SURFACE VEHICLE RECOMMENDED PRACTICE

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Superseding J1424 NOV2008

Cargo Lamps for Use on Vehicles Under 5443 kg (12 000 lb) GVWR

RATIONALE

Section 7.1.1.1 was revised to only allow the cargo lamps to be activated when the vehicle is in a non-forward moving gear (park, reverse, neutral) to eliminate the possibility of having white light rearward while a vehicle is moving down a roadway.

There was a conflict in the requirements of Section 7.1.1.1 and Section 7.1.1.4. Section 7.1.1.1 allowed three alternative methods of wiring a cargo lamp circuit, only one of which (b), requires the vehicle to be stopped for activation. Section 7.1.1.4, allows the lamp to be activated only when the vehicle is stopped.

Section 7.1.1.4 was removed to allow the cargo lamp to be operated when the vehicle is being operated in non-forward moving gears (reverse or neutral).

1. SCOPE

This SAE Recommended Practice provides test procedures, performance requirements, and guidelines for cargo lamps intended for use on vehicles under 5443 kg (12000 lb) GVWR.

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 724-776-4970 (outside USA), www.sae.org.

SAE J387 Terminology - Motor Vehicle Lighting

SAE J567 Light Source Retention System

SAE J575 Tests Methods and Equipment for Lighting Devices for Use on Vehicles Less than 2032 mm in Overall Width

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

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

SAE J2139 Test for Signal and Marking Devices Used on Vehicles 2032 mm or More in Overall Width

3. DEFINITIONS

3.1 REAR FACING CARGO LAMP

A lamp, or lamps, mounted facing rearward, on the exterior of a vehicle weighing under 5443 kg (12 000 lb) GVWR for the purpose of providing illumination to load and unload cargo.

3.2 SIDE FACING CARGO LAMP

A lamp or lamps mounted facing towards the centerline of the cargo area of a vehicle weighing under 5443 kg (12 000 lb) GVWR for the purpose of providing illumination to load and unload cargo by projecting light towards the centerline of the vehicle.

4. LIGHTING IDENTIFICATION CODE

4.1 Rear facing cargo lamps for use on vehicles weighing less than 5443 kg (12 000 lb) GVWR may be identified with the code “G” in accordance with SAE J759.

4.2 Side facing cargo lamps for use on vehicles weighing less than 5443 kg (12 000 lb) GVWR may be identified with the code “G2” in accordance with SAE J759.

5. TESTS

5.1 SAE J575 or SAE J2139 is a part of this document. The following tests are applicable with the 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 Photometry Test

In addition to the test procedures in SAE J575 or J2139, the following apply:

5.1.5.1 Photometric measurements shall be made with the light source of the lamp at a distance of at least 3 m from the photometer.

5.1.6 Warpage Test on Devices with Plastic Components

The device shall be operated with the bulb burning steadily during the test period.

5.2 Color Test

SAE J578 is a part of this document.

5.3 Plastic Materials

Plastic material used in the optical parts shall be tested according to SAE J576.

6. REQUIREMENTS

6.1 Performance Requirements

A device when tested in accordance with the test procedures specified in Section 5 shall meet the requirements of SAE J575 or SAE J2139.

6.1.1 Vibration

6.1.2 Moisture

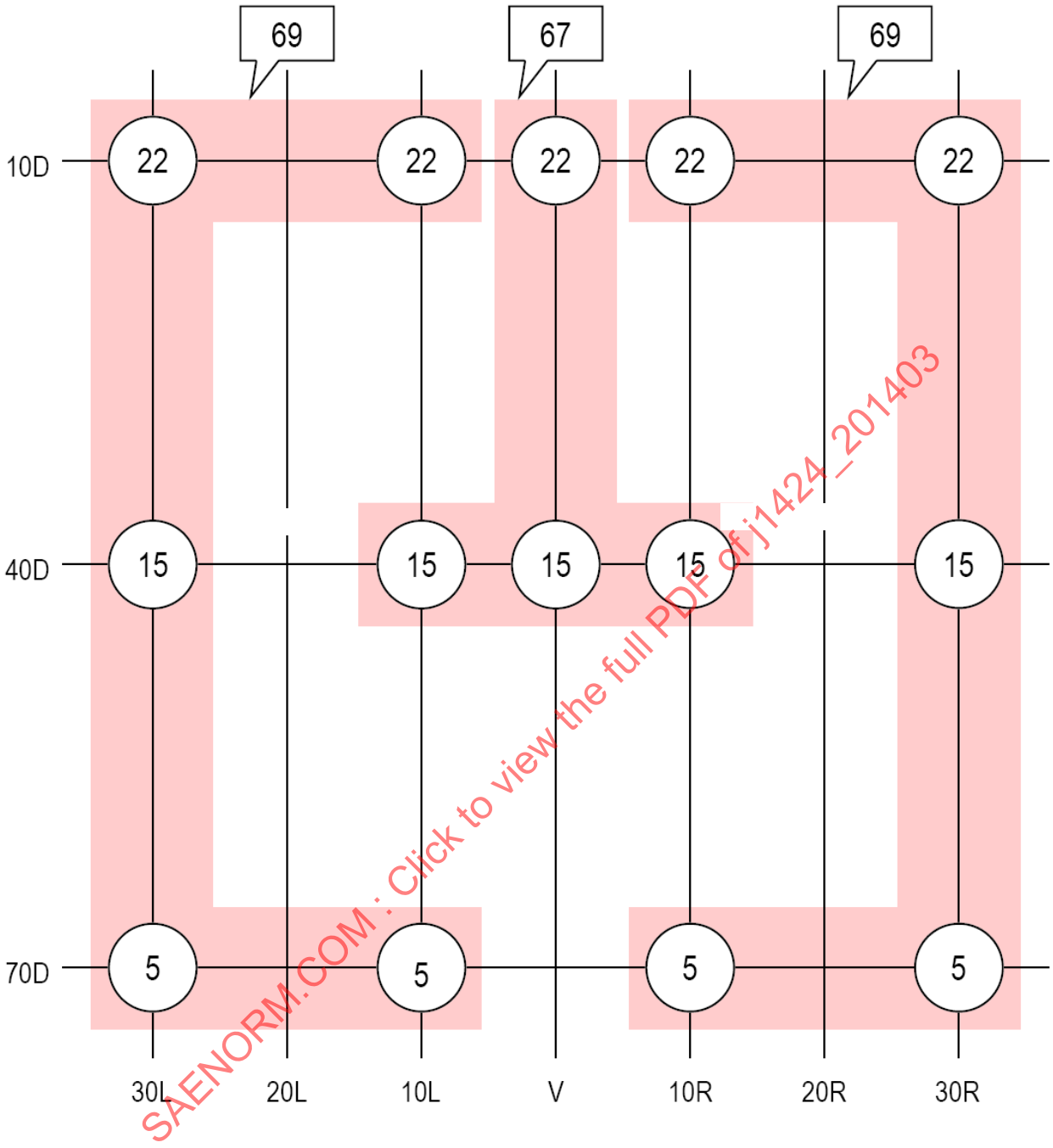
6.1.3 Dust

6.1.4 Corrosion

6.1.5 Photometry

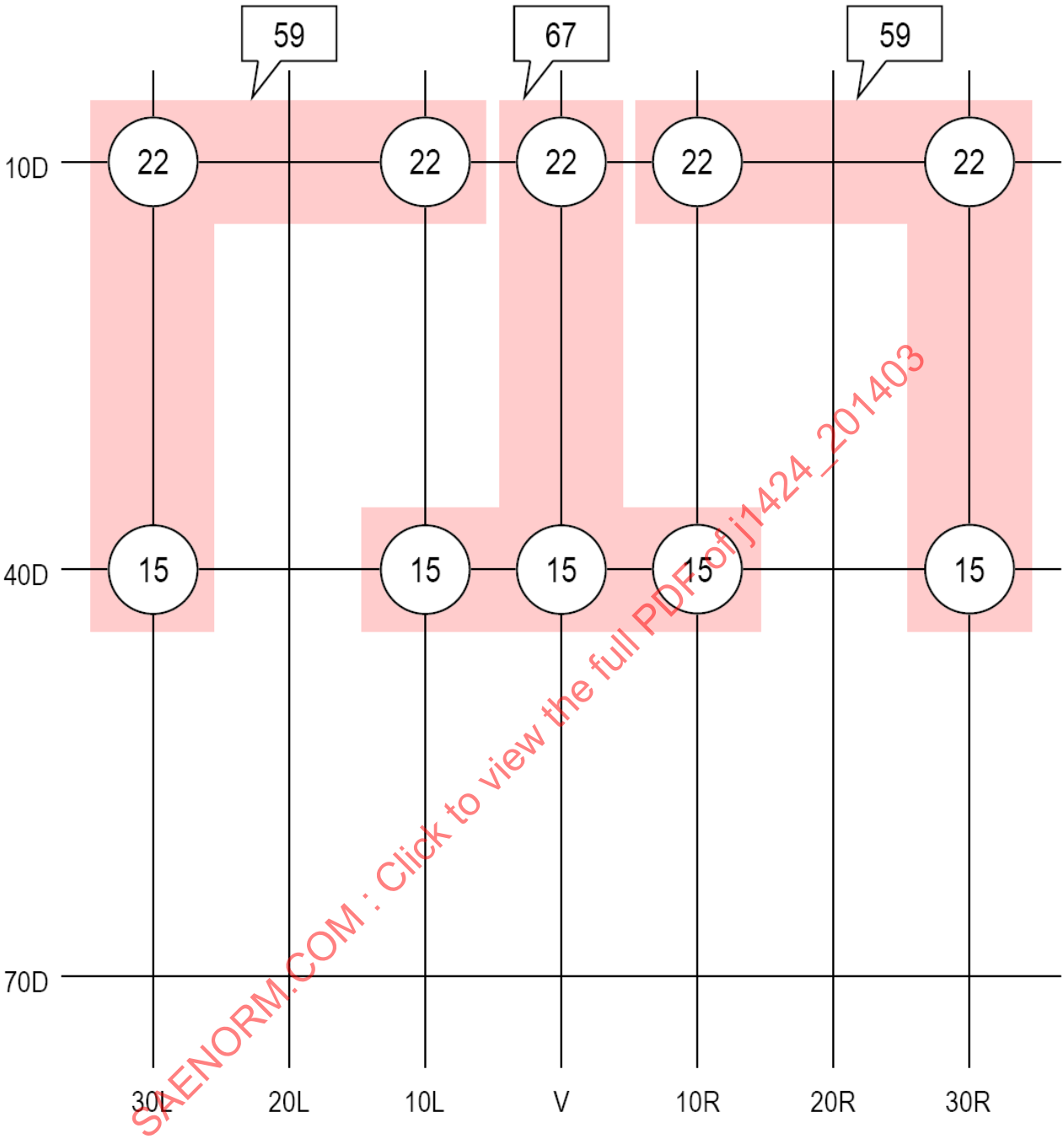
6.1.5.1 Rear facing cargo lamps shall be designed to conform to the photometric performance requirements contained in Figure 1 and its footnotes.

6.1.5.2 Side facing cargo lamps shall be designed to conform to the photometric performance requirements contained in Figure 2 and its footnotes.



1. The Measured value at each test point shall not be less than 60% of the required minimum value shown for that individual test point location.
2. The sum of the luminous intensity measurements at each test point within a zone shall not be less than the zone total shown. The luminous intensity measurements at each discrete test point shown within the corresponding zone are the values used to calculate the specified zone total.
3. The maximum luminous intensity (on a line from 1.5 degrees down, vertical to 90 degrees up, vertical and from 30 degrees left to 30 degrees right) shall not be greater than 300 cd.

FIGURE 1 - PHOTOMETRIC REQUIREMENTS - REAR FACING
MINIMUM LUMINOUS INTENSITY (CD)



1. The Measured value at each test point shall not be less than 60% of the required minimum value shown for that individual test point location.
2. The sum of the luminous intensity measurements at each test point within a zone shall not be less than the zone total shown. The luminous intensity measurements at each discrete test point shown within the corresponding zone are the values used to calculate the specified zone total.
3. The maximum luminous intensity per lamp (on a line from 1.5 degrees down, vertical to 90 degrees up, vertical and from 30 degrees left to 30 degrees right) shall not be greater than 300 cd.

FIGURE 2 - PHOTOMETRIC REQUIREMENTS - SIDE FACING
MINIMUM LUMINOUS INTENSITY (CD)