

Indoor swimming pools are highly humid places, so luminaires must resist and adapt to demanding mounting









THE CHALLENGES OF SWIMMING POOLS

Humidity and chlorine

High humidity and chlorine accelerate corrosion of materials, which affect luminaires lifetime.

Gas tight and IP69K luminaires **resist humidity and splashes**, quaranteeing the lighting installation over long times.

High temperature

Heat from humidity and heating accumulates in ceilings, which can damage electronics.

Luminaires must offer robustness and high reliability and lifetime, even in high temperature environments.

Reflection of water

Lighting quality affects swimmers safety and could difficult the view of lifeguards or viewers during competitions. An excessive brightness reflected in the water cause discomfort.

Luminaires with **low glare and specific light distribution** improve users comfort and experience.

Visibility

Recreational swimming needs 300lux, while competitions require at least 500lux.

High performance and uniform **neutral white light with CRI>80** make surfaces clearly visible around the pool and below the water.

Difficult access

Building layout usually requires mounting around the vessel in ceiling or walls, with some tilting. These difficult-to-reach locations are challenging for maintenance.

Resistant luminaires with **flexible mounting and low maintenance** facilitate installation and reduce costs.

Flexibility

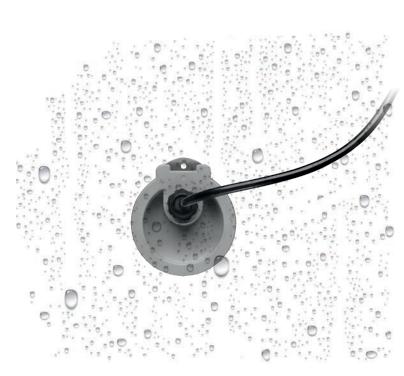
The use of pool areas may change depending on the time of the day or when there are events.

Intelligent controls and sensors increase energy savings through **better use of the light** when and where needed.

Energy efficiency

Swimming pools are open during long times, so a higher lm/W, improves energy efficiency with less light points.

Daylight sensors allow natural light to contribute to illuminate the pool, achieving **energy savings**.









High resistance to ambient conditions

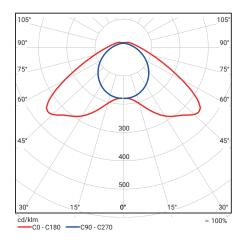
- Chemical resistant PMMA with UV protection and extra thickness to guarantee robustness.
- Resistant to jet cleaners with water up to 80°C and 100 bar.
- · Rounded shape to avoid accumulation of dust.

Fit and forget

- Specific potting process for a full gas tight sealing, to avoid the penetration of water.
- Completely safe against the corrosion of LED modules and electronic components.
- Excellent thermal management.

Quick, flexible and comfortable

- Special V4A 316L stainless steel fixing bracket.
- 3 m connection cable with outer sheath.
- 4000K and CRI >80 for high visual comfort and accuracy.





Special fixing bracket included to allow luminaire rotation







A good light helps users to enjoy swimming with security. The challenge is to combine their lighting needs with luminaires resistant to demanding environments.

STRONGERTUBE provides maximum reliability where the highest protection is needed.

- Resistant materials avoid the damage caused by corrosive elements.
- Specific potting process prevents the income of water and gases into the luminaire.
- Excellent thermal management resists high temperatures during long times.
- Stainless steel fixing clips and special clamps make installation quicker and easier.