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Superseding J1306 AUG1996

Motorcycle Auxiliary Front Lamps

1. **Scope**—This engineering design specification provides parameters and general requirements for auxiliary front lamps to be used on motorcycles.
2. **References**
 - 2.1 **Applicable Publications**—The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated, the latest revision of SAE publications shall apply.
 - 2.1.1 **SAE PUBLICATIONS**—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.
 - SAE J567—Light Bulb Retention System
 - SAE J575—Test Methods and Equipment for Lighting Devices
 - SAE J576—Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices
 - SAE J578—Color Specification
3. **Definitions**
 - 3.1 **Auxiliary Lamp**—An auxiliary lamp as covered by this specification is a unit, including sealed beam, intended to supplement either the upper or the lower beam from motorcycle headlamps.
 - 3.2 **Lighting Devices**—An assembly (divisible or indivisible) which contains a light bulb or other light source and generally an optical system such as a lens or a reflector, or both, and which provides a lighting function. Lighting device samples submitted for test shall be representative of the device as regularly manufactured and marketed, unless otherwise identified. For test purposes, each sample shall be securely mounted on a test fixture in its designed operation position and shall include all accessory equipment necessary to operate the device in its normal manner.
 - 3.3 **Bulb**—An indivisible assembly which contains a source of light and which is normally used in a lamp. Unless otherwise specified, bulbs used in the tests shall be supplied by the test facility and shall be representative of bulbs in regular production. Where bulbs are specified, they shall be submitted with the sample devices and the same or similar bulbs shall be used in the tests. Lighting devices designed for use in 6 V, 12 V, or 24 V systems shall be tested with 12 V bulbs.

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3.4 Laboratory Facilities—The test facility shall be equipped to test the sample in accordance with the requirements of this document.

4. Requirements

4.1 The following sections of SAE J575 are a part of this document:

- Section 3.1 Vibration Test
- Section 3.2 Moisture Test
- Section 3.3 Dust Exposure Test
- Section 3.4 Corrosion Test
- Section 3.5 Photometry Test
- Section 3.6 Warpage Test on Devices with Plastic Components

4.2 Sealed beam units need to comply only with Section 3.5 of SAE J575.

4.3 Color Test—The color of the light from a motorcycle auxiliary front lamp shall be white. (See SAE J578.)

4.4 Plastic Materials—Any plastic materials used in exterior optical parts shall comply with the requirements set forth in SAE J576.

4.5 Photometric Tests—These shall be made with the photometer at a distance of at least 18.3 m from the lamp.

4.5.1 AT-FOCUS TESTS—The light source shall be located in the designed position as specified by the manufacturer.

The beam from the lamp shall be aimed with the left edge of the high intensity zone at a vertical line straight ahead of the lamp center and with the top edge of the high intensity zone at the level of the lamp center at a distance of 7.6 m from the lens.

The beam from the lamp shall meet the photometric specifications listed in Table 1 when it is aimed as specified.

TABLE 1—TEST POSITIONS AND LUMINOUS INTENSITY REQUIREMENTS

Position, degrees ⁽¹⁾	Max Intensity (cd)
1U-1L to left and above	400
1 2U-1L to left	500
1 2D-1L to left	1 000
1-1 2D-1L to left	3 000
2U-1R to right and above	1 000
1U-1R to right	3 000
H-1R to right	7 000
1-1 2D-2R to 4R	10 000 min

1. An aiming tolerance of $\pm 1/4$ degree should be allowed on individual points.

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4.5.2 **OUT-OF-FOCUS TESTS ON UNSEALED UNITS**—Similar tests shall be made for each of four out-of-focus filament positions, except that the completed distribution may be omitted. Where conventional bulbs with two pin bayonet bases are used, intensity tests shall be made with the light source 1.5 mm above, below, ahead, and behind the designed position.

The beam from the lamp may be reaimed as specified in 4.5.1 for each of the out-of-focus positions of light source.

4.5.3 The lamp shall be designed to comply with the photometric requirements shown in Table 1 for the design filament position and the required out-of-focus filament position. An aiming tolerance of ± 0.25 degree shall be allowed at each test point.

5. **Notes**—The following items apply to the device as used on the motorcycle and are not a part of the laboratory test requirements and procedures.

5.1 For greater visibility, with reasonable limitation of glare to approaching drivers, the beam from the lamp shall be aimed in accordance with 4.5.1.

5.2 The unit may be wired so that it can be turned on or off with either beam of the regular headlamp.

5.3 As information, attention is called to SAE J567 for requirements and gages to be used in socket design for unsealed units.

5.4 **Marginal Indicia**—The change bar (I) 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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