

Task Lighting Load Calculator

Estimate connected lighting power, active power, annual energy use, and annual cost from fixture quantity, operating schedule, and electricity rate inputs.

Generated October 10, 2026

<https://www.elecatrix.com/lighting/task-lighting-load-calculator/>

Inputs		
Input	Value	Unit
Fixture watts	12	W
Fixture count	30	fixtures
Active use	75	%
Available hours per day	6	h/day
Operating days per year	260	days/year
Electricity rate	0.16	\$/kWh
Results		
Result	Value	Unit
Connected watts	360	W
Active watts	270	W
Annual energy	421.2	kWh/year
Annual cost	67.392	\$/year
Active fraction	0.75	x
Calculation details		
Detail	Value	Unit
Calculation basis	Connected watts are fixture watts multiplied by fixture count. Active watts apply the entered active-use percent before annual energy and cost are calculated.	
Screening boundary	Task-lighting load arithmetic only; no branch-circuit sizing, task illuminance, controls performance, ergonomics, tariff, or approval result is made.	

Task Lighting Load Calculator

Estimate connected lighting power, active power, annual energy use, and annual cost from fixture quantity, operating schedule, and electricity rate inputs.

Generated October 10, 2026

<https://www.elecatrrix.com/lighting/task-lighting-load-calculator/>

Formulas

Connected watts = Fixture watts x Fixture count

Active watts = Connected watts x (Active-use percent/100)

Annual energy (kWh) = (Active watts x Hours per day x Days per year/1000)

Annual cost = Annual energy (kWh) x Electricity rate

Warnings and limitations

This is connected/active watt and energy arithmetic only. It does not size branch circuits, verify task illuminance, model controls performance, evaluate ergonomics, apply tariffs, or approve a design.