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### TEST REPORT 151116-2203651

Report Date: 16 November 2015

Test Component: ABC Marketing 2203651 Amber 7 LED 4-Inch Round Rear Turn

Signal Lamp

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

## **Test Summary (FMVSS-108)**

Photometric Tests - Rear Turn Signal Lamp

SAE J1395 (Turn Lamp) PASSED SAE J222 (Parking Lamp) 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:

Gary I. Robin

### **DESCRIPTION SHEET**

Device Name: ABC Marketing 2203651 Amber 7 LED 4-Inch Round Rear Turn

Signal Lamp

MARKINGS:

Lens: "SAE DOT I ST 14"

LENS: Material: Acrylic (Amber)

Shape/Dimensions: Round, 107 mm D
Attachment Method: Vibration Weld

Gasket: None

HOUSING: Material: ABS (Black)

Shape/Dimensions: Round, 109 mm D
Attachment Method: Vibration Weld

Electrical Attachment: Leads
Gasket: None

BULB FUNCTION QUANTITY VOLTAGE

LED I 7 12.8/14.00

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

## **TEST RESULT SHEET**

Device Name: ABC Marketing 2203651 Amber 7 LED 4-Inch Round Rear Turn

Signal Lamp

# **PHOTOMETRIC TESTS**

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

Tests performed by: Gary I. Robin

Results: Meets requirements at all points for:

SAE J222 FMVSS 108 (Parking Lamp) SAE J1395 (Rear Turn Signal Lamp)

Test distance: 100 feet

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

## **BULB SOCKET REQUIREMENTS - SAE J567b**

Lamp is a sealed unit.

The bulb socket requirements are not applicable.

#### TEST RESULT SHEET

Device Name: ABC Marketing 2203651 Amber 7 LED 4-Inch Round Rear Turn

Signal Lamp

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 ( $\leq$  2cc 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: PASSED

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

PASSED

Durability Test: PASSED

LED Life Test:

Lamp is not blinking, blackening or shutting off after

1000 hrs. PASSED

### TEST DATA SHEET

ABC Marketing 2203651 Amber 7 LED 4-Inch Round Rear Turn Device Name:

Signal Lamp

Sample: #1

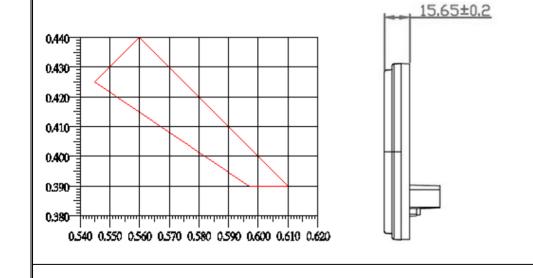
 $Y \ge 0.79 - 0.67X$  (white boundary)

Test Item	Chromaticity Test per SAE J578C				
Test Date	11/2/2015				
Equipment	power supply, chromaticity meter				
Test Conditions:					
1. Normal ambient ( 25~30 °C)					
2. Voltage: 12.8 V.	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≧0.39 (red boundary)					

Y≦X-0.12 (green boundary)

Test Result:

X=0.586 Y=0.414



Result: Passed SAE J578C color test Day 1 Rolini

By:

# PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 2203651 Amber 7 LED 4-Inch Round Rear Turn Signal Lamp

Sample number: #1

Specification: SAE J222 FMVSS 108 (Parking Lamp)

	CP	Req	Req	
Location	Measured	Min CP	Max CP	Zone
10U 5L	4.61	0.8	125	1
10U 5R	4,27	8.0	125	5
5U 20R	1.61	8.0	125	5
5U 10R	4.47	2	25	4
5U V	11.00	2.8	125	3
5U 10L	5.05	8.0	125	2
5U 20L	1.80	8.0	125	1
H 10L	6.72	1.4	125	2
H 5L	15.90	3.6	125	3
ΗV	26.24	4	125	3
H 5R	11.43	3.6	125	3
H 10R	5.64	1.4	125	4
5D 20R	1.67	0.4	250	5
5D 10R	4.91	8.0	250	4
5D V	14.89	2.8	250	3
5D 10L	5.84	0.8	250	2
5D 20L	2.00	0.4	250	1
10D 5L	5.72	8.0	250	1
10D 5R	3.64	8.0	250	5
Zone	Candela	Req Min		
1	13.80	2.4		
2	16.68	3		
3	79.45	16.8		
4	15.02	3		
5	11.51	2.4		

Device meets requirements at all points.

Voltage: 14.00V / Current: 0.02A

## PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 2203651 Amber 7 LED 4-Inch Round Rear Turn Signal Lamp

Sample number: #1

Specification: SAE J1395 (Rear Turn Signal Lamp)

		CP	Req	Req	
	Location	Measured	Min CP	Max CP	Zone
-	10U 5L	95.44	27	750	1
	10U 5R	85.66	27	750	5
	5U 20R	28.52	15	750	5
	5U 10R	81.52	50	750	4
	5U V	202.77	110	750	3
	5U 10L	95.87	50	750	2
	5U 20L	36.19	15	750	1
	H 10L	117.58	65	750	2
	H 5L	277.38	120	750	3
	ΗV	426.81	130	750	3
	H 5R	188.18	120	750	3
	H 10R	92.93	65	750	4
	5D 20R	25.89	15	750	5
	5D 10R	77.65	50	750	4
	5D V	230.16	110	750	3
	5D 10L	92.03	50	750	2
	5D 20L	33.50	15	750	1
	10D 5L	86.64	27	750	1
	10D 5R	77.79	27	750	5
	Zone	Candela	Req Min		
	1	251.76	82		
	2	305.48	165		
	3	1325.30	610		
	4	252.10	165		
	5	217.85	82		

Device meets requirements at all points.

Voltage: 12.80V/ Current: 0.23A

Reviewed and approved for submittal by

Gary I. Robin

Responsible Engineer

November 16, 2015