

HATO

est.
1974

agricultural lighting

*Improving life
through brightness*

Product catalogue
2022 - 2023


poultry lighting



***“Innovation is in our DNA.
We work in an honest, open
and respectful way. A family
culture prevails within HATO
and we operate accordingly.”***

Paul Obers
CEO



We are HATO

Since 1974, we have been working on the best lighting solutions for the agricultural sector. We know that an optimal light climate forms the basis for responsible and profitable livestock farming. Our knowledge of the sector and our genuine involvement with our customers form the basis for a durable cooperation and underline our role as a market leader. We continuously improve the well-being of farmer and animal through our knowledge and lighting.



Integrity

We treat the world and everything in it honestly, openly and with respect. Our norms and values are more important to us than a quick win.



Innovation

Innovation is in our DNA. We were born from a deep passion for innovation and look for new solutions to improve ourselves on a daily basis. Without courage, no progression.



Family

HATO = family. Both internally and externally. We work with each other, not for each other. We believe that we reach the best results by working together and treating each other as family. Our way of cooperating is honest, sincere and forgiving.

We focus on cooperation. We share knowledge and experiences with our partners and they with us. That's how we come to solutions that realise the best results for both farmer and animals.

Improving life through brightness

At HATO, we know that lighting is fundamental to responsible livestock farming worldwide. By continuously investing in product innovation, knowledge sharing and cooperation, we aim to stay the number one lighting partner within worldwide livestock farming.

Knowledge of the agricultural sector since 1974

In the decades that have passed since our establishment in 1974, we've gained a major amount of knowledge and experience. Lighting matters and the world needs to know. That's why we share our knowledge under the wings of HATO insights. Sharing is caring.

Genuine relationships with our partners

Throughout the years, we've built a large network of partners all over the world. Thanks to the fact that partnership is our top priority, the majority of our partners has been with us for over 15 years. They rate us with an 8/10 or higher on average. There's always room for improvement though. Together, we can improve life through brightness.

Pioneer in the field of innovative lighting solutions for livestock farming

Since we've been in the market for so long, we often were the first to come with new, innovative lighting solutions. In the early HATO days, we developed the ED; the first poultry specific lighting solution in the global poultry market. Years later, we came with the first LED lighting solution for the poultry market: the well-known CORAX.

By now, our product range contains lighting solutions for every type of poultry house in the world. The HATO ONE, our all-in-one poultry light meter, is a preview of what's to come; the future is bright!



“We don’t only identify needs, we also make sure that our products fulfil them. We ensure that prototypes are carefully trialled on farms and make an in-depth analysis of the results and data. In this way, team product development is able to realise the desired end product. Happy animals and happy farmers. That’s what we live for.”

Jacobine
Research Department



Poultry lighting matters!

Our decades of experience, combined with our extensive amounts of research have convinced us of the fact that the lighting equipment is an essential part of the overall equipment in a poultry house.

Correct lighting improves both poultry and farmer well-being in multiple ways.

Poultry well-being

Poultry perceive light differently than human beings. When lighting looks just fine for human beings, it can be far from that for poultry. This means that the light climate should be adapted accordingly. A light climate that fulfils the needs of poultry improves poultry sight. By improving poultry sight, welfare and eventually performances can be improved. Lighting is also able to directly improve poultry welfare and performances in multiple ways.

At HATO, we know that every type of poultry has different lighting needs. It's important that the different aspects of light are adjusted accordingly to fulfil those needs. This results in multiple benefits per type of poultry.

For poultry, good lighting:

- ✓ Improves sight and thus welfare and performances
- ✓ Directly improves welfare and performances
- ✓ Fulfils the specific needs of the type of poultry
- ✓ Benefits each type of poultry in its own way.

Farmer well-being

Animals that feel and perform better surely benefit the poultry farm manager, but good poultry lighting can be of even more value.

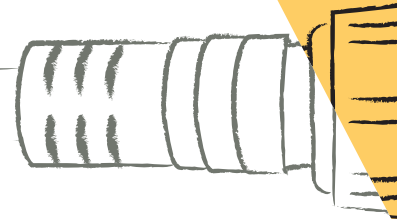
Durable, high quality lighting makes life way easier. Lighting solutions that are easy to clean and able to function easily under the harsh circumstances in a poultry house will have a long, problem-free lifetime. This eventually reduces workload, replacement costs and down-time.

Energy-efficient lighting makes a significant difference as well. When looking at the energy bill at the end of each year, this can save lots of hard earned money. A welcome side effect of this is that it is beneficial for the environment as well. Better performances in a responsible way!

For farmers, good poultry lighting can:

- ✓ Reduce workload
- ✓ Lower replacement costs
- ✓ Prevent down-time
- ✓ Save energy costs
- ✓ Help contribute to a better environment





Dutch Engineering

At HATO, we strive to achieve optimal light climates for intensive livestock farming worldwide. We provide smart solutions that benefit both farmers and animals. We work hard to make sure our customers get the lighting solution that best suits their needs.

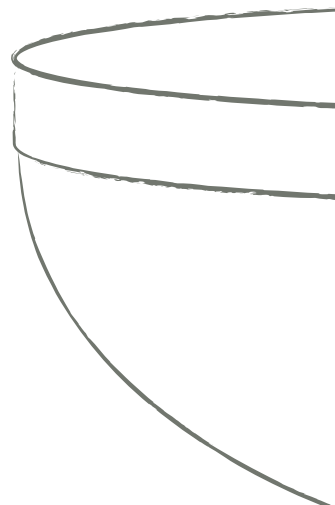
We take pride in the fact that all of our lighting systems are designed, developed and some of them produced by our own Dutch team. This means we can offer you the best quality. It doesn't end there; our research department is constantly working on innovations in new technology and better solutions for the challenges of tomorrow.

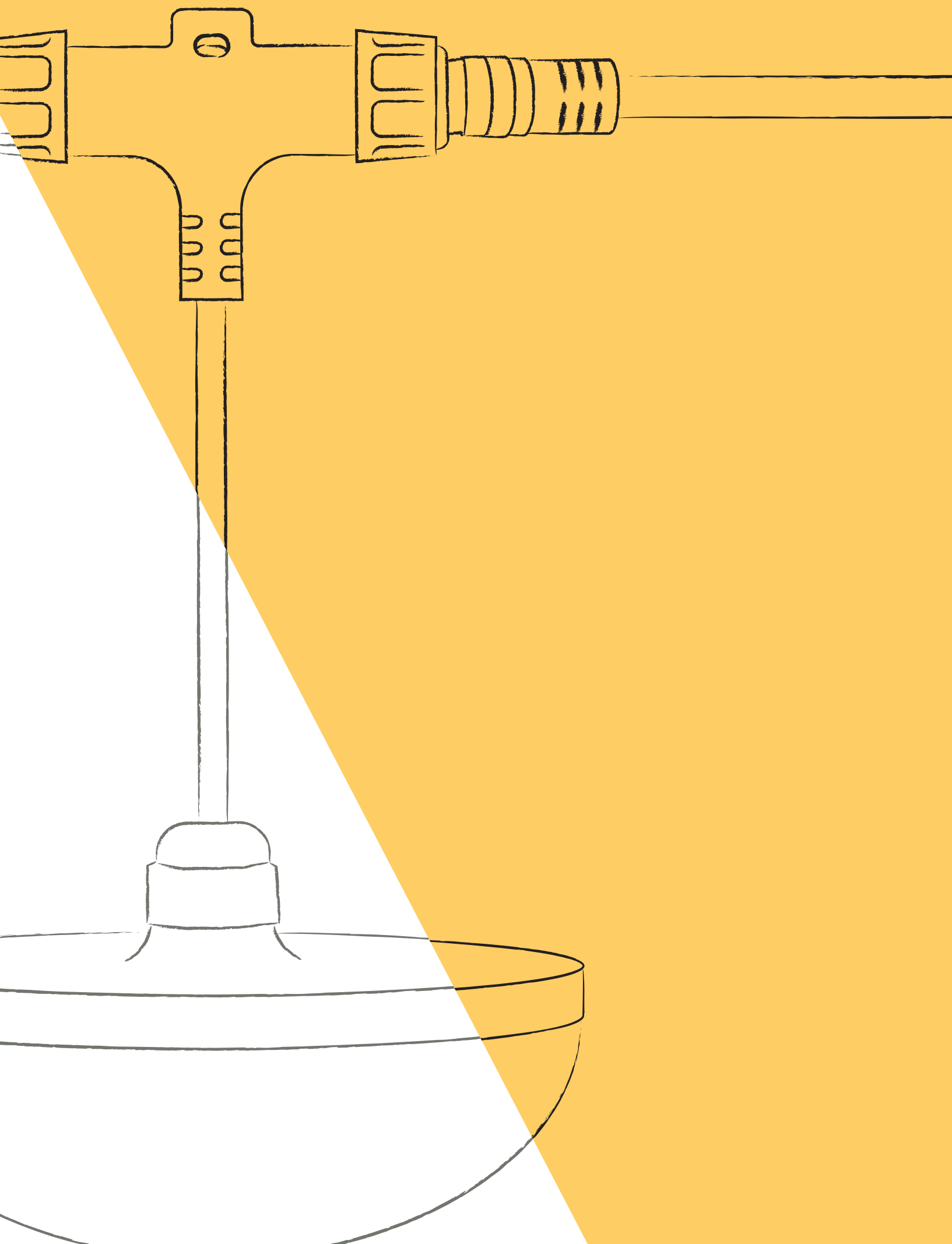
This, combined with our extensive knowledge about how lighting conditions affect an animal's well-being, assures you that you have found a partner that has the best interest in mind for you and your animals.

We call it 'Dutch engineering', and we're proud of it.

Our products are based on solid scientific research to guarantee the best results. They are specially designed to realise the best long-term farm results. For over 45 years, our products have been synonymous with the highest quality.

Dutch engineering at it's finest.





The 4 key benefits of optimal broiler lighting

The light climate is an essential part of the overall climate in broiler houses. It is important that the light climate in the broiler house is adjusted to the needs of both the broilers and the house in general. An optimal light climate enables broilers to see, feel and perform better. Final result: improved farm performances in a responsible way! Now, what are the 4 key benefits of an optimal light climate in a broiler house?



01

Uniform and higher growth

Uniform and high growth are two of the main goals in a broiler house. Lighting can certainly help to realise this. Lighting is able to decrease bird stress, whilst stimulating feed- and water intake. In this way, the FCR will improve, whilst growth increases. Uniform growth can be reached by making sure that the conditions are the same throughout the whole system to make sure that the birds are spread uniformly accordingly. Lighting can make a big difference here.

02

A better Feed Conversion Rate

The FCR of broilers significantly influences overall company results. Lighting can be used to stimulate feed- and water intake. This, combined with lower energy usage due to a decreased amount of stress, will improve the overall feed conversion rate. Higher growth against lower costs; sounds good, right?

03

Decreased huddling

The intense grouping of broilers; huddling. A common problem in broiler houses. Huddling can lead to higher mortality and wet litter, which results in footpad lesions and breast blisters. To improve broiler well-being and performances, it is important that they are spread uniformly throughout the system. Lighting is a very important tool in realising this.

04

Less bird stress

The amount of stress that broilers experience has to be kept as low as possible. This to make them feel good and to enable them to perform at their utmost best. Amongst others, broiler stress can lead to higher mortality rates, huddling, high feed conversion rates and more. An optimal light climate significantly decreases the amount of experienced stress by broilers. A positive impact on company performances is a logical result.



The 4 key benefits of optimal layer lighting

Layers see differently than human beings. This means the light climate should be adjusted accordingly. An optimal light climate increases layer vision and improves their behaviour, welfare and performances. Final result: improved farm performances in a responsible way! The 4 key benefits of an optimal layer light climate are:

01

Improved egg production & shell strength

The higher the quantity and quality of the eggs, the better the company results. Lighting is able to stimulate feed- and water intake and reduce stress. In this way, the layers are enabled to perform better. A higher amount of eggs and a better shell strength are a logical result of this.

02

Less stress

As with humans, stress is not good for a layer's well-being, health and performances. By providing a correct light climate, layers will see better. When they see better, they will feel more at ease. This automatically results in a lower amount of stress. Just some of the benefits of a lower amount of stress are an improved Feed Conversion Rate, improved egg production & shell strength and decreased pecking. Besides optimising layer sight, light is able to influence stress levels in several other ways.

03

Aviary houses: Less floor eggs

Floor eggs are a well-known problem in aviary houses. They cause lower revenues, since the amount of usable eggs is lower, whereas they cost more money, since they have to be collected by hand. Time to reduce them! Lighting influences the amount of floor eggs in multiple ways. The most influential way is to provide the right light at the right place. In this way, desired behaviour is stimulated.

04

Cage systems: Uniform sexual maturity

Especially in cage systems, uniform sexual maturation is a major issue. This issue can be caused by the fact that the amount of light provided differs per cage and per tier. In this way, the circumstances for the hens throughout the house differ, leading to uniformity issues. An optimal light distribution is key here. An optimal light distribution is the best way to foresee an equal living environment for all hens. In this way, uniform sexual maturity can be realised and the number of eggs laid will increase.





More information, a chat with one of our colleagues
or a custom-made lightplan? Scan the QR code.

The 4 key benefits of optimal parent stock lighting

One of the main goals in a parent stock house is to produce as many eggs as possible with a maximum hatchability. Lighting has a significant influence on both. It can significantly improve bird behaviour, welfare and performances in both broiler- and layer parent stock houses. An optimal light climate is a must have for a profitable parent stock house. The 4 key benefits of an optimal parent stock light climate are:



01

Improved sexual stimulation

Sexual stimulation takes place in the breeder's brains. Optimal sexual stimulation and increased fertility significantly influence the amount of eggs laid and their hatchability. Lighting plays a key role here. It's important to use lighting with a broad light spectrum. A spectrum that contains all colours is a must-have, since every colour has its own characteristics that influence the chicken in their own way.

02

Improved egg weight uniformity and laying uniformity

A better egg weight uniformity and laying uniformity benefit overall farm performances. By stimulating feed- and water intake, reducing stress and creating uniform living conditions throughout the house, this can be realised. The different aspects of lighting all have their influence on this in their own way.

03

Less stress

Stress should always be avoided in parent stock houses, since it significantly influences animal well-being and performances. Amongst others, stress leads to a high FCR, high mortality, less eggs and more. A correct light climate significantly reduces parent stock stress in multiple ways.

04

Floor houses: Reduce floor eggs

Floor eggs: lower quality eggs that require a significantly higher amount of work than regular eggs. They stand for lower revenues and higher costs. The less floor eggs, the better. Fortunately, lighting can help here. Amongst others, it is very important to have the right amount of light at the right place in the house. In this way, desired behaviour can be stimulated.



CORAX & PULSA

As confirmed by many users worldwide, the CORAX and PULSA are the standard for professional poultry lighting.

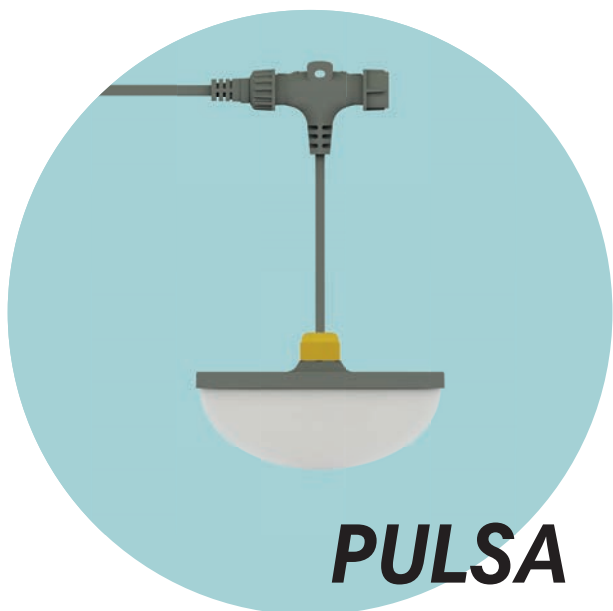
The highest quality materials and an IP67 rating make the CORAX and PULSA problem-free lighting solutions for the long term. Besides that, they are easy to clean and very energy efficient.

Thanks to their perfect light spectrum, their optimal light distribution and more, the CORAX and PULSA are able to improve poultry vision and stimulate desired behaviour.

Result: Healthy, well-performing poultry and improved farm performance.



CORAX



PULSA

The standard for professional poultry lighting

- ✓ Long, problem-free lifetime
- ✓ Better poultry behaviour, well-being and performance
- ✓ Improved farm results
- ✓ PULSA: Plug & play for easy installation

CORAX



PULSA



For more information,
please scan the QR code



Application

- Broiler
- Layer
- Broiler parent stock
- Layer parent stock

Housing

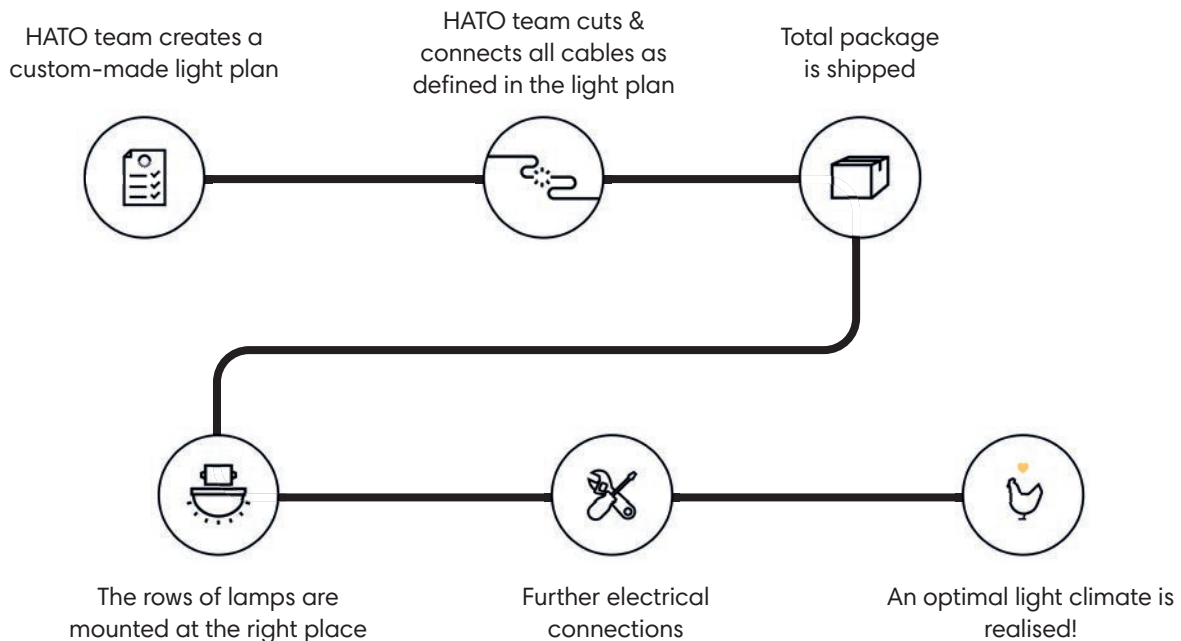
- Aviary
- Cage (A-type)
- Cage (H-type)
- Floor housing

	Operating voltage	Dim range	Light source	Power consumption	Light output	Efficacy	Light colour	Flicker-free	IP rating	Expected average lifetime
CORAX	48VDC	100 - 0%	LED	8.7W	1050lm	121lm/W	3000K	yes	IP67	50,000h
CORAX CW	48VDC	100 - 0%	LED	8.7W	1110lm	128lm/W	4500K	yes	IP67	50,000h
CORAX XL	48VDC	100 - 0%	LED	15.4W	1750lm	112lm/W	3000K	yes	IP67	45,000h
CORAX DDS	48VDC	100 - 0%	LED	WW/CW 9.7W	WW 1050lm	WW 108lm/W	WW 2500K	yes	IP67	50,000h
				UV-A 1W	CW 1110lm	CW 114lm/W	CW 6700K			
PULSA	48VDC	100 - 0%	LED	8.7W	1050lm	121lm/W	3000K	yes	IP67	50,000h
PULSA CW	48VDC	100 - 0%	LED	8.7W	1110lm	128lm/W	4500K	yes	IP67	50,000h
PULSA XL	48VDC	100 - 0%	LED	15.4W	1750lm	112lm/W	3000K	yes	IP67	45,000h
PULSA DDS	48VDC	100 - 0%	LED	WW/CW 9.7W	WW 1050lm	WW 108lm/W	WW 2500K	yes	IP67	50,000h
				UV-A 1W	CW 1110lm	CW 114lm/W	CW 6700K			

PRE-WIRED CORAX

With the pre-wired CORAX, our production team cuts and connects all the cables exactly as defined in the light plan.

The only thing you, your installer or your customer must do is to hang the rows of lamps at the right place. After some further electrical connections, an optimal light climate is realised!



Benefits:

1. Lower installation costs

Installing a row of CORAX becomes a matter of minutes instead of hours

2. Optimal light climate

An optimal light climate can easily be realised, since everything is prepared exactly according to the light plan.



For more information,
please scan the QR code

PICA

The PICA is an affordable LED lighting solution that meets the HATO quality standards. It is specially designed for those who want to start with professional poultry lighting.

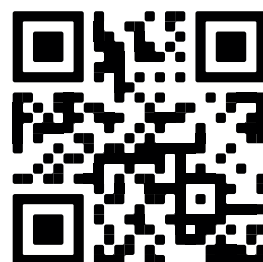
The PICA improves life for both farmers and poultry in multiple ways. As a result it reduces costs and improves farm performance.



The start to professional poultry lighting



- ✓ Affordable, high-quality lighting
- ✓ Improves life for farmer and poultry
- ✓ Reduces costs
- ✓ Improves farm performance



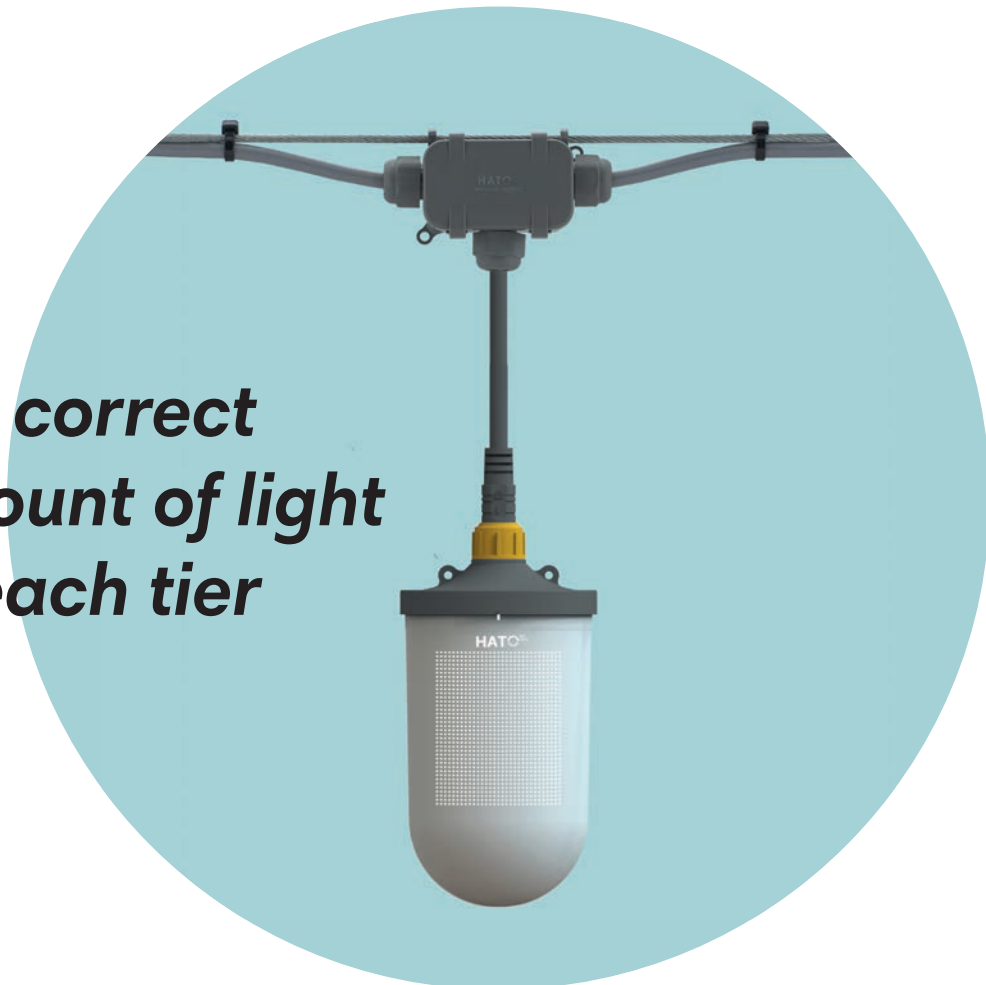
Scan the QR code to learn everything you want to know about the **PICA**

STERNA

The STERNA is especially designed for cage systems. Its coated surfaces make sure the correct amount of light is provided at each tier. To further improve poultry vision, well-being and performances, the STERNA provides flicker-free, 100-0% dimmable lighting with a perfect light spectrum.

Thanks to its IP67 rating and its high quality materials, the STERNA has a long problem-free lifetime. To reduce energy costs it is very energy efficient.

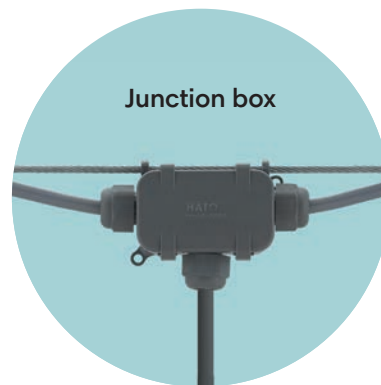
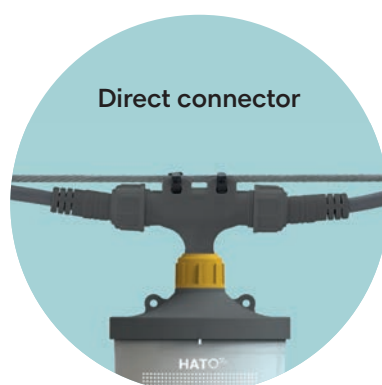
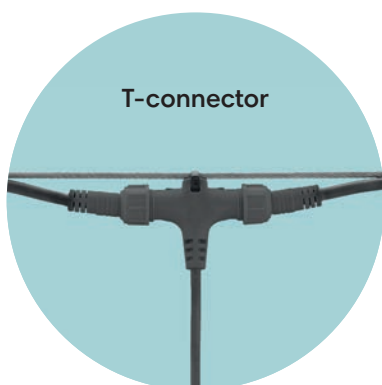
***The correct
amount of light
at each tier***



- ✓ Especially designed for cage systems
- ✓ Improves poultry vision, well-being & performances
- ✓ Long, problem-free lifetime
- ✓ High energy efficiency



Connectors



Application

- Broiler
- Layer
- Broiler parent stock
- Layer parent stock

Housing

- Aviary
- Cage (A-type)
- Cage (H-type)
- Floor housing



For more information,
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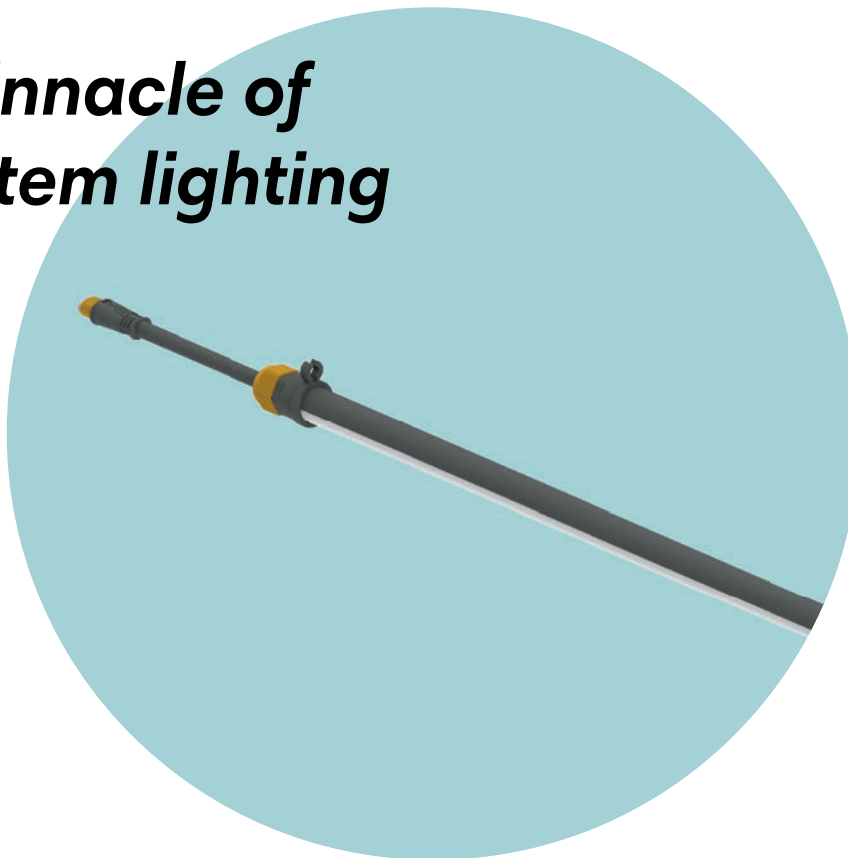
BUBO

The BUBO is a must-have to realise an optimal light climate in broiler cage, enriched cage and aviary systems. This tube lighting solution has been specially designed for in- and below system applications.

To realise higher poultry well-being and performances, it is flicker-free, 100-0% dimmable and more.

Furthermore, the BUBO is easy to clean, problem-free for years and easy to install (plug & play).

The pinnacle of in-system lighting



Application

- Broiler
- Layer
- Broiler parent stock
- Layer parent stock

Housing

- Aviary
- Cage (A-type)
- Cage (H-type)
- Floor housing



For more information,
please scan the QR code



- ✓ Unmissable in broiler cage, enriched cage and aviary systems
- ✓ Especially designed for in- and below system applications
- ✓ Easy plug & play installation
- ✓ Improves poultry well-being & performances

	Power Consumption	Light output	Light colour	Maximum number of tubes in series	No of clips needed	Tube length	Light spread
LTL-0.9M-W-0.31_0.31-2.16W-48V-TL-PC	2.2W	220lm	3000K	92	2	90cm	(1)
LTL-0.9M-W-0.31_0.31-2.16W-48V-TL-WI	2.2W	220lm	3000K	92	2	90cm	(2)
LTL-0.9M-A-0.31_0.31-1.44W-48V-TL-PC	1.4W	60lm	594nm	138	2	90cm	(1)
LTL-1.82M-W-0.31_0.31-4.32W-48V-TL-PC	4.3W	430lm	3000K	46	4	182cm	(1)
LTL-1.82M-W-0.31_0.31-4.32W-48V-TL-WI	4.3W	430lm	3000K	46	4	182cm	(2)
LTL-1.82M-A-0.31_0.31-2.88W-48V-TL-PC	2.9W	120lm	594nm	69	4	182cm	(1)
LTL-2.3M-W-0.31_0.31-5.28W-48V-TL-PC	5.3W	530lm	3000K	37	6	230cm	(1)
LTL-2.3M-W-0.31_0.31-5.28W-48V-WI LENS	5.3W	530lm	3000K	37	6	230cm	(2)

SURNIA

To realise an optimal light climate in low ceiling broiler houses all over the world, we developed the SURNIA.

The SURNIA fulfils the needs of broilers to improve their vision, health and performances in multiple ways. As a result, it improves overall farm results.

- ✓ Especially designed for low ceiling broiler houses
- ✓ Better broiler vision, well-being & performances
- ✓ Improved overall farm results



For more information, please scan the QR code

Application

- Broiler
- Layer
- Broiler parent stock
- Layer parent stock

Housing

- Aviary
- Cage (A-type)
- Cage (H-type)
- Floor housing

	Operating voltage	Dim range	Light source	Power consumption	Light output	Efficacy	Light colour	Flicker-free	IP rating	Expected average lifetime
SURNIA CW	48VDC	100 - 0%	LED	9.4W	925lm	98lm/W	4000K	yes	IP67	50,000h
SURNIA CW-Blue	48VDC	100 - 0%	LED	9.4W - 2.9W	925lm - 40lm	98lm/W - 13.3lm/W	4000K - 460nm	yes	IP67	50,000h
SURNIA WW	48VDC	100 - 0%	LED	9.4W	925lm	98lm/W	2900K	yes	IP67	50,000h
SURNIA WW Blue	48VDC	100 - 0%	LED	9.4W - 2.9W	925lm - 40lm	98lm/W - 13.3lm/W	2900K - 460nm	yes	IP67	50,000h

ARA

The ARA is a 230V LED retrofit lighting solution that meets the high quality standards that we live for at HATO. It is an excellent choice to change a traditionally E27 lighted poultry house into a future-proof LED lighted house. The ARA is especially designed to make both animal and farmer happy in multiple ways.



Knowledge & reliability with an E27 fitting

- ✓ The LED way to go for retrofit poultry houses
- ✓ Improved poultry vision, well-being and performances
- ✓ Cost efficient



For more information, please scan the QR code

Application

- Broiler
- Layer
- Broiler parent stock
- Layer parent stock

Housing

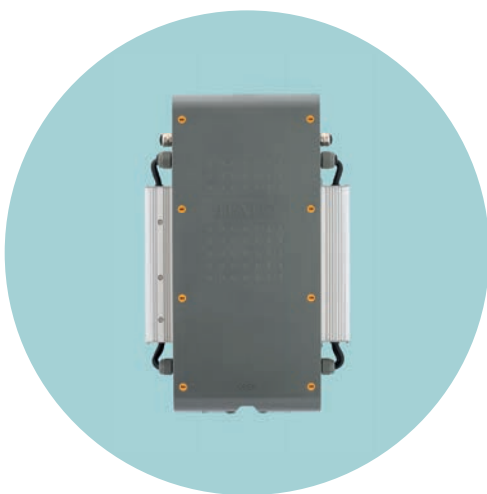
- Aviary (Perch lighting)
- Cage (A-type)
- Cage (H-type)
- Floor housing

	Operating voltage	Dim range	Light source	Power consumption	Light output	Efficacy	Light colour	Flicker-free	Expected average lifetime
ARA	220-240VAC 50/60 Hz	100-2%	LED	7.4W	800lm	>110lm/W	3000K	yes	25,000h L70
ARA Blue	220-240VAC 50/60Hz	100-2%	LED	4W	60lm	15lm/W	Blue 455nm	yes	25,000h L70

ACCESSORIES

To realise an optimal light climate, good lighting solutions are key. However, to get the most out of them, it's important to make use of the right accessories as well.

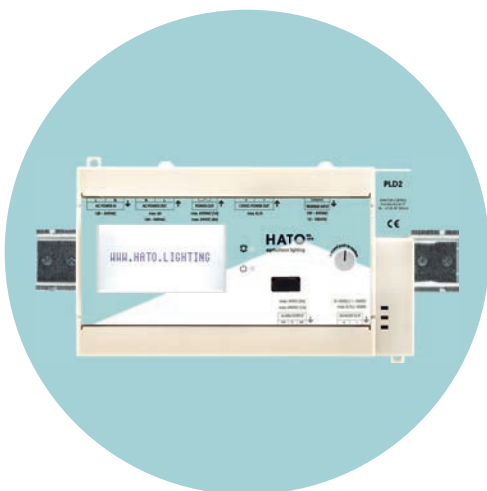
HATO Power Pack Poultry



Power supply box for poultry houses

- ✓ Works with our 48VDC lighting solutions
- ✓ IP65: dust and water proof
- ✓ High reliability & smart design

PLD2

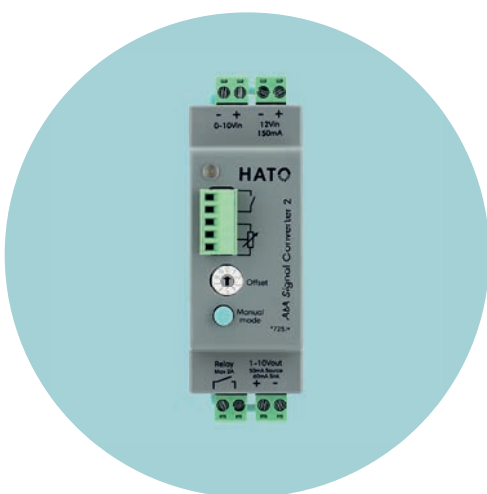


Enables easy sunrise and sunset simulation

- ✓ Works with our HATO POWER PACK & 48VDC lighting solutions
- ✓ Executes up to four light programmes per day
- ✓ No climate computer needed to control the lights



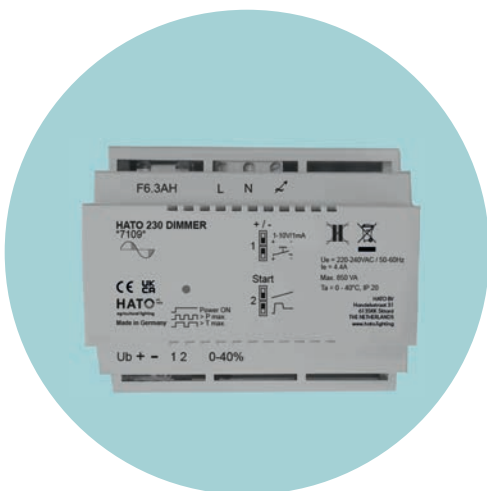
AtA Signal Converter 2



Converts a 0-10V dim signal to a 1-10V signal

- ✓ Works with our HATO POWER PACK & 48VDC lighting solutions
- ✓ Three control modes
- ✓ Control unit / climate computer protection

HATO 230 dimmer



Enables smooth and deep dimming

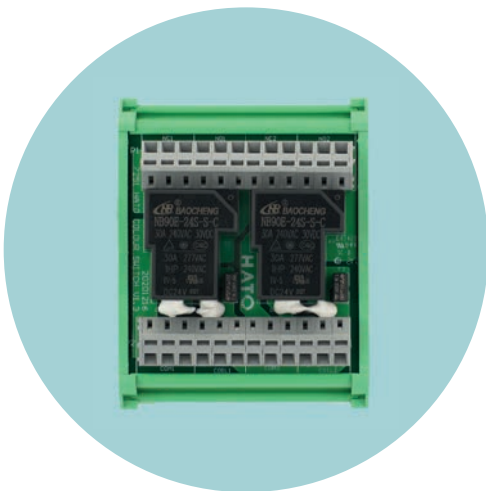
- ✓ Works with our 230VAC lighting solutions
- ✓ Follows a 1-10V signal
- ✓ Built-in thermal overload protection

ACCESSORIES

To realise an optimal light climate, good lighting solutions are key. However, to get the most out of them, it's important to make use of the right accessories as well.



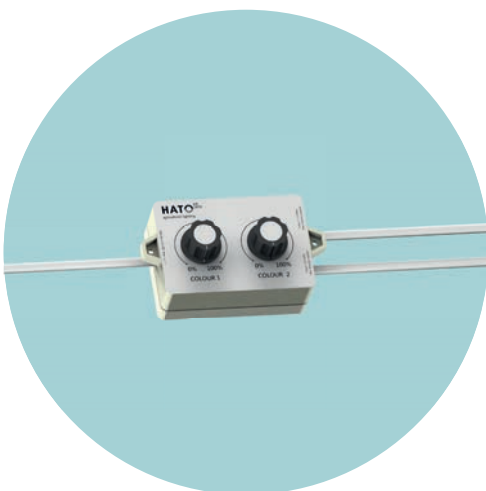
HATO Colour Switch



Enables switching between light colours

- ✓ Works with our HATO POWER PACK & 48VDC lighting solutions
- ✓ Easy installation
- ✓ Lower costs: fewer power supplies needed

Multi Colour Dimmer 2 (MCD)



Enables two colours to be dimmed separately or mixed

- ✓ Works with our HATO POWER PACK & 48VDC lighting solutions
- ✓ Splits one 0-10V dim signal into two dim signals
- ✓ Sets a manual attenuation for both output dim signals

HATO ONE

An optimal light climate is of key importance for poultry. However, how do you know whether the light climate is good and how can you see what to improve to realise an optimal light climate? From this perspective, we developed the HATO ONE. The HATO ONE enables detailed measurement, elaborate analysis and improvements based on facts.



- ✓ Measure, analyse, improve!
One of a kind poultry lighting meter
- ✓ Measures all aspects of light that matter for poultry
- ✓ Elaborate analysis and report functions
- ✓ Improvement based on facts

Unique Measurement Features

By hand or app

Light intensity

CCT (Correlated Colour Temperature)

Light spectrum

CRI (Colour Rendering Index)

Light flicker

Accessories



HATO ONE



For more information,
please scan the QR code

Become a HATO partner

HATO focuses on cooperation. We share knowledge and experiences with our partners and they with us. That's how we come to solutions that lead to an optimal result for farmer and animal. Together.

HATO partners

HATO partners provide the world with lighting solutions that achieve the best results in a responsible way. Our partners don't just sell a lamp. They provide a lighting solution. A solution that fulfils specific needs. All backed up by thorough knowledge that we are happy to share with the rest of the world through HATO Insights.

Four reasons to join the HATO family today. HATO partners:

- ✓ Achieve the best results for farmer and animal in a responsible way
- ✓ Don't just sell a lamp. They provide knowledge-based lighting solutions
- ✓ Get access to HATO Insights trainings
- ✓ Are part of the global HATO family network.



Request a free lighting plan

Every type of poultry has different needs. It is important that the different aspects of light are adjusted accordingly.

This also applies to the poultry house. It is essential that the light climate is optimally adapted to the house, the equipment inside and all the other characteristics.



An optimal light climate.

We can create a tailor-made lighting plan for your poultry house that ensures the lighting conditions are adapted to the house and the poultry it houses. This is how we achieve an optimal light climate that improves poultry well-being and performance.

A good lighting plan:

- ✓ **Fulfils the needs of the poultry in the house**
- ✓ **Takes every aspect of the house into account**
- ✓ **Enables to realise an optimal light climate**
- ✓ **Improves poultry well-being and performance**



Scan the QR code to
request a free lighting plan



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