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NHTSA-98-3397-21

# ORIGINAL Memorandum

U.S. Department of Transportation  
National Highway Traffic Safety Administration

93-11-NO1-016

**Subject:** ACTION: Transmittal to the Part 564, Replaceable Light Source Information Docket, Docket No. 93-11, Appendix A; Filing Information to Permit the Use of the Type HB3A Straight Base Replaceable Light Source as an Optional Variation of the Right Angle Base Type HB3 Date: NOV 7 1996

**From:** Stephen R. Kratzke *[Signature]* Reply to Attn. of: Hardie X66987  
Acting Director, Office of Crash Avoidance Standards

**To:** Docket Section

**THRU:** John Womack *[Signature]*  
Acting Chief Counsel

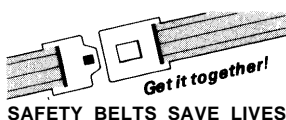
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The enclosed Attachment is forwarded for placement in the Part 564, Replaceable Light Source Information Docket, Docket No. 93- 11. The Attachment is a letter and drawings submitted by OSRAM SYLVANIA INC., that describe the specifications for a straight base alternative for the right angle base Type HB3 and Type HB4 replaceable light sources already respectively filed in Docket No. 93- 11 as entry numbers 93-1 1-007 and -014, and Docket No. 93-11 as entry numbers -008 and -015.

The purpose of this memorandum is to place in the Docket No. 93- 11 file information submitted by OSRAM SYLVANIA INC., that delineates the specifications of a straight base alternative for the right angle base Type HB3 replaceable light source. The alternative Type HB3 straight base replaceable light source will be designated as Type HB3A. According to the OSRAM submittal only the shape of the base is altered; the light source remains unchanged with respect to the socket, coil location and other characteristics. The two variations are interchangeable (i.e., the Type HB3 and the Type HB3A may be exchanged). The straight base light source is simply a different form of the current (right angle base) light source. The optional modifications to the Type HB3 light source are defined in the Attachment. Unless listed in the submission as options the modifications requested in this submission are mandatory for compliance purposes.

OSRAM has submitted the enclosed Attachment in accordance with the requirements of Part 564 and attested that use of the light source as modified in the Attachment will not create a non-compliance with any requirement of Federal motor vehicle safety standard No. 108 (49 CFR 57 1.108) when used to replace an unmodified light source in a headlamp certified by its manufacturer as conforming to all applicable Federal motor vehicle safety standards.

This memorandum along with the attached OSRAM letter and drawings should be retained together and placed in Docket No. 93- 11 as entry number 93-1 1-016. Note that there are correction markings to the second page of the OSRAM cover letter regarding the opaque white cover of Figure 19- 1 and Figure 20- 1. The correction markings on the OSRAM letter reflect a NHTSA/OSRAM telephone discussion on November 4, 1996, to substitute the word "colored" for the word "light" and correct a typographical error.



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Should you have any questions, please contact Richard Van Iderstine or Kenneth O. Hardie of my staff. They may respectively be reached by telephone on x65280 or x66987.

Attachment

cc:

Associate Administrator for Plans and Policy

Associate Administrator for Research and Development

Associate Administrator for Safety Assurance

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**DONELAN, CLEARY, WOOD & MASER, P.C.**


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ATTORNEYS AND COUNSELORS AT LAW

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September 17, 1996

Associate Administrator for Rulemaking  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

Attention: Replaceable Light Source Information Docket 93- 11

Dear Sir:

Pursuant to 49 C.F.R. Part 564, OSRAM SYLVANIA INC. hereby submits an original and 10 copies of drawings and other Appendix A information for its Type 9005 and 9006 Replaceable Light Sources for filing in Replaceable Light Source Information Docket No. 93-1 1. This submission reflects modifications to information previously filed in this docket and to information that is being submitted in another submission that is being filed concurrently with this submission.

***Identification of the Modifications***  
**49 C.F.R. § 5645(d)(1)**

OSRAM's Type 9005 (HB3) and 9006 (HB4) Replaceable Light Sources, as reflected in the current information from Docket No. 93- 11, are right angle base lamps. The modifications proposed herein will provide a straight base alternative for these light sources. Only the shape of the base is altered; the lamps remain unchanged with respect to the socket, coil location and operating characteristics. The alternative HB3 straight base will be designated by HB3A and the alternative HB4 straight base will be HB4A. The two variations are interchangeable (*i.e., the* HB3 and the HB3A may be exchanged). The straight base lamp is simply a different form of the current (right angle) lamp.

The optional modifications to the HB3 and HB4 replaceable light sources that create the HB3A and HB4A replaceable light sources, respectively, are shown in the attached sets of drawings. The modifications to permit use as straight base lamps are as follows:

**HB3A**

- Sheet 1 (Figure 1) is an optional variation of Figure 19 in NHTSA Docket 93- 11.
- Sheet 2 (Figure 1 cont.) is an optional variation of Figure 19 (cont.) in NHTSA Docket 93-11.
- Sheet 3 (Figure 1-2) and Sheet 4 (Figure 1-2.1) together are an optional variation of Figure 19-2 in Docket No. 93- 11.
- Sheet 5 (Figure 1-5) is an optional variation of Figure 19-3 in Docket No. 93-1 1.

- The opaque white cover of Figure 19- 1 is not designed to house the type **HB3A** replaceable light source.  
The measurement of luminous flux for the type **HB3A** replaceable light source shall be with an appropriately designed opaque ~~white~~ <sup>colored</sup> light cover.
- All other Figures for the HB3 lamp remain the same.

#### **HB4A**

- Sheet 1 (Figure 2) is an optional variation of Figure 20 in Docket No. **93- 11**.
- Sheet 2 (Figure 2 cont.) is an optional variation of Figure 20 (cont.) in Docket No. 93-1 1.
- Sheet 3 (Figure 2-2) and Sheet 4 (Figure 2-2.1) together are an optional variation of Figure 20-2 in Docket No. **93- 11**.
- Sheet 5 (Figure 2-5) is an optional variation of Figure 20-3 in Docket No. 93-1 1.
- The opaque white cover of Figure 20-1 is not designed to house the type **HB4A** replaceable light source.  
The measurement of luminous flux for the type **HB4A** replaceable light source shall be with an appropriately designed opaque ~~white~~ <sup>colored</sup> light cover.
- All other Figures for the HB4 lamp remain unchanged.

***Reason for Modifications***  
***49 C.F.R. § 564.5(d)(2)***

The reason OSRAM requests these modifications is because OSRAM's customers have expressed their desire for a straight base lamp option for the HB3 and HB4 lamps. These modifications will permit the customer to choose the lamp HB3 (**HB3A**) or HB4 (**HB4A**) that best suits the application in the vehicle.

***Statement of Post-Modification Safety Compliance and Interchangeability***  
***49 C.F.R. § 564.5(d)(3) and (4)***

The proposed modifications will not create a non-compliance with any requirement of Motor Vehicle Safety Standard No. 108 (49 C.F.R. § 571.108) when used to replace an unmodified light source in a headlamp certified by its manufacturer as conforming to all applicable Federal motor vehicle safety standards. The modifications do not affect the operating characteristics or interchangeability of the lamps.

Please direct any questions to the undersigned, or to Clarice Clark, Project Engineer, OSRAM SYLVANIA, 275 W. Main Street, Hillsboro, N.H. 03244, (603) 464-5533.

Sincerely,



James R. Hobson  
Jeffrey O. Moreno

***Counsel for OSRAM SYLVANIA INC.***

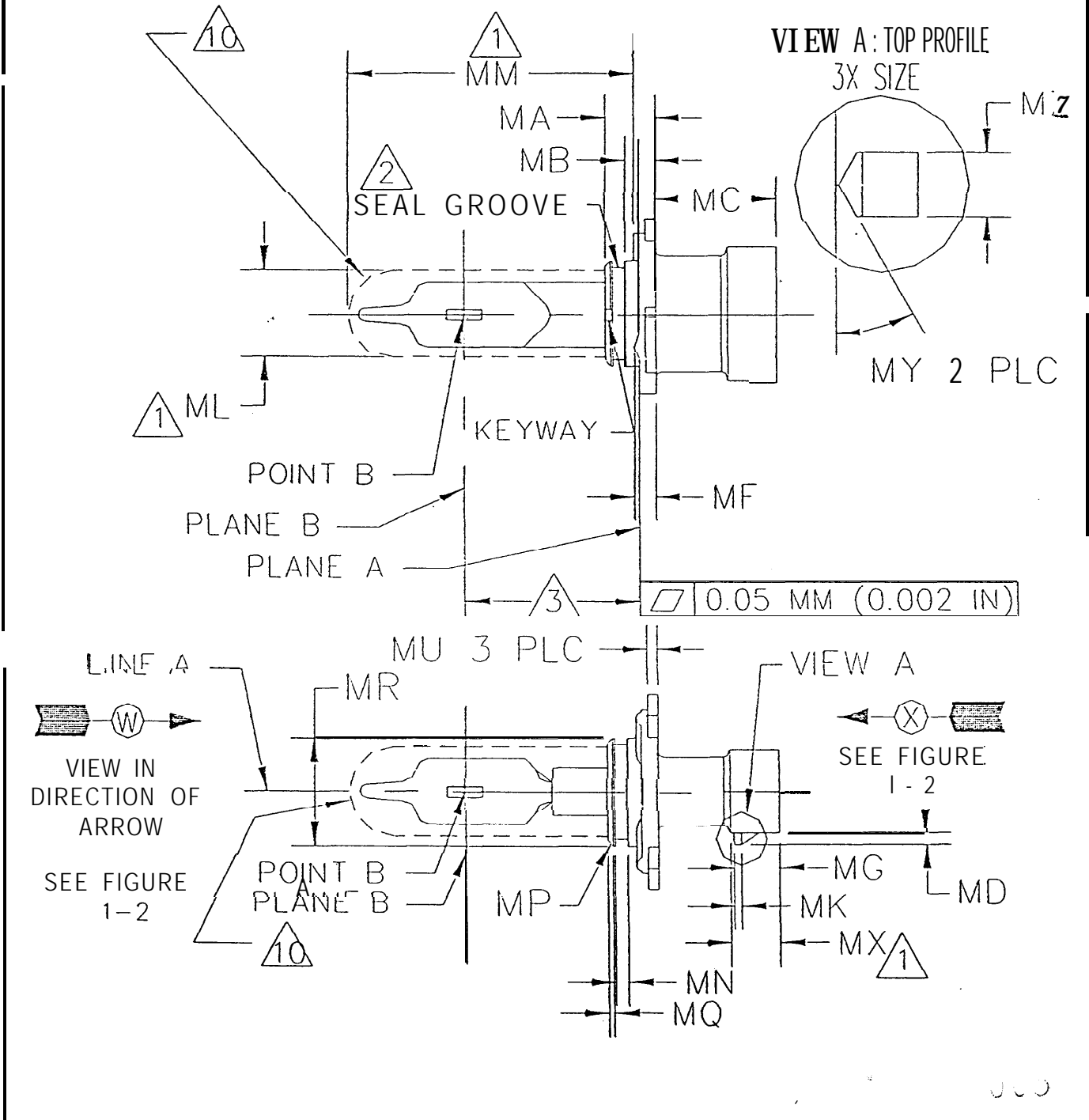
***Enclosures***

**REFERENCE ONLY**  
Release Date 8-7-96

SUBJECT: HB3A (9005) STRAIGHT BASE OUTLINEDRAWING (EC)

**FIGURE 1**

**SPECIFICATIONS FOR THE TYPE 9005 STRAIGHT BASE REPLACEABLE LIGHT SOURCE**



**SUBJECT: HB3A (9005) STRAIGHT BASE OUTLINE DRAWING (EC)**

FIGURE 1 (CONT.)

SPECIFICATIONS FOR THE TYPE 9005 STRAIGHT BASE REPLACEABLE LIGHT SOURCE

<u>DIMENSION</u>	<u>INCHES</u>	<u>MILLIMETERS</u>
MA	0.591 MAX / 0.217 MIN	15.00 MAX / 5.50 MIN
MB	0.232	5.90
MC	0.945 MAX.	24.00 MAX.
MD	0.079	2.00
MF	0.165	4.20
MG	0.346	8.80
MK	0.06	1.50
ML	0.775 DIA	19.68 DIA
MM	2.165	55.00
MN	0.093	2.36
MP	45° CHAMFER	45° CHAMFER
MO	<b>0.039</b>	1.00
MR	0.787 +/− 0.002 DIA	20.00 +/− 0.05 DIA
Mu	0.079	2.00
MX	0.378	3.60
MY	30°	30°
MZ	0.157	4.00

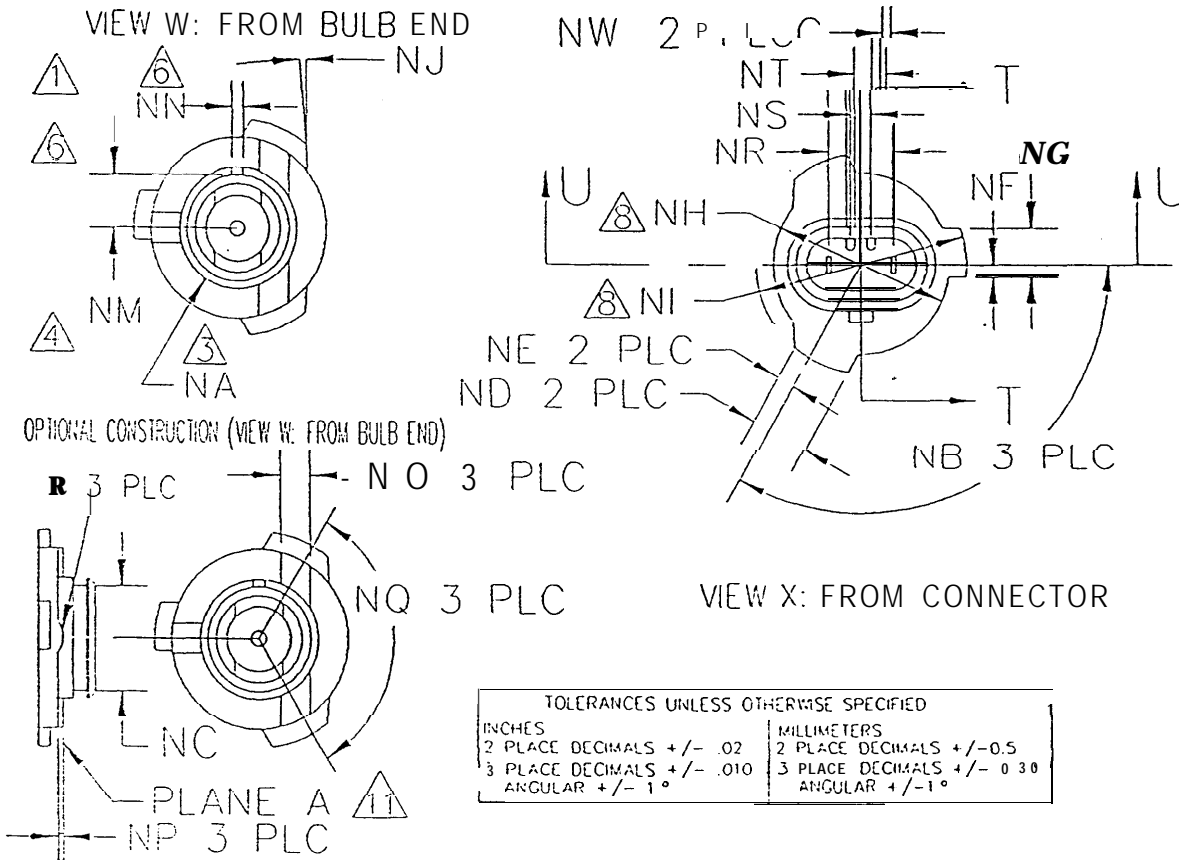
- 1. Dimensions shown are maximum - may be smaller.
- 2. Bulbs must be equipped with a seal. The bulb-seal assembly must withstand a minimum of 69 kPA (10 psig) when the assembly is inserted into a cylindrical aperture of 20.22 ± 0.10 mm (0.796 ± 0.004 in).
- 3. SC-? Fig 1-6.
- 4. Diameters may be concentric within 0.20 mm (0.008 in).
- 5. Glass bulb periphery must be optically distortion free axially within the included angles about Point 8.
- 6. Key and keyway are optional construction. Keyway required for aftermarket only.
- 7. Measured at terminal base. Terminals must be perpendicular to base and parallel within ± 1.5°.
- 8. Diameters must be concentric within 0.20 mm (0.008 in).
- 9. Absolute dimension. No tolerance.
- 10. Glass capsule and supports shall not exceed this envelope and shall not interfere with insertion past the lamp's key.
- 11. The reference plane is determined by three (3) supporting bosses of optional schemes or by a continuous surface.

TOLERANCES UNLESS OTHERWISE SPECIFIED INCHES	OTHERWISE SPECIFIED MILLIMETERS
2 Place Decimals ± 0.02	1 Place Decimals ± 0.5
3 Place Decimals ± 0.010	2 Place Decimals ± 0.30
Angular ± 1°	Angular ± 1°

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**SUBJECT: HB3A (9005) STRAIGHT BASE OUTLINE DRAWING (EC)**

**FIGURE I-2**  
**SPECIFICATIONS FOR THE TYPE 9005 STRAIGHT BASE REPLACEABLE LIGHT SOURCE**



TOLERANCES UNLESS OTHERWISE SPECIFIED	
INCHES	MILLIMETERS
2 PLACE DECIMALS +/- .02	2 PLACE DECIMALS +/- 0.5
3 PLACE DECIMALS +/- .010	3 PLACE DECIMALS +/- 0.30
ANGULAR +/- 1°	ANGULAR +/- 1°

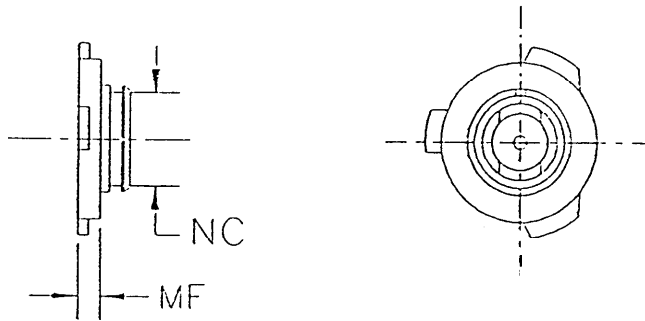
**DIMENSIONS**

	INCHES	MILLIMETERS
NA	0.787 +/- 0.002 DIA	20.00 +/- 0.05 DIA
NB	120° +/- 0°30	120° +/- 0°30
NC	0.687 +/- .004 DIA	17.46 +/- 0.10 DIA
ND	0.394	10.00
NE	.118	3.00
NF	0.079	2.00
NG	0.315	8.00
NH	1.181	30.00
NI	1.417	36.00
NJ	3"	3"
NM	0.35	8.9
NN	.079 +/- 0.004	2.00 +/- 0.10
NO	0.20	5.0
NP	0.030	0.75
NQ	120" TYP	120" TYP
NR	0.433	11.00
NS	0.138	3.50
NT	0.217 +/- 0.006	5.50 +/- 0.15
NW	0.055	1.40

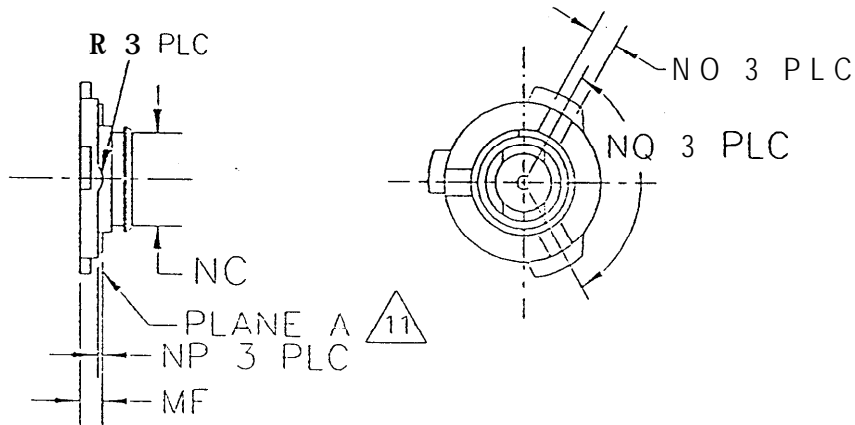
**SUBJECT: HB3A (9005) STRAIGHT BASE OUTLINE DRAWING (EC)**

FIGURE 1-2.1  
MOUNTING OPTIONS FOR THE TYPE 9005 STRAIGHT BASE REPLACEABLE LIGHT SOURCE

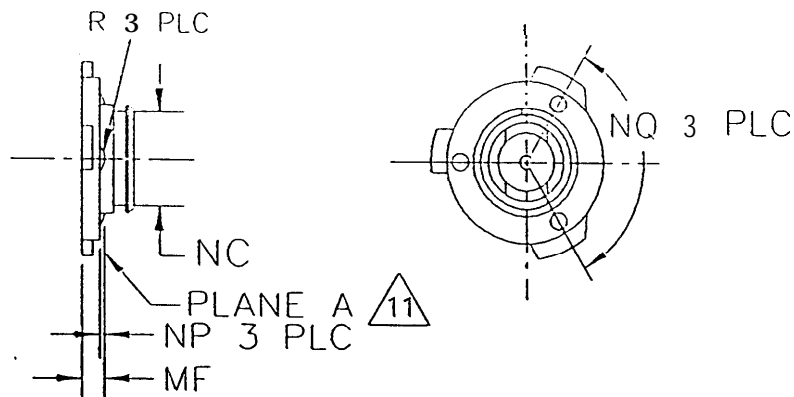
OPTION #1 (VIEW W: FROM BULB END)



OPTION #2 (VIEW W: FROM BULB END)



OPTION #3 (VIEW W: FROM BULB END)

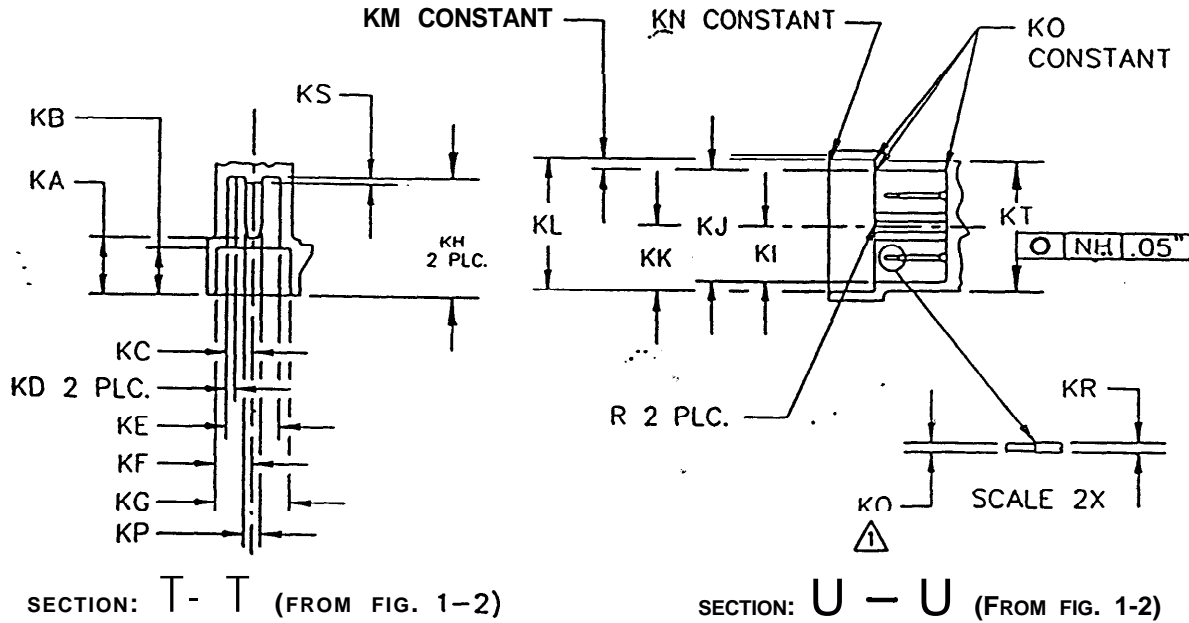




**SUBJECT: HB3A (9005) STRAIGHT BASE OUTLINE DRAWING (EC)**

**FIGURE 1-5**

**SPECIFICATION FOR THE TYPE 9005 STRAIGHT BASE REPLACEABLE LIGHT SOURCE**



DIMENSIONS	INCHES	MILLIMETERS
KA	.384	9.75
KB	.315	8.00
KC	.171	4.35
KD	.055	1.40
KE	.343	8.70
KF	.242±.006	6.15±.15
KC	.484	12.30
KH	.787	20.00
KI	.368±.006	9.35±.15
KJ	.736	18.70
KK	.439±.006	11.15±.15
KL	.878	22.30
KM	.059	1.50
KN	.03 R.	0.80 R.
KO	.016 R.	0.40 R.
KP	.110±.004	2.80f.10
KO	.024	0.60
KR	.033±.001	0.83±.03
KS	.039 MAX	1.00 M A X
KT	.981 MAX.	24.92 MAX.

TOLERANCES UNLESS OTHERWISE SPECIFIED	
INCHES:	MILLIMETERS
2 PLACE DECIMALS ± .02	1 PLACE DECIMALS ± 0.50
3 PLACE DECIMALS ± .010	2 PLACE DECIMALS ± 0.30
ANGULAR ± 1°	ANGULAR ± 1°