



**DILACO**  
LIGHTING

THE NEW GENERATION OF AGRI-LIGHTING

2018 Dilaco Lighting Ltd.

# Our philosophy

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Dilaco Lighting Ltd. is a Hungarian enterprise specialized in agricultural lighting solutions. Our main activity is the designing, manufacturing and complete implementation of lighting technologies for poultry farms, in addition to special consultancy in this field.

Our philosophy is that, rather than merely offering lighting fixtures, we provide complete lighting solutions tailored to the given breed and management technology.

The agricultural lighting technological solutions developed by us can be used in all fields of poultry production, from grandparent breeding farms using deep litter management technology to commercial 12-tier cage layer houses.

Poultry production needs special lighting. The eyesight of birds differs from that of humans. Therefore, lighting devices designed for the human eye cannot create an adequate environment for birds.

Dilaco's lighting system uniquely creates and reproduces the natural light conditions with careful attention to the diurnal rhythms, the exact simulation of sunrise and sunset, and the colour, spectrum, colour temperature and frequency of light.

We firmly believe that birds reciprocate the care that they receive in every segment of management, ranging from nutrition through ventilation to lighting. We lay great emphasis on low operating expenses and the longest possible lifespan. When designing and manufacturing our systems, we always give careful consideration to the above-mentioned factors.





# Our services

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Design



Manufacturing



Implementation



Consultancy

# The main properties of our systems

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Dilaco's lighting system uniquely simulates and creates the natural light conditions, taking care to account for the rhythm of diurnal changes and the accurate simulation of sunrise and sunset. In this way, it ensures the birds' stress-free waking and rest.

## ENERGYSAVING

Cut down your electricity bill



The eyesight of birds differs from that of humans. Therefore, lighting devices designed for the human eye cannot create an adequate environment for birds. In intensive poultry houses of closed system, light conditions as close as possible to natural light should be created.

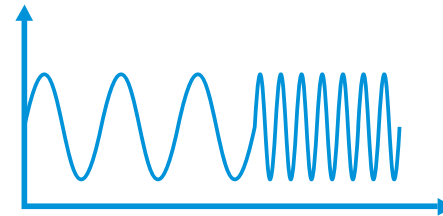
Our systems provide birds with a completely flash-free, high-frequency light. Optimal light conditions have a highly beneficial effect on production.

Using Dilaco's LED lighting systems, as much as 90% energy saving can be achieved over the traditional light bulb, fluorescent tube and compact fluorescent tube systems. With the help of the optics used, the light can be directed to where it is needed, which ensures homogeneous illumination with optimal energy efficiency.

An obsolete lighting equipment may account for more than 60% of the total energy consumption of a poultry farm. In contrast, the state-of-the-art LED technology provides the most efficient solution with the lowest environmental impact.

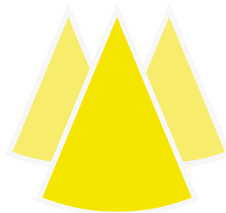
## HIGH-FREQUENCY LIGHT

For lowering the stress level of birds



## HOMOGENOUS LIGHTING

We use different optics in order to achieve



Under homogeneous lighting conditions, all birds can find the feeders and drinkers more easily on the whole usable area of the poultry house. This results in lower mortality rate, improved feed conversion and higher flock uniformity.

In parent or grandparent breeding houses the number of floor eggs can be markedly decreased. In layer farms using cage technology, even hens kept on the lowermost tiers lay eggs of optimal size, weight and number.

We lay particular emphasis on the longest possible lifespan. We design and manufacture our systems by taking into account and carefully considering this feature.

## 5-YEAR GUARANTEE

long lifespan



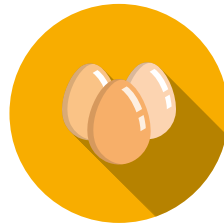
# Our references

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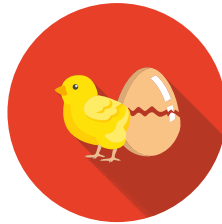




## Commercial layer houses of cage system




## Breeder houses of deep litter system





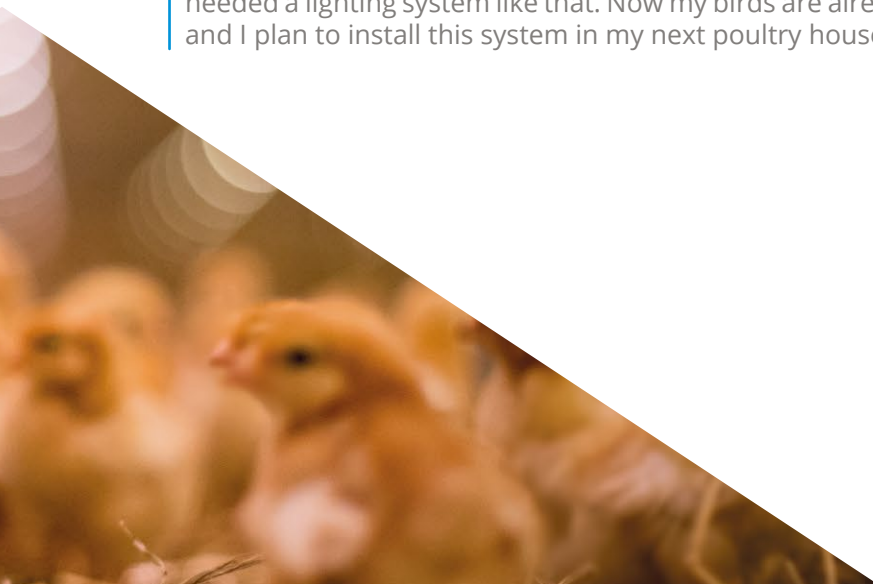
# Broiler / Rearing houses of deep litter system





It was at a technical conference that I first heard about the lighting systems of Dilaco Lighting Ltd. I wanted to see the benefits of these systems for myself, and thus I visited a poultry house that had been using Dilaco's system for several years. What I saw there was so convincing that I realised I also needed a lighting system like that. Now my birds are already producing under a Dilaco lighting system, and I plan to install this system in my next poultry house as well.

György Klazsik, poultry farm owner



# The structure of our systems

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Optimum lighting of poultry houses can be achieved by the joint operation and integration of the individual elements listed below.

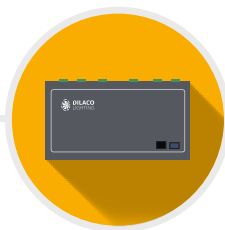
Before manufacturing our systems, we always prepare 3D simulation models of illumination adapted to the given house type, breed and management technology. The use of such models enables our systems to comply with the requirements specified in the animal welfare directives and the management technology manuals produced by breeders.

Our fully automated systems based on LED technology have been developed by taking into account the special eyesight and light sensation of birds. This extra-low-voltage, high-frequency system is well adapted to all types of management and poultry, as it produces a homogeneous illumination even in multiple-tier cage and volière-type houses, enabling the implementation of lighting programs recommended by the breeders.

AGRO**LEDSPOT**



LED**DRIVER**



AGRO**LIGHTCOMPUTER**



PC**SOFTWARE**







## AGROLEDSPOT

The Agro Led Spot is a lighting fixture based on High Power LED technology and specifically designed for use under industrial conditions. With its special optics, it can provide homogeneous lighting even in multi-tier poultry houses.

This element has IP67 protection and resists dust, corrosive gases and high-pressure jet cleaning. It is energy saving and has an extremely long lifespan.

## AGROLIGHTCOMPUTER

This is a special agro-light computer that can control six lighting sections at the same time and thus perform even the most sophisticated lighting tasks. It comes pre-installed with the lighting programs recommended by the breeders but is also suitable for designing own lighting programs with adapted parameters. The features of the lighting program can be modified at any time during the production cycle, depending on the developmental level of the birds.

The Agro-Light Computer is extremely user-friendly and can store programs developed for the entire duration of production. It comes with a Windows PC software which enables the preparation of programs even at sites distant from the poultry house. It communicates with the Dilaco digital LED dimmer through a DMX-512 protocol.







## LED DRIVER

A special LED dimmer that enables effective light intensity control in the 0 to 100% range, in as many as 100,000 small dimming steps. Uniquely in the world, our sunrise-sunset simulations are in complete harmony with nature, ensuring the stress-free waking and resting of birds.

It provides a completely flash-free, high-frequency light in the poultry house. Its switching frequency is 400,000 Hz.


## PRE-INSTALLED SWITCHBOARD BOX

To facilitate rapid installation on the spot, the entire control mechanism is supplied pre-installed in an IP55 switchboard box, which enables the electrical specialist to put the system into operation within a very short time at the site.





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