

# **ABC Marketing**

4800 Eastland Drive Elkhart, IN 46516 Phone (574)293-9399 Fax (574)293-5801

#### **TEST REPORT 140814-31055**

Report Date: 14 August 2014

Test Component: ABC Marketing 31055 Yellow Incandescent

Clearance/Sidemarker/ID lamp w/reflex

Devices Tested: Three (3) each submitted 22 July 2014

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

Photometric Tests - Marker Lamp

SAE J592e (Marker Lamp- P2) PASSED
SAE J594 Jan 77 Yellow Automotve Reflector
Mechanical Tests per SAE J575e PASSED
Color Tests per SAE J578c PASSED
Socket Tests per SAE J567b Not Applicable
Dimensional Tests Not Applicable

Signature of responsible engineer:

Say / Rolini Gary I. Robin

#### **DESCRIPTION SHEET**

Device Name: ABC Marketing 31055 Yellow Incandescent

Clearance/Sidemarker/ID lamp w/reflex

Markings:

Lens: "SAE AP2 10 DOT (cav #)
Housing: MADE IN TAIWAN (cav#)

Lens Information:

Material: Acrylic (Yellow)

Shape/Dimensions: Cylindrical, 2.5 inch diameter x 0.7 inch deep

Attachment Method: Sonic welded to housing

Gasket: None

**Housing Information** 

Material: Polycarbonate (White)

Shape/Dimensions: Cylindrical, 2.5 inch diameter x 0.6 inch deep

Attachment Method: Sonic welded to lens

| BULB | FUNCTION | QUANTITY | TYPE   | VOLTAGE |  |
|------|----------|----------|--------|---------|--|
| 193  | P2 (Red) | 1        | Sealed | 14V     |  |

Lens complies with SAE J576 JUL 91 requirements as specified in FMVSS 108.

#### **TEST RESULT SHEET**

Device Name: ABC Marketing 31055 Yellow Incandescent

Clearance/Sidemarker/ID lamp w/reflex

Photometric Tests:

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

Tests performed by: Gary I. Robin

Results: Meets requirements at all points for:

SAE J592e (Marker Lamp – P2)

Mounting requirements:

Lamp must be mounted parallel to the vehicle longitudinal or lateral axis and may

be rotated to any position about the lamp axis.

Test distance: 100 feet

Photometry test voltage: 14.00V

Lens area requirements:

Lamp is a marker lamp.

Lens Area requirements are not applicable.

Bulb socket requirements – SAE J567b:

The bulb socket requirements are not applicable because the lamp is a sealed unit.

#### **TEST RESULT SHEET**

Device Name: ABC Marketing 31055 Yellow Incandescent

Clearance/Sidemarker/ID lamp w/reflex

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

Sample: 3

Vibration test (Shock test).

There was no evidence of material physical weakness, lens or reflector rotation, 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). 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**

Device Name: ABC Marketing 31055 Yellow Incandescent

Clearance/Sidemarker/ID lamp w/reflex

| Test Item | Chroma Test per SAE J578C  |
|-----------|----------------------------|
| Test Date | 8/4/2014                   |
| Equipment | power Supply, chroma Meter |

#### Test Condition:

- 1. 23~28° C
- 2. Voltage: 14.00 V.

# Test Method:

Mount specimen on tooling, chroma test at a distance of 1.5 m using CIE fixture.

## **Determined Standard**

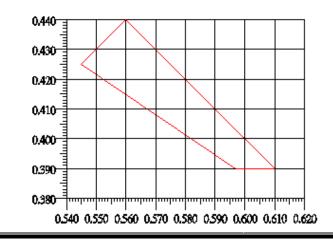
 $Y \ge 0.39$  (red boundary)

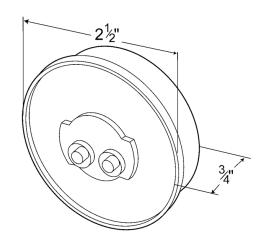
 $Y \ge 0.79 - 0.67X$  (white boundary)

Y≦X-0.12 (green boundary)

## Test Result:

1. X=0.590 Y=0.402





Result: PASSED SAE J578C color test

Day 1 Rolini

By:

## PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing 31055 Yellow Incandescent

Clearance/Sidemarker/ID lamp w/reflex

Sample number: 1

Specification:

SAE J592e (Yellow Clearance, ID or Sidemarker Lamp (P2)

| Location | Measured<br>CP | Required<br>Min CP |  |
|----------|----------------|--------------------|--|
|          |                |                    |  |
| 10U 45L  | 1.41           | 0.62               |  |
| 10U V    | 3.34           | 0.62               |  |
| 10U 45R  | 1.30           | 0.62               |  |
|          |                |                    |  |
| H 45R    | 1.27           | 0.62               |  |
| HV       | 2.43           | 0.62               |  |
| H 45L    | 1.29           | 0.62               |  |
|          |                |                    |  |
| 10D 45L  | 1.46           | 0.62               |  |
| 10D V    | 2.65           | 0.62               |  |
| 10D 45R  | 1.58           | 0.62               |  |

Device meets SAE J592e P2 requirements at all points.

Voltage: 14.0 V (Device tested after 30 minute warm-up)

Current: 33 mA

Aim: Lamp mounted perpendicular to HV

Day 1 Palmi

By:

## **REFLECTOR TEST DATA SHEET**

ABC Marketing 31055 Yellow Incandescent Clearance/Sidemarker/ID lamp w/reflex Device Name:

Sample number: 1

Specification:

SAE J594 Jan 77 Yellow Automotive Reflector

| OBS ANGLE | ENTRANCE ANGLE (DEGREES) |     | CANDELLA PER F | FOOTCANDLE   |
|-----------|--------------------------|-----|----------------|--------------|
| (DEGREES) |                          |     | MEASURED       | REQUIRED MIN |
| 0.2       | H                        | V   | 28.75          | 11.25        |
|           | 10U                      | V   | 21.54          | 7.5          |
|           | 10D                      | V   | 20.39          | 7.5          |
|           | H                        | 20L | 14.56          | 3.75         |
|           | H                        | 20R | 16.28          | 3.75         |
| 1.5       | H                        | V   | 4.26           | 0.17         |
|           | 10U                      | V   | 0.40           | 0.12         |
|           | 10D                      | V   | 0.42           | 0.12         |
|           | H                        | 20L | 0.28           | 0.07         |
|           | H                        | 20R | 0.25           | 0.07         |

Device meets SAE J594 automotive reflector requirements at all points.

Reviewed and approved for submittal by:

Gary I. Robin

Responsible Engineer

Day 1 Palmi

August 14, 2014