

(R) Motorcycle Auxiliary Front Lamps

RATIONALE

This document has been updated to the latest format require by TSB requirements. This was a major change to the structure of the document however the content did not change significantly with the following exception. We added a new optional photometric table (2) to provide an optional beam that is significantly wider and will supplement the headlamp, whether it is used in conjunction with the low beam or high beam and we endeavored to make the document technology neutral changing references to bulbs for example and replacing it with light source.

TABLE OF CONTENTS

1.	SCOPE.....	2
2.	REFERENCES.....	2
2.1	Applicable Documents	2
3.	DEFINITIONS	2
4.	TESTS.....	3
4.1	Test Voltage	3
4.2	Vibration Test	3
4.3	Moisture Test	3
4.4	Dust Test.....	3
4.5	Corrosion Test.....	3
4.6	Photometry Test.....	3
4.7	Plastic Materials	4
4.8	Sealed Unit Tests.....	4
5.	REQUIREMENTS	4
6.	GUIDELINES.....	7
7.	NOTES.....	7
TABLE 1	TEST POSITIONS AND LUMINOUS INTENSITY REQUIREMENTS FOR ORIGINAL BEAM.....	5
TABLE 2	TEST POSITIONS AND LUMNOUS INTENSITY REQUIREMENTS FOR IMPROVED WIDER BEAM.....	6

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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 Documents

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

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J567	Light Source Retention System
SAE J575	Test Methods and Equipment for Lighting Devices for Use on Vehicles Less than 2032 mm in Overall Width
SAE J576	Plastic Material or Materials for Use in Optical Parts Such as Lenses and Reflex Reflectors of Motor Vehicle Lighting Devices
SAE J578	Color Specification
SAE J759	Lighting Identification Code
SAE J2650	Performance Requirements for Light Emitting Diode (LED) Road Illumination Device Systems

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, and is normally mounted at or near the headlamp height on the motorcycle.

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 Lighting Identification Code, Markings and Notices

Motor cycle auxiliary front lamp meeting the requirements of Photometry Table 1 or Table 2 of this document may be identified by the code "C" in accordance with SAE J759.

3.4 LABORATORY FACILITIES

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

4. TESTS

4.1 Test Voltage

The test voltage shall be the design voltage ± 0.1 Vrms measured at the terminals of the lamp under test unless otherwise specified.

The following test procedures of SAE J575 apply to this document;

4.2 Vibration Test

4.3 Moisture Test

4.4 Dust Test

4.5 Corrosion Test

4.6 Photometry Test

The lamp shall be mounted on a test fixture, which simulates the vehicle mounting system and any optically significant surrounding structures in its design operating position and orientation, at a distance of at least 18.29m (60 ft) from the photometer. The high intensity zone shall be aimed at 1.5 degrees down/3 degrees Right for Table 1 or 2 degrees Down/V for Table 2.

Light sources used for testing shall meet the requirements of SAE J575. For lamps requiring incandescent bulbs, accurate rated bulbs operated at their rated luminous flux based on a design voltage of 13.2 volts shall be used. Alternatively, an accurate rated incandescent bulb operated at its rated luminous flux based on a design voltage of 12.8 V can be used for testing provided that the photometric candela measurements are scaled by a factor of 1.10. LED Lamps shall be tested using the manufacturers declared design voltage for the specific lamp assembly.

4.6.1 Impact Test

4.6.2 Chemical Resistance Test

4.6.3 Abrasion Test of Plastic Headlamp Lens Material

4.6.4 Thermal Cycle Test

4.6.5 Humidity Test

4.6.6 Internal Heat Test

4.6.7 Color Test- SAE J578 applies for this document.

4.7 Plastic Materials

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

4.8 Sealed Unit Tests

Sealed units designed for use as motorcycle auxiliary lamp are not subject to moisture and dust tests.

5. REQUIREMENTS

5.1 Test Voltage

All performance requirements shall be met at the design voltage as measured at the terminals of the motorcycle auxiliary lamp unless otherwise specified.

5.2 SAE J575 Requirements

A device, when tested in accordance with the test procedures specified in Section 5.2, shall meet the following requirements of SAE J575:

5.2.1 Vibration

5.2.2 Moisture

5.2.3 Dust

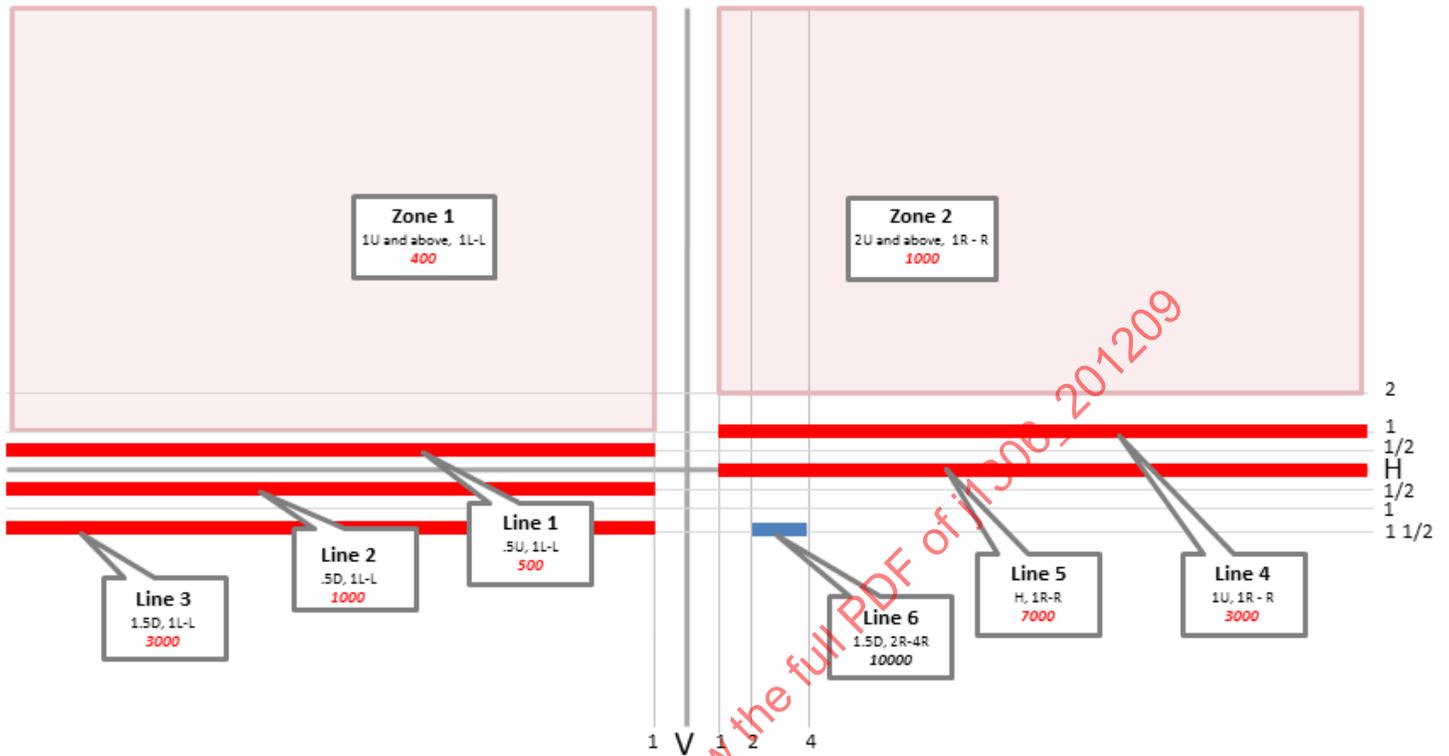
5.2.4 Corrosion

5.2.5 Photometric Tests

These shall be made with the photometer at a distance of at least 18.3 m . (60 ft) from the lamp. The lamp assembly shall be located in the designed position as specified by the lamp manufacturer. Warm up of device under test shall be in accordance with SAE J2650

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TABLE 1 - TEST POSITIONS AND LUMINOUS INTENSITY REQUIREMENTS FOR ORIGINAL BEAM



Notes:

1. A tolerance of ± 0.25 degrees in location is allowed at any test points or lines.
2. A scan shall be performed in zone 1 and 2 in 1 degree increments both horizontally and vertically.
3. All line scans to be performed on lines 1-5 for maximum cd.
4. An all line scan to be performed on line 6 for minimum cd.
5. Values shown in **black** (bold italics) denote minimum cd. Values shown in **red** (bold italics) denotes maximums cd.