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INTERNATIONAL
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SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J582

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Submitted for recognition as an American National Standard

(R) AUXILIARY LOW BEAM LAMPS

1. Scope—This SAE Recommended Practice provides general design and performance requirements, test procedures, and installation guidelines for auxiliary low beam lamps.

2. References

2.1 Applicable Publications—The following publications form a part of this specification to the extent specified herein. 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—Test Methods and Equipment for Lighting Devices and Components for Use on Vehicles Less Than 2032 mm in Overall Width
SAE 576—Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices
SAE J578—Color Specification
SAE J602—Headlamp Aiming Device for Mechanically Aimable Sealed Beam Headlamp Units
SAE J759—Lighting Inspection Code
SAE J1383—Sealed Beam Headlamps for Motor Vehicles

3. Definitions

3.1 Auxiliary Low Beam Lamps—A lamp which supplements the lower beam of a standard headlamp system.

4. Lighting Tests Identification Code—Auxiliary low beam lamps may be identified by the code "Z," in accordance with SAE J759.

5. Tests

5.1 SAE J575 is a part of this document. The following tests are applicable with modifications as indicated.

5.1.1 VIBRATION TEST

5.1.2 MOISTURE TEST

5.1.3 DUST TEST

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5.1.4 CORROSION

5.1.5 PHOTOMETRY TESTS

5.1.5.1 Photometric tests shall be made with the photometer at a distance of at least 18.3 m (60 ft) from the headlamp. The lamp shall be aimed mechanically by centering the lamp on the photometer axis with the aiming plane on the lens normal to the photometer axis.

5.1.5.2 A lamp designed not to be aimed mechanically shall be centered on the photometer axis with the beam aimed downward so that 1000 cd is directed at some point on the horizontal between 6.0 degrees left and 6.0 degrees right.

5.1.6 WARPAGE TEST FOR DEVICES WITH PLASTIC COMPONENTS

5.1.7 COLOR TEST—SAE J578 is a part of this document.

6. Requirements

6.1 Performance Requirements—A lamp, when tested in accordance with the test procedure specified in Section 5, shall meet the following requirements.

6.1.1 VIBRATION—SAE J575

6.1.2 MOISTURE—SAE J575

6.1.3 DUST—SAE J575

6.1.4 CORROSION—SAE J575

6.1.5 PHOTOMETRY—SAE J575

6.1.5.1 The lamp under test shall meet the photometric performance requirements contained in Table 1 and its footnotes.

6.1.5.2 Unless otherwise specified, bulbs used in the tests shall be supplied by the laboratory and be representative of standard bulbs in regular production. The rated bulbs shall be operated at their designed luminous intensity (MSCP); sealed units shall be seasoned and operated at their design voltage.

6.1.6 WARPAGE—SAE J575

6.1.7 COLOR—The color of light from the auxiliary low beam lamp shall be white as specified in SAE J578.

6.1.8 OUT-OF-FOCUS—The auxiliary low beam lamp shall meet the photometric requirements of Table 2 for each of the out-of-focus positions.

6.2 Material Requirements—Plastic materials used in the optical parts shall meet the requirements of SAE J576.

TABLE 1—PHOTOMETRIC DESIGN GUIDELINES

Test Point Deg.(1)	Candela-Max.	Candela-Min.
10U - 90U(2)	75	—
1.5U - 1L to L	300	—
1.5U - 1R to R	300	—
.5U - 1L to L	400	—
.5U - 1R to 3R	400	—
.5D - 1R to 3R	25000	2000
.5D - 1L to L	10000	—
.5D - 4R	—	3000
.5D - 4L	—	3000
1D - 1R	—	10000
3D - 3R	5000	—
4D - V	3000	—
2.5D - 15L	—	1500
2.5D - 15R	—	1500

1. A tolerance of +0.25 degrees in location is allowed at any test point.
2. From the normally exposed surface of the lens.

TABLE 2—PHOTOMETRIC PERFORMANCE REQUIREMENTS

Test Point Deg.(1)	Requirements, cd Max	Requirements, cd Min
1.5U - 1R	300	—
.5U - 1L to L	400	—
.5U - 1R	400	—
.5D - 1.5R to 3R	—	3000
1D-3R	—	15000

1. A tolerance of 0.25 degrees in location is allowed at any test point.

7. Guidelines

7.1 Photometric Design Guidelines

7.1.1 The photometric design guidelines for auxiliary low beam lamps, when tested in accordance with 5.1.5 of this document, are contained in Table 1.

7.2 Lamp Aim—Mechanical lamp aim adjustment and inspection may be performed in accordance with SAE J602.

7.2.1 If vehicle mounting precludes mechanical aiming, the lamp may be visually aimed. The correct visual aim is with the top edge of the high intensity zone 25 mm (1 in) below horizontal at 7.6 m (25 ft).

7.3 Means shall be provided to turn off the auxiliary low beam lamp independently of the lower beam lamps of the standard headlights system.

7.4 Lamp Mounting

7.4.1 A single lamp shall be mounted at the front and to the left side (driver's side) of the center of the vehicle. If two lamps are used, they shall be mounted at the same mounting height, and no higher than the standard headlamps (reference lens center).

8. Notes

8.1 Marginal Indicia—The change bar (l) located in the left margin is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

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