

# CERTIFICATE

## By Authority Of THE UNITED STATES OF AMERICA Legally Binding Document

By the Authority Vested By Part 5 of the United States Code § 552(a) and Part 1 of the Code of Regulations § 51 the attached document has been duly INCORPORATED BY REFERENCE and shall be considered legally binding upon all citizens and residents of the United States of America. HEED THIS NOTICE: Criminal penalties may apply for noncompliance.



**Document Name:** SAE J593C: Back-up Lamps

**CFR Section(s):** 49 CFR 571.108

**Standards Body:** Society of Automotive Engineers



Official Incorporator:

THE EXECUTIVE DIRECTOR  
OFFICE OF THE FEDERAL REGISTER  
WASHINGTON, D.C.



## BACKUP LAMPS — SAE J593c

## SAE Standard

Report of Lighting Committee approved August 1947 and last revised February 1968.

**Definition**—Backup lamps are those which illuminate the road to the rear of the vehicle and provide a warning signal to pedestrians and other drivers when the vehicle is backing up or is about to back up.

**General Requirements**—The following sections from SAE J575 are a part of this Standard:

- Section B—Samples for Test
- Section C—Lamp Bulbs
- Section D—Laboratory Facilities
- Section E—Vibration Test
- Section F—Moisture Test
- Section G—Dust Test
- Section H—Corrosion Test
- Section J—Photometric Test Points

**Color Test**—The color of the light from a backup lamp shall be white, in accordance with SAE J578.

A backup lamp may project incidental red, amber, or white light through reflectors or lenses that are adjacent, close to, or a part of the lamp assembly.

**Plastic Materials**—Any plastic materials used in optical parts shall comply with the requirements set forth in SAE J576.

**Photometric Test**—Photometric tests shall be made with the photometer at a distance of at least 10 ft from the lamp. The H-V axis shall be taken as parallel to the longitudinal axis of the vehicle.

The light from a single lamp, when used in a two-lamp system, shall meet the photometric requirements shown in Table 1.

**Installation Requirements**—The following requirements apply to the

TABLE 1—PHOTOMETRIC MINIMUM CANDLEPOWER REQUIREMENTS<sup>a, b, c</sup>

Test Points	45L	30L	10L	V	10R	30R	45R
10U	15	—	10	15	10	—	15
5U	15	25	20	25	20	25	15
H	15	25	50	80	50	25	15
5D	15	25	50	80	50	25	15

<sup>a</sup> When only one backup lamp is used on the vehicle, it shall be tested to twice the candlepower requirements.

<sup>b</sup> When two unsymmetrical lamps are used, they shall be tested individually and the values added to determine that the combined units meet twice the candlepower requirements.

<sup>c</sup> Maximum (per lamp) 300 cp at H and above.

device as used on the vehicle and are not part of the laboratory test requirements and procedures:

1. The backup lamp shall be illuminated when the ignition switch is energized and reverse gear is engaged.

2. Backup lamps shall not be lighted when the vehicle is in forward motion.

3. Backup lamps shall be mounted on the rear so that the center of the lens of at least one lamp is visible from any eye point elevation from at least 6 ft to 2 ft above the horizontal plane on which the vehicle is standing; and from any position in the area, rearward of a vertical plane perpendicular to the longitudinal axis of the vehicle, 3 ft to the rear of the vehicle and extending 3 ft beyond each side of the vehicle.