

Minimum Retroreflectivity Requirements for Pavement Markings - the Expected Standards

An LTAP customer recently asked us if FHWA has enacted standards for retroreflectivity of paving markings. They have not, but they are getting closer. Cornell Local Roads Program recently updated information on its website, clrp.cornell.edu, regarding this topic. Here is the latest.

Pavement marking retroreflectivity is proposed for the next version of the National MUTCD and shall address the minimum retroreflectivity to mostly longitudinal pavement markings. The new standards are currently under review and may be implemented in the near future.

The proposed MUTCD text has been prepared and can be found at the FHWA's website at the links below. Upon final-rule approval of this section, compliance for the implementation of a maintenance method will be required for the replacement of pavement markings that are identified as failing the minimum retroreflectivity requirements.

The minimum retroreflectivity of pavement markings measured at standard units¹, based on the proposed ruling, are as follows:

2-Lane Roads with center line markings only	
</= 30 mph (posted speed)	N/A
35-50 mph	100
>/=55 mph	250
All Other Roads	
</= 30 mph	N/A
35-50 mph	50
>/= 50 mph	100

These are the minimums proposed at this time and may change upon final ruling.

¹ The standard is based on a viewing distance of 30 meters from an arbitrary passenger vehicle, with an eye height of 1.2meters from the ground and a single headlight, mounted at a height of 0.65meters in the same vertical plan as the vehicle, with a pavement stripe directly ahead of the headlight. The mathematical calculation used is 30-m geometry in units of mcd/m²/lux).

Resources

mutcd.fhwa.dot.gov/knowledge/proposed09mutcdrev1/mutcd2009_pmretro.htm

safety.fhwa.dot.gov/roadway_dept/night_visib/fhwasa10015

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