LIGHTING TECHNOLOGY



PHOTOMETRIC TESTING

NHTSA Interpretations 2007 - FMVSS 108 RELATED

Date	Docket#	
02/08/07	27254	A manufacturer requested clarification in regards to the compliance of center high- mounted stop lamps (CHMSLs) designed such that when brakes are applied the CHMSL will illuminate in a shape similar to the vehicle or its brand. NHTSA concluded product would not comply. CHMSLs are required to have (1) EPLLA of 2903 mm ² (4 in ²); (2) meet visibility requirements from 45° left to 45° right of the longitudinal axis; and (3) have minimum photometric values per FMVSS 108 Figure 10. The color must also be red and only red - not red and a combination of another color.
02/08/07	27255	The photometric multiplier of 2.5 for turn signals less than 100 mm from a headlamp edge is required only for photometry requirements and NOT for the visibility requirements of Figure 20.
03/09/07	27567	Installing white LEDS on the mounting flange of a 4" round universal IST to serve as backup lamp (R) is not prohibited by FMVSS 108.
03/26/07	27738	A computer-controlled means to deactivate a turn signal instead of current mechanical turn signal operating units would comply with FMVSS 108.
03/30/07	27788	NFPA requested clarification regarding allowing lower-level (red) flashing warning lamps in the rear to burn steady when the brakes are applied in addition to the existing stop lamps. NHTSA opinion was that it would not impair the effectiveness of required lighting equipment as long as the warning lamps operate as supplemental stop lamps including the same color as the required stop lamps.
04/26/07	28063	A lamp manufacturer wanted to add additional lamps to the three lamp array that makes up the identification (clearance) lamp function. The additional lamps would be used as auxiliary stop and turn signal lamps. NHTSA stated that the additional lamps would impair the effectiveness of the identification lamps and would not be permissible. However, in previous interpretations cited by NHTSA, it is permissible to combine the ID function with a supplemental high-mounted stop function (not required for vehicles >80" wide) as well as to add lamps to the roof so long as the distinctiveness of the three lamp identification array is maintained (NHTSA provided an unofficial rule of thumb that the separation between the auxiliary lamp and the outermost ID lamp must be greater than 2x the separation between ID lamps).

See following pages for additional NHTSA interpretations

NHTSA Interpretations 2007 - FMVSS 108 RELATED (Cont.)

Date	Docket#	
05/27/07 06/11/07	28414	It is up to the manufacturer to decide how to determine the "optical axis" for a LED lower beam headlamp and to select the location of the required marking. This interpretation would apply to any visually/optically aimed headlamp regardless of light source type.
		A manufacturer could conclude that the geometric center of the illuminated lens might not be accurate for marking the lamp for aiming purposes.
09/18/07	29299	Additional lamps on a horizontal line with the identification lamp cluster that are spaced less than twice the separation distance between ID lamps are not permitted, even if the additional lamps are on a separate switch.
10/19/07	0016	DRL intensity reduction to a value other than zero does not satisfy the criteria of the option that DRLs mounted within 100 mm of turn signal be deactivated when the turn signal is activated per FMVSS 108 S5.5.11(a)(4)(iv).
10/19/07	0019	A red rear sidemarker lamp may be located on a tailgate as long as all other mounting requirements are upheld. A tailgate is considered to be a rigid part of the body since it is presumed that a vehicle will be operated with the tailgate closed.
		All required rear lamps may be located on a tailgate as long as all other mounting requirements are upheld.
11/21/07	0045	The optical axis, as defined by the manufacturer, can be used to determine the relative location of the lower beam light source to that of the upper beam headlamp. The manufacturer is the entity best positioned to locate the reference axis from which photometric output of the beam will be measured. As long as the reference axis of the lower beam headlamp is located farther outboard than the reference axis of the upper beam (or uppermost if arranged vertically), such alignment would be permissible under Standard No. 108.

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