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CEVONIC

Core Protection. Consistent Illumination.

Advanced Ceramic LED Lighting Solutions
Across Livestock, Horticulture & Outdoor Sectors

Cevonic Lighting

Cevonic.com

70 years of Expertise
One Shared Mission: Engineered to Endure

At Cevonic, our mission is to engineer and manufacture the world's most durable lighting solutions for the most complex and volatile environments. Built on a foundation of advanced material science, Cevonic was established by a team of industry veterans and material scientists possessing over 70 years of collective LED expertise.

Our technological breakthrough begins at the component level. Rather than relying solely on external fixture housing, we introduce protection at the fundamental source. Utilizing our proprietary, self-developed fluorescent ceramic technology, we apply a specialized crystalline shield directly over the LED chip. This innovative layer protects the light source at its core, isolating it from corrosive gases and environmental degradation. This ensures unprecedented longevity and stable lumen maintenance under extreme conditions where traditional materials fail.

Driven by a commitment to uncompromised reliability, Cevonic is backed by prominent family offices and pioneer leaders in the LED industry, securing over $20 million in investment to date. Today, we operate from an expanding, state-of-the-art 20,000-square-meter manufacturing facility, uniquely positioning us to scale and support mission-critical industries worldwide.

$20M+

Investment secured from prominent family offices and pioneer LED industry leaders

20,000m²

State-of-the-art manufacturing facility, purpose-built for scale and precision

30+Patents

Core invention and utility model patents across FTC material and packaging technology

70+Years

Combined team expertise in LED engineering and advanced material science

Rigorous Quality Control: Every single unit undergoes a 100% inspection from the assembly line to final shipment.

Lighting Engineered to Endure Complex Conditions

Around the globe, industrial lighting is subjected to brutal conditions—from the sweltering heat of factory floors, the corrosive fumes of livestock facilities and the heavy humidity of commercial greenhouses. Under these complex circumstances, standard LED lights invariably fail long before their time.

Every single component of a Cevonic light has been engineered from the ground up to solve this exact problem. By utilizing our exclusive **Fluorescent Transparent Ceramic (FTC) material**, we shield the LED chips right at their core. This advanced protection allows Cevonic lights to operate flawlessly in extreme environments where ordinary LEDs simply give out.

Unmatched Reliability

Engineered to endure extreme heat, corrosive gases, and high humidity. Cevonic lights maintain peak performance without the degradation or premature failure common in traditional, silicone-based LEDs.

Tested: 90% humidity + 15 ppm H_2S for 168 hours — zero surface change Resistant to ammonia, acids, alkalis and salt spray, anti-sulfurization

Exceptional Longevity

Industry benchmark: conventional LEDs degrade 15% in 3 years.
Cevonic: less than 5% degradation after 100,000 hours (≈8+ years).

- **LM-80 certified:**
  L90B10 @ 52,000h; L80B10 @ 102,000h. 8-year warranty

Lower Total Cost of Ownership

Fewer replacements. Near-zero maintenance. Lower Long-Term Operating Costs.

- **30%+ energy savings** vs. conventional LED at the same output
- Over a 10-year lifecycle, upgrading to Cevonic fixtures reduces total cost of ownership (TCO) by up to 60% compared to standard industrial lighting

One Investment
A Decade of Savings

One Investment. A Decade of Clarity.

A lighting system's real cost is more than just your initial payment. You will also incur ongoing costs from maintenance service visits, replacement lamps, unnecessary power consumption from subpar dimming, and unforeseen breakdowns once your warranty coverage ends. Since every facility operates under unique conditions, there is no one-size-fits-all cost estimate. It is worthwhile to carefully evaluate these hidden expenses when selecting your lighting solution.

10 YEARS

Replacement Frequency 1

Suppose each light only needs replacing once in 10 years: your costs include not just new lamps, but also installation labour, production downtime and all the disruptions brought by unexpected maintenance. If your site has over 100 fixtures, one batch replacement may cost as much as—or more than—the extra money you spend choosing premium lights over standard models.

You will recoup the premium investment simply by eliminating one round of fixture replacements.

Lumen Maintenance 2

Most standard LED lights lose 15% brightness within just three years.

Though the fixtures are still functional and under warranty, the lighting environment for your livestock fails to meet your original requirements.

In agricultural planting, lumen loss inhibits photosynthetic nutrient production, triggering plant spindling, stunted growth, poor bud differentiation, blossom and fruit drop, lower crop yields, degraded produce quality and weaker disease resistance. Higher power bills further erode farmers' profit margins. For industrial facilities, inadequate workshop illuminance creates safety risks, cuts operational and QC efficiency, and drives up maintenance and energy expenses.

You end up paying the same electricity fees for far less luminous efficiency.

Adopting Cevonic FTC fluorescent transparent ceramic technology, our luminaires keep light degradation below 5% for 8 years or longer. This advantage stems from the material's own properties, rather than mere promotional guarantees.

Steady light output guarantees your lighting system runs in line with design specifications throughout its whole service life, fully safeguarding your investment.

Warranty Coverage 3

Any equipment failure occurring once warranty coverage ends means you must fully cover all costs: on-site maintenance, replacement parts and losses caused by suspended operations. You will have no access to after-sales protection, claims compensation or risk sharing with the supplier.

A longer warranty period greatly reduces your exposure to unforeseen maintenance expenses.

The length of your warranty is never just a number; it serves as a clear commitment from the manufacturer to stand behind the quality and reliability of its products for years to come.

Scale Matters 4

For facilities fitted with 100, 200 or over 500 luminaires, all the gaps we have covered will be magnified through cumulative effects. A 10% variance in replacement frequency makes a striking financial difference in large-scale projects. Slight improvements in light output consistency generate substantial long-term benefits when applied across hundreds of fixtures operating round the clock for years.

Lighting brands are truly distinguished by their total cost of ownership, not upfront purchase pricing, but performance and expenditure over the whole lifespan of the lighting system.

In large-scale applications, small strengths accumulate into huge returns, whereas tiny flaws inevitably lead to heavy ongoing costs.

At a 100-fixture site operating over 10 years, the cumulative impact on total cost of ownership becomes highly pronounced when you eliminate one full replacement cycle, preserve stable lumen performance, and keep your fixtures protected under warranty throughout your most critical service years.

We don't calculate that number for you.
Because every facility is different.
But we invite you to run it for yours.

Comparison Table (What shapes your 10-year total cost)

Cost Driver	Typical Scenario	Cevonic Scenario
Initial investment	Comparable across brands	Comparable across brands
Lumen output stability(yr 1-8)	Lumen decay > 5%	**<5% decay—FTC ceramic**
Replacement likelihood (10yr)	1–2 times, typica	**Minimal—designed for longevity**
Maintenance Labor	Reactive, unplanned	**Reduced—stable output**
Warranty coverage	Industry standard	**Extended—engineering-backed**
Total cost trajectory	Rises with each event	**Controlled total cost with minimal incremental expenses**

***<5% lumen decay** Measured at year 8+ under standard operating conditions. FTC fluorescent transparent ceramic — not a marketing claim. A material property.

***8-year warranty** Backed by material science and engineering — not just commercial policy. Our warranty commitment is a reflection of how we build the product, not how we sell it

We Shield the LED Chip at Its Core —Not Just From the Outside

Protection from the inside out. While other manufacturers just build tougher outer casings, Cevonic protects the LED chip itself. Our exclusive Fluorescent Transparent Ceramic (FTC) technology seals the chip in a crystalline ceramic layer—stopping the root causes of LED failure before they even start. This isn't standard commercial tech. Backed by 20 years of advanced materials research, this technology was originally developed for defense and aerospace. Today, we've engineered it to survive the toughest environments on Earth.

Superior Corrosion Resistance

Featuring an inorganic, impermeable structural design, our products deliver comprehensive isolation from ammonia, acids, alkalis, hydrogen sulfide, high-temperature steam and salt mist. They are perfectly suited for livestock breeding houses, coastal projects and facilities deployed near chemical plants. (Rigorously validated via a 168-hour endurance test in an environment with 90% relative humidity and 15 ppm hydrogen sulfide)

Thermal Stability

When exposed to 250°C high temperature, ceramic LED substrates only see a 15% drop in internal quantum efficiency (IQE), compared to a steep 45% decline for silicone-based alternatives. Once cooled back down to 25°C, ceramic substrates fully restore their original performance, while silicone suffers an irreversible efficiency loss of over 10%. Our luminaires consistently retain stable luminous output even under extreme high-temperature operating conditions.

Excellent Thermal Conductivity

Ceramic substrates offer thermal conductivity above 20 W/m·K, roughly 100 times higher than silicone's mere 0.2 W/m·K. This superior heat dissipation lowers LED junction temperature by 3–10°C, drastically prolonging chip service life. As a proven industry rule, every 10°C drop in junction temperature doubles the expected lifespan of electronic components.

No Color Shift

Phosphor particles are evenly embedded inside the ceramic matrix without sedimentation or positional shift. This delivers ultra-low SDCM color deviation, high color rendering index, uniform light spots and complete elimination of yellow halation.

Outstanding Mechanical Durability

Boasting hardness close to sapphire, ceramic structures withstand heavy mechanical impact and abrasive erosion caused by wind-borne particles. The material supports precision processing to guarantee stable optical focusing performance.

Material Comparison

Property	Traditional Silicone	Cevonic FTC Ceramic
Thermal conductivity	~0.2 W/m·K	>20 W/m·K
Lumen decay @ 100,000h	>15%	<5%
Corrosion resistance	Poor	Excellent
Color stability	Prone to shift	No shift
UV resistance	Degrades over time	Inherent

Farm-hardened Lighting Engineered to Safeguard Your Bottom Line

Livestock facilities present incredibly harsh and complex environments for standard illumination. Corrosive ammonia, high humidity, and wild temperature swings usually destroy regular LEDs in just a few months. We recognize that modern farming requires more than just basic light—it demands a resilient biological tool.

To address these challenges, Cevonic introduces Hullray, **our livestock lighting solutions**. Combining Cevonic's advanced optical research with deep farming expertise, Hullray solves environmental vulnerability at the source. Engineered with our signature ceramic-shielded chips, these solutions provide stable, reliable light that actively improves animal welfare and farm productivity.

Livestock

Hullray
Livestock Lighting Solutions

168h

Survive the Environment

Tested under 90% RH + 15 ppm H_2S for 168 continuous hours — zero degradation. Impervious to ammonia, corrosive gases, and chemicals.

Yield+

Promote Animal Health & Productivity

Light designed for animal biology. We scientifically optimize our lighting spectra to match the visual physiology of poultry, swine, and cattle. By delivering the precise lighting cycles and intensities animals need, Our Hullray Livestock Lighting Solutions reduce stress, supports natural circadian rhythms, and improve feed conversion—directly boosting both yield and animal welfare.

8 yr

Reduce Farm Operating Costs

8-year warranty. Lamp life >100,000 hours. Compared to conventional lamps replaced every 5-6 years, our Hullray Livestock Lighting Solutions reduce lighting operating expense by over 40% across a 10-year farm operation cycle.

Application Scenarios:

- Poultry Housing (Layers & Broilers)
- Swine Barns
- Dairy & Beef Cattle Facilities
- Manure Processing Zones
- High-Temperature & High-Humidity Disinfection Areas
- 24-Hour Supplemental Lighting for Livestock Brooding

Your Forever Farm Lighting Investment.

Farm lighting failures cost far more than just a new fixture. Unplanned downtime harms animal wellbeing, interrupts breeding schedules, reduces milk output and adds extra labour overhead. Leveraging Cevonic's worldwide materials science expertise and proprietary FTC platform, Hullray offers corrosion-free long-lasting performance built for today's intensive livestock farms.

Product Overview Table

Model	Power Range	IK	Beam Angle	IP Rating	Warranty
T5	3W/4W/5W/6W/8W	IK06	130°	IP67/IP69K	8yr
T8 (T8-01/T8-02)	10W/18W/20W/24W	IK08	170°	IP67/IP69K	8yr
T16 (T16-01/T16-02)	20W/24W/30W	IK08	360°/120°	IP67/IP69K	8yr
T21	30W/50W/60W/70W	IK08	120 °	IP67/IP69K	8yr
HB01 (Standard Glass/ Dual-Circuits Glass)	60W/80W/100W 120W/150W	IK07	120°	IP67/IP69K	8yr
D80	7W/9W/10W/12W/15W	IK06	300°	IP67/IP69K	8yr
D150	15W	IK08	120°	IP67/IP69K	8yr
FL01	50W/80W/100W/ 150W/200W/300W	IK08	T030-000/T060-000/T090-000/ T140-050/T060-010/T125-055	IP66	8yr

Full-spectrum Precision Engineered for Growth

Plants cannot utilize generic white light for growth—only targeted wavelengths power photosynthesis, vegetative growth and blooming. Built on our unified ceramic LED platform, Cevonic horticultural lights feature custom-engineered spectra that perfectly match plant photoreceptor response profiles, maximizing cultivation efficiency and crop yields to boost the healthy growth and development of plants.

Horticulture

Excellent Chemical Resistance 1

Constructed with chemical-resistant casing and lenses, our grow lights withstand frequent spraying of pesticides, fertilizers and agrochemicals in cultivation environments. They resist surface corrosion, lens fogging and yellowing caused by chemical residues, maintaining stable light transmittance and consistent spectrum for long-term commercial planting.

Stable & Consistent Output 2

Our lights deliver zero color shift and negligible lumen depreciation throughout service life. The spectrum remains highly consistent from first use to end of lifespan, laying a reliable foundation for predictable crop cycles and uniform harvest quality across your entire planting area.

High-Scale Energy Efficiency 3

Boasting high luminous efficacy (lm/W) paired with purpose-designed targeted spectra, our fixtures avoid energy waste by eliminating wavelengths unutilized by plants. Compared with traditional high-pressure sodium (HPS) lamps, they slash electricity expenditure and support stable year-round indoor cultivation.

High Humidity & Moisture Resistance 4

Featuring fully sealed housing and IP66/IP67 waterproof rating, our grow lights effectively block moisture, condensation and water splashes in high-humidity planting environments including greenhouses, hydroponic farms and vertical plant factories. Internal circuits and LED chips are protected from corrosion and short circuits, delivering stable long-term lighting performance under constant relative humidity of 85% and above. This significantly cuts maintenance and fixture replacement costs for commercial cultivation projects.

No Color Shift & Consistent Spectrum Performance 5

Our grow lights maintain a constant color temperature throughout their entire service life. Even after prolonged continuous operation in high-temperature and high-humidity greenhouses, no color drift, spectral deviation or tonal shift occurs. Uniform lighting delivers the same light recipe to crops on every planting rack, preventing uneven growth and irregular flowering and fruiting due to temperature fluctuations, and ensuring synchronized crop maturation and consistent harvest quality.

UV-Resistant Construction 6

Built with UV-stabilized housing and advanced ceramic crystal materials, our fixtures offer an institutional-grade leap in anti-aging performance compared to traditional organic silicone materials. This advanced construction resists yellowing and material degradation under intense, long-term UV exposure in greenhouses. As a result, both spectrum and luminous output remain stable over time, significantly extending service life and securing consistent lighting conditions for crops.

Spectrum Customization 7

We offer both full-spectrum and targeted narrow-band spectral configurations, precisely optimized to suit every key growth phase of crops: seedling cultivation, vegetative development, blooming and fruiting.

Application Scenarios:

- Vertical farms
- Commercial greenhouses
- Research facilities
- Indoor cultivation rooms
- Seedling nurseries

Product Overview Table

Model	Power Range	Size	Beam Angle	IP Rating	Warranty
TPL01-300	300W	1160*80*150mm (45.7"*3.15"*5.9")	120°	IP66	5yr
TPL01-600	600W	600*80*150mm (45.7"*3.15"*5.9")	120°	IP66	5yr
TPL02-800	800W	700*315*112mm (27.56"*12.4"*4.41")	120°	IP54	5yr
OPL01-720	780W	1200*1160*45mm (47.24"*45.67"*1.77")	120°	IP54	5yr
RPL01-150	150W	1160*80*110mm (45.67"*3.15*4.33")	210°	IP66	5yr

High-power Precision
Built for Open Skies And Open Schedules

Outdoor lighting needs to run reliably year-round, regardless of seasonal shifts, extreme weather and long-duration continuous use. Built on high-output ceramic LED technology with precision optics and heavy-duty structural durability, Cevonic outdoor lights are wind-resistant up to Grade 17. They provide uniform, low-glare illumination for sports facilities, highways, plazas and expansive outdoor sites.

Outdoor

261K lm

High-Output Performance

Each luminaire delivers an impressive luminous flux of up to 174,000 lumens at 1200W and 261,000 lumens at 1800W, paired with a maximum luminous efficacy of 165 lm/W. A wide selection of beam angle configurations is available, including 22°×100°, 30°×40°, 40°×70° and Type III optical distributions.

IP66

Superior All-Weather Reliability

Featuring an IP66 ingress protection rating and IK08/IK09 mechanical impact resistance, these fixtures can withstand wind forces up to Grade 17. The tempered glass cover effectively slows lumen depreciation and maintains stable optical performance throughout the product's service life.

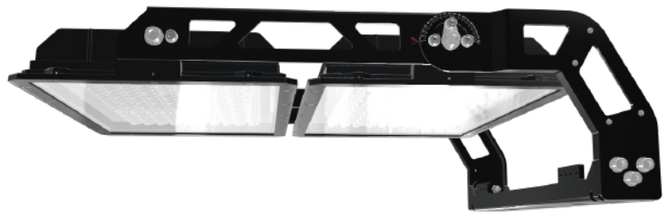
Smart

Intelligent & Versatile Control

The lights support 0–10V analogue dimming, with non-dimming versions also offered. Featuring a separated power supply chamber and modular LED design, they ease structural stress on mounting poles while enabling fast, straightforward maintenance. The luminaires are fully compatible with smart lighting management platforms.

Application Scenarios:

- Sports venues (football, basketball, tennis)
- Road & highway lighting
- Public squares & plazas
- Parking areas
- landscape lighting



Product Overview Table

Model	Power Range	IK	Beam Angle	IP Rating	Warranty
SL03	600W/1200W/1800W	IK08	15°/25°/30°/40°/60°/90° 110*40°/135*60°/140*65°	IP66	10yr
SL04	600W/800W/1000W /1200W	IK09	12°/15°/22°/25° /40°/60°	IP66	10yr
SL05	200W/400W /600W	IK09	T030-000/T120-045	IP66	7yr
SL06	300W/680W /900W/1200W	IK09	T030-000/T120-045 /T130-065	IP66	7yr
SL07	250W/500W /750W/1000W	IK09	T030-000/T120-045 /T130-065	IP66	7yr

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Let’s Build Something Made to Endure

From livestock operations and commercial greenhouses to Outdoor facilities, Cevonic builds lighting engineered for your exact environment. We work directly with distributors, system integrators, local sales rep, wholesale, project implementation and B2B clients worldwide. Plus, you don't have to figure it out alone—We empower our global partners with reliable technical backing to win more lighting project orders in your local market.

Website
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Social Media

Facebook **YouTube** **LinkedIn**

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