

Extreme Dimensions

Lighting solutions engineered for long-lasting
performance in demanding environments





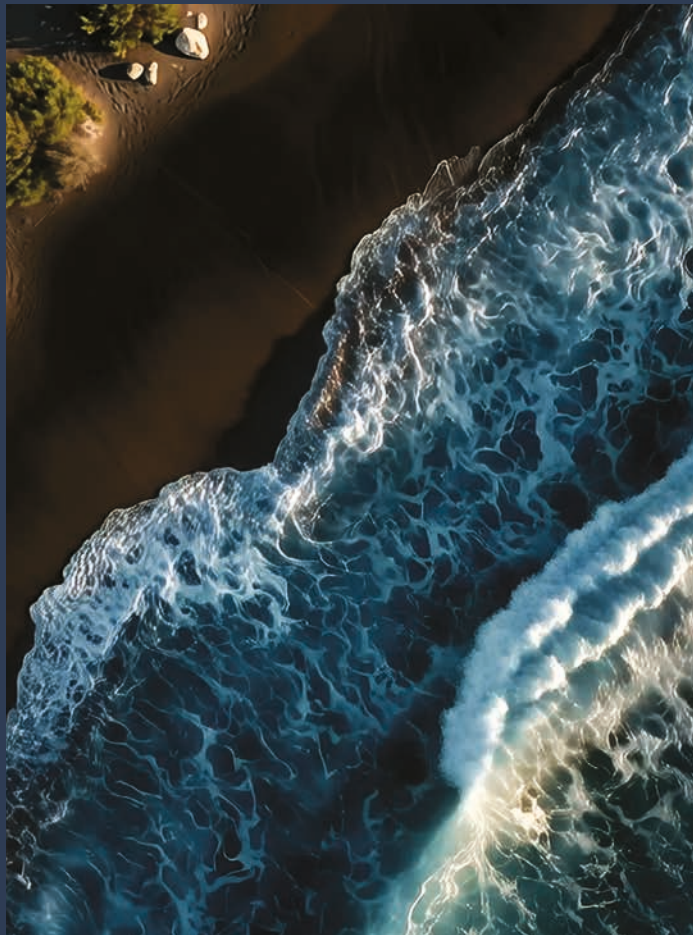
Extreme Dimensions

Lighting solutions engineered for long-lasting performance in demanding environments

There are some situations where light is indispensable, yet where standard materials and conventional technologies are not enough. Locations exposed to atmospheric, natural and chemical agents that put every surface, joint and component to the test. Contexts in which visibility, safety and mood cannot be compromised.

It was to answer these converging demands – coupled with a determination to guarantee long-term reliability – that Luce&Light's Extreme solutions were developed: lighting fixtures engineered to withstand even the most challenging conditions. From seafront installations to wellness areas, from swimming pools to underground and natural environments: this range of collections is designed to preserve both functionality and appearance, even when exposed to salty air, thermal shock, high chlorine levels, constant humidity or corrosive agents.

In all these applications, material selection becomes critical. The use of Anticorodal aluminium, technopolymers, tempered glass and AISI 316L stainless steel – combined with Luce&Light's AC19 treatment – ensures sustained performance, structural integrity and enduring aesthetic consistency, even under extreme operating conditions.



Lighting on the coast



Lighting design in coastal settings involves not only an aesthetic choice but also a genuine engineering challenge requiring a thorough understanding of the chemical and mechanical interactions between materials and the surrounding ecosystem.

There are many factors that make marine environments particularly challenging: salty air, sand and rock particles carried by the wind, continuous washout, thermal excursions and persistent humidity. These variables are further shaped by local specificities: what works in a lagoon-facing garden in Venice may not be suitable for the facade of a hotel on the Baltic Sea, or for other coastal contexts such as the island of Malta, as each location presents its own distinct geological and climatic conditions.



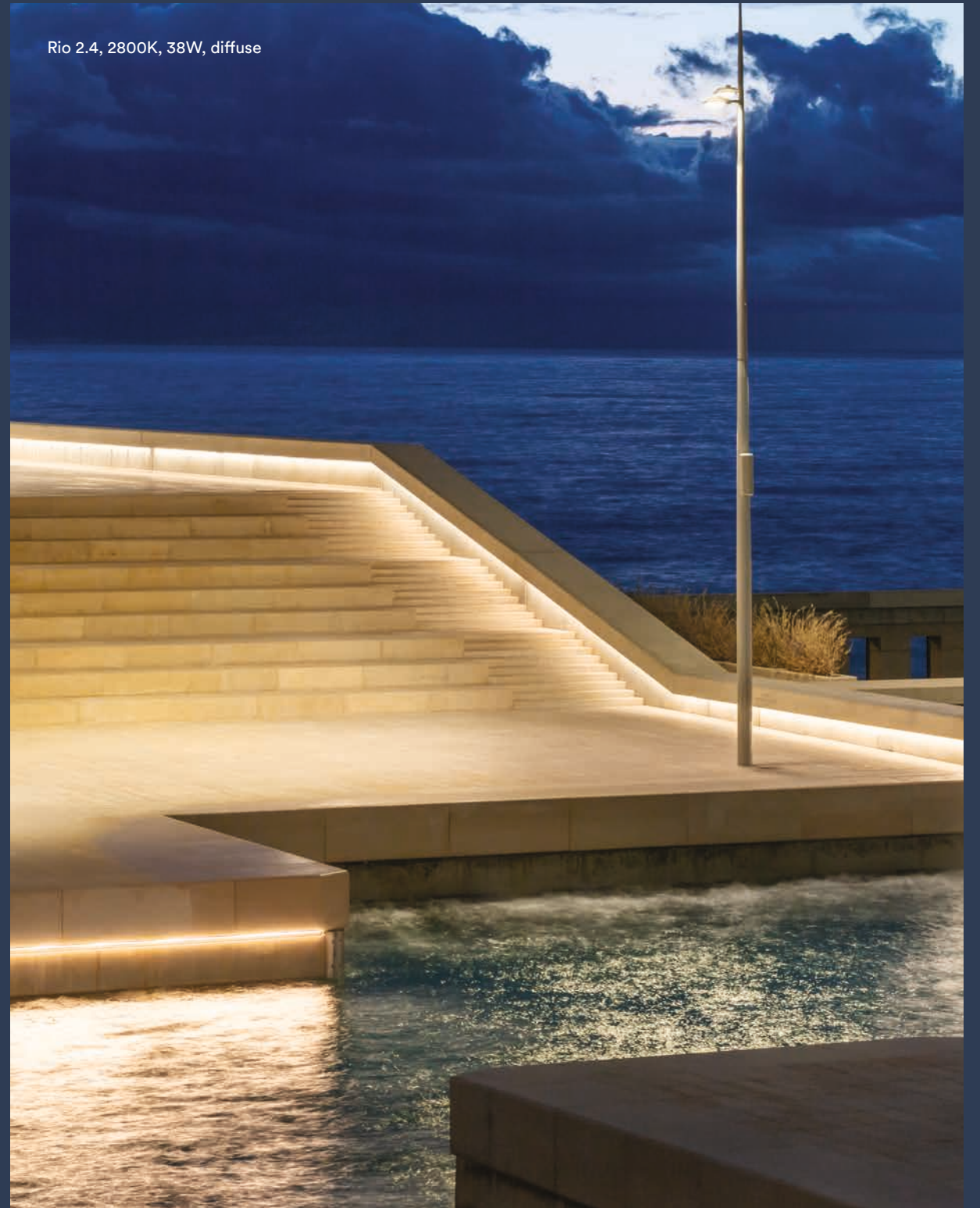
Every microclimate introduces local variables that directly affect product service life. That's why Luce&Light develops collections engineered to withstand the physical and chemical characteristics of the most challenging coastal environments, ensuring long-term continuity of performance, structural reliability and aesthetic stability.

Mareterra, Monaco
Application: Paths and steps
Light Planning: 8'18"

Rio 2.4, 2800K, 38W, diffuse



Rio 2.4, 2800K, 38W, diffuse





Bright 2.6 316L, 3000K, 6W, 24°



Altopiano 2.1, 3000K, 16W, diffuse



Goccia 2.4, 2700K, diffuse

Spas and wellness areas require a precise balance between extreme resistance and visual comfort. In these settings, lighting fixtures operate within microclimates characterised by constant humidity, elevated temperatures and intensive use of sanitising agents containing corrosive compounds.

Lighting for swimming pools and wellness areas

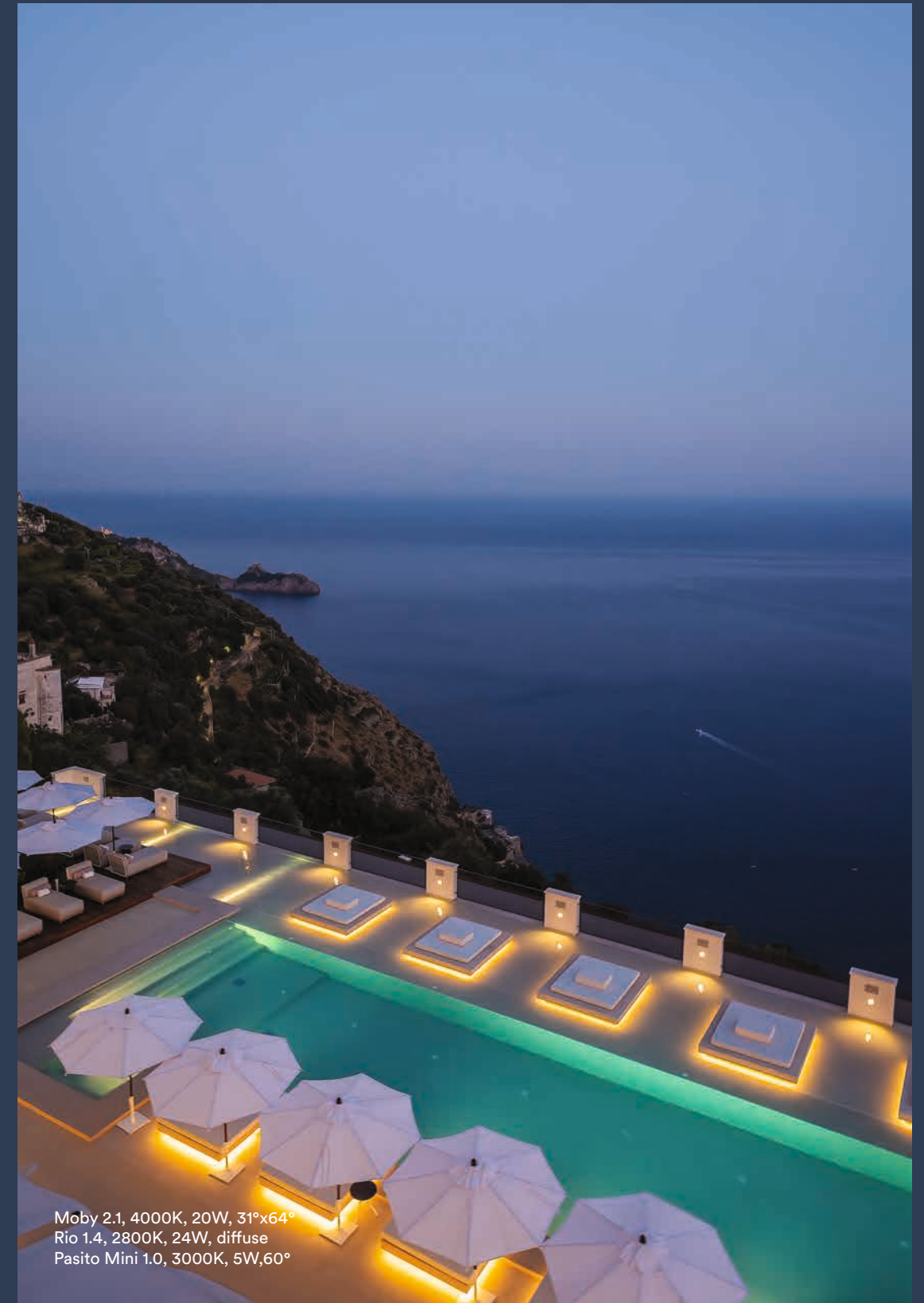


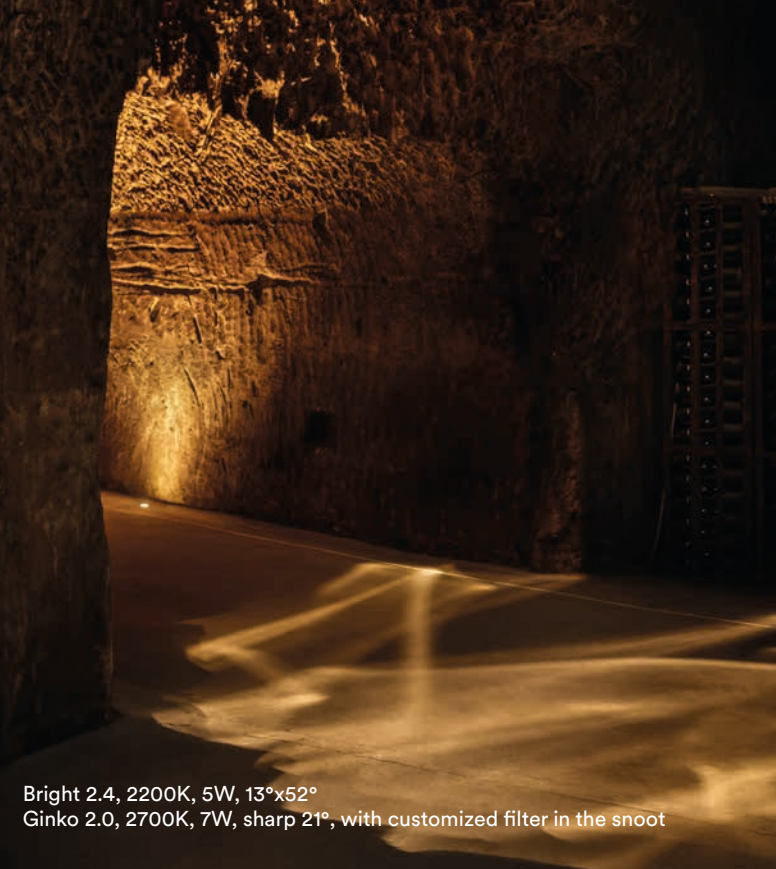
Trevi 2.6, RGBW, 25W, 39°x95°

In such spaces, construction quality is critical: watertightness, junction point protection and materials resistant to chlorinated or saline water are essential requirements. Product service life is affected by the simultaneous action of multiple critical factors, including thermal stress, saline vapours, aromatic essences, aggressive detergents, descaling acids and alkaline solutions.

From wellness areas to spas and pool surrounds, every Luce&Light fixture is engineered to withstand the build-up of substances and deposits, maintaining consistent performance and aesthetic integrity even with saturated humidity and intensive use.

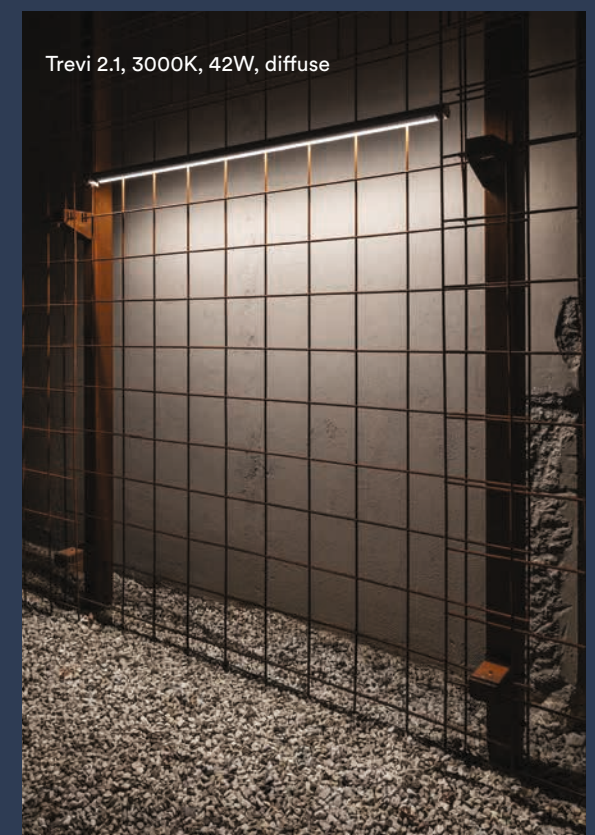
Furore Grand Hotel, Italy
Application: Wellness





Bright 2.4, 2200K, 5W, 13°x52°
Ginko 2.0, 2700K, 7W, sharp 21°, with customized filter in the snoot

Further critical conditions arise in the presence of sulphurous emissions and acidic vapours, typical of thermal and volcanic areas, where the high temperatures amplify the effects of sulphur compounds on metals and seals. These challenges are compounded in industrial environments and production facilities with high concentrations of airborne pollutants and oxidative or ferrous deposits, as well as spaces subject to frequent sanitation protocols, where chemical detergents and aggressive disinfectants require the use of highly resistant surfaces to preserve performance and finishes.



Trevi 2.1, 3000K, 42W, diffuse

There are contexts in which durability is not a desirable enhancement but a fundamental design requirement. Complex environments where the integrity of lighting fixtures is subjected to constant chemical and physical stressors – often invisible, yet highly degrading. In natural caves and underground settings, saturated humidity and the persistent presence of calcareous mineral deposits create microclimates that accelerate oxidation processes, making the comprehensive protection of surfaces and internal components essential. Likewise, in regions exposed to harsh climates – where snow, ice and repeated freeze–thaw cycles place structures under continuous stress – fixtures must withstand the corrosive action of de-icing salts, which can trigger deep corrosion phenomena.

Other extreme environments



Plin Wood 5.1, 3000K, 8W, asymmetrical



Ginko 1.0, 3000K, 1.5W, 8°, stainless steel



Spot 1.0, 4000K, 2W, 10°

Materials and know-how

The answer to all these these challenges lies in our constant materials research and continuous experimentation, which have allowed us to develop specific know-how in designing solutions capable of withstanding time and the harshest environments.

Every decision – from material selection to processing techniques and in-house resistance testing – is guided by the need of ensuring reliability, consistent performance and aesthetic integrity, with no compromises.

The array of materials we use ranges from Anticorodal aluminium and high-performance technopolymers to AISI 316L stainless steel, chosen for its inherent corrosion resistance. For the most demanding applications, we have developed the exclusive AC19 treatment for stainless steel: a process that further enhances material protection, providing exceptional resistance that preserves structure, functionality, and aesthetics, even in particularly aggressive settings, such as marine environments, spas and wellness areas, or industrial spaces exposed to chemicals and extreme microclimates.

In every Extreme fixture, material choices translate into tangible benefits: safety, uninterrupted performance, and lasting visual integrity, even under the most challenging operating conditions.

The result is a comprehensive collection of step lights, bollards, projectors, linear profiles, recessed fixtures and pendant lighting, all designed to deliver high performance, durability and reliability under all conditions.





Check out the Extreme Solutions

			
BRIGHT Recessed	BRIGHT Step lights	BRIGHT 316L Recessed	QUILATERO Recessed
			
GINKO Projectors	SPOT Projectors	DOREMI Bollards	DOREMI S Pendant
			
ALTOPIANO Recessed	CORSO Recessed	RONDÒ Step lights	GOCCIA Step lights
			
MARIS Wall Mounted	MARIS B Bollards	TWISTER Wall Mounted	TREVI Linear profiles
			
RIO Linear profiles	RIO SUB Linear profiles	MOBY Recessed	MOBY Projectors



