

Fixture Count Calculator

Calculate fixture count as a lighting-layout planning mode; verify photometrics and project criteria separately.

Generated October 10, 2026

<https://www.elecatrix.com/lighting/fixture-count-calculator/>

Inputs		
Input	Value	Unit
Room area	1000	sq ft
Target footcandles	30	fc
Fixture lumens	5000	lm
Coefficient of utilization	0.8	x
Light-loss factor	0.75	x

Results		
Result	Value	Unit
Effective lumens per fixture	3000	lm
Unrounded fixture count	10	
Rounded fixture count	10	fixtures
Footcandles at rounded count	30	fc

Calculation details		
Detail	Value	Unit
Calculation basis	Effective lumens per fixture apply utilization and light-loss factors before the count is rounded up.	
Planning boundary	Merge estimate only; verify photometry, spacing, controls, obstructions, and project criteria separately.	

Formulas		
effective lumens per fixture = fixture lumens x coefficient of utilization x light-loss factor		
unrounded count = target footcandles x area / effective lumens per fixture		

Fixture Count Calculator

Calculate fixture count as a lighting-layout planning mode; verify photometrics and project criteria separately.

Generated October 10, 2026

<https://www.elecatrix.com/lighting/fixture-count-calculator/>

`required count = ceiling(unrounded count)`

Warnings and limitations

This fixture-count arithmetic is for preliminary layout review. It does not create a photometric layout or determine project requirements.