



4800 Eastland Dr. - Elkhart, IN 46516
Phone: (574) 293-9399 - Fax: (574) 293-5801
www.abcmktginc.com

TEST REPORT 160224-1216142L

Report Date: February 24, 2016

Test Component: ABC Marketing 1216142L Red 7 LED Oval Rear Combination
Lamp (STI)

Devices Tested: Three (3) each submitted 15 May 2013

Test Summary (FMVSS-108)

Photometric Tests:	Stop lamp (S) J1398	PASSED
	Turn lamp (I) J1395	PASSED
	Tail lamp (T) 585e	PASSED

Mechanical Tests - SAE J575e	PASSED
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Color Tests – SAE J578c	PASSED
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Socket Tests – SAE J567b	NOT APPLICABLE
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Signature of responsible engineer:

A handwritten signature in black ink that reads 'Gary I. Robin'.

Gary I. Robin

DESCRIPTION SHEET

Device Name: ABC Marketing 1216142L Red 7 LED Oval Rear Combination Lamp (STI)

LENS: Markings: "DOT SAE IST 14"
Material: PMMA (Red)

HOUSING: Material: ABS (Black)

BULB	FUNCTION	QUANTITY	TYPE	VOLTAGE
LED	I	7	LED	12.8
	S	7	LED	12.8
	T	7	LED	14.0

Complies with SAE J576b requirements as specified in FMVSS 108 S6.2

TEST RESULT SHEET

Device Name: ABC Marketing 1216142L Red 7 LED Oval Rear Combination Lamp (STI)

PHOTOMETRIC TESTS

Specification (s): FMVSS-108
SAE J1398 (stop lamp – S)
SAE J585e (Tail Lamp - T)
SAE J1395 (Turn Signal Lamp – I)

Tests performed by: Gary I. Robin

Results: Meets requirements at all points for:
SAE J1398 (stop lamp – S)
SAE J585e (Tail Lamp - T)
SAE J1395 (Turn Signal Lamp – I)

Test distance: 3.16 M

Photometry tests performed at 12.8 (S,I) / 14.0V (T)

LENS AREA REQUIREMENTS

Stop/Tail lamp lens area requirements must exceed 7500 mm²
Actual lens area is 8400 mm²
Lens area requirements are met

BULB SOCKET REQUIREMENTS – SAE J567b

Lamp is a sealed unit.
The bulb socket requirements are not applicable.

TEST RESULT SHEET

Device Name: ABC Marketing 1216142L Red 7 LED Oval Rear Combination Lamp (STI)

Mechanical tests: SAE J575e
Tests performed by: Gary I. Robin
Sample: 2

Vibration test (Shock test).

There was no evidence of material physical weakness, lens or reflector deterioration, displacement or rupture of components. LEDs were not damaged.

PASSED

Moisture Test:

Lamp had zero cc of moisture accumulation inside of its cavity (≤ 2 cc required).

PASSED

Dust Test:

No dust was found on the interior surfaces of the device. The maximum candlepower after external cleaning was at least 100% of the HV candlepower prior to exposure.

NOT REQUIRED

Corrosion Test:

There was no evidence of excessive corrosion which would affect the proper functioning of the device.

NOT REQUIRED

Thermal Test:

There was no evidence of reduced function from temperature or humidity.

PASSED

PASSED

Durability Test:

PASSED

LED Life Test:

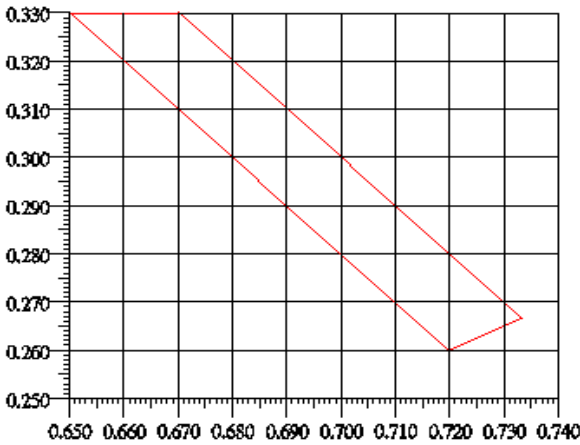
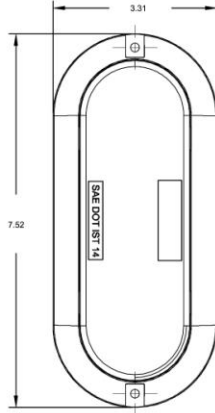
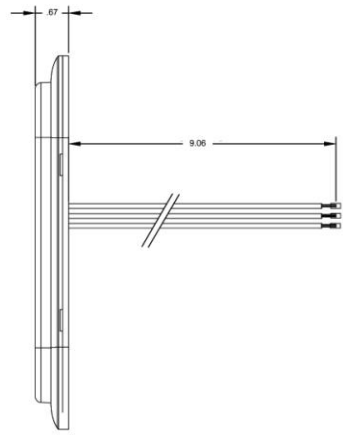
Lamp is not blinking, blackening or shutting off after 1000 hrs.

PASSED

TEST DATA SHEET

Device Name: ABC Marketing 1216142L Red 7 LED Oval Rear Combination Lamp (STI)

Sample : #3

Test Item	Chromaticity Test per SAE J578C		
Test Date	2/19/2016		
Equipment	power supply, chromaticity meter		
Test Conditions:			
1. Normal ambient (25~30 °C) 2. Voltage: 12.8 V.			
Test Method:			
Mount specimen on fixture. Perform chromaticity test at a distance of 1.5 m using CIE fixture.			
Determined Standard:			
$Y \leq 0.33$ (yellow boundary) $Y \geq 0.98-X$ (purple boundary)			
Test Result:			
1. X=0.711 Y=0.288			
  			

Result: Passed SAE J578C color test

By:

Say / Parbini

PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 1216142L Red 7 LED Oval Rear Combination Lamp (STI)

Sample number: #3

Specification: SAE J585e FMVSS 108 (Tail Lamp)

Location	CP Measured	Req Min CP	Req Max CP	Zone
10U 5L	7.62	1	25	1
10U 5R	6.93	1	25	5
5U 20R	2.32	0.7	25	5
5U 10R	7.39	2	25	4
5U V	21.26	4.5	25	3
5U 10L	7.79	2	25	2
5U 20L	2.19	0.7	25	1
H 10L	10.46	2	25	2
H 5L	22.07	5	25	3
H V	23.02	5	25	3
H 5R	18.28	5	25	3
H 10R	8.88	2	25	4
5D 20R	2.32	0.7	-	5
5D 10R	6.46	2	-	4
5D V	18.96	4.5	-	3
5D 10L	6.56	2	-	2
5D 20L	2.16	0.7	-	1
10D 5L	6.38	1	-	1
10D 5R	6.32	1	-	5

Zone	Candela	Req Min
1	18.35	3.4
2	24.81	6
3	103.58	24
4	22.73	6
5	17.97	3.4

Device meets requirements at all points.

Voltage: 14.00V/ Current: 0.020A

Aim: Lamp mounted perpendicular to HV.

PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 1216142L Red 7 LED Oval Rear Combination Lamp (STI)

Sample number: #3

Specification: SAE J1398 (Stop Lamp) // J1395 (Turn Signal Lamp)

Location	CP Measured	Req Min CP	Req Max CP	Zone
10U 5L	66.76	16	300	1
10U 5R	57.06	16	300	5
5U 20R	19.28	10	300	5
5U 10R	59.97	30	300	4
5U V	176.17	70	300	3
5U 10L	66.17	30	300	2
5U 20L	19.11	10	300	1
H 10L	95.26	40	300	2
H 5L	181.49	80	300	3
H V	190.26	80	300	3
H 5R	149.92	80	300	3
H 10R	71.14	40	300	4
5D 20R	18.46	10	300	5
5D 10R	52.63	30	300	4
5D V	157.52	70	300	3
5D 10L	56.24	30	300	2
5D 20L	18.45	10	300	1
10D 5L	54.75	16	300	1
10D 5R	51.14	16	300	5

Zone	Candela	Req Min
1	159.08	52
2	217.67	100
3	855.36	380
4	183.74	100
5	145.94	52

Device meets requirements at all points.

Voltage: 12.80V/ Current: 0.17 A

Aim: Lamp mounted perpendicular to HV.

This test report for ABC Marketing 1216142L Red 7 LED Oval Rear Combination Lamp (STI) has been reviewed and approved for submittal.



Gary I. Robin

Responsible Engineer

February 24, 2016