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Terminology — Motor Vehicle Lighting

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TERMINOLOGY - MOTOR VEHICLE LIGHTING

1. SCOPE: The following are definitions of common terms used in SAE Standards and Recommended Practices pertaining to motor vehicle lighting.
2. ACCURATE RATED BULB: A seasoned bulb operated at design mean spherical candlepower and having its filament(s) positioned within ± 0.25 mm, and with its pins oriented within ± 5 deg, of nominal design positions. Rated bulbs shall be seasoned at rated voltage for 1% of their design life or 10 h maximum.
3. BULB: An indivisible assembly which contains a source of light and which is normally used in a lamp.
4. CENTROID OF A LENS AREA: The geometric centroid of a plane area which is perpendicular to the axis of reference of the vehicle and upon which the projection of the functional lighted lens area falls. As an example: The axis of reference for lamps mounted on the front and rear of a vehicle is the longitudinal axis of the vehicle.
5. DEVICE: Any piece of equipment or mechanism designed to serve a special purpose or perform a special function.
6. LAMP: A divisible assembly which contains a bulb or other light source and sometimes an optical system such as a lens and/or a reflector, and which provides a lighting function.
7. LIGHT: Visible radiant energy.
8. MULTIPLE COMPARTMENT LAMP: A device which gives its indication by two or more separately lighted areas which are joined by one or more common parts, such as a housing or lens.

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9. OPTICALLY COMBINED: A lamp shall be deemed to be "optically combined" if
Ø both of the following conditions exist:
- 9.1 It has two or more separate light sources, or a single light source that
Ø operates in different ways (for example, a two filament bulb).
- 9.2 Its optically functional lens area is wholly or partially common to two or
Ø more lamp functions.
10. MULTIPLE LAMP ARRANGEMENT: An array of two or more separate lamps on each
side of the vehicle which operate together to give a signal.
11. UNIT: An indivisible assembly which provides a mechanical, electrical, or
lighting function, for example, sealed beam unit or flasher.

The phi (Ø) symbol is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. If the symbol is next to the report title, it indicates a complete revision of the report.

RATIONALE:

In FMVSS 108, paragraph S4.4.1, it is stated that "...no clearance lamp may be combined optically with any tail lamp or identification lamp..." Similar wording occurs in subsection 14 of CMVSS 108.

For lack of this definition, lamps are being manufactured and installed on trailers that combine the clearance lamp functions under one lens, with two closely-spaced bulbs. This clearly violates the spirit and intent of these safety standards.

This definition harmonizes well with ECE Regulation 48, page 2, paragraph 2.6.5, "Reciprocally Incorporated Lamps."

RELATIONSHIP OF SAE STANDARD TO ISO STANDARD:

Not applicable.

REFERENCE SECTION:

Not applicable.

APPLICATION:

The following are definitions of common terms used in SAE Standards and Recommended Practices pertaining to motor vehicle lighting.

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