

Retroreflectivity Project Status

Introduction

Retroreflectivity is an optical phenomenon where a surface returns directed light back at its source. Without retroreflectivity, traffic signs would not be visible at night when headlights hit the sign's surface. The MUTCD outlines that the retroreflectivity of signs shall be replaced if it fails retroreflectivity tests.

To record the retroreflectivity of traffic signs, a device called a retroreflectometer was used. It is a device that measures the light reflecting properties of signs accurately and reliably. The purpose of the retroreflectivity Project status is to assess the retroreflectivity of traffic signs to determine whether these sample traffic signs should be replaced. Furthermore, this will also serve as a benchmark for determining sign condition as well.

Standard

"Public agencies or officials having jurisdiction shall use an assessment or management method that is designed to maintain sign retroreflectivity at or above the minimum levels in [Table2A-3](#).

Data

MUTCD	Sign Totals	Retroreflective Condition
Stop Sign	13	100%
No Truck	4	100%
School Pedestrian Crossing	3	100%
Speed Limit	2	100%
End School Zone	1	100%
Handicap Sign	1	100%
No Outlet	1	100%
Stop Ahead	1	100%
Street Name Sign	1	100%
W1-3	1	100%
Yield	1	100%

Conclusions

All 29 signs collected in the field passed retroreflectivity standards according to the MUTCD. The project is 29% completed. Measuring retroreflectivity of 1 sign takes about 5-10 minutes not including travel time, so it should be possible to collect all 100 signs within next week.

There are some signs that are suspected to be in poor condition, even though the sign fulfills retroreflective MUTCD standards. After project completion, we can create a new sign condition standard.