



ALL LIGHT[®]
better than before



ALL-LIGHT INNOVATION

BOOK 2025

Better Light Through ALL-LIGHT



**ALL-LIGHT's light is different.
It's technology, it's consideration, And most of all,
it's a choice made for people.**

ALL-LIGHT, under the slogan “Better than before,”

we believe that lighting is not just about illumination—
it's a technology that can transform lives.

As a specialized LED technology company, we are committed to continuous research and development to create lighting that is healthier, safer, and more energy-efficient.

Our goal is not simply to compete in brightness, but to deliver light that benefits people, the environment, and the future.

ALL-LIGHT lighting is already trusted in numerous homes, workplaces, retail spaces, agricultural and livestock facilities, and industrial sites.

Our products eliminate 100% of harmful blue light to protect eye health, provide optimized lighting for the growth of plants and animals, and are designed with low power consumption and high efficiency to save energy and support environmental sustainability.

Even at this very moment, we are thinking about how to create better light.

That is the kind of lighting ALL-LIGHT delivers—
Lighting empowered by technology.



OEM-Grade Reliability – Original Quality by ALL-LIGHT

We supply high-quality LED lighting for the OEM market as well as a wide range of industrial and commercial applications.

All our products are made using high-reliability components and undergo rigorous durability and luminous output testing.

- Proven track record supplying to numerous manufacturers and projects
- Broad compatibility from residential use to industrial applications
- Our own quality standards that exceed industry norms

ALL-LIGHT's Proprietary Technology – “Lighting for People and the Environment”

- Blue Light ZERO Technology

100% elimination of blue light to protect eye health and stabilize circadian rhythms

- Growth-Enhancing Light Technology

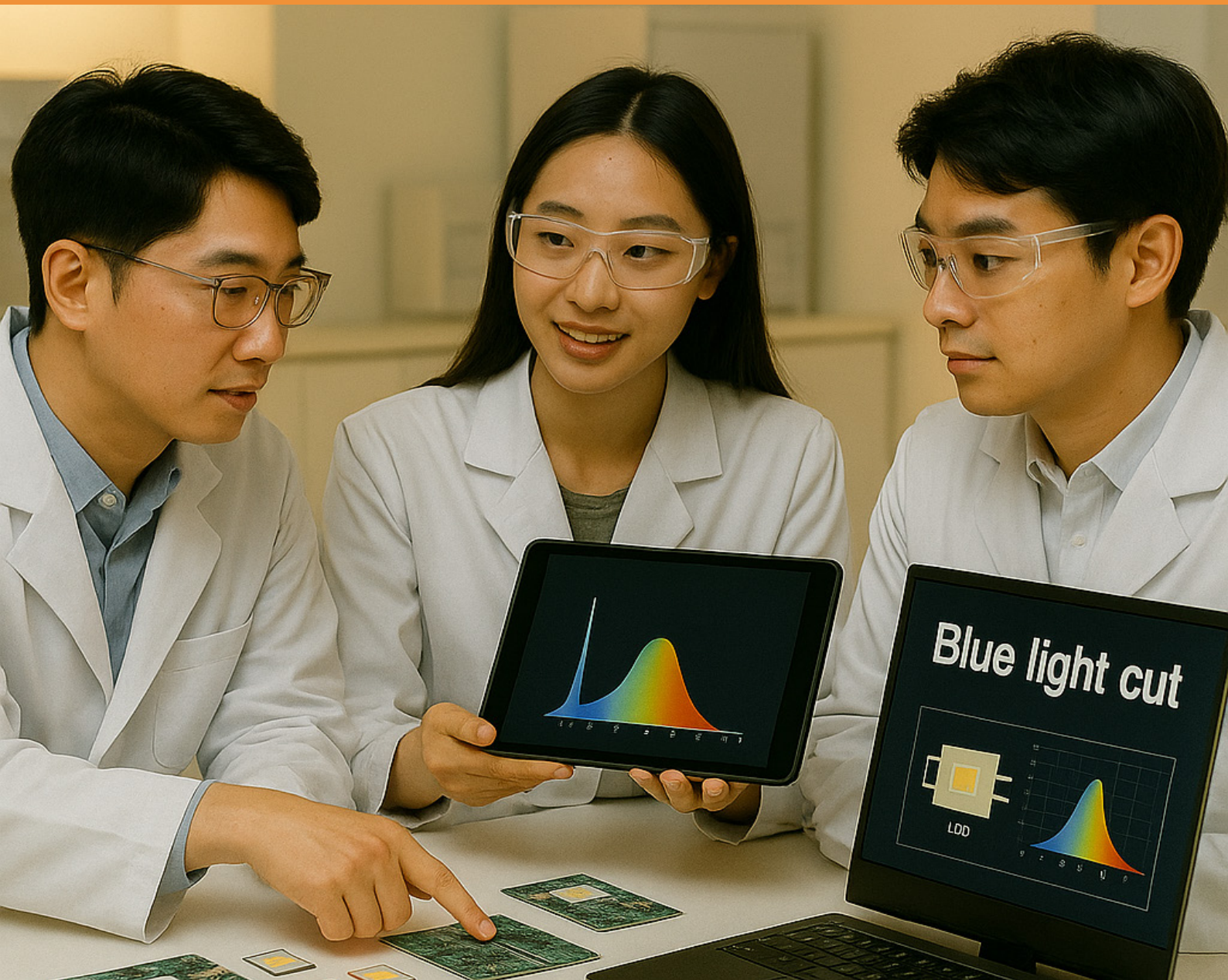
Custom wavelength design that promotes photosynthesis in plants, growth in livestock, and enhanced immunity in aquatic life

- Eco-Friendly, High-Efficiency Design

Sustainable design structure that delivers strong brightness with low power consumption

Key Technology

MAKE YOUR LIFE BETTER THAN BEFORE



Laboratory

**22-3, Changjangmaeul-gil, Bongdam-eup, Hwaseong-si,
Gyeonggi-do, Republic of Korea (18335)**

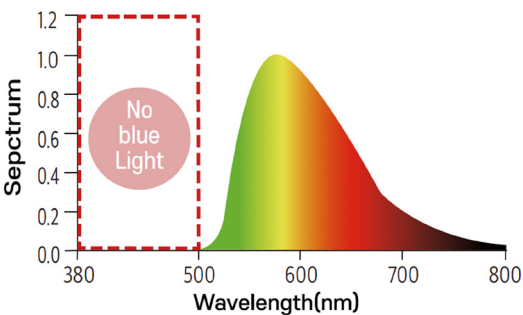


Blue Light ZERO Technology

100% Blue Light Elimination to Protect Eyes and Repel Insects

Technology Overview

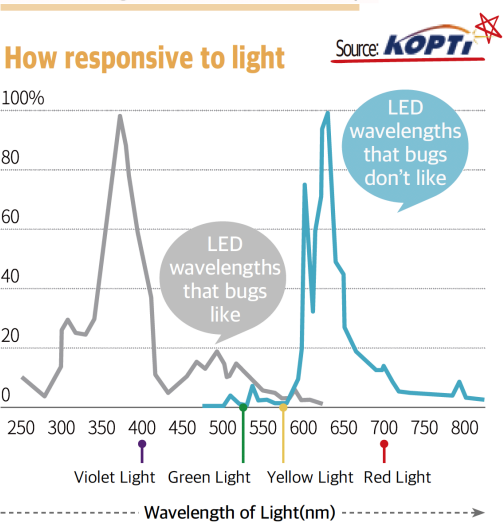
ALL-LIGHT has developed proprietary wavelength control technology that completely blocks blue light in the 380–500nm range—known to be the most harmful to the human eye. This technology offers dual benefits: protecting visual health and significantly reducing insect attraction.



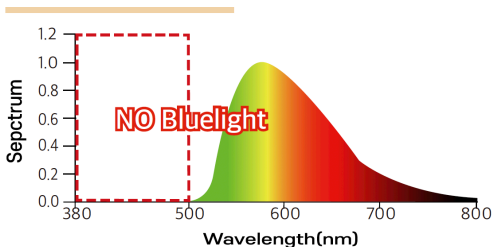
Technology Effects & Test Results

- Complete elimination of blue light wavelengths (verified through certified spectral testing)
- 94% reduction in insect attraction (based on 8-hour illumination test comparison)
- Proven human safety and increased visual comfort (based on comparative analysis)

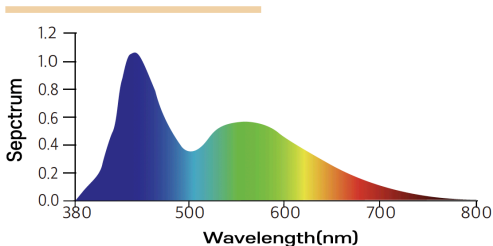
Pests and light love/hate relationship



ALL LIGHT LED



NORMAL LED



Growth-Enhancing Custom Wavelength

LED Wavelength Design Optimized for the Growth Conditions of Living Organisms

Technology Overview

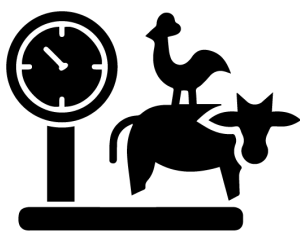
ALL-LIGHT has developed an LED solution that precisely controls specific wavelength ranges (450–660nm) optimized for plant and animal growth.

This technology enables both improved productivity and enhanced health outcomes through tailored light spectrums.

Background

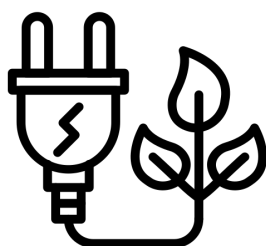
- All living organisms respond differently to light wavelengths, which can influence their growth rate and hormone secretion.
- Conventional LED lights emit uniform white light, which is inefficient for growth promotion.
- Red light (660nm) enhances egg-laying rates, while yellow light (590nm) stimulates growth acceleration.

Increased Productivity



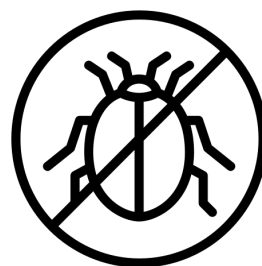
Optimized wavelengths promote faster growth in plants and animals, boosting yields and profitability.

Reduced Power Consumption



High-efficiency circuits cut energy use by up to 80%, lowering costs and supporting sustainability.

Pest Prevention



Blue Light ZERO blocks insect-attracting wavelengths, reducing pests and supporting eco-friendly environments.

(1) The importance of light to animals

- ❖ Light plays a crucial role in regulating sex hormones and fertility in animals.
- ❖ The light environment, including factors like wavelength, intensity, and exposure time, affects sexual maturation and egg-laying rate.
- ❖ Artificial lighting is used to prevent seasonal spawning in chickens due to varying sunlight hours.
- ❖ Maintaining adequate light intensity is essential for chickens to continue eating and ensure.
- ❖ maximum growth, sometimes requiring 24-hour brightness.



(2) LEDs: 80% Less Power, 8% More Productivity!

- ❖ LED lighting boosts egg production in laying hens by over 8% compared to incandescent bulbs.
- ❖ LED lights consume 80% less electricity, last longer, and lead to a 7.8% increase in productivity.
- ❖ Poultry farms can expect an annual profit of 10 US dollar per 300 square meters by using LED lights.

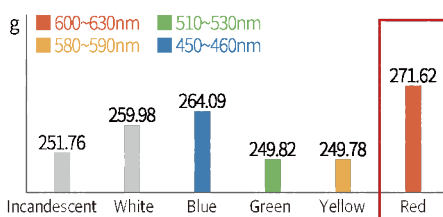
(3) "Animal Growth LED Bulb" Technology

Source: Korea National Institute of Animal Science

- ❖ With LED bulbs, the number of eggs laid increases by 7.8% due to the **abundance of red LED light**.

Number of eggs laid per LED wavelength

Laying hens laid 7.8% more eggs using red LED bulbs (271.62) compared to incandescent bulbs (251.76) over 59 weeks.



7.8%
increase of
Eggs

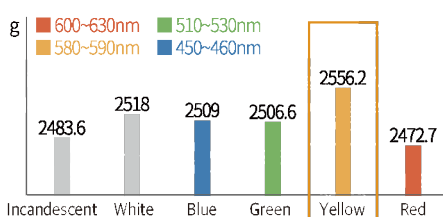
Increasing the average egg-laying rate of birds

Poultry, including chickens and ducks, have three types of photoreceptors that allow them to perceive a wider range of wavelengths than humans, with varying degrees of sensitivity to different wavelengths. The National Institute of Livestock Science tested how many eggs chickens laid over a 59-week period under different wavelengths of light (incandescent, white LED, and red LED bulbs). The results showed that chickens laid 271 eggs under red LED bulbs compared to 251 under incandescent bulbs, a 7.8% increase. This suggests that egg-laying hens require different lighting.

- ❖ LED bulbs increase broiler weight by 2.9% due to the **abundance of yellow LED light**.

Weight gain of chickens by LED wavelength

Broiler chickens gained 2.8% more weight in 5 weeks under yellow LED bulbs compared to incandescent bulbs.



2.9%
increase of
Productivity

Broiler (bird) weight gain

Switching to yellow LED bulbs can save farmers 80% on electricity and increase income by 18 million won per year, according to researcher Kim Min-ji. Poultry, like chickens and ducks, have photoreceptors that perceive a wider range of wavelengths than humans and are sensitive to different wavelengths. In a study comparing weight gain, chickens under a yellow LED bulb gained 2.8% more weight over five weeks compared to an incandescent bulb, with a weight gain of 2.48 kilograms and 2.55 kilograms, respectively.



Technology Overview

ALL-LIGHT's LED lighting achieves high efficiency of 105 lumens per watt through proprietary circuit design, enabling up to 80% energy savings compared to conventional products.

Performance Comparison

- Based on ALL_LIGHT standards:
 - o 5W consumption Up to 75% energy savings compared to competitors
 - o 105 lm/W efficiency Over 2× more efficient than standard products
- Energy Efficiency Rating: Achieved Grade 1 in energy consumption classification

Category	ALL LIGHT (Our company)	Company K	Company D	Company P	Company G
Energy Consumpti on Efficiency Rating	Grade 1	Grade 4	Grade 4	Grade 5	Grade 4
Luminous Efficacy (lm/W)	105	75	50	14	57
Power Consumpti on	5W	9W	12W	8W	7W



Anti-bacterial LED Technology

An Indoor Sterilization Solution That Eliminates Bacteria with Light







Technology Overview

ALL-LIGHT's antibacterial LED emits light at wavelengths above 405nm, achieving 99.9% sterilization effectiveness.

It delivers high-performance antibacterial action up to a 2-meter radius, even in indoor environments.

Test Results

- Completely eliminated Salmonella, E. coli, and Bacillus after 8 hours of exposure
- More than 10× improved sterilization range and performance compared to conventional lighting
- Maintains antibacterial functionality across color temperatures from 3000K to 6500K

	Salmonella Bacteria	E. coli O157	Bacillus bacteria
Conventional Anti-bacterial LED Lighting After 8 Hours			
Anti-bacterial LED Lighting After 8 Hours			



Deodorization & Skin-Friendly Spectrum

Lighting That Purifies the Air and Cares for the Skin

Technology Overview

ALL-LIGHT’s LED lighting utilizes specially designed wavelengths to remove harmful airborne gases while simultaneously delivering beneficial effects to human skin.

This represents an evolution of lighting—from simple illumination to an integrated solution for healthier indoor environments.

Background

- Indoor spaces are often exposed to various VOCs (Volatile Organic Compounds) and harmful gases.
- Skin reacts to specific light wavelengths, which can promote soothing, anti-inflammatory, and regenerative effects.
- Conventional LED lighting focuses mainly on uniform brightness, overlooking these wellness-enhancing features.



Excellent deodorizing/odor removal effect

Deodorizing efficacy testing was conducted by the Korea Institute of Chemical Convergence Testing and Research (based on a 100ppm testing standard)

	Types of gases	Reduction rate	Location
1	Acetaldehyde	31%	Newly built house or Incomplete combustion
2	Formaldehyde	18%	
3	Acetic acid	38%	
4	Toluene	34%	
5	Ammonia	27%	Bathroom, Farm



Skin-beautifying effect

There have been many reports about the impact of light on human skin. LED lighting provides abundant illumination, resulting in skin-beautifying effects.

Spectrum	Color	Impact on the skin
105nm ~ 414nm	Blue	Improvement of Acne and Warts
415nm ~ 525nm	Green	Skin Soothing Effect
526nm ~ 590nm	Yellow	Inflammation Relief
630nm ~ 660nm	Red	Collagen Strengthening, Whitening and Wrinkle Improvement, Hair Loss Relief, Cell Regeneration
800nm ~ 900nm	Undetectable	Prevention of Pigmentation Discoloration



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