

Light Loss Factor Calculator

Estimate maintained lumens by multiplying initial lumens by the project-selected light-loss factors.

Generated October 10, 2026

<https://www.elecatrix.com/lighting/light-loss-factor-calculator/>

Inputs

Input	Value	Unit
Initial lumens	20000	lm
Lamp lumen factor	0.9	x
Dirt factor	0.85	x
Equipment factor	0.95	x
Other factor	0.98	x

Results

Result	Value	Unit
Combined light loss factor	0.7122	x
Maintained lumens	14244.3	lm
Lumen loss	28.7785	%

Calculation details

Detail	Value	Unit
Calculation basis	The combined light loss factor is the product of the entered factors. Maintained lumens apply that factor to initial lumens.	
Screening boundary	Light-loss factor arithmetic only; no factor selection, manufacturer approval, photometric design, maintenance acceptance, or code result is made.	

Formulas

`combined light loss factor = lamp lumen factor x dirt factor x equipment factor x other factor`

`maintained lumens = initial lumens x combined light loss factor`

`lumen loss percent = (1 - combined light loss factor) x 100`

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Warnings and limitations

This calculator multiplies entered factors only. Factor selection still depends on fixture data, environment, cleaning cycle, maintenance plan, and project review.