



# CMF / CRF Details

**CMF ID: 2122**

**Install single lane roundabout**

**Description:**

**Prior Condition: intersections with yield control**

**Category: Intersection geometry**

**Study: [Turbo Roundabouts: Design Principles and Safety Performance, Fortuijn, 2009](#)**

<b>Star Quality Rating:</b>	
<input type="text" value="✘ Star"/>	<a href="#">[View score details]</a>

<b>Crash Modification Factor (CMF)</b>	
<b>Value:</b>	0.213
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	0.421

<b>Crash Reduction Factor (CRF)</b>	
<b>Value:</b>	78.7 (This value indicates a <b>decrease</b> in crashes)
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	42.1

## Applicability

**Crash Type:**

All

**Crash Severity:**

All

**Roadway Types:**

Not Specified

**Number of Lanes:**

2

**Road Division Type:**

**Speed Limit:**

**Area Type:**

**Traffic Volume:**

**Time of Day:**

All

### *If countermeasure is intersection-based*

**Intersection Type:**

Roadway/roadway (not interchange related)

**Intersection Geometry:**

4-leg

**Traffic Control:**

Roundabout

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

## Development Details

**Date Range of Data Used:**

**Municipality:**

Netherlands

**State:**

**Country:**

**Type of Methodology Used:**

3

<b>Sample Size Used:</b>	Sites
<b>Before Sample Size Used:</b>	39 Sites
<b>After Sample Size Used:</b>	39 Sites

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Dec-01-2009
<b>Comments:</b>	

---

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

*The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.*