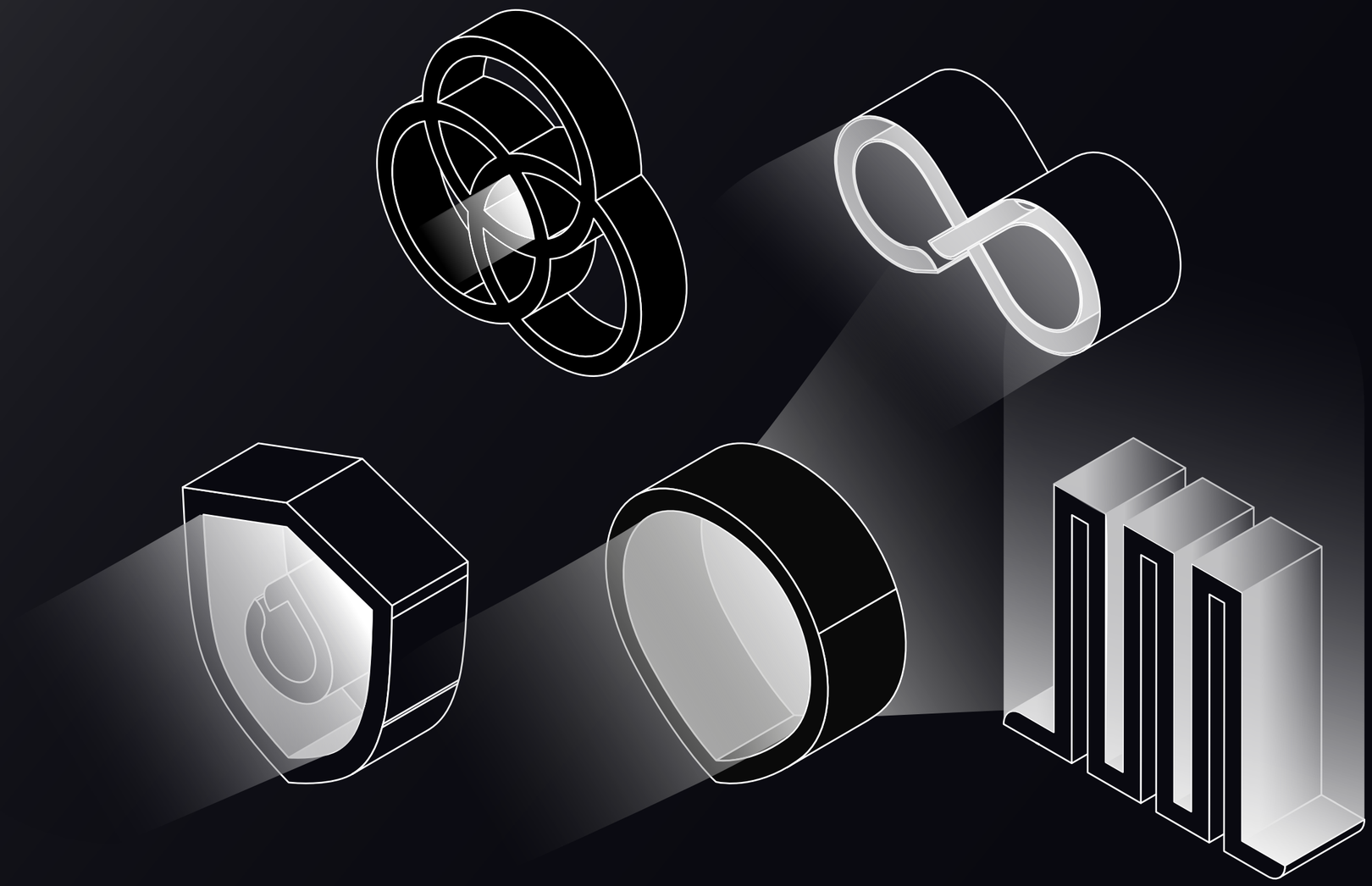
technologies

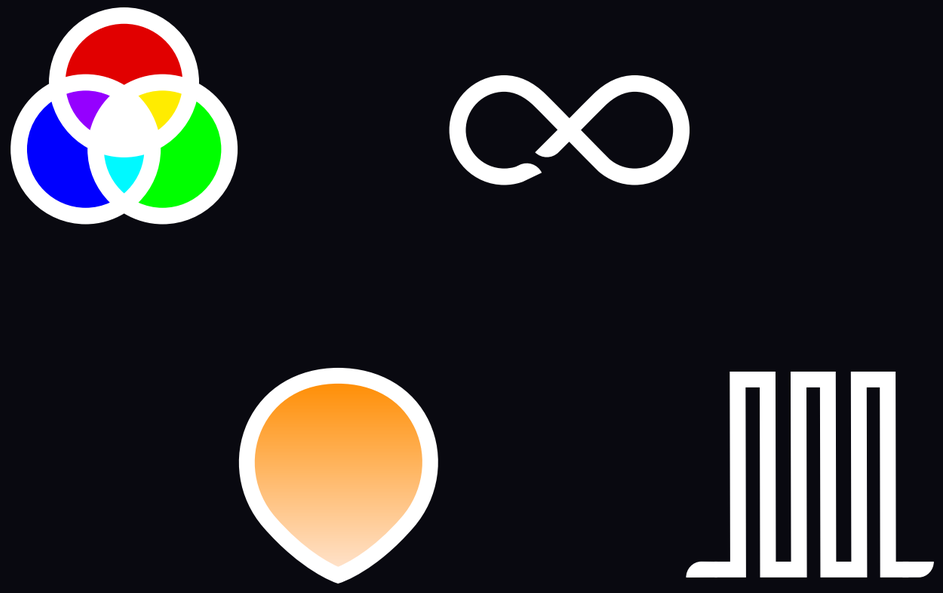
INTILED



INTILED

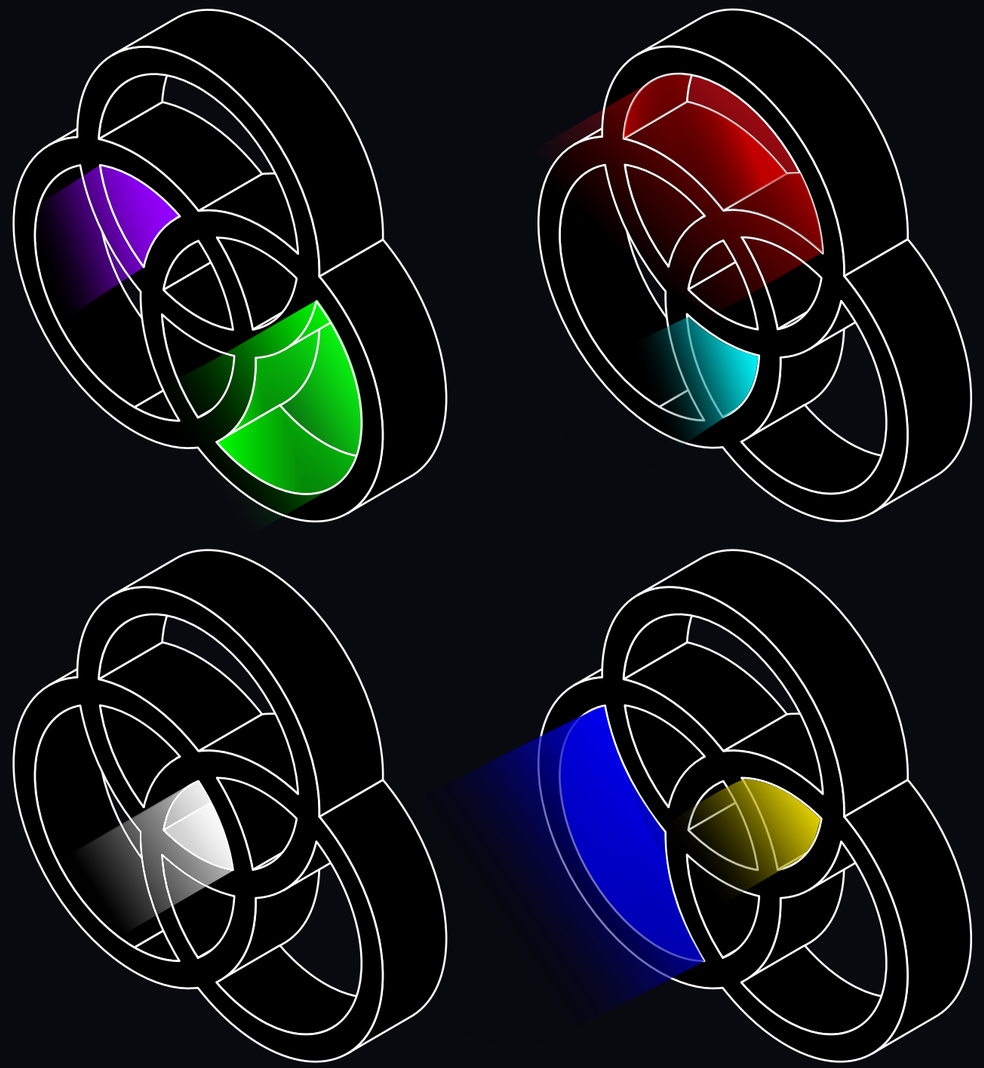
For years, INTILED has been at the forefront of architectural lighting design. Our deep expertise and unparalleled know-how in this niche set us apart.

Here we present our proven technical solutions — innovations in different periods of work that have become second nature to our team. We believe lighting professionals and clients who demand perfection shouldn't have to compromise.



ColorPro®

INTILED's software algorithm for multi-channel fixtures. It enables using the full available power of the fixture to achieve maximum brightness for both individual colours (R, G, B) and colour combinations, within the fixture's total maximum power limit.



ColorPro®

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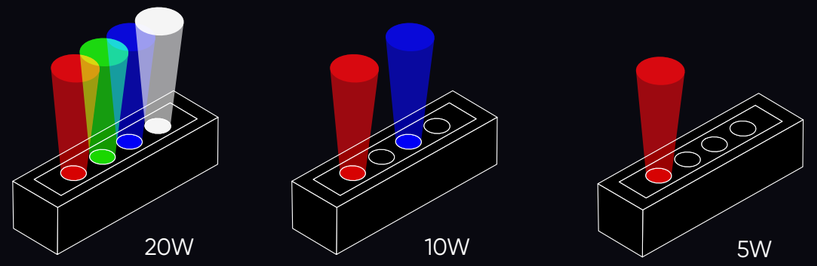
In standard multi-channel fixtures, power is divided equally among channels. For example, a 4-channel fixture (R+G+B+W) with 20W total power would allocate maximum 5W per channel.

A standard luminaire with a total power 20W



ColorPro®

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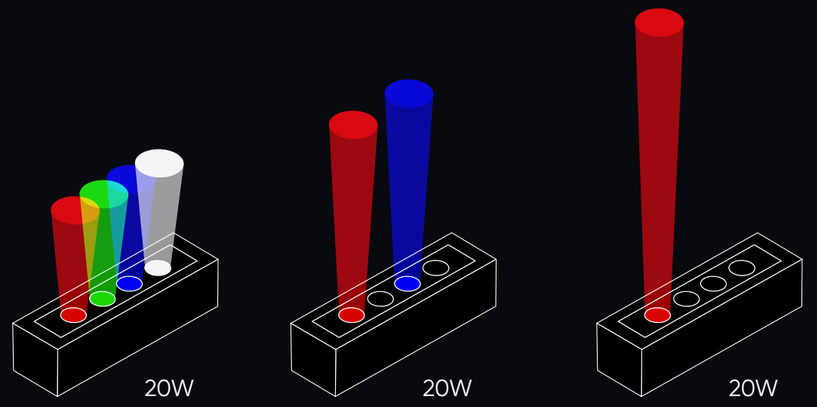
With INTILED's ColorPro® technology, the fixture always operates at full power, whether using a single colour or all colours in a scene.



ColorPro®

INTILED

Even simpler: the fixture's maximum power output remains constant, eliminating the need to oversize cables and power supplies in the project design.

All calculations can be performed in advance with maximum accuracy, including energy consumption calculations for various ratings/certifications (such as LEED), making them simpler and much more precise.

ColorPro®

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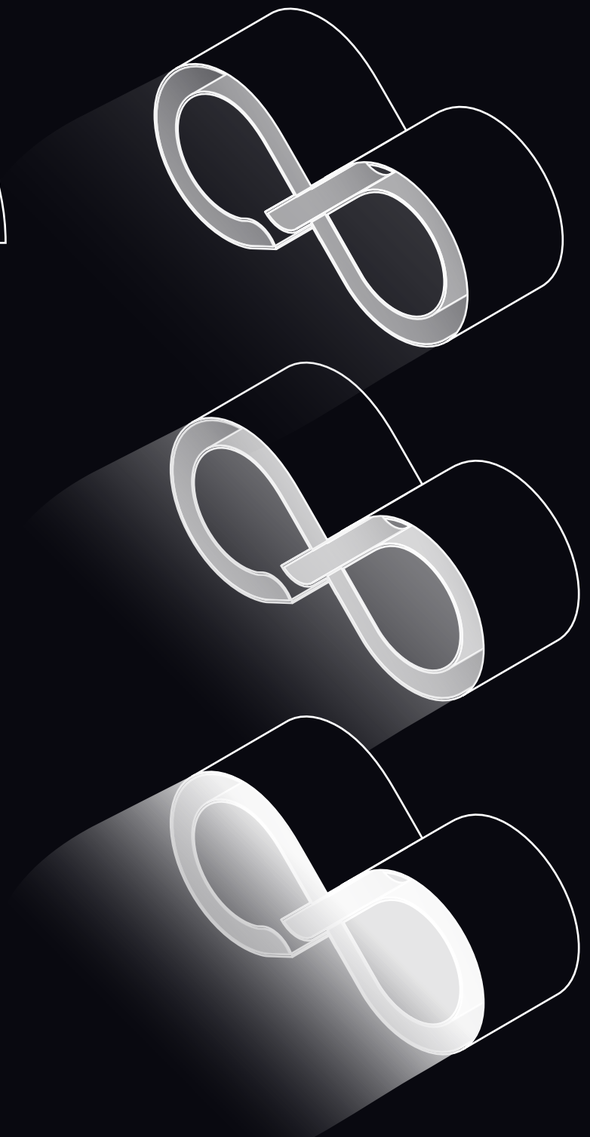
The technology is implemented through INTILED-developed LED power modules combined with specialized firmware for all lighting fixtures.

INTILED

EternalTechnology®

The continuous internal temperature monitoring technology of the lighting fixture.

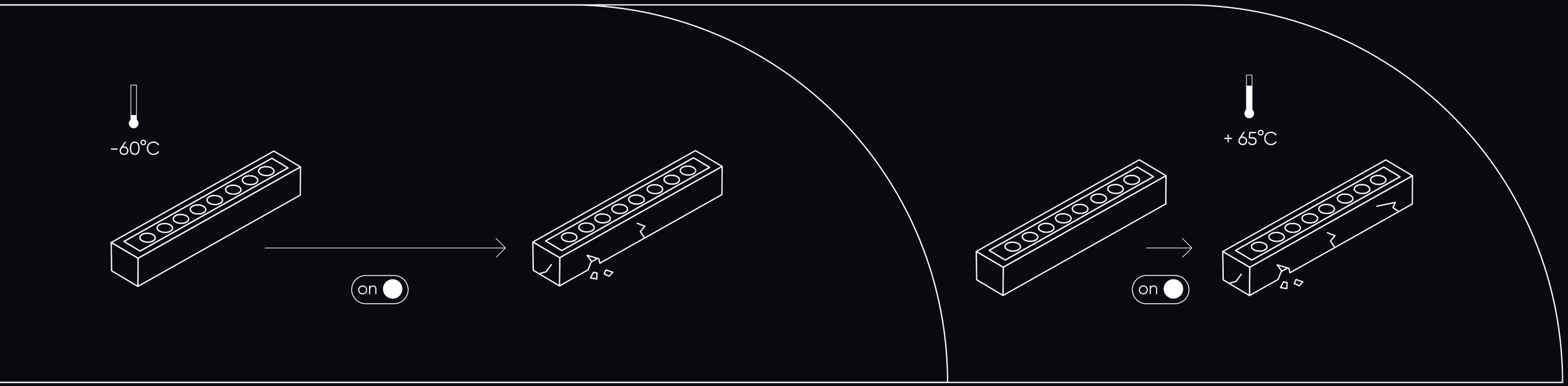


EternalTechnology®

INTILED

At subzero ambient temperatures during fixture startup, very high reactive resistance may occur in internal components. This reactive resistance causes rapid temperature rise in conductors, which can fracture due to thermal expansion. This issue is particularly critical for green LED due to their unique construction.

At high temperatures, components may heat to critical levels, and LED are extremely sensitive to heat.

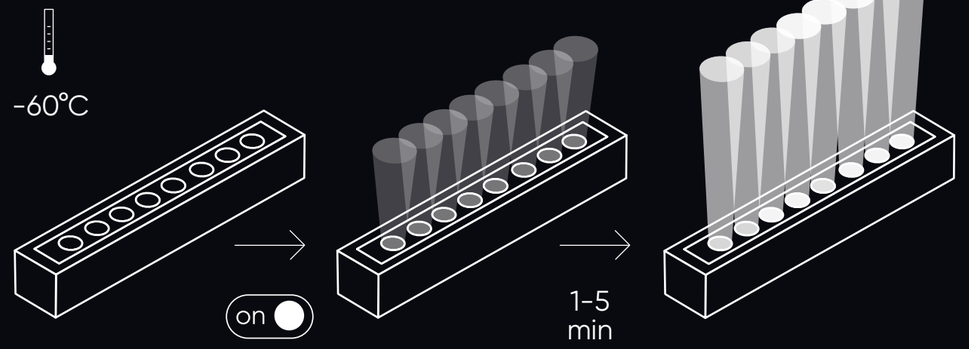


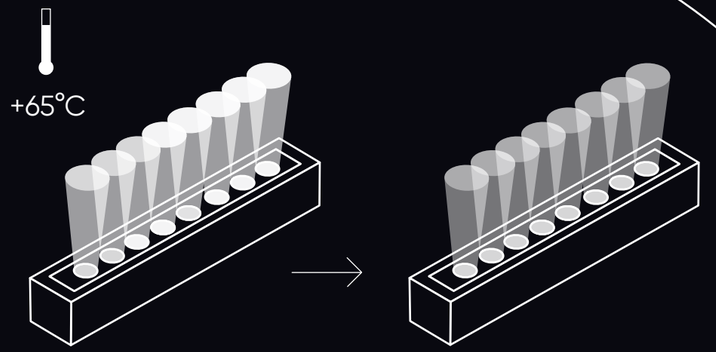
EternalTechnology®

INTILED

In subzero conditions, the fixture implements a soft start: reaching full brightness takes 1 to 5 minutes depending on ambient temperature.

At high positive temperatures, when components reach predetermined critical temperatures, the system gradually reduces brightness in a manner imperceptible to the human eye. Brightness is inversely proportional to fixture temperature: as heating increases, brightness decreases accordingly.





EternalTechnology®

INTILED

The technology is implemented in practice through a system of sensors, detectors, and a temperature control module installed in the lighting fixture, which regulates current supply to the LED.

The application of this technology ensures reliable operation of the fixtures under extreme temperatures ranging from -60°C to +55°C.

This technology is utilized in INTILED lighting fixtures of Marine, Arctic, and Tropical versions.

100% Marine

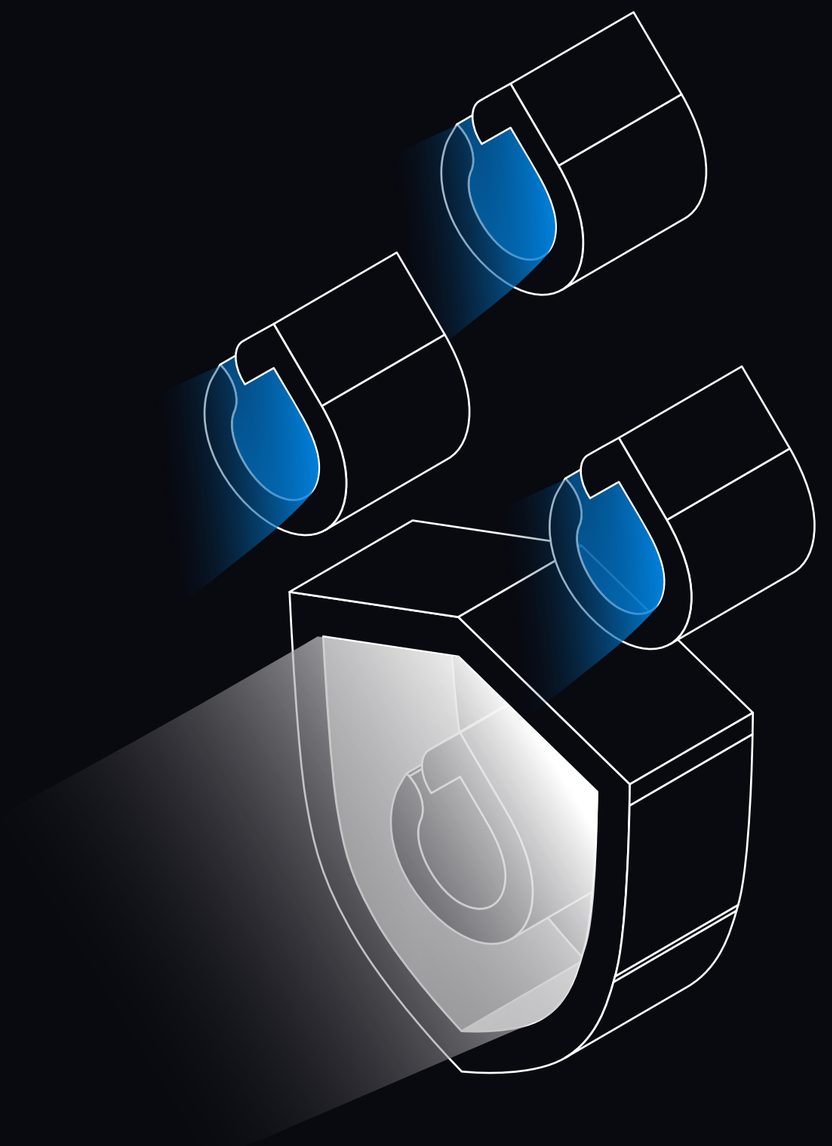
Arctic

Tropical

INTILED

Aquatech™

The multi-stage water protection technology used in all INTILED fixtures with IP66 to IP68 ratings.



Aquatech™

INTILED

High-quality seals maintain their properties across wide temperature ranges and when exposed to aggressive environments.

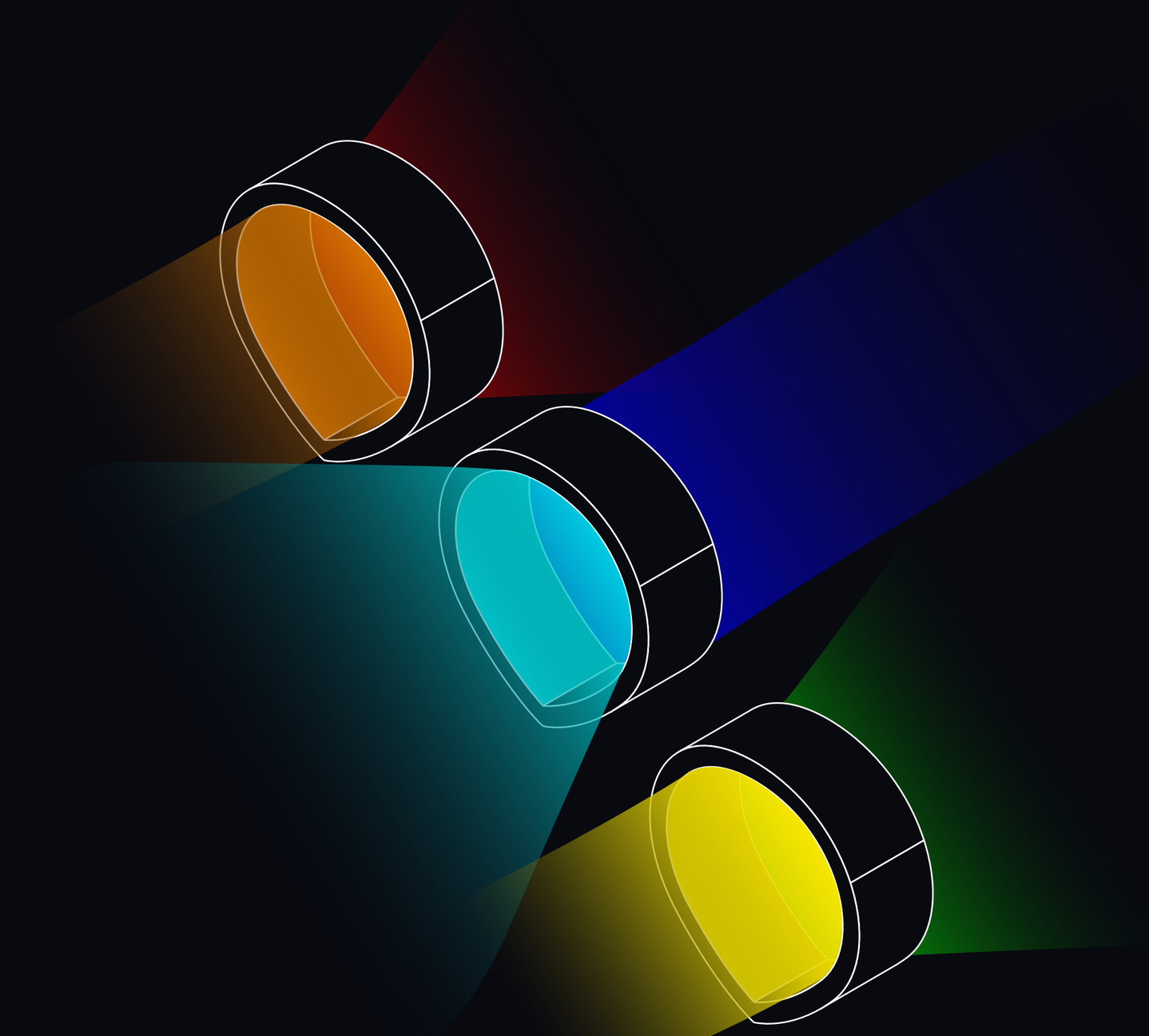
Specialized cable assemblies made from hydrophilic materials prevent longitudinal water penetration.

The technology of potting incoming cables with hydrophilic compound. Brass cable glands and ventilation valves.

INTILED

Truelight™

A comprehensive system of solutions and approaches that enables flawless lighting effects regardless of the light colour, optic type, or fixture design.

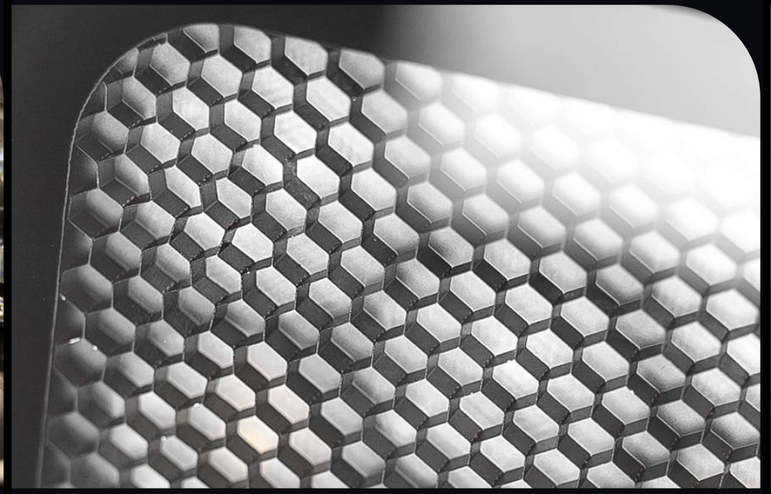


Truelight™

INTILED

The implementation of specialized acrylic or PMMA optics with high Abbe numbers (>55) minimizes dispersion.

The integration of secondary optical elements (louvers, baffles, honeycombs) eliminates stray light beam not directed at the façade.



Truelight™

INTILED

The use of white LED manufactured using WICOP technology (Wafer Integrated Chip on PCB).

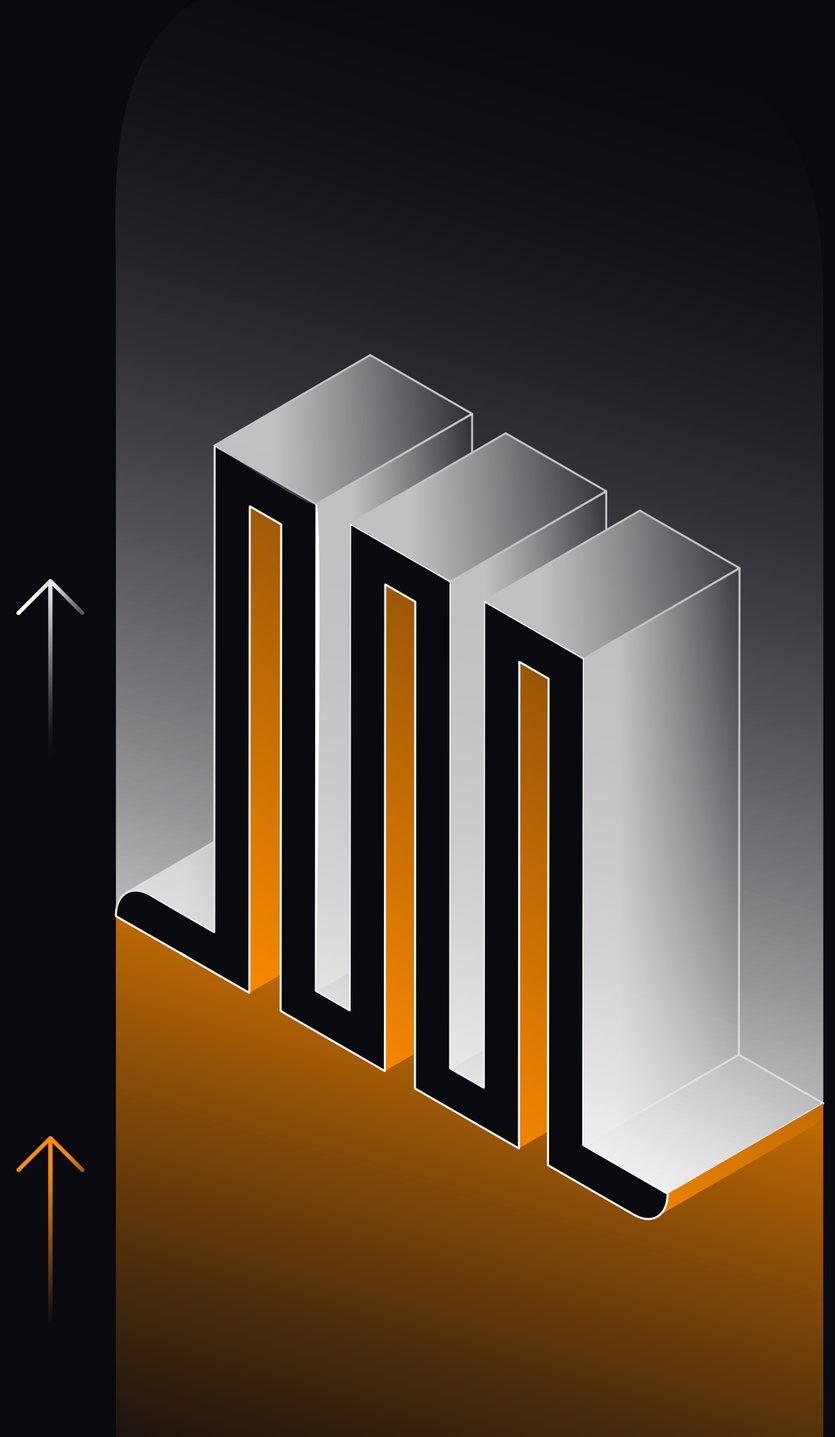
For multichip LED: strict binning by dominant wavelength within ±3 nm.

For white LED: strict binning by colour temperature within 2 MacAdam ellipses. Only the top 2 brightness bins are used.

INTILED

COOLight™

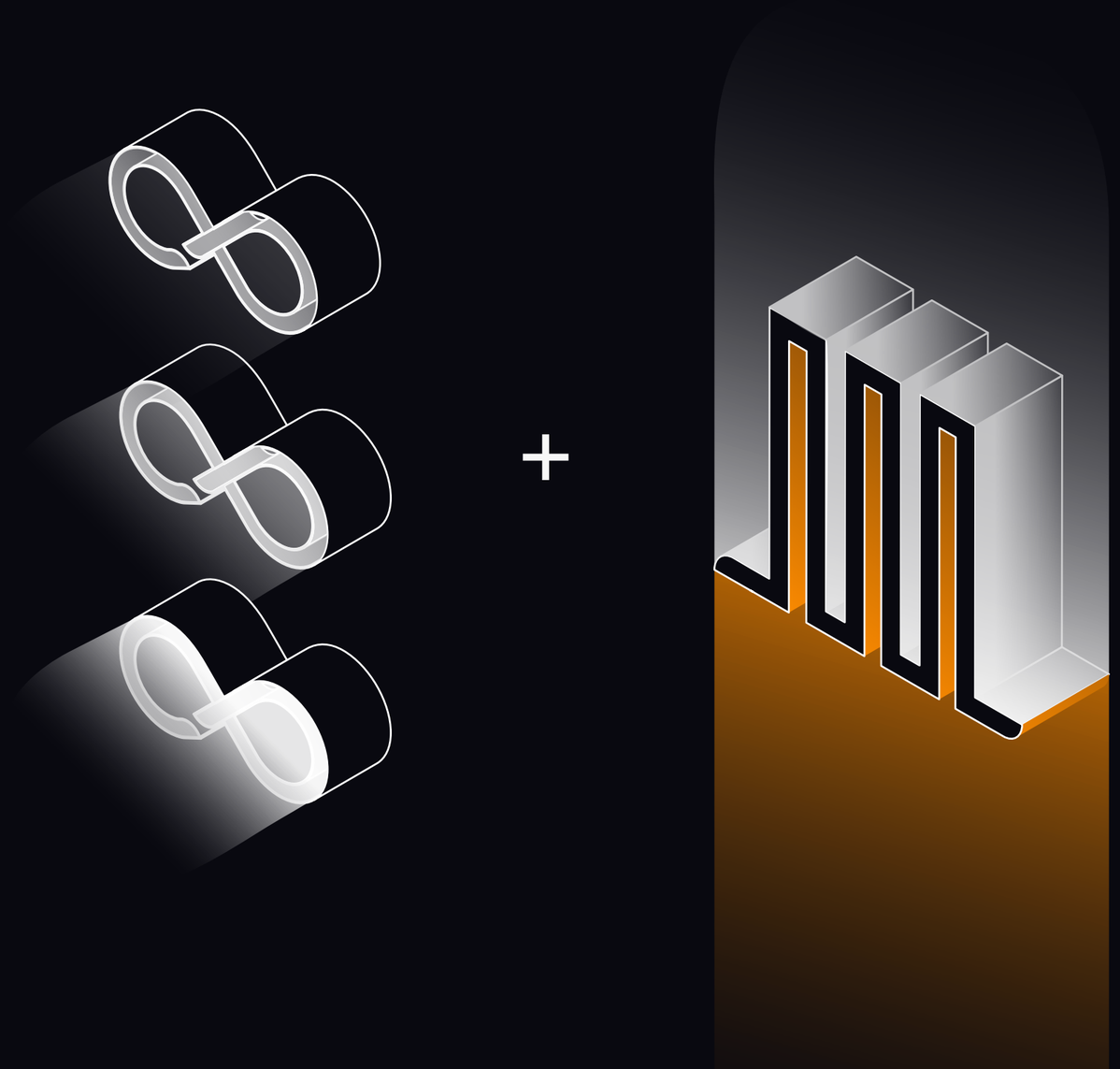
A comprehensive thermal management solution for INTILED lighting fixtures.



COOLight™

INTILED

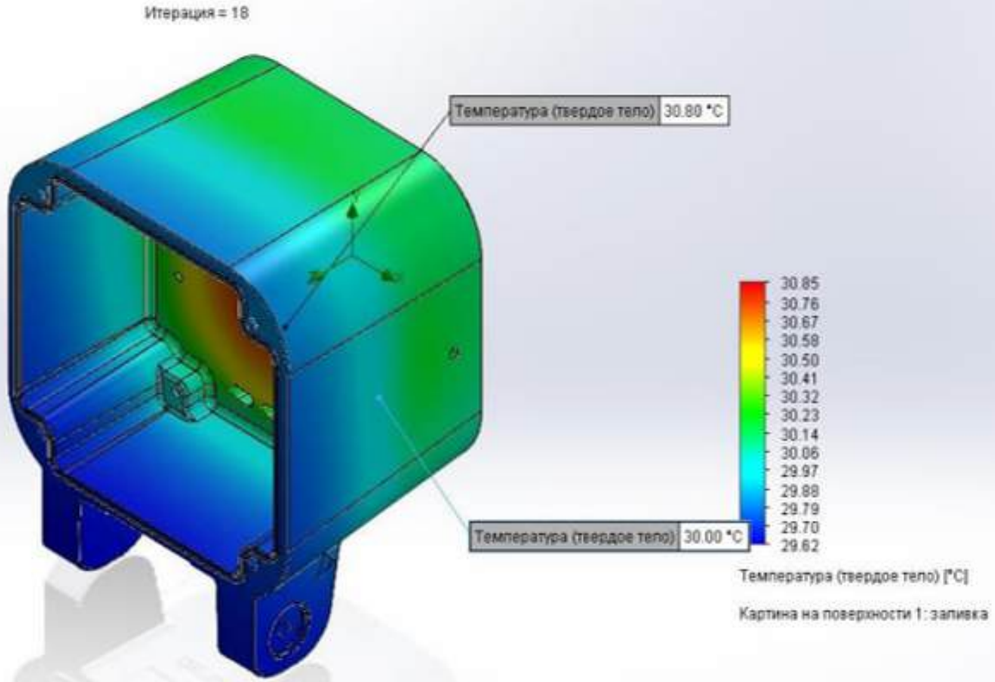
The COOLight technology works perfectly in combination with the Eternal technology. Both technologies are designed to increase the fixture's efficiency and reduce LED degradation, consequently extending the product's lifespan.



COOLight™

INTILED

During fixture development, a two-stage thermal simulation of the housing is performed.



COOLight™

INTILED

All calculations and simulations account for the maximum number of challenging factors to ensure sufficient thermal headroom in real-world operating conditions. For example, the most thermally challenging position with the fixture mounted light-emitting surface facing upward is used as the baseline for calculations.
Additional accessories to mitigate stray light (such as louvers, grilles, etc.) are always included in the simulation, further increasing the thermal load.

INTILED

Light. Done right.

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