SOCIETY OF AUTOMOTIVE ENGINEERS, INC. • TWO PENNSYLVANIA PLAZA • NEW YORK, NEW YORK 10001

LAND SEA AIR SPACE

TECHNICAL REPORT J256a

© SOCIETY OF AUTOMOTIVE ENGINEERS, INC. 1972. THIS REPORT IS SCHEDULED FOR THE 1973 SAE HANDBOOK.

# SERVICE PERFORMANCE REQUIREMENTS FOR MOTOR VEHICLE LIGHTING DEVICES AND COMPONENTS — SAE J256a

**SAE Recommended Practice**

Report of Lighting Committee approved July 1971 and last revised June 1972.

*1. Scope*—This recommended practice covers service performance tests, test methods, and requirements applicable to lighting devices and components covered by SAE Standards, Recommended Practices, and Information Reports. It is intended to supplement the engineering design test procedures and requirements by establishing test procedures and requirements for service evaluation of many of the lighting devices covered by SAE Standards.

*2. Samples for Test*—Test samples shall be new, unused devices fabricated from production tools and assembled by production processes. Bulbs used in tests shall be those supplied with the device and within the design tolerances. If the device to be tested does not contain a bulb (s) and/or socket (s), only those bulb (s) and/or socket (s) approved by the lamp manufacturer shall be used.

*3. Requirements*

3.1 The lighting devices shall comply with all test requirements specified in applicable SAE Standards unless otherwise noted herein.

3.2 For the device to comply with the photometric requirements, the summation of the candela readings of the specific test points in a zone shall meet the value specified for that zone in the appropriate table(s) and applicable footnotes.

3.3 The measured candela at each test point shall not be less than 60% of the minimum requirements specified in applicable SAE Standards.

*4. Photometric Test Procedure*

4.1 The photometric measurement shall be made with the device mounted in its normal operating position and at the distance between the light source and the point of measurement as specified in the appropriate SAE Standard.

4.2 A device using a two-filament bulb shall be oriented with respect to its major filament.

4.3 An adjustment in lamp orientation from design position may be made in determining compliance to the requirements of the appropriate table(s) and applicable footnotes, provided such adjustment does not exceed 3 deg. All zones must comply after final reaim.

4.4 Devices shall be operated at the design voltage. Devices designed for use with both 6 and 12 V systems or 24 and 12 V systems shall be tested with 12 V bulbs.

SAENORM.COM : Click to view the full PDF of j256a_197206

TABLE 1—MINIMUM LUMINOUS INTENSITY REQUIREMENTS, cd

| Zones | Test Points, deg | Tail Lamps[b, d] (Red Lighted Compartments) | | | Stop and Turn Signals[c, d] (Red Lighted Compartments) | | | Turn Signals[c, d] (Yellow Lighted Compartments) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 Compartment Zone Total | 2 Compartment Zone Total | 3 Compartment Zone Total | 1 Compartment Zone Total[a] | 2 Compartment Zone Total | 3 Compartment Zone Total | 1 Compartment Zone Total[a] | 2 Compartment Zone Total | 3 Compartment Zone Total |
| 1 | 20L–5U<br>20L–H<br>20L–5D<br>10L–10U<br>10L–10D | 1.6 | 2.7 | 3.8 | 55 | 66 | 80 | 135 | 165 | 190 |
| 2 | 10U–V<br>5U–10L<br>5U–10R | 2.1 | 3.6 | 5.5 | 85 | 100 | 115 | 210 | 251 | 290 |
| 3 | 10L–H<br>5L–5U<br>5L–5D | 3.4 | 5.3 | 8.0 | 140 | 167 | 195 | 350 | 420 | 490 |
| 4 | 5U–V<br>H–5L<br>H–V<br>H–5R<br>5D–V | 9.6 | 16.5 | 24.0 | 380 | 449 | 520 | 950 | 1130 | 1295 |
| 5 | 5R–5U<br>5R–5D<br>10R–H | 3.4 | 5.3 | 8.0 | 140 | 167 | 195 | 350 | 420 | 490 |
| 6 | 5D–10L<br>5D–10R<br>10D–V | 2.1 | 3.6 | 5.5 | 85 | 100 | 115 | 210 | 251 | 290 |
| 7 | 10R–10U<br>10R–10D<br>20R–5U<br>20R–H<br>20R–5D | 1.6 | 2.7 | 3.8 | 55 | 66 | 80 | 135 | 165 | 190 |

[a] Applies to lamps designed to SAE J575d requirements.

[b] Tail lamp candela shall not exceed 120% of maximum values as specified in SAE J585.

[c] Stop and turn lamps candela shall not exceed 120% of maximum values as specified in SAE J586 or J588.

[d] A tolerance of 10% may be applied to each zone.