

ABC Marketing
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TEST REPORT 131202-4255253

Report Date: 02 December 2013
Test Component: ABC Marketing, 4" ROUND, 20 LED, BACKUP LAMP
Devices Tested: Three (3) Submitted 10/28/2013

TEST SUMMARY (FMVSS-108)

Photometric Tests - Backup Lamp

SAE J593c (Back Up Lamp, 2 systems lamp) 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, 4" ROUND, 20 LED, BACKUP LAMP

MARKINGS:

LENS: "DOT SAE R 04" "TOP"
HOUSING: "GRND", "TAIL", "STOP&TURN"

LENS:

MATERIAL: HI-PMMA (Clear)
Plastic meets SAE J576 3 year weathering requirements

SHAPE/DIMENSIONS: Round, 108mm Diameter
METHOD OF ATTACHMENT: Sonic Weld to Housing
GASKET: None

HOUSING:

MATERIAL: Hi Impact ABS (Gray)
SHAPE/DIMENSIONS: Dome, 109mm Diameter x 19.5mm Deep
METHOD OF ATTACHMENT: Sonic Weld to Lens
GASKET: None

BULB:

FUNCTION	QUANTITY	TRADE NO.	VOLTAGE
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R	20	LED	12.8V
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Lens complies with SAE J576 JUL 91 requirements as specified in FMVSS-108

TEST RESULT SHEET

Device Name: ABC Marketing, 4" ROUND, 20 LED, BACKUP LAMP

PHOTOMETRIC TESTS

Specification (s): FMVSS-108 (SAE J593)

Tests performed by: Gary I. Robin

Meets requirements at all points for:

SAE J593c (Back Up Lamp, 2 systems lamp)

Test distance: 100 feet

All photometry tests performed at 12.80V after 10 minute warm-up (SAE J1889 methodology).

All lamps seasoned 10 hours prior to testing.

LENS AREA REQUIREMENTS

Lens Area requirements are not applicable

BULB SOCKET REQUIREMENTS – SAE J567b

Lamp uses LEDs.

The bulb socket requirements are not applicable.

TEST RESULT SHEET

Device Name: ABC Marketing, 4" ROUND, 20 LED, BACKUP LAMP

MECHANICAL TESTS: SAE J593

Test performed by: Gary I. Robin

Sample #2

Vibration Test (Shock test): PASSED

There was no evidence of material physical weakness,
lens or reflector rotation, displacement or rupture of parts.
LED parts were not damaged.

Moisture Test PASSED

Lamp had 0cc of moisture accumulation inside
of the cavity. (≤ 2 cc required).

Dust Test: NOT REQUIRED

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.

Corrosion Test: NOT REQUIRED

There was no evidence of excessive corrosion which would
Affect the proper functioning of the device.

Thermal Test: PASSED

Durability Test: PASSED

LED Life Test: PASSED

Lamp are not blinking, blacking or shutting off after 1000 hrs.

TEST DATA SHEET

Device Name: ABC Marketing, 4" ROUND, 20 LED, BACKUP LAMP

Test Item	Chroma Test
Test Date	10/28/2013
Equipment	Power Supply, Chroma Meter
Test Condition : 1. 25~30 Normal indoor temperature 25-30 2. Voltage: 12.8 V	
Test Method : Attach lamp to tooling, test at a distance of 1.5 m, Chroma Test in CIE fixture.	
Determined Standard : $X > 0.31$ $Y < 0.44$ $X < 0.50$ $Y > 0.38$ $Y = 0.15 + 0.64X$ $Y = 0.05 + 0.75X$	
Test Result : $X = 0.350$ $Y = 0.336$	
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p> $X > 0.31$ $Y < 0.44$ $X < 0.50$ $Y > 0.38$ $Y = 0.15 + 0.64X$ $Y = 0.05 + 0.75X$ </p> </div> <div style="flex: 0.5; text-align: center;"> </div> </div>	

Result: Passed SAE J578C color test

By:

Gay / Rubin

PHOTOMETRIC TEST DATA SHEET

Device Name: ABC Marketing, 4" ROUND, 20 LED, BACKUP LAMP

Sample number: #1 / Specification: SAE J593c (Backup Lamp)

	Volts:	12.8 / Amps:	0.35 /	Bulb:	LED	
Location	Measured	Min CP	Max CP	Min CP	Max CP	Zone
10U 10L	210.528	10	300	6	270	3
10U V	239.819	15	300	9	270	3
10U 10R	180.332	10	300	6	270	3
5U 45R	47.998	15	300	9	270	6
5U 10R	227.014	20	300	12	270	3
5U V	293.284	25	300	15	270	3
5U 10L	266.756	20	300	12	270	3
5U 45L	45.875	15	300	9	270	1
H 45L	60.706	15	300	9	270	1
H 30L	116.882	25	300	15	270	2
H 10L	293.296	50	300	30	270	4
H V	289.642	80	300	48	270	4
H 10R	257.122	50	300	30	270	4
H 30R	109.112	25	300	15	270	5
H 45R	42.177	15	300	9	270	6
5D 45R	30.343	15	-	9	-	6
5D 30R	84.608	25	-	15	-	5
5D 10R	243.907	50	-	30	-	4
5D V	333.598	80	-	48	-	4
5D 10L	303.26	50	-	30	-	4
5D 30L	124.407	25	-	15	-	2
5D 45L	68.886	15	-	9	-	1

Zone	Candela	Req Min	Req Max
1	175.467	45	-
2	241.289	50	-
3	1417.733	100	-
4	1720.825	360	-
5	193.72	50	-
6	120.518	45	-

Reviewed and approved for submittal by:



Gary I. Robin

Responsible Engineer

02 December 2013