



SURFACE VEHICLE STANDARD

J222™**JAN2025**Issued 1970-12
Revised 2025-01

Superseding J222 MAR2013

(R) Parking Lamp (Front Position Lamp)

RATIONALE

Standard name revised to be consistent with SAE J585 throughout document. Reference to lamp in the singular per current editorial direction incorporated throughout document where appropriate.

- 2.1.1: Titles for SAE J578 and SAE J2087 updated. SAE J567 removed.
- 2.2.1: Reference added to SAE J2087 due to its possible applicability to SAE J222.
- 2.2.2: Updated postal and internet addresses, clarified naming convention associated with NHTSA regulation, and added reference to point to parking lamp usage in FMCSA regulations.
- 2.2.3: Added reference to Canadian regulation. Updated Transport Canada organization title.
- 2.2.4: Updated reference to current version of UN Regulation No 7, added references to UN Regulations No. 48 and No.148, updated internet addresses. Previous references to these documents as "UNECE" removed. Relocated UN Regulations information to 2.2.4.
- 3.1: Revised Parking Lamp definition to be consistent with current SAE J387 and added additional text about use when vehicle is parked.
- Figure 1 title and reference error in footnote 5 corrected. Updated Figure 1 .pdf (unchanged content) inserted into document. Added Minimum luminous intensity below title.
- Language in 6.4.1 updated to standard text adopted in SAE J2042 for proliferation to other such documents.
- Footnotes revised for Figures 2 and 3. Footnotes previously located only after Figure 3 added to Figure 2 also for clarity.
- Punctuation clarification in 7.1.1.
- 7.1.2 through 7.1.5 removed for consistency with other Signaling and Marking documents.
- 8.1: Previous text removed. It is not appropriate for a SAE Standard to suggest an opinion of the compliance of a device with a governmental regulatory standard. Previous 8.2 now becomes 8.1.
- Grammar clarifications in 3.1, 6.1.5.3, and 6.5.2.1. Typographical corrections in 6.5.2.1.
- Added "OF THE SAE LIGHTING SYSTEMS GROUP" to Prepared By statement.

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1. SCOPE

This SAE Standard provides test procedures, requirements, and guidelines for a parking lamp.

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 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	Chromaticity Requirements for Ground Vehicle Lamps and Lighting Equipment
SAE J759	Lighting Identification Code
SAE J1889	LED Signal and Marking Lighting Devices

2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 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 J585	Tail Lamp (Rear Position Lamp) for Use on Motor Vehicles Less than, Equal to, or Greater than 2032 mm in Overall Width
SAE J586	Stop Lamp for Use on Motor Vehicles Less than, Equal to, or Greater than 2032 mm in Overall Width
SAE J588	Turn Signal Lamps for Use on Motor Vehicles Less than 2032 mm in Overall Width
SAE J592	Sidemarkers Lamps for Use on Road Vehicles Less than 2032 mm in Overall Width
SAE J594	Reflex Reflectors
SAE J1957	Center High Mounted Stop Lamp Standard for Vehicles Less than 2032 mm Overall Width
SAE J2087	Daytime Running Lamp
SAE J2261	Stop Lamps and Front- and Rear-Turn Signal Lamps for Use on Motor Vehicles 2032 mm or More in Overall Width

2.2.2 Federal Publications

Available from the Superintendent of Documents, U.S. Government Printing Office, Mail Stop SSOP, Washington, DC 20402-9320 or at: <http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR>.

National Highway Traffic Safety Administration (NHTSA) Federal Motor Vehicle Safety Standard No. 108 (FMVSS No. 108 49 CFR 571.108), Lamps, Reflective Devices and Associated Equipment

Federal Motor Carrier Safety Administration (FMCSA), Parts and Accessories Necessary for Safe Operation (49 CFR Part 393)

2.2.3 Transport Canada Publications

Available from Transport Canada, Multi-Modal and Road Safety Programs, Ottawa, Ontario K1A 0N5, Canada, or at: <http://www.tc.gc.ca/eng/acts-regulations/regulations-crc-c1038.htm>.

Canada Motor Vehicle Safety Standard No. 108, Lighting System and Reflective Devices

2.2.4 United Nations Publications

Available from United Nations, Palais des Nations, CH-1211, Geneva 10, Switzerland, or at: <https://www.unece.org/transport/vehicle-regulations>.

UN Regulation No. 7 Uniform Provisions Concerning the Approval of Front and Rear Position (Side) Lamps, Stop-Lamps, and End-Outline Marker Lamps for Motor Vehicles (Except Motor Cycles) and Their Trailers

UN Regulation No. 48 Uniform Provisions Concerning the Approval of Vehicles with Regard to the Installation of Lighting and Light-Signaling Devices

UN Regulation No. 148 Uniform Provisions Concerning the Approval of Light-Signaling Devices (Lamps) for Power-Driven Vehicles and Their Trailers

3. DEFINITIONS

3.1 PARKING LAMP (FRONT POSITION LAMP)

Whether separate or in combination with other lamps, parking lamps are located on both the left and right front of the vehicle to indicate the presence and width of the vehicle by a steady operating, low intensity light when viewed from the front. In addition, these lamps serve as a reserve front position indicating system in the event of headlamp failure and may also be used to mark the front of the vehicle when parked.

4. LIGHTING IDENTIFICATION CODE

The parking lamp may be identified by the code "P" in accordance with SAE J759.

5. TESTS

5.1 SAE J575 is a part of this report. 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

5.1.5.1 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 parallel to the axis of reference of the lamp as mounted on the vehicle.

5.1.5.2 The test methods and procedures of SAE J1889 shall also be applied if LED light sources are present in the lamp.

5.1.6 Warpage Test for Devices with Plastic Components

5.2 Color Test

SAE J578 is a part of this report.

5.3 Materials Test

SAE J576 is part of this document for optical components.

6. PERFORMANCE REQUIREMENTS

6.1 A device, when tested in accordance with the test procedures specified in Section 5, shall meet the following requirements.

6.1.1 Vibration

Per SAE J575 Vibration.

6.1.2 Moisture

Per SAE J575 Moisture.

6.1.3 Dust

Per SAE J575 Dust.

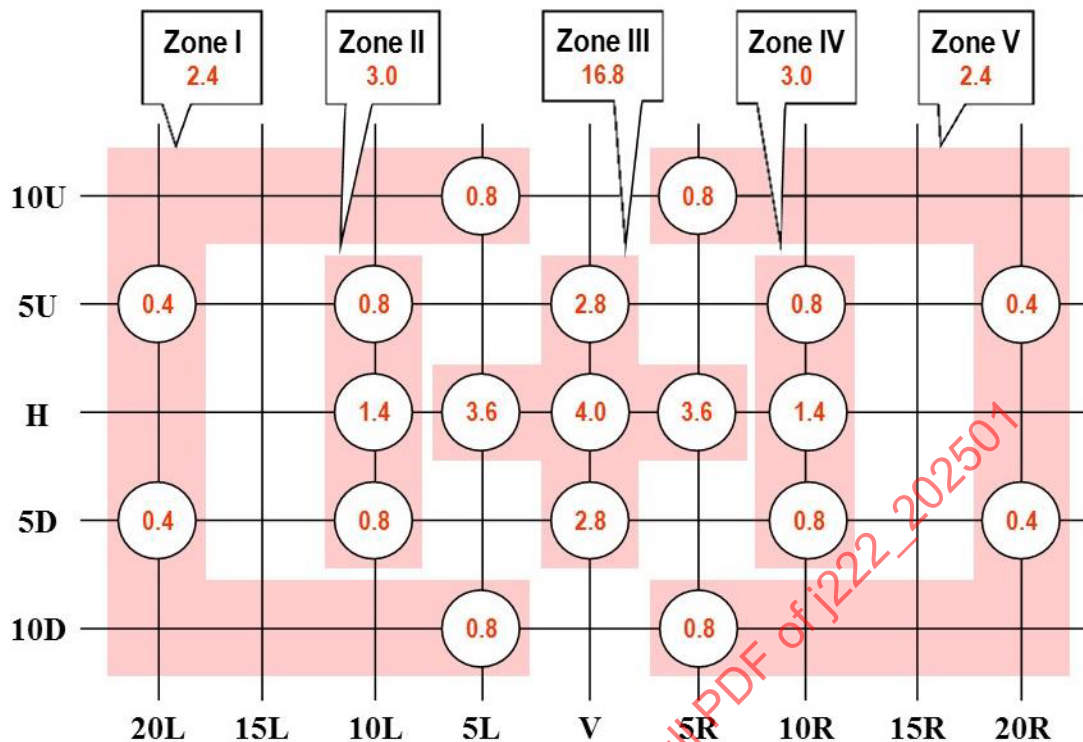
6.1.4 Corrosion

Per SAE J575 Corrosion.

6.1.5 Photometry

6.1.5.1 The lamp shall be designed to conform to the zone total photometric requirements of Figure 1 and its footnotes. The sum of the luminous intensity measurements at the test points in a zone shall be at least the value shown.

6.1.5.2 The lamp shall meet the requirements of SAE J1889 if LED Light sources are utilized.



1. The maximum luminous intensity is 125 cd on or above horizontal and 250 cd below horizontal.
2. The measured value at each test point shall not be less than 60% of the required minimum value for that individual test point location.
3. 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.
4. The listed maximum shall not be exceeded over any area larger than that generated by a 0.5 degree radius within the solid angle defined by the test points.
5. Ratio requirements of 6.1.5.3 apply.

Figure 1 - Photometric requirements
Minimum luminous intensity (cd)

6.1.5.3 When a parking lamp is combined with the turn signal lamp, the turn signal lamp shall not be less than 3X the luminous intensity of the parking lamp at any test point on or above horizontal; except that at H-V, H-5L, H-5R, and 5U-V, the turn signal lamp shall not be less than 5X the corresponding luminous intensity of the parking lamp.

6.1.6 Warpage

Per SAE J575 Warpage.

6.2 Color

The color of the light from a parking lamp shall be white or yellow as specified in SAE J578.

6.3 Materials Requirements

Plastic materials used in optical parts shall meet the requirements of SAE J576.