



## CMF / CRF Details

**CMF ID: 10568**

**Roundabout geometry**

**Description:** Various geometric elements of roundabout

**Prior Condition:** *No Prior Condition(s)*

**Category:** Intersection geometry

**Study:** [Developing crash modification factors for roundabouts using a cross-sectional method, Al-Marafi et al., 2020](#)

Star Quality Rating:



[\[View score details\]](#)

### Crash Modification Factor (CMF)

Value:

$$CMF = e^{0.040(LX_2 - 2)}$$

Where  $LX_2$  is number of exiting lanes on the minor approach

Adjusted Standard Error:

Unadjusted Standard Error:

### Crash Reduction Factor (CRF)

<b>Value:</b>	(This value indicates an <b>increase</b> in crashes)
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	

### Applicability

<b>Crash Type:</b>	All
<b>Crash Severity:</b>	K (fatal),A (serious injury),B (minor injury),C (possible injury)
<b>Roadway Types:</b>	Not specified
<b>Number of Lanes:</b>	
<b>Road Division Type:</b>	
<b>Speed Limit:</b>	
<b>Area Type:</b>	Not specified
<b>Traffic Volume:</b>	
<b>Time of Day:</b>	

### *If countermeasure is intersection-based*

<b>Intersection Type:</b>	Roadway/roadway (not interchange related)
<b>Intersection Geometry:</b>	No values chosen.
<b>Traffic Control:</b>	Roundabout
<b>Major Road Traffic Volume:</b>	1288 to 16071 Annual Average Daily Traffic (AADT)
<b>Minor Road Traffic Volume:</b>	1200 to 10002 Annual Average Daily Traffic (AADT)

### Development Details

<b>Date Range of Data Used:</b>	2010 to 2015
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<b>Municipality:</b>	Toowoomba City
<b>State:</b>	
<b>Country:</b>	Australia
<b>Type of Methodology Used:</b>	7
<b>Sample Size Used:</b>	

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Dec-17-2020
<b>Comments:</b>	CMFunction for number of exiting lanes on the minor approach

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