



Test Verification of Conformity

On the basis of the referenced test report(s), the sample(s) of the below product has been found to comply with the relevant harmonized standard(s) to the directive(s) listed on this verification at the time the tests were carried out.

Applicant Name & Address : Guangzhou New View Electrical & Lighting Co., Ltd.
Floor 1-4, Building 1, No.4, Longkou Industrial Road, Huashan
Town, Huadu District, Guangzhou City, Guangdong Province,
510880, China.

Manufacturer Name & Address : Guangzhou New View Electrical & Lighting Co., Ltd.
Floor 1-4, Building 1, No.4, Longkou Industrial Road, Huashan
Town, Huadu District, Guangzhou City, Guangdong Province,
510880, China.

Product Name : Headlight

Model No. : D1

Variants : D2, D3, D4, D5, D8

Ballast model No. : SLH1235

Trade mark : NVEL

Electrical Rating : DC 9~16V

Relevant Standard(s) : USA-49 CFR571.108
/Specification(s) / Directive(s)

Report Number(s) : SQT2407016

Note 1: This verification is part of the full test report(s) and should be read in conjunction with it.

Approved by



Technical Supervisor
2024-07-19



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Test Report

Applicant Name & Address:	Guangzhou New View Electrical & Lighting Co., Ltd. Floor 1-4, Building 1, No.4, Longkou Industrial Road, Huashan Town, Huadu District, Guangzhou City, Guangdong Province, 510880, China.
Manufacturer Name&Address:	Guangzhou New View Electrical & Lighting Co., Ltd. Floor 1-4, Building 1, No.4, Longkou Industrial Road, Huashan Town, Huadu District, Guangzhou City, Guangdong Province, 510880, China.
Factory/Plant Name&Address:	Guangzhou New View Electrical & Lighting Co., Ltd. Floor 1-4, Building 1, No.4, Longkou Industrial Road, Huashan Town, Huadu District, Guangzhou City, Guangdong Province, 510880, China.
Product Name:	Headlight
Model No.:	D1
Variants:	D2, D3, D4, D5, D8
Ballast model No.:	SLH1235
Trade mark:	NVEL
Electrical Rating:	DC 9~16V
Date Received:	2024-06-17
Date Test Conducted:	2024-06-20~2024-07-15
Prepared by:	Guangzhou Shuntai Quality Technical Service Co., Ltd.
Test Result:	Pass
Conclusion:	Test items in the test summary, the EUT complied with the standards specified above.
Remark:	The SQT test laboratory is officially accredited by A2LA (American Association for Laboratory Accreditation)

Prepared and Checked By:



Sam Ye

Project Engineer

Approved by:



Signature

Lily Li

Technical Supervisor

2024-07-19

Issued Date

Statement

1. The report is invalid without "special stamp for inspection and testing".
2. Failure to affix "special seal for inspection and testing" to the copy report is invalid, and some copies are invalid.
3. The report is invalid without the signature and seal of the person preparing, reviewing and approving it.
4. The report is invalid if altered.
5. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.
6. This test is only responsible for incoming samples, and the report is only valid for this test.
7. The decision rules for statements of conformity in this report is based on the simple acceptance of ILAC - G8:09/2019.

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1. Description of version

Report No.	Version No.	Issue Date	Description	Approved
SQT2407016	V0	2024-07-19	Original	Valid

2. Test summary

Test item	Test Method	Result
Physical Inspection	USA-49 CFR 571.108	Pass
Photometric Test	USA-49 CFR 571.108	Pass
Color Test	USA-49 CFR 571.108	Pass
Temperature Cycle Test	USA-49 CFR 571.108	Pass
Vibration Test	USA-49 CFR 571.108	Pass
Inward Force Test	USA-49 CFR 571.108	N/A
Headlamp Connector Test	USA-49 CFR 571.108	N/A
Aiming Adjustment Test	USA-49 CFR 571.108	Pass
Abrasion Test	USA-49 CFR 571.108	Pass
Chemical Resistance Test	USA-49 CFR 571.108	Pass
Internal Heat Test	USA-49 CFR 571.108	Pass
Torque Deflection Test	USA-49 CFR 571.108	N/A
Plastic Optical Material Test	USA-49 CFR 571.108	N/A
Connector Corrosion Test	USA-49 CFR 571.108	Pass
Dust Test	USA-49 CFR 571.108	Pass
Humidity Test	USA-49 CFR 571.108	Pass
Chemical Resistance of Reflectors of Replaceable Lens Headlamps Test	USA-49 CFR 571.108	N/A
Corrosion Resistance of Reflectors of Replaceable Lens Headlamps Test	USA-49 CFR 571.108	N/A
Moisture Test	USA-49 CFR 571.108	Pass
Corrosion Test	USA-49 CFR 571.108	Pass

Remark:

The symbol “N/A” in above table means Not Applicable.

When determining the test results, measurement uncertainty of tests has been considered.

This test covers all possible operating modes of the device, only the worst data are list in report. The worst data is the nearest standard limit which were recorded in this report.

3. Laboratory measurements

3.1. Configuration information

Tested Model		D1	
Number of Tested		2 pcs	
Function		Lower beam	Upper beam
Standard		49 CFR571.108	49 CFR571.108
Number of lighted sections		/	/
Identification Code		(LB2V)	(UB2)
Emitted Color		White	White
Rated	Voltage	9~16V	9~16V
	Wattage	35W	35W
Light source		1xLED, Replaceable light source	1xLED, Replaceable light source

Note: The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2. Used test equipment

Equipment	Equipment S/N	Manufacturer	Model No.	Calibration Due
Photometric testing system for automotive lighting	GZST/YQ-DJ-01	Everfine	GO-HD5	2025-07-10
Goniophotometer system	GZST/YQ-DJ-02	Everfine	CT400	2025-07-10
High Accuracy Array Spectroradiometer	GZST/YQ-DJ-08	Everfine	HAAS-2000	2025-07-10
Illuminance Meter	GZST/YQ-DJ-06	Everfine	ID-1000	2025-07-10
DC Power Supply	GZST/YQ-DJ-12	Everfine	WY3020	2025-07-10
Moisture Test Device	GZST/YQ-HJ-01	AUCHNO	OJN-9800	2025-06-24
Dust Test Device	GZST/YQ-HJ-02	AUCHNO	OJN-9608	2025-06-24
Constant damp heat test chamber	GZST/YQ-HJ-03	AUCHNO	OJN-9606-1000L	2025-01-25
Corrosion Test Device	GZST/YQ-HJ-04	AUCHNO	OJN-9610-120L	2025-01-24

3.3. Worse case description

Model No.: D1

Variants : D2, D3, D4, D5, D8, GX-D1S-LED, GX-D2S-LED, GX-D3S-LED, GX-D4S-LED, GX-D5S-LED, GX-D2R-LED, GX-D4R-LED

There are differences in appearance, such as joint color, joint appearance, aluminum body size appearance.

Model **D1** is selected as typical model to perform testing and the worst case.

3.4. Explanation of test method deviation

The test method deviates from the standard method: ~~yes~~/no

If yes, please explain in details: —

4. Physical inspection

Marking*	
Lens:	DOT SAE VOL HL 24
	NVEL, GenXenon
Housing:	---
LENS	
Material:	---
Shape/Dimension:	Special-shaped
Method of mounting:	Screw
HOUSING	
Material:	---
Shape/Dimension:	Special-shaped
Method of mounting to Vehicle:	Screw
Remark:	
“*” Means: Identification numerals and letters shall be at least 3 mm high.	

5. Photometry test

5.1. Low beam

Requirements		Results
Vertical gradient.	The gradient of the cutoff measured at either 2.5°L or 2.0°R is not less than 0.13. G= <u>0.28</u>	Pass
Horizontal position of the cutoff.	The width is not less than 2°, with not less than 2° of its actual width centered at either 2.5°L, or 2.0°R.	Pass
Maximum inclination of the cutoff.	The vertical location of the highest gradient at the ends of the minimum width is within $\pm 0.2^\circ$ of the vertical location of the maximum gradient measured at the appropriate vertical line (at either 2.5°L for a left side cutoff, or 2.0°R for a right side cutoff).	Pass
Light sources	Shall meet the requirements of SAE J1889 if LED Light sources are utilized.	Pass

Test results : **Pass** Test distance : **25m**
 Test voltage : **12.8V** Temperature/ Humidity : **26.9°C/52%RH**
 Test sample : **Sample 1#** Low beam visual aim : **LB2V**

Test Point (degrees)	Photometric Requirements(cd)		Measured Value(cd)			
			Sample 1#		Sample 2#	
	Maximum	Minimum	1 minute	stabilized	1 minute	stabilized
10U to 90U-90L to 90R	125	-	50.71	49.74	45.84	45.61
4U-8L	-	64	94.46	91.15	128.5	127.6
4U-8R	-	64	97.55	97.43	94.23	92.98
2U-4L	-	135	203.9	198.2	180.9	177.4
1.5U-1R to 3R	-	200	285.9	281.0	222.3	215.1
1.5U-1R to R	1400	-	299.3	293.4	230.6	225.0
1U-1.5L to L	700	-	296.3	291.0	238.4	230.7
0.5U-1.5L to L	1000	-	381.1	374.9	263.3	260.0
0.5U-1R to 3R max	2700	-	936.5	925.9	766.4	731.2
0.5U-1R to 3R min	-	500	677.6	670.4	584.5	565.8
H-V	-	-	1088	845.6	1235	1187
H-4L	-	135	513.7	475	401.4	391.5
H-8L	-	64	620.5	497.6	572.8	553.5
0.5D-1.5L to L	-	-	6755	6576	5242	5123
0.5D-1.5R	-	-	30049	29495	17059	17004
0.6D-1.3R	-	10000	31293	30746	17282	17229
0.86D-V	-	4500	32947	31507	17257	17147
0.86D-3.5L	12000	1800	11732	9847	11664	11507
1D-6L	-	-	16657	15954	10718	10666
1.5D-2R	-	15000	36797	36683	17422	17432
1.5D-9L	-	-	11360	10977	9563	9551
1.5D-9R	-	-	10172	10182	9672	9653
2D-9L	-	1250	12103	11686	10640	10636
2D-9R	-	1250	10563	10655	9958	10003
2D-15L	-	1000	6770	6568	6405	6407
2D-15R	-	1000	6046	6102	5903	5889
2.5D-V	-	-	40683	40216	17357	17351
2.5D-12L	-	-	9058	8811	8661	8579
2.5D-12R	-	-	8385	8358	8325	8323
4D-V	-	-	37720	37494	13515	13500
4D-4R	12500	-	11104	10948	12161	12138
4D-20L	-	300	4465	4340	3900	3894
4D-20R	-	300	3533	3537	3383	3369
RESULTS			PASS		PASS	

5.2. High beam

Test results : **Pass** Test distance : **25m**
 Test voltage : **12.8V** Temperature/ Humidity : **26.9°C/52%RH**
 Test sample : **Sample 1#** High beam visual aim : **UB2**

Shall meet the requirements of SAE J1889 if LED Light sources are utilized.	Pass
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Test Point (degrees)	Photometric Requirements(cd)		Measured Value(cd)			
			Sample 1#		Sample 2#	
	Maximum	Minimum	1 minute	stabilized	1 minute	stabilized
2U-V	-	1500	32871	33358	34564	33953
1U-3L	-	5000	34735	34986	34287	33428
1U-3R	-	5000	33710	33617	33030	33274
H-V	75000	40000	44383	44403	42364	42402
H-3L	-	15000	36683	36770	37799	37346
H-3R	-	15000	36272	36080	35477	35792
H-6L	-	5000	21224	21222	25200	24713
H-6R	-	5000	20739	20692	25219	25341
H-9L	-	3000	12635	12691	18322	18122
H-9R	-	3000	11830	11737	19101	19333
H-12L	-	1500	9302	9365	14886	14736
H-12R	-	1500	8703	8706	14721	14882
1.5D-V	-	5000	43021	43016	39821	39991
1.5D-9L	-	2000	15346	15406	21335	21083
1.5D-9R	-	2000	14394	14412	20458	20573
2.5D-V	-	2500	38038	38065	36346	36641
2.5D-12L	-	1000	12087	12146	18295	18034
2.5D-12R	-	1000	11549	11583	17517	17621
4D-V	12000	-	9664	9499	9499	9224
RESULTS			PASS		PASS	

6. Color test

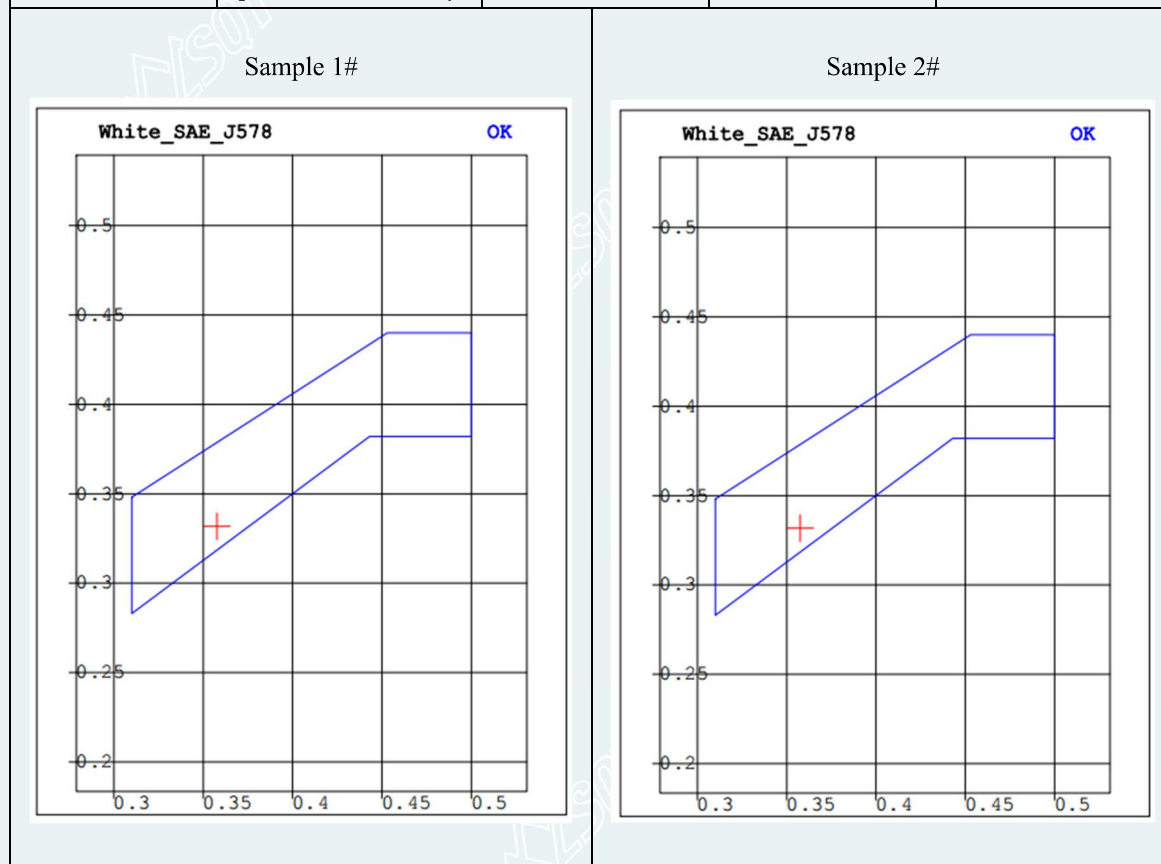
6.1. Low beam

WHITE ZONE:

The color of light emitted must fall within the following boundaries:

- $x = 0.310$ (blue boundary)
- $x = 0.500$ (yellow boundary)
- $y = 0.150 + 0.640x$ (green boundary)
- $y = 0.050 + 0.750x$ (purple boundary)
- $y = 0.440$ (green boundary)
- $y = 0.382$ (Red boundary)

Tested sample	Measured Value			Results
	Times	Coordinate x	Coordinate y	
Sample 1#	one minute	0.3576	0.3318	Pass
	photometric stability	0.3576	0.3318	Pass
Sample 2#	one minute	0.3582	0.3336	Pass
	photometric stability	0.3582	0.3336	Pass



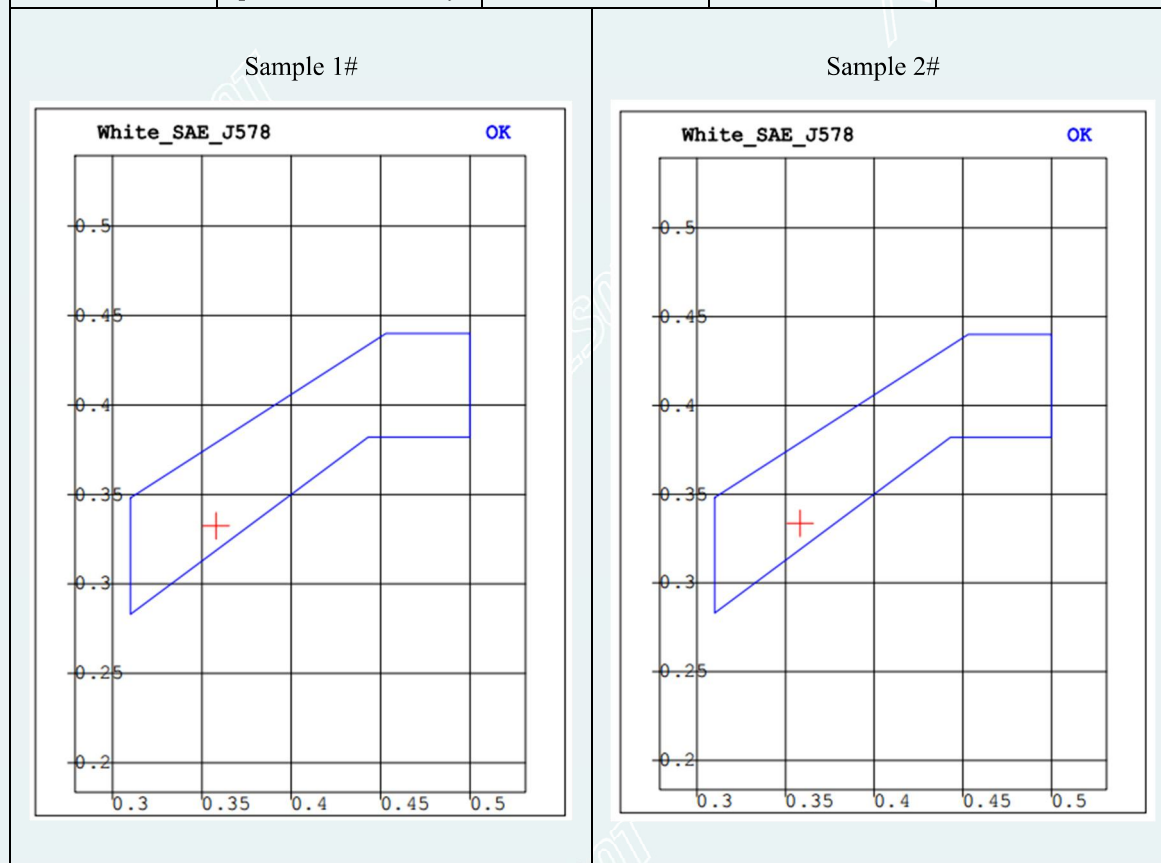
6.2. High beam

WHITE ZONE:

The color of light emitted must fall within the following boundaries:

- $x = 0.310$ (blue boundary)
- $x = 0.500$ (yellow boundary)
- $y = 0.150 + 0.640x$ (green boundary)
- $y = 0.050 + 0.750x$ (purple boundary)
- $y = 0.440$ (green boundary)
- $y = 0.382$ (Red boundary)

Tested sample	Measured Value			Results
	Times	Coordinate x	Coordinate y	
Sample 1#	one minute	0.3578	0.3324	Pass
	photometric stability	0.3578	0.3324	Pass
Sample 2#	one minute	0.3582	0.3336	Pass
	photometric stability	0.3582	0.3336	Pass



7. Physical tests

7.1. Temperature cycle test

Requirement	Results
After completion of the test, the sample show no evidence of delamination, fractures, entry moisture or deterioration of bonding material, color bleeding, warp or deformation visible without magnification. The sample also shows no lens warpage greater than 3 mm when measured parallel to the optical axis at the point of intersection of the axis of each light source with the exterior surface of the lens.	Pass
After the Temperature Cycle test, maximum and minimum photometric intensity requirements are fulfilled.	Pass

7.2. Humidity test

Requirement	Results
The device completed the humidity test without evidence of interior delamination or moisture, fogging or condensation visible without magnification.	Pass

7.3. Vibration Test

Requirement	Results
The device completed the vibration test without evidence of material physical weakness, lens or reflector rotation, displacement or rupture of parts except bulb failures.	Pass

7.4. Abrasion test

Requirement	Results
After the Abrasion test, maximum and minimum photometric intensity requirements are fulfilled.	Pass

7.5. Chemical resistance test

Requirement	Results
After the completion of the test, the sample headlamp did not show evidence of surface deterioration, coating delamination, fractures, and deterioration of bonding or sealing materials, color bleeding, or color pickup visible without magnification.	Pass
After the Chemical Resistance test, maximum and minimum photometric intensity requirements are fulfilled.	Pass

7.6. Internal heat test

Requirement	Results
After completion of the temperature cycle test and meeting its requirements and completion of the internal heat test, the sample did not show lens warpage greater than 3 mm when measured parallel to the optical axis at the point of intersection of the axis of each light source with the exterior surface of the lens.	Pass
After the Internal Heat test, maximum and minimum photometric intensity requirements are fulfilled.	Pass

7.7. Corrosion Test

Requirement	Results
At completion of test, there is no evidence of corrosion which would affect the proper function of the device.	Pass

7.8. Corrosion-connector test

Requirement	Results
At completion of test, the sample headlamp doesn't show evidence of external or internal corrosion or rust visible without magnification.	Pass
At completion of test, there isn't any loss of adhesion of any applied coating more than 3.2 mm from any sharp edge on the inside or out.	Pass

7.9. Dust Test

Function	Requirement	Results
Signal devices	At completion of test, after external cleaning, the maximum candlepower readings of the device is not more than 10% less than the maximum photometric intensity of the same device after being cleaned both inside and outside.	Pass

Function	Requirement	Results
Road illumination devices	After the dust test, photometric intensity requirements are fulfilled.	Pass

7.10. Moisture Test

Requirement	Results
At the completion of test, the accumulation of moisture inside the device is less than 2cc and there is no visible moisture in the unit.	Pass

7.11. Headlamp connector test

Headlamp Connector test does not apply for a LED headlamp because it has been checked that luminous intensity does not vary depending on the voltage.

7.12. Inward force test

N/A

7.13. Torque deflection test

N/A

7.14. Chemical resistance of reflectors of replaceable lens headlamps test

N/A

7.15. Corrosion resistance of reflectors of replaceable lens headlamps test

N/A

7.16. Plastic Optical Material Test

This test is skipped out of this report.

8. Test setup photos

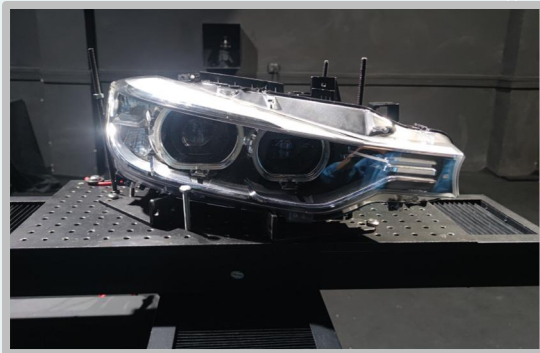
Photometric tests



Setup-1#



Lighting-1#

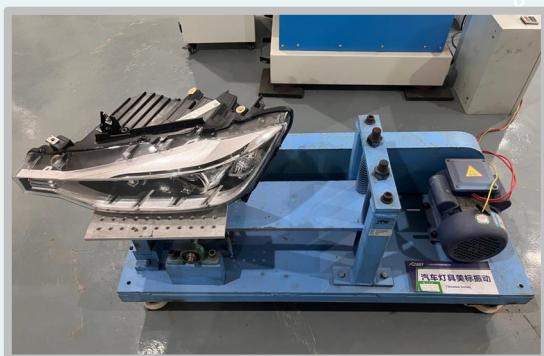


Setup-2#



Lighting-2#

Physical tests



Vibration test



Corrosion test



Dust test



Abrasion test



Internal heat test



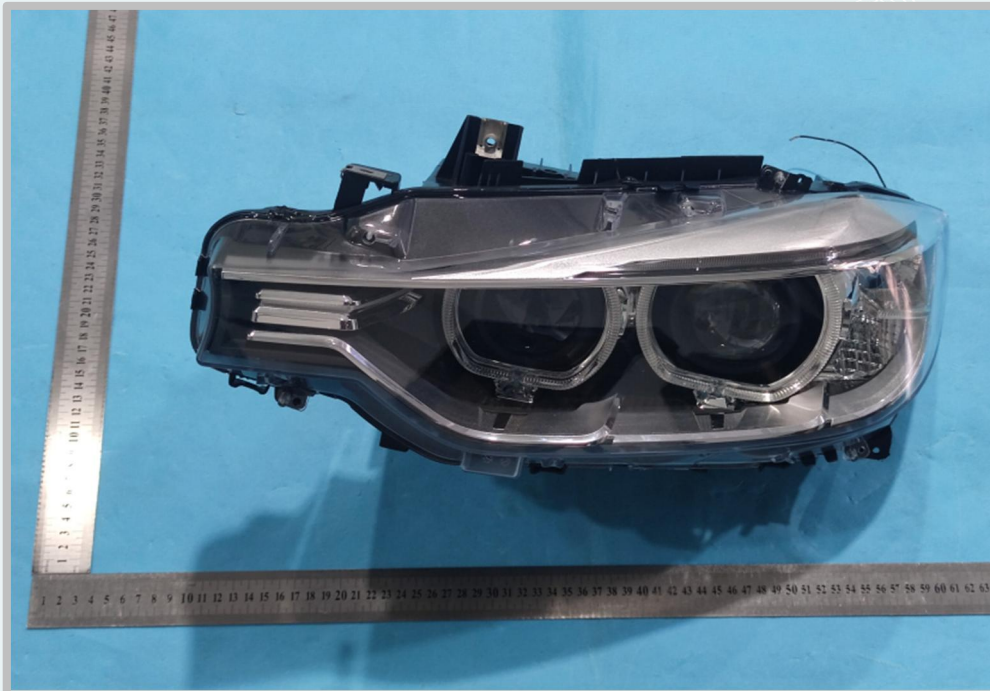
Moisture test



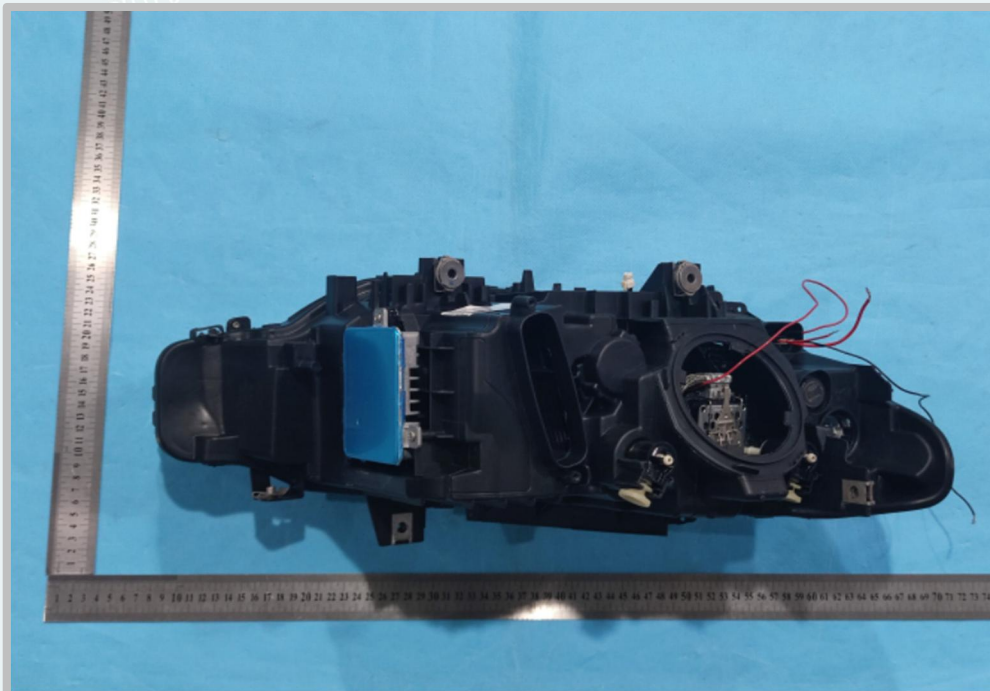
Constant damp heat test chamber setup

9. Photographs of EUT

EUT photo1-1#



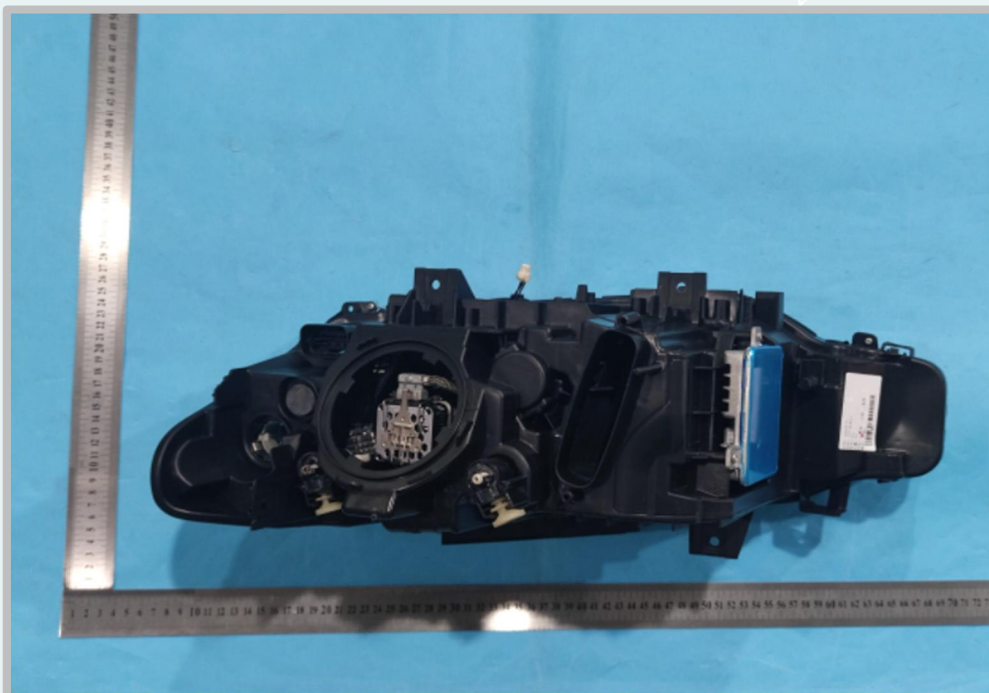
EUT photo2-1#



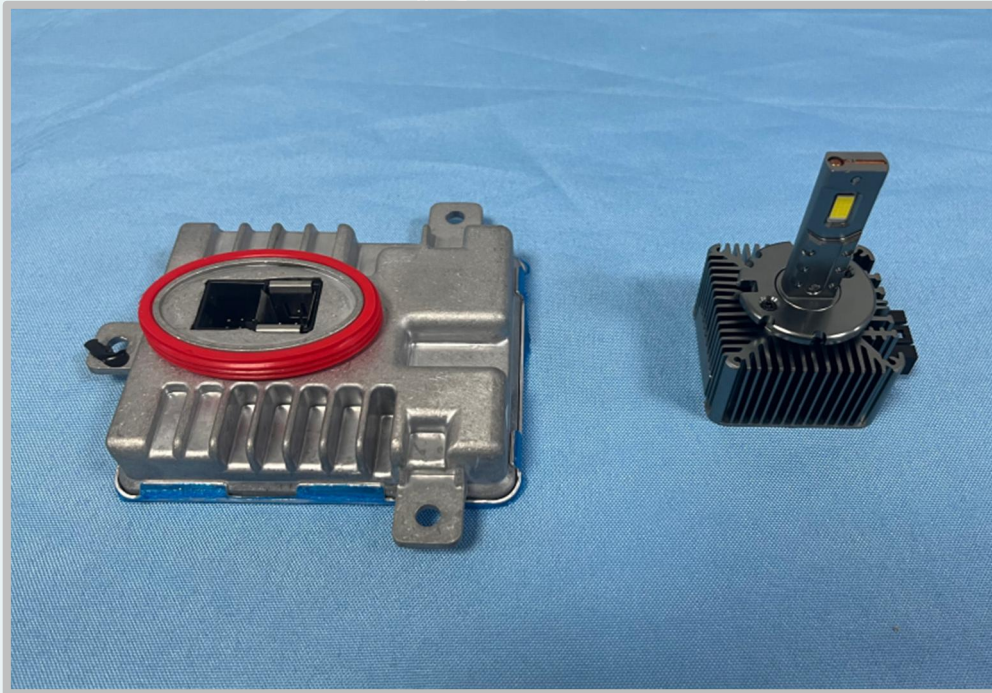
EUT photo3-2#



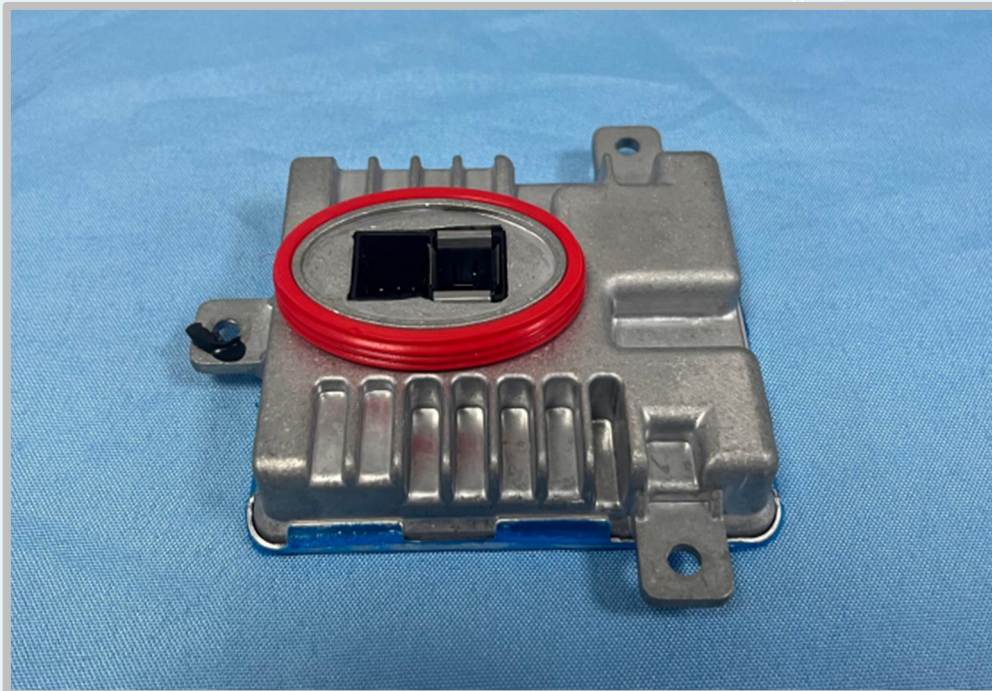
EUT photo4-2#



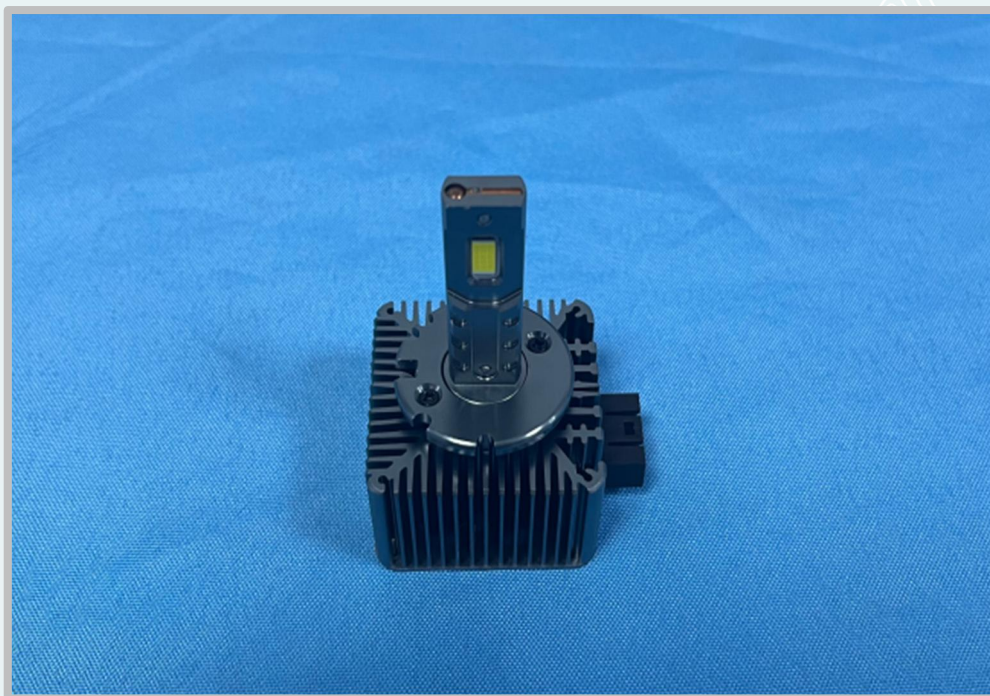
EUT photo5



EUT photo6



EUT photo7



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