

Raceway Size Calculator

Compare conductor area requirements with a selected raceway area and entered fill limit for preliminary raceway review.

Generated October 10, 2026

<https://www.elecatrix.com/wire-raceway-ampacity/raceway-size-calculator/>

Inputs		
Input	Value	Unit
Total conductor area	0.9	in^2
Entered fill limit	40	%
Selected raceway area	2.5	in^2
Source reference	raceway-schedule-a	
Results		
Result	Value	Unit
Required area at entered limit	2.25	in^2
Selected raceway area	2.5	in^2
Selected area margin	0.25	in^2
Fill at selected area	36	%
Entered fill limit used	40	%
Status		
Status	Value	Unit
Record comparison	Entered values are comparable	
Calculation details		
Detail	Value	Unit
Calculation basis	Required area is the entered conductor area divided by the entered fill-limit fraction.	
Boundary	Preliminary area comparison only; no raceway trade-size conclusion is made.	
Formulas		

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$$A_{\text{required}} = \frac{A_{\text{conductors}}}{\text{fill limit}} \times 100$$

$$A_{\text{margin}} = A_{\text{selected}} - A_{\text{required}}$$

$$\text{Fill at selected area \%} = \frac{A_{\text{conductors}}}{A_{\text{selected}}} \times 100$$

Warnings and limitations

Preliminary entered-area comparison only; review raceway dimensions, conductor arrangement, adopted rules, derating, and qualified design context separately.