



SURFACE VEHICLE RECOMMENDED PRACTICE

J3098™

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Front Decorative Lamp

RATIONALE

The subject of "Vehicle Signature/Accent Lighting" was brought up for discussion during the "New Business" portion of the September 17, 2014 Signaling and Marking Devices Standards Committee Meeting held in Sacramento, California. It was noted that some vehicle manufacturers had begun installing exterior lighting devices intended only to be decorative in nature on their vehicles. Examples at that time included white lighting elements on the front of vehicles with intensity levels greater than parking lamps, but lower than daytime running lamps. These lamps had sometimes been referred to as "signature lamps" or "accent lamps". This type of lighting function was not covered by an SAE Recommended Practice or SAE Standard. The Signaling and Marking Devices Standards Committee agreed a Task Force should be established to pursue an SAE Recommended Practice for this subject.

As the SAE J3098 Task Force began discussions on what the scope of the document should be, the members voted in favor of a limited scope to address only decorative lighting intended to be installed on the front of vehicles. Task Force members generated a list of questions to be addressed during the development of SAE J3098 that included: Was it necessary to distinguish between "Signature Lamps" for daytime use and "Accent Lamps" for night time use? Was it necessary to include tests typically associated with legally required exterior lighting devices (e.g., Moisture, Dust, Corrosion, etc.)? Should signature lamps turn off when front position lamps are turned on? How best to account for the possibility of illuminated vehicle identification badges? Was it necessary to limit the color to white or yellow? Should "Signature/Accent Lamps" be deactivated on the side of a flashing turn signal (e.g., requirements similar to daytime running lamps)? Should there be a restriction on the number of front decorative lamps that could be installed? Should front decorative lamps be prevented from flashing or displaying motion (e.g., scrolling words, images, or patterns)?

While discussing the above list of questions, Task Force members debated whether this proposed Recommended Practice was really necessary. The concern raised was that SAE would be endorsing supplemental front lamps that do not provide a safety benefit. This concern was minimized when it was acknowledged that SAE has standards and recommended practices for many types of lighting devices not regulated as safety devices by federal governments in the NAFTA market (e.g., front fog lamps, front cornering lamps, side turn signal lamps, spot lamps, rear fog lamps, rear cornering lamps, cargo lamps, etc.). Task Force members acknowledged that a key point of these "Signature/Accent Lamps" would be they must not impair the effectiveness any regulated lighting devices. The subject of impairment would be added to the Scope section.

During the development of SAE J3098, much discussion occurred about what to name these front lighting devices that are intended to be installed only for decorative purposes. Task Force members eventually would conclude it was not necessary to distinguish between "Signature Lamps" for daytime use and "Accent Lamps" for nighttime use. It was suggested to use the term "Front Decorative Lamp" and not the terms "Signature Lamp" and "Accent Lamp" that were included in previous draft versions of the SAE J3098 document. The final consensus of the committee was to use the term "Front Decorative Lamp" with the reasoning that the term "signature" should be reserved for future usage related to the recognition and/or identification of vehicles. With the adoption of the term "Front Decorative Lamp", the SAE J3098 document would be written to provide different maximum candela intensity levels to account for daytime use (higher intensity) or nighttime use (lower intensity).

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A concern was discussed that when used in low ambient light conditions, front decorative lamps illuminated together with headlamps, front position lamps, and front fog lamps on the front of a vehicle could possibly present excessive amounts of light for other road users. The maximum luminous intensity of 125 candela in the region from the horizontal axis of the lamp upward, and maximum 250 candela in the region below the horizontal axis was chosen for low ambient light conditions because these are the same maximum candela requirements for front position lamps. There have been many vehicles in the NAFTA market with supplemental front position lamps installed for styling purposes. Task Force members were not aware that any of these vehicles raised concerns during night time illumination of their front lighting about excessive amounts of light being presented to other road users.

Task Force members also discussed front decorative lamp illumination in high ambient light conditions when daytime running lamps may also be present and activated. The 300 candela maximum requirement for front decorative lamps used in high ambient light conditions was chosen because several states in the U.S. place restrictions on motor vehicle lamps or illuminating devices that project a beam of light with intensities brighter than 300 candlepower. It was also known that illuminated front position lamps may not have intensity levels that would allow them to be seen as lighted in a bright, mid-day sun environment. The Task Force concluded it would not serve any purpose to place candela limits on front signature lamps used in daytime similar to those used for front position lamps if the lamp illumination could not be detected in bright sun light. Also, it was concluded that having front decorative lamps illuminated in addition to daytime running lamps would improve the conspicuity of a vehicle from the front when headlamps are not required for driving, which is the purpose of daytime running lamps.

The Task Force also reached consensus that the different daytime and night time intensity levels of front decorative lamps could be set in relation to activation of the vehicle's front position lamps or headlamps. The Task Force also agreed that it was not necessary to limit the quantity of front decorative lamps. However, the Task Force concluded that a requirement that all front decorative lamps measured together shall not exceed the photometry maximum requirements would be added to the SAE J3098 document.

The lighting identification code "B" was designated for front decorative lamps. It was suggested different marking codes should be used to account for daytime, nighttime, or both light intensity levels of the front decorative lamps (e.g., B for front decorative lamps with both daytime and nighttime intensities, B1 for front decorative lamps with only a daytime intensity, and B2 for front decorative lamps with only a nighttime intensity). The Task Force concluded the multiple designations would add unnecessary complexity to lamp codes and marking for this type of lamp. The decision was made to use only the lighting identification code "B" for these types of lamps.

In discussing if it was necessary to include tests typically associated with legally required exterior lighting device (e.g., Moisture, Dust, Corrosion, etc.), the Task Force concluded that these tests should be included because vehicle manufacturers would want to ensure front decorative lamps have been tested in a manner to ensure customers do not experience failures of these type lamps when installed on vehicles.

The Task Force discussed one of the original concepts that decorative front lamps should not flash or display motion (e.g., scrolling words, images, or patterns). It was suggested that a phrase similar to "while the vehicle is moving" be added to the "should not flash or display motion" concept. This would permit light pattern sequences (e.g., stationary vehicle welcoming the driver) upon key fob activation. However, a concern was still raised about stationary, but running, vehicle situations (e.g., stopped vehicles at traffic lights and stop signs on public roadways).

Members of the Task Force reviewed a suggestion that time limits should be added for the implied allowance for flashing or blinking patterns of front signature lamps prior to the vehicle being set in motion for the first time (e.g., light pattern sequences on a stationary vehicle intended to welcome the driver upon key fob activation). The consensus of the Task Force was to not pursue activation time limits for the period prior to the vehicle being set in motion for the first time. It was concluded the appropriate way to address the concern about front decorative lamps that might flash or display motion would be to use the following wording in the Activation and Switching section of this document: "A front decorative lamp(s) shall emit steady light once the vehicle has been set in motion for the first time after the driver activates the device which starts the propulsion system."

In discussing whether front decorative lamps should be deactivated on the side of a flashing turn signal, the Task Force concluded these types of lamps should follow the SAE guidelines for daytime running lamps deactivation based on lamp location with respect to front turn signals. This information was added to the Activation and Switching section of the document.