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INTERNATIONAL
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SURFACE VEHICLE RECOMMENDED PRACTICE

An American National Standard

SAE J1319

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FOG TAIL LAMP (REAR FOG LIGHT) SYSTEMS

***Foreword*—**This Document has also changed to comply with the new SAE Technical Standards Board format.

***1. Scope*—**This SAE Recommended Practice provides test procedures, requirements, and guidelines for fog tail lamp systems. See Appendices A and B.

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 J567—Lamp Bulb Retention System
SAE J575—Test Methods and Equipment for Lighting Devices and Components for Use on Vehicles Less Than 2032 mm in Overall Width
SAE J576—Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices
SAE J578—Color Specification
SAE J585—Tail Lamps (Rear Position Lamps) for Use on Motor Vehicles Less Than 2032 mm in Overall Width
SAE J759—Lighting Identification Code

3. Definitions

3.1 Fog Tail Lamp—A lighting device providing a continous red light of higher intensity than a tail lamp (SAE J585) for the purpose of marking the rear of a vehicle during fog or similar conditions of reduced visibility.

3.2 Fog Tail Lamp System—One or two fog tail lamps with their respective wiring, connectors, switch, and a function indicator.

***4. Lighting Identification Code*—**Fog tail lamps may be identified by the code F2 in accordance with SAE J759.

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5. Tests

5.1 SAE J575 is a part of this report. The following tests are applicable:

5.1.1 VIBRATION TEST

5.1.2 MOISTURE TEST

5.1.3 DUST TEST

5.1.4 CORROSION TEST

5.1.5 PHOTOMETRY TEST

5.1.5.1 Photometric measurements shall be made with light source of the lamp at least 3 m from the photometer. The H-V axis shall be taken as parallel to the axis of reference of the lamp as mounted on the vehicle.

5.1.6 WARPAGE TEST FOR DEVICES WITH PLASTIC COMPONENTS

5.2 Color Test—SAE J578 is a part of this report.

6. Requirements

6.1 Performance Requirements—A device, when tested in accordance with the test procedures specified in Section 5, shall meet the following requirements with the modifications indicated:

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 shall meet the photometric performance requirements contained in Table 1 and its footnotes. The summation of the luminous intensities at the test points specified for each zone in column 2 of Table 1 shall be at least the value shown for that zone in column 3.

TABLE 1—PHOTOMETRIC REQUIREMENTS

Zone	Test Points[1] (deg)	Minimum Luminous Intensity (candela)
1	10U-5L 5U-20L 5D-20L 10D-5L	50
2	5U-10L H-10L 5D-10L	100
3	5U-V H-5L H-V H-5R 5D-V	380
4	5U-10R H-10R 5D-10R	100
5	10U-5R 5U-20R 5D-20R 10D-5R	50
Maximum Luminous Intensity (candela[2])		300

1. The measured values of each test point shall not be less than 60% of the minimum value in Table 2.
2. The listed maximum at any test point shall not be exceeded over any area larger than that generated by a 0.5 degree radius with the solid angle defined by the test points in Table 1.

6.1.6 WARPAGE—SAE J575.

6.1.7 COLOR—The color of light from a fog tail lamp shall be red as specified in SAE J578.

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

6.3 Design Requirements

6.3.1 A fog tail lamp shall not be optically combined with any lamp other than a tail lamp. If a fog tail lamp is optically combined with the tail lamp and a two-filament bulb is used, the bulb shall have an indexing base and the socket shall be designed so that bulbs with nonindexing bases cannot be used.

7. Guidelines—The following guidelines are intended to provide optimal performance of the system and uniformity in use but shall not be considered part of the requirements.

7.1 Photometric design guidelines for a fog tail lamp, when tested in accordance with 4.1.5 of this document, are contained in Table 2.

TABLE 2—PHOTOMETRIC DESIGN GUIDELINES

	Test Points (deg)	Minimum Luminous Intensity (candela)
10U, 10D	10L, 10R	10
	5L, 5R	16
	V	25
5U, 5D	20L, 20R	10
	10L, 10R	30
	5L, 5R	50
	V	70
H	20L, 20R	15
	10L, 10R	40
	5L, 5R	80
	V	80
Maximum Luminous Intensity (candela)		300

7.2 Installation Guidelines—The user is cautioned that the mounting and use of fog tail lamps are specified by various regulatory agencies.

7.2.1 The illuminated edge of a fog tail lamp lens should be no closer than 100 from the illuminated edge of any stop lamp lens when projected on a vertical transverse plane.

7.2.2 The fog tail lamp system should consist of either: (a) one lamp mounted on or to the left of a vertical plane through the longitudinal centerline of the vehicle, or (b) two lamps symmetrically located about the vehicle centerline.

7.2.3 The fog tail lamp system should be wired so that it can be turned on only when the headlamps and/or front fog lamps are on, and should have a switch that allows the fog tail lamp to be turned off when headlamps are on.

7.2.4 Visibility of the fog tail lamp should not be obstructed by any part of the vehicle throughout the photometric test angles for the lamp unless the lamp is designed to comply with all photometric and visibility requirements with these obstructions considered. The signal from the lamp should be visible through a horizontal angle from 45 degrees to the left to 45 degrees to the right.

7.2.5 The fog tail lamp system should include a continuous yellow indicator that illuminates when the system is switched on that should be mounted in a location readily visible to the driver of the vehicle.

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.

PREPARED BY THE SAE SIGNALLING AND MARKING DEVICES STANDARDS COMMITTEE;
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APPENDIX A

A.1 As a matter of additional information, attention is called to SAE J567c for requirements and gages used in socket design.