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TEST REPORT 151116-1228442

Report Date: 16 November 2015

Test Component: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear
Combination Lamp (STI) with reflex mounting flange

Devices Tested: Two (2) each submitted 29 October 2015

Test Summary (FMVSS-108)

Photometric Tests – Stop/Turn and Tail Combination Lamp

SAE J585e (Tail Lamp)	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	NOT APPLICABLE

Signature of responsible engineer:

A handwritten signature in black ink, appearing to read 'Gary I. Robin', written in a cursive style.

Gary I. Robin

DESCRIPTION SHEET

Device Name: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear Combination Lamp (STI) with reflex mounting flange

MARKINGS:

Lens: "SAE DOT I ST 14"
Flange: "SAE A 06 DOT"
Housing: "GND, TAIL/PARKING, STOP/TURN"

LENS:	Material:	Acrylic (Red)
	Shape/Dimensions:	Round, 107 mm D
	Attachment Method:	Vibration Weld
	Gasket:	None
FLANGE:	Material:	Acrylic (Red)
	Shape/Dimensions:	Round 135 mm
	Attachment Method:	Ultrasonic Weld
HOUSING:	Material:	ABS (Black)
	Shape/Dimensions:	Round, 109 mm D
	Attachment Method:	Vibration Weld
	Electrical Attachment:	Leads
	Gasket:	None

BULB	FUNCTION	QUANTITY	VOLTAGE
LED	STI	7	12.8/14.00

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

TEST RESULT SHEET

Device Name: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear
Combination Lamp (STI) with reflex mounting flange

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 J1398 (Stop Lamp \geq 80" Wide)

Test distance: 100 feet

Photometry tests performed at 12.8V (stop) / 14.0V (tail)

LENS AREA REQUIREMENTS

Stop/tail/turn area requirements: 7500 mm² (minimum)
7780 mm² (actual)

BULB SOCKET REQUIREMENTS – SAE J567b

Lamp is a sealed unit.

The bulb socket requirements are not applicable.

TEST RESULT SHEET

Device Name: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear
Combination Lamp (STI) with reflex mounting flange

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 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). The maximum luminous intensity after external cleaning was at least 100 percent of the intensity prior to exposure.

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:

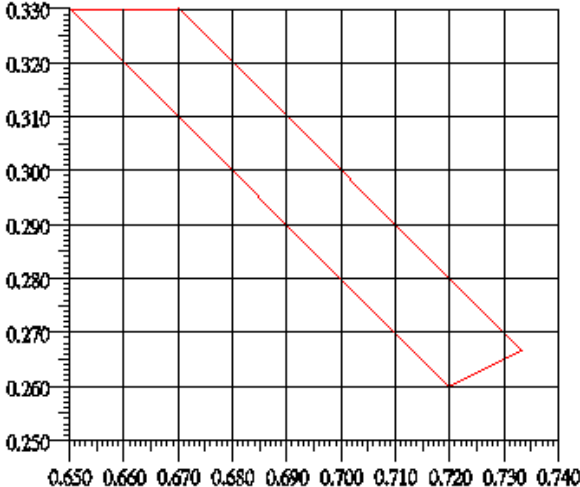
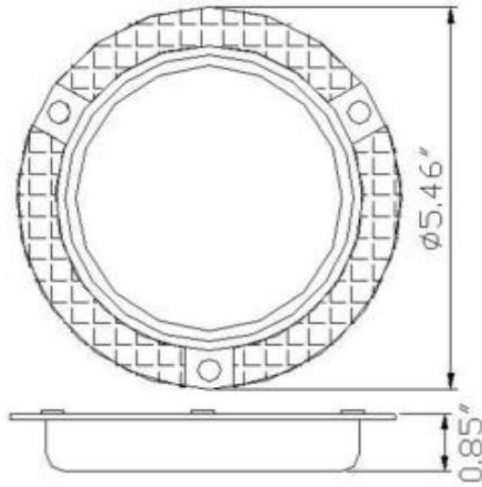
Lamp is not blinking, blackening or shutting off after 1000 hrs.

PASSED

TEST DATA SHEET

Device Name: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear
Combination Lamp (STI) with reflex mounting flange

Sample : #1

Test Item	Chromaticity Test per SAE J578C
Test Date	11/3/2015
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:	
X=0.703 Y=0.295	
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Result: Passed SAE J578C color test

By:

Gay / Rubin

REFLEX TEST DATA SHEET

Device Name: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear
Combination Lamp (STI)

Specification: SAE J594f (Red Reflex Reflector)

Location	CP	Req'd Min
	Measured	CP
10U V .2z	7.082	3
H 20L .2z	3.898	1.5
H V .2z	9.999	4.5
H 20R .2z	3.426	1.5
10D V .2z	7.094	3
10U V 1.5Z	0.062	0.05
H 20L 1.5Z	0.038	0.03
H V 1.5Z	0.153	0.07
H 20R 1.5Z	0.086	0.03
10D V 1.5Z	0.089	0.05

Result: Passed SAE J594f Reflex Test

By:



PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear Combination Lamp (STI)
with reflex mounting flange

Sample number: #1

Specification: SAE J585e FMVSS 108 (Tail Lamp)

Location	CP Measured	Req Min CP	Req Max CP	Zone
10U 5L	4.31	1	25	1
10U 5R	5.44	1	25	5
5U 20R	1.33	0.7	25	5
5U 10R	5.70	2	25	4
5U V	14.62	4.5	25	3
5U 10L	4.24	2	25	2
5U 20L	0.99	0.7	25	1
H 10L	5.23	2	25	2
H 5L	9.77	5	25	3
H V	20.35	5	25	3
H 5R	24.57	5	25	3
H 10R	7.90	2	25	4
5D 20R	1.36	0.7	-	5
5D 10R	4.81	2	-	4
5D V	10.26	4.5	-	3
5D 10L	4.30	2	-	2
5D 20L	0.98	0.7	-	1
10D 5L	4.17	1	-	1
10D 5R	5.27	1	-	5

Zone	Candela	Req Min
1	10.45	3.4
2	13.77	6
3	79.57	24
4	25.13	6
5	13.40	3.4

Device meets requirements at all points.

Voltage: 14.00V / Current: 0.02A

PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 1228442 Red 7 LED 4-Inch Round Rear Combination Lamp (STI)
with reflex mounting flange

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	44.85	16	300	1
10U 5R	56.21	16	300	5
5U 20R	13.28	10	300	5
5U 10R	56.97	30	300	4
5U V	154.99	70	300	3
5U 10L	42.68	30	300	2
5U 20L	10.15	10	300	1
H 10L	52.59	40	300	2
H 5L	96.46	80	300	3
H V	201.46	80	300	3
H 5R	250.81	80	300	3
H 10R	77.11	40	300	4
5D 20R	13.34	10	300	5
5D 10R	47.07	30	300	4
5D V	97.86	70	300	3
5D 10L	42.40	30	300	2
5D 20L	9.74	10	300	1
10D 5L	41.12	16	300	1
10D 5R	51.36	16	300	5

Zone	Candela	Req Min
1	105.85	52
2	137.67	100
3	801.59	380
4	181.15	100
5	134.19	52

Device meets requirements at all points.
Voltage: 12.80V/ Current: 0.17A

Reviewed and approved for submittal by

A handwritten signature in black ink, reading "Gary I. Robin". The signature is written in a cursive style with a large, stylized "G" and "R".

Gary I. Robin

Responsible Engineer

November 16, 2015