The Engineering Society For Advancing Mobility Land Sea Air and Space®

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SAE J852 NOV87

Front Cornering Lamps for Use on Motor Vehicles

SAE Recommended Practice
Revised November 1987

Submitted for Recognition as an American National Standard

The Engineering Society For Advancing Mobility Land Sea Air and Space ®
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HIGHWAY VEHICLE PRACTICE

Submitted for recognition as an American National Standard

SAE J852

Issued April 1963
Revised Nov. 1987

Superseding J852b

Ø FRONT CORNERING LAMPS FOR USE ON MOTOR VEHICLES

1. SCOPE: This SAE Recommended Practice provides test procedures, requirements, and guidelines for front cornering lamps that are mounted on the exterior of a vehicle.

2. DEFINITION: Front cornering lamps are steady burning lamps used in conjunction with the turn signal system to supplement the headlamps by providing additional illumination in the direction of turn.

3. LIGHTING IDENTIFICATION CODE: Front cornering lamps meeting the performance requirements of Section 5 of this recommended practice may be identified by the code K in accordance with SAE J759, Lighting Identification Code.

4. TESTS:

4.1 SAE J575, Tests for Motor Vehicle Lighting Devices and Components is a part of this report. The following tests are applicable with the modifications as indicated.

4.1.1 Vibration Test

4.1.2 Moisture Test

4.1.3 Dust Test

4.1.4 Corrosion Test

4.1.5 Photometry: In addition to the test procedures in SAE J575, the following apply:

4.1.5.1 Photometric measurements shall be made with the light source of the lamp at least 3 m from the photometer. The H-V axis shall be taken as the horizontal line through the light source and perpendicular to the longitudinal axis of the vehicle.

4.1.6 Warpage Test on Device with Plastic Components

4.2 Color Test: SAE J578, Color Specifications for Electric Signal Lighting Devices is a part of this report.

5. REQUIREMENTS:

5.1 Performance Requirements: A device when tested in accordance with the test procedures specified in Section 4 shall meet the following requirements:

5.1.1 Vibration: SAE J575

5.1.2 Moisture: SAE J575

5.1.3 Dust: SAE J575

5.1.4 Corrosion: SAE J575

5.1.5 Photometry: SAE J575 - The lamp under test shall meet the photometric requirements contained in Table I - Photometric Requirements. Test points shown are for a lamp mounted on the left side of the vehicle - left hand angles should be substituted for right hand angles for a lamp mounted on the right side of the vehicle.

TABLE I

PHOTOMETRIC REQUIREMENTS

TEST POSITION		CANDLEPOWER
8°U to 90°U-	90°L to 90°R	150 max
4°U-	90°L to 90°R	240 max
2°U-	90°L to 90°R	360 max
1°U-	90°L to 90°R	480 max
H-	90°L to 90°R	600 max
2.5°D	-30°R	240 min
2.5°D	-45°R	400 min
2.5°D	-60°R	240 min

5.1.6 Warpage: SAE J575

5.1.7 Color: SAE J578 - The color of the light from a front cornering lamp shall be white or amber, as specified in SAE J578.

5.2 Material Requirements: Plastic materials used in optical parts shall meet the requirements of SAE J576, Plastic Material for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices.

6. GUIDELINES:

6.1 Photometric Design Guidelines for front cornering lamps, when tested in accordance with paragraph 4.1.5 of this recommended practice, are contained in Table II - Photometric Design Guidelines. Test points shown are for a lamp mounted on the left side of the vehicle - left hand angles should be substituted for right hand angles for a lamp mounted on the right side of the vehicle.

TABLE II

PHOTOMETRIC DESIGN GUIDELINES

TEST POSITION		CANDLEPOWER
8°U to 90°U-	90°L to 90°R	125 max
4°U-	90°L to 90°R	200 max
2°U-	90°L to 90°R	300 max
1°U-	90°L to 90°R	400 max
H-	90°L to 90°R	500 max
2.5°D	-30°R	300 min
2.5°D	-45°R	500 min
2.5°D	-60°R	300 min

6.2 Operating Guidelines: The following guidelines apply to front cornering lamps as used on the vehicle and shall not be considered part of the requirements.

6.2.1 The front cornering lamps are primarily intended to be used during the times that headlamps are required.

6.2.2 Means should be provided to turn on the front cornering lamps with the turn signal lamps and they should turn off when the turn signal lamps are turned off. If the front cornering lamps are not turned off automatically, a visual or audible means should be provided to indicate to the driver when the lamps are on.

7. APPENDIX: As a matter of additional information, attention is called to SAE J567, Lamp Bulb Retention System, for requirements and gages used in socket design.

The phi (Ø) symbol is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. If the symbol is next to the report title, it indicates a complete revision of the report.

RATIONALE:

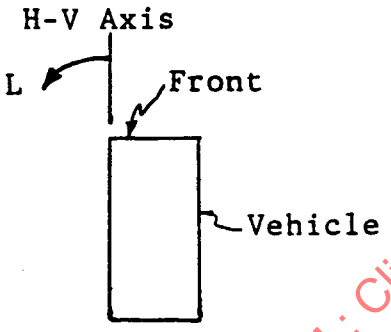
1. The entire recommended practice has been rewritten to incorporate the latest format requirements.

2. The title has been changed because SAE J1373 JUN82 was adopted for Rear Cornering Lamps.

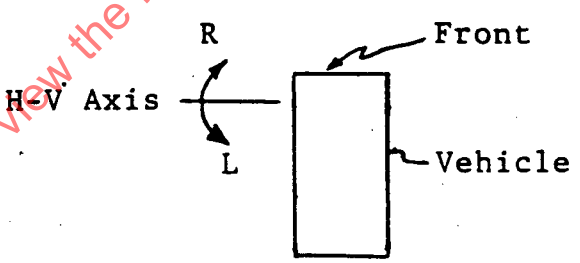
3. This recommended practice will continue to apply to all vehicles regardless of width. There are some applications on vehicles greater than 2032 mm in width. All other standards in the Road Illumination Devices Subcommittee apply to vehicles of all widths.

4. The definition of the H-V axis in paragraph 4.1.5.1 and the test point angles in paragraphs 5.1.5 and 6.1 have been changed. This corresponds to the directions now used for other lamps mounted on the side of the vehicle (Side Turn Signal, Rear Cornering, Sidemarker, and Side Reflex). (See sketch.)

Present Method in J852b for dimensioning angles



Proposed Method in this revision for dimensioning angles



5. Table I, Photometric Requirements, is a new table and is intended to be the service performance values for any production lamp that is photometered. These intensity values are established to be similar to the zonal requirements for signal lamps. Because of the limited number of discrete test points and the several line test points, it is not practical to establish zonal values for the Front Cornering Lamp.

6. Paragraph 6.1 and Table II, Photometric Design Guidelines, now include the same intensity values as were previously contained in J852b. These values would be used in the design and validation process for the Front Cornering Lamp.

RELATIONSHIP OF SAE STANDARD TO ISO STANDARD:

Not applicable.

REFERENCE SECTION:

SAE J567, Lamp Bulb Retention System

SAE J575, Tests for Motor Vehicle Lighting Devices and Components

SAE J576 SEP86, Plastic Materials for Use in Optical Parts Such as Lenses and Reflectors of Motor Vehicle Lighting Devices

SAE J578 OCT87, Color Specification for Electric Signal Lighting Devices

SAE J759, Lighting Identification Code

APPLICATION:

This SAE Recommended Practice provides test procedures, requirements, and guidelines for front cornering lamps that are mounted on the exterior of a vehicle.

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