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Auxiliary Upper Beam Lamps**1. Scope**

This SAE Standard provides test procedures, performance requirements and guidelines for auxiliary upper beam lamps.

2. References**2.1 Applicable Publications**

The following publications form a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J575—Tests for Motor Vehicle Lighting Devices and Components

SAE J576—Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices

SAE J578—Color Specification

SAE J599—Lighting Inspection Code

SAE J759—Lighting Identification Code

2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this document.

2.2.1 SAE PUBLICATIONS

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J2009—Discharge Forward Lighting Systems

SAE J2139—Tests for Lighting Devices and Components on Vehicles 2032 mm or More in Length

SAE J2282—Distributed Lighting Systems (DSL)

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3. Definitions

3.1 Auxiliary Upper Beam Lamp

A lighting device mounted to provide illumination forward of the vehicle and intended to supplement the upper beam of a standard headlamp system. It is not intended for use alone or with the lower beam of a standard headlamp system. Auxiliary upper beam lamp, auxiliary high beam lamp and auxiliary driving lamp shall be used interchangeably.

4. Lighting Identification Code

The auxiliary driving lamps may be identified by the code "Y," in accordance with SAE J759.

5. Tests

5.1 SAE J575

The following test procedures in SAE J575 are a part of this report with the modifications indicated:

5.1.1 VIBRATION TEST

5.1.2 MOISTURE TEST

5.1.3 DUST TEST

(Dust test shall not be required for sealed units.)

5.1.4 CORROSION TEST

5.1.5 WARPAGE TEST

(Devices produced from plastic components.)

5.1.6 A PHOTOMETRIC TEST

5.1.6.1 The photometric tests for bulb replaceable units shall be made at a distance of at least 18.3 m (60 ft) from the photometer to the lamp.

5.1.6.2 *Lamp Aim*

A lamp or sealed beam unit, which is designed to be aimed mechanically, shall be centered on the photometric axis with the aiming planes normal to that axis. A lamp or sealed unit, not designed to be aimed mechanically, shall be photoelectrically aimed so that the test points in Figure 1 designated by the squares have equal intensity and those designated by triangles have equal intensity. The intensity at 0.7U/V and 1.2D/V shall be equal and the intensity at 0.3D/2.9L and 0.3D/2.9R shall be equal.

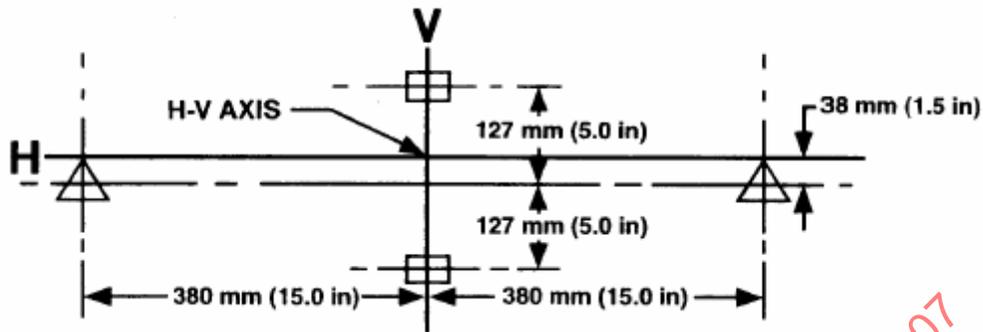


FIGURE 1—TEST POINTS ON A SCREEN AT 7.6 m

5.2 Color Test

SAE J578 is a part of this report.

5.3 Plastic Materials

Plastic materials used in optical parts shall be tested in accordance with the procedures in SAE J576.

6. Requirements

6.1 Performance Requirements

A device when tested in accordance with the test procedures in Section 5, shall meet the following requirements in SAE J575, with the modifications indicated:

- 6.1.1 VIBRATION
- 6.1.2 MOISTURE
- 6.1.3 DUST
- 6.1.4 CORROSION
- 6.1.5 WARPAGE TEST ON DEVICES WITH PLASTIC COMPONENTS
- 6.1.6 PHOTOMETRY

The lamp under test shall meet the photometric requirements contained in Table 1.

TABLE 1—PHOTOMETRIC REQUIREMENTS

Test Point, Degrees ⁽¹⁾	Candela, cd
2U—3R and 3L	2000 min
1U—3R and 3L	5000 min
H—V	25000 min and 75000 max
H—3R and 3L	10000 min
1D—6R and 6L	3700 min
2D—6R and 6L	2000 min
4D—V	5000 max

1. A tolerance of $\pm 1/4$ degree in location may be allowed at any test point.

6.2 Color

The color of the emitted light shall be white as defined in SAE J578.

6.3 Plastic Materials

The plastic materials used in optical parts shall meet the requirements in SAE J576.

7. Guidelines

7.1 These guidelines apply to the device as used on the vehicle and are not a part of the laboratory test procedures and requirements.

7.2 Lamp Aim

The lamp aim adjustments on the vehicle should be with mechanical aimers, if possible. Set the mechanical aim to 0-0, reference SAE J599.

7.3 Other Aiming Procedures

If the vehicle mounting or lamp design precludes mechanical aiming, the lamp shall be aimed photometrically (see 5.1.6.2), or visually aimed. The correct visual aim is with the high intensity zone of the beam symmetric about and 38 mm (1.5 in) below the H-V axis of the lamp on an aiming screen at 7.6 m (25 ft).