

ABC Marketing, Inc.
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TEST REPORT 130528-1202632/1202732

Report Date: 28 May 2013

Test Component: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval
Rear Combination Lamp with Reflex (STIA)

Note: 1202632 has chrome bezel
1202732 has black bezel

Devices Tested: Three (3) each submitted 20 May 2013

Test Summary (FMVSS-108)

Photometric Tests – Stop/Turn and Tail Combination Lamp

SAE J585e (Tail Lamp)	PASSED
SAE J586 (Stop Lamp -Vehicle \leq 80" Wide)	PASSED
SAE J588 (Turn Signal Lamp - \leq 80" Wide)	PASSED
SAE J1395 (Turn Signal Lamp - > 80" Wide)	PASSED
SAE J1398 (Stop Lamp - > 80" Wide)	PASSED

Mechanical Tests - SAE J575e	PASSED
Color Tests – SAE J578c	PASSED
Socket Tests – SAE J567b	NOT APPLICABLE
Dimensional Tests (All Vehicle Types)	PASSED

Signature of responsible engineer:



Gary I. Robin

DESCRIPTION SHEET

Device Name: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval Rear Combination Lamp with Reflex (STIA)

MARKINGS:

Lens: "SAE DOT ISTA 13"
Housing: "TAIL, STOP/TURN, GROUND"

LENS: Material: PMMA (Red)
Shape/Dimensions: Oval, 165 mm x 80 mm
Attachment Method: Sonic Weld
Gasket: None

HOUSING: Material: ABS (White)
Shape/Dimensions: Oval, 196 mm x 90 mm
Method of Attachment: Sonic Weld
Gasket: None

BULB	FUNCTION	QUANTITY	TYPE	VOLTAGE
LED	STI	12	SMD	12.8/14.00

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

TEST RESULT SHEET

Device Name: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval Rear Combination Lamp with Reflex (STIA)

PHOTOMETRIC TESTS

Specification (s): FMVSS-108 (SAE J592e)

Tests performed by: Gary I. Robin

Results: Meets requirements at all points for:

SAE J585e (Tail Lamp)

SAE J586 (Stop Lamp – Vehicle < 80" Wide)

SAE J588 (Turn Signal Lamp) Vehicle < 80" Wide)

SAE J1395 (Turn Signal Lamp ≥ 80" Wide)

SAE J1398 (Stop Lamp ≥ 80" Wide)

Test distance: 100 feet

Photometry tests performed at 12.8/14.0V

LENS AREA REQUIREMENTS

The effective projected illuminated area of the stop/turn signal compartment equals 76 cm² (required ≥ 50cm² per FMVSS 108 S5.1.1.26, ≥ 75 cm² per J1395/J1398).

The minimum unobstructed projected illuminated area at 45° outboard of the stop/turn compartment exceeds 12.5cm² (required ≥ 12.5cm² per SAE J586/J588/J1395/J1398).

The minimum unobstructed projected illuminated area at 45° outboard of the tail compartment exceeds 12.5cm² (required ≥ 12.5cm² per SAE J585e).

BULB SOCKET REQUIREMENTS – SAE J567b

Lamp is a sealed unit.

The bulb socket requirements are not applicable.

TEST RESULT SHEET

Device Name: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval Rear
Combination Lamp with Reflex (STIA)

Mechanical tests: SAE J575e
Test performed by: Gary I. Robin
Sample: 1

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 0cc 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:

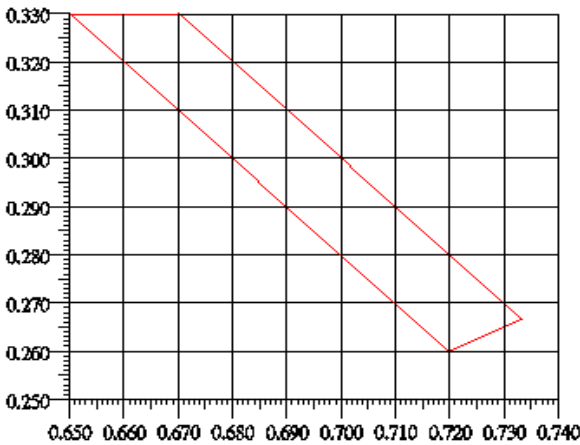
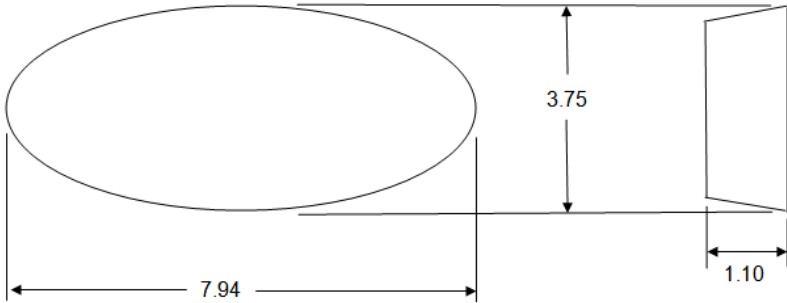
Lamp is not blinking, blackening or shutting off after 1000 hrs.

PASSED

TEST DATA SHEET

Device Name: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval Rear
Combination Lamp with Reflex (STIA)

Sample : #1

Test Item	Chromaticity Test per SAE J578C
Test Date	5/20/2013
Equipment	power supply, chromaticity meter
Test Conditions: 1. Normal ambient (25~30 °C) 2. Voltage: 14 V.	
Test Method: Mount specimen on fixture. Perform chromaticity test at a distance of 1.5 m using CIE fixture.	
Determined Standard: Y ≤ 0.33 (yellow boundary) Y ≥ 0.98-X (purple boundary)	
Test Result: 1. X=0.692 Y=0.303	
	

Result: Passed SAE J578C color test

By:



REFLEX TEST DATA SHEET

Device Name: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval Rear
Combination Lamp with Reflex (STIA)

Specification: SAE J594f (Red Reflex Reflector)

Location	Millicandela Measured	Req'd Min Millicandela
10U V .2z	365	280
H 20L .2z	199	140
H V .2z	757	420
H 20R .2z	274	140
10D V .2z	337	280
10U V 1.5Z	10.7	5
H 20L 1.5Z	4.8	3
H V 1.5Z	34.9	6
H 20R 1.5Z	8.9	3
10D V 1.5Z	10.8	5

Result: Passed SAE J594f Reflex Test

By:



PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval
 Rear Combination Lamp (STIA)
 Sample number: #1
 Specification: SAE J585e FMVSS 108 (Tail Lamp)

Location	CP Measured	Req Min CP	Req Max CP	Zone
10U 5L	12.406	1	25	1
10U 5R	10.313	1	25	5
5U 20R	4.105	0.7	25	5
5U 10R	7.446	2	25	4
5U V	21.137	4.5	25	3
5U 10L	8.641	2	25	2
5U 20L	3.732	0.7	25	1
H 10L	8.831	2	25	2
H 5L	15.570	5	25	3
H V	22.839	5	25	3
H 5R	12.316	5	25	3
H 10R	7.624	2	25	4
5D 20R	4.021	0.7	-	5
5D 10R	7.488	2	-	4
5D V	21.697	4.5	-	3
5D 10L	8.711	2	-	2
5D 20L	3.956	0.7	-	1
10D 5L	14.819	1	-	1
10D 5R	10.563	1	-	5

Zone	Candela	Req Min	Visibility (80L to 80R) .05 min, .25 max
1	34.912	3.4	0.115 @ H=-80.00°, V=-14.55°
2	26.183	6	0.152 @ H=80.00°, V=-0.80°
3	93.558	24	
4	22.559	6	Maximum (Max = 25)
5	29.003	3.4	24.452 @ H=-90.00°, V=1.65°

Device meets requirements at all points.
 Voltage: 14.00V/ Current: 0.021A
 Aim: Lamp mounted perpendicular to HV.

PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 1202632/1202732 Red 12 LED 8-Inch Oval Rear
 Combination Lamp (STIA)
 Sample number: #1
 Specification: SAE J586 / J1398 (Stop Lamp) // SAE J588 / J1395 (Turn Signal Lamp)

Location	CP Measured	Req Min CP	Req Max CP	Zone
10U 5L	94.520	16	300	1
10U 5R	74.444	16	300	5
5U 20R	29.467	10	300	5
5U 10R	53.608	30	300	4
5U V	158.801	70	300	3
5U 10L	70.549	30	300	2
5U 20L	26.864	10	300	1
H 10L	72.101	40	300	2
H 5L	115.746	80	300	3
H V	169.715	80	300	3
H 5R	88.412	80	300	3
H 10R	54.359	40	300	4
5D 20R	28.516	10	300	5
5D 10R	53.337	30	300	4
5D V	158.200	70	300	3
5D 10L	71.020	30	300	2
5D 20L	28.176	10	300	1
10D 5L	106.335	16	300	1
10D 5R	75.395	16	300	5

Zone	Candela	Req Min
1	255.894	52
2	213.670	100
3	690.874	380
4	161.304	100
5	207.823	52

Maximum (Max = 300)
 176.123 @ H=-80.00°, V=1.55°

Device meets requirements at all points.
 Voltage: 12.80V/ Current: 0.158A
 Aim: Lamp mounted perpendicular to HV.

Reviewed and approved for submittal by

A handwritten signature in black ink that reads "Gary I. Robin". The signature is written in a cursive style with a large initial "G" and "R".

Gary I. Robin

Responsible Engineer

May 28, 2013