHONE NO.	
16. CONFIGURATION ITEM NOMENCLATURE AN/PVS-4A NIGHT VISION SIGHT			17. IN PRODUCTION [ X ] YES [ ] NO		
18. ALL LOWER LEVEL ITEMS AFFECTED					
a. NOMENCLATURE DIODE, LIGHT EMITTING		b. PART NO. SM-B-850513		c. NSN	
19. DESCRIPTION OF CHANGE REPLACE DISCONTINUED DIODE.					
20. NEED FOR CHANGE CURRENT DIODE IS UNAVAILABLE					
21. PRODUCTION EFFECTIVITY BY SERIAL NO. ALL UNITS ON CONTRACT			22. EFFECT ON PRODUCTION DELIVERY SCHEDULE N/A		
23. RETROFIT					
a. RECOMMENDED ITEM EFFECTIVITY N/A			b. SHIP/VEHICLE CLASS AFFECTED N/A		
c. ESTIMATED KIT DELIVERY SCHEDULE N/A			d. LOCATIONS OR SHIP/VEHICLE NUMBERS AFFECTED N/A		
24. ESTIMATED COSTS/SAVINGS UNDER CONTRACT NONE			25. ESTIMATED NET TOTAL COSTS/SAVINGS NONE		
26. SUBMITTING ACTIVITY			b. TITLE		
a. AUTHORIZED SIGNATURE   RICHARD LIPSEY			PROGRAM MANAGER		
27. APPROVAL/DISAPPROVAL					
a. CLASS I [ ] APPROVAL RECOMMENDED [ ] DISAPPROVAL RECOMMENDED			b. CLASS II [ ] APPROVED [ ] DISAPPROVED		
c. CLASS II [ ] CONCUR IN CLASSIFICATION OF CHANGE [ ] DO NOT CONCUR IN CLASSIFICATION OF CHANGE					
d. GOVERNMENT ACTIVITY AMSEL-LC-1EW-N-11			e. SIGNATURE 	f. DATE SIGNED 9/21/01	
g. APPROVAL [ X ] APPROVED [ ] DISAPPROVED		h. GOVERNMENT ACTIVITY	i. SIGNATURE	j. DATE SIGNED	

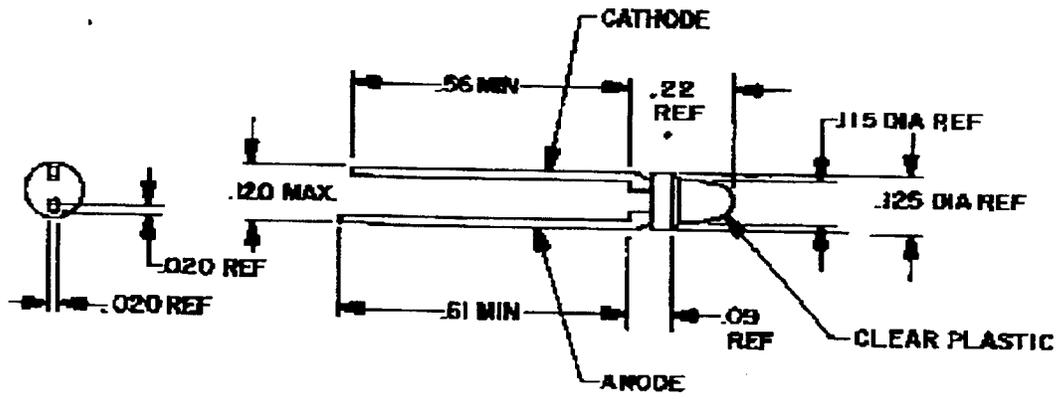
## NOTICE OF REVISION (NOR)

1. DATE (YMMDD) 000216	2. PROCURING ACTIVITY NO. ---	3. DODAAC
4. ORIGINATOR a. NAME  LITTON ELECTRO-OPTICAL  SYSTEMS	b. ADDRESS  12024 FORRESTGATE    DALLAS, TX 75243	5. CAGE CODE 27777
		6. NOR NO. 001
		7. CAGE CODE 80063
9. TITLE OF DOCUMENT DIODE, LIGHT EMITTING	10. REVISION LETTER a. CURRENT      b. NEW A                    B	8. DOCUMENT NO. SM-B-850513
11. ECP NO. E1GN409005		
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES AN/PVS-4A		

### 13. DESCRIPTION OF REVISION

- 1) CHANGE VENDOR PART NUMBER FOR PAINT AS SHOWN BELOW:
- FROM: 5082-4486  
HLMP-1071
- To: HLMP-1340

- 2) CHANGE DRAWING PICTORIAL AND DIMENSIONS AS FOLLOWS:
- FROM:



### 14. THIS SECTION FOR GOVERNMENT USE ONLY

a. (X ONE) <input checked="" type="checkbox"/> (1) Existing document supplemented by this NOR may be used in manufacture.		
<input type="checkbox"/> (2) Revised document must be received before manufacturer may incorporate change.		
<input type="checkbox"/> (3) Custodian of master document shall make above revision and furnish revised document.		
b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT  AMSEL-LC-1EW-N-11		c. TYPED NAME  Barbara McKinney
d. TITLE  Production Engr.	e. SIGNATURE  <i>Barbara McKinney</i>	f. DATE SIGNED  9/20/01
15. a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION/COMPLETED (Signature)	c. DATE SIGNED

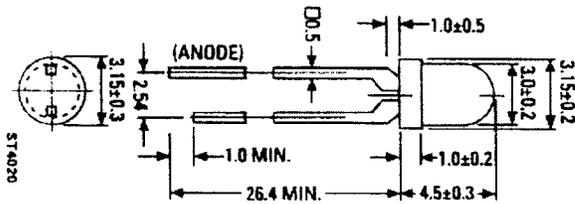
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4. ORIGINATOR a. NAME  LITTON ELECTRO-OPTICAL SYSTEMS	b. ADDRESS  12024 FORRESTGATE   DALLAS, TX 75243	5. CAGE CODE 27777
		6. NOR NO. 001  SHEET 2 OF
		7. CAGE CODE 80063
9. TITLE OF DOCUMENT DIODE, LIGHT EMITTING	10. REVISION LETTER a. CURRENT      b. NEW A                    B	11. ECP NO. E1GN409005
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES AN/PVS-4A		

13. DESCRIPTION OF REVISION

3) (CONTINUED)

TO:



4) ADD NOTES 2 THRU 5 AS FOLLOWS:

2. ALL DIMENSIONS ARE IN MM.
3. LEAD SPACING IS MEASURED WHERE THE LEADS EMERGE FROM THE PACKAGE.
4. PROTUDED RESIN UNDER THE FLANGE IS 1.5mm (0.059") MAX.
5. DIMENSIONS ARE FOR REFERENCE ONLY.

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b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT	c. TYPED NAME	
AMSEL-LC-1EW-N-11	Barbara McKinney	
d. TITLE	e. SIGNATURE	f. DATE SIGNED
Production Engr.	<i>Barbara McKinney</i>	9/20/01
15. a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)	c. DATE SIGNED

**NOTICE OF REVISION (NOR)**

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				6. NOR NO. 001  SHEET 3 OF	
				7. CAGE CODE 80063	
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11. ECP NO. E1GN409005					
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES AN/PVS-4A					

13. DESCRIPTION OF REVISION

5) CHANGE SPECIFICATIONS AS SHOWN BELOW:

FROM:

**SPECIFICATIONS AT 25° C**

<b>DC POWER DISSIPATION</b>	<b>100 mW</b>
<b>DC FORWARD CURRENT</b>	<b>50 mA</b>
<b>PEAK FORWARD CURRENT</b>	<b>1 Amp</b>
<b>TEMPERATURE RANGE, OPERATING AND STORAGE</b>	<b>-55°C TO +100°C</b>
<b>PEAK EMISSION WAVELENGTH</b>	<b>655 nm</b>
<b>LUMINOUS INTENSITY AT 20 mA</b>	<b>0.8 mcd</b>
<b>SPEED OF RESPONSE</b>	<b>15 ns</b>
<b>FORWARD VOLTAGE</b>	
<b>TYPICAL</b>	<b>1.6 V</b>
<b>MAX</b>	<b>2.0 V</b>

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b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT <b>AMSEL-LC-IEW-N-11</b>		c. TYPED NAME <b>Barbara McKinney</b>
d. TITLE <b>Production Engr.</b>	e. SIGNATURE <i>Barbara McKinney</i>	f. DATE SIGNED <b>9/20/01</b>
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11. ECP NO. E1GN409005		
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES AN/PVS-4A		

13. DESCRIPTION OF REVISION  
5) (CONTINUED)

TO:

PHYSICAL CHARACTERISTICS					
TYPE	SOURCE COLOR	LENS EFFECT	LUMINOUS INTENSITY at 25°C (nom.)		TEST CONDITION
			MIN.	TYP.	
Ultrabright HLMP-1340	High Efficiency Red	Pale Orange Tint	24.0	60.0	I <sub>f</sub> = 20 mA

ABSOLUTE MAXIMUM RATINGS	
Power dissipation	120 mW
Derate linearly from 50°	0.4 mA/°C
Storage and operating temperature	-55°C to +100°C
Lead soldering time at 260°C (1/16 inch from body)	5 sec.
Continuous forward current	30 mA
Peak forward current (1 μsec pulse, 0.3% duty cycle)	90 mA
Reverse voltage	5.0 V

ELECTRO-OPTICAL CHARACTERISTICS (25°C unless otherwise specified)			
PARAMETER	TEST CONDITIONS	UNITS	HLMP-1340
Forward voltage (V <sub>f</sub> )	I <sub>f</sub> = 10 mA	V	2.2*
			3.0*
Peak wavelength		nm	635
Spectral line half width		nm	45
Capacitance	f = 1 MHz, V = 0	pF	45
Reverse voltage (V <sub>r</sub> )	I <sub>r</sub> = 100 μA	V	5.0
Viewing angle (total)	See Fig. 3	degrees	45

\*I<sub>f</sub> = 20 mA

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b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT  
AMS EL-LC-IFW-N-11

c. TYPED NAME  
Barbara McKimney

d. TITLE  
Production Engr

e. SIGNATURE  
Barbara McKimney

f. DATE SIGNED  
9/20/01

15. a. ACTIVITY ACCOMPLISHING REVISION

b. REVISION COMPLETED (Signature)

c. DATE SIGNED

NOTICE - WHEN GOVERNMENT DRAWINGS, SPECIFICATIONS OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN IN CONNECTION WITH A SPECIFICALLY RELATED GOVERNMENT CONTRACT OR OPERATION, THE UNITED STATES GOVERNMENT IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. HOWEVER, AND THE FACT THAT THE GOVERNMENT MAY HAVE FURNISHED, FURNISHES, OR MAY BE SUPPLIED WITH SUCH DATA DOES NOT CONSTITUTE AN ENDORSEMENT OR RECOMMENDATION BY THE GOVERNMENT AS TO THE FITNESS OF ANY MANUFACTURED ARTICLE OR MATERIAL FOR ANY PURPOSE OR OPERATION, OR THE FACT THAT THE GOVERNMENT MAY HAVE FURNISHED, FURNISHES, OR MAY BE SUPPLIED WITH SUCH DATA DOES NOT CONSTITUTE AN ENDORSEMENT OR RECOMMENDATION BY THE GOVERNMENT AS TO THE FITNESS OF ANY MANUFACTURED ARTICLE OR MATERIAL FOR ANY PURPOSE OR OPERATION, OR THE FACT THAT THE GOVERNMENT MAY HAVE FURNISHED, FURNISHES, OR MAY BE SUPPLIED WITH SUCH DATA DOES NOT CONSTITUTE AN ENDORSEMENT OR RECOMMENDATION BY THE GOVERNMENT AS TO THE FITNESS OF ANY MANUFACTURED ARTICLE OR MATERIAL FOR ANY PURPOSE OR OPERATION.

NOTES:  
1. IDENTIFY PER MIL-STD-130.

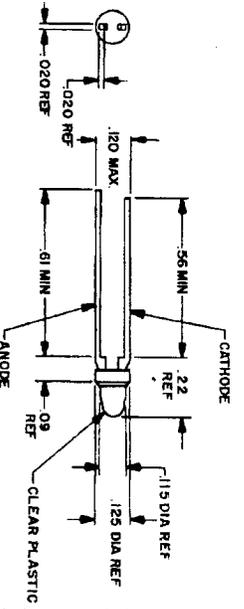
SUGGESTED SOURCES OF SUPPLY	
VENDOR	VENDORS PART NO.
HEWLETT PACKARD 1501 BAYVIEW AVENUE PALO ALTO CALIFORNIA CODE IDENT 28480	6082-4486 HMP-1071

SPECIFICATIONS AT 25° C

D.C. POWER DISSIPATION 100 mW  
D.C. FORWARD CURRENT 50 mA  
PEAK FORWARD CURRENT 1 amp  
TEMPERATURE RANGE, OPERATING 55°C TO -100°C  
AND STORAGE  
PEAK EMISSION WAVELENGTH 658 nm  
LUMINOUS INTENSITY AT 20 mA 0.8 mcd  
SPEED OF RESPONSE 15 ns  
FORWARD VOLTAGE TYPICAL 1.6 V  
MAX 2.0 V

THIS DOCUMENT HAS BEEN PREPARED BY THE GOVERNMENT AND IS NOT TO BE REPRODUCED AND USED IN CONNECTION WITH ANY GOVERNMENT OPERATION.

REVISIONS			
DATE	DESCRIPTION	BY	APPROVED
A	EQP E66701-017 MGR 010	16 JAN 72	ED-4C 75



SPECIFICATION CONTROL DRAWING  
PREPARED IN ACCORDANCE WITH MIL-STD-100A

ITEM NO.	QTY REQD	CODE	PART OR IDENT	IDENTIFYING NO.	MANUFACTURE OR DESCRIPTION	REMARKS	NOTE
1	1	-	SM-B-850513	10	DIODE LIGHT EMITTING		

WHEN REFERRING TO THIS DRAWING STATE DRAWING NO, PARTICLE ISSUE, LETTER AND DATE

DATE	SCALE	BY	CHKD	APP'D	REVISION
16 JAN 72	4/1	B	B	SM-B-850513	