



Animal-Centric Lighting Systems for Pullets



## RAISE HEALTHIER, FASTER GROWING PULLETS

At ONCE® we understand there's a science when it comes to successfully raising pullets indoors. Between training them to move throughout the system and develop proper habits, it can be difficult to achieve optimal results. We understand the challenges and want to help you.

As the pioneer of animal lighting systems based on scientific research, we've developed innovative solutions that improve both production and animal welfare. Our rigorous scientific process has allowed us to unlock the potential of light and ensured the success of our customers.

Based on photobiology and backed up by scientifically proven data, we have focused our efforts on finding solutions that **show proven, measurable results**<sup>†</sup>. These results leverage three key aspects of lighting needed to experience success: spectrum, intensity and photoperiod.

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# Science is our secret

A thorough understanding of the way animals perceive and respond to the different characteristics of light matters. Here's why:

## Animals see differently

The spectral characteristics, as well as the intensity, affect how light is perceived. What we see is made up of light reflected from the objects we look at. But eyes aren't the only organ that processes light. Poultry identify light through extra-retinal, non-visual, pathways as well.

The Photopic Spectral Response Graphs shown to the right demonstrate how most humans, who have three visual cones, see green and yellow colors more intensely than they see blue and red. The How Poultry See graph shows that chickens, who have four visual cones, are more sensitive to blue and red light. And what about the far left, smaller peak? It's the UV spectrum. Chickens can see UV light, and humans cannot.

## Experience the benefits today!

At ONCE<sup>®</sup> we care about your animals and are dedicated to providing them with the best lighting possible.

### Enhance animal welfare

By recreating a natural sunrise and sunset simulation, our lighting systems eliminate extreme changes in light, eliminating multiple stress inputs and lowering mortality rates, while improving immune response. This is supported by blood assays for short and long term stress indicators, as well as behavioral stress tests.

### Effectively train for adulthood

Our cutting-edge lighting systems optimize spectral output to target an animal's highest color sensitivity. They control spectrum, photoperiod and light intensity. This creates a natural solution to effectively train pullets for adulthood and ensures proper growth, while eliminating the chance for early egg production.

### Allow birds to just grow

Green light encourages growth and sexual development of poultry during the early stages of life by enhancing proliferation of skeletal muscle satellite cells, while blue light elevates plasma androgens, allowing the bird to put on more muscle mass at later stages of development.

## See the results

With our scientific approach to photobiology, along with our systems' rugged and durable design, we offer an optimal solution that addresses your flocks' needs. When supplied with the right tools, you'll have birds that are less prone to flight, notably less aggressive and consequently put more feed energy into just growing.

## Photopic Spectral Response Graph

