

... with today's MUTCD regulations?

Understanding the MUTCD Regulations

How do the regulations affect you?



Each day in the U.S., signs warn almost 200 million licensed drivers of road conditions, traffic patterns, speed limits and upcoming hazards. But a sign cannot help if it cannot be seen, resulting in thousands of fatal accidents each year. Over time, the sun, rain and other factors wear down reflective sheeting, making signs less perceivable to drivers and creating dangerous driving conditions, especially at night.

That's why on December 21, 2007, the Federal Highway Administration (FHWA) published an update to the Manual on Uniform Traffic Control Devices (MUTCD), which included what is known as the "final rule" on traffic sign retroreflectivity. The rule provides minimum retroreflectivity and contrast values for all traffic signs, a deadline for all agencies to design and implement a system for measuring sign retroreflectivity, and dates when all signs must meet the required measurements.

The final rule provides a number of methods that can be used to determine whether signs meet requirements or need replacement. Of those methods, only one can provide accurate and definitive "pass" or "fail" measurements directly comparable to minimum retroreflectivity standards. That method is using a sign retroreflectometer.



The 922 Handheld Sign Retroreflectometer

922: The Only Method for Accurately Measuring Sign Retroreflectivity

The 922 Handheld Retroreflectometer truly is the best solution for meeting the MUTCD sign regulations. The 922 provides the most user-friendly features, such as a backlit LCD touch screen, internal GPS and barcode reader, data logging software, and is backed by a support team of knowledgeable professionals here in the US. PPP offers **webinars, training videos and in-person instruction**, and the 922 comes with the confidence of an easy and reliable sign management system.

AVOID:

Human error from visual inspections





Made and Serviced in the USA! US Patent 7,961,328

Other methods that lead to tens of

thousands of dollars in unnecessary sign replacements



922 Handheld Sign Retroreflectometer

- Most advanced retroreflectometer available.
- Measures all sheetings with a single measurement.
- LCD touch-screen display, built-in GPS and bar-code reader.
- Meets ASTM, CIE and DIN specifications.

Reliability	The 922 is more accurate and more reliable than other testing methods and provides a definitive pass or fail answer.
Easy to Use	Lightweight and durable, the 922 requires only "point-and-shoot" operation. A back-lit LCD touch- screen makes retrieving measurements easy and quick.
Cost	The 922 will reduce costs by eliminating unnecessary sign replacement. You'll replace only the signs that fail.
Time	Along with built-in GPS and bar-code reader, the 922 employs "annular" geometry, cutting the number of required measurements in half.
Safety	Unlike other methods, the 922 allows workers to take measurements during daylight hours, eliminating dangerous nighttime viewing.

The 922 is distributed exclusively by PPP, Inc. Please contact us for pricing and other inquiries.

MUTCD Minimum Maintained Retroreflectivity Levels Quick Reference Guide

(in units of cd/lx/m² measured at an angle of 0.2° and an entrance angle of -4.0°) Information taken from the FHWA Manual on Uniform Traffic Control Devices for Streets and Highways

Sign Color	Additional Criteria	Sheeting Type					
		Beaded Sheeting			Prismatic Sheeting		
		l I	Ш	III	III, IV, VI, VII, VIII, IX, X		
White on Green	Overhead	white not approved; green ≥ 7	white not approved; green ≥ 15	white not approved; green ≥ 25	white \geq 250; green \geq 25		
	Ground-mounted	white not approved; green ≥ 7	white ≥ 120; green ≥ 15				
Black on Yellow or Black on Orange	For text and fine-symbol signs measuring ≥ 1200mm (48in) and all bold symbol signs	yellow/orange not approved	yellow ≥ 50; orange ≥ 50				
	For text and fine symbol signs measuring < I 200mm (48in)	yellow/orange not approved	yellow ≥ 75; orange ≥ 75				
White on Red	Minimum sign contrast ratio ≥ 3:1 (white retroreflectivity / red retroreflectivity)	white \geq 35; red \geq 7					
Black on White	—	$\frac{1}{8^{2}} \frac{1}{10} \frac{1}{10} $ white ≥ 50					

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