



orion™

# AGRICULTURAL LIGHTING

WITH AN ENERGY SAVINGS GUARANTEE

1.800.660.9340  
[orionlighting.com](http://orionlighting.com)





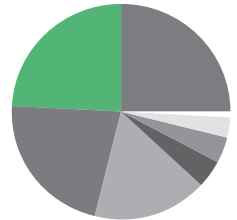


## Better light for less

Lighting consumes almost a quarter of the energy, you, as a producer use. Orion's agricultural LED lighting products provide the most light output for the least amount of energy consumed. With LED, you have an immediate "on" response and no mercury.

### 24% LIGHTING

- 25% Milk cooling
- 22% Ventilation
- 17% Vacuum pumps
- 4% Manure handling
- 4% Electrical water heating
- 3% Feeding equipment
- 1% Misc.



## Little to no maintenance

Orion's LED lighting lasts at least five times longer than HID and at least three times longer than fluorescent. This means your Orion LED products are virtually maintenance free so you can focus on more productive tasks. Plus, easy installation, fixture modularity, and upgrades with technology improvements ensure continuous performance and product longevity.



## Free up your cash flow

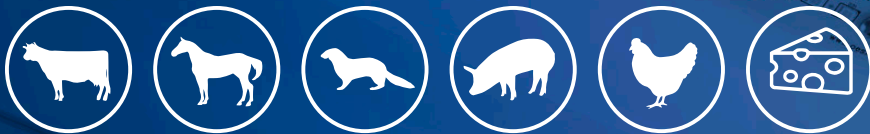
Many states and utilities offer energy efficiency rebate and incentive programs to lower the up-front costs of lighting projects. The federal Rural Energy for America program also provides grants for energy audits, and up to 25% of the total project cost for energy efficiency improvements.



## Energy savings guaranteed

Orion takes the risk out of your retrofit project with a written guarantee. The energy savings from our lighting solution will take the lighting cost of your building, while creating a safe work environment and potentially increase productivity in livestock.





## Multi-market products

Orion technology is reducing costs and increasing productivity at hundreds of facilities – including dairy, equine, mink, hog, poultry, and cheese factories.

Contact your local Orion agriculture representative for more information on which products will work best for you and your facility.

**Call today! 800.660.9340**

## Long-Day Lighting (LDL)

### Boost productivity and profitability with long-day lighting

Long-day lighting provides supplemental light by extending the short fall and winter days (September through April) to 16 to 18 hours of light in order to increase milk and livestock output., they respond by giving more than two-three additional pounds of milk per day. Whether you milk once or three times a day or even 24/7, the typical payback is one year or less with a return on investment of 100% or more. That's \$100,000 added net income annually for a 1,000-cow dairy.

#### The 5 Rules of Long-Day Lighting (LDL)

- |   |  |  |
|---|--|--|
| 1 | A total of 16 to 18 hours of light per day | Choose a day length that suits your barn work and milking schedule. Add artificial light before dawn and after dusk to make the day longer.                                |
| 2 | Darkness 6 to 8 hours per day              | Make sure all cows get a single, uninterrupted period of darkness, 6 to 8 hours.   |
| 3 | Use a timer to turn barn lights on and off | Consistent day-to-day timing is essential to successful LDL.   |
| 4 | Fifteen footcandle average                 | Install fixtures for consistent, sustainable light at an average of 15 footcandles everywhere in the barn (including holding area for freestall operations).               |
| 5 | Annual break from LDL schedule             | All cows get a rest away from the timed LDL lights once a year to reset their biological clock and continue responding to LDL by producing more milk on a long-term basis. |

"Since we did Long Day Lighting with Orion's LED program, we have seen a 5 to 7% increase in milk production. We are very pleased with our investment and immediately saw a return. Another great idea from our Veterinarian."

**Aidan Daly**  
Celtic Dairy, Dairy





# Product Suite

Orion is leading the transformation of agricultural businesses with state-of-the-art energy efficient lighting systems and retrofit lighting solutions. Orion manufactures and markets a cutting edge portfolio of products encompassing LED solid state lighting and control options.

Many of Orion's 95+ granted patents and patent pending applications relate to lighting systems that provide exceptional optical and thermal performance, which drive financial, environmental, and work-space benefits for a wide variety of customers.

## APOLLO® LED High Bay Harsh Applications, Gen 1 | AHHA1



- Robust design with tempered glass and die cast aluminum housing provides maximum protection in demanding environments
- UL/cUL Wet Listed, Fixture is IP65 Rated
- 6kV/3kA Surge Protection Standard
- Available voltage: 120v-347v
- Lumen package range from 21,000 - 28,000 lumens, up to 149 LPW



IP65

## APOLLO® LED Enclosed Wet Listed High Bay, Gen 2 | WTLED2



- Nite Liter (Bi-level) option for low light level in Long Day Lighting program
- Sealed and gasketed aluminum body with lens, bronze or granite finish
- IP65 rated, impact resistant up to IK04
- Wireguard and sensor guard option with IK10 rating
- 10kA surge protection option
- Available voltage: 120v-277v, 347v, and 480v
- Lumen package range from 12,000 - 32,000 lumens, up to 143 LPW



IP65



## APOLLO® LED VaporTight Wide, Gen 2 | VTOD2



- Durable and versatile fixture for demanding environments that require a dust-proof fixture or watertight seal such as food-processing facilities, breweries, agricultural, and cooler/freezer environments
- UL/cUL Wet Listed, Fixture is IP67 rated for 4' fixtures, Fixture is IP69 rated for 2' fixtures, IP66 rated when using WSxx and WBxx sensors, IP65 rated when using WWxx sensor, NSF/ANSI Standard 2 Rated when no sensors are used and certain mounting methods are selected
- 6kV/3kA Surge Protection Standard. 20kV/10kA Surge Protection available
- Available voltage: 120v-277v, 347v, and 480v
- Lumen package range from 13,000 - 38,000 lumens, up to 167 LPW



IP67



IP69

## APOLLO® LED VaporTight Narrow, Gen 2 | VTON2



- Durable and versatile fixture for demanding environments that require a dust-proof fixture or watertight seal such as food-processing facilities, breweries, agricultural, and cooler/freezer environments
- UL/cUL Wet Listed, Fixture is IP67 rated for 4' fixtures, Fixture is IP69 rated for 2' fixtures, IP66 rated when using WSxx and WBxx sensors, IP65 rated when using WWxx sensor, NSF/ANSI Standard 2 Rated when no sensors are used and certain mounting methods are selected
- 6kV/3kA Surge Protection Standard. 20kV/10kA Surge Protection available
- Available voltage: 120v-277v, 347v, and 480v
- Lumen package range from 3,000 - 20,000 lumens, up to 164 LPW



IP67



IP69

## HARRIS LED UFO High Bay, Gen 4 | HHUF4

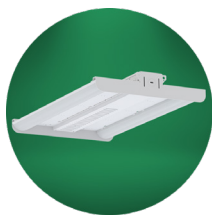


- Orion Energy Systems product is NSF/ANSI Standard 2. The Harris HHUF4 is ideal for a wide array of applications including harsh environments in agricultural, industrial and manufacturing. When used with the refractor lens option it provides great up lighting for retail applications
- Fixture is IP65 Rated, IK10 Impact Rating (Fixture Only), NSF/ANSI Standard 2 Rated
- 6kV/3kA Surge Protection Standard. 20kV/10kA Surge Protection available
- Available voltage: 120v-277v, 277v-480v
- Lumen package range from 15,000 - 36,000 lumens, up to 150 LPW



IP65

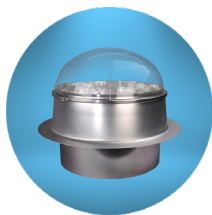
## HARRIS Star Line Freezer High Bay, Gen 1 | HSLF1



- Robust electronic components designed for freezer temperatures
- UL/cUL Damp Listed, Engineered for -40°F Freezer Environments
- 6kV/3kA Surge Protection Standard. 20kV/10kA Additional Surge Protection available
- Available voltage: 120v-277v, 347v, and 480v
- Lumen package range from 15,000 - 29,000 lumens



## APOLLO® Solar Pipe | LP



- Daylighting device designed for commercial and industrial applications
- Closed cell insulation between roof flashing and reflector tube
- Solid clamping band provides flame spread protection
- Seamless, all aluminum construct with built-in roof flashing
- AAMA/WDMA/CSA 101/I.S.2/A440-08 certified
- Meets or exceeds performance levels specified in 2006 IBC Standards
- Exceeds OSHA 29 CFR 1910.23 (Guarding Floor openings and holes)
- 22.25" Light pipe Diameter

## ISON™ LED Area Light High Performance, Gen 1 | IAHP1



- Industry leading lumen per watt performance maximizes energy savings and leads to the lowest total cost of ownership for exterior lighting. Replaces up to 1200W HID high intensity discharge fixtures
- UL/cUL Listed for Wet Locations, RoHS Compliant Components, IK10 Impact Rating, Fixture with Sensor is IP66 Rated, Fixture is IP67 Rated, 3.0 G Vibration load rating per ANSI C136.31, Title 24 Compliancy when using optional sensor, Dark Sky Approved 3000K CCT
- 10kV/6kA Surge Protection Standard
- Available voltage: 120v-277v, and 277v-480v 3phase
- Lumen package range from 13,000 - 63,000 lumens, up to 172 LPW



## HARRIS LED Lumen Select Full Cutoff Wall Pack, Gen 1 | LSWF1



- Two fixture sizes with selectable power/lumens between 2,000-18,000 lumen outputs provide flexibility to adjust in the field. 80 CRI minimum; CCT selectable between 3000K, 4000K or 5000K
- UL/cUL Wet Listed
- 10kV/5kA Surge Protection Standard
- Available voltage: 120v-277v
- Lumen package range from 3,000 - 18,000 lumens, up to 140 LPW



## HARRIS LED Lumen Select Semi Cutoff Wall Pack, Gen 1 | LSWS1



- Three fixture sizes with selectable power/lumens between 2,000-18,000 lumen outputs provide flexibility to adjust in the field. 80 CRI minimum; CCT selectable between 3000K, 4000K or 5000K
- UL/cUL Wet Listed
- 10kV/5kA Surge Protection Standard
- Available voltage: 120v-277v
- Lumen package range from 3,000 - 18,000 lumens, up to 158 LPW



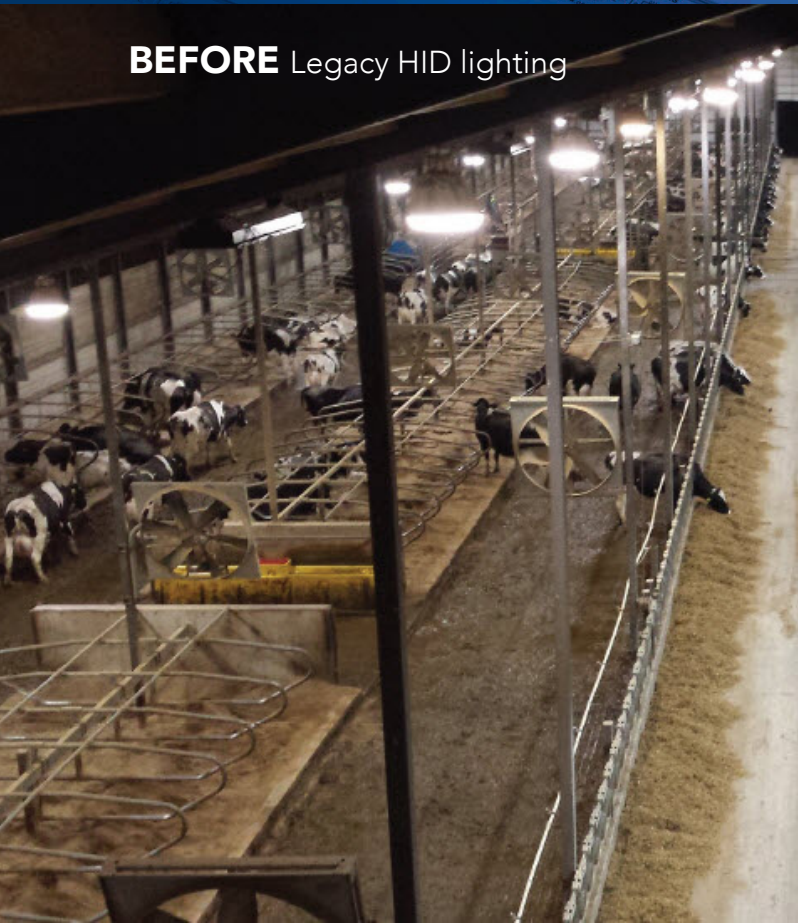
APOLLO® LED VaporTight Wide Body Bi-Level | VTOD1



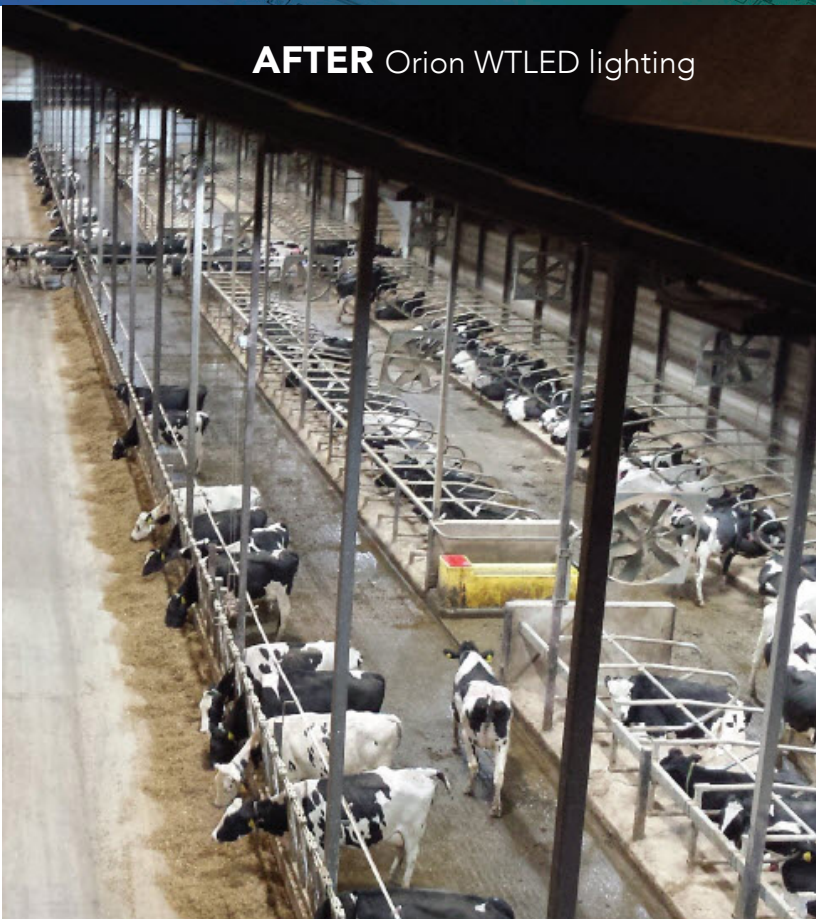
# CASE STUDY

## Zinke Farms / Brownsville, WI

**BEFORE** Legacy HID lighting



**AFTER** Orion WTLED lighting



### Project Descripton

Zinke Farms used 53 - 400w HID fixtures for Long-Day Lighting (LDL) and retrofitted to 36 - BarnLiter and 12 - NiteLiter 200w WTLED fixtures.

#### Project Metrics

Annual Cost Savings .....	\$5,644
Annual Kilowatt Hour Reduction .....	56,436
Load Reduction .....	13.62 kW
Annual Carbon Dioxide Reduction .....	35 Tons

Farm reduced  
fixture count  
from 53 to 48  
without any loss  
of light levels!



# MORE THAN JUST A LIGHTING COMPANY

Our relationships go beyond shipping you the latest fixture. Orion's experienced photometric design team will work closely with you to be sure you achieve the goals established for your specific project.

## Guaranteed Energy Savings

- Achieve the documented energy savings from our products or we refund the difference

## Better Light Quality For Less

- Directed light through optical efficiency, no waste
- Fewer fixtures, more foot candles
- Volumetric lighting without hotspots or shadows

## Lower Cost Install

- Plug and play design
- Lower overall labor costs
- Install more fixtures in less time

## Less Downtime, More Uptime

- Fixtures labeled to your facility's layout
- Fully assembled and kitted fixtures
- Fast and easy install
- Packaged to fit through doors

## More Profitability

- Energy savings that takes the cost out of your building
- HVAC load reduction
- Increase safety, productivity and morale

## Real World Performance

- More lumens per watt with less energy consumed
- Every fixture tested before shipment
- Long LED lifetime via superior thermal management
- Patented, high performance design
- Multiple certifications and qualifications including UL, DLC Qualified, NSF and more

## On-Time Projects

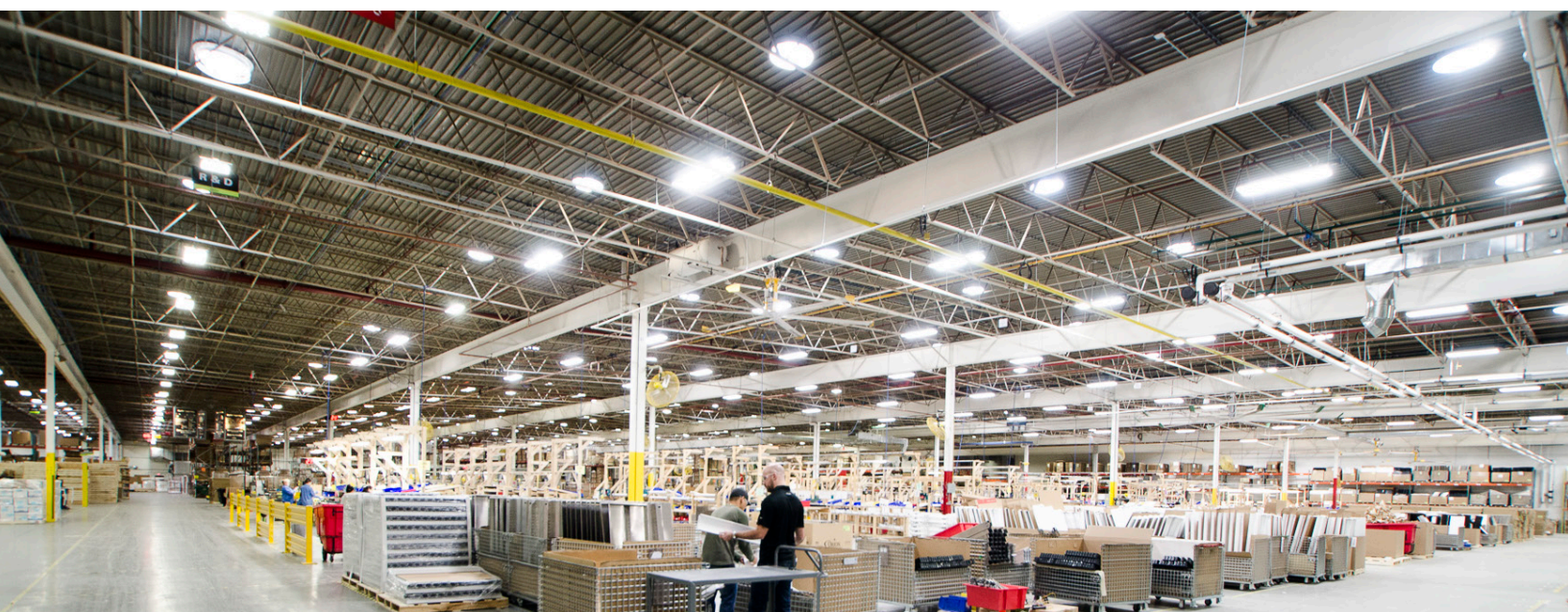
- 99% [on-time](#) shipments
- Quick ship, 5-10 days
- Overnight shipment of additional materials

## Trusted American Partner

- Clear warranties with excellent coverage
- Quality manufacturing base with domestic and international partners
- 40 years retrofit experience

## Clean Jobsite Management

- Single and bulk packaging options
- Packaging doubles for recycling
- No need for a dumpster
- Debris-free install







“To save about 50% on our lighting costs without compromise created a great value. And the Orion lighting makes it easy to see a cow’s number.”

**Habeck Homestead Farms LLC**  
Keith Habeck , Maribel, Wisconsin

**orion™**

2210 Woodland Drive  
Manitowoc, WI 54220

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