



SURFACE VEHICLE STANDARD

J587™

NOV2017

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Superseding J587 JUN2012

License Plate Illumination Devices (Rear Registration Plate Illumination Devices)

RATIONALE

2.1 - Updated reference documents.

5.3.2.1 - Sentence reworded for clarity.

5.4 – added to be consistent with 6.4 requirements section.

6.4 - Title changed to “Plastic Materials”.

1. SCOPE

This SAE Standard provides test procedures, requirements, and guidelines for vehicular license plate illumination devices.

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 +1 724-776-4970 (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

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2.1.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM E179 Selection of Geometric Conditions for Measurement of Reflection and Transmission Properties of Materials

3. DEFINITIONS

3.1 A LICENSE PLATE ILLUMINATION DEVICE

A device that illuminates the license plate on the rear of a vehicle.

4. LIGHTING IDENTIFICATION CODE

License plate illumination devices may be identified by the code "L" in accordance with SAE J759.

5. TESTS

5.1 SAE J575 is a part of this document. 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 Warpage Test on Devices With Plastic Components

5.2 Color Test

SAE J578 is part of this document.

5.3 Photometry Test

5.3.1 Test Equipment

5.3.1.1 Test Plate

All luminance measurements shall be made on a rectangular test plate of clean, smooth, matte white blotting paper or an equivalent material with a diffuse white surface. The test plate shall have a total reflectance factor of $85\% \pm 5\%$ when measured in accordance with ASTM E179 (0° illumination/viewing geometry). The size of the test plate is shown in Figure 1 or 2, as applicable. For devices used on vehicles other than motorcycles, test stations shall be located on the face of the test plate as shown in Figure 1. For devices used on motorcycles, the test stations shall be located on the face of the test plate as shown in Figure 2.