

Calculate the correct lamp power for your pool lighting

The amount of lighting needed for a swimming pool depends on two factors

1. The surface area of the pool (in m²)
2. The reflectivity of the pool lining (how much light is reflected by the walls and floor)

With these two values, you can easily calculate the total required LED power.

We use a multiplication factor (in watts per m²), depending on the reflectivity of the pool finish.

Example calculation

Your pool is 8 meters long and 4 meters wide

Surface area = $8 \times 4 = 32 \text{ m}^2$

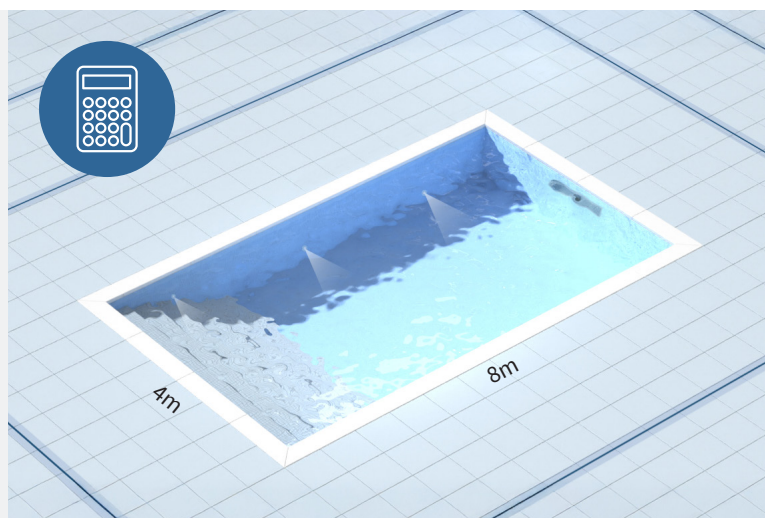
Let's assume your pool lining has a reflectivity of 50%

In that case, use the factor of **3,0 W/m²**

Calculation

$32 \text{ m}^2 \times 3,0 \text{ W} = 96 \text{ watts total minimum required lamp power.}$

You can then divide this total over multiple lights, for example: 2 lamps of 40W and 2 lamps of 10W, or 3 lamps of 25W and 2 lamps of 10W, depending on the desired number of fixtures and layout.



Choice of EVA LED underwater lighting

- SubAqua XS 10W MONO/10W RGBW (for pool steps and shallow platforms)
- SubAqua 25W MONO/25W RGBW
- SubAqua 40W MONO/50W RGBW

Reflectivity of pool lining			Multiplication factor W/m ²
70%		WHITE	2,0 W
60%		SAND	2,5 W
50%		CARIBBEAN GREEN	3,0 W
40%		LIGHT GREY	3,6 W
30%		ADRIATIC BLUE	4,2 W
20%		LIGHT BLUE	5,0 W
10%		DARK GREY	6,0 W
0%		BLACK	7,5 W

Tip:

A lighter pool color reflects more light, which means you need less power.

Darker colors absorb more light and require higher power to properly illuminate the pool.