

Room Footcandles Calculator

Estimate average room footcandles and lux from total lumens, room area, coefficient of utilization, and light-loss factor for early lighting layout review.

Generated October 10, 2026

<https://www.elecatrix.com/lighting/room-footcandles-calculator/>

Inputs

Input	Value	Unit
Total lumens	24000	lm
Room area	1000	sq ft
Coefficient of utilization	0.8	x
Light-loss factor	0.75	x

Results

Result	Value	Unit
Footcandles	14.4	fc
Lux	155.0003	lx
Effective lumens	14400	lm
Adjustment factor	0.6	x

Calculation details

Detail	Value	Unit
Calculation basis	Footcandles equal effective lumens divided by area; lux uses the square-foot conversion factor.	
Planning boundary	Merge estimate only; verify photometry, spacing, controls, obstructions, and project criteria separately.	

Formulas

Effective lumens=Total lumens x CU x LLF

Footcandles=Effective lumens/Area in square feet

Lux=Footcandles x 10.76390625

Warnings and limitations

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This is an average room-illumination estimate. It does not replace photometric layout, fixture spacing, uniformity, glare, controls, or project lighting criteria review.