

ABC Marketing
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TEST REPORT 131202-1255242

Report Date: 02 December 2013

Test Component: ABC Marketing 1255242 Red, 10 LED, 4-Inch Round, Rear
Combination Lamp (STI)

Note: Intended for grommet mounting

Devices Tested: Three (3) each submitted 14 October 2013

Test Summary (FMVSS-108)

Photometric Tests – Stop/Turn and Tail Combination Lamp

SAE J585e (Tail Lamp)	PASSED
SAE J586 (Stop Lamp Vehicle - ≤ 80 " Wide)	PASSED
SAE J588 (Turn Signal Lamp - ≤ 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 1255242 Red, 10 LED, 4-Inch Round, Rear Combination Lamp (STI)

MARKINGS:

Lens: "SAE IST DOT 07" "TOP"
Housing: "GRND", "TAIL", "STOP&TURN,"

LENS: Material: PMMA (Red)
Plastic meets SAE J576 3 year weathering requirements
Shape/Dimensions: Round, 108 mm D
Attachment Method: Sonic Weld to Housing
Gasket: None

HOUSING: Material: ABS (White)
Shape/Dimensions: Round, 109 mm D
Method of Attachment: Sonic Weld to Lens
Gasket: None

BULB	FUNCTION	QUANTITY	TYPE	VOLTAGE
LED	STI	10	DIP	12.8/14.00

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

TEST RESULT SHEET

Device Name: ABC Marketing 1255242 Red, 7 LED, 4-Inch Round, Rear Combination Lamp (STI)

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

All photometry tests performed at 14.0V after 30 minutes in tail mode and 12.8V after 10 minute in stop/turn mode. All lamps seasoned 10 hours prior to testing.

LENS AREA REQUIREMENTS

The effective projected illuminated area of the stop/turn signal compartment exceeds the required $\geq 50\text{cm}^2$ per FMVSS 108 S5.1.1.26, $\geq 75\text{cm}^2$ per J1395/J1398.

The minimum unobstructed projected illuminated area at 45° outboard of the stop/turn compartment exceeds 12.5cm^2 (required $\geq 12.5\text{cm}^2$ per SAE J586/J588/J1395/J1398).

The minimum unobstructed projected illuminated area at 45° outboard of the tail compartment exceeds 12.5cm^2 (required $\geq 12.5\text{cm}^2$ 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 1255242 Red, 10 LED, 4-Inch Round, Rear
Combination Lamp (STI)

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).

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:

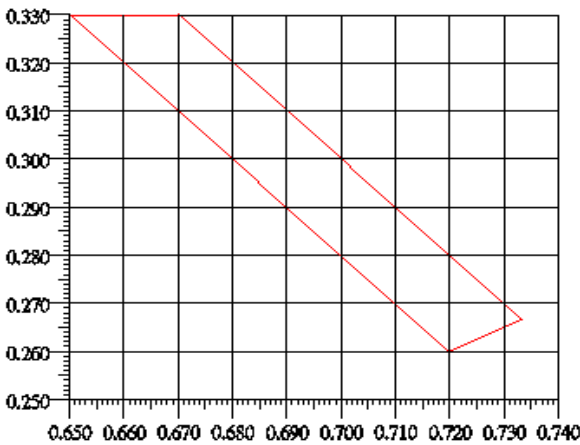

Lamp is not blinking, blackening or shutting off after 1000 hrs.

PASSED

TEST DATA SHEET

Device Name: ABC Marketing 1255242 Red, 10 LED, 4-Inch Round, Rear
Combination Lamp (STI)

Sample : #1

Test Item	Chromaticity Test per SAE J578C
Test Date	11/11/13
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: $Y \leq 0.33$ (yellow boundary) $Y \geq 0.98-X$ (purple boundary)	
Test Result: 1. $X=0.712$ $Y=0.280$	
	

Result: Passed SAE J578C color test

By:



Device Name: ABC Marketing 1255242 Red, 10 LED, 4-Inch Round, Rear Combination Lamp
(STI)

Sample number: #1

Specification: SAE J585e FMVSS 108 (Tail Lamp)

Location	CP Measured	Req Min CP	Req Max CP	Zone
10U 5L	7.254	1	25	1
10U 5R	7.155	1	25	5
5U 20R	2.066	0.7	25	5
5U 10R	7.184	2	25	4
5U V	10.876	4.5	25	3
5U 10L	6.977	2	25	2
5U 20L	1.976	0.7	25	1
H 10L	7.454	2	25	2
H 5L	9.300	5	25	3
H V	13.413	5	25	3
H 5R	10.912	5	25	3
H 10R	7.355	2	25	4
5D 20R	1.893	0.7	-	5
5D 10R	6.580	2	-	4
5D V	9.241	4.5	-	3
5D 10L	6.897	2	-	2
5D 20L	1.972	0.7	-	1
10D 5L	6.660	1	-	1
10D 5R	6.741	1	-	5

Zone	Candela	Req Min
1	17.862	3.4
2	21.328	6
3	53.742	24
4	21.119	6
5	17.855	3.4

Device meets requirements at all points.

Voltage: 14.00V/ Current: 10 mA.

Aim: Lamp mounted perpendicular to HV.

PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 1255242 Red, 10 LED, 4-Inch Round, Rear Combination Lamp
(STI)

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	89.954	16	300	1
10U 5R	89.274	16	300	5
5U 20R	26.039	10	300	5
5U 10R	93.111	30	300	4
5U V	141.401	70	300	3
5U 10L	86.506	30	300	2
5U 20L	24.465	10	300	1
H 10L	92.45	40	300	2
H 5L	119.472	80	300	3
H V	168.813	80	300	3
H 5R	137.692	80	300	3
H 10R	93.248	40	300	4
5D 20R	23.728	10	300	5
5D 10R	84.153	30	300	4
5D V	119.858	70	300	3
5D 10L	84.485	30	300	2
5D 20L	21.363	10	300	1
10D 5L	82.316	16	300	1
10D 5R	87.163	16	300	5

Zone	Candela	Req Min
1	218.098	52
2	263.441	100
3	687.236	380
4	270.512	100
5	226.204	52

Device meets requirements at all points.

Voltage: 12.80V/ Current: 130 mA

Aim: Lamp mounted perpendicular to HV.

Reviewed and approved for submittal by

Gary I. Robin

Gary I. Robin

Responsible Engineer

December 02, 2013