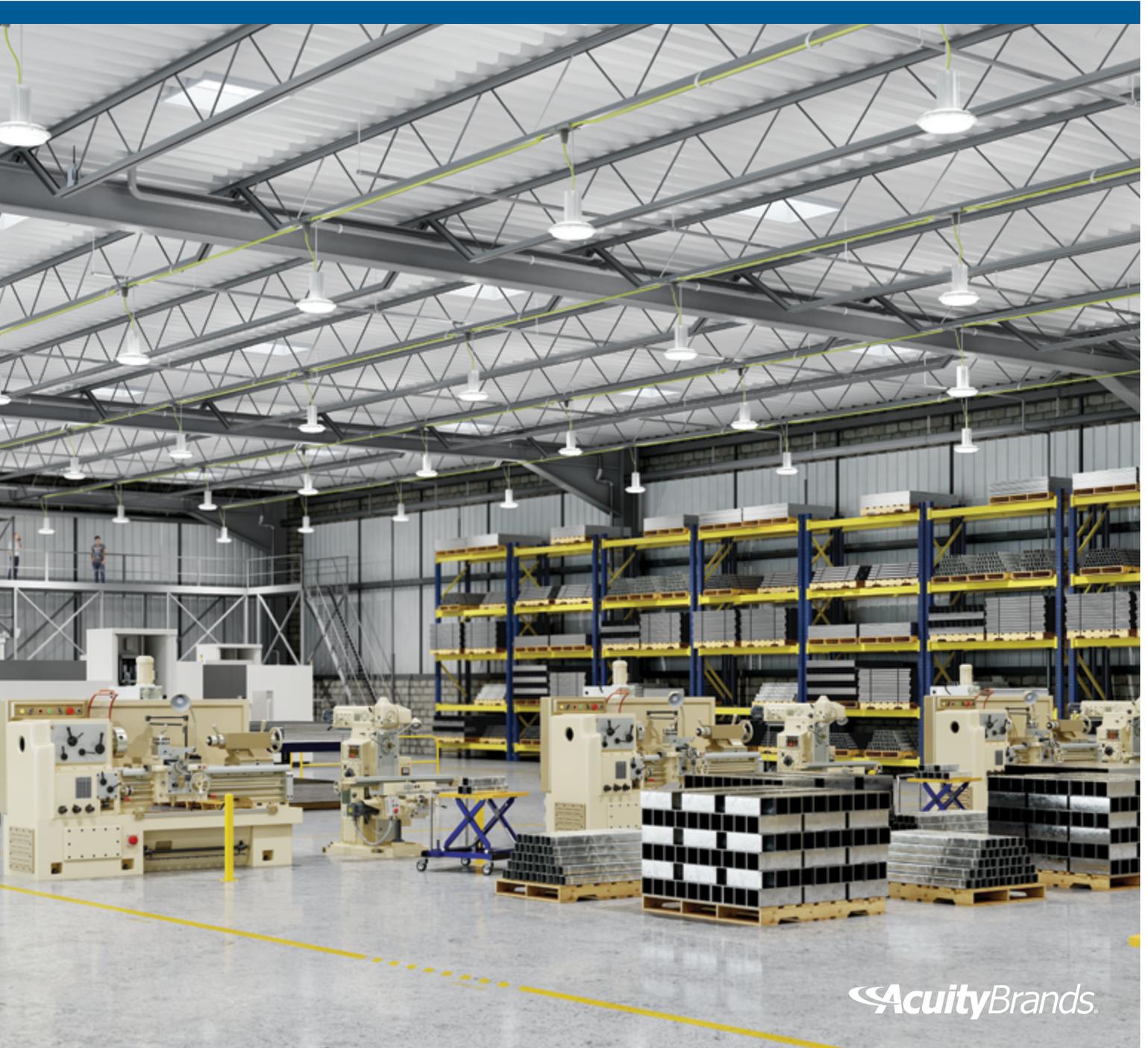


Manufacturing

Industrial Lighting & Controls Solutions



Your productivity is everything. Maximize it with our lighting solutions.

Your best equipment isn't always on the production floor.

In manufacturing, lighting is about more than illumination. Lighting should also promote safety, ensure energy savings, meet building codes, and require minimal maintenance. These issues affect your ability to run at full capacity and, thus, your bottom line. They're non-negotiable.

For over a century, manufacturers have partnered with Acuity Brands® to integrate lighting into their operations — lighting that enhances productivity and streamlines their facilities management.

Part of the Acuity Brands family, Holophane® provides the lowest total cost of ownership and brings to your specific space products backed by a strong legacy of innovative lighting technologies. Since 1898, Holophane's extensive portfolio of solutions has helped to create cost-effective, safe and productive manufacturing facilities.



It's more than 'Energy Savings'
It's savings, and *performance*. The result: Holophane provides the lowest total cost of ownership for your lighting solutions.

Your lighting system should work hard for you.

Imagine lighting that doesn't take breaks, waste expensive resources, or require ongoing supervision.

- Your lighting could minimize the time and money needed to get things done by reducing the resources you spend on installation, maintenance and energy.
- Your lighting should help keep you running in compliance with the latest codes for safety, plus qualify you for efficiency-related rebates and tax incentives, especially when combined with controls.
- Your lighting can reliably and consistently produce superior illumination to support your operations, whatever the task or wherever the location.

Custom solutions, optimized lighting for the manufacturing space.

Holophane is your true lighting solutions partner, with a dedicated, factory-direct sales team that can work directly with you to optimize your lighting solution. We deliver industry-leading lighting and controls solutions that simply work amid the challenges of the manufacturing environment.

Expect your lighting to do more for your bottom line.

Benefits of an Optimized Manufacturing Facility

S

Savings

Realized through reduced energy use, labor and maintenance.

OE

Operational Efficiency

Achieved through increased productivity, improved safety and reallocated resources.

VC

Visual Comfort

Supports reduced worker fatigue and higher, more consistent production.

F

Flexibility

Components provide control over your lighting environment with tools that evolve as your operation does.

Your manufacturing lighting can give you years – many years – of flexible, efficient lighting that will pay for itself over a short time. The optimization starts with advanced LED luminaires that save energy and minimize maintenance. The more you invest, the more benefits you realize for reducing your total cost of operations.

With our lighting and controls solutions, you customize a system to your specific application and maximize your returns.

In the renovation example below, we replace pulse-start metal halide luminaires in a typical manufacturing application (bottom of chart) with Phuzion™ PHS LED high bay luminaires — and then build up to your optimized solution.



A Lighting Reminder

- On average, LED lighting technology can save you 60% in energy costs over traditional lighting technology
- Better-quality lighting overhead enables safer, more efficient operations on the production floor
- On multiple fronts, outdated lighting simply can't compete with today's smart lighting and controls

Renovation Examples – 250 Luminaires – 10 year Lifecycle

	System	Average Yearly Operating Cost*	Investment Drivers*	Benefits
OPTIMIZED	Replace with: LED High Bay Luminaire with Wireless Controls & Occupancy and Photocell Sensor	\$12,272 / \$70,183	2.7 Yearly Payback / 35% IRR	S, OE, VC, F
	Replace with: LED High Bay Luminaire with Occupancy Sensor	\$21,522 / \$60,933	2.8 Yearly Payback / 33% IRR	S, OE, VC
	Replace with: LED High Bay Luminaire Only	\$28,661 / \$53,794	3.0 Yearly Payback / 32% IRR	S, VC
	Existing Lighting: 400W Pulse Start Metal Halide High Bay Luminaire	\$82,455 (energy & maintenance)		

Operating Cost Savings

*Figures are based on conversion from existing 458W pulse start metal halide luminaires to new 168W Phuzion PHS LED high bay luminaires. Savings and returns estimates assume \$0.10/kWh utility rate, 6,570 yearly operating hours, projected typical control system performance, and typical HID lamp/ballast replacement and labor costs. Actual savings, payback period, and IRR may differ as a result of product cost, end-user environment, and application.

Solutions to Optimize your Manufacturing facility



Lighting that saves you money – LED Luminaires for Manufacturing



S

VC

The Holophane® Phuzion™ PHS LED high bay luminaire combines traditional downlight with 14% uplight for unprecedented lighting uniformity in a traditional round design.

- Eliminates the dark ceiling typical of traditional high bay applications by reducing the visual contrast between the ceiling and the fixture
- Features Holophane® patented, patterned borosilicate glass that doesn't fade or degrade, reduces glare, and ensures the highest levels of luminosity over time

Lighting when you need it – Responsive Occupancy Sensor



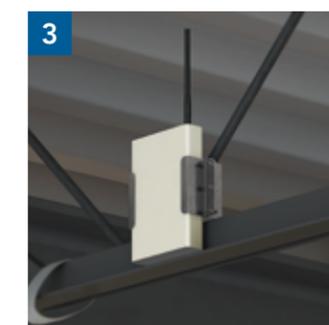
S

OE

The Acuity Controls Sensor Switch™ CMRB passive-infrared occupancy and photo sensor allows you to create a more efficient work environment.

- Turns off or dims lights when space is unoccupied, increasing energy savings and life of your luminaires
- Light only the space you need with optional dimming and photocell settings

Lighting that changes with you – Flexible Network Controls



S

OE

F

XPoint™ Wireless and SensorView from Acuity Controls mean superior lighting management through wired/wireless network communication between fixtures, sensors, and control stations.

- Digital system lets you configure individual fixtures or entire zones as you boost savings, increase luminaire life, and comply with local codes
- SensorView software optimizes system via task-tuning, configuring, rezoning, program scheduling and more, all through one interface or app

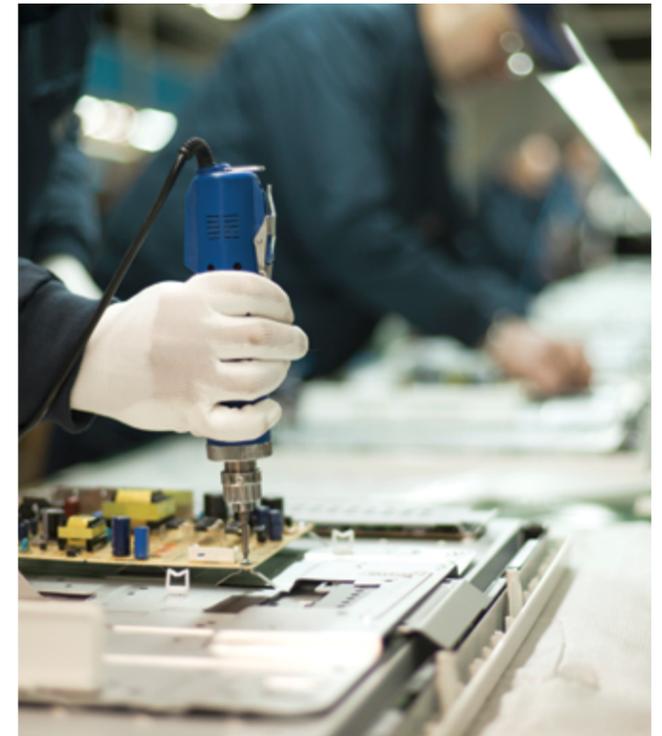
A+ Certified solutions from Acuity Brands help you quickly and confidently select and implement lighting systems, for indoor or outdoor applications, that are both compatible and consistent. See back cover for more information.

Complete your manufacturing solution with outdoor lighting.



Your employee parking. Truck yards. Loading docks and the building's perimeter. Maximize lighting quality and support safety and security for all of these spaces while minimizing your total cost of lighting ownership with our advanced outdoor lighting and controls technology.

Acuity Brands solutions for every area, every need.



Area Lighting

Holophane® Mongoose® LED roadway and area luminaires are the ultimate in application flexibility and low operational costs.



- Features multiple lighting distributions and mounting options, plus fixture-tilt capabilities to 45°
- Replaces 150-1000W HIID

Floodlighting

Holophane® Predator® LED floodlight luminaires provide optimized thermal management for maximum performance, long life, and reliability.



- Segmented internal reflector design provides superior field-to-beam ratios, uniformity, and spacing
- Two models replace 100W-400W or 400W-1000W HID

Wall-Mounted Lighting

Holophane® Wallpack® LED W4GLED with a prismatic glass lens gives you excellent lighting control and uniformity while minimizing light trespass and glare.



- Provides energy savings of up to 77% over comparable metal halide luminaires
- Replaces 175-400W metal halide

Extreme-Condition Lighting

Lighting is just as important in those demanding areas of your facility with unforgiving climates such as dust, moisture and airborne contaminants.

- The Phuzion™ PHZL LED high bay is your LED replacement for up to 1000W HID. It delivers consistent light levels beyond traditional lighting and more light at higher temperatures than other LED high bays.
- The Phuzion™ PHZ LED high bay luminaire combines the latest in LED technology with legendary Holophane prismatic glass for exceptional light output and long life in high ambient temperatures.



Task Lighting

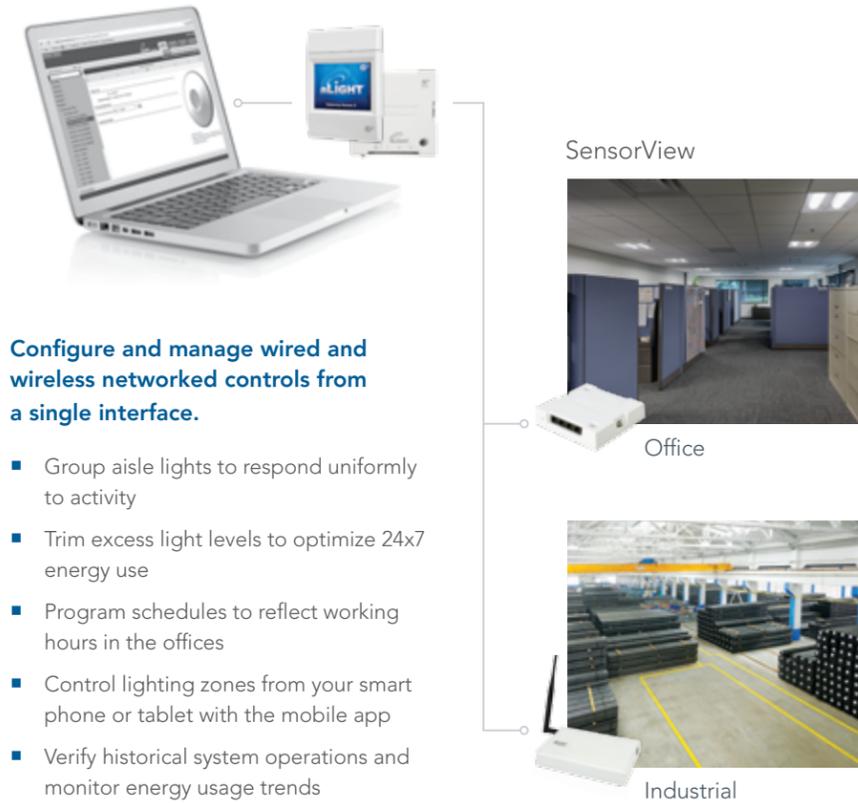
In addition to traditional production lighting, we have task lighting solutions for employee workstations, storage areas, or other areas that need a low-profile solution.

- Holophane® Bantam 2000® Series LED luminaires are a wise choice for covering a broad range of low-bay applications with superior lighting.
- Holophane® HZL Series LED striplights provide superior performance and longer life than fluorescent striplights; no lamp outages mean uniform light and reduced maintenance costs.



Take your operation to the next level with Acuity Controls XPoint™ Wireless.

You're looking for an edge. You want greater levels of operational functionality and flexibility. You want to achieve greater savings. Consider investing in your operation by choosing the incredibly simple and adaptable XPoint Wireless lighting control system.



XPoint Wireless and SensorView software give you the tools needed to optimize your business and maximize your energy savings:

- **Ultimate flexibility:** Experience the freedom to rezone or move fixtures as your operation evolves — manage your lighting at any level, from the entire site, to specific zones or single fixtures.
- **Reliability = peace of mind:** XPoint Wireless is based on a proven wireless mesh network that has no single point of failure.
- **Stress-free code compliance:** Regulations change rapidly. Receive and manage demand response signals — or implement peak shaving strategies — to drive more savings. XPoint Wireless enables greater levels of multi-level dimming and daylight harvesting.

Set the stage for increased energy savings, flexibility and life safety.



Daylighting

Sunoptics® Signature Series prismatic skylights use a patented optical design to capture more light at low sun angles, which can eliminate the need for electric lighting during the daylight hours.



Modular Wiring

RELOC® OnePass open-ceiling modular wiring simplifies the installation of warehouse lighting luminaires and reduces time and installation costs.



Life Safety

Employing LED technology precisely tailored for emergency situations, the Lithonia Lighting® Quantum® LHQM LED provides long (up to 10 years) maintenance-free life reducing total cost of ownership.

Complete your experience with additional Holophane and Acuity Brands services and tools.

A+ Certification for Compatible and Consistent Performance

A+ Certified solutions from Acuity Brands help you quickly and confidently select and implement lighting systems that are both capable and compatible. For lighting professionals, it means ease, freedom and confidence that all parts of a certified lighting system will operate together.



Acuity Brands Services

Acuity Brands offers customer financing and rebate services, so customers can experience the energy and expanded capabilities of LED lighting and remain cash-flow positive in year one. Contact services@acuitybrands.com for more information and a custom financing program for your next renovation project.

www.acuitybrands.com/solutions/services

Visit Holophane.com/Industrial-Manufacturing

AcuityControls

AEL American Electric Lighting

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WIRING SOLUTIONS

SUNOPTICS

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