EPA Products Ltd

T: +44 (0)1438 832281
F: +44 (0)1438 832162
E: info@epaproducts.co.uk

Claggy Road
Kimpton
Hertfordshire
SG4 8QB
United Kingdom

www.epaproducts.co.uk

Don’t be left in the dark

Get ahead of the curve and reduce the light, energy and maintenance costs for your chicken shed now*

*Fluorescent lights are going to get harder and more expensive to maintain as manufacturing of fluorescent lights ceased production September 2023.

Introducing the Amenta Dimmable LED lights – your trusted choice for poultry lighting. We offer a 5-year warranty to ensure the long-lasting performance of our products.

The Amenta dimmable LED lights are an ideal choice for a straightforward upgrade when replacing aging high-frequency dimmable fluorescent lights with 0-10V control. This not only minimizes installation costs but also allows you to keep your existing lighting control intact. Moreover, our system seamlessly integrates with sites that have pre-existing control systems like DALI and DSI, making it easy to maintain your original control setup and installation.

LOW RESOLUTION IMAGE

Amenta Layers 830 Dimmable

Length: 1.5m
Weight: 2Kg
Mains Supply: 220v /230v 50-60Hz
Dimmable Control: 0-10v
Power Consumption: 35W
Lumen Output: 4200 lm
CRI: 80+
Colour: 3000K
IP Protection: IP66
Mounting supplied, hard mounted or suspended
Diffuser: PMMA
Main Body: ASA

LOW RESOLUTION IMAGE

Amenta Broilers 840 Dimmable

Length: 1.5m
Weight: 2Kg
Mains Supply: 220v /230v 50-60Hz
Dimmable Control: 0-10v
Power Consumption: 35W
Lumen Output: 4200 lm
CRI: 80+
Colour: 4000K
IP Protection: IP66
Mounting supplied, hard mounted or suspended
Diffuser: PMMA
Main Body: ASA

Understanding Poultry Lighting

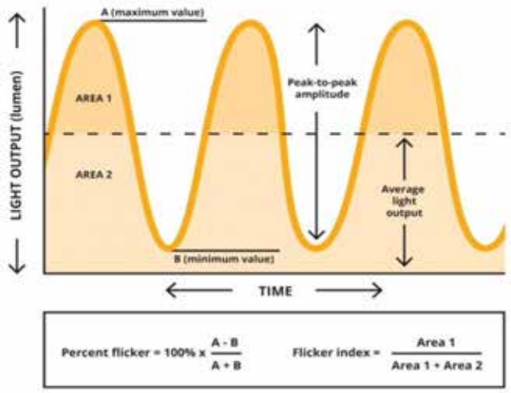
Stroboscopic Effects

A significant concern in poultry lighting is the issue of light flicker. Humans can detect light flicker at around 50Hz, whereas chickens can perceive flicker up to 130Hz. Amenta lights, however, operate at a high brilliance of 14,300Hz at 100% and 5,500Hz at 1%.

Problems Associated with Light Flicker

- Perceived by a chicken as a possible threat.
- Pecking.
- Reduced laying.
- Reduced growth.
- Increased chance of disease.
- Reduced feed consumption.

When choosing lighting solutions, it's crucial to consider the Percentage Flicker (PCT) or Flicker Index. Lower values are preferable. Amenta lights excel in this regard, with a low Percentage Flicker of 9.7% - 15.8% and a Flicker Index of 0.03 – 0.01.



Light Distribution / Intensity

- Lighting should be even with typical intensity, depending on age and application, ranging from 5 to 20 lux.
- The lighting intensity should be adjustable from 0 to 100%.
- Shadows should be minimized.

Amenta lights are ideal for maintaining consistent lighting, which is crucial for poultry well-being and productivity. They offer adaptable intensity levels tailored to the age of the poultry, ensuring optimal visibility, reduced stress, and support for desired poultry behavior.

Photoperiod

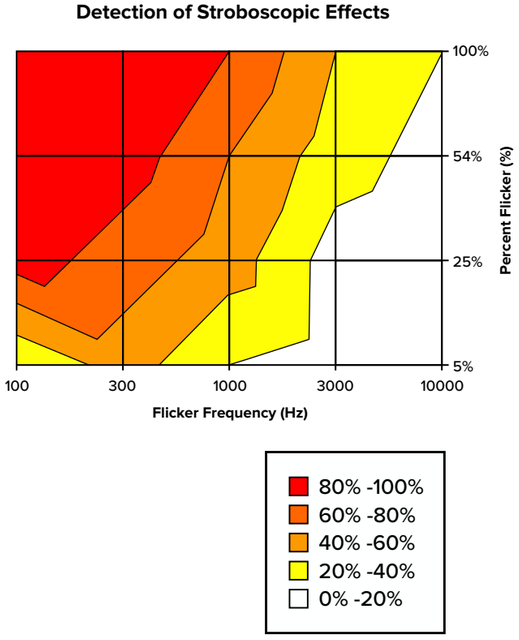
- The duration of the lighting cycle should be fully controllable.

Amenta lights provide precise lighting management with their adjustable intensity and reliable output.

Light Spectrum

- The light spectrum should closely resemble natural daylight.

Amenta lights excel in replicating a light spectrum that closely resembles natural daylight.



Colour Rendering Index (CRI)

- The specification of the lamp should have a CRI value – the closer the given value is 0 - 100, the higher the value, closer the output of the light is to that of sunlight.
- A good CRI value for a poultry would be greater than 80.
- A chicken's sight will benefit with higher CRI values.

Every Amenta light boasts a CRI exceeding 80.

Correlated Colour Temperature CCT

The color temperature of a light is measured in degrees Kelvin (K). Amenta lights offer a choice between two color temperatures: 3000K (warm white) and 4000K (cool white), allowing you to select the ideal lighting for your specific poultry farming requirements.

3000K, also referred to as warm white or 830, results in warmer, reddish lighting output.

4000K, also referred to as cool white or 840, produces cooler, bluer lighting, similar to a typical 6000K.

The effects of lighting colour

Red

- Simulates sexual maturity and can lead to higher egg production.
- Red light may reduce food consumption.
- When mixed with white light, it can reduce feather pecking and make blood less visible.

Blue

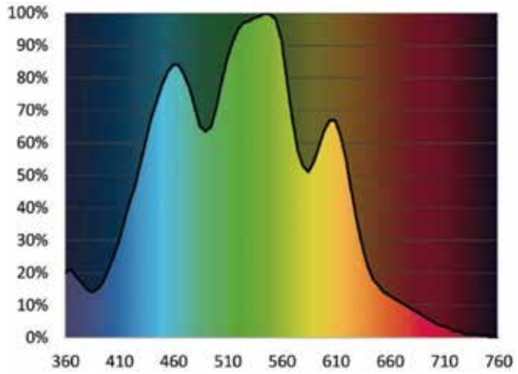
- Blue lighting keeps birds calmer and easier to handle.
- It may increase growth in broilers at a later age by enhancing plasma and androgen levels (natural steroid hormone).

Green

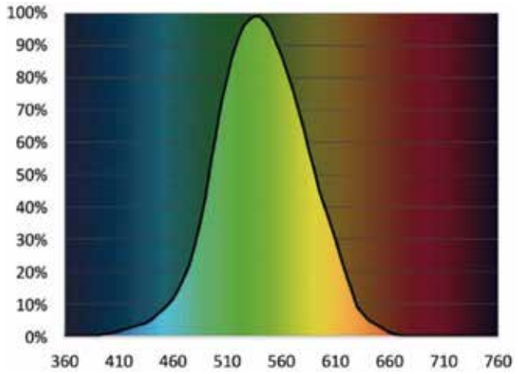
- Increases growth rate at an early age.

Mixing Blue and Green

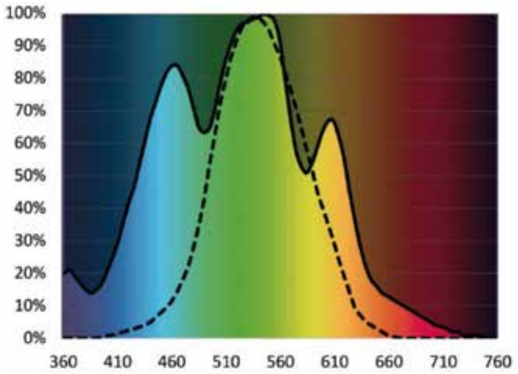
- Improves feed conversion / growth.



Domestic fowl photopic spectral response
(Adapted from Prescott and Wathes, 1999)



Human photopic spectral response (CIE 1978)
(Adapted from Schubert, 2006)



Comparison of human and chicken photopic vision
(Hy-Line International)

Get in touch

We are always happy to answer any questions you have.

Call us on +44 (0)1438 832281
or email info@epaproducts.co.uk