

SURFACE VEHICLE STANDARD

J593

REV. SEP2005

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Superseding

J593 MAR2000

Backup Lamp (Reversing Lamp)

1. Scope

This SAE Standard provides installation requirements, test procedures, design guidelines, and performance requirements for backup/reversing lamp.

1.1 Rationale

Sections 6.1.5.1, 6.1.5.2, and 6.1.5.3 revised to clarify and simplify performance requirements for various lamp configurations.

Table 1 redesigned to improve the layout of test points and zones. Notes 1, 2 and 3 removed as they are redundant to Section 6.1.5. Note 5 removed as it is covered under SAE J575.

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 J759—Lighting Identification Code

SAE J1330—Photometry Laboratory Accuracy Guidelines

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3. Definitions

3.1 Backup Lamp

A lighting device used to provide illumination behind the vehicle and to provide a warning signal to pedestrians and other drivers when the vehicle is backing up (reversing) or is about to back up.

3.2 Point of Visibility

Any point on the lens surface which is within an area bounded by the intersection of the lens surface with a 25 mm diameter cylinder, the centerline of which passes through the light source center and is oriented horizontally and parallel with the longitudinal axis of the vehicle.

4. Lighting Identification Code

Backup Lamps may be identified by the code "R" in accordance with SAE J759.

5. Tests

- **5.1** SAE J575 is a part of this report. The following tests are applicable with modifications as indicated:
- 5.1.1 VIBRATION TEST
- 5.1.2 MOISTURE TEST
- 5.1.3 DUST TEST
- 5.1.4 CORROSION TEST
- 5.1.5 PHOTOMETRIC TEST
- 5.1.5.1 Photometric tests shall be made with the photometer at a distance of at least 3 m from the lamp. The H-V Axis shall be taken as the horizontal line through the light source and parallel with the longitudinal axis of the vehicle.
- 5.1.5.2 Photometric measurements shall be made with the bulb filament steadily burning.
- 5.1.6 WARPAGE TEST (ON DEVICES WITH PLASTIC COMPONENTS)

5.2 Color Test

SAE J578 is part of this report.

5.3 Materials Test

SAE J576 is part of this report.