



LIGHTING FOR
FOOD & BEVERAGE
PROCESSING FACILITIES






PRODUCT SELECTION SIMPLIFIED



LITHONIA LIGHTING MAKES CHOOSING THE RIGHT FIXTURE EASY

The application chart below defines three categories found in food and beverage processing environments. Each category is represented by an icon so you can identify fixtures best suited for your specific application.

Icon	Category	Conditions	Typical Applications
	NSF non-food zone/ non-conditioned storage	Areas where direct contact with food products during normal operations would not be expected. Equipment is located outside the normal wash-down area. There is a concern that the fixture will add contamination to the protected space or food product (i.e. will the finish withstand cleaning, chipping paint, deteriorating paints or finishes, lens impact resistance, lamp glass breakage, etc.).	<ul style="list-style-type: none"> • Kitchens • Dry process areas • Damp process areas • Warehouses • Inspection areas • Shipping/receiving
	NSF splash zone	Areas where direct contact with food products during normal operations would not be expected; however, the fixture may be situated such that liquids used in the processing or cleaning procedures may splash the surface of the fixture. Since these fixtures are often used in wash-down areas, a wet-location listing is not sufficient. Fixtures must be tested to withstand high-pressure hose wash-down.	<ul style="list-style-type: none"> • Meat processing • Canning/bottling • Milking operations • Boiling and keg washing • Egg processing • Cleanrooms • Manufacturing • Car washes • Treatment plants • Parking garages • Commercial kitchens
	Cold storage	<p>Food processing often requires refrigeration or freezing in process or storage areas. Luminaires must be specifically designed to operate in these cold locations and withstand the rigors of frequent washing and cleaning.</p> <p><i>Unless operated 24 hours a day, 7 days a week, please contact an Acuity Brands representative for options regarding manual switching or sensing.</i></p>	<ul style="list-style-type: none"> • Cold and frozen food storage • Carcass coolers • Food processing facilities • Cleanrooms • Commercial kitchens

LIGHTING SOLUTIONS FOR FOOD & BEVERAGE PROCESSING



- FHF**
- Wet-location fluorescent
 - -20°F to 104°F ambient operation
 - Fiberglass housing; suspended mount
 - IP65 rated; high-pressure hose-down up to 1500 psi
 - NSF pending



- EFT**
- Wet-location fluorescent
 - -20°F to 104°F ambient operation
 - Aluminum housing; suspended mount
 - IP65 rated; high-pressure hose-down up to 1200 psi
 - Meets FDA/USDA guidelines
 - NSF splash zone



- DMW**
- Wet-location fluorescent
 - -20°F to 77°F ambient operation
 - Fiberglass housing; surface/suspended mount
 - IP65 rated; IP67 optional
 - NSF splash zone



- SSH**
- Wet-location fluorescent troffer for Class 100 and 1,000 cleanrooms
 - -20°F to 77°F ambient operation
 - Steel housing and doorframe
 - High-pressure hose-down up to 200 PSI (HPD option)
 - Meets FDA/USDA guidelines (FPA option)
 - NSF splash zone



- FHE**
- Wet-location fluorescent
 - -20°F to 104°F ambient operation
 - Fiberglass housing; surface/suspended mount
 - IP65, IP66 and IP67 rated; high-pressure hose-down up to 1500 psi
 - NSF splash zone
 - NEMA 4X rated



- EFS/EFSC**
- Wet-location fluorescent
 - -20°F to 77°F ambient operation
 - Aluminum housing; surface/suspended mount
 - IP65 rated
 - Meets FDA/USDA guidelines
 - NSF splash zone



- ARCHWAY™ PASSAGE™ VAP**
- Wet-location fluorescent and LED
 - -20°F to 104°F ambient operation
 - Polycarbonate housing; surface/suspended mount
 - IP65 rated
 - NSF pending



- TXF**
- Wet-location, metal halide low bay
 - -22°F to 131°F ambient operation
 - Die-cast aluminum housing
 - A30F is IP65 rated; high-pressure hose-down up to 1200 psi
 - NSF splash zone



- FHH**
- Wet-location fluorescent
 - -20°F to 86°F ambient operation
 - Aluminum housing; suspended mount
 - IP65 rated; high-pressure hose-down up to 1300 psi
 - NSF splash zone



- EIS/EISC**
- Wet-location fluorescent
 - -20°F to 77°F ambient operation
 - Aluminum housing; surface/suspended mount
 - IP65 rated
 - NSF pending



- SRT**
- Wet-location, recessed fluorescent troffer for Class 10,000 and 100,000 cleanrooms
 - Steel housing, aluminum doorframe
 - Low-pressure hose-down up to 100 PSI (LPD option)
 - Meets FDA/USDA guidelines (FPA option)
 - NSF splash zone



- TGL-IL**
- Damp-location induction lighting (WL option)
 - -40°F to 77°F ambient operation
 - Die-cast aluminum housing



- FFB**
- Damp-location fluorescent specifically designed for cold storage
 - -20°F to 95°F ambient operation
 - Aluminum housing; suspended mount
 - NSF pending



- FEM/FEN**
- Wet-location fluorescent
 - -20°F to 104°F ambient operation
 - Fiberglass housing; surface/suspended mount
 - IP65 and IP67 rated
 - NSF pending



- SRH**
- Wet-location, recessed fluorescent troffer for Class 100 and 1,000 cleanrooms
 - -20°F to 77°F ambient operation
 - Steel housing and doorframe
 - IP65 rated
 - High-pressure hose-down up to 200 PSI (HPD option)
 - Meets FDA/USDA guidelines (FPA option)
 - NSF splash zone



- VR4C/VR4CV-IL**
- Wet-location, rough-service induction lighting
 - -40°F to 77°F ambient operation
 - Die-cast aluminum housing; ceiling/wall mount



The ambient temperature ranges shown represent a variety of lamp & ballast configurations; Not all configurations are suitable for the entire temperature range. For more detailed information on each product, please refer to specification sheets on www.lithonia.com.

ABOUT FOOD & BEVERAGE PROCESSING

CHARACTERISTICS OF THE ENVIRONMENT

Food processing environments present a unique set of challenges to the performance and durability of lighting equipment. A food processing facility typically includes many different areas, each of which demands a lighting solution that meets its specific environmental and illumination needs.

A typical food processing facility consists of a number of distinct areas:

- NSF classified areas: food zone, splash zone and non-food zone
- Warehousing, staging, distribution areas including cold storage and non-conditioned storage areas
- Some of the above areas may be classified as hazardous locations
- General indoor and outdoor areas: offices, lobbies, corridors, loading docks and parking lots

Lithonia Lighting's extensive offering not only meets the luminaire construction requirements set forth by the USDA, FDA and NSF, but also delivers superior optical performance requiring fewer luminaires and less wattage than average.

CHALLENGES OF THE ENVIRONMENT

Luminaires must be able to withstand the daily wash-downs required to prevent bacteria growth or harborage of other contaminants, and must be able to endure the corrosive effects of cleaning solutions. Because some areas of a processing facility are refrigerated, luminaires must be able to turn on and deliver appropriate light levels at sub-zero temperatures.

LITHONIA LIGHTING TESTING PARAMETERS

Testing parameters vary by product. The typical hose-down procedure is best described in the third condition below. All these tests were performed with no water ingress.

1. Laboratory-controlled water pressure: 1200 psi $\frac{1}{16}$ -inch diameter nozzle, 3 to 5 GPM from a distance of 5 to 6 feet.
2. Municipal water pressure: variable 20 to 100 psi, $\frac{1}{2}$ -inch diameter nozzle, 15 to 17 GPM from a distance of 10 to 12 feet.
3. Municipal water pressure: variable 20 to 100 psi, Strahman Hydro-Pro™ 150° (typical industrial wash-down nozzle), 5 to 7 GPM from a distance of 10 to 12 feet.
4. IP65 test performed to the standards of the International Electrotechnical Commission by a third-party listing organization: approximately 20 psi, $\frac{1}{4}$ -inch diameter nozzle, 3.3 GPM from a distance of 10 to 12 feet.

HOSE-DOWN TESTING:

When hose-down conditions are expected, hose-down testing should be quantifiable and meet the rigors of actual application conditions. Many manufacturers of lighting equipment simply list a nozzle pressure value such as 1200 psi for hose-down rating. To properly quantify a true picture of the severity of the test conditions, other parameters such as nozzle diameter, flow rate and distance from the nozzle to the luminaire are necessary.



LITHONIA LIGHTING COMPLIANCE



NSF International is a non-profit, independent, third-party certifier of products and systems for the food processing industry. NSF International ensures compliance to Food and Drug Administration and United States Department of Agriculture requirements and tests the materials, construction and cleanability of the product. Unannounced audits and inspections of manufacturing facilities are performed to ensure ongoing compliance.

The **Food and Drug Administration** and the **United States Department of Agriculture** have set guidelines for the construction, materials and ease-of-cleaning of lighting fixtures in facilities where food is processed, prepared, stored and served. The primary concern is sanitation and public health. Neither group lists nor approves products. These guidelines are subject to the interpretation and enforcement of local officials.



For certain applications, the Food and Drug Administration and United States Department of Agriculture guidelines include:

- Fixtures can have no exposed glass.
- Must completely hose down at a minimum standard city pressure at 20 to 100 psi (pounds per square inch) of water at the nozzle.
- If painted, must be with FDA-compliant paint.
- Should be manufactured from a low-copper-content, aluminum alloy.
- Should utilize a wet-location-listed hanging device (if applicable).
- Should be smooth and rounded with little or no surfaces for food to accumulate.
- Must utilize stainless steel or corrosion-resistant hardware.