



AUTOMOTIVE MANUFACTURERS EQUIPMENT
COMPLIANCE AGENCY, INC.

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Notification Number: 170145

Test Report Date: January 24, 2017

Expiration Date: July 1, 2020

Applicant: Changzhou Xinyu Tianli Lighting Factory
Lujiaxiang, Niutang Town, Wujin District,
Changzhou City, Jiangsu
P.R.China

Item: "9006 (H4)" - Replaceable Bulb Lightsource - White In Colour

Use: On Motor Vehicle Replaceable Bulb Headlamp Systems

Jurisdictional Compliance Standard(S)

Identical To: United States FMVSS 571.108

Item Markings: CG (trade mark) H4 9006 DOT 12V 55W

Test Lab: ISOQA Technical Service Co., Ltd.

Report Number: 108-ISOQA-16-224



Executive Director

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108-ISOQA-16-224

SAFETY COMPLIANCE TESTING FOR FMVSS108

ISOQA
60, Yong Long Rd,
Da-Li, Taichung
Taiwan, ROC



- Final Report -

Archer Chang

24 January 2017

Signature of Responsible Laboratory Official

Approval Date

Contents of Final Report	number of page in each report
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Replaceable light source	11
Drawing	1

15 pages in total

Prepared By: J.Y Pan

Reviewed By: Julie Wu

PRODUCT INFORMATION

Test Component	9006 (HB4)
Manufacturer	Changzhou Xinyu Tianli Lighting Factory Lujiaxiang, Niutang Town, Wujin District, Changzhou City, Jiangsu, China
Report Number	108-ISOQA-16-224
Trade Mark	TAILI, Prestige USA, CG, AJUAN
Bulb Material	PLASTIC
Filament Material	Tungsten filament
Base Material	Plastic
Marking on Base	CG (Trade Mark) HB4 9006 DOT 12V 55W

* Above-mentioned information is provided by the applicant

Functions	Replaceable light source
Requirements	FMVSS 108
Color emitted	White
Light Source Category	9006 (HB4)
Rated Voltage / Design Voltage	12 V / 12.8 V
Wattage	55 W @ 12.8 V

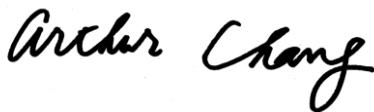
Test Item	Inspector	Date	Number of Passed
Physical Inspection	Elton Li	2016/11/30	2
Marking	Elton Li	2016/12/15	2
Electrical Specifications	Elton Li	2016/12/15	2
Dimensional Specifications	Elton Li	2016/12/15	2
Deflection Test	Elton Li	2016/12/15	2
Pressure Test	Elton Li	2016/12/15	2

REPLACEABLE LIGHT SOURCE TEST REPORT

Test Component : **9006 (HB4)**
 Manufacturer : **Changzhou Xinyu Tianli Lighting Factory**
 Test Laboratory : **ISOQA**
 Test Date : **November 30, 2016 ~ December 15, 2016**
 Report Number : **108-ISOQA-16-224**
 Number of devices tested : **see summary**
 Light Source Designation : **9006 (HB4)**

SUMMARY

Test Description	Test Result :	Number Passed	Number Failed
Physical Inspection		2	-
Markings		see below	-
Lumens Test		2	-
Wattage Test		2	-
Dimension Test		2	-
Deflection Test		2	-
Pressure Test		2	-



Signature of Responsible Laboratory Official

Title : Lab Manager

Date 2017/1/24

REPLACEABLE LIGHT SOURCE PHYSICAL INSPECTION

Inspection Performed By : **Elton Li** Date : **2016/11/30**
 Test Component : **9006 (HB4)**
 Manufactured by : **Changzhou Xinyu Tianli Lighting Factory**
 Markings : **see below**
 Bulb Material : **Glass**
 Coating : **N/A**
 Base Material : **Plastic**

Remarks : _____

REPLACEABLE LIGHT SOURCE MARKINGS

Inspection Performed By : **Elton Li** Date : **2016/12/15**
 ANSI Number / HB Type : **on base** **HB4 9006**
 Manufacturer's Part Number : **None**
 DOT symbol : **on base**
 Trade Mark : **on base** **TAILI, Prestige USA, CG, AJUAN**

Ballast marking

Trade Mark : **Not Applicable**
 Ballast Part Number : **Not Applicable**
 light source identification : **Not Applicable**
 Rated laboratory life : **Not Applicable**
 Warning Sentence : **Not Applicable**
 Output Power : **Not Applicable**
 Output Voltage : **Not Applicable**
 DOT symbol : **Not Applicable**

Remarks : _____

REPLACEABLE LIGHT SOURCE ELECTRICAL SPECIFICATIONS

Test Performed By :

Elton Li

Date :

2016/12/15

Maximum power at 12.8 Volts

Filament	Max Value (W)	Sample 1	Sample 2
Single filament	60	57.7	57.5

Luminous Flux :

Filament	Rated Value (lm)	Sample 1	Sample 2
Single filament	1000 \pm 15%	1028	986

Remarks :

REPLACEABLE LIGHT SOURCE DIMENSIONAL SPECIFICATIONS

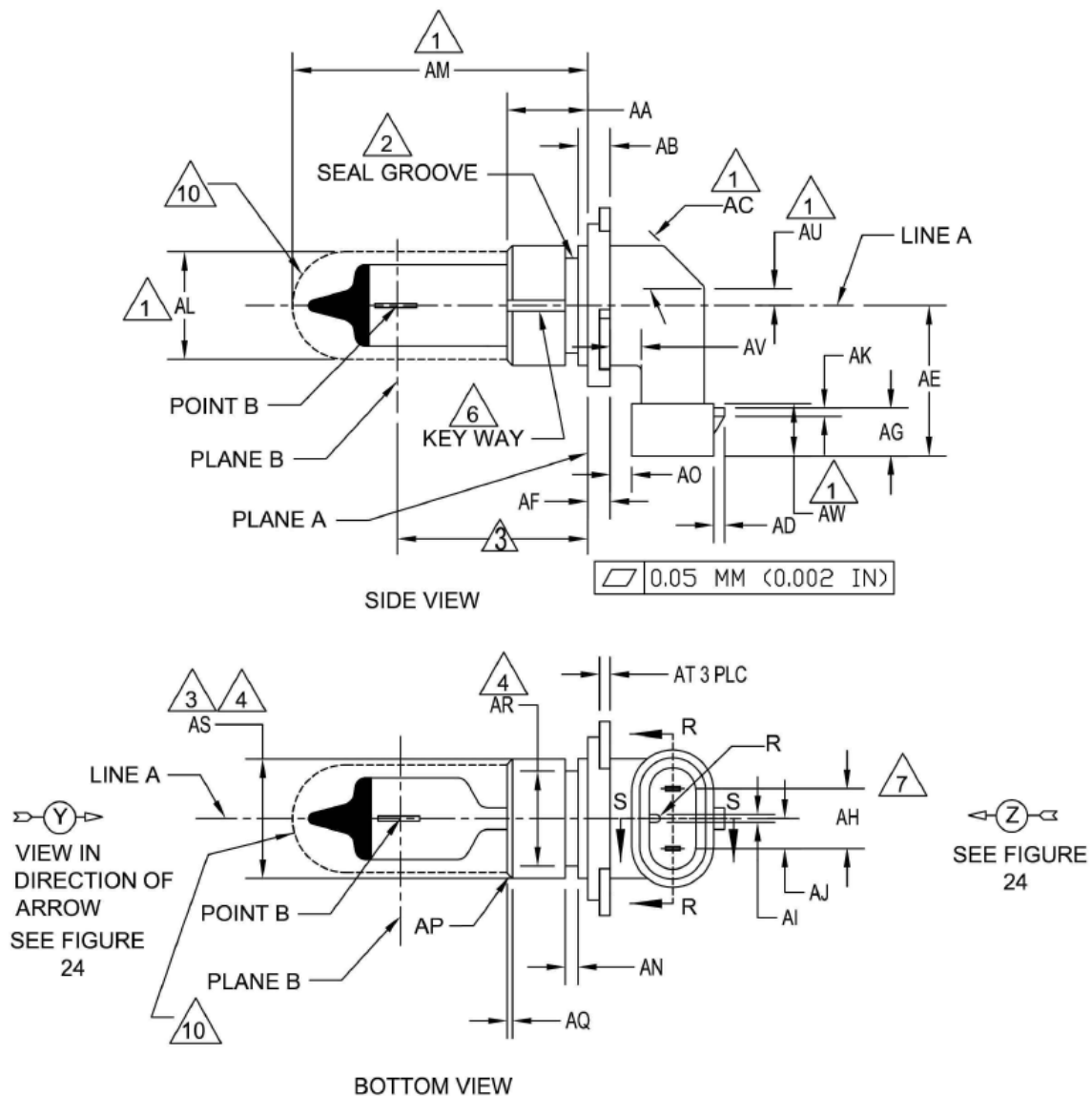
Test Performed By :

Elton Li

Date :

2016/12/15

Figure 1 Specification for the HB4 replaceable bulb - 1

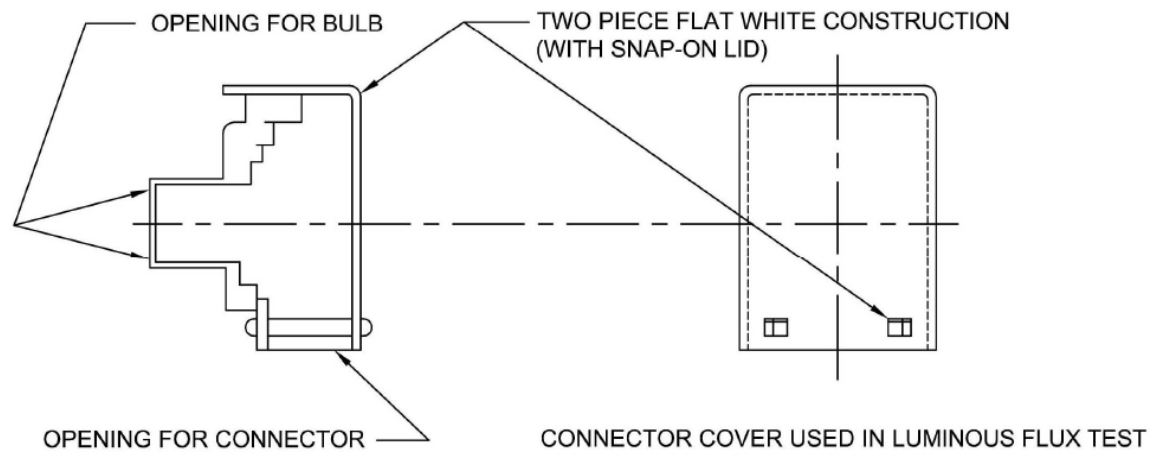
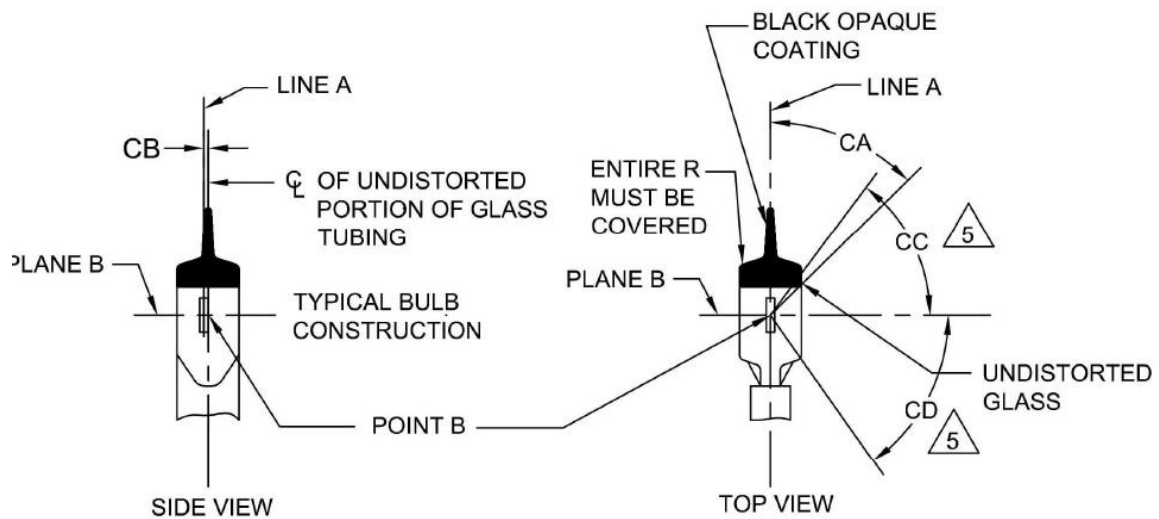


Dimensional specifications for Figure 1

Dimension	Rated Value (mm)	Sample 1	Sample 2
AA	15.00 MAX/ 5.50 MIN	5.84	5.69
AB	6.00	6.21	6.21
AC	45 DEG	44.50 °	42.50 °
AD	2.00	2.05	1.96
AE	27.8	28.01	28.04
AF	4.20	4.26	4.18
AG	8.80	8.56	8.65
AH	11.00	10.86	10.76
AI	1.40	1.12	1.16
AJ	5.50 ± 0.15	5.35	5.43
AK	1.5	1.47	1.49
AL	19.81 DIAMETER	15.36	15.42
AM	55.00	50.2	50.4
AN	2.36	2.14	2.35
AO	4.00	3.72	3.73
AP	45 DEG CHAMFER	45.80 °	45.50 °
AQ	1.00	0.73	0.9
AR	19.46 ± 0.10/ -0.00 DIAMETER	19.5	19.52
AS	22.00 ± 0.05 DIAMETER	22	22.02
AT	2.00	2.08	2.02
AU	3.5	2.88	3.03
AV	5.30 MIN	6.9	6.82
AW	9.60	8.94	9.04

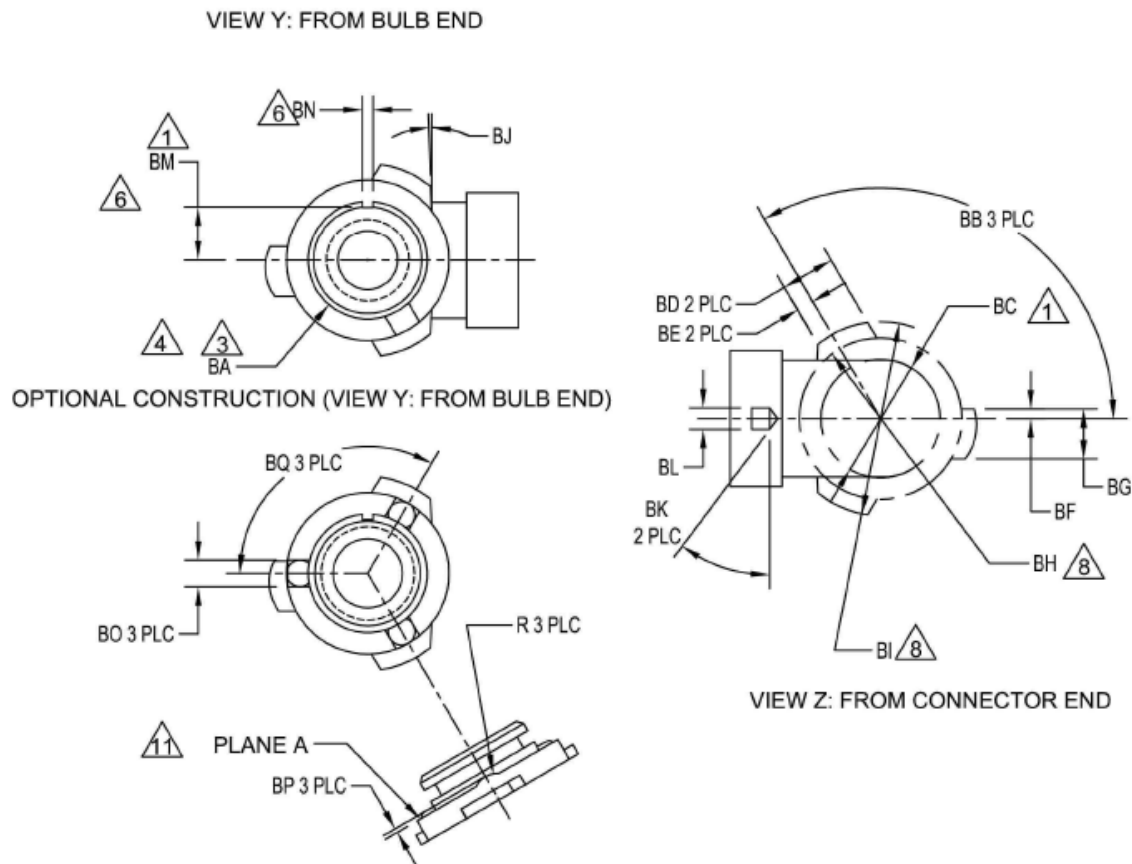
- 1 Dimensions shown are maximum - May be smaller
- 2 Bulbs must be equipped with a seal. The bulb-seal assembly must withstand a minimum of 70kPA when the assembly is inserted into a cylindrical aperture of 20.22 ± 0.10mm
- 3 See Fig. 5
- 4 diameters must be concentric within 0.20mm
- 5 Glass bulb periphery must be optically distortion free axially within the included angels about point B.
- 6 Key and keyway are optional construction. Keyway required for aftermarket only.
- 7 Measured at the terminal base. Terminals must be perpendicular to base and parallel within + 1.5 Deg.
- 8 Diameters must be concentric within 0.20 mm
- 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 supporting bosses of optional schemes or a continuous surface.

Figure 2 Specification for the HB4 replaceable bulb - 2



Dimension	Rated Value (°)	Sample 1	Sample 2
CA	45 ± 5 deg.	41.70 °	40.50 °
CB	0.030 ± 0.020	0.61	0.75
CC	50 deg. Min.	58.80 °	56.50 °
CD	52 deg. Min.	53.40 °	52.20 °

Figure 3 Specification for the HB4 replaceable bulb - 3

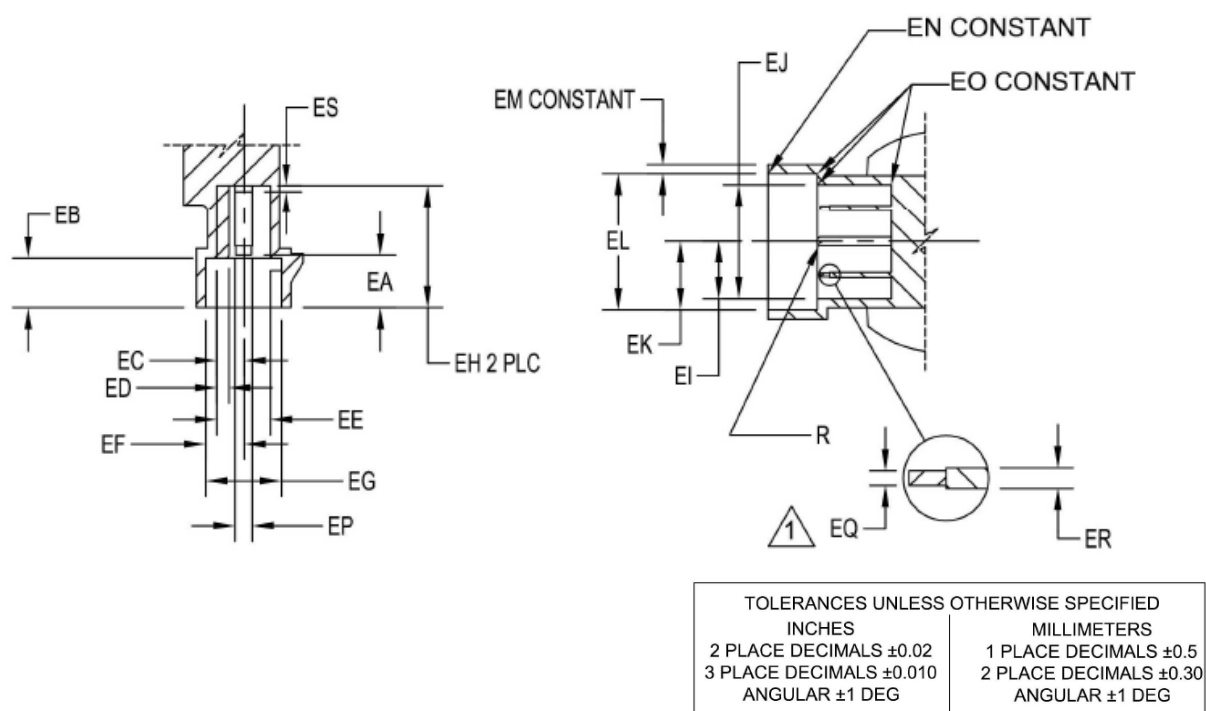


TOLERANCES UNLESS OTHERWISE SPECIFIED	
INCHES	MILLIMETERS
2 PLACE DECIMALS ± 0.02	1 PLACE DECIMALS ± 0.5
3 PLACE DECIMALS ± 0.010	2 PLACE DECIMALS ± 0.30
ANGULAR ± 1 DEG	ANGULAR ± 1 DEG

Dimensional specifications for Figure 3

Dimension	Rated Value (mm)	Sample 1	Sample 2
BA	22.00 \pm 0.05 Diameter	22.0	22.02
BB	120 Deg \pm 30 min	120.00 °	119.80 °
BC	22.00 Diameter	21.6	21.54
BD	10.00	10.21	10.00
BE	3.00	3.1	2.92
BF	2.00	2.00	1.91
BG	8.00	7.78	7.84
BH	30.00 Diameter	29.90	29.84
BI	36.00 Diameter	35.88	35.87
BJ	3 Deg.	3.00 °	2.20 °
BK	30 Deg.	30.00 °	30.00 °
BL	4.00	3.88	3.92
BM	9.9	9.87	9.77
BN	2.00 \pm 0.10	1.92	1.96
BO	5.00	5.05	5.4
BP	0.75	0.57	0.65
BQ	120 Deg. TYP	119.30 °	120.00 °

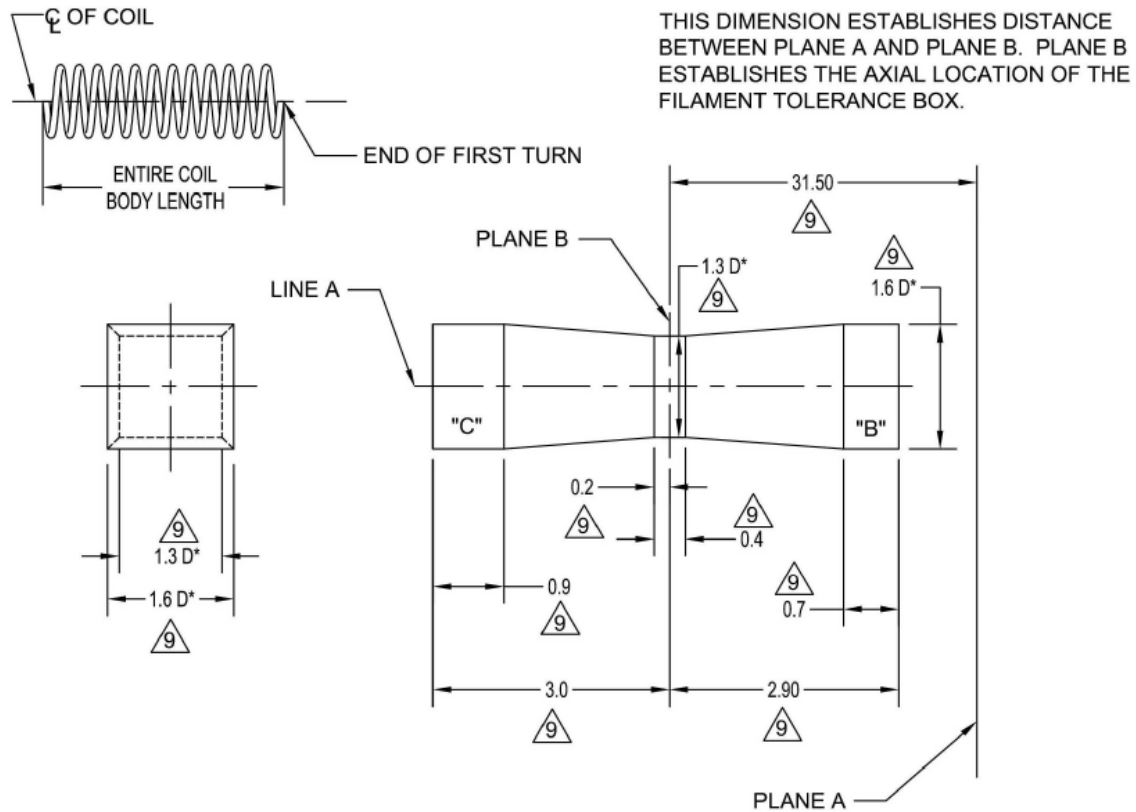
Figure 4 Specification for the HB4 replaceable bulb - 4



Dimensional specifications for Figure 4

Dimension	Rated Value (mm)	Sample 1	Sample 2
EA	9.75	9.8	9.7
EB	8.00	8.18	8.06
EC	4.35	4.38	4.41
ED	2.00	1.96	1.97
EE	8.70	8.82	8.86
EF	6.15 ± 0.15	6.09	6.11
EG	12.30	12.5	12.46
EH	20.00	20.24	20.20
EI	9.35 ± 0.15	9.4	9.43
EJ	18.70	18.8	18.64
EK	11.15 ± 0.15	11.18	11.22
EL	22.30	22.50	22.44
EM	1.5	1.4	1.36
EN	0.8 R	0.20	0.22
EO	0.40 R	0.21	0.19
EP	2.8 ± 0.10	2.76	2.79
EQ	0.60	0.45	0.41
ER	0.83 ± 0.03	0.83	0.82
ES	1.00 MAX	0.20	0.18

Figure 5 Specification for the HB4 replaceable bulb - 5



Plane B is parallel to plane A.

The entire coil body at design voltage (12.8V) must be contained within the volume as specified. The end of the first turn of the coil must lie within volume 'B' and the end of the last turn of the coil must lie within volume 'C'. Line A is perpendicular to plane A and concentric with the 19.46mm Diameter of the base.

D * = Diameter of filament coil

Dimensionss shown are in fillimeters.

- D = 1.72 mm

- Fit in Box system : **OK**

Deflection Test

Test performed by **Elton Li** Date : **December 15, 2016**

After completion of the deflection test, a sample light source must have no permanent deflection of the glass envelope exceeding 0.13 mm in the direction of applied force.

☒ Yes ☐ No

Remarks : _____

Pressure Test

Test performed by **Elton Li** Date : **December 15, 2016**

After completion of the pressure test, the sample light source with an airtight seal on the low pressure (connector side) must show no evidence of air bubbles on that side.

☒ Yes ☐ No

Remarks : _____



CG (Trade Mark) HB4 9006 DOT 12V 55W