

ONCE® Products Designed for Broilers, Breeders and Pullets

AgriShift® MLM-G for Broilers

The AgriShift® MLM-G is designed with Junglite Green™ technology, the most advanced agricultural lighting solution available on the market today. It provides an optimized jungle green color spectrum, with full dimming capability, essential for healthy bird growth and sexual development.

AgriShift® MLM-B for Broilers and Pullets

The AgriShift® MLM-B 10W fixture with Dim-to-Blue™ technology is an animal welfare-friendly poultry lighting solution. It is made with a Built For Your Barn® design and an optimized color spectrum with full dimming capability, meeting the birds' developmental needs at every stage of growth.

AgriShift® FL for Broilers

The AgriShift® FL (Feeder Light) generates illumination at poultry-specific wavelengths, drawing in birds while encouraging continuous feed supply and avoiding out of feed situations. Operating from the control pan motor circuit, the increased control pan feeding helps evenly distributes food throughout the entire line.

AgriShift® HL-UVA

Designed to focus on the ecological importance that ultraviolet (UV) perception plays in the welfare of animals, the AgriShift® HL-UVA is a first of its kind. It is highly efficient and made to target an animals' visual and non-visual photoreceptors, playing a role in directing desirable behavioral and physiological processes.

AgriShift® MLB for Broilers

The AgriShift® MLB offers an optimized species-specific, Dim-to-Blue™ color spectrum with full dimming capability, allowing producers to enhance production by controlling photoperiod and light intensity throughout the entire life cycle of the bird.

AgriShift® MLL for Breeders

The AgriShift® MLL makes it easy to improve production and animal welfare by providing a high light output where it is required, in battery containment systems, high ceilings and breeder operations. The Dim-to-Red™ technology used outputs a species-specific red spectrum essential for sexual maturation.

AgriShift® MLM-R for Breeders

The AgriShift® MLM-R makes it easy to improve production and animal welfare by providing species-specific daylight simulation. The red spectrum used has been shown to decrease time to peak production by stimulating the release of two reproduction regulating hormones essential for sexual maturation.

AgriShift® JLP for Pullets

The AgriShift® JLP provides an optimized color spectrum with full dimming capability, essential for healthy bird development during early growth stages. Designed with Dim-to-Blue™ technology, it enhances animal welfare and provides uniform coverage throughout any facility.

Additional Essentials and Accessories

Junction Box (Not Pictured)

This Junction Box is designed to withstand routine cleanings and resist corrosion in wet, damp and dry locations. It is made with a gray PVC and comes with four (4) sealed threaded hubs (3/4" NPT) and 1 open hub.

AgriShift® G Controller

The AgriShift® G Controller is a slave dimmer that provides full potential to any ONCE® AC lighting fixture. It offers smooth dimming solutions that can easily be controlled by two separate 0-10 VDC control signals and several advanced features, adding flexibility while addressing the complex modern agriculture facilities.

AgriShift® Master Controller and Slave Dimmer

The AgriShift® Master Controller and Slave Dimmer provide full potential to any ONCE lighting fixture. They offer smooth dimming solutions that can easily be controlled manually with the front panel controls or remotely with a 0-10 VDC control signal.



once®



Animal-Centric Lighting Systems for Broilers, Breeders and Pullets

- Enhances animal welfare
- Encourages healthy bird development
- Naturally increases body weight
- Improves feed conversion rates

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once®

The Science Behind the Technology

Light, a key environmental factor and essential to sustain life, is why raising animals in indoor facilities requires specialized lighting programs to achieve optimal results. ONCE® animal-centric lighting systems go beyond traditional LED technologies by offering a lighting solution designed to influence desirable physiological and biological processes in animals. With AgriShift® technology and a production dimmer program, light intensity, photoperiod and color spectrum can be adjusted for better performance, naturally resulting in increased production and enhanced animal welfare. However, artificial lighting programs must be applied with a thorough understanding of the animal's response to light and the significance of the different characteristics of light.

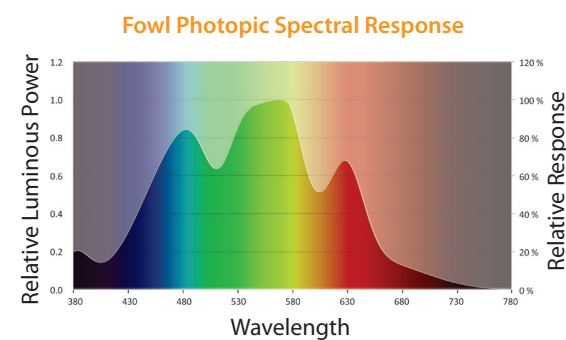
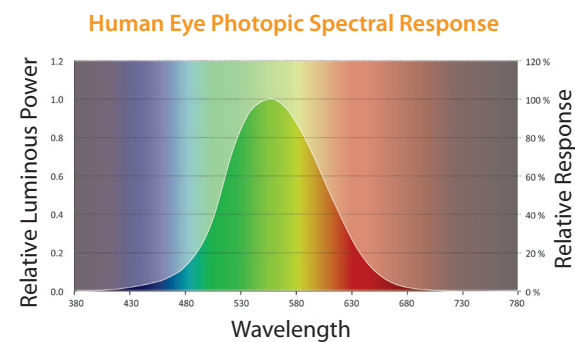
The Importance of Light Color in Poultry Vision

ONCE® broiler and pullet specific lighting solutions use an enhanced blue/green spectrum with added red content for healthy bird development. The spectrums used stimulate a birds' highest color sensitivity, encouraging growth during the early stages by enhancing proliferation of skeletal muscle satellite cells, while repairing and building muscle. Green light can be helpful in the growth and sexual development of poultry during the early stages, while blue light has been shown to elevate plasma androgens, allowing the bird to put on more muscle mass at later stages of development. Studies have also shown that blue light can calm birds and positively affect glucose and triglyceride levels.

ONCE® breeder specific lighting systems are designed as a deeply red saturated light with added blue and green spectrum (for vision). The red spectrum stimulates a bird's hypothalamic and pineal oscillators, helping to maintain circadian rhythms and promote sexual maturity. It also stimulates the release of two reproduction regulating hormones essential for sexual maturation.

How Poultry Sees

The graphs below show the typical color sensitivity of a human eye compared to the sensitivity of a typical chicken eye. In the Human Eye Spectrum the smooth white line curve and large hill in the center of the curve is showing that humans see green and yellow colors better than they see blue and red. In the Domestic Fowl Spectrum you can see there are 4 (four) distinct color peaks. The highest sensitivity are to green, blue and red light but you can see another one in the UV spectrum (far left bump on the curve).



The Technology



Dim-to-Red® technology for breeders provides natural dawn and dusk simulation, reducing stress on your animals.



Junglite Green™ technology for pullets offers an enhanced jungle green spectrum, replicating a birds' natural habitat and promoting growth.



Dim to Blue® technology for pullets encourages uniform growth by offering healthy bird development during every growth stage.

Benefits of ONCE® Lighting Systems

Productivity Enhancement

Recent scientific trials showed broilers raised under Junglite Green™ technology compared to those under a regular blue-enriched white LED showed reduction in bird feed consumption per pound of meat produced. With a .028 feed conversion rate improvement, this provides an ROI after the first flock!

Additional scientific studies produced from researchers at the USDA ARS* testing the effects of lighting on productivity, health and animal welfare for broilers, found that ONCE® LEDs out-performed all other bulbs. ONCE® lighting fixtures also showed an increase (3-5%) in body weight compared to incandescent light bulbs—higher than any other LED bulb tested (Olanreqaju et al., 2015a).

The blue spectrum has been shown to naturally calm chickens. Therefore, by providing lighting that shifts from red content in brood to blue content during grow-out, performance is maximized, while aggressive behaviors are minimized. Under Dim-to-Blue® technology, birds are calmer, less prone to flight, notably less aggressive and consequently put more feed energy into just growing.

Animal Welfare

Abrupt changes have been shown to excite flight responses which have a negative effect on the well-being of the bird. ONCE® lighting programs and systems are directed toward minimizing extreme changes in lighting. By offering fixtures that provide natural sunrise and sunset simulation, the stress inputs of abruptly switching lights on and off are eliminated, lowering mortality, supporting a birds' immune response and reducing stress to improve animal livability.

ONCE® lighting programs and systems are directed toward minimizing extreme changes in lighting. They present uniform coverage and consistent light, as well as the ability to provide natural daylight simulation, reducing corticosterone levels and other stress markers to improve the overall welfare of the animal.

Energy Savings

Because ONCE® LED AgriShift® fixtures are more energy efficient than fluorescent and incandescent light bulbs and use techniques and materials that withstand harsh barn environments for years to come. Longevity and energy savings are guaranteed.

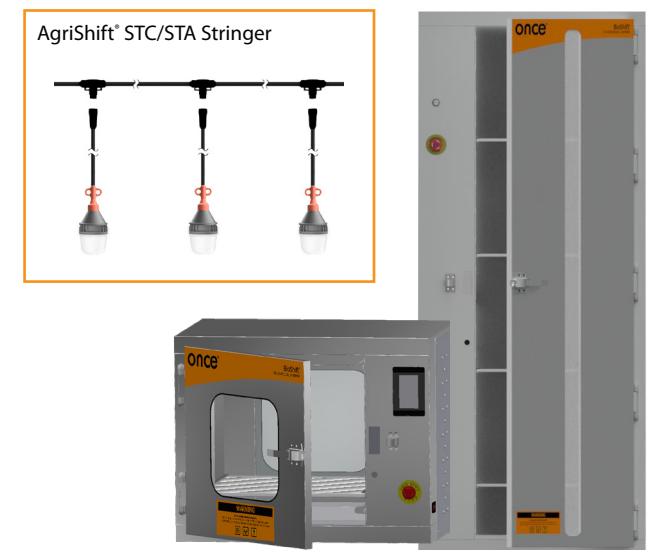
Featured Products

AgriShift® STC/STA

The AgriShift® STC/STA is a stringer designed with the flexibility to fit any ONCE® ML fixture or select in-system tube lighting option. The various drop cord lengths allow for easy and cost efficient installation. Attaching to the ceiling of barns up to 152 meters long, the AgriShift® STC/STA comes in 25 or 30 1/2 meter lengths, with 2.43 or 3 meter sections.

BioShift® Pass-Through UV-C Chamber - Small and Large

The BioShift® Pass-Through UV-C Chamber is an Eco-Friendly tool to use alongside established biosecurity protocols. It is designed to fix key vulnerabilities within agriculture facilities, while enhancing protocols by killing viruses and other pathogens in a recommended time of 5 minutes, before they can enter your biosecure farm facility.



AgriShift® lighting systems "shift" spectrum and intensity, meeting the individual needs of your animals¹.



A Built For Your Barn® design uses techniques and materials that withstand harsh barn environment for years to come.