



CMF / CRF Details

CMF ID: 8839

Install Red-light indicator lights

Description: Red-light indicator lights are mounted on the signal head or on the mast arm. The indicator activates simultaneously with the red interval, allowing an enforcement officer downstream to identify if a vehicle has violated the red interval.

Prior Condition: 4-legged signalized intersection without RLIL

Category: Advanced technology and ITS

Study: [*Safety Evaluation of Red-Light Indicator Lights in Florida, Himes et al., 2017*](#)

Star Quality Rating:	
4 Stars	[View score details]

Crash Modification Factor (CMF)	
Value:	0.944
Adjusted Standard Error:	
Unadjusted Standard Error:	0.057

Crash Reduction Factor (CRF)	
Value:	5.6 (This value indicates a decrease in crashes)
Adjusted Standard Error:	

Unadjusted Standard Error:

Applicability

Crash Type: Angle

Crash Severity: All

Roadway Types: Not specified

Number of Lanes:

Road Division Type:

Speed Limit:

Area Type: Not specified

Traffic Volume:

Time of Day: All

If countermeasure is intersection-based

Intersection Type: Roadway/roadway (not interchange related)

Intersection Geometry: 4-leg

Traffic Control: Signalized

Major Road Traffic Volume: 5900 to 80500 Annual Average Daily Traffic (AADT)

Minor Road Traffic Volume: 845 to 62666 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used: 2003 to 2012

Municipality:

State: FL

Country:	USA
Type of Methodology Used:	2
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-17-2017
Comments:	Disaggregated CMF for two years after RLIL installation The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 to give 10 points as a benefit of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment group, (2) number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the disaggregate dataset used for CMF development.

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

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