





Welcome to Engineered Products Company (EPCO®)!

We are the premier brand supplier of specialty products to Electrical Distributors and Contractors. Since 1976, EPCO has supported the electrical industry by supplying a broad range of standard and unique consumables for commercial, industrial, residential, and agricultural buildings. Our reliable, durable, and quality products are designed and engineered with innovative product features specifically intended to save installation time and cost.

All of our standard cataloged products are in stock in our 52,000 square foot warehouse and available for immediate shipment. We are committed to providing our customers with the "complete" quality customer service experience from technical support, easy ordering, shipping orders 100% complete in 24 hours or less, comprehensive post sale technical support, and "hassle-free" returns.

Our goal is to provide you with competitively priced, quality products with customer service and delivery dates that meet your requirements. If you don't see exactly what you need in our catalog, call or email (sales@engproducts.com) your product request to us today.

Our Most Important Product Doesn't Come In A Box!



At Engineered Products Company (EPCO), our most important Product is Service. This means every shipment you receive includes some very important extras.

- Prompt Customer Response
- On Time Delivery
- Sales Order Accuracy
- Exceptional Order Fill Rates
- Lower Transaction Cost
- Competitive Prices

You get nationwide support from our network of EPCO Representatives, professionals who can answer all your questions. And we also pack a promise..."Our Guaranteed Sales Policy". Any Products you are unable to sell may be returned to EPCO for a 100% credit - Guaranteed!

For the name of the Engineered Products Company Sales Representative nearest you,

800.336.1976 www.engproducts.com/LocateMySalesRep

See why there isn't a box big enough to hold our most important product.

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Engineered Products Company's Linear Luminaires meet a broad variety of lighting applications. We currently provide linear LED "Strip", T8 LED Tube, and Fluorescent luminaires. All luminaire types are ETL or UL Listed for "damp" or "wet" lighting applications. And all linear luminaires provide a significant degree of protection against the ingress of foreign objects, e.g. falling dirt), the ingress of water (e.g. hose directed water), protection against corrosion, and will remain undamaged by the external formation of ice on the luminaire housing.

STANDARD and PARKING GARAGE LED LINEAR LUMINAIRES

Our energy efficient and cost-effective linear LED (strip) luminaires are ETL listed, include a NEMA 4X, IP65/66/67 rating for use in "damp" or "wet" applications, are DLC Approved and has received the Department of Energy (DOE) Lighting Facts Program label. These benefits assure your decision makers that EPCO's Standard and Parking Garage LED Luminaires provide high efficacy, no lumen maintenance, and reliable and durable high performance features that meet all Federal, State, and local Utility and Co-operative energy efficiency program requirements throughout the United States and Canada.

T8 LED TUBE LINEAR LUMINAIRES

EPCO's linear luminaires using T8 LED Tubes are equally energy efficient as our "strip" LED luminaires and can be operated in any "damp" or "wet" location environment. These luminaires are 30% more efficient than T8 linear fluorescent lamps (LFLs), provide illumination where it is needed, has full dimming capabilities, and is easily integrated with occupancy sensors and other energy savings controls. And T8 LED Tubes life expectancy is not affected by cycling the luminaires on and off. The luminaire housing is NEMA 4X, IP65, IP66, and IP67 rated. If you have an application where you need shatterproof lamps, the plastic LED T8 Tube makes more sense than fluorescent.

FLUORESCENT LINEAR LUMINAIRES

Prior to introducing our LED "strip" and T8 LED "Tubed" linear luminaires, our focus is to continue providing energy efficient and long life linear luminaires using T5 and T8 linear fluorescent lamps (LFLs). And when coupled with high efficiency electronic ballasts and energy saving LFLs, this combination of components allows the building owners and facility managers to take advantage of energy savings and utility rebates to lower the overall installed cost. The luminaire housing shares the same specifications used with our LED "strip" and the T8 LED "Tubed" linear luminaires - NEMA 4X, IP65, IP66, and IP67 rated.

STANDARD and PARKING GARAGE LED LUMINAIRE SERIES

LED Luminaire Series Improves Your Illumination Systems

• Twenty-five (25) Standard Configurations

Standard LED Luminaires provide unparalleled performance, improved efficacy, more lumens per watt, and is the reliable, sustainable solid–state illumination system solution.

The primary benefits of our gasketed "vapor-tight" LED Luminaires provide energy efficiency, significant energy savings, and improved thermal dissipation that translates into optimized lumen output suitable for operating in indoor, outdoor, and "wet" location environments.

Our LED Luminaires consume less than half the wattage output of a 4-foot luminaire using two (2) or three (3) 32-watt T8 fluorescent lamps with a minimum life expectancy of 200,000 hours.

Energy Saving Illumination Products - Configurable to Your Application Requirements

- 1. Standard LED Luminaire: Ready for immediate installation, this LED Luminaire features a single row of LEDs mounted to a "raised" heat sink for improved thermal dissipation.
- 2. Parking Garage and Parking Canopy LED Luminaire: Ready for immediate installation and is DesignLights Consortium (DLC) Approved**. This LED Luminaire incorporates two (2) rows of LEDs and reflectors that magnify lumen output and distribute the light outward as an "enhanced" controlled beam mounted to an "angular raised" heat sink for improved thermal dissipation.

The Parking Garage LED Luminaire includes a "frosted" acrylic diffuser to mitigate glare and provide a color-rendering index of 80 and above. See the Parking Garage Luminaire Reference Table on page 5. Note: Parking Garage LED Luminaire is only available in a 4-foot length.

Industry Standard Illumination Solutions and Warranty

EPCO's solid-state LED Luminaires are ETL listed and meet UL 1598 Standards. Our economical, long life LED Luminaires is the smart, energy saving solution and the best illumination systems choice available for your application. We back our LED Luminaires with a 5-year warranty.

**DesignLights Consortium (DLC) Approved for all EPCO LED Luminaires except the 2-foot Luminaires.

The Qualified Products List (QPL) from DLC is a resource for Electric Utilities and Regional Electric Cooperatives (RECs) Program Administrators to help them select what solid-state illumination products will be included in their Energy Efficiency Programs.

Note: The 2-foot LED Luminaire does not qualify for DLC Approval because its lumen output is less than 2,000 lumens.



TYPICAL APPLICATIONS:

- Parking Garages and Parking Canopies (DLC Approved)**
- Food Processing Facilities
- Commercial Kitchens
- Refrigerators and Freezers
- Warehouses*
- Industrial Facilities*
- Commercial Buildings
- Elevator Shafts
- Outdoor Shopping Centers
- Storage Buildings
- Pedestrian and Road Tunnels
- Car Washes*
- Laundries
- Locker Rooms
- Saunas
- And more...

* Certain chemicals that may exist in end-user locations release airborne contaminants that can impact the integrity and safety of key fixture components that contain acrylic or polycarbonate material.

The Chemical Resistance of Plastics Chart (posted on EPCO's web site) provides an overview of those chemical compounds where this LED Luminaire should not be installed!

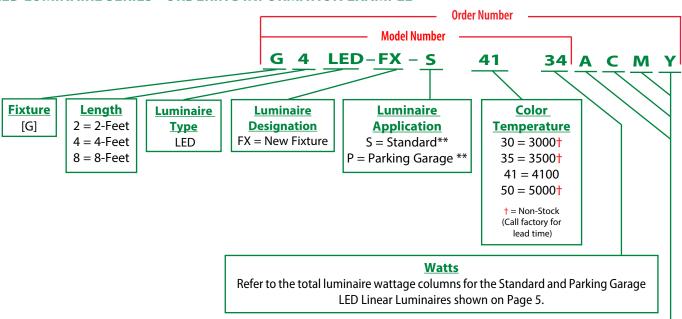


			:	STANDARD LED L	.UMINAIRES				
Lamp Equivalent	Luminaire Length	Luminaire Type	Luminaire Designation FX = New Fixture	Luminaire Application S = Standard P = Parking Garage	Correlated Color Temperature (CCT)*	Color Rendering Index (CRI)	Total Luminaire Wattage	Lumens (Brightness)	Luminous Efficacy (Energy Efficiency)
(2) F17T8	G2	LED	FX	S	3000K	82	17	1695	97
(2) F17T8	G2	LED	FX	S	3500K	82	17	1848	105
(2) F17T8	G2	LED	FX	S	4100K	82	17	2001	112
(2) F17T8	G2	LED	FX	S	5000K	81	17	2155	119
(3) F17T8	G2	LED	FX	S	3000K	82	28	2791	97
(3) F17T8	G2	LED	FX	S	3500K	82	28	3043	105
(3) F17T8	G2	LED	FX	S	4100K	82	28	3295	112
(3) F17T8	G2	LED	FX	S	5000K	81	28	3549	119
(2) F32T8	G4	LED	FX	S	3000K	82	34	3389	97
(2) F32T8	G4	LED	FX	S	3500K	82	34	3695	105
(2) F32T8	G4	LED	FX	S	4100K	82	34	4001	112
(2) F32T8	G4	LED	FX	S	5000K	81	34	4310	119
(3) F32T8	G4	LED	FX	S	3000K	82	51	4600	84
(3) F32T8	G4	LED	FX	S	3500K	82	51	5029	91
(3) F32T8	G4	LED	FX	S	4100K	82	51	5458	98
(3) F32T8	G4	LED	FX	S	5000K	81	51	5730	107
(4) F32T8	G8	LED	FX	S	3000K	82	68	6778	97
(4) F32T8	G8	LED	FX	S	3500K	82	68	7390	105
(4) F32T8	G8	LED	FX	S	4100K	82	68	8002	112
(4) F32T8	G8	LED	FX	S	5000K	81	68	8620	119
(6) F32T8	G8	LED	FX	S	3000K	82	102	9200	84
(6) F32T8	G8	LED	FX	S	3500K	82	102	10058	91
(6) F32T8	G8	LED	FX	S	4100K	82	102	10916	98
(6) F32T8	G8	LED	FX	S	5000K	81	102	11460	107
			PAI	RKING GARAGE L	ED LUMINAIR	E			
Lamp Equivalent	Luminaire Length	Luminaire Type	Luminaire Designation FX = New Fixture	Luminaire Application S = Standard P = Parking Garage	Correlated Color Temperature (CCT)*	Color Rendering Index (CRI)	Total Luminaire Wattage	Lumens (Brightness)	Luminous Efficacy (Energy Efficiency)
(2) F32T8	G4	LED	FX	Р	4100K	80	31	3014	86



Note: Nominal color designation in units of Kelvin

LED LUMINAIRE SERIES - ORDERING INFORMATION EXAMPLE



The Standard or Parking LED Luminaire can be built to your specifications by adding options as "part" of your part number.

Note:

- 1. When entering Bulk Packaging orders, do not include Mounting Hardware or Tamper Resistant Screws in your part number.
- 2. When specifying Acetal Latches note that certain chemicals may exist in end-user locations release airborne contaminants that can impact the integrity and safety of key luminaire housing components that contain acrylic or polycarbonate material.

The Chemical Resistance of Plastics Chart (posted on EPCO's web site) provides an overview of chemical compounds where our LED Luminaires should not be installed! For example, Acetal Latches are not recommended for the following applications:

- Swimming Pools because of the chlorine.
- Food Processing because of the cleaning chemicals.
- Car Washes because of the chemicals used.
- Agriculture because of the ammonia gas.
- 3. When adding the Surface Mounting Bracket (SMB Option Y) to your part number, EPCO will pre-drill a hole in the luminaire housing at the designated "number" location as shown in the diagrams on page 18 to facilitate pulling the supply conductors from the junction box and into the luminaire. Contact EPCO Inside Sales for more information.
- 4. When adding the Water Resistant Hubs, the ETL Listing changes from a "wet" location to a "damp" location luminaire.
- 5. The "Frosted Ribbed Diffuser" is standard on all LED Luminaires unless the "P" Option is specified for the Clear Ribbed Diffuser, or "Q" is specified for the Tall Frosted Diffuser.
 - a. Diffuser options for DLC Approved Luminaires other than the Frosted Ribbed Diffuser will "negate" DLC Approval.
- 6. Occupancy Sensor Options (R1, R2, R3, R4, R5, and R6) are only available for the Standard LED Luminaire.

LED Luminaire Series Options

- A. 6-Foot Power Cord (PSS6)
- **C.** Acetal (Plastic) Latches (See Note 2)
- **E.** Emergency LED Backup Driver (Non-Stock Call factory for lead time)
- F. One (1) 1/2" Water Resistant Hub (required for Pendant Mounting the 4-foot luminaire)
- **G.** Two (2) 1/2" Water Resistant Hubs (required for Pendant Mounting the 8-foot luminaire)
- **H.** One (1) 3/4" Water Resistant Hub (required for Pendant Mounting the 4-foot luminaire)
- **M.** Luminaire Mounting Hardware (includes two (2) Mounting Brackets for horizontal or vertical applications)
- P. Clear Ribbed Diffuser
- Q. Tall Frosted Diffuser
- **R1.** PIR Occupancy Sensor (for dry locations) (See Note 6)
- **R2.** PIR Occupancy Sensor (for dry locations/cold locations) (See Note 6)
- **R3.** PIR Occupancy Sensor (for wet locations) (See Note 6)
- **R4.** Microwave Occupancy Sensor (On/Off Only) (See Note 6)
- **R5.** Microwave Occupancy Sensor (0-10V Dimming 30%) (See Note 6)
- **R6.** Microwave Occupancy Sensor (0-10V Dimming 50%) (See Note 6)
- S. Stainless Steel Latches
- **Y.** Surface Mount Bracket (See Note 3)
- **Z.** Bulk Packaging (25 or 50 per skid)

**DesignLights Consortium (DLC) Approved for all EPCO LED Luminaires except the 2-foot luminaires.

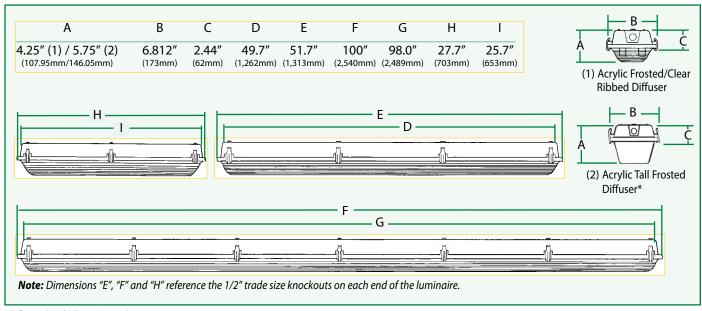
The Qualified Products List (QPL) from DLC is a resource for Electric Utilities and Regional Electric Cooperatives (RECs) Program Administrators to help them select what solid-state illumination products will be included in their Energy Efficiency Programs.

Note: The 2-foot LED Luminaire does not qualify for DLC Approval because its lumen output is less than 2,000 lumens.

SPECIFICATIONS

Environmental	Suitable for indoor, outdoor, and wet locations
Ambient Operating Temperature	• -40°F to 122°F (-40°C to 50°C) Suitable for elevated ambient temperatures • 0°F to 113°F (-17°C to 45°C) Battery Backup Option
Operating Voltage	120V - 277 @ 60 Hz
Power Factor	.9 or Higher
Total Harmonic Distortion	Less than 20%
LED Deliver Eff sion or	89% (typical) @ 120VAC - Full Load
LED Driver Efficiency	90% (typical) @ 220VAC - Full Load
Ingress Protection Rating	IP65, IP66, IP67 / NEMA 4X
Dimming Control	10%-100%; Requires 0-10V Luminaire Control Switch/Device
Industry Certifications	ETL Listed (per UL 1598/8750); RoHS Compliant; National Sanitation Foundation (NSF)*; LM-79, LM-80, and LM-21 Reports

*National Sanitation Foundation (NSF International) is a leader in product certification and standards development. The NSF mark (is your assurance that all LED Linear Luminaire Series have been tested and certified. This Standard establishes minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of the LED Linear Luminaire Series in the area of food handling and food processing equipment.



^{*} Reference Q in the Options List on Page 6.

SHIP WEIGHT (APPROXIMATE):

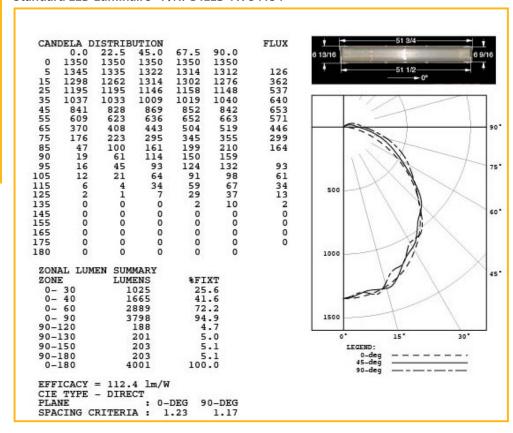
2-Foot LED Luminaire: 10 lbs. (4.5kg)
4-Foot LED Luminaire: 17 lbs. (7.7kg)
8-Foot LED Luminaire: 37 lbs. (16.8kg)

4-Foot LED Luminaire for Parking Garage: 18 lbs. (8.1kg)

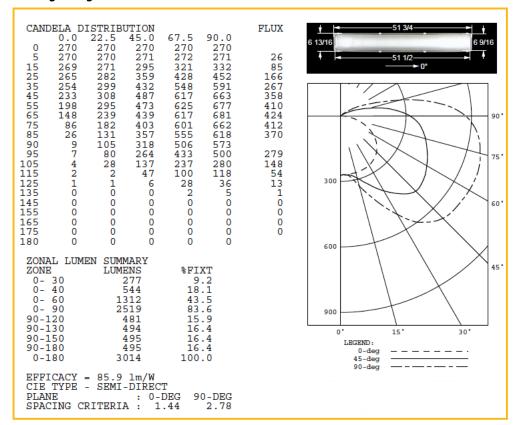
Note: Bulk packaging is available for the Standard and Parking Garage LED Luminaire Series - Select "Option Z" in the Ordering Information Example (25 or 50 per skid).

PHOTO METRICS FOR LED LINEAR LUMINAIRES

Standard LED Luminaire - P/N: G4LED-FX-S4134



Parking Garage LED Luminaire - P/N: G4LED-FX-P4131



Luminaire Quality Metrics LM-79 Report

EPCO's LM-79 Report captures the Standard and Parking Garage LED Luminaire's overall electrical characteristics and photometric measurements (lumen output) performance. This report is a snapshot of spatial distribution of light and color attributes under specified operating conditions. This report does not address lifetime ratings for these LED Luminaires, or changing performance over time (e.g., lumen maintenance), or the LED Luminaire housing internal temperature.

Most important, EPCO's LM-79 data is intended to provide you with objective luminaire product evaluation comparisons relative to the Standard and Parking Garage LED Luminaire's performance requirements, and is required by voluntary labeling programs such as LED Lighting Facts and the DesignLights Consortium (DLC).

T8 LED TUBE LUMINAIRE SERIES

EPCO's domestically manufactured gasketed Narrow and Wide Body Luminaire Series accommodates T8 LED lamps, rated for long life, energy efficiency, and more uniform lumen distribution. For high or low ceiling applications, translates into improved efficacy by providing more usable lumens per watt.

BENEFITS

- UL Listed. File #: E319552. Suitable for indoor, outdoor, or wet locations.
- Fast installation saves time and reduces labor cost.
- Reliable, durable, maintenance free performance!
- Meets the requirements of the 2014 National Electrical Code: Articles 410.10(A).
- The Wide Body T8 LED Tube Luminaire is only available in a 4-foot length!
- T8 LED Lamps (17.2-watt equivalent) replace T8 32-watt fluorescent lamps.
- Ingress Protection Dust and moisture resistant luminaire; suitable for use in wet locations where high-power pressure wash-down is required.
- Continuous "poured-in-place" closed cell polyurethane gasket completely seals the luminaire from dust and moisture.
- Luminaire Mounting Hardware allows the contractor to pre-install the mounting brackets to the mounting surface without drilling into the luminaire housing.
- Impact resistant acrylic diffusers withstand breakage from high power pressure washers; lowers replacement and maintenance costs.
- Solid reinforced luminaire housings provide strong rigidity with no deflection. The luminaire housing is rated 5VA-F1 fiberglass.*
- "Captive" Acetal (Plastic) or Stainless Steel Latches.
- 100% factory tested before shipping. No contractor callbacks!
- Two (2) 1/2" trade size knockouts on each end of the luminaire housing accommodates standard conduit fittings.
- Warranty: 5 Years

*Note: Quantified and tested by Underwriters Laboratories, reference UL 746C.





T8 LED TUBE LUMINAIRE (WIDE BODY)

TYPICAL APPLICATIONS:

- Food Processing Facilities
- Commercial Kitchens
- Laundries
- Industrial Facilities
- Saunas
- Car Washes
- Storage Buildings
- Pedestrian and Road Tunnels
- Parking Garages
- Elevator Shafts
- Refrigerators and Freezers
- Locker Rooms
- And more...

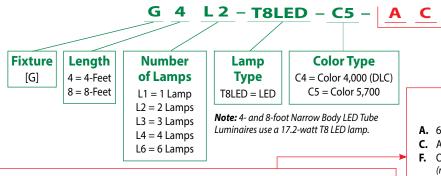
SPECIFICATIONS

Coloring Rendering Index (CRI)	>80
Ambient Operating Temperature	-40°F to 122°F (-40°C to 50°C)
Universal Input Voltage	120V - 277 @ 60 Hz
Power Factor	N/A
Total Harmonic Distortion	Less than 20%
Lumana	4100K at 1880 lm (Bright White Color Temperature) - DLC Approved
Lumens	5700K at 1880 lm (Daylight Color Temperature)
Ingress Protection Rating	IP65, IP66, IP67 / NEMA 4X
Dimming Control	Not included
Industry Certifications	T8 LED Tubes are UL Listed (per UL 1598); National Sanitation Foundation (NSF)*

*National Sanitation Foundation (NSF International) is a leader in product certification and standards development. The NSF mark 📵) is your assurance that all Narrow and Wide Body T8 LED Tube Luminaires have been tested and certified. This Standard establishes minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of the Narrow and Wide Body T8 LED Tube Luminaires in the area of food handling and food processing equipment.

NARROW BODY T8 LED TUBE LUMINAIRE SERIES - ORDERING EXAMPLE

Note: Narrow Body LED Tube Luminaire Series includes T8 LED lamps!





Narrow Body T8 LED Tube Luminaire

Narrow Body T8 LED Tube Luminaire Options

- A. 6-Foot Power Cord (PSS6)
- **C.** Acetal (Plastic) Latches (See Note 2)
- F. One (1) 1/2" Water Resistant Hub (See Note 5) (required for Pendant Mounting a 2-foot or 4-foot fixture)
- **G.** Two (2) 1/2" Water Resistant Hubs (See Note 5) (required for Pendant Mounting an 8-foot fixture)
- **H.** One (1) 3/4" Water Resistant Hub (See Note 5) (required for Pendant Mounting a 2-foot or 4-foot fixture)
- **M.** Fixture Mounting Hardware for Ceiling and Wall Mount Applications (two (2) per package)
- **O.** Wire Lamp Guard (See Note 3)
- R1. PIR Occupancy Sensor (for dry locations)
- R2. PIR Occupancy Sensor (for dry locations/cold locations)
- R3. PIR Occupancy Sensor (for wet locations)
- S. Stainless Steel Latches
- Y. Surface Mount Bracket (See Note 4)
- **Z.** Bulk Packaging (25 or 50 per skid)

respective item numbers. **Note:**

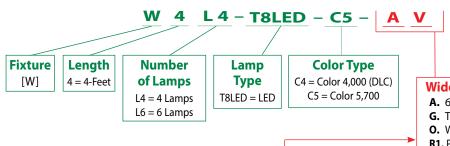
1. When entering Bulk orders, do not include Mounting Hardware or Tamper Resistant Screws in your part numbering scheme.

The Narrow Body T8 LED Tube Luminaire can be built to your specifications by adding the

- 2. Acetal (Plastic) Latches *are not* recommended for the following applications:
 - Swimming Pools because of the chlorine.
 - Food Processing because of the cleaning chemicals.
 - Car Washes because of the chemicals used.
 - Agriculture because of the ammonia gas.
- 3. When your part number includes the Wire Lamp Guard:
- The Acrylic Diffuser *is not included* with the luminaire.
- UL listing changes from a "wet" location to a "damp" location luminaire.
- 4. When adding the Surface Mounting Bracket (SMB Option Y) to your part number, EPCO will pre-drill a hole in the fixture housing at the designated "number" location as shown in the diagrams on page 18, to facilitate pulling the supply conductors from the junction box and into the luminaire.
- 5. When adding the Water Resistant Hubs the UL listing changes from a "wet" location to a "damp" location luminaire.

WIDE BODY T8 LED TUBE LUMINAIRE SERIES - ORDERING EXAMPLE

Note: Wide Body LED Tube Luminaire Series includes T8 LED lamps!





Wide Body T8 LED Tube Luminaire

Wide Body T8 LED Tube Luminaire Options

- A. 6-Foot Power Cord (PSS6)
- **G.** Two (2) 1/2" Water Resistant Hubs (See Note 3)
- **O.** Wire Lamp Guard (See Note 2)
- R1. PIR Occupancy Sensor (for dry locations)
- **R2.** PIR Occupancy Sensor (for dry locations/cold locations)
- R3. PIR Occupancy Sensor (for wet locations)
- T. Tamper Resistant Screws
- **V.** V-Hooks for Chain (two (2) per Package)
- Z. Bulk Packaging (14 per skid)

The Wide Body T8 LED Tube Luminaire can be built to your specifications by adding the respective item numbers.

Note:

- Six (6) Wide Body T8 LED Tube Luminaires is the minimum order quantity. We will not ship any Wide Body LED Tube Luminaires that do not meet the minimum order quantity requirement!
- 2. When your part number includes the Wire Lamp Guard:
 - The Acrylic Diffuser *is not included* with the luminaire.
 - UL listing changes from a "wet" location to a "damp" location luminaire.
- 3. When adding the Water Resistant Hubs the UL listing changes from a "wet" location to a "damp" location luminaire.



EPCO Narrow and Wide Body T8 LED Tube Luminaires are Made in the USA. (from domestic and globally sourced components)

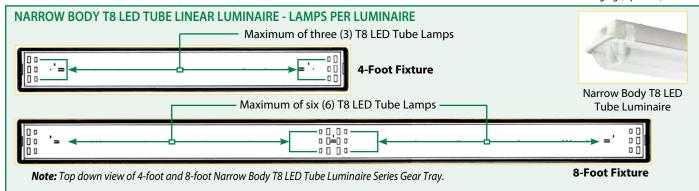
SHIP WEIGHT (APPROXIMATE):

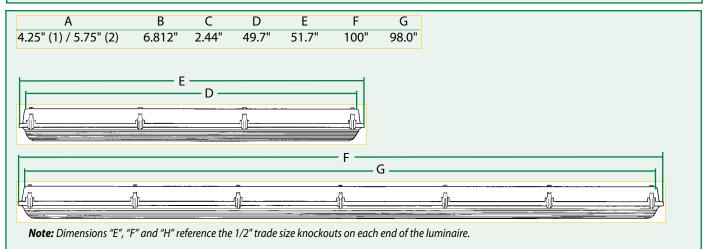
- 4-Foot Narrow Body T8 LED Tube Luminaire: 11 Lbs. (5.44kg)
- 8-Foot Narrow Body T8 LED Tube Luminaire: 18 Lbs. (8.16kg)
- 4-Foot Wide Body T8 LED Tube Luminaire: 23 Lbs. (10.43kg)

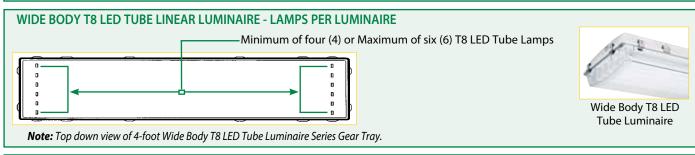
Note: Bulk packaging is available for the Narrow Body T8 LED Tube Luminaires - Option Z (25 or 50 per skid). See photo to the right for an example of bulk packaging.

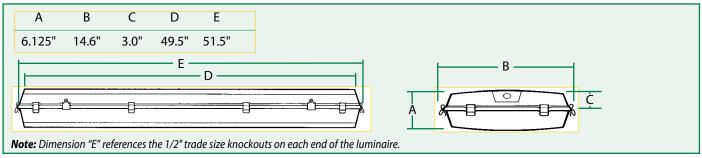


Narrow Body T8 LED Tube Luminaire Bulk Packaging (Option Z)









FLUORESCENT LINEAR LUMINAIRES

Domestically manufactured, our gasketed Fluorescent Luminaire Series accommodates both T5 and T8 lamps, all rated for long life, energy efficiency, and more uniform lumen distribution. For high or low ceiling applications, the highly reflective coated finish of the luminaires' gear tray surface translates into improved efficacy by providing more usable lumens per watt.

BENEFITS

- UL Listed. File #E319552. Suitable for indoor and outdoor use including wet locations.
- Fast installation saves time and reduces labor cost.
- Reliable, durable, maintenance free performance!
- Meets the requirements of the 2014 National Electrical Code: Articles 410.10(A), 410.104(A), 410.130(G)(1), 547.5(C)(1) and (2), and 547.8(A) and (B).
- Long lasting luminaires will not deteriorate under most hostile environments when it is installed according to factory procedures.
- Multiple configurations available in 2-foot, 4-foot and 8-foot lengths.
 Note: Wide Body Luminaires are only available in a 4-foot length!
- Ingress Protection NEMA 4X and IP65, IP66 and IP67 rated dust and moisture resistant luminaire; suitable for use in wet locations where high-power pressure wash-down is required. Continuous "poured-in-place" closed cell polyurethane gasket seals the luminaires.
- Gear Tray: tethered and hinged to luminaire housing provide quick access to the ballast wiring to simplify installation, power-to-ballast termination, and allow for easy ballast replacement.
- Continuous "poured-in-place" closed cell polyurethane gasket completely seals the luminaire from dust and moisture.
- Luminaire Mounting Hardware allows the contractor to pre-install the mounting brackets to mounting surface without drilling into the luminaire housing.
- Luminaire Disconnect: Enables the electrical contractor to easily and safely disconnect the incoming power to allow safe servicing to the luminaires.
- Impact resistant acrylic diffusers withstand breakage from high power pressure washers; lowers replacement and maintenance costs.
- Solid reinforced luminaire housings provide strong rigidity with no deflection. The luminaire housing is rated 5VA-F1 fiberglass.*
- Domestic Ballast Manufacturer.
- 100% factory tested before shipping. No contractor callbacks!
- Two (2) 1/2" trade size knockouts on each end of the luminaire housing accommodates standard conduit fittings.

*Note: Quantified and tested by Underwriters Laboratories, reference UL 746C.





TYPICAL APPLICATIONS:

- Food Processing Facilities
- Commercial Kitchens
- Laundries
- Industrial Facilities
- Saunas

c(ÅF)ns

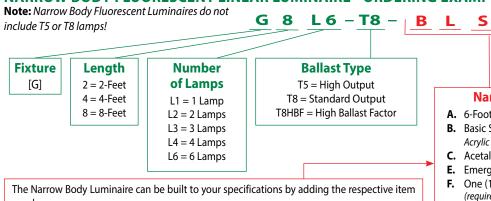
- Car Washes
- Storage Buildings
- Pedestrian and Road Tunnels
- Parking Garages
- Elevator Shafts
- Refrigerators and Freezers
- Locker Rooms
- And more...

SPECIFICATIONS

Ballast Type/Minimum Starting Temperature	Electronic T5 or T8 Class P Thermally Protected and CEE NEMA Premium Compliant: • T5 - High/Standard Output: -20°F (-28°C) • T8 - Standard Output Ballast: 0°F (-17°C) • T8 - High Ballast Factor (HBF): -20°F (-28°C) Note: High Ballast Factor is a system operating a standard output lamp to a higher wattage and lumen performance within standard lamp design. High Output (HO) lamps operate with a higher current, thereby requiring ballasts to match the high output lamp designation and design.
Operating Voltage	120V - 277 @ 60 Hz
Recommended Lamp Types	T5 Lamps or T8 Lamps Warning: T8 HO and T8 VHO Lamps must not be used under any circumstances! You will damage the luminaire and void the warranty!
Industry Certifications	UL Listed (per UL 1598); National Sanitation Foundation (NSF)*

*National Sanitation Foundation (NSF International) is a leader in product certification and standards development. The NSF mark (3) is your assurance that all Fluorescent Luminaire Series have been tested and certified. This Standard establishes minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of the Fluorescent Luminaire Series in the area of food handling and food processing equipment.

NARROW BODY FLUORESCENT LINEAR LUMINAIRE - ORDERING EXAMPLE



numbers.

Note:

- 1. When entering Bulk orders, do not include Mounting Hardware or Tamper Resistant Screws in your part numbering scheme.
- 2. Acetal (Plastic) Latches <u>ARE NOT</u> recommended for the following applications:
 - Swimming Pools because of the chlorine. - Food Processing because of the cleaning chemicals.
 - Car Washes because of the chemicals used. Agriculture because of the ammonia gas.
- 3. Two (2) lamps is the maximum lamp configuration when specifying a T5 2-foot luminaire with an Emergency Battery Back-up Ballast.
- 4. The Wide Reflector for T5 and T8 lamps can only be used with two (2) lamp 4-foot Narrow Body Luminaires or four (4) lamp 8-foot Narrow Body Luminaires.
- 5. The Wide Reflector can only be used in conjunction with the Acrylic Clear Tall Diffuser (Option Q). The Standard Acrylic Ribbed Diffuser will not fit! The Wide Reflector WILL NOT fit a 2-foot Narrow Body Luminaire.
- 6. When your part number includes the Wire Lamp Guard:
 - The Acrylic Diffuser is not included with the luminaire.
 - UL listing changes from a "wet" location to a "damp" location luminaire.
- 7. When adding the Surface Mounting Bracket (SMB Y Option) to your part number, we will pre-drill a hole in the luminaire housing at the designated "number" location shown in the diagrams, on page 18, to facilitate pulling the supply conductors from the junction box and into the luminaire. When specifying the Y Option for the 2-foot Narrow Body Luminaire, there is no designated "number" location. Just include the Y Option as part of your 2-foot luminaire order configuration.
- 8. When adding the Water Resistant Hubs the UL listing changes from a "wet" location to a "damp" location luminaire.

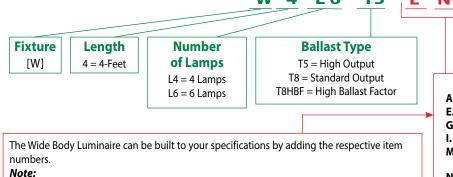
Narrow Body Luminaire Options

Narrow Body Luminaire

- A. 6-Foot Power Cord (PSS6)
- **B.** Basic Specular Reflector (can be used with either the Acrylic Ribbed of Clear Diffuser)
- C. Acetal (Plastic) Latches (See Note 2)
- **E.** Emergency Battery Back-up Ballast (See Note 3)
- One (1) 1/2" Water Resistant Hub (See Note 8) (required for Pendant Mounting a 2-foot or 4-foot luminaire)
- **G.** Two (2) 1/2" Water Resistant Hubs (See Note 8) (required for Pendant Mounting an 8-foot luminaire)
- One (1) 3/4" Water Resistant Hub (See Note 8) (required for Pendant Mounting a 2-foot or 4-foot luminaire)
- Two (2) 3/4" Water Resistant Hubs (See Note 8) (required for Pendant Mounting an 8-foot fixture)
- M. Luminaire Mounting Hardware for Ceiling and Wall Mount Applications (two (2) per package)
- **O.** Wire Lamp Guard (See Note 6)
- P. Ribbed Frosted Diffuser (Note: Can be used for fluorescent and LED lamps.)
- **Q.** Clear Tall Diffuser (Note: The Acrylic Ribbed Diffuser is standard with all Narrow Body Luminaires unless otherwise specified. Not available for the 2-foot Narrow Body Luminaire)
- R1. PIR Occupancy Sensor (for dry locations)
- R2. PIR Occupancy Sensor (for dry locations/cold locations)
- R3. PIR Occupancy Sensor (for wet locations)
- S. Stainless Steel Latches
- T. Tamper Resistant Screws
- W. Wide Specular Reflector (See Notes 4 and 5)
- Y. Surface Mount Bracket (See Note 7)
- Z. Bulk Packaging (25 or 50 per skid) Note: Narrow Body ONLY

WIDE BODY FLUORESCENT LINEAR LUMINAIRE - ORDERING EXAMPLE

Note: Wide Body Luminaires do not include T5 or T8 lamps!



Wide Body Luminaire

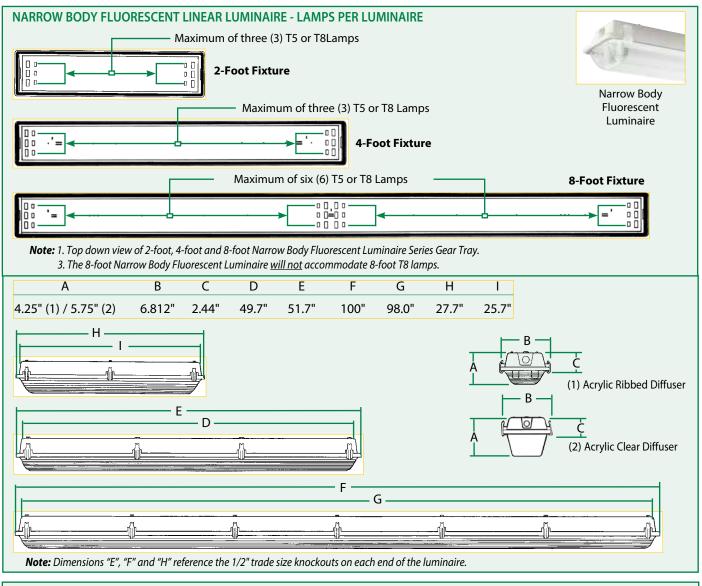
Wide Body Luminaire Options

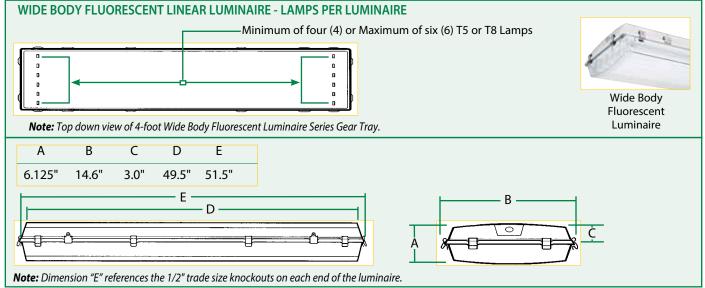
- A. 6-Foot Power Cord (PSS6)
- E. Emergency Battery Back-up Ballast
- **G.** Two (2) 1/2" Water Resistant Hubs (See Note 3)
- I. Two (2) 3/4" Water Resistant Hubs (See Note 3)
- M. Luminaire Mounting Hardware for Ceiling and Wall Mount Applications (two (2) per package)
- N. Specular Reflector
- O. Wire Lamp Guard (See Note 2)
- R1. PIR Occupancy Sensor (for dry locations)
- **R2.** PIR Occupancy Sensor (for dry locations/cold locations)
- R3. PIR Occupancy Sensor (for wet locations)
- **T.** Tamper Resistant Screws
- **V.** V-Hooks for Chain (two (2) per Package)
- **Z.** Bulk Packaging (14 per skid)

- 1. Six (6) Wide Body Luminaires is the minimum order quantity. We will not ship any Wide Body Luminaires that do not meet the minimum order quantity requirement!
- 2. When your part number includes the Wire Lamp Guard:
 - The Acrylic Diffuser is not included with the luminaire.
 - UL listing changes from a "wet" location to a "damp" location luminaire.
- 3. When adding the Water Resistant Hubs the UL listing changes from a "wet" location to a "damp" location luminaire.

SHIPPING WEIGHT (APPROXIMATE):

- 2-Foot Narrow Body Fluorescent Luminaire: 8 Lbs. (3.62kg)
 4-Foot Narrow Body Fluorescent Luminaire: 13 Lbs. (4.98kg)
- 8-Foot Narrow Body Fluorescent Luminaire: 21 Lbs. (8.61kg) 4-Foot Wide Body Fluorescent Luminaire: 26 Lbs. (11.79kg)





OCCUPANCY SENSOR

Our Occupancy Sensor (OS) is the energy and cost efficient method to manage illumination systems in applications such as stairwells, warehouses, utility and maintenance buildings, storage areas, tunnels and more.

Installing our occupancy sensor can reduce energy consumption up to 45% or more by operating similar to a light switch. The sensor turns the lights on when it senses activity in a room or area, then turns the lights off automatically after sensing no activity after a preset time.



LUMINAIRE HOUSING LATCH OPTIONS

LED and Fluorescent Linear Luminaires can be ordered with your choice of Acetal (Plastic) or Stainless Steel Latches. Both cam-type latch options accommodate a variety of application environments.

Note: The Wide Body Luminaires are only available with Stainless Steel Latches.

Acetal (Plastic) Latches (Option C) provide an exceptional combination of heat resistance, durability and strength over a wide range of ambient temperatures with minimal attachment of airborne particles.

Stainless Steel Latches (Option S) are ideal for food processing facilities and related applications. These latches can withstand extreme temperatures for refrigerator and freezer applications as well as the chemicals present in car washes. They are also impervious to acidic conditions making them suitable for use in livestock containment buildings.

Tamper Resistant Screws (Option T) can help the building owner save thousands of dollars in re-lamping cost by protecting the fluorescent or LED lamps installed in our luminaires from tampering, vandalism and theft.









LAMP GUARD

Our Lamp Guards are constructed of cold-rolled steel wire and resistance welded in a rectangular grid pattern. The Lamp Guard attaches to directly to the Narrow and Wide Body Linear Luminaires using the factory-mounted Acetal (Plastic) or Stainless Steel latches.

Material Finish: Silver powder coated epoxy; moisture and weather resistant.



Narrow Body Wire Spacing: Outside section: 2.75" x 3.0", Center section: 3.0" x 3.0"



Wide Body Wire Spacing: Outside section: 2.75" x 3.0"; Center section: 3.0" x 3.5"

Wide Body - Specular Reflector

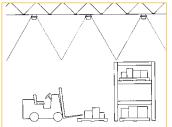
(Option N)

SPECULAR REFLECTORS

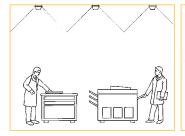
- Specular reflectors can reduce lighting energy costs by as much as 30%.
- Provides additional light into the work space.
- Delivers the highest efficacy at the lowest watts per square foot that enables lamps to perform at maximum efficiency.
- Two (2) Narrow Body reflector styles:
 - The Basic Reflector (Option B) concentrates light to specific work areas and provides more uniform illumination.
 - The Wide Reflector (Option W) provides a broader dispersion of light at higher and lower mounting levels in warehouses, manufacturing areas, factories, commercial kitchens, parking garages, as well as outdoor lighting applications.

Note: Wide Reflector is available ONLY for 4-foot two (2) lamp and 8-foot four (4) lamp Fluorescent Linear Luminaires.

Both reflectors provide 95% reflectivity to enhance energy efficiency for more effective lighting.









IMPACT RESISTANT UV STABILIZED DIFFUSERS

- 100% Impact Resistant Acrylic Diffusers.
- No tools or fasteners are required to attach the Diffuser to the luminaire housing.

Acrylic Clear Ribbed Diffuser is standard on all Narrow Body Fluorescent Luminaires. The Basic Specular Reflector can be used with this Diffuser.

Acrylic Clear Tall (Option Q) and Ribbed Frosted Diffuser (Option P) is intended for all Narrow Body Fluorescent Luminaires using the Basic and Wide Specular Reflectors.

Acrylic Clear Diffuser is standard on all Wide Body Fluorescent Luminaires.

Note: Each end of the Acrylic Clear Diffuser is frosted to minimize untargeted light dispersion.







LUMINAIRE SUSPENSION SYSTEM KIT

The Suspension Kit (P/N: GFF-FSSK) provides instant and "tool-less" infinite height adjustment when installing our luminaires.

- Easily suspends luminaires, signage, mechanical, HVAC systems, and other objects that require suspension from beams, trusses, or joists.
- Eliminates the need for chain, S-Hooks, threaded rods and strut support nuts.
- Maintenance-free and requires no ongoing adjustments.
- Suspension Cable Length: 100-inches with two (2) 20-inch Y-cables and two (2) swaged spring-loaded steel hooks with bright nickel plating on Y-cable ends with fuse cut cable to prevent fraying.
- Safe Working Load: 75 lbs. (34 kg.)
- Minimal breaking strength: 420 lbs. (190.5 kg.)
- Maximum load rating for one (1) cable: 62 lbs. (28.1 kg.); two (2) cables: 124 lbs. (56.2 kg.)
- Warranty one (1) year.
- One (1) kit includes:
 - Two (2) 1/16" (1.587 mm) x 10-foot galvanized steel cables with two (2) attached spring-loaded steel hooks ensure positive attachment. Steel Hook Inside Diameter: 0.5 inches.
 - Two (2) tool-less suspension cable adjustment blocks.



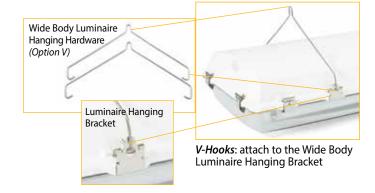
LUMINAIRE MOUNTING HARDWARE

Luminaire Mounting Hardware eliminates drilling through the luminaire housing to maintain the IP66/IP67 "wet" location ingress protection rating.

- The Narrow Body Luminaire Mounting Hardware (Option M or P/N: GFF-MH) includes two (2) "snap-on" mounting brackets that attach to the outside edge of the luminaire housing. The mounting brackets are suitable for ceiling or wall mount applications but can also be used with chain or cable mounting applications when using the S-Hooks.
- The Wide Body Luminaire Hanging Hardware (Option V or P/N: W-VHOOK) uses two (2) V-Hooks that are used for chain or cable mounting applications to expedite fixture installation.

Installation Notice: We recommend the purchase and use of the Narrow Body Luminaire Mounting Hardware when installing a 2-foot, 4-foot or 8-foot luminaire and the V-Hooks when installing a 4-foot Wide Body Luminaire. Any luminaire that has been incorrectly installed by drilling, puncturing, piercing or any other means that alters the integrity of the luminaire housing will void the warranty!





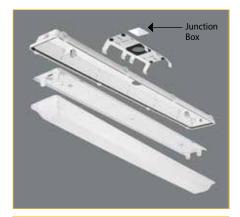
SURFACE MOUNT BRACKET - "Y" OPTION

The Surface Mount Bracket (SMB) provides the contractor with the ability to locate and install a 2-foot, 4-foot or 8-foot Fluorescent and LED Narrow Body Linear Luminaire directly under or over a junction box to surface mount the luminaire to a ceiling or wall.

- The ability to wire the Narrow Body Luminaire directly under the junction box.
- Eliminates the cost and installation of a fixture whip and junction box cover plate.
- Reduces installation time and lowers labor cost.
- Providing a water and bug resistant seal that protects the critical area between the junction box's supply conductors and the luminaire. No adhesive sealant or gasket material is required.
- The finished installation of the luminaire is more pleasing to the building owner without a fixture whip running across the ceiling.
- The SMB in combination with the Narrow Body Luminaires maintains its UL Listing for "wet" location applications.
- Eight (8) slotted holes simplify and expedite installation.
- Compliant with the 2014 National Electrical Code: Article 410.24(B).

Note: The Surface Mount Bracket is a "factory installed" option and IS NOT available for Sale as an Accessory or for field retrofit.

We will pre-drill a hole in the Narrow Body Luminaire Series housing at the designated "number" location shown in the following diagrams to facilitate pulling the supply conductors from the junction box and into the luminaire.





SURFACE MOUNT BRACKET: 2-FT NARROW BODY LINEAR LUMINAIRE



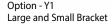
Option - Y Large Bracket

SURFACE MOUNT BRACKET: 4-FT NARROW BODY LINEAR LUMINAIRE





Large Bracket



SURFACE MOUNT BRACKET: 8-FT NARROW BODY LINEAR LUMINAIRE



Option - Y1 Large and Small Bracket



Option - Y2 Large and Small Bracket



Option - Y3 Large and Small Brackets (2)

LINEAR LUMINAIRE ACCESSORY PART NUMBERS

Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Narrow Body	y Linear L	uminaire Accessories								
GFF-DC4	14251	Replacement Clear Acrylic Diffuser (Tall): for 4-FT Narrow Body Fluorescent Linear Luminaires	EA	1	ВХ	5	5	5	Yes	10
GFF-DC8	14252	Replacement Clear Acrylic Diffuser (Tall): for 8-FT Narrow Body Fluorescent Linear Luminaires	EA	1	ВХ	5	5	5	Yes	21
GFF-DF2	14452	Replacement Frosted Acrylic Diffuser: for 2-FT Narrow Body LED Linear Luminaires	EA	1	ВХ	5	5	5	Yes	5
GFF-DF4	14453	Replacement Frosted Acrylic Diffuser: for 4-FT Narrow Body LED and T8 LED Tube Linear Luminaire:	EA s	1	ВХ	5	5	5	Yes	10
GFF-DF8	14454	Replacement Frosted Acrylic Diffuser: for 8-FT Narrow Body LED and T8 LED Tube Linear Luminaire:	EA	1	ВХ	5	5	5	Yes	21
GFF-DR2	14334	Replacement Ribbed Acrylic Diffuser: for 2-FT Narrow Body Fluorescent Linear Luminaires	EA	1	ВХ	5	5	5	Yes	5
GFF-DR4	14253	Replacement Ribbed Acrylic Diffuser: for 4-FT Narrow Body Fluorescent Linear Luminaires	EA	1	ВХ	5	5	5	Yes	10
GFF-DR8	14254	Replacement Ribbed Acrylic Diffuser: for 8-FT Narrow Body Fluorescent Linear Luminaires	EA	1	ВХ	5	5	5	Yes	21
GFF-FSSK	14256	Luminaire Suspension System Kit	BG	2	BG	12	12	12	Yes	5
GFF-L2C	14336	Replacement Acetal (Plastic) Latches: for 2-FT Narrow Body Linear Luminaires	BG	6	BG	0	0	6	Yes	1
GFF-L2SS	14337	Replacement Stainless Steel Latches: for 2-FT Narrow Body Linear Luminaires	BG	6	BG	0	0	6	Yes	1
GFF-L4C	14240	Replacement Acetal (Plastic) Latches: for 4-FT Narrow Body Linear Luminaires	BG	8	BG	0	0	8	Yes	1
GFF-L4SS	14239	Replacement Stainless Steel Latches: for 4-FT Narrow Body Linear Luminaires	BG	8	BG	0	0	8	Yes	1
GFF-L8C	14250	Replacement Acetal (Plastic) Latches: for 8-FT Narrow Body Linear Luminaires	BG	14	BG	0	0	14	Yes	1
GFF-L8SS	14249	Replacement Stainless Steel Latches: for 8-FT Narrow Body Linear Luminaires	BG	14	BG	0	0	14	Yes	1
GFF-MH	14241	Luminaire Mounting Hardware: for Ceiling and Wall Mount Applications	BG	2	BG	0	0	2	Yes	1
GFF-SWLG4/8	14255	Steel Wire Lamp Guard: for 4-FT or 8-FT Narrow Body Linear Luminaires	EA	1	ВХ	5	5	5	Yes	15
GFF-TPS-C	14248	Tamper Resistant Stainless Steel Screws: for Acetal (Plastic) Latches	BG	100	BG	0	0	100	Yes	1
GFF-TPS-S	14245	Tamper Resistant Stainless Steel Screws: for Stainless Steel Latches	BG	100	BG	0	0	100	Yes	1
Wide Body L	inear Lun	ninaire Accessories								
GFF-FSSK	14256	Luminaire Suspension Kit	BG	2	BG	12	12	12	Yes	5
GFF-TPS-S	14245	Tamper Resistant Stainless Steel Screws: for Stainless Steel Latches	BG	100	BG	0	0	1	Yes	1
W-DC4	14238	Replacement Clear Acrylic Diffuser: for 4-FT Wide Body Fluorescent Linear Luminaires	EA	1	ВХ	5	5	5	Yes	27
W-DF4	50004	Replacement Frosted Acrylic Diffuser: for 4-FT Wide Body T8 LED Tube Linear Luminaires	EA	1	ВХ	5	5	5	Yes	27
W-L4SS	50003	Replacement Stainless Steel Latches: for 4-FT Wide Body Linear Luminaires	BG	8	BG	0	0	8	Yes	1
W-SWLG	50001	Wire Lamp Guard: for 4-FT Wide Body Linear Luminaires	EA	1	ВХ	5	5	5	Yes	19
W-VH00K	50002	Luminaire Hanging Hardware: for 4-FT Wide Body Linear Luminaires	BG	2	BG	0	0	2	Yes	2



Our RetroFit Conversion Kits is a simple upgrade to an energy efficient T5, T8 or LED illumination system. The combination of our low cost RetroFit Conversion Kit, LED driver or electronic ballast with T5 or T8 fluorescent lamps are recognized as the most energy efficient illumination system today.

Our RetroFit Conversion Kits are made in the USA, complies with the American Recovery and Reinvestment Act (ARRA), and allows the contractors to readily participate in Government sponsored lighting retrofit projects.

LED RETROFIT CONVERSION KITS

- Simple upgrade to an energy efficient LED Driver Luminaire for Standard and Parking Garage applications.
- Each Standard and Parking Garage LED RetroFit Conversion Kit includes a Frosted Ribbed Acrylic Diffuser along with the LED gear tray.
- Improved efficiency, lighting quality, and longer lamp life.
- Pre-wired conversion kit brackets; the installer only needs to complete the bracket installation and LED driver lead terminations.

T5 and T8 RETROFIT CONVERSION KITS

Engineered Products Company's RetroFit Conversion Kits convert older 4-foot or 8-foot T8 or T12 "strip-type" luminaires using magnetic ballast into energy efficient T5 or T8 luminaires. Each retrofit kit includes T5 or T8 bi-pin lamp sockets, retrofit bracket socket plates, and self-tapping screws.

- Pre-wired conversion kit brackets; the installer only needs to complete the bracket installation and ballast lead terminations.
- Complies with UL Standard 1598B.
- Includes pre-punched holes for installing Ballast Covers and Reflectors.

CONTRACTOR BENEFITS

- Viable retrofit opportunities in commercial, industrial, and institutional buildings that have not converted to the energy efficient T5 or T8 lighting systems.
- Labor savings! The combination of high efficiency LED driver or electronic ballast with T5 or T8 lamps, and the low cost of our RetroFit Conversion Kits is a fast and easy installation.
- The original luminaire housing is reused. This reduces the retrofit conversion time to half the cost and half the time compared to the installation of a new luminaire.
- Requires minimal rewiring.
- Minimal recycling on the job site.

STANDARD and PARKING GARAGE LED RETROFIT CONVERSION KITS





Standard LED RetroFit Conversion Kit features a single row of LEDs mounted to a "raised" heat sink for improved thermal dissipation.

The LED RetroFit Kits for Standard or Parking Garage LED Luminaire applications can easily be field installed by a qualified electrician. These LED RetroFit Conversion Kits include:

- High efficacy, long-life LED circuit board mounted directly to integral heat sink on the gear tray for maximum thermal dissipation.
 - Included specular reflector distributes light evenly (Parking Garage RetroFit only).
 - Modular wiring to simplify and expedite supply line connections to the existing lighting system.
- LED Driver includes:
 - Auto-compensate feature to ensure "fail safe" operation.
 - Inputs for dimmable lighting control.
- Frosted Ribbed Acrylic Diffuser mitigates glare and provides color-rendering index of 81 and above.

The "Parking Garage" LED RetroFit Conversion Kit features two (2) rows of outward facing LEDs and reflectors that magnify and distribute lumen output as an "enhanced" controlled beam mounted to an "angular raised" heat sink for improved thermal dissipation.

Note: The Standard and Parking Garage LED RetroFit Kits "are not" DLC Approved.

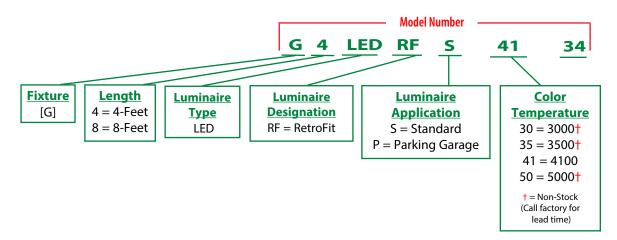




6 Latches 8 Latches

Note: If the luminaire housing you want to retrofit has six (6) latches (4-foot) or twelve (12) latches (8-foot) total, EPCO's LED RetroFit Kit will not fit! Contact EPCO Inside Sales (800.336.1976 or sales@engproducts.com) for more information.

LED RETROFIT CONVERSION KIT - ORDERING INFORMATION EXAMPLE



T5 and T8 RETROFIT CONVERSION KITS

Use our RetroFit Conversion Kits to upgrade a strip-type luminaire from T12 Fluorescent lamps to more energy efficient T8 LED, T5 or T8 Fluorescent Lamps.



Example: The "strip-type" luminare above can be retrofitted using P/Ns 14057, 14067 or 14077.

- Tool-less installation. Quickly and easily attaches to the RetroFit Conversion Kit Bracket using 1/4 Turn Retainer Clips.
- Complies with the majority of utility rebate requirements.
- Optimizes light output and helps to reduce energy consumption.
- Nominal Length: 4-Feet.
- Aluminum Reflectors Improves the usable light.
 - P/Ns 14091 (6-inch) and 14095 (10-inch): White, Reflectance 92%.
 - P/Ns 14092 (6-inch) and 14096 (10-inch): Specular, Reflectance 96%.







4-FT T8 RETROFIT KIT - P/N 14090

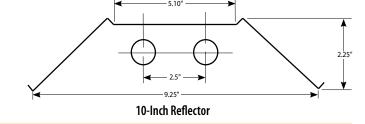




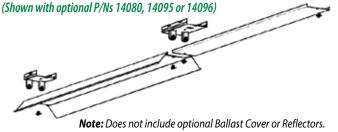
- Commercial Buildings
- Industrial Facilities
- Factories
- Warehouses and Storage Areas
- Strip Malls and Shopping Centers
- Schools and Recreation Areas
- Airport, Train and Bus Terminals
- Fast Food Restaurants
- Other applications where retrofitting existing illumination systems will provide improved lumen output and energy savings.







Part Numbers - 14060 and 14050: Converts an 8-foot, one (1) or two (2) lamp T8 or T12 "strip-type" luminaire into an 8-foot, four (4) lamp T5 or T8 luminaire



6-Inch Reflector

Part Numbers -14066 and 14090: Converts a 4-foot, one (1) or two (2) lamp T8 or T12 "strip-type" luminaire into a 4-foot, two (2) lamp T5 or T8 luminaire

(Shown with optional P/Ns 14095 or 14096)



Note: Does not include optional Ballast Cover or Reflectors.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
T5 Retrol	Fit Convers	ion Kits								
14060†	14060	T5 RetroFit Conversion Kit: for 8-FT Luminaire, 4 Lamp	EA	1	BG	10	10	10	Yes	14
14065†	14065	T5 RetroFit Conversion Kit: for 8-FT Luminaire, 2 Lamp	EA	1	BG	10	10	10	Yes	14
14066†	14066	T5 RetroFit Conversion Kit: for 4-FT Luminaire, 2 Lamp	EA	1	BG	10	10	10	Yes	14
14067†	14067	T5 RetroFit Conversion Kit: for 4-FT Luminaire, 1 Lamp	EA	1	BG	10	10	10	Yes	14
T8 Retrol	Fit Convers	ion Kits*								
14050	14050	T8 RetroFit Conversion Kit: for 8-FT Luminaire, 4 Lamp	EA	1	BG	10	10	10	Yes	14
14050B	14052	T8 RetroFit Conversion Kit (BULK): for 8-FT Luminaire, 4 Lam	ıp EA	1	BN	20	20	20	Yes	28
14051	14051	T8 RetroFit Conversion Kit: for 8-FT Luminaire, 4 Lamp, with Jumper and WAGO® Connector	EA	1	BG	10	10	10	Yes	14
14051B	14053	T8 RetroFit Conversion Kit (BULK): for 8-FT Luminaire, 4 Lamp, with Jumper and WAGO® Connector	EA	1	BN	20	20	20	Yes	28
14055	14055	T8 RetroFit Conversion Kit: for 8-FT Luminaire, 2 Lamp	EA	1	BG	10	10	10	Yes	14
14056	14056	T8 RetroFit Conversion Kit: for 8-FT Luminaire, 2 Lamp, with Jumper and WAGO® Connector	EA	1	BG	10	10	10	Yes	14
14057	14057	T8 RetroFit Conversion Kit: for 4-FT Luminaire, 1 Lamp	EA	1	BG	10	10	10	Yes	14
14070†	14070	T8 RetroFit Conversion Kit: for 8-FT Luminaire, 4 Lamp Use Programmed Start Ballast for Fluorescent and T8 LED Tubes	EA	1	BG	10	10	10	Yes	14
14070B†	14072	T8 RetroFit Conversion Kit (BULK): for 8-FT Luminaire, 4 Lam Use Programmed Start Ballast for Fluorescent and T8 LED Tubes		1	BN	20	20	20	Yes	24
14071†	14071	T8 RetroFit Conversion Kit: for 8-FT Luminaire, 2 Lamp Use Programmed Start Ballast for Fluorescent and T8 LED Tubes	EA	1	BG	10	10	10	Yes	14
14076†	14076	T8 RetroFit Conversion Kit: for 4-FT Luminaire, 2 Lamp Use Programmed Start Ballast for Fluorescent and T8 LED Tubes	EA	1	BG	10	10	10	Yes	14
14077†	14077	T8 RetroFit Conversion Kit: for 4-FT Luminaire, 1 Lamp Use Programmed Start Ballast for Fluorescent and T8 LED Tubes	EA	1	BG	10	10	10	Yes	14
14090	14090	T8 RetroFit Conversion Kit: for 4-FT Luminaire, 2 Lamp	EA	1	BG	10	10	10	Yes	14
RetroFit	Conversion	Kit Accessories								
14080	14080	Standard Ballast Cover: 4-FT - White, 1/4 Turn Retainer Clips for 4.25" Wide Fixture Luminaire ONLY	EA	1	ВХ	20	20	20	Yes	27
14085	14085	1/4 Turn Retainer Clips: for Ballast Cover and Reflectors	EA	1	BG	40	40	40	Yes	1
14091	14091	White Reflector: 4-FT, 6-inch - Nominal Width 5.40", with 1/4 Turn Retainer Clips, for 4.58" Wide Luminaire Housing ONL	EA .Y	1	ВХ	20	20	20	Yes	14
14092	14092	Specular Reflector: 4-FT, 6-inch - Nominal Width 5.40", with 1/4 Turn Retainer Clips, for 4.58" Wide Luminaire Housing ONL	EA	1	ВХ	20	20	20	Yes	14
14095	14095	White Reflector: 4-FT, 10-inch - Nominal Width 9.25", with 1/4 Turn Retainer Clips, for 5.10" Wide Luminaire Housing ONLY	EA	1	ВХ	20	20	20	Yes	16
14096	14096	Specular Reflector: 4-FT, 10-inch - Nominal Width 9.25", with 1/4 Turn Retainer Clips, for 5.10" Wide Luminaire Housing ONLY	EA	1	ВХ	20	20	20	Yes	16

Note: *1. T8 RETROFIT KITS FOR USE WITH INSTANT START BALLAST ONLY EXCEPT P/NS 14070, 14070B,14071, 14076 AND 14077!

- 2. Accommodates luminaire housing widths between 4.25" to 5.0".
- 3. Energy consumption and savings will vary based on the operating hours per day, the number of operating days per year, the energy cost from your local service provider, and lamp cost.
- †4. RetroFit part numbers 14060, 14065, 14066, 14067, 14070, 14070B, 14071, 14076, and 14077 are pre-fitted with non-shunted lamp holders. These retrofit conversion kits can be used with linear T5 or T8 LED Tubes, if these light tubes are classified per UL 1598C. T5 or T8 LED Tubes have an internal LED Driver intended to replace a fluorescent lamp.

Shunted vs. Non-Shunted Lamp Holder Sockets

When converting old "strip-type" luminaires that use magnetic ballast to energy efficient T5 or T8 LED luminaires, the electrician must use lamp holders that are "non-shunted" so 120 – 277 VAC power connects directly to the lamp lockets to ensure the T5 or T8 LED Tubes are energized. See the example shown to the right.







Our energy efficient and cost-effective Utility Luminaires and Accessories meet a very broad variety of lighting applications. Our single-lamp fluorescent luminaires are UL listed for use in "damp" or "wet" illumination applications.

PROSERIES LED UTILITY LUMINAIRE and LED UPGRADE

The ProSeries LED Utility Luminaires are rated for use in indoor, outdoor, and "wet" locations. Many commercial and industrial facilities, in addition to swine, poultry and agricultural support buildings are in transition to this LED luminaire because of its minimal maintenance requirements, high lumen output, and the opportunity for this luminaire to qualify for rebates from their local utility or regional electric co-operative.

The ProSeries LED Utility Luminaire includes a UV resistant, high impact and corrosion resistant 18 cubic-inch junction box that provides capacity for an additional circuit that meets the National Electric Code junction box fill requirements.

PROSERIES MEDIUM BASE and GU24 UTILITY LUMINAIRES

The ProSeries Utility Luminaires are rated for use in "wet" locations and are available in two (2) configurations:

- **ProSeries Medium Base:** The Nickel-plated brass screw shell is recessed in the fixture housing to facilitate the installation of large incandescent lamps. When mounted vertically, the glass globe will not permit dust or water to enter the junction box.
- **ProSeries GU24:** The GU24 socket and base system is designed to replace the Medium-base socket in energy efficient luminaires. This luminaire was designed for compatibly with energy efficiency regulations and qualified as energy efficient under Title 24-2005. It is not backward compatible and cannot be operated with an incandescent lamp.

Both configurations include a UV resistant, high impact and corrosion resistant 18 cubic-inch junction box that provides capacity for an additional circuit that meets the National Electric Code junction box fill requirements.

15000 SERIES UTILITY LUMINAIRES

The core of our single-lamp luminaires is the 15000 Series Utility Luminaires. We have sold more luminaires from the 15000 Series family than any other comparable type luminaire because of its outstanding quality and in-use longevity. These UL listed luminaires are rated for use in "damp" locations and include a corrosion resistant nickel-plated brass screw shell - at no extra cost.* The benefit – long lasting, superior performance, especially under severe environmental conditions like heat, cold, ammonia, and humidity typically found in animal confinement areas.

The 15000 Series Utility Luminaire has been a key factor for many years to support worker safety, improved animal production, and provide farmstead security to older barns and utility out-buildings that may have substandard illumination systems.

* UL Listed. Engineered Products Company's 15000 Series Utility Luminaires meet the Minnesota State Board of Electricity Electrical Wiring requirements for Agricultural Buildings and the 2014 National Electrical Code, Article 547.5 (C) (1, 2, and 3).

PROSERIES LED UTILITY LUMINAIRE and LED UPGRADE

The ProSeries LED Utility Luminaire is an energy efficient "wet-location", sustainable and cost-effective alternative lighting solution for environments where ingress protection from dust and moisture is highly desirable.

BENEFITS

- ETL Listed to UL Standard 1598 (tested).
- Suitable for use in indoor, outdoor, or wet location applications.
- Equivalent to 75-watts of incandescent lumen output that consumes only 15-watts of electricity.
- Luminaire Efficacy: 79 lm/W
- Affordable LED illumination that provides dramatically better visibility.
- Reliable, durable, maintenance free performance.
- Optimal illumination, significant energy savings and virtually no luminaire maintenance.
- Eliminates ongoing replacement lamp cost when compared to incandescent, compact fluorescent, or LED lamps.
- Appropriate for use with all non-metallic wiring systems.
- Labor Savings! Fast, simple installation reduces labor cost.
- 5-Year Warranty.

FEATURES

- The 15-watt LED luminaire produces 1200+ lumens.
- Dimmable down to 10% of rated output.
- UV resistant high impact polycarbonate lens protects LEDs and provides even light distribution.
- The cast-aluminum LED luminaire's Heat Sink is finished in a black "E" coat material that will not rust or corrode in the harshest environment.
- Silicone gasket protects against ingress of moisture and dust.
- Can be used where high-pressure wash down is required.

RETROFITING WITH THE LED UTILITY LUMINAIRE UPGRADE



NOTE: Please see Installation Requirements for the ProSeries LED Utility Luminaire and LED Upgrade shown on page 89.





TYPICAL APPLICATIONS:

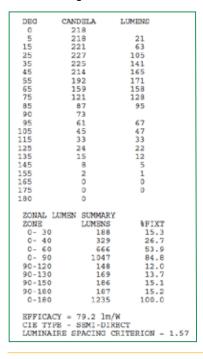
- Commercial and Industrial Facilities
- Agricultural Buildings and Animal Confinement Areas
- Walk-in Refrigerators/ Freezers
- Tunnels, Corridors, and Walkways
- Athletic Areas
- Storage Areas and Buildings

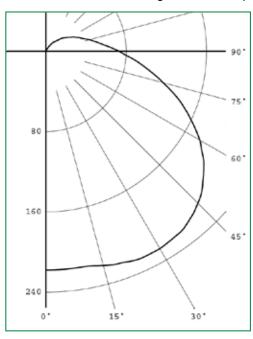


PHOTOMETRICS FOR PROSERIES LED UTILITY LUMINAIRE

Luminaire Quality Metrics – LM-79 Report

EPCO's LM-79 Report captures the ProSeries LED luminaire's overall electrical characteristics and photometric measurements (lumen output) performance. This report is a snapshot of the spatial distribution of light and color attributes under specified operating conditions. However, this report does not address lifetime ratings for this LED luminaire, changing performance over time (e.g., lumen maintenance), or the LED luminaire housing's internal temperature).







SPECIFICATIONS

- ProSeries LED Utility Luminaire Dimensions: 7.325" (186 mm) H; Footprint (including Junction box): 5.5" (139.7 mm)
- LED Utility Luminaire Upgrade Dimensions (including Junction Box Adapter): 4.625 " (117.4 mm) H
- Power Consumption: .12 Amps
- Power Factor: .98 (minimum)
- LED Circuits: 50,000 hour life, minimum
- Total Harmonic Distortion (THD): <20%
- Operating Voltage: 120 Volts only
- Ambient Operating Temperature: -4°F (-20°C) to 113°F (45°C).
- Luminaire Efficacy: 79 lm/W
- Dimmable: Down to 10% of rated output
- Wiring Harness: 3-Wire (Black, Neutral, and Ground) guick connect with pre-stripped 3/8" (.375) leads; 167°F (75°C) minimum supply wire required.

LUMEN OUTPUT

- Luminaire Source: High power LEDs
- Color: 5,000 5,400K (Daylight)
- Lumens: 1200+ Minimum
- Color Rendering Index (CRI): >80.

Catalog Number	UPC Number	Description	Order Unit	Order Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15913	15913	ProSeries LED Utility Luminaire: includes 15-watt LED Luminaire, Aluminum Heat Sink, and Junction Box	EA	1	ВХ	12	12	1	No	2
15915*	15915	ProSeries LED Utility Luminaire (BULK): includes 15-watt LED Luminaire, Aluminum Heat Sink, and Junction Box	EA	504	ВХ	n/a	n/a	n/a	Yes	17
15973	15973	LED Utility Luminaire Upgrade: includes 15-watt LED Luminaire, Aluminum Heat Sink, Junction Box Adapter, Silicone Gasket and Two (2) Screw	EA s	1	ВХ	12	12	1	No	1
15975*	15975	LED Utility Luminaire Upgrade (BULK): includes 15-watt LED Luminaire, Aluminum Heat Sink, Junction Box Adapter, Silicone Gasket and Two (2) Screw	EA 's	504	ВХ	n/a	n/a	n/a	Yes	14

*NOTE: Contact Factory for ProSeries LED Utility Luminaire and LED Upgrade BULK Pricing information.

PROSERIES MEDIUM BASE and GU24 FLUORESCENT LUMINAIRES

- UL Listed. Suitable for use in wet locations. File Number: E182610.
- Appropriate for use with all non-metallic wiring systems.
- Labor savings! Fast installation saves time and reduces labor cost.
- Versatile luminaire is suitable for numerous applications.
- Rated for use with circuit conductors up to 302°F (150°C).
- Can be used where high-pressure wash-down is required.
- UV resistant, high impact, corrosion resistant construction.
- Integrated Octi-Junction Box™ Cover:
- Meets requirements of the 2014 National Electrical Code: Articles 314.15, 314.16(A)(2), 314.17(C), 410.10(A), 410.104(A), 547.5(C)(1) and (2) and 547.8(A) and (B).
- Provides extra junction box capacity for adding an additional power circuit.
- Easy to install; uses eight (8) mounting brackets that are "in-line" with 1/2" and 3/4" trade size knockouts; eliminates a 2" x 4" stub-in by the installer.

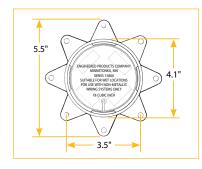
Note: The Octi-Junction Box is not sold separately and will not fit our Ceiling Mount Luminaires P/Ns: 15050, 15051, 15055, and 15056.

- Optional impact resistant quarter-turn safety cage attaches to the Octi-Junction Box without tools.
- The 18 Cubic Inch Octi-Junction Box and the "optional" Safety Cage are made from Polybutylene Terephthalate (PBT) material.

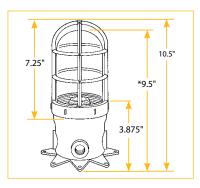


TYPICAL APPLICATIONS:

- Food Processing Facilities
- Industrial Facilities
- Livestock Containment Buildings
- SaunasLaundriesCar Washes
- Elevator ShaftsStorage Buildings
- Refrigerators and Freezers
- Pedestrian and Road Tunnels



Note: Measured without the Optional Safety Cage





ProSeries Medium Base Octi-Junction Box Cover



Octi-Junction Box with ProSeries Medium Base Octi-Junction Box Cover

18 Cubic Inch Octi-Junction Box uses eight (8) mounting brackets that are "in-line" knockouts; eliminates a 2" x 4" stub-in.

Meets the box fill requirements as referenced in the 2014 National Electrical Code:
Articles 314.15, 314.16(A)(2), 314.17(C), 410.10(A), 410.104(A),
547.5(C)(1) and (2) and 547.8(A) and (B). The Octi-Junction Box
provides additional capacity for an extra power circuit.

 Captive stainless steel set screw and posi-stop detent tab on Octi-Junction Box Cover expedites fixture installation.

Recessed Octi-Junction Box Cover with integral nickel-plated brass screw shell accommodates high profile incandescent or compact fluorescent lamps.

 Captive stainless steel set screw secures the Octi-Junction Box Cover to the Octi-Box – expedites fixture installation.

Recessed Octi-Junction Box Cover with integral GU24 socket base accommodates high profile Bi-Pin Compact Fluorescent Lamps.

1/2" and 3/4" trade size knockouts.



ProSeries GU24 Octi-Junction Box Cover



Octi-Junction Box with ProSeries GU24 Octi-Junction Box Cover

UTILITY LIGHTING

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
ProSeries	Medium E	Base Utility Luminaires								
15800	15800	ProSeries Utility Luminaire: Standard Glass Globe; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	ВХ	12	12	1	No	38
15800B	15850	ProSeries Utility Luminaire (BULK): Standard Glass Globe; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	BN	12	12	12	Yes	38
15801	15801	ProSeries Utility Luminaire: Standard Glass Globe and Safety Cage; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	ВХ	12	12	1	No	38
15801B	15851	ProSeries Utility Luminaire (BULK): Standard Glass Globe and Safety Cage; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	BN	12	12	12	Yes	38
15805B	15855	ProSeries Utility Luminaire (BULK): Acrylic Prismatic Globe; Rated for 60-watt Incandescent Lamp (maximum)	EA	1	BN	12	12	12	Yes	38
15806*	15806	ProSeries Utility Luminaire: Polycarbonate Clear Globe; Rated for 60-watt Incandescent Lamp (maximum)	EA	1	ВХ	12	12	1	No	38
15806B	15856	ProSeries Utility Luminaire (BULK): Polycarbonate Clear Globe; Rated for 60-watt Incandescent Lamp (maximum)	EA	1	BN	12	12	12	Yes	38
15807B	15857	ProSeries Utility Luminaire (BULK): Tall Acrylic Prismatic Globe; Rated for 60-watt Incandescent Lamp (maximum)	EA	1	BN	12	12	12	Yes	38
15810B	15860	ProSeries Utility Luminaire (BULK): Tempered Glass Globe; Rated for 150-watt Incandescent Lamp (maximum)	EA	1	BN	12	12	12	Yes	38
15811B	15861	ProSeries Utility Luminaire (BULK): Tempered Glass Globe and Safety Cage Rated for 150-watt Incandescent Lamp (maximum)	e; EA	1	BN	12	12	12	Yes	38
ProSeries	Medium E	Base Utility Luminaire Accessories								
15812	15812	Safety Cage: 1/4 Turn Attachment	EA	1	ВХ	12	12	1	No	6
15815	15815	Octi-Junction Box Cover: with Porcelain Lamp Holder	EA	1	ВХ	12	12	1	No	4
15680	15680	Compact Fluorescent Lamp: 23-watt, Self-Ballasted Lamp (5000K); Lumen output is equal to 90-watt incandescent lamp	EA	1	ВХ	50	50	1	No	8
ProSeries	GU24 Util	ity Luminaires								
15865	15865	ProSeries GU24 Utility Luminaire: Standard Glass Globe; Rated for 23-watt GU24 Lamp (maximum)	EA	1	ВХ	12	12	1	No	38
15867	15867	ProSeries GU24 Utility Luminaire: Standard Glass Globe and Safety Cage; Rated for 23-watt GU24 Lamp (maximum)	EA	1	ВХ	12	12	1	No	39
15880	15880	ProSeries GU24 Utility Luminaire: Tempered Glass Globe; Rated for 23-watt GU24 Lamp (maximum)	EA	1	ВХ	12	12	1	No	38
ProSeries	GU24 Util	ity Luminaire Accessories								
15812	15812	Safety Cage: 1/4 Turn Attachment	EA	1	ВХ	12	12	1	No	6
15890	15890	Octi-Junction Box Cover: with GU24 Lamp Socket	EA	1	ВХ	12	12	1	No	4
15670	15670	Compact Fluorescent Lamp: 23-watt, GU24 Bi-Pin, Self-Ballasted Lamp (5000K) Lumen output is equal to 90-watt incandescent lamp	; EA	1	ВХ	50	50	1	No	8

*Note: Optional Safety Cage (Part Number 15812) will not fit ProSeries Part Number 15806 or 15807B.

CEILING MOUNT LUMINAIRES

- UL Listed. File Number: E182610. Suitable for use in damp locations ONLY!
- Meets the requirements of the 2014 National Electrical Code: Articles 314.16(A)(2), 314.17(C), 410.10(A) and 547.5(C)(1) and (2).
- Includes porcelain E26 lamp socket with corrosion resistant nickel-plated brass screw shell.
- High impact, corrosion resistant, compression molded phenolic junction box and luminaire base.
- Standard and Tempered Glass Globes rated for "A" Series incandescent lamps (150-watt maximum).
- Polycarbonate and Acrylic Prismatic Globes rated for "A" Series incandescent lamps (60-watt maximum).
- All ceiling mount luminaires are supplied with a silicone gasket, corrosion resistant screws and rubber washer. Wired with 194°F (90°C) minimum supply wires (THHN).



TYPICAL APPLICATIONS:

- Walk-in Refrigerators
- Elevator Shafts
- Tunnels
- Storage Buildings
- Maintenance Areas
- Swine and Poultry Confinement Buildings



LUMINAIRE GLOBE and JUNCTION BOX DIMENSIONAL REFERENCE

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
With 12	Cubic Inc	th Junction Box (15045)								
15000	15000	Utility Luminaire: 1/2" and 3/4" Knockout Combo - Standard Glass Globe	EA	1	ВХ	12	12	12	Yes	24
15001	15001	Utility Luminaire: 1/2" and 3/4" Knockout Combo - Tempered Glass Globe	EA	1	ВХ	12	12	12	Yes	24
15002	15002	Utility Luminaire: 3/4" Knockout - Standard Glass Globe	EA	1	ВХ	12	12	12	Yes	24
15005	15005	Utility Luminaire: 1/2" and 3/4" Knockout Combo - Polycarbonate Globe	EA	1	ВХ	12	12	1	No	18
15006	15006	Utility Luminaire: 1/2" and 3/4" Knockout Combo - Acrylic Prismatic Globe (Tall)	EA	1	ВХ	12	12	1	No	19
15007	15007	Utility Luminaire: 1/2" and 3/4" Knockout Combo - Acrylic Prismatic Globe	EA	1	ВХ	12	12	1	No	19
Without	Junction	n Вох								
15050	15050	Utility Luminaire: Standard Glass Globe	EA	1	ВХ	12	12	12	Yes	20
15051	15051	Utility Luminaire: Tempered Glass Globe	EA	1	ВХ	12	12	12	Yes	20
15055	15055	Utility Luminaire: Polycarbonate Clear Globe	EA	1	ВХ	12	12	1	No	14
15056	15056	Utility Luminaire: Acrylic Prismatic Globe (Tall)	EA	1	ВХ	12	12	1	No	15
15090	15090	Medium Bases: Globe not included	EA	1	ВХ	12	12	1	No	7

STANDARD NON-METALLIC JUNCTION BOXES

- UL Listed. File Number: E182992.
- High impact, compression molded phenolic plastic rated to 302°F (150°C).
- Meets the requirements of the 2014 National Electrical Code: Articles 314.15, 314.16(A)(2), 314.17(C), and 547.5(C)(1) and (2).
- Suitable for use in "wet" locations.
- Corrosion resistant.











Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15045	15045	12 Cubic Inch Junction Box: 1/2" and 3/4" Knockout Combo	EA	1	ВХ	12	12	12	Yes	6
15046	15046	12 Cubic Inch Junction Box: 1/2" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15047	15047	12 Cubic Inch Junction Box: 3/4" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15049	15049	19 Cubic Inch Junction Box: 3/4" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15070	15070	16 Cubic Inch Single-Gang FS-C Type Junction Box: 1/2" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15071	15071	16 Cubic Inch Single-Gang FS-C Type Junction Box: 3/4" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15075	15075	Single-Gang Junction Box Cover and Neoprene Gasket	EA	1	ВХ	12	12	12	Yes	2
15905	15905	Round Junction Box Cover and Silicone Gasket	EA	1	ВХ	12	12	12	Yes	2

SPIDERBOX NON-METALLIC JUNCTION BOXES

- UL Listed. File Number: E182992.
- Suitable for use in "wet" locations.
- Corrosion resistant.
- Easy to install using the eight (8) mounting brackets that are in-line with knockouts.
- Eliminates a 2" x 4" stub-in.
- High impact compression molded phenolic plastic rated to 302°F (150°C).
- Meets the requirements of the 2014
 National Electrical Code: Articles 314.15, 314.16(A)(2), 314.17(C), 547.5(C)(1) and (2).





COMPACT FLUORESCENT LAMPS



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SPIDERBO)X Non-Met	allic Junction Boxes								
15246	15246	12 Cubic Inch SPIDERBOX Junction Box: 1/2" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15247	15247	12 Cubic Inch SPIDERBOX Junction Box: 3/4" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15905	15905	Round Junction Box Cover and Silicone Gasket	EA	1	ВХ	12	12	12	Yes	2
Compact Fluorescent Lamp										
15680	15680	Compact Fluorescent Lamp: 23-watt, Self-Ballasted Lamp (5000K); Lumen output is equal to a 100-watt Incandescent Lamp	EA	1	ВХ	50	50	1	No	8

LUMINAIRE GLOBES

STANDARD and TEMPERED GLASS GLOBES

- Withstands extreme temperature changes.
- For use with "A" Series incandescent lamps (150-watt maximum).

ACRYLIC PRISMATIC and POLYCARBONATE GLOBES

- UV stabilized material. The Acrylic Prismatic Globes resist discoloration four times longer than polycarbonate material.
- 3 Year guarantee against discoloration from UV exposure. For applications that require high-pressure wash down.
- Acrylic Prismatic Globes feature internal ribbing and smooth exterior.
- For use with "A" Series incandescent lamps (60-watt maximum).

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15015	15015	Standard Glass Globe	EA	1	ВХ	32	32	32	Yes	34
15016	15016	Tempered Glass Globe	EA	1	ВХ	32	32	32	Yes	34
15020	15020	Polycarbonate Clear Globe	EA	1	ВХ	12	12	12	No	5
15025	15025	Acrylic Prismatic Globe (Tall)	EA	1	ВХ	12	12	12	No	5

(a) Acrylic Prismatic Globe (Tall) (b) Standard Glass Globe

Polycarbonate Clear Globe

Tempered Glass Globe

Note: Luminaire Globes are sold ONLY in case quantities.

REPLACEMENT LAMP SOCKET

- High temperature porcelain lamp socket with 6-inch 18 AWG stranded wire leads.
- Includes corrosion resistant nickel-plated brass screw shell.
- Can be used with "A" Series incandescent lamps (150-watt maximum).



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15031	15031	Replacement Lamp Socket: Porcelain	BG	12	BG	0	0	12	Yes	1

Note: Porcelain lamp sockets are interchangeable with luminaires built with phenolic sockets.

WIRE GUARD

- Fits Standard Glass, Tempered Glass and Acrylic Prismatic (short) Globes only.
- 8 AWG steel, with a three-coat electrolytic plating.
- Clamp-type attachment.



	alog mber	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
150	063	15063	Wire Guard	EA	1	ВХ	0	0	1	No	2

UTILITY LIGHTING

WALL MOUNT LUMINAIRE

- UL Listed. Suitable for use in damp locations ONLY! File Number: E182610, Volume 2.
- Meets the requirements of the 2014 National Electrical Code: Articles 314.16(A)(2), 314.17(C), 410.10(A) and 547.5(C)(1) and (2).
- Can be used with "A" Series incandescent lamps (150-watt maximum).
- Includes Tempered Glass Globe.
- High impact, corrosion resistant construction.
- Fits 3.25" or 4.0" Junction Box.
- Low cost alternative to vapor-tight luminaires.
- Nickel-plated brass screw shell.
- UV resistant will not fade or discolor.







Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Wall Mou	nt Utility Lu	uminaire								
15605	15605	Utility Luminaire: Tempered Glass Globe; 12 Cubic Inch Junction Box with Combination 1/2" and 3/4" Knockouts - Black	EA	1	ВХ	12	12	1	No	28
Compact	Fluorescent	t Lamp								
15680	15680	Compact Fluorescent Lamp: 23-watt, Self-Ballasted (5000K); Lumen output is equal to a 100-watt Incandescent Lamp	: EA	1	ВХ	50	50	1	No	8

MOTION SENSING LED CLOSET LUMINAIRE

Engineered Products Company's (EPCO®) Motion Sensing LED Closet Luminaire provides unparalleled performance, improved efficacy, more usable lumens per watt, and is a reliable and sustainable LED lighting solution for small areas.

OPERATING MODE - THREE (3) SWITCH OPTIONS

This luminaire features three (3) operating modes. Set the toggle switch on the Motion Sensing LED Closet Luminaire to the operating mode that suits your application.

- **1. Wall Switch Operation:** Will operate as a "switched" luminaire (controlled by a standard wall switch).
- **2. OFF:** Functions as standard ON/OFF Switch to energize the luminaire.
- 3. Occupancy Mode: The "Green" LED (next to the occupancy sensor) indicates the Motion Sensing LED Closet Luminaire is operating in the automatic mode to detect the presence of motion up to 20-feet away. The luminaire will continue to operate until no motion is detected for an additional three (3) minutes, then the luminaire will "Shut-Off".



- ETL Listed to UL 1598 Standards.
- Meets the requirements of the NEC Article 410.16, and the UL 1598 Standard.
- For "New" or "Retrofit" applications.
- Motion activated lighting. No separate line voltage is needed for a wall switch.
- Energy efficient and optimized light output.
- Operates on 120V line voltage.
- Suitable for indoor applications only.
- Five (5) year warranty.
- Prescriptive rebates may be available from electric utilities or co-ops.

FEATURES

- Designed for ceiling and wall mount applications.
- When used with the occupancy sensor, the luminaire automatically lights when occupancy is detected; turns off after three (3) minute vacancy.
- Significant energy savings.
- Cost-effective, eliminates batteries, and will save money.
- Corrosion resistant housing.
- Provides bright lighting in a small form factor.
- Complies with general rebate requirements for lighting upgrades.





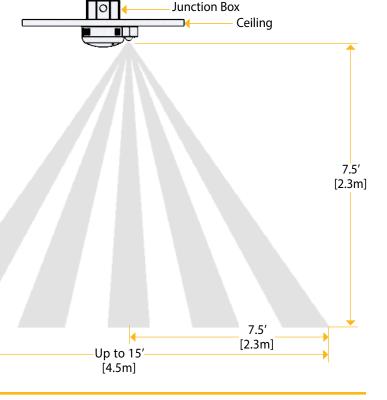
LUMINAIRE INCLUDES:

- Motion Sensing LED Closet Luminaire
- Frosted Acrylic Diffuser

TYPICAL APPLICATIONS:

- Closets
- Garages
- Attics
- Storage and Utility Rooms
- Basements
- Storage Buildings
- Residential and Commercial
- And more...



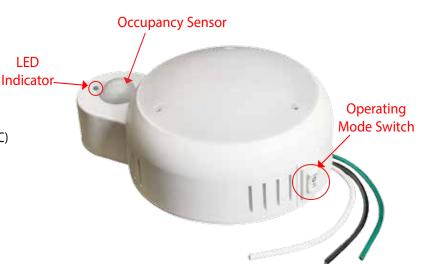


SPECIFICATIONS

- 5.5" (139.7 mm) H x 5.5" (139.7mm) W
- Power: 7-watts (>.06 Amps)
- Power Factor: .09 or higher
- Total Harmonic Distortion (THD): 20% or less
- Sensor Type: Passive Infrared Sensor (PIR)
- Operating Voltage: 120V @ 60Hz, Only!
- Operating Temperature: 32°F (0°C) to 104°F (40°C)
- Switch: Yes (3-way; Automatic / Off / On)
- Dimmable: No



- Efficacy: 70.8 lm/W Lumen Output: 519
- Correlated Color Temperature (CCT): 3,000K Extra Warm White
- Color Rendering Index (CRI): 83
- Luminaire Range: 15-Feet (4.5 Meters)
- Luminaire Color: White



		Description					TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16540	16540	Motion Sensing LED Closet Luminaire: includes 7-watt LED Luminaire and Frosted Acrylic Diffuser	EA	1	ВХ	12	12	1	No	2

LED

EPCO MOTION SENSING LED CLOSET LUMINAIRE LIMITED WARRANTY

Engineered Products Company (herein known as EPCO) warrants that it will repair, replace or refund, at EPCO's sole option, any Motion Sensing LED Closet Luminaire that is determined to be defective in materials or workmanship for a period of five (5) years from the date of original purchase. This warranty only applies to the original Purchaser/Installer and is not transferable. This Limited Warranty does not apply to the following:

- Any Motion Sensing LED Closet Luminaire that has been incorrectly installed by drilling holes, puncturing, piercing or any other means that will alter the product's integrity.
- Damage caused by the use of parts, components, and/or other equipment(s) that is not compatible, suitable, or unauthorized by EPCO for use with the Motion Sensing LED Closet Luminaire.
- Damage resulting from use of the Motion Sensing LED Closet Luminaire in what EPCO, at its sole discretion, considers extreme applications.
- Product damage as determined by EPCO to be caused by a crash, impact, or obvious signs of abuse to the Motion Sensing LED Closet Luminaire.
- There are absolutely no charge-backs for any labor required to remove, re-install, or re-power the Motion Sensing LED Closet Luminaire.

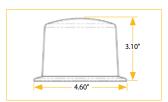
GU24 BASE LUMINAIRES

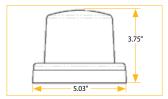




TYPICAL APPLICATIONS:

- Closets
- Garages
- Attics
- Utility Rooms
- Basements
- Storage Buildings
- Residential and Commercial
- And more...









Lamp Comparison	60-watt	13-watt
Annual Energy Cost	\$36.75*	\$7.98*
Lumen Output	890	900

Annual Energy Savings using a 13-watt vs. a 60-watt = 78% or \$28.77 Savings!

*The kWh of electricity used per day is 1.44 kWh for a 60-watt Incandescent Lamp vs. 0.312 kWh for a Compact Fluorescent Lamp based on operating 24 hours a day, 365 days at \$0.07 per kWh per day. Your actual savings will vary based on the amount of electricity you use and your supplier's cost per day may be more or less than the estimated savings presented in this example.

- UL Listed.
- Includes 13-watt GU24 Bi-Pin Compact Fluorescent Lamp (CFL) and polycarbonate lamp diffuser.
- Can be used with a standard wall switch.
- 13-Watt GU24 Bi-Pin Compact Fluorescent Lamp:
 - Lamp Output = 900 lumens
 - Lamp Color = 2700K
 - Lamp Life (approximately 10,000 hours)
- Luminaire Rating: 120V-250VAC, 60Hz
- Impact resistant construction.
- 7" Conductors simplify installation.
- Suitable for indoor use only.
- Fits 3.25 inch or 4.0 inch Outlet Box.
- Meets the requirements of the 2014 National Electrical Code: Articles 410.16(A)(2), 410.52, 410.74(A)(B), 410.122.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16530	16530	GU24 Base Luminaire: Keyless	EA	1	ВХ	24	24	24	Yes	11
16535	16535	GU24 Base Luminaire: Pull Chain	EA	1	ВХ	24	24	24	Yes	11
15675	15675	Compact Fluorescent Lamp: 13-watt, GU24 Bi-Pin, Self Ballasted Lamp (2700K)	EA	1	ВХ	25	25	1	No	8

Note: Luminaires are sold ONLY in case quantities of 24 per Carton.

PORCELAIN and PLASTIC LAMP HOLDERS

- UL Listed. File Number: E236781.
- Nickel-plated brass screw shell will not corrode.
- For Commercial, Industrial, Residential and Agricultural Lighting (Porcelain Only) Applications.
- Fits 3.25 inch or 4.0 inch outlet box.
- UV resistant Lamp Holders will not fade or discolor.
- Optional Plastic and Metal Safety Cages fit all Lamp Holders.
- Includes corrosion resistant mounting screws.
- Meets the requirements of the 2014 National Electrical Code:
 - Part Numbers: 16500, 16502, 16510, 16512 and 16514 Articles 410.74(A)(B) and 410.122
 - Part Numbers: 16520, 16522, 16524 and 16526 Articles 410.52, 410.74(A)(B) and 410.122

























Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16500	16500	Porcelain Lamp Holder: Keyless, 4-Terminal	EA	1	ВХ	48	48	48	Yes	33
16502	16502	Porcelain Lamp Holder: Pull Chain	EA	1	ВХ	48	48	48	Yes	35
16510	16510	Plastic Lamp Holder: Keyless, 4-Terminal	EA	1	ВХ	48	48	48	Yes	11
16512	16512	Plastic Lamp Holder: Pull Chain	EA	1	ВХ	48	48	48	Yes	13
16514	16514	Porcelain Lamp Holder: Pull Chain and 15 AMP Receptacle	EA	1	ВХ	48	48	48	Yes	40
16520	16520	Porcelain Lamp Holder: Keyless, 4-Terminal with 7" Black and White Conductors	EA	1	ВХ	48	48	48	Yes	33
16522	16522	Porcelain Lamp Holder: Pull Chain with 7" Black and White Conductors	EA	1	ВХ	48	48	48	Yes	35
16524	16524	Plastic Lamp Holder: Keyless, 4-Terminal with 7" Black and White Conductors	EA	1	ВХ	48	48	48	Yes	11
16526	16526	Plastic Lamp Holder: Pull Chain with 7" Black and White Conductors	EA	1	ВХ	48	48	48	Yes	13
16100	16100	Safety Cage: Yellow	EA	1	ВХ	10	10	10	Yes	1
16501	16501	Safety Cage: Metal	EA	1	ВХ	12	12	12	Yes	6

Note: Lamp Holders are sold ONLY in case quantities of 48 per Carton.

INSTALLING LAMP HOLDERS FOR POULTRY FARMING APPLICATIONS

EPCO recommends using only Porcelain Lamp Holder(s) for poultry farming applications. The lamp holder must be installed in a manner that will not permit dust or moisture to enter the junction box. In addition, the porcelain lamp holder must be mounted vertically with the lamp positioned below the lamp holder on a water-tight, dust-tight non-metallic junction box with an effective gasket between the junction box and the lamp holder as shown in the photo to the right.

Use the part numbers below to facilitate and complete the installation as shown.



Porcelain Lamp Holder (P/N 16500), Silicone Gasket (P/N E05-003-000), and Junction Box (P/N 15246)

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
E05-003-000	N/A	Silicone Gasket	EA	1	BG	12	12	12	Yes	1
15045	15045	12 Cubic Inch Junction Box: 1/2" and 3/4" Knockout Combo	EA	1	ВХ	12	12	12	Yes	6
15046	15046	12 Cubic Inch Junction Box: 1/2" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15047	15047	12 Cubic Inch Junction Box: 3/4" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15049	15049	19 Cubic Inch Junction Box: 3/4" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15246	15246	12 Cubic Inch SPIDERBOX Junction Box: 1/2" Knockouts	EA	1	ВХ	12	12	12	Yes	6
15247	15247	12 Cubic Inch SPIDERBOX Junction Box: 3/4" Knockouts	EA	1	ВХ	12	12	12	Yes	6
16500	16500	Porcelain Lamp Holder: Keyless, 4-Terminal	EA	1	ВХ	48	48	48	Yes	33
16502	16502	Porcelain Lamp Holder: Pull Chain	EA	1	ВХ	48	48	48	Yes	35
16514	16514	Porcelain Lamp Holder: Pull Chain and 15 AMP Receptacle	EA	1	ВХ	48	48	48	Yes	40

Note: 1. Junction boxes include screws to affix the lamp holder to the junction box.

WARNING: EPCO Lamp Holders Must Be Installed in Accordance with the following 2014 National Electric Code Articles that state:

Where the wiring method is conduit, tubing, Type AC cable, or other cables, <u>a box or conduit body</u> shall be installed at each <u>conductor splice point</u>, <u>outlet point</u>, switch point, junction point, termination point, or pull point, unless otherwise permitted in NEC 300.15(A) through (L).

In addition, Article 502.130(2)(3) requires luminaires for fixed lighting shall be provided with enclosures that are dust tight or otherwise identified for the location as well as protected from physical damage by suitable guards for areas described in Article 547.1(A).

If the Contractor has taken care to install the porcelain lamp holder(s) in the proper manner as described and shown above and believes the lamp holder is defective, and wants to file a warranty claim, EPCO will require an "Affidavit of Inspection" from the Contractors local Electrical Inspector to validate the defined installation procedure. This document is intended to protect the integrity of the company (EPCO) and the Distributor.

^{2.} Plastic Lamp Holders are NOT suitable for this application and will VOID the Warranty!



We are the leading American manufacturer of fixture whips for the electrical construction industry. Our pre-wired armored cable fixture whips are factory fabricated wiring assemblies typically used for lighting and power distribution in commercial buildings.

Our Fixture Whips consist of flexible metal conduit (FMC), .375mm (3/8") and .5" (1/2") trade sizes and meet all requirements of the National Electrical Code (NEC), Article 348. These pre-assembled Fixture Whips provide an excellent mechanical protection and a cost-effective, reliable installation. The connectors used are designed to simplify the connection to metallic junction boxes and luminaires. Typical applications include both new and remodeled commercial buildings, industrial facilities, shopping centers, hotels, as well as health care, educational and recreational facilities.

ADVANTAGES FOR THE CONTRACTOR

- A cost-effective and efficient alternative to traditional labor-intensive pipe and wire installation methods.
- Significantly reduces installation time to connect branch circuit power distribution and lighting systems.
- Fixture whip accessory products are available for the contractor to expedite and facilitate installation.
- We can also build "custom" labor-saving Fixture Whips to the contractor's specifications. Please review page 46 for more specific information.

WHY CONTRACTORS USE UL LISTED EPCO FIXTURE WHIPS

- 100% of our Fixture Whips are assembled in our facility using UL Listed or UL Recognized components.
- A UL label attached to every Fixture Whip is an immediate identifier to the electrical inspector and contractor that our fixture whips have been inspected at the factory, listed by UL (File Number E87199) and comply with the NEC.
- Permitted for use by virtually all local building codes and approved by electrical inspectors in the majority of municipalities across the U.S.
- We provide product liability insurance as additional protection in the event of product defects that may cause a liability to the contractor.

The table to the right shows the maximum number of insulated conductors in 3/8 inch flexible metal conduit.

Column A = With fitting inside conduit

Column B = With fitting outside conduit

In addition, one covered or bare equipment grounding conductor of the same size shall be permitted (per the 2014 NEC, Table 348.22).

	Wire Types T	FN AND THHN
Wire Size (AWG)	A	В
18	5	8
16	4	6
14	3	4
12	2	3
10	1	1

ILLUMINATION CONTROL FIXTURE WHIP

Our Illumination Control Fixture Whip (ICFW) is an integral component for lighting systems using LED luminaires and integrated room controls in conjunction with a 0-10V luminaire control device for power, control, signage, and other applications operating at 120 – 277VAC.

For LED or Fluorescent luminaires with dimming ballast lighting systems utilizing Digital Controls, EPCO recommends using its Illumination Control Fixture Whip (ICFW). This configuration gives the Electrician the capability to have a single Fixture Whip contain Class 1, Class 2, or Class 3 circuits.

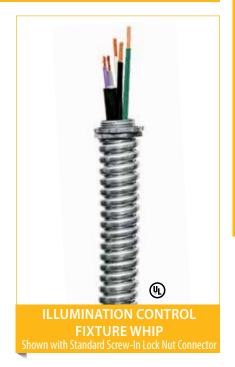
EPCO's ICFW ensures the Class 1 circuit is separated from the Class 2 or Class 3 circuit conductors by a continuous and firmly fixed non-conductor material or flexible tubing, as well as a separation within the junction box by a minimum of 1/4" (.25) inch as designed by the National Electrical Code.

Significant labor savings can be achieved by using a pre-made, "plug-and play" fixture whip specifically for power and lighting control when the contractor is installing this type of fixture whip, or using other wiring methods.

BENEFITS

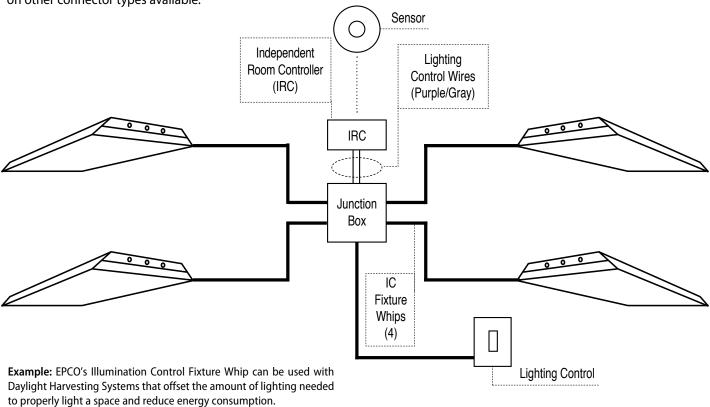
- UL Listed. File Number E87199.
- Includes conductors for power and lighting control.
- Meets the requirements of the 2014 National Electrical Code, Article 300.3(C)(1), Section 725.136(I)(1), and California Title 24 Lighting Controls, Articles 130.1(A)(B)(C)(D)(E).
- Suitable for retrofit applications.
- Easy to install and wire. Installation is familiar to electrical contractors and is less prone to installation error.

In addition to the Die Cast Screw-In Connector shown on the Illumination Control Fixture Whip, a Die-Cast Snap-In Connector is available. Contact the EPCO Inside Sales Department at 800.336.1976 or sales@engproducts.com for more specific information on other connector types available.

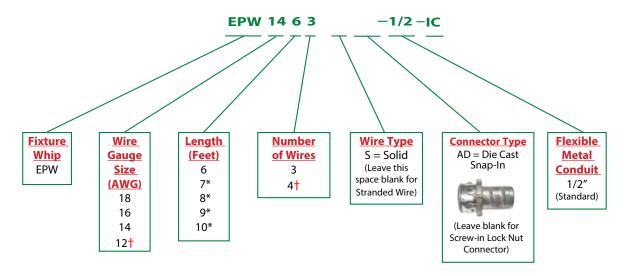


TYPICAL APPLICATIONS:

- LED and Fluorescent Dimming
- Smart Buildings
- Daylight Harvesting Systems (saves energy)



Illumination Control Fixture Whip Configuration Example: EPW1463__-1/2-IC or EPW1463-1/2-IC



† Four (4) 12 AWG Conductors in 1/2" (.5") Flexible Metal Conduit (FMC) exceeds the percentage (%) fill capacity for the number of conductors in 1/2" (.5") FMC per the 2014 National Electrical Code (NEC), Article 348.22.

Add item code references shown in **Red** to build your part number.

Note

- 1. The Illumination Control Fixture Whip (ICFW) will be built to your specifications using only 1/2" (.5") Flexible Metal Conduit.
- 2. Power Conductors Colors (all Stranded Wire unless Solid Wire "S" is designated above):
 - 120 Volt 3-Wire: Black, White, and Green
 - 120 Volt 4-Wire: Black, White, Red, and Green

Contact EPCO Inside Sales (800-336-1976 or sales@engproducts.com) for ordering Illumination Control Fixture Whips in 277 VAC configurations.

- 277 Volt 3-Wire: Brown, Gray, and Green (Special Order Only)
- 277 Volt 4-Wire: Brown, Orange, Gray, and Green (Special Order Only)

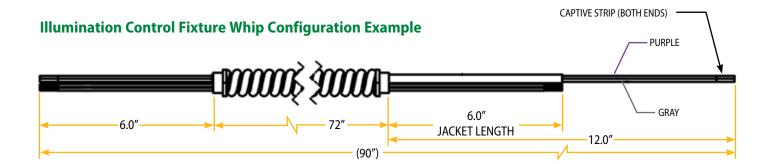
Power Conductors have a "captive" strip 5/8" (.625") on each end of the conductor wires and securely tied to prevent damage to these conductors during shipment.

Connector Type: Screw-in Lock Nut Connector (standard) as shown.

- If your application requires a Die Cast-Snap-in Connector, enter "AD" in your part number.
- Contact EPCO Inside Sales for additional information on other fixture whip type connectors available.

Illumination Control (IC) Wires:

- 16 AWG Stranded "jacketed" Wire only!
- Includes a "captive" 6-inch strip on each end of the IC wires and securely tied to the Fixture Whip to prevent damage to the wires during shipment.
- 3. *Any ICFW longer than 6-feet will require a lead time. Contact EPCO Inside Sales for more information.



FIXTURE WHIPS WITH DIE CAST SCREW-IN CONNECTORS

- UL Listed as a complete wire assembly that complies with the 2014 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(A), (B) and (C), and 410.137(C). File #E87199.
- Manufactured using UL Listed or UL recognized components.
- Stranded and Solid THHN Conductors.
- Includes Die Cast Screw-In Connectors on each end.
- Packaging 30 per Carton or 100 in an extra strong fiber drum.

Note: Specify packaging requirements when placing your order. Add the "C" suffix to indicate 30 Fixture Whips per Carton.

All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors.

We manufacture Fixture Whips for 277 Volt applications. Contact our Inside Sales Department (800.336.1976 or sales@enaproducts.com) for more specific information.



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wir	e Fixture	Whips - 3/8" (.375") Conduit								
EPW1262	10311	2-12 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263	10315	3-12 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462	10303	2-14 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463	10307	3-14 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464	10308	4-14 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662	10300	2-16 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663	10301	3-16 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664	10302	4-16 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862	10297	2-18 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863	10298	3-18 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864	10299	4-18 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Solid Wire Fix	ture Whi	ips - 3/8" (.375") Conduit								
EPW1262S	10336	2-12 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263S	10337	3-12 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462S	10333	2-14 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463S	10334	3-14 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464S	10335	4-14 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662S	10330	2-16 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663S	10331	3-16 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664S	10332	4-16 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862S	10327	2-18 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863S	10328	3-18 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864S	10329	4-18 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Stranded Wir	e Fixture	Whips - 1/2" (.5") Conduit								
EPW1263-1/2	11600	3-12 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	186
EPW1264-1/2	10286	4-12 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	195
EPW1463-1/2	10309	3-14 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1464-1/2	10313	4-14 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
Solid Wire Fix	ture Whi	ips - 1/2" (.5") Conduit								
EPW1263S-1/2	10314	3-12 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	186
EPW1264S-1/2	10289	4-12 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	195
EPW1463S-1/2	10575	3-14 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1464S-1/2	10577	4-14 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180

FIXTURE WHIPS

FIXTURE WHIPS WITH DIE CAST SNAP-IN CONNECTORS

- UL Listed as a complete wire assembly that complies with the 2014 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(A), (B) and (C), and 410.137(C). File #E87199.
- Manufactured using UL Listed or UL recognized components.
- Significant Labor Savings!
- 3/8" Flexible Metal Conduit; 6-foot length Standard.
- Stranded and Solid THHN Conductors Standard.
- Packaging 30 per Carton or 100 in an extra strong fiber drum.

Note: Specify packaging requirements when placing your order. Add the "C" suffix to indicate 30 Fixture Whips per Carton.

All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors.

We manufacture Fixture Whips for 277 Volt applications. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more specific information.

Die Cast Snap-In Fixture Whips Part Number Reference Example: EPW1864SAD

18 = Wire Gauge; 6 = Length (in feet); 4 = Wires; S = Solid Wire; AD = Die Cast Snap-In Connector



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wir	e Fixture \	Whips								
EPW1262AD	10554	2-12 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263AD	10556	3-12 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1264AD	10558	4-12 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1462AD	10560	2-14 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463AD	10369	3-14 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464AD	10442	4-14 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662AD	10566	2-16 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663AD	10517	3-16 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664AD	10568	4-16 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862AD	10569	2-18 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863AD	10281	3-18 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864AD	10280	4-18 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Solid Wire Fix	ture Whip	OS .								
EPW1262SAD	10555	2-12 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263SAD	10557	3-12 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1264SAD	10559	4-12 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1462SAD	10561	2-14 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463SAD	10450	3-14 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464SAD	10451	4-14 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1862SAD	10570	2-18 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863SAD	10367	3-18 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864SAD	10368	4-18 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170

FIXTURE WHIPS WITH POLYCARBONATE SNAP-IN CONNECTORS

FIXTURE WHIPS WITH POLYCARBONATE SNAP-IN CONNECTORS

- UL Listed as a complete wire assembly that complies with the 2014 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(A), (B) and (C), and 410.137(C). File #E87199.
- Manufactured using UL Listed or UL recognized components.
- Significant Labor Savings!
- Stranded and Solid THHN conductors Standard.
- Packaging 30 per Carton or 100 in an extra strong fiber drum.

Note: Specify packaging requirements when placing your order. Add the "C" suffix to indicate 30 Fixture Whips per Carton.

All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors.

We manufacture Fixture Whips for 277 Volt applications. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more specific information.

Polycarbonate Snap-In Fixture Whips Part Number Reference Example: EPW1864SA

18 = Wire Gauge; 6 = Length (in feet); 4 = Wires; S = Solid Wire; A = Polycarbonate Snap-In Connector



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty C	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded W	ire Fixture	• Whips								
EPW1262A	10318	2-12 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263A	10319	3-12 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462A	10316	2-14 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463A	10317	3-14 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464A	10326	4-14 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662A	10323	2-16 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663A	10324	3-16 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664A	10325	4-16 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862A	10320	2-18 AWG Stranded Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863A	10321	3-18 AWG Stranded Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864A	10322	4-18 AWG Stranded Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170
Solid Wire F	ixture Wh	ips								
EPW1262SA	10347	2-12 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	175
EPW1263SA	10348	3-12 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	190
EPW1462SA	10344	2-14 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	160
EPW1463SA	10345	3-14 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	170
EPW1464SA	10346	4-14 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	180
EPW1662SA	10341	2-16 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1663SA	10342	3-16 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	165
EPW1664SA	10343	4-16 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	175
EPW1862SA	10338	2-18 AWG Solid Wire: 6-FT - Black, White	EA	1	BRL	100	100	10	Yes	155
EPW1863SA	10339	3-18 AWG Solid Wire: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	160
EPW1864SA	10340	4-18 AWG Solid Wire: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	170

QUIKWHIP FIXTURE WHIPS

- UL Listed as a complete wire assembly that complies with the 2014 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(A), (B) and (C), and 410.137(C). File #E87199.
- Significant contractor time and labor savings!
- Pre-attached connectors add speed and dependability when finalizing fixture whip terminations.
 - Two (2) Die Cast "Snap-In" Connectors on each end of the QuikWhip. Snaps directly into the luminaire housing.
 - WAGO® Pushwire 4-port connectors on each end of the QuikWhip.
- No tools required to install the QuikWhip! A cost-effective solution that eliminates lock nuts and wire nuts.
- Easily insert the luminaire's conductors into the corresponding ports on the WAGO connector and you're finished. No wire
 nuts to twist or taping required.
- Average Time Savings: 45% or up to three (3) minutes per luminaire installation.
- Approximate "installed" cost savings per luminaire: \$2.00 \$3.00.
- Solid or Stranded THHN Conductors enclosed in 6-feet of 3/8" (.375") Flexible Metal Conduit Standard.

When you add-up your time and material cost, it makes economic sense to buy "pre-fabricated," ready-to-install QuikWhips from EPCO.

Note: The ground bonding conductor on each end of the QuikWhip includes a "green" WAGO grounding conductor.

QuikWhip Fixture Whips Part Number Reference Example: E P W 1864SADP2-HNG

18 = Wire Gauge; 6 = Length (in feet); 4 = Wires; S = Solid Wire; AD = Die Cast Snap-In Connector; P = Pushwire Style Connector; 2 = Each End. WAGO Connectors will be pre-attached to each end of the QuikWhip on the HOT, Neutral and Ground wires. HNG = Hot/Neutral/Ground.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded Wire Quik	(Whips									
EPW1463ADP1-HN	10546	3-14 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1463ADP1-HNG	10540	3-14 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1463ADP2-HNG	10531	3-14 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1464ADP2-HNG	10532	4-14 AWG: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171
Solid Wire QuikWhi	ips									
EPW1263SADP1-HN	10548	3-12 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	191
EPW1263SADP1-HNG	10542	3-12 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	191
EPW1263SADP2-HNG	10535	3-12 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	191
EPW1863SADP1-HN	10544	3-18 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	161
EPW1863SADP1-HNG	10538	3-18 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	161
EPW1863SADP2-HNG	10533	3-18 AWG: 6-FT - Black, White, Green	EA	1	BRL	100	100	10	Yes	161
EPW1864SADP1-HN	10545	4-18 AWG: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1864SADP1-HNG	10539	4-18 AWG: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171
EPW1864SADP2-HNG	10534	4-18 AWG: 6-FT - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	171



RETROFIT FIXTURE WHIPS WITH DIE CAST SCREW-IN CONNECTORS FIXTURE WHIPS

RETROFIT FIXTURE WHIPS WITH DIE CAST SCREW-IN CONNECTORS

- UL Listed as a complete wire assembly that complies with the 2014 National Electrical Code: Articles 348.20(A)(2), 348.22, 410.117(A), (B) and (C), and 410.137(C). File #E87199.
- Labor saving Fixture Whips that expedite the installation process when contractors upgrade existing fluorescent luminaires with new energy saving ballast.
- All stranded and solid wire conductors are stripped 5/8" (.625") from the end of the conductor and securely tied to prevent damage to the conductors and eliminate lost lock nuts.
- Includes Die Cast Screw-In Connectors on each end.

Meets the requirements of the 2014 National Electrical Code: Article 410.137(C) as follows:

Wired luminaire (fixture) sections are paired, with a ballast(s) supplying a lamp or lamps in both. For interconnection between paired units, it shall be permissible to use metric designator 12 (trade size 3/8") flexible metal conduit in lengths not exceeding 7.5 m (25-ft) in conformance with Article 348. Luminaire (fixture) wire operating at line voltage, supplying only the ballast(s) of one of the paired luminaires (fixtures), shall be permitted in the same raceway as the lamp supply wires of the paired luminaires (fixtures). See Figure 1.



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Stranded W	ire Retrof	it Fixture Whips								
EPW18103	10400	3-18 AWG Stranded Wire: 3/8" Conduit, 10-FT Length - Black, White, Green	EA	1	BRL	100	100	10	Yes	133
EPW18104	10402	4-18 AWG Stranded Wire: 3/8" Conduit, 10-FT Length - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	142
Solid Wire F	Retrofit Fix	cture Whips								
EPW18103S	10401	3-18 AWG Solid Wire: 3/8" Conduit, 10-FT Length - Black, White, Green	EA	1	BRL	100	100	10	Yes	133
EPW18104S	10403	2-16 AWG Solid Wire: 3/8" Conduit, 10-FT Length - Black, Red, White, Green	EA	1	BRL	100	100	10	Yes	142

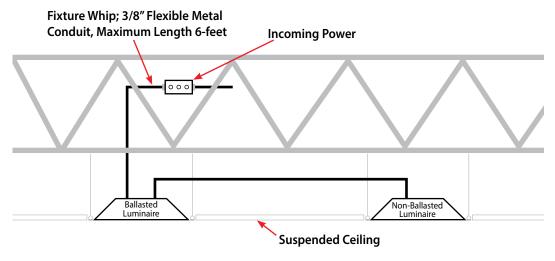


Figure 1: Allowable application for a Flexible Metal Conduit (FMC) Fixture Whip with a maximum 25-foot restriction.

CUSTOM FIXTURE WHIP ORDER FORM

We will build "Labor Saving" Fixture Whips to your specifications. Please use the information below to specify your non-Catalog Custom Fixture Whip requirements. Complete this form and fax to:

Engineered Products Company, Attention: Inside Sales Department, FAX: 952.767.8786

If you need a quote on more than one Custom Fixture Whip, please complete a separate form for each variation.

Distributor:					Contact:							
Address:					City:					Sta	te/Zip:	
Sales Agency:_					Contact Nan	ne:	(req	uired)		Tar	get Price (\$):	
Wire (TFFN or 1		Solid	Strande								ner (specify)	
Wire Gauge:	□ 12	□ 14	□ 16	□ 18	Connector 1	Гуре:	Left End	Select	t a connecto	r type (ni	y) umber) <u>for each Fi</u> ace Guide shown b	xture Whip
Wire Colors:	☐ Black	☐ White	Red		Conduit Ma	terial:	☐ 3/8-incl	1 <u></u>] 1/2-inch	(Flexib	le Metal, Steel)	
☐ Green	☐ Blue	☐ Gray			Insulated TI	hroat:	☐ Yes] No			
☐ Brown ☐ Orange	☐ Purple ☐ Yellow	☐ Pink ☐ Other* (s	pecify):							s shown i	quires a Connecto n the Reference G ollowing:	
Conduit Lengt 6-Foot Quantity Need	8-Foot			t ☐ Other* Shipping Date:			e longer lead tir	nes	Manufacture	er:		
Description: _												
Push-in Wire C	L	eft End Reft End Reft End R	ight End [ight End [ight End [Green	equires a Push Left End Left End Left End Left End	☐ Right☐ Right☐ Right☐ Right	End VEnd End F	Blue		eft End	☐ Right End ☐ Right End ☐ Right End	☐ Red ☐ Grey ☐ Pink

CONNECTOR REFERENCE GUIDE

Common connectors used on pre-made assembly.



Size: 3/8": P/N E00-001-000 1/2": P/N E00-026-000 Type: Screw-in Material: Die Cast Insulated: Yes or No (circle one)



Size: 1/2": P/N E00-042-002 Type: Set Screw, Squeeze Material: Steel Insulated: Yes or No (circle one)



Size: 3/8": P/N E00-003-000 1/2": P/N E00-005-000 Type: Screw-in/Snap-in Material: Die Cast Insulated: Yes or No (circle one)



Size: 3/8": P/N E00-041-002 Type: Set Screw, Squeeze Material: Steel Insulated: No



Size: 3/8": P/N E00-003-001 Type: Set Screw, Snap-in Material: Die Cast Insulated: No



Size: 3/8": P/N E00-007-000 1/2": P/N E00-010-000 Type: Set Screw, 90° Material: Die Cast

Insulated: Yes or No (circle one)



Size: 3/8": P/N E00-041-000

Type: Set Screw, Squeeze

Material: Die Cast

Insulated: No

1/2": P/N E00-042-000

1/2": P/N E00-013-000 1/2": P/N E00-005-001 Type: Snap-in, 90° Material: Die Cast Insulated: No



Size: 3/8": P/N E00-002-000 1/2": P/N E00-013-000 Type: Exterior, Snap-in Material: Plastic w/Steel Insulated: Yes



Size: 3/8": P/N E00-003-003 1/2": P/N E00-004-003 Type: Speed Lock Style, Snap-in Material: Steel Insulated: Yes

Note: Connector options are not sold separately. Other connectors, not listed, can be specified for your custom fixture whip. Contact the EPCO Inside Sales Department (800.336.1976 or sales@engproducts.com) for other connector options.



Make us your resource for Standard and UV Filtering Fluorescent Tube Guards! Their primary function is to provide superior protection against broken glass and sparks that can result when fluorescent lamps shatter.

Our Tube Guards are "add-on" polycarbonate sleeves that are held in place around the linear fluorescent lamp by two (2) plastic end caps. We always recommend using the end caps to maintain an air space between the fluorescent lamp wall and the inside of the tube guard when placed around the lamp.

Note: It is extremely important to properly install our tube guards utilizing the supplied end caps. Improperly installed tube guards that come into direct contact with the fluorescent lamp wall may cause premature lamp failure.

The average temperature to manufacturer polycarbonate tube guards is approximately 500°F (260°C). While some manufacturers might use recycled polycarbonate material for tube guard production, we only use virgin polycarbonate material for the best stability and long-term reliability. This means the melting point for our tube guards is much higher and lowers the probability of them melting or deforming at the end of the fluorescent lamp's life. When the lamp and ballast system is wired correctly, the lamp and tube guard combination will function satisfactorily during normal lamp life. However, toward the end of the lamp's life, the ends of the lamp create excessive heat that may cause the tube guard to heat up, distort and discolor. We always recommend using Heat Sink (P/N: 17893 - T5 HD, 17800 - T8, 17860 - T12) during the installation of new tube guards or when retrofitting and reusing tube guards.

ADVANTAGES FOR THE CONTRACTOR, FACILITY MANAGER and BUILDING OWNER

- Standard Tube Guards satisfy OSHA, FDA and USDA requirements for food processing, commercial businesses and industrial plants.
- UV Filtering Tube Guards screen out harmful ultra-violet light emissions.

WHY CONTRACTORS USE EPCO TUBE GUARDS

- Our Standard and UV Filtering Tube Guards are always "in-stock" and available for immediate shipping.
- End caps are included.
- Easy to install without the use of tools.
- Efficient, cost-effective, and provides maximum protection against lamp breakage.

STANDARD TUBE GUARDS

The Standard Tube Guard is a light stabilized polycarbonate and has 0% transmittance below 365 nanometers (Clear Tube Guards only). Available Colors: Clear, Amber, Red, Green, Yellow and Blue. Available Sizes: T5, T8, and T12.

- An efficient economical solution where fluorescent lamp breakage would be hazardous to personnel, product, equipment or animals.
- Slip over fluorescent lamps to retain shattered glass and control the release of mercury vapor and phosphorescent material.
- Constructed of unbreakable lexan polycarbonate.
- "Cut-to-order" custom lengths are also available. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more information.

T5 HD SERIES TUBE GUARDS

Using T5 lamps is a cost-effective lighting systems solution for a variety of reasons. Unfortunately the average T5 lamp will dissipate about 73% of its total lamp power as heat. And when this lamp is used in combination with a tube guard, that heat must be properly dissipated from the lamp.

Our T5 HD (Heat Dissipation) Series Tube Guard takes into consideration two major factors; the temperature on the inside of the tube guard, and how close the T5 lamp is actually located to the tube guard.

- Our T5 HD Series Tube Guard's larger diameter and its "vented" End Caps allow a layer of air to absorb heat from the lamp and cool it before making contact with the inside wall of the tube guard. This results in a 25°F (-4°C) temperature drop.*
- The larger diameter of the T5 HD Series Tube Guard allows it to accommodate Heat Sink to control and distribute heat, in addition to lowering the temperatures over a larger area on the end of the tube guard.

Note: We strongly recommend using Heat Sink with our T5 HD Series Tube Guards. Part Numbers 17185 and 17186 arrive with the Heat Sink built into the Tube Guard. See photo to the right below.

- The combination of the T5 HD Series Tube Guard, "vented" End Caps, and Heat Sink lower the inside temperature of the tube guard approximately 30°F (-1°C).**
- Together, these components provide a unique operational advantage over other competitors T5 tube guards and still fits all T5 lamp applications.

TEMPERATURE TESTING								
CONFIGURATION TEMPERATURE*								
Competitors T5 Tube Guard	215°F (102°C)							
T5 HD Series Tube Guard and "Vented" End Caps	190°F (88°C)*							
T5 HD Series Tube Guard, "Vented" End Caps and Heat Sink	185°F (85°C)**							

*Note: The temperature is measured on the inside surface of the Tube Guard. The ambient testing temperature was $72^{\circ}F$ ($22^{\circ}C$) using a T5 F54 HO Lamp.

Fast, Efficient and Repeatable Results

EPCO always recommends using "Heat Sink" when installing T5 HD Series Tube Guards. Heat sink helps distribute excessive heat on both ends of the fluorescent lamp. But when installing a large number of tube guards and heat sink combinations, time is money.

High volume installers can now reduce their installation time by using our T5 HD Series Tube Guard with "pre-installed" Heat Sink. In addition to saving time and money, EPCO's T5 HD Series Tube Guard with "pre-installed" Heat Sink provide a convenient and economical solution to expedite the installation by eliminating the process of having the contractor pre-roll two (2) Heat Sinks (per tube guard).

Simply insert the lamp into the T5 HD Series Tube Guard, insert the "vented" end cap on each end of the tube guard and install the "tubed" lamp into the luminaire.



TYPICAL APPLICATIONS:

- Food Processing Facilities
- Commercial Kitchens
- Grocery Stores
- Laundries
- Industrial Facilities
- Saunas
- Car Washes
- Storage Buildings
- Pedestrian and Road Tunnels
- Parking Garages
- Elevator Shafts
- Refrigerators and Freezers
- Locker Rooms
- And more...



Note: T5 HD Series Tube Guards, Part Numbers 17185 and 17186, are bundled with the T5 HD Heat Sink built into the Tube Guard as shown above.

YELLOW TUBE GUARDS - How do they work?

Insects and humans have different visual perceptions. Light sources that radiate ultraviolet energy and blue light are most attractive to insects. Light sources that insects have a difficult time seeing are "yellow" hues in the color spectrum. Our yellow tube guards will minimize the number of insects.

TYPICAL APPLICATIONS

- Commercial businesses that maintain night-time operations such as gas stations, fast food restaurants, etc.
- Commercial food preparation and serving areas
- Parking lots loading areas
- Airport, Train and Bus Stations
- Building entrances
- Decks and patios

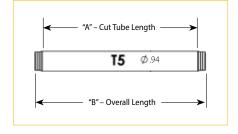


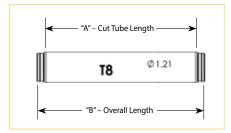
STANDARD and UV FILTERING TUBE GUARD DIMENSIONS

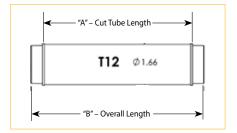
T5 HD	SERIES TUBE GU	ARDS
DIM."A"	DIM."B"	NOMINAL LENGTH
44.68	45.27	4'

1	8 TUBE GUARDS	5
DIM."A"	DIM. "B"	NOMINAL LENGTH
46.38	47.10	4'
68.38	69.10	6'
92.38	93.10	8'

T1	2 TUBE GUARD)S
DIM. "A"	DIM."B"	NOMINAL LENGTH
45.97	47.10	4'
67.97	69.10	6'
91.97	93.10	8'







Note: Dimension "B" includes End Caps.

STANDARD TUBE GUARD END CAPS (BLACK)

Catalog Number	UPC Number	Description	Order Unit			Units/ Case	TL Case Qty	Min Order Qty		Ship Wt (Lbs)
17103	17103	Standard End Caps: for T5 HD Series, "Vented"	BG	48	BG	0	0	48	Yes	1
17100	17100	Standard End Caps: for T8 Tube Guard	BG	48	BG	0	0	48	Yes	1
17101	17101	Standard End Caps: for T12 Tube Guard	BG	48	BG	0	0	48	Yes	1

Note: End Caps for T5 HD Series, T8 and T12 Tube Guards fit inside the Tube Guard.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
4-Foot T5	HD Series 1	Tube Guard								
17183*	17183	Clear Polycarbonate: with "Vented" Black End Caps	EA	1	BX	48	48	48	Yes	6
17184*	17184	Clear Polycarbonate: with "Vented" Black End Caps	EA	1	BX	120	120	120	Yes	16
17194†	17194	Amber Polycarbonate: with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17195†	17195	Red Polycarbonate: with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17196†	17196	Green Polycarbonate: with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17197†	17197	Blue Polycarbonate: with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
17199†	17199	Yellow Polycarbonate: with "Vented" Black End Caps	EA	1	BX	24	24	24	Yes	4
4-Foot T5	HD Series 1	Tube Guard with Built-In Heat Sink								
17185**	17185	Clear Polycarbonate: with "Vented" Black End Caps and built-in Heat Sink	EA	1	ВХ	48	48	48	Yes	7
17186**	17186	Clear Polycarbonate: with "Vented" Black End Caps and built-in Heat Sink	EA	1	ВХ	120	120	120	Yes	17
4-Foot T8	Tube Guard	d								
17000	17000	Clear Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	6
17005	17005	Amber Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	6
17010	17010	Red Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	6
17015	17015	Green Polycarbonate: with Black End Caps	EA	1	BX	24	24	24	Yes	6
17020	17020	Blue Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	6
17025	17025	Yellow Polycarbonate: with Black End Caps	EA	1	BX	24	24	24	Yes	6
6-Foot T8	Tube Guard	d								
17050	17050	Clear Polycarbonate: with Black End Caps	EA	1	BX	24	24	24	Yes	8
8-Foot T8	Tube Guard	d								
17030	17030	Clear Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	10
17031	17031	Amber Polycarbonate: with Black End Caps	EA	1	BX	24	24	24	Yes	10
17032	17032	Red Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	10
17033	17033	Green Polycarbonate: with Black End Caps	EA	1	BX	24	24	24	Yes	10
17034	17034	Blue Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	10
17035	17035	Yellow Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	10
4-Foot T12	2 Tube Gua	rd								
17060	17060	Clear Polycarbonate: with Black End Caps	EA	1	BX	24	24	24	Yes	7
6-Foot T12	2 Tube Gua	rd								
17040	17040	Clear Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	10
8-Foot T12	2 Tube Gua	rd								
17090	17090	Clear Polycarbonate: with Black End Caps	EA	1	ВХ	24	24	24	Yes	10

Note: *1. Standard Tube Guards are sold ONLY in case quantities of 24 per Carton. We will not break case carton quantities!

The exception is the T5 HD Series - Clear, which is available in carton quantities of 48 and 120 Units (P/Ns: 17183, 17184, 17185 and 17186).

EPCO Standard Tube Guards are Made in the USA.

Complies with the American Recovery and Reinvestment Act — Buy American Provision.

^{**2.} T5 HD Series Tube Guards, Part Numbers 17185 and 17186 include the built-in T5 HD Heat Sink.

^{†3.} Indicates long lead time. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more information.

^{4.} Standard Tube Guards are not intended for use with HO or VHO Lamps! The exception is the T5 HD Series Tube Guard that is rated for use with a T5 HO Lamp.

^{5.} Tube Guards, other than sizes and colors listed, can be special ordered. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more information.

UV FILTERING TUBE GUARDS

- Our UV Filtering Tube Guards provide the basic reduction of harmful UV energy by filtering 99% of harmful UV rays up to 390 nanometers.*
- Manufactured using thin-wall high tensile and impact resistant polycarbonate material that is flexible to grasp the lamp to facilitate lamp changes; does not easily crack.
- Special UV additive filters UV rays better than acrylic materials with comparable wall thickness (0.016" wall thickness).
- Minimizes premature color shifting (fading) and deterioration that can be detrimental to food products, paper, natural and synthetic textiles, paints, coatings, wood and polymer materials, inc.
- Provides years of protection from dangerous UV light.
- Can readily be "field-cut" to length if desired.
- Manufactured to the highest quality standards.
- Sizes: T5, T8, and T12.
- Available in nominal 4-foot and 8-foot lengths.

*Note: Tested by two (2) independent light testing laboratories.



TYPICAL APPLICATIONS:

- Food Service
- Commercial Kitchens
- Photography Studios
- Grocery Stores
- Fabric Stores
- Movie Theaters
- Book Stores
- Libraries
- Furniture Stores
- Warehouses
- Special lighting applications where UV protection is required

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
4-Foot T5	HD Series Tub	oe Guard								
17206	17206	Clear UV Filtering: with "Vented" Green End Caps	EA	1	ВХ	24	24	24	Yes	4
4-Foot T8	Tube Guard									
17201	17201	Clear UV Filtering: with Green End Caps	EA	1	ВХ	24	24	24	Yes	7
8-Foot T8	Tube Guard									
17202	17202	Clear UV Filtering: with Green End Caps	EA	1	ВХ	24	24	24	Yes	12
4-Foot T12	2 Tube Guard									
17203	17203	Clear UV Filtering: with Green End Caps	EA	1	ВХ	24	24	24	Yes	8
8-Foot T12	2 Tube Guard									
17204	17204	Clear UV Filtering: with Green End Caps	EA	1	ВХ	24	24	24	Yes	15

Note: 1. UV Filtering Tube Guards are sold ONLY in case quantities of 24 per Carton. We will not break case carton quantities.

2. UV Filtering Tube Guards are not to be used with HO or VHO fluorescent lamps! The exception is the UV Filtering T5 HD Series Tube Guard that is rated for use with a T5 HO lamp.

UV FILTERING TUBE GUARD END CAPS (GREEN)

Catalog Number	UPC Number	Description	Order Unit			Units/ Case	TL Case Qty	Min Order Qty		Ship Wt (Lbs)
17303	17303	UV Filtering End Caps: for T5 HD Series, "Vented"	BG	48	BG	0	0	48	Yes	1
17300	17300	UV Filtering End Caps: for T8 Tube Guard	BG	48	BG	0	0	48	Yes	1
17301	17301	UV Filtering End Caps: for T12 Tube Guard	BG	48	BG	0	0	48	Yes	1

Note: End Caps for T5, T8 and T12 Tube Guards fit inside the Tube Guard.





EPCO UV Filtering Tube Guards are Made in the USA.

Complies with the American Recovery and Reinvestment Act — Buy American Provision.

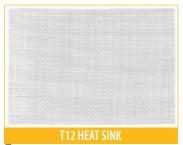
HEAT SINK

We recommend the use of Heat Sink with all of our Tube Guards to aid in controlling heat that is generated by the fluorescent lamp. The primary function of our Heat Sink is to distribute heat and lower the temperatures of the fluorescent lamp over a larger area at each end of the Tube Guard.

The Heat Sink are available in sizes for the T5 HD Series Tube Guard, as well as T8 and T12 Tube Guards.









Catalo Numbe		Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
17893	17893	Heat Sink: for T5 HD Series Tube Guards	BG	2	BG	0	0	2	Yes	1
17800	17800	Heat Sink: for T8 Tube Guards	BG	2	BG	0	0	2	Yes	1
17860	17860	Heat Sink: for T12 Tube Guards	BG	2	BG	0	0	2	Yes	1

Note: Heat Sinks are not for use with VHO Fluorescent Lamps.

Engineered Product Company (EPCO) Standard and UV Filtering Tube Guards Comply with the following Regulations:

FDA Plant Construction and Design ... 110.20 Section B, Part 5

(5) Provide safety-type light bulbs, fixtures, skylights, or other glass suspended over exposed food in any step of preparation or otherwise protect against food contamination in case of glass breakage.

FDA Food Code Chapter 6, Section 202.11

"Light bulbs that are shielded, coated, or otherwise shatter resistant are necessary to protect exposed food, clean equipment, utensils and linens, and unwrapped single-service and single-use articles."

Light Blocking	Propertie	Light Blocking Properties of EPCO Clear Tube Guards										
	280	289	224	236 Without Sleeve								
Lumens	269	274	213	229 With Sleeve								
	11	15	11	7 Difference								
% Reduction Average	3.93%	5.19%	4.691%	4.25%								
	Clear Polycarbonate											
Material	Extrusion grade; high viscosity; branched; UV stabilized											
Material	Optical Properties: Transmittance = 88% at .118" thick; 4.25% avg at .015" thick											
	F32 T8 run	with Adva	nce NBF Ba	llast								
Lamp	4100K											
	Tested at 1	26 Volts in	put									

WARNING

- 1. It is safe to use EPCOT5, T8, or T12 Tube Guards only in conjunction with electronic high efficiency ballasts designed to prevent an over-current condition to these fluorescent lamps during use and at the lamp's "end of life" (EQL)
- 2. We strongly recommend using EPCO Heat Sink with all T5, T8, or T12 Tube Guards.
 - T5 HD Series Heat Sink: Part Number 17893
 - T8 Heat Sink: Part Number 17800
 - T12 Heat Sink: Part Number 17860
- 3. The Installer must ensure the electrode bi-pin base end on the T5, T8, or T12 fluorescent lamps are firmly "placed, rotated a ¼ turn, and fully seated" in the luminaire's lamp holder for maximum lamp retention.
 - Note: After the fluorescent lamp is installed, there should no gap between the electrode bi-pin base end on the fluorescent lamp and the luminaire's lamp holder. A gap between the electrode bi-pin base on the fluorescent lamp and luminaire's lamp holder can create an "arcing" condition and cause a potential fire.
- 4. <u>Do not misalign the electrode bi-pin base end on the fluorescent lamp and the luminaire's lamp holder!</u> Misalignment causes a poor electrical connection and subsequent "voltage drop" between the lamp holder contacts and the bi-pins of the lamp sufficient to cause an "arcing" condition that can start a fire.
- EPCO does not recommend using its T5, T8 and T12 Tube Guards under any conditions where the surface temperature of the fluorescent lamp can or will exceed 225°F (107°C) or in "any" enclosed luminaire where normal venting is not available.
- 6. EPCO T5, T8, or T12 Tube Guards must not be used with any lighting system that includes dimming capability where power surges or voltage spikes can cause "arcing" or over-current condition to the lamps.
- 7. We strongly recommend changing lamp(s) whenever there is "blackening" at the electrode bi-pin base end on the fluorescent lamp.



TEMPORARY LIGHTING

New buildings under construction or retrofitting an existing building is an ever changing environment for temporary lighting. Adequate temporary lighting is necessary for the safety and productivity of the workers, as well as the quality of the completed work.

The electrical contractor is typically responsible for providing temporary lighting on the job site. And when it's time to specify temporary lighting, 9 out of 10 times the electrical contractor chooses Engineered Products Company, well-known for providing the best value for temporary lighting applications.

TYPE-O PULSE-START LIGHTING TECHNOLOGY

- High-intensity luminaires enhance productivity and provide increased security and safety.
- Energy efficient high lumen maintenance lowers operating expenses.
- Compact size and dependable high performance lighting source.
- Reliable operation and performance in a wide range of ambient temperatures.

COMPACT FLUORESCENT LIGHTING TECHNOLOGY

- Low cost.
- Energy efficient.
- For use in low to medium bay lighting applications.
- Consumes less than one-half of the total energy cost.
- Lumen output from the CFL lamp will not decay significantly.

CORDLIGHTS

- Weather resistant lamp sockets feature rigid-mounted eyelets for hooks or wire to simplify hanging.
- Suitable for indoor and outdoor use.
- Unique open and secure closure clasp on the heavy duty lamp cage easily facilitates lamp changes.
- A patented detent "snap-off, snap-on" fitting on the lamp socket enables quick replacement if the Safety Cage becomes damaged.

TIGER 400 HID, TIGERcub 175 HID, TIGRESS 105-Watt CFL and Deluxe CordLights are always in stock!

TIGER 400 and TIGERcub 175 HID TEMPORARY LUMINAIRES

- Complies with the 2007 Energy Independence and Security Act (EISA).*
- Meets the requirements of the 2014 National Electrical Code: Articles 410.62(C)(1) and (2), 410.104(A), 410.122, 410.130(F)(5) and 590.4(F).
- Compact size, lightweight and balanced construction.
- Easy to carry and install. UL Listed. Suitable for use in damp locations.

PULSE-START BALLAST

- Reliable, durable, maintenance free performance!
- A cost-effective solution to incandescent string lighting.
- Compact size, lightweight and balanced construction.
 Easy to carry and install.
- Faster warm-up time (2 min. vs. 4 min.)
- Faster "hot" restrike (3-4 min. vs. 15-20 min.)
- Improved cold weather starting performance.
- Lower maintenance and operating cost ballast efficiency is 88%.
- Pre-wired at the factory for 120V operation.
 The multi-tap ballast can be re-configured for 208V, 240V or 277V applications.
- Improved efficacy (up to 45% more lumens per watt).

FIXTURE LAMP WITH CERAMIC ARC TUBE

- Improved lumen maintenance (up to 25%).
- Reduced color shift more consistent lamp-to-lamp color.
- Longer lamp life up to 30% improvement over traditional probe-start fixtures.
 - 15,000+ hours for the TIGER 400 HID
 - 12,000+ hours for the TIGERcub 175 HID
- Higher initial lumen output.
- Superior color rendering and light stability.



TIGER 400 HID



TIGERcub 175 HID

During the construction phase, a skeletal framework is used which forms an interior subspace called a "bay," which in turn marks the space as either "high-bay" or "low-bay." We reference high-bay spaces as greater than 30-feet off the floor and low-bay spaces as less than 25-feet off the floor. †

TYPICAL HIGH-BAY APPLICATIONS FOR TIGER 400 HID:

- Construction Sites
- Industrial Facilities
- Arena Lighting
- High Rise Buildings

- Manufacturing Facilities
- Large Retail Centers
- Big Box Stores
- Discount Warehouses
- **TYPICAL LOW-BAY APPLICATIONS FOR TIGERcub 175 HID:**
- Parking Garages
- Grocery Stores
- Retail Stores
- Mezzanine Areas

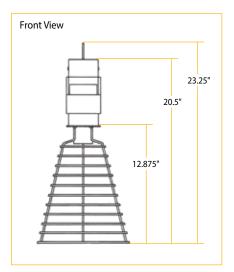
- Outdoor Areas
- Schools and University Gymnasiums

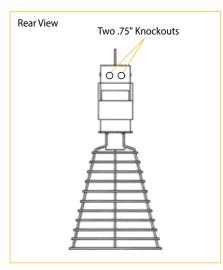
METAL HALIDE LA	AMP SPECIFICA	ATIONS				
	Color Temperature	Lumen Output	Average Rated Life (In Hours)	Color Rendering Index	Voltage	(AMPs)
TIGER 400 HID	4000K	38,000	15,000	60	120	3.25
TIGERcub 175 HID	4000K	16,600	12,000	60	120	1.5

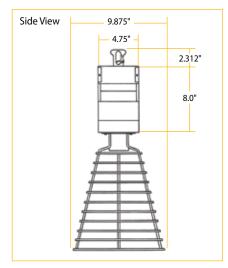
*Note: These fixtures comply with the 2007 Energy Independence and Security Act (EISA) effective January 1, 2009. The intent of this federal legislation focuses on improving the efficiency of certain consumer and electrical products – including metal halide fixtures – as well as moving the United States toward reducing energy consumption and energy independence.

In compliance with EISA, EPCO's TIGER 400-watt and TIGERcub 175-watt fixtures clearly display a capital letter "E" printed within a circle (ⓒ) on the product carton and the ballast as specified by the Federal Trade Commission (FTC).

† The Illuminating Engineering Society of North America (IESNA), the authority in lighting, categorizes spaces as either high-bay (greater than 30-feet) or low-bay (less than 25-feet).







Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
TIGER 40	0 HID Temp	orary Lighting								
15702	15702 15702 TIGER 400 HID Temporary Luminaire: 400-watt Type-C Metal Halide Lamp, 3-Foot Cord, Safety Cage and Lamp (ВХ	1	1	1	No	22
15752	15752	Type-0 400-Watt Metal Halide Lamp: Pulse-Start	EA	1	ВХ	20	20	1	No	2
TIGERcub	175 HID Te	mporary Lighting								
15711	15711	TIGERcub 175 HID Temporary Luminaire: 175-watt Type-0 Metal Halide Lamp, 3-Foot Cord, Safety Cage and Lamp Guard	EA	1	ВХ	1	1	1	No	20
15757	15757	Type-0 175-Watt Metal Halide Lamp: Pulse-Start	EA	1	ВХ	20	20	1	No	2
HID Temp	orary Light	ting Accessories								
15760*	15760	Universal Replacement HID Safety Cage and Lamp Guard: Clamp Mount	EA	1	ВХ	5	5	1	No	9

^{*} **Note:** Fits majority of manufacturer's HID Type-O and Type-S Temporary HID Luminaires.

TIGRESS 105-WATT CFL TEMPORARY LUMINAIRE

Engineered Products Company's TIGRESS Temporary Luminaire is a low cost, energy efficient lighting solution that is highly functional for use in low to medium bay lighting applications and a recommended alternative to metal halide luminaires.

A 105-Watt Compact Fluorescent Lamp is included and provides a productive work environment during building construction or major renovation, consumes less than one-half of the total energy costs compared to metal halide lamps, and is approximately 3 to 5 times more efficient than standard incandescent lamps and can last up to 10 times longer.

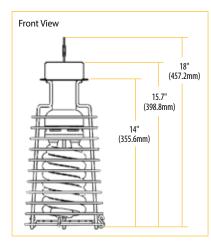
BENEFITS

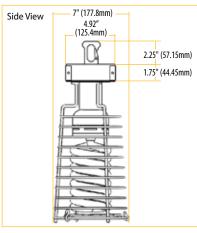
- Meets the requirements of the 2014 National Electrical Code: Articles 410.62(C)(1) and (2), 410.104(A), 410.122, 410.130(F)(5) and 590.4(F).
- Compact size, lightweight and balanced construction.
- Certification Standard: ETL Listed.
- Low maintenance and operating cost.
- Reliable, durable, maintenance free performance!
- Long lamp life.
- CFL lamp will not decay significantly when compared to metal halide lamps.
- Suitable for compact spaces minimum 10-foot height.
- Instant restart in the event of a power outage.

FEATURES

- High luminous efficacy and durability.
- Steel housing; durable white powder-coat finish.
- Heavy-duty 11 AWG welded Lamp Guard Silver.
- Hanging Hook.
- For 120V operation ONLY.
- Cord Type: 18/3 SJTW.
- Cord Length: 5-Feet (1524mm).

NOTE: For use in "dry" environments ONLY!







TYPICAL APPLICATIONS:

- Parking Garages
- Grocery Stores
- Retail Stores
- Mezzanine Areas
- Outdoor Areas
- Schools and University Gymnasiums
- New Building Construction or Renovation

105-Watt Compact Fluorescent Lamp Specifications									
	Incandescent Equivalent*	Minimum Starting Temperature	Color Temperature	Lumen Output	Lumens per Watt	Average Rated Life (In Hours)	Color Rendering Index	Voltage	(AMPs)
TIGRESS 105-Watt CFL	300-Watt	10°F (-12°C)	5000K	6900	65	8,000	82	120	.875

^{*}Equivalent to 175-watt metal halide lamp (including lumen depreciation).

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
15720	15720	TIGRESS Temporary Luminaire: 105-Watt Compact Fluorescent Lamp, 5-Foot Cord, Safety Cage and Lamp Guar	EA d	1	ВХ	0	0	1	No	7
15725	15725	105-Watt Compact Fluorescent Lamp - T4 Coil Type	EA	1	ВХ	10	10	1	No	1

TEMPORARY CORDLIGHTS

- Deluxe CordLights are UL Listed. File Number: E190858. Meets all OSHA Standards.
- Meets the requirements of the 2014 National Electrical Code: Article 590.4(F).
- Suitable for indoor and outdoor use.
- Weather-resistant lamp sockets feature rigid-mounted eyelets for hooks or wire to expedite and simplify hanging.
- Unique open and secure closure clasp on the heavy-duty Safety Cage easily facilitates bulb changes.
- A patented detent "snap-off, snap-on" fitting on the lamp socket enables quick replacement if the Safety Cage becomes damaged.
- Rated only for use with Type A23 incandescent lamp 150-watt rating (maximum).
- U.S. Patent Number: D.439,697.

TYPICAL APPLICATIONS:

- Construction Sites
- Parking Lots
- Walkways
- Festivals
- Circus Tents
- Christmas Tree Lots
- Farmer's Markets

DELUXE CORDLIGHTS

Deluxe CordLights are intended for severe environments and are impervious to dust, dirt, chemical vapors, salt spray and other corrosive elements. Constructed of heavy-duty 14/2, 14/3 or 12/3 SJTW round cord (15 AMPS) with a 167°F (75°C) temperature rating, Deluxe CordLights are UL Listed and complies with UL Standard 1088 for Temporary Lighting Strings.



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Deluxe Co	ordLights									
16010†	16010	Deluxe CordLights: 14/2 SJTW Round Cord, 100-Foot Length, 10-Foot Centers (without Plug) - Yellow	EA	1	ВХ	0	0	1	No	13
16301†	16301	Deluxe CordLights: 14/3 SJTW Round Cord, 100-Foot Length, 10-Foot Centers (with Molded Plug) - Yellow	EA	1	ВХ	0	0	1	No	14
16350†	16350	Deluxe CordLights: 12/3 SJTW Round Cord, 100-Foot Length, 10-Foot Centers (without Plug) - Yellow	EA	1	ВХ	0	0	1	No	19
16353†	16353	Deluxe CordLights: 12/3 SJTW Round Cord, 100-Foot Length, 10-Foot Centers (with Molded Plug) - Yellow	EA	1	ВХ	0	0	1	No	19
16100	16100	Safety Cage: for Deluxe CordLight - Yellow	EA	1	ВХ	10	10	10	Yes	1

[†] UL Standard 1008 - Article 17.2 – lamp guard shall be constructed of polymeric material. The actual molded product is polypropylene. Flame class is V-0 meets UL 746C.

PIGTAIL LAMP SOCKET

- A patented detent "snap-off, snap-on" fitting on the lamp socket enables quick replacement if the Safety Cage becomes damaged. Can be used with EPCO Safety Cage (P/N: 16100).
- Suitable for indoor or outdoor use.
- 6-Inch leads, pre-stripped 5/8" (.625").
- Recommended for use with "A" Series A23 incandescent lamps (150-watt maximum).



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16023	16023	Pigtail Lamp Socket: with 6-Inch Leads	EA	5	BG	0	0	5	Yes	1
16100	16100	Safety Cage: for Deluxe CordLight - Yellow	EA	1	ВХ	10	10	10	Yes	1

INSULATION PIERCING LAMP SOCKET

- Suitable for indoor and outdoor use.
- Use to repair signage, appliances or other lighting fixtures.
- Integrally designed terminals and contacts provide a superior electrical connection.
- Use with 12 or 14 AWG THHN insulated stranded wire.
- No cutting, wire stripping, wire nuts or soldering required.
- Recommended for use with "A" Series A23 incandescent lamps (150-watt maximum).



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
16022	16022	Insulation Piercing Lamp Socket	EA	5	BG	0	0	5	Yes	1
16110	16110	Safety Cage: Yellow	EA	1	ВХ	10	10	10	Yes	1

SAFETY CAGE

- Suitable for indoor and outdoor use.
- Unique open and secure closure clasp on the heavy-duty Safety Cage easily facilitates lamp changes.



Catalog	UPC	Description	Order	Unit	Unit	Units/	TL Case	Min	MM	Ship Wt
Number	Number		Unit	Qty	Pkg	Case	Qty	Order Qty	Req	(Lbs)
16100	16100	Safety Cage: for Deluxe CordLight - Yellow	EA	1	BX	10	10	10	Yes	1



The specific design of an outdoor lighting system is influenced by a variety of factors, including the site characteristics, the scope of the landscape, its function, as well as the building owners requirements. But the creation of an outdoor lighting system should always include our Landscape SplicePost™ or LightPost™. A few of the value-added benefits include:

- Suitable for use in wet locations.
- Ready to install. No assembly required.
- 3" Outside diameter PVC LightPost fixture fitting.
- Replaces EMT, conduit connectors and weatherproof boxes.
- 100% UV, corrosion and shatter-resistant.
- Accommodates a 1/2" trade size conduit nipple to mount a variety of luminaires.
- The Uni-Stabilizer™ is made of durable polycarbonate material featuring four (4) uniquely shaped concaved stabilizing blades. This design enables ground material to be easily packed around the Landscape LightPost or SplicePost as well as provide solid in-ground support. The uni-stabilizer also helps resist against ground movement typically caused by ground freezing and thawing.
- The 20° slanted top virtually eliminates water pooling or leakage into the interior of the Landscape LightPost and SplicePost.
- 65° angled to bottom enables easy entry of UF Cable or conduit.
- Compact and attractive regardless of final height placement.

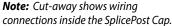
Compared to other designs, these landscape luminaire fixture fittings are a cost-effective and simple solution for permanent landscape, accent lighting or sign facade.

LANDSCAPE SPLICEPOST

Our Landscape SplicePost for outdoor luminaires is different from any other "hollow pipe" style landscape lightpost on the market. It features an internal wiring compartment/junction box, rated for 19 cubic inches that easily accommodates two (2) 20 AMP circuits. The Landscape SplicePost allows the installer to make a proper ground connection to safeguard people and property from electrical shock hazards.

- The Landscape SplicePost is UL Listed as a "Luminaire Fixture Fitting," suitable for use in wet locations.
- Meets the requirements of the 2014 National Electrical Code: Articles 314.15, 314.16(A)(2) and 314.17(B).
- The Landscape SplicePost features a Separator Disk™ and SpliceCap™ that creates an integral "junction box" suitable for splicing.
- The PVC SpliceCap is non-metallic and suitable for the majority of outdoor luminaires on the market.







NEC Article 314.15 ... boxes, conduit bodies and fittings installed in wet locations shall be listed for use in wet locations.

NEC Article 314.16(A)(2) – Boxes 1650 cm³ (100 in³) or less, other than those described in Table 314.16(A), and non-metallic boxes shall be durably and legibly marked by the manufacturer with their volume.

The Landscape SplicePost is shatter resistant to denting or cracking typically caused by landscape maintenance equipment. It is corrosion and UV resistant and impervious to changing environmental conditions.

When wiring multiple luminaires in series, the Landscape SplicePost's angled bottom allows UF Cable or Conduit to easily enter at different depths to eliminate cable congestion.



SpliceCap accommodates a 1/2" trade size conduit nipple.

NEC Article 314.17 – Conductors entering boxes, conduit bodies or fittings shall be protected from abrasion and shall comply with 314.17(B).

... Where raceway or cable is installed with metal boxes or conduit bodies, the raceway or cable shall be secured to such boxes and conduit bodies.

NEC Article 314.4 – All metal boxes shall be grounded and bonded in accordance with Parts I, IV, V, VI, VII, and X of Article 250 as applicable, except as permitted in 250.112(I).

Replaces EMT, conduit connectors and weatherproof boxes.

Uni-Stabilizer™ features unique concave stabilizing blades allow ground material to be easily packed around the Landscape SplicePost for fast, easy and secure installation.

The Uni-Stabilizer minimizes the Landscape SplicePost's movement typically caused by ground freezing and thawing.

LANDSCAPE SPLICEPOST - SPLICECAP CUT-AWAY EXAMPLE

The SpliceCap's 19 cubic inch box volume can house two (2) 20 AMP circuit conductors.

Eight (8) internal "Stops" seat and firmly hold the Separator Disk in place when the SpliceCap is positioned on the PVC Pipe.



SpliceCap compartment fully encloses and protects the circuit conductors from moisture, dirt and abrasion.

Raised "Grips" simplify installation and removal of the SpliceCap.

UF Connector secures the incoming supply line cable to the Separator Disk.

Incoming supply line cable.

Separator Disk with attached Ground Wire. Use with non-grounded metallic luminaires to make a safe ground connection.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Landscape	SplicePost									
LSPB	17200	Landscape SplicePost: PVC - Black	EA	1	ВХ	9	9	9	Yes	21
17230	17230	Landscape SplicePost Cap: PVC, Separator Disk - Black	EA	1	ВХ	0	0	1	Yes	1

Note: Landscape SplicePosts are ONLY sold in case quantities of 9 per Carton.

LANDSCAPE LIGHTPOST

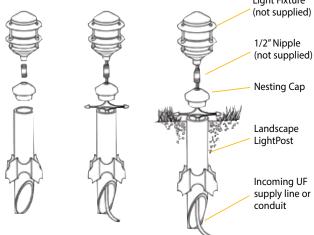
The Landscape LightPost is UL Listed as a "Luminaire Fixture Fitting," suitable for use in wet locations and complies with the 2014 National Electrical Code: Article 314.15. It is designed for line voltage landscape luminaires but can also be used for low voltage luminaire.

*Note: The Landscape LightPost should always be used with a UL Listed Luminaire and a grounding means (i.e., ground bonded third wire) suitable for use in wet locations.



ASSEMBLY INSTRUCTIONS

- 1. Feed the luminaire's black, white and ground wires through the 1/2" nipple (not supplied) and Nesting Cap. Thread and tighten the 1/2" nipple into the top of the Nesting Cap.
- Using wire nuts or another appropriate connector, connect the supply wires to the luminaire's wires. Then push the luminaire and Nesting Cap onto the top of the Landscape LightPost.
- 3. Place the wired Landscape LightPost into the excavated trench and position to the desired height.



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Landscape Li	ghtPost									
LLPN25B	12701	Landscape LightPost: 17.5-Inch - Black	EA	1	ВХ	9	9	9	Yes	21
E04-002-004	14025	Landscape LightPost Cap: Black	EA	1	ВХ	0	0	1	No	1

Note: Landscape LightPosts are ONLY sold in case quantities of nine (9) per Carton.

GROUND BONDING



- GROUND BONDING PIGTAILS
- POWERTAILS DEVICE WIRING CONDUCTORS
- GROUND SCREWS
- GROUND CLIP

GROUND BONDING PIGTAILS

We introduced the Stranded Grounding PigTail over 40 years ago. Today, we have sold millions of Ground Bonding PigTails. Our manufacturing expertise, quality, reliability, and expedited delivery time have always met customer expectations.

Our Ground Bonding products provide a permanent and positive connection for the grounding system to ensure an effective, low-impedance ground-fault current path to safeguard people and property from electrical hazards.

WHY CONTRACTORS USE EPCO GROUND BONDING PIGTAILS and POWERTAILS

No other company manufacturers more combinations of PigTails and PowerTails Device Wiring Conductors than we do. Our solid and stranded wire single and dual-gang Ground Bonding PigTails are available in 6.5", 8", 10", and 12" lengths and include a grounding screw, a machine-formed and insulated crimped Ring or Flanged Spade Fork Terminal.

- The Ring Terminal used is a true grounding ring that actually "bites" into the screw head and receptacle box to ensure an excellent "ground" connection.
- The factory made insulation crimp on the Ring Terminal and Flanged Fork Spade Terminal puts less stress on the conductor's strands to ensure an excellent ground and power connection because the strands will not break or separate when these conductors are pushed into the junction box.
- The Flanged Fork Spade Terminal has "angled" flanges on the end of the "fork" that will stay in place to help the installer connect the PigTail or PowerTail to the appropriate screw on the receptacle, switch or device.

ADVANTAGES FOR THE CONTRACTOR

- UL Listed from the Factory.
- Installation speed and reliability!
- Cost-effective and efficient.
- Quickly connect receptacles, switches or other devices.
- The perfect products for pre-fabrication work in the shop or on the job site.
- A variety of configurations and lengths that meet a broad range of applications.
- Ground Bonding PigTails and PowerTail products are available in re-usable tubes.
- 12 AWG is the standard wire size. 14 AWG Ground Bonding PigTails are available.
- Solid Wire Ground Bonding PigTails: THHN Building Wire.
- Stranded Wire Ground Bonding PigTails: THHN Building Wire (19 or 65 strand).
- Ground Bonding PigTails in bulk quantities of 1,000 are available. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more information.

GROUND SCREW CHOICES

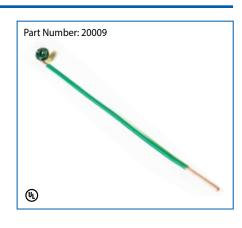
- Self-tapping GSC Ground Screw is used by contractors when the metallic junction box's ground screw hole is not tapped or is not "cleanly" tapped.
- Tapered Point GSH Ground Screw is a labor savings screw used by contractors. This ground screw is easy to start in the pre-tapped hole.

GROUND BONDING PIGTAILS – INSULATED SOLID WIRE (12 AWG and 14 AWG)

- UL Listed.
- Our Solid Wire Ground Bonding PigTails are recommended for use in metal box applications.
- Features a captive GSH or GSC Green Ground Screw on one end, the other end is pre-stripped 1".

Note: See Page 69 for detailed descriptions on the differences between the GSC and GSH Ground Screws.

- Available in 6.5", 8", 10" and 12" lengths.
- Typical applications:
 - Ground bonding in a power distribution box, junction box or multi-gang receptacle box.
 - When a standard Stranded Wire PigTail is not required.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(A) and (B) and 250.8(A).



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
With GSC	Ground S	crew								
20016	20016	6.5" PigTail: Captive GSC Ground Screw — Stripped 1"	PKG	50	PKG	10	500	50	Yes	9
20086	20086	8" PigTail: Captive GSC Ground Screw — Stripped 1"	PKG	50	PKG	10	500	50	Yes	11
20088	20088	10" PigTail: Captive GSC Ground Screw — Stripped 1"	PKG	50	PKG	10	500	50	Yes	13
With GSF	I Ground S	crew								
20009*	20009	6.5" PigTail: Captive GSH Ground Screw — Stripped 1"	PKG	50	PKG	10	500	50	Yes	9
20010	20010	6.5" PigTail (14 AWG): Captive GSH Ground Screw — Stripped 1"	PKG	50	PKG	10	500	50	Yes	7
20011*	20011	8" PigTail: Captive GSH Ground Screw — Stripped 1"	PKG	50	PKG	10	500	50	Yes	11
20087	20087	10" PigTail: Captive GSH Ground Screw — Stripped 1"	PKG	50	PKG	10	500	50	Yes	13

^{*}Contractor preferred

REFERENCE GUIDE - INSULATED SOLID WIRE PIGTAILS (12 AWG and 14 AWG)

PART NUMBERS

20016: 6.5-Inch 20086: 8-Inch 20088: 10-Inch PigTail: With captive GSC Ground Screw - Stripped 1".

PigTail: With captive GSH Ground Screw - Stripped 1".







20009: 6.5-Inch* 20011: 8-Inch*

20087: 10-Inch 20010: 6.5-Inch (14 AWG)



EPCO Ground Bonding PigTails are Made in the USA.

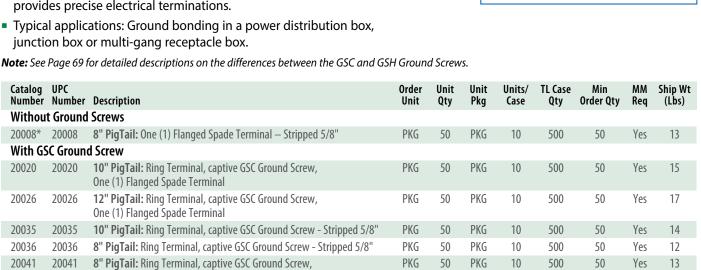
 $Complies \ with \ the \ American \ Recovery \ and \ Reinvestment \ Act-Buy \ American \ Provision.$

Part Number: 20004

(4)

GROUND BONDING PIGTAILS -INSULATED STRANDED WIRE (12 AWG and 14 AWG)

- UL Listed.
- Labor and Time Savings!
- Our Stranded Wire Ground Bonding PigTails can save the contractor up to 50 cents per installation.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(A) and (B) and 250.8(A).
- Factory-crimped Flanged Spade Terminal or Ring Terminal meets the requirements of the 2014 National Electrical Code: Article 110.4 and provides precise electrical terminations.
- junction box or multi-gang receptacle box.



PKG

PKG

PKG

PKG

PKG

50

50

50

50

50

PKG

PKG

PKG

PKG

PKG

10

10

10

10

10

500

500

500

500

500

50

50

50

50

50

Yes

Yes

Yes

Yes

Yes

16

13

15

17

12

captive GSH Ground Screw 8" PigTail: One (1) Flanged Spade Terminal, captive GSH Ground Screw 20004 20004* 20019

20025

20003

20019

20025

With GSH Ground Screw

20003

20029* 20029 8" PigTail: Ring Terminal, captive GSH Ground Screw - Stripped 5/8" *Contractor preferred

EPCO Ground Bonding PigTails are Made in the USA. Complies with the American Recovery and Reinvestment Act – Buy American Provision.

One (1) Flanged Spade Terminal

8" PigTail (14 AWG): One (1) Flanged Spade Terminal,

10" PigTail: One (1) Flanged Spade Terminal, captive GSH Ground Screw

12" PigTail: One (1) Flanged Spade Terminal, captive GSH Ground Screw

REFERENCE GUIDE — INSULATED STRANDED WIRE PIGTAILS (12 AWG and 14 AWG)

PART NUMBERS

20008: 8-Inch* PigTail: One (1) Flanged Spade Terminal - Stripped 5/8".



20041: 8-Inch PigTail: One (1) Flanged Spade Terminal and a captive GSC Ground Screw.
20020: 10-Inch
20026: 12-Inch

20003: 8-Inch (14 AWG) PigTail: One (1) Flanged Spade Terminal and a captive GSH Ground Screw.

20004: 8-Inch*
20019: 10-Inch
20025: 12-Inch

20029: 8-Inch* PigTail: Ring Terminal and a captive GSH Ground Screw - Stripped 5/8".

20036: 8-Inch PiαTail: Ring Terminal and a captive GSC Ground Screw - Stripped 5/8".

*Contractor preferred

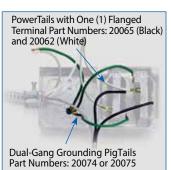
SINGLE AND DUAL-GANG GROUND BONDING PIGTAILS (12 AWG)

- Labor and Time Savings!
- UL Listed.

20035: 10-Inch

- Matched Flanged Spade and Ring Terminals ensure a safe, reliable ground connection.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(A) and (B) and 250.8(A).

Reprinted from the 2014 National Electrical Code: Article 250.148 – Continuity and Attachment of Equipment Grounding Conductors to Boxes: Where circuit conductors are spliced within a box, or terminated on equipment within, or supported by a box, any equipment grounding conductor(s) associated with those circuit conductors shall be connected within the box or to the box with devices suitable for the use in accordance with 250.148(A) through (E).





Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
20067	20067	Single-Gang PigTail: One (1) 8" Solid Wire Incoming Lead - Stripped 1", One (1) 8" Stranded Wire Conductor with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	9
20068	20068	Single-Gang PigTail: One (1) 8" Stranded Wire Incoming Lead - Stripped 5/8", One (1) 8" Stranded Wire Conductor with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	9
20070*	20070	Dual-Gang PigTail: Two (2) 8" Stranded Wire Conductors, each with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	10
20074*	20074	Dual-Gang PigTail: One (1) 8" Solid Wire Incoming Lead - Stripped 1",Two (2) 8" Stranded Wire Conductors, each with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	11
20075	20075	Dual-Gang PigTail: One (1) 8" Stranded Wire Incoming Lead - Stripped 5/8", Two (2) 8" Stranded Wire Conductors, each with One (1) Flanged Spade Terminal, captive GSH Ground Screw	PKG	20	PKG	10	200	20	Yes	13

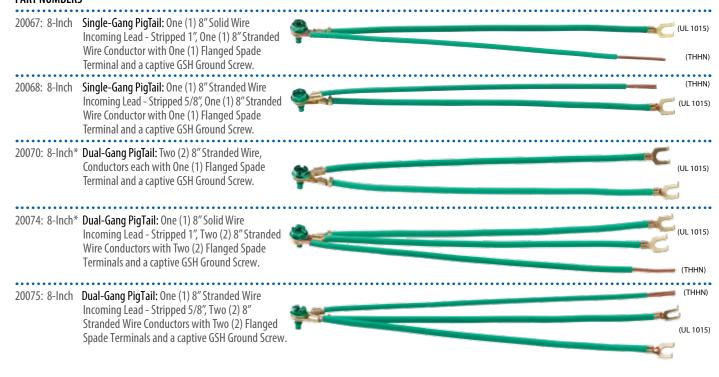
*Contractor preferred

EPCO Ground Bonding PigTails are Made in the USA.

Complies with the American Recovery and Reinvestment Act — Buy American Provision.

REFERENCE GUIDE - SINGLE and DUAL-GANG GROUND BONDING PIGTAILS (12 AWG)

PART NUMBERS



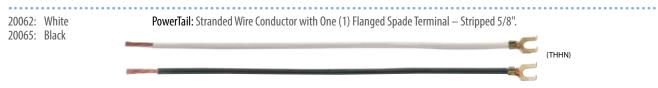
POWERTAILS DEVICE WIRING CONDUCTORS (12 AWG) (9)

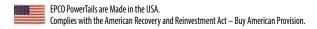
- UL Listed.
- Labor Savings Tool! Used by contractors that wire Commercial and Industrial buildings when using single and/or multi-gang metal boxes.
- Provides installation speed and a reliable connection when bringing power to multiple devices. Perfect for pre-wiring devices in the contractor's shop or on the job site.
- 8" Length Black and White leads feature a factory crimped Flanged Spade Terminal that slips under the terminal screw on the device.
- Manufactured using flexible 12 AWG stranded wire to easily push into the junction box.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(A) and (B).

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
20062	20062	8" PowerTail: White, Stranded Wire Conductor with One (1) Flanged Spade Terminal — Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	8
20065	20065	8" PowerTail: Black, Stranded Wire Conductor with One (1) Flanged Spade Terminal — Stripped 5/8"	PKG	50	PKG	10	500	50	Yes	9

REFERENCE GUIDE – POWERTAILS DEVICE WIRING CONDUCTORS (12 AWG)

PART NUMBERS





SINGLE and DUAL-GANG GROUND BONDING PIGTAILS – APPLICATION EXAMPLES

SINGLE-GANG SOLID WIRE: P/N 20067

The ground screw is screwed into and bonds the metal junction box. The single stranded wire grounding conductor with the flanged spade terminal from this same PigTail grounds the receptacle. The solid wire grounding conductor on the PigTail will ground the receptacle. The solid wire grounding conductor on the PigTail connects to the MC Cable and bonds back to the service panel.



SINGLE-GANG STRANDED WIRE: P/N 20068

The ground screw is screwed into and "grounds" the metal junction box. The single stranded wire grounding conductor with the flanged spade terminal from this PigTail grounds the receptacle. The stranded wire grounding conductor on the PigTail connects (by wire nut) the incoming ground conductor in the MC Cable and bonds back to the service panel.



DUAL-GANG STRANDED WIRE: P/N 20070

The ground screw is screwed into the 10/32 tapped grounding hole opening in the metal junction box, bonding the junction box to the conduit system and grounded back to the service panel. The two (2) stranded wire ground PigTails with the flanged spade terminals would then connect to the grounding screw of the receptacles or switches to be wired.



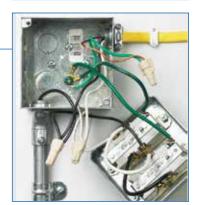
DUAL-GANG SOLID WIRE: P/N 20074

The ground screw is screwed into and bonds the metal junction box. The two (2) stranded wire grounding conductors with the flanged spade terminals from this PigTail grounds each receptacle. The solid wire conductor on the PigTail connects by wire nut to the incoming ground conductor in the conduit and bonds back to the service panel.



DUAL-GANG STRANDED WIRE: P/N 20075

The ground screw is screwed into and "grounds" the metal junction box and is bonded back to the service-grounded panel. Two (2) stranded wire grounding conductors with flanged spade terminals from this PigTail ground each receptacle. The stranded wire grounding conductor on the PigTail connects by wire nut to the ground conductor from the incoming cable.



GROUND SCREWS

Our Ground Screws are manufactured in compliance with the Restriction of Hazardous Substances (RoHS) European Directive. These Green Ground Screws (#10-32 x .375") meet the requirements of the 2014 National Electrical Code: Article 250.8.

GSC – Cutting Point Screw – Combination hex head, slotted, Phillips and square drive screw for use in metal boxes when holes have not been pre-tapped.

GSH – Hex Head Screw – Combination slotted, Phillips and square drive tapered point screw used to simplify wiring installations when pre-tapped holes exist in metal boxes.

Note: Beginning July 1, 2006, Directive 2002/95/EC, of the European Union (EU), restricts the use of certain hazardous substances in electrical and electronic equipment. Those substances are Lead, Mercury, Cadmium, Hexavalent Chromium, PBBs.







Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
GSC	10053	GSC: Slotted, #2 Phillips, Hex Head with Cutting Point - Green	PKG	100	PKG	10	1000	100	Yes	1
GSCT	30053	GSC: Slotted, #2 Phillips, Hex Head with Cutting Point - Green	PKG	250	PKG	10	2500	250	Yes	2
20053	20053	GSC: Bulk	C	1000	BN	0	0	1000	Yes	10
GSH	10051	GSH: Slotted, #2 Phillips, Hex Head, #2 Robertson with Tapered Die Point - Green	PKG	100	PKG	10	1000	100	Yes	1
GSHT	30051	GSH: Slotted, #2 Phillips, Hex Head, #2 Robertson with Tapered Die Point - Green	PKG	250	PKG	10	2500	250	Yes	2
20051	20051	GSH: Bulk	C	1000	BN	0	0	1000	Yes	10

Note: Ground Screws listed above are used in our Ground Bonding PigTails.

GROUND CLIPS

Excellent time and labor saving alternative to using Ground Screws.

Our Ground Clips are specifically designed for termination of the grounding conductor and should be used when a 10-32 hole is not pre-drilled or tapped into a metallic junction box.

Since ground clips are forced onto the outside edge of the junction box, we recommend using a "new" ground clip instead of re-using the old ground clip. Ground clips should never be forced onto the round portion of a plaster ring or a poor electrical connection will result.

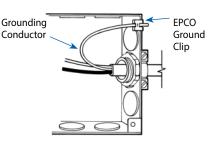
INSTALLATION PROCEDURE

The correct way to install a ground clip is to feed the grounding conductor into the ground clip with the shorter part of the ground clip placed inside the junction box.

Then use the flat blade of a screwdriver to force the ground clip onto the junction box to ensure a good electrical connection. See illustration.







Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
GC	10052	Ground Clip: for 14 AWG -12 AWG Solid Wire	PKG	100	PKG	10	1000	100	Yes	1
20052	20052	GC: Bulk	(1000	BN	0	0	1000	Yes	10





Our Splice Kits provide a permanent water resistant seal that eliminates expensive crimping tools when splicing aluminum or copper conductors. These splice kits are specifically intended for direct burial applications and designed to eliminate any cable deterioration and other problems that can lead to open circuits and cable failure.

Our Splice Kits are labor savings solutions that meet or exceed the electrical contractors requirements and can easily encapsulate 18 AWG to 1/0 AWG multi-conductor wire splices as well as single service conductors up to 250 MCM. Heating the heat shrink tubing over the mechanical connector melts the adhesive to the cable, sealing the splice from moisture and provide insulation and protection. Only a standard screwdriver is required to terminate the wire into the mechanical connector.

Our kits are available in five (5) kit types and include the tubing, sealant and mechanical connectors to ensure a safe and reliable splice.

SPLICE KIT COMMONALITIES

- UL Listed.
- Meets the requirements of the 2014 National Electrical Code: Article 110.14(B).
- Eliminates epoxies, tapes or separate mastics.
- Creates a waterproof splice.
- 600 Volt maximum, 221°F (105°C) rating.

Note: Our Heat Shrink Torch is always recommended for use with all EPCO Splice Kits. A torch used for sweating copper tubing will not work and could burn a hole in the shrink tubing!

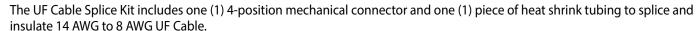
SPLICE KITS AWG CHART

Copper Butt Splice Kits	AV	VG
	14	
	13	
BSK1	12	
	11	
BSK2	10	
	9	
	8	8
		7
		6
BSK3		5
BSK4		4
23.11		3
		2

Dual Rated Butt Splice Kits	Logical AWG Number	AWG (and "Aught" */0 Equivalent)	MCM or kcmil
	8	8	17
	7	7	21
DRBSK	6	6	26
	5	5	33
	4	4	42
	2	2	66
DRBSK1	1	1	84
	0	1/0	106
	-1	2/0	133
DRBSK3	-2	3/0	168
DUDOUS	-3	4/0	212
	-3.7	4.7/0	250

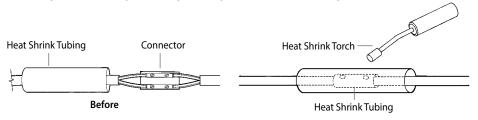
UF CABLE SPLICE KIT - FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Labor Savings! Obsoletes messy, two part Splice Kits.
- Accommodates UF Cables sizes: 14/3 without ground minimum, 8/3 without ground maximum.
- 600 Volts maximum, 221°F (105°C) temperature rating.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).



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By using Thick Wall Heat Shrink Tubing with sealant and the mechanical connector, the repair of UF Cable is a quick, easy and reliable process. No epoxies, tape or separate mastics are required.

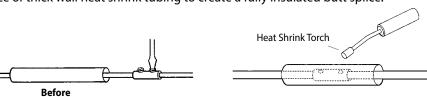


Catalog	UPC	Description	Order	Unit	Unit	Units/	TL Case	Min	MM	Ship Wt
Number	Number		Unit	Qty	Pkg	Case	Qty	Order Qty	Req	(Lbs)
UFC2B	10711	UF Cable Splice Kit — for Direct Burial: Accommodates Cable Sizes — 14/3 without Ground (minimum), 8/3 without Ground (maximum)	EA	1	BG	24	24	1	No	6

COPPER BUTT SPLICE KITS

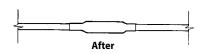
- UL Listed. File Number: E103228.
- Labor Savings! Designed to simplify splicing discreet copper conductors.
- Sizes: 14 AWG to 2 AWG.
- BSK series is rated for 600 Volts maximum, 221°F (105°C) temperature rating.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

BSK Splice Kits include a mechanical copper butt splice connector and an 8-inch piece of thick wall heat shrink tubing to create a fully insulated butt splice.





After



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
BSK1	10705	Butt Splice Kit: includes One (1) Butt Splice Connector - 8 AWG to 14 AWG; One (1) Heat Shrink Tube - 14 AWG to 10 AWG	EA	1	BG	24	24	1	No	2
BSK2	10706	Butt Splice Kit: includes Three (3) Butt Splice Connectors - 8 AWG to 14 AWG; Three (3) Heat Shrink Tubes - 14 AWG to 10 AW	EA ′G	1	BG	24	24	1	No	2
BSK3	10708	Butt Splice Kit: includes One (1) Butt Splice Connector - 2 AWG to 8 AWG; One (1) Heat Shrink Tube - 6 AWG to 2 AWG	EA	1	BG	24	24	1	No	2
BSK4	10709	Butt Splice Kit: includes Three (3) Butt Splice Connectors - 2 AWG to 8 AWG; Three (3) Heat Shrink Tubes - 6 AWG to 2 AW	EA /G	1	BG	24	24	1	No	2

360

SELF SEALING UF SPLICE KIT – FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Labor Savings! Simplifies the assembly of a moisture resistant splice.
- Protects electrical connections and allows for re-entry if needed.
- Eliminates use of epoxies, tape or mastics.
- 600 Volts maximum, 221°F (105°C) temperature rating.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

The uniquely designed interference fit cover enables direct burial of UF Cable to be a quick and reliable process. The kit includes a mechanical connector, silicone lubricant and the interference fit covers, Accommodates 14 AWG to 8 AWG wire sizes.

00

Before

After

Catalog	UPC	Description	Order	Unit	Unit	Units/	TL Case	Min	MM	Ship Wt
Number	Number		Unit	Qty	Pkg	Case	Qty	Order Qty	Req	(Lbs)
UFC3/4	10703	Self Sealing UF Splice Kit — for Direct Burial: Accommodates Cable Sizes — 14/3 without Ground (minimum), 8/3 with Ground (maximum)	EA ,	1	BG	24	24	1	No	10

DUAL RATED BUTT SPLICE KITS - FOR DIRECT BURIAL

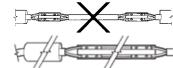
- Eliminates expensive crimping tools when splicing aluminum or copper conductors for direct burial.
- UL Listed components.
- 600 Volts maximum, 221°F (105°C) temperature rating.
- For use with aluminum and copper conductors.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

The kits include a pair of thick wall heat shrink tubing (2 pieces) and one (1) mechanical connector. Popular splicing applications include repair and/or extending type USE Cable.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
DRBSK	11499	Dual Rated Butt Splice Kit: includes one (1) Dual Rated Connector 2 AWG to 14 AWG; Two (2) Heat Shrink Tubes - 6 AWG to 2 AWG		1	BG	24	24	1	No	10
DRBSK1	11500	Dual Rated Butt Splice Kit: includes One (1) Dual Rated Connector 14 AWG to 1/0 AWG; Two (2) Heat Shrink Tubes - 1 AWG to 3/0 AWG		1	BG	24	24	1	No	10
DRBSK3	11501	Dual Rated Butt Splice Kit: includes One (1) Dual Rated Connector 250 MCM to 6 AWG; Two (2) Heat Shrink Tubes - 2/0 AWG to 350 MCI		1	BG	24	24	1	No	10

UF STRETCHER KIT - FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Labor Savings! Includes one 11.5" mechanical connector that eliminates the need to use two (2) UF Cable Splice Kits (P/N: UFC2B) and a short piece of cable when repairing a longer section of damaged UF Cable.



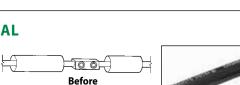


- 600 Volts maximum, 221°F (105°C) temperature rating.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).

Simplify UF Cable repairs after a trencher or backhoe has damaged or destroyed a 7" to 10" section of UF Cable. Utilize our Thick Wall Heat Shrink Tubing with sealant to make a quick and reliable repair. Eliminates epoxies, tapes or separate mastics and creates a waterproof splice. The kit includes one (1) 4-position 11.5" connector and one (1) piece of heat shrink tubing. Designed to splice and insulate 14 AWG to 8 AWG UF Cable.

Catalog	UPC	Description	Order	Unit	Unit	Units/	TL Case	Min	MM	Ship Wt
Number	Number		Unit	Qty	Pkg	Case	Qty	Order Qty	Req	(Lbs)
UFS2	10714	UF Stretcher Kit – for Direct Burial: Accommodates Cable Sizes – 14/3 without Ground (minimum), 8/3 without Ground (maximum		1	BG	12	12	1	No	12

UNITS OF MEASURE KEY Order Unit: The Unit to be ordered; Unit Qty: Number of pieces in each Unit; Unit Pkg: Unit Packages contained in the case - Packaging types - BG (Bag), BRL (Barrel), BX (Box), BN (Bulk), PKG (Package), EA (Each), RL (Roll), LB (Pound), C (Hundred), M (Thousand); Units/Case: Unit packages contained in the Case; TL Case Qty: The total number of items in each Master Case; Min Order Qty: The smallest Unit that can be ordered; MM Req: Must order multiples of the Unit in the stated quantities; Ship Wt (Lbs): Total weight of the units per Carton



After





Our Thick Wall Heat Shrink Tubing for direct burial applications is made from cross-linked polyolefin. This tough, versatile tubing can be used for insulation, harnessing, strain relief, and identification purposes for residential, commercial and industrial applications.

Heat Shrink Tubing is designed and tested to meet the most demanding requirements of IEEE, UL, CSA and ANSI as well as many other international standards for performance and long-term reliability.

BENEFITS

- For direct burial applications; withstands severe mechanical requirements.
- Seals, protects and insulates electrical connections and terminations; provides excellent mechanical protection.
- Superior jacket tear resistance and elastomer characteristic allows better conformance over irregular contours without splitting or cracking.
- Accommodates most applications contractors will encounter.
- Excellent sealing efficiency ensuring no moisture ingress as the hot melt adhesive enables fill encapsulation of cables and connectors.
- Provides maximum reliability protecting splices and terminations.
- High impact, abrasion, corrosion and chemical resistance.
- Provides a moisture and soil resistant seal.
- Rated for 600 Volts, 194°F (90°C) continuous use.
- Standard Shrink Ratio: 3:1
- Shrink temperature: 248°F (120°C)

TYPICAL APPLICATIONS

- Splice covers for repair of electrical cables and splice connections.
- Insulation cover or jacket repair on low voltage cables.
- Strain relief and environmental protection.
- HVAC systems for pipes and ducts.

Note: We recommend always using our Heat Shrink Torch for shrinking Thick Wall Heat Shrink Tubing. A torch used for sweating copper tubing will not work and could burn a hole in the shrink tubing!

THICK WALL HEAT SHRINK TUBING - FOR DIRECT BURIAL

- UL Listed for direct burial. File Number: E123896.
- Meets the requirements of the 2014 National Electrical Code: Articles 110.14(B), 300.5(E) and 300.50(D).
- Installs and shrinks easily for labor savings. Most effective when insulating over large transitions.
- 3:1 Shrink ratio enables wider cable range and fewer tubing sizes.
- Excellent abrasion, corrosion and environmental resistance properties.
- UV and fungi resistant.

Thick Wall Heat Shrink Tubing (HST) is used to dielectrically insulate and encapsulate electrical connections. The HST internal coating has an adhesive and sealant that melts when the tubing is heated to provide a moisture and soil resistant seal. The standard color is black.

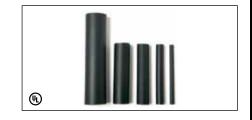


Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
HST1410	10170	Heat Shrink Tubing: Conductor Size — 14 AWG to 10 AWG, Shrink Range — .36-inch to .12-inch; includes six (6) 8-Inch Pieces per Package	BG	6	BG	12	72	6	Yes	5
HST84	10171	Heat Shrink Tubing: Conductor Size — 6 AWG to 2 AWG, Shrink Range — .75-inch to .24-Inch; includes six (6) 8-inch Pieces per Package	BG	6	BG	12	72	6	Yes	7
HST23/0	10172	Heat Shrink Tubing: Conductor Size — 1/0 AWG to 3/0 AWG, Shrink Range — 1.10-inch to .35-inch; includes six (6) 8-lnch Pieces per Package	BG	6	BG	12	72	6	Yes	9
HST2/0300	10173	Heat Shrink Tubing: Conductor Size — 2/0 AWG to 350 MCM, Shrink Range — 1.50-inch to .47-inch; includes four (4) 8-Inch Pieces per Package	BG 1	4	BG	12	72	6	Yes	10
HST300650	10174	Heat Shrink Tubing: Conductor Size — 250 MCM to 500 MCM, Shrink Range — 2.0-inch to .63-Inch; includes three (3) 12-inch Pieces per Package	BG	3	BG	12	72	6	Yes	13

BULK THICK WALL HEAT SHRINK TUBING - FOR DIRECT BURIAL

Our Bulk Heat Shrink Tubing is used for direct burial and is the same quality tubing as our popular packaged HST Thick Wall Tubing. Available in cut lengths from 2" up to 48".

Please specify the length by adding the correct length in inches to the end of the part number. Example: One (1) 13" piece of 14 AWG to 10 AWG tubing; E00-902-013. **Note:** All Bulk Tubing is quoted per inch.



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Conductor Size:	1 AWG / 3/	0 AWG								
E00-901-0*	n/a	Thick Wall Tubing	EA	1	BG	0	0	1	No	1
E00-901-005	13911	Thick Wall Tubing: One (1) 5-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-006	13912	Thick Wall Tubing: One (1) 6-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-008	13913	Thick Wall Tubing: One (1) 8-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-009	13914	Thick Wall Tubing: One (1) 9-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-010	13915	Thick Wall Tubing: One (1) 10-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-012	13916	Thick Wall Tubing: One (1) 12-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-024	13918	Thick Wall Tubing: One (1) 24-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-036	13919	Thick Wall Tubing: One (1) 36-inch Piece	EA	1	BG	0	0	1	No	1
E00-901-048	13920	Thick Wall Tubing: One (1) 48-inch Piece	EA	1	BG	0	0	1	No	1

BULK THICK WALL HEAT SHRINK TUBING (CONTINUED)

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Conductor Siz	e: 14 AWG	/ 10 AWG								
E00-902-0*	n/a	Thick Wall Tubing	EA	1	BG	0	0	1	No	1
E00-902-006	13925	Thick Wall Tubing: One (1) 6-inch Piece	EA	1	BG	0	0	1	No	1
E00-902-008	13926	Thick Wall Tubing: One (1) 8-inch Piece	EA	1	BG	0	0	1	No	1
E00-902-009	13927	Thick Wall Tubing: One (1) 9-inch Piece	EA	1	BG	0	0	1	No	1
E00-902-012	13928	Thick Wall Tubing: One (1) 12-inch Piece	EA	1	BG	0	0	1	No	1
E00-902-024	13929	Thick Wall Tubing: One (1) 24-inch Piece	EA	1	BG	0	0	1	No	1
E00-902-048	13931	Thick Wall Tubing: One (1) 48-inch Piece	EA	1	BG	0	0	1	No	1
Conductor Size	e: 6 AWG /	2 AWG								
E00-903-0*	n/a	Thick Wall Tubing	EA	1	BG	0	0	1	No	1
E00-903-006	13937	Thick Wall Tubing: One (1) 6-inch Piece	EA	1	BG	0	0	1	No	1
E00-903-008	13938	Thick Wall Tubing: One (1) 8-inch Piece	EA	1	BG	0	0	1	No	1
E00-903-009	13939	Thick Wall Tubing: One (1) 9-inch Piece	EA	1	BG	0	0	1	No	1
E00-903-010	13940	Thick Wall Tubing: One (1) 10-inch Piece	EA	1	BG	0	0	1	No	1
E00-903-012	13941	Thick Wall Tubing: One (1) 12-inch Piece	EA	1	BG	0	0	1	No	1
E00-903-024	13943	Thick Wall Tubing: One (1) 24-inch Piece	EA	1	BG	0	0	1	No	1
E00-903-048	13945	Thick Wall Tubing: One (1) 48-inch Piece	EA	1	BG	0	0	1	No	1
Conductor Siz	e: 2/0 AWG	5 / 350 MCM								
E00-904-0*	n/a	Thick Wall Tubing	EA	1	BG	0	0	1	No	1
E00-904-006	13949	Thick Wall Tubing: One (1) 6-inch Piece	EA	1	BG	0	0	1	No	1
E00-904-008	13950	Thick Wall Tubing: One (1) 8-inch Piece	EA	1	BG	0	0	1	No	1
E00-904-009	13951	Thick Wall Tubing: One (1) 9-inch Piece	EA	1	BG	0	0	1	No	1
E00-904-012	13952	Thick Wall Tubing: One (1) 12-inch Piece	EA	1	BG	0	0	1	No	1
E00-904-024	13953	Thick Wall Tubing: One (1) 24-inch Piece	EA	1	BG	0	0	1	No	1
E00-904-030	13954	Thick Wall Tubing: One (1) 30-inch Piece	EA	1	BG	0	0	1	No	1
E00-904-048	13955	Thick Wall Tubing: One (1) 48-inch Piece	EA	1	BG	0	0	1	No	1
Conductor Size	e: 250 MCI	M / 500 MCM								
E00-905-0*	n/a	Thick Wall Tubing	EA	1	BG	0	0	1	No	1
E00-905-006	13957	Thick Wall Tubing: One (1) 6-inch Piece	EA	1	BG	0	0	1	No	1
E00-905-008	13958	Thick Wall Tubing: One (1) 8-inch Piece	EA	1	BG	0	0	1	No	1
E00-905-009	13959	Thick Wall Tubing: One (1) 9-inch Piece	EA	1	BG	0	0	1	No	1
E00-905-012	13960	Thick Wall Tubing: One (1) 12-inch Piece	EA	1	BG	0	0	1	No	1
E00-905-024	13963	Thick Wall Tubing: One (1) 24-inch Plece	EA	1	BG	0	0	1	No	1
E00-905-048	13965	Thick Wall Tubing: One (1) 48-inch Piece	EA	1	BG	0	0	1	No	1

HEAT SHRINK TORCH

Recommended for shrinking Thick Wall Heat Shrink Tubing and for use with all our Splice Kits. The trigger-start ignition starts fast and easy. Features a fully adjustable regulator valve and air inlet port for adjustable flame settings.

Connects directly to a standard 14.1 propane tank (not included).



Catalog	UPC	Description	Order	Unit	Unit	Units/	TL Case	Min	MM	Ship Wt
Number	Number		Unit	Qty	Pkg	Case	Qty	Order Qty	Req	(Lbs)
HST-T1	12200	Heat Shrink Torch	EA	1	BX	20	20	1	No	22

HEAT SHRINK TUBING

Refer to the table shown below to select the Heat Shrink Tubing size which will shrink to fit snugly over the component to be covered. If recovery is restricted the resulting wall thickness will be less than specified.



DIMENSIONS

	Expanded		Recov	ered					600 / 1000 V
	Internal I	Diameter ı) D	Internal [Wall Th (NOM			n Range for ral Use	Single Conductor Size
Part Number	Inches	MM	Inches	MM	Inches	MM	Inches	MM	AWG / MCM
HST1410	0.35	8.9	0.12	3.0	0.7	1.8	.153	3.5 - 8	#14 - #10
HST84	0.75	19.1	0.24	6.1	0.12	3.0	.2565	6.5 - 16.5	#6 - #2
HST23/0	1.10	27.9	0.35	8.9	0.12	3.0	.495	10 / 24	#1 - 3/0
HST2/0300	1.50	38.1	0.47	11.9	0.14	3.6	.5 - 1.4	13 - 35	2/0 - 350
HST300650	2.0	50.8	0.63	16	0.14	3.6	.7 - 1.75	17.5 - 44	250 - 500

SPECIFICATIONS

SPECIFICATIONS	
Property	Typical Performance
Physical	
Tensile Strength	2100 psi (14.5 MPa)
Specific Gravity	1.1
Heat Shock (4 hrs at 437°F (225°C))	No cracking or flowing
Low Temperature Flexibility (4 hrs at -67°F (-55°C))	No cracking
Electrical	
Dielectric Strength	500 V/Mil (20kV/mm)
Dielectric Voltage Withstand (2500 V, 60 Hz, 1 min)	No breakdown, 24kV-1 min, 15kV-4 hrs
Volume Resistivity	10 ¹⁶ ohm-cm
Chemical	
Fluid Resistance	Good to Excellent
Copper Corrosion	No corrosion
Water Absorption	0.1%
Fungus Resistance	No growth
Adhesive	
Adhesive Softening Point	197°F (92°C) +/- 41°F (5°C)
Adhesive Lap Shear	125 psi (0.875 MPa)
Adhesive Blocking (86°F (30°C))	No blocking
Water Penetration	No penetration after 236 hrs (min) of continuous immersion

ACCESSORIES





COMMERCIAL



Whether it's a large multi-family housing complex, town houses, or even a single family home, the benefits of using our Residential Products Accessories increases the electrical contractor's productivity, expedites the installation time — and meets the electrical contractor's budget and application needs.

We are an excellent source for the contractor's residential product accessory needs. We use only quality components to ensure they operate as specified. All of our products in this section reduce the electrical contractor's time and labor costs when compared to other competitive offerings.

AIR CONDITIONER WHIPS

- Meets the requirements of the 2014 National Electrical Code: Articles 310.10(C)(H)(2) and (4), Table 310.15(B)(2)(A), 356.10(1), (2) and (3), 350.22(A), 350.30(A), 356.10, 356.20, 440.6 and 440.31.
- Labor and Time Savings! Cost-effective Non-Metallic AC Whips save the contractor time and money.
- Reducing washers included.
- Convenient packaging of ten (10) or twenty (20) AC Whips per Carton.
- UL Listed. File Number: E87199.

Designed to save the contractor installation time and labor, our Air Conditioner Whips are typically used to connect the Central Air Conditioner Compressor to the AC disconnect box. Air Conditioner Whips include one (1) Straight and one (1) 90° Connector. Three (3) Conductors are included in 1/2" or 3/4" Non-Metallic Liquid Tight Conduit using either 8 or 10 AWG THHN Conductors.



We will also build "custom" Air Conditioner Whips to your specifications in any length using UL Listed components. Contact our Inside Sales Department (800.336.1976 or sales@engproducts.com) for more specific information.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	ShipWt (Lbs)
ACWNM1043-1RA	11202	AC Whip: 4-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Three (3) 10 AWG Stranded - Red, Black, Green	EA	1	BRL	20	20	1	No	47
ACWNM1063-1RA	11204	AC Whip: 6-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Three (3) 10 AWG Stranded - Red, Black, Green	EA	1	BRL	20	20	1	No	49
ACWNM843-1RA	11205	AC Whip: 4-FT, 3/4", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA	1	BRL	20	20	1	No	49
ACWNM863-1RA	11208	AC Whip: 6-FT, 3/4", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA	1	BRL	10	10	1	No	36
ACWNM843-1RA-1/2	11214	AC Whip: 4-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA G	1	BRL	20	20	1	No	49
ACWNM863-1RA-1/2	11213	AC Whip: 6-FT, 1/2", One (1) Straight and One (1) Right Angle Connector, Two (2) 8 AWG Stranded - Red, Black; One (1) 10 AWG Stranded - Green	EA	1	BRL	20	20	1	No	50



 $\ensuremath{\mathsf{EPCO}}$ AC Whips and AC Whip Connectors are Made in the USA.

Complies with the American Recovery and Reinvestment Act — Buy American Provision.

WALL PLATE INSULATION GASKET

Energy saving gasket prevents heat and cold loss through outlets and switches that are located on outside walls.

- Easy to install. Only a screwdriver is required.
- Flame retardant closed cell polyurethane insulating foam.
- One-piece design fits toggle, duplex receptacle or Decora style wall plates.
- Fits duplex receptacles and multi-gang boxes.

Note: Each gasket is perforated.





Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
10938	10938	Wall Plate Insulation Gasket	BG	100	BG	0	0	100	Yes	2

POWER/APPLIANCE CORDS

- UL Listed.
- Meets the requirements of the 2014 National Electrical Code: Articles 422.16(B)(1) and (2).

SPT Flat and SJT Round Power/Appliance Cords are used for typical applications such as installation of garbage disposals, dishwashers or similar appliances. These Power/Appliance Cords can also be used for repairs of appliances, power tools or other electrical equipment.

The cords are 16 AWG or 14 AWG 3 wire heavy-duty vinyl conductors. One end is pre-stripped at the factory, the other end has a straight or right angle grounded male plug.



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SPT 14/3	Flat Cord									
10950	10950	3-FT: Straight Plug, 15 AMP - Beige	EA	1	ВХ	25	25	25	Yes	9
10953	10953	6-FT: Straight Plug, 15 AMP - Beige	EA	1	ВХ	25	25	25	Yes	17
10956	10956	9-FT: Straight Plug, 15 AMP - Beige	EA	1	ВХ	25	25	25	Yes	25
SPT 16/3	Flat Cord									
PCR3	10178	3-FT: Right Angle Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	8
PCR6	10181	6-FT: Right Angle Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	12
PCR8	10182	8-FT: Right Angle Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	13
PCS3	10179	3-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	8
PCS4	10183	4-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	8
PCS6	10184	6-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	12
PCS8	10185	8-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	13
PCS12	10169	12-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	22
SJT 16/3 I	Round Cord									
PSS3	10186	3-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	8
PSS6	10187	6-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	12
PSS8	10188	8-FT: Straight Plug, 13 AMP - Black	EA	1	ВХ	25	25	25	Yes	13
RSS3	10219	3-FT: Receptacle, 15 AMP - Black	EA	1	ВХ	25	25	25	Yes	12

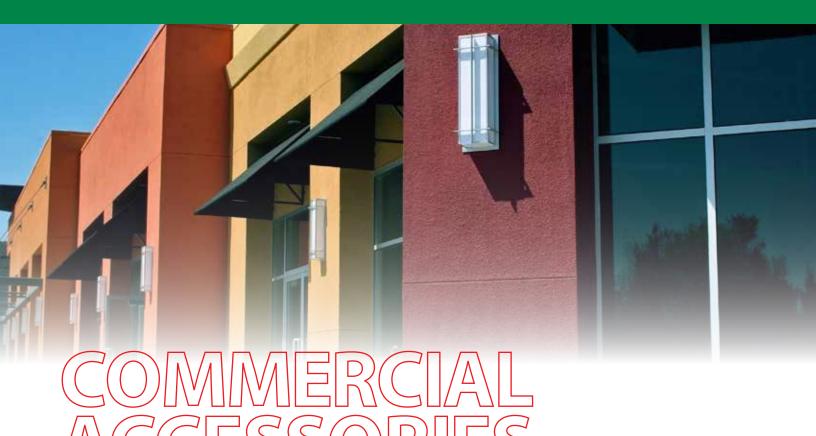
RANGE and DRYER CORDS

- Meets Canadian Standards Association (CSA) Approval.
- Meets the requirements of the 2014 National Electrical Code: Articles 220.54, 422.16(B)(3)(4) and 422.33(A) and (B).
- Heavy-duty terminals ensure an excellent power quality connection.
- Right angle plug for fit-to-wall.
- Strain Relief protects Range and Dryer Cord from damage.





Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
Range Co	ords									
40000	40000	Range Cord: 4-FT, SRDT 6/2 and 8/1, 3 Wire, 50 AMP - Gray	EA	1	ВХ	16	16	1	No	27
40001	40001	Range Cord: 6-FT, SRDT 6/2 and 8/1, 3 Wire, 50 AMP - Gray	EA	1	ВХ	16	16	1	No	35
40010	40010	Range Cord: 4-FT, SRDT 6/2 and 8/2, 4 Wire, 50 AMP - Black	EA	1	ВХ	12	12	1	No	33
40011	40011	Range Cord: 6-FT, SRDT 6/2 and 8/2, 4 Wire, 50 AMP - Black	EA	1	ВХ	12	12	1	No	38
Dryer Co	rds									
40020	40020	Dryer Cord: 4-FT, SRDT 10/3, 3 Wire, 30 AMP - Gray	EA	1	ВХ	32	32	1	No	35
40021	40021	Dryer Cord: 6-FT, SRDT 10/3, 3 Wire, 30 AMP - Gray	EA	1	ВХ	32	32	1	No	51
40030	40030	Dryer Cord: 4-FT, SRDT 10/4, 4 Wire, 30 AMP - Black	EA	1	ВХ	16	16	1	No	27
40031	40031	Dryer Cord: 6-FT, SRDT 10/4, 4 Wire, 30 AMP - Black	EA	1	ВХ	16	16	1	No	35



Whether from plan and specification, design/build or negotiated, our Commercial Product Accessories represent the highest level of product quality and value that solves the electrical contractors problems quickly and easily. This product quality and value is realized in the form of increased productivity and expedited installation times at a price that meets the electrical contractor's budgetary requirements and application needs.

Be it a small retrofit project or a new "ground up" construction project, you'll want the most dependable and reliable electrical product accessories working for you. All of our products are manufactured with unmatched workmanship and shipped on-time.

COMMERCIAL ACCESSORIES DUCT SEAL, TIE WIRE & FIXTURE HANGERS

DUCT SEAL COMPOUND

Our UL Listed Duct Seal Compound is used to seal around junction boxes, flashings, service mast and cable entries. Duct Seal Compound is available in individual 1 lb. bricks, five (5) 1 lb. bricks in one (1) package, or a 5 lb. brick. Each Duct Seal package is individually wrapped in release paper to simplify handling and repackaging.

- Asbestos-free compound
- Odorless, non-sticky formula.
- Can be painted immediately.
- Temperature tolerance: -40°F(-40°C) to 180°F (82°C).
- Excellent adhesive properties for use on wood, glass, aluminum and steel.
- Meets the requirements of the 2014 National Electrical Code: Article 230.8.

Note: None of the components of this product are hazardous as defined by OSHA Hazard Communication Standard (29 CFR 1910. 1200). For more information, visit our website at engproducts.com/Resources to view the Duct Seal MSDS Sheet.

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
EPD1	10101	Duct Seal: 1 Lb. Brick	LB	1	ВХ	50	50	1	No	50
EPD5	10102	Duct Seal: Package of Five (5) 1 Lb. Bricks	LB	5	ВХ	10	10	5	Yes	50
EPD5B	10105	Duct Seal: 5 Lb. Brick	LB	5	ВХ	10	10	5	No	50



EPCO Duct Seal Compound is Made in the USA.

Complies with the American Recovery and Reinvestment Act – Buy American Provision.

TIE WIRE

Supports a variety of uses on the job site including bundling, supporting and hanging cable conduit and suspended luminaires. Available in 16 AWG Black Annealed or Galvanized rolls. Also available in 18 AWG Galvanized 30" pre-cut lengths.

Tie Wire: 18 AWG Galvanized Straight Wire

Carbon: C1008 Soft Annealed Yield: LB/FT = .0104 (104 FT/LB) Size: .047" Diameter (plus/minus .001") Tensile/Breaking Strength: 75 lb. max. PSI;

105-135 lbs.

ASTM: Zinc Coating; Meets A641 that requires no minimum ounces of zinc per

square foot of surface area. **Federal Specification:** QQ-W-461

Tie Wire: 16 AWG Black and Galvanized Coiled Wire Carbon: C1008 Soft Annealed Yield: LB/FT = .0104 (104 FT/LB) Size: .0625" Diameter (plus/minus .001")

Tensile/Breaking Strength: 45-60,000 PSI ASTM: Zinc Coating; Meets A641 that requires no minimum ounces of zinc per square foot of

surface area.

Federal Specification: QQ-W-461



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
TY16	10150	16 AWG Black Tie Wire: 350' per Roll	EA	1	ВХ	20	20	20	Yes	70
TY16G	10152	16 AWG Galvanized Tie Wire: 350' per Roll	EA	1	ВХ	20	20	20	Yes	70
TY18G	10151	18 AWG Galvanized Tie Wire: 30" Length	EA	1	ВХ	1750	1750	1750	Yes	25
TY18G-50B	12000	18 AWG Galvanized Tie Wire: 30" Length, 50 per Bundle	EA	1	ВХ	35	35	1	No	25

LUMINAIRE HANGERS

These labor saving Luminaire Hangers are available in Side Mount or Top Mount styles and can be used with our Chain and S-Hook products. Top Mount Hangers are used when the mounting holes are located on top of a troffer type luminaire. Side Mount Hangers are used when the mounting holes are located on the side of a troffer type luminaire. Both Luminaire Hanger styles are plated for durability and precisely bent to simplify installation and ensure a secure fit.



Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SMH	10726	11 AWG Plated Luminaire Hangers: Side Mount	ВХ	100	BX	0	0	100	Yes	5
TMH	10725	10 AWG Plated Luminaire Hangers: Top Mount	ВХ	100	ВХ	0	0	100	Yes	7



EPCO Luminaire Hangers are Made in the USA.

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Single Loop Jack Chain is used to support suspended luminaires and is often required by code in many cities. We package the chain in convenient 50 and 100-foot boxes.



SINGLE LOOP JACK CHAIN LOAD LIMITS

Trade Size	Wire Gauge	Wire Diameter Inches	Length Per 100 Link Inches	Weight Per 100 Feet Pounds	Working Load Limit Pounds	Break Test Load Pounds
12	13	.105	75	8.5	29 Lbs	115 Lbs
10	12	.135	95	14.7	43 Lbs	170 Lbs

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
JC10B/100B	10201	10 AWG Bright Jack Chain: 100-FT per Carton	FT	100	BX	5	500	100	Yes	80
JC12B/100	11703	12 AWG Bright Jack Chain: 100-FT Spool	FT	100	ВХ	5	500	100	Yes	45
JC12B/100B	10203	12 AWG Bright Jack Chain: 100-FT per Carton	FT	100	ВХ	5	500	100	Yes	45

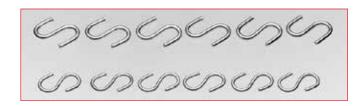


EPCO Single Loop Jack Chain is Made in the USA.

Complies with the American Recovery and Reinvestment Act – Buy American Provision.

S-HOOKS

S-Hooks are used with Jack Chain to support suspended luminaires. All S-Hooks are plated for lasting durability. Two (2) sizes are available ranging from 1.125" length 12 AWG wire to 1.25" length 10 AWG wire.



S-HOOK LOAD LIMITS

Trade Size	Wire Gauge	Wire Diameter Inches	Length	Working Load Limit Pounds	Minimum Strength
SH10	10	.135	1.25"	48 Lbs	190 Lbs
SH12	12	.105	1.125"	32 Lbs	97 Lbs

Catalog Number	UPC Number	Description	Order Unit	Unit Qty	Unit Pkg	Units/ Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
SH10	10251	10 AWG Plated S-Hooks: 1.25" Length	BG	100	BG	10	1000	100	Yes	11
SH12	10252	12 AWG Plated S-Hooks: 1.125" Length	BG	100	BG	10	1000	100	Yes	10



EPCO S-Hooks are Made in the USA.

Complies with the American Recovery and Reinvestment Act — Buy American Provision.

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14067	14067	23	15973	15973	26	20016	20016	64	E00-904-006	13949	76	EPW1662S	10330	41
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14070B	14072	23	16010	16010	57	20020	20020	65	E00-904-009	13951	76	EPW1663	10301	41
14071	14071	23	16022	16022	58	20025	20025	65	E00-904-012	13952	76	EPW1663A	10324	43
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14077	14077	23	16100	16100	58	20029	20029	65	E00-904-030	13954	76	EPW1663S	10331	41
14080	14080	23	16110	16110	58	20035	20035	65	E00-904-048	13955	76	EPW1663SA	10342	43
14085	14085	23	16301	16301	57	20036	20036	65	E00-905-0	N/A	76	EPW1664	10302	41
14090	14090	23	16350	16350	57	20041	20041	65	E00-905-006	13957	76	EPW1664A	10325	43
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15071	15071	30	17035	17035	50	ACWNM843-1RA-1/2	11214	80	EPW1263SADP1-HNG	10542	44	EPW1864SADP1-HNG	10539	44
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15757	15757	55	17196	17196	50	E00-901-010	13915	75	EPW1463A	10317	43	GFF-DR8	14254	19
15760	15760	55	17197	17197	50	E00-901-012	13916	75	EPW1463AD	10369	42	GFF-FSSK	14256	19
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15801	15801	28	17202	17202	51	E00-901-048	13920	75	EPW1463ADP2-HNG		44	GFF-L4C	14240	19
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WISCONSIN

Lakeshore Electrical Sales, Inc. (Eastern Wisconsin) 6000 West Executive Drive, Suite A Mequon, WI 53092 P 262.478.0680 - F 262.478.0595 E Jerry.duwell@lakeshoreelectrical.net

LESCO, Inc.

(Western Wisconsin) 5301 E. River Road, Suite 104 Fridley, MN 55421 P 763.542.8242 • F 763.542.9309 E lesco@lesco-inc.com

WYOMING

Ryall Group 165 South Union Blvd, Suite 610 Lakewood, CO 80228 P 303.423.3334 - F 303.423.3335 E dan@ryallgroup.com

Interwest Electrical Sales

(Western Wyoming) 536 West 8360 South Sandy, UT 84070 P 801.233.8800 - F 801.233.8801 E ies@interwestut.com

PRODUCT WARRANTY

GENERAL PRODUCT WARRANTY

Unless otherwise noted, Engineered Products Company (EPCO®) warrants that the products described herein, will be furnished free from defects in material and workmanship for 1 year. Any exceptions to this Warranty Statement will be detailed within the respective warranty section in this product catalog, noted on the product itself, or the product packaging.

Engineered Products Company sole obligation for any breach of warranty under the terms herein shall be, at our option, to repair or provide replacement for the Product to which such warranty is breached, or to return all payments made with respect to such product. Any product(s) that are deemed to be defective must be specified by the Purchaser in a written notice to Engineered Products Company's Warranty Department within 1 year after receipt of such goods. Under no circumstances will Engineered Products Company be liable for loss of profits or incidental, indirect, consequential or special damages of any kind beyond the replacement cost of the defective merchandise.

Engineered Products Company shall not be liable for any losses arising from governmental action, an act of God, or the result of war, riot, strikes, civil commotion, sovereign conduct, or the act or conduct of any person or persons not party to or associated with Engineered Products Company.

LED LINEAR LUMINAIRE LIMITED WARRANTY

Engineered Products Company (herein known as EPCO) warrants at its sole option, after a failure is confirmed as a true defect in materials or workmanship, EPCO will replace or refund, any LED Linear Luminaire for a period of five (5) years from original purchase. This warranty statement applies to the original purchaser and is not transferable.

Note: The Original Purchaser is identified as the "first" initial installation completed by the Building Owner.

This Warranty Statement Is Specific To The LED Luminaire Only And Is Considered Invalid When Any Of The Following Conditions Occur:

- Disassembly of LED Driver or the LED Strip by the end-user or the end-user's agent.
- Severe damage or deformation of the LED Driver or LED Strip's appearance.
- Damage to the LED Driver or LED Strip input (+) or output (-) conductors.
- LED Driver's identification codes and/or other serial numbers that have been erased, altered, modified, or damaged.
- Damage to the LED Driver or LED Strip caused by natural disasters.
- Must be installed per installation instructions and building code.

T8 LED TUBE AND FLUORESCENT LINEAR LUMINAIRE LIMITED WARRANTY

Engineered Products Company (herein known as EPCO) warrants at its sole option, after a failure is confirmed as a true defect in materials or workmanship, EPCO will replace or refund, any T8 LED Tube and Fluorescent Linear Luminaires for a period of one (1) year from original purchase. This warranty statement applies to the original purchaser and is not transferable.

This Limited Warranty does not apply to any of the following:

- Any LED Luminaire, T8 LED Tube Luminaire, or Fluorescent Luminaire "housing" that was incorrectly installed by drilling holes, puncturing, piercing or any other means that will alter the luminaire product's integrity.
- Damage caused by the use of parts, components, and/or other equipment(s) that is not compatible, suitable, or unauthorized by EPCO for use with any LED Luminaire, T8 LED Tube Luminaire, or Fluorescent Luminaire.
- Damage resulting from the use of any LED Luminaire, T8 LED Tube Luminaire, and Fluorescent Luminaire in what EPCO, at its sole discretion, considers extreme applications.
- Product damage as determined by EPCO to be caused by a crash, impact, or obvious signs of abuse to any LED Luminaire, T8 LED Tube Luminaire, or Fluorescent Luminaire.
- EPCO is not responsible for "charge-backs" for any type of labor allowance required to remove, re-install, or re-power the LED Luminaire, LED T8 Tube Luminaire, or any Fluorescent Luminaire and/or the replacement with a new luminaire.

Note: For Fluorescent Luminaires only the Ballast Warranty is limited to the "first" initial installation completed by the Building Owner. Contact the ballast manufacturer directly for more specific information on their warranty policy and procedures.

The Chemical Resistance of Plastics Chart (posted on EPCO's web site) provides an overview of those chemical compounds where these luminaires should not be installed.

To obtain a LED Luminaire, T8 LED Tube Luminaire, or Fluorescent Luminaire replacement, or to obtain a credit under this warranty, the Purchaser must contact Engineered Products Company within the specified warranty period (five years or one year) to obtain a Return Materials Authorization (RMA) form and return shipping instructions for the defective luminaire. Engineered Products Company shall have no responsibility for any LED Luminaire, T8 LED Tube Luminaire, or Fluorescent Luminaire deemed "out of warranty". Under no circumstances shall Engineered Products Company be liable for any loss or damage, whether direct or indirect, incidental, consequential, special or otherwise, arising out of or relating to the use of, or the inability to use the LED Luminaire, T8 LED Tube Luminaire, or Fluorescent Luminaire(s) in excess of the cost for replacement of any of the aforementioned luminaire(s) proven to be defective during the defined warranty period.

THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR ANY CLAIM, WHETHER IN CONTRACT, TORT, OR OTHERWISE, AND IS IN LIEU OF ANY OTHER WARRANTY, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY OF NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHT OF THIRD PARTIES. ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

THIS WARRANTY IS ALSO GOVERNED BY OUR TERMS AND CONDITIONS OF SALE AND IS WITHOUT PREJUDICE TO THE WARRANTY CLAIM PROVIDED HEREIN OF SUCH TERMS OF SALE AND DELIVERY.

PRODUCT WARRANTY

PROSERIES LED UTILITY LUMINAIRE AND LED UPGRADE LIMITED WARRANTY

As part of your obligation to EPCO's Warranty Process, please ensure this product is installed according to the following requirements:

Engineered Products Company (herein known as EPCO) warrants at its sole option, after a failure is confirmed as a true defect in materials or workmanship, EPCO will replace or refund, any ProSeries LED Utility Luminaire for a period of five (5) years from original purchase. This warranty statement applies to the original purchaser and is not transferable. This warranty only applies to the original Purchaser/Installer and is not transferable. This Limited Warranty does not apply to the following:

- Any ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade that has been incorrectly installed by drilling holes, puncturing, piercing or any other means that will alter the product's integrity.
- Damage caused by the use of parts, components, and/or other equipment(s) that is not compatible, suitable, or unauthorized by EPCO
 for use with the ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade.
- Damage resulting from use of the ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade in what EPCO, at its sole discretion, considers extreme applications.
- Product damage as determined by EPCO to be caused by a crash, impact, or obvious signs of abuse to the ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade.
- EPCO is not responsible for "charge-backs" for any type of labor allowance required to remove, re-install, or re-power the to remove, re-install, or re-power any ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade.

PROSERIES LED UTILITY LUMINAIRE AND LED UPGRADE - Installation Requirement

For 120 VOLT OPERATION ONLY! If the working environment of the ProSeries LED Utility Luminaire and LED Utility Luminaire Upgrade will create a class 3 or greater surge voltage, the Purchaser/Installer must install a Surge Protector. A surge suppressor (TVSS device) prevents harmful surge voltages from damaging or destroying the ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade.

Select a surge suppressor that includes the following (minimum) features:

- Low let-through under IEEE Category B3, C1 and C3 test waves
- Independently tested to the published surge current ratings (per phase)
- Internal fuses
- Internal monitoring features (for both open and shorted MOV failures
- Electrical noise filtering between 55dB at 100 kHZ
- A small footprint design for more effective installation.
- Listed under UL 1449, UL 1283, and meets CSA approval.

Note: Failure to install a Surge Protection device prior to the installation and use of the ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade will automatically VOID the warranty and Engineered Products Company is not responsible for any or all reinstallation activities, cost, or expenses associated with the use of the ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade or replacement of the ProSeries LED Utility Luminaire and/or LED Utility Luminaire Upgrade.

EPCO MOTION SENSING LED CLOSET LUMINAIRE LIMITED WARRANTY

Engineered Products Company (herein known as EPCO) warrants that it will repair, replace or refund, at EPCO's sole option, any Motion Sensing LED Closet Luminaire that is determined to be defective in materials or workmanship for a period of five (5) years from the date of original purchase. This warranty only applies to the original Purchaser/Installer and is not transferable. This Limited Warranty does not apply to the following:

- Any Motion Sensing LED Closet Luminaire that has been incorrectly installed by drilling holes, puncturing, piercing or any other means that will alter the product's integrity.
- Damage caused by the use of parts, components, and/or other equipment(s) that is not compatible, suitable, or unauthorized by EPCO for use with the Motion Sensing LED Closet Luminaire.
- Damage resulting from use of the Motion Sensing LED Closet Luminaire in what EPCO, at its sole discretion, considers extreme
 applications.
- Product damage as determined by EPCO to be caused by a crash, impact, or obvious signs of abuse to the Motion Sensing LED Closet Luminaire.
- There are absolutely no charge-backs for any labor required to remove, re-install, or re-power the Motion Sensing LED Closet Luminaire.

