

Lighting Controls Savings Calculator

Estimate annual energy and cost savings from baseline wattage, controlled wattage, operating schedule, and electricity rate.

Generated October 10, 2026

<https://www.elecatrix.com/lighting/lighting-controls-savings-calculator/>

Inputs

Input	Value	Unit
Baseline lighting watts	1000	W
Controlled lighting watts	700	W
Operating hours per day	10	h/day
Operating days per year	365	days/year
Electricity rate	0.15	\$/kWh

Results

Result	Value	Unit
Baseline annual energy	3650	kWh/year
Controlled annual energy	2555	kWh/year
Annual energy saved	1095	kWh/year
Annual cost saved	164.25	\$/year
Energy savings	30	%

Calculation details

Detail	Value	Unit
Calculation basis	Baseline and controlled watts are multiplied by the same entered schedule. Savings are the baseline energy minus controlled energy, valued at the entered electricity rate.	
Screening boundary	Lighting-controls energy arithmetic only; no occupancy performance, daylight response, commissioning, comfort, tariff, rebate, code, or project approval result is made.	

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Formulas

$\text{baseline annual kWh} = \text{baseline watts} \times \text{hours/day} \times \text{days/year} / 1000$

$\text{controlled annual kWh} = \text{controlled watts} \times \text{hours/day} \times \text{days/year} / 1000$

$\text{annual kWh saved} = \text{baseline annual kWh} - \text{controlled annual kWh}$

$\text{annual cost saved} = \text{annual kWh saved} \times \text{electricity rate}$

$\text{savings percent} = \text{annual kWh saved} / \text{baseline annual kWh} \times 100$

Warnings and limitations

This lighting-controls savings estimate uses entered wattage, schedule, and electricity-rate assumptions. It does not prove control performance, energy-code compliance, rebates, tariff savings, or project approval.