

# STRIP-LIGHT RETROFIT CONVERSION KITS™

Engineered Products Company's Retrofit Conversion Kits convert older 4-foot and 8-foot T8 or T12 strip light fixtures into energy efficient T5 or T8 light fixtures. Each kit includes T5 or T8 Bi-Pin Lamp Sockets, Retrofit Bracket Socket Plates, and Self-Tapping Screws.

- Complies with UL Standard 1598B.
- Pre-wired conversion kit bracket; Installer only needs to complete ballast lead terminations to finish conversion kit bracket installation.
- Pre-painted with smooth, glossy, highly reflective white paint.
- Includes holes for installing Ballast Cover or Reflectors.

## BENEFITS FOR THE FACILITY OWNER

- Simple upgrade to an energy efficient T5 or T8 light fixture.
- Your original light fixture housing is reused. This reduces the retrofit conversion time to a new T5 or T8 light fixture at half the cost and half the time compared to the installation of a new fixture.
- Improved lumen performance, lighting quality, and longer lamp life.
- Simplifies your lamp inventory to one lamp type and color temperature.
- When you convert your old light fixtures to T5 or T8 light fixtures using EPCO's Retrofit Conversion Kit you will realize energy savings up to 49% and your ROI can be as short as 15 months.

## DISTRIBUTOR BENEFITS

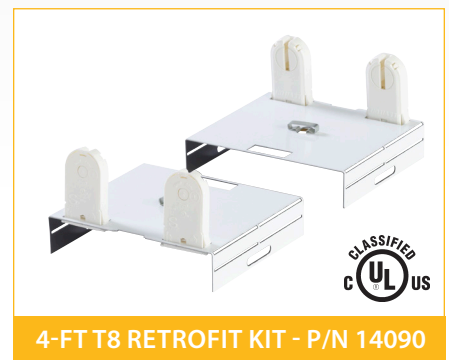
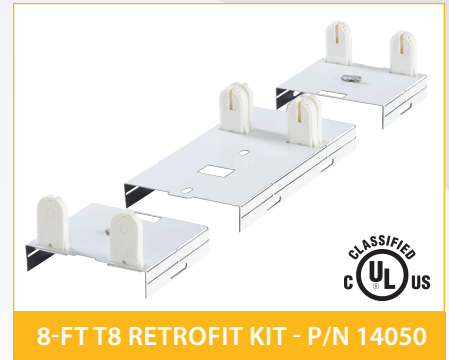
- The combination of EPCO's low cost Retrofit Conversion Kit, electronic ballasts, and T5 or T8 fluorescent lamps are recognized as the most energy efficient lighting system today.
- EPCO's Retrofit Conversion Kits are made in the USA, complies with the American Recovery and Reinvestment Act (ARRA), and allows Contractors to readily participate in Government sponsored lighting retrofit projects.

## 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 ballast, T5 or T8 lamps, and the low cost of EPCO's Retrofit Conversion Kits is a fast and easy installation.
- Requires minimal rewiring.
- Minimal recycling on the jobsite.

**Note:** \*1. **T8 RETROFIT KIT FOR USE WITH INSTANT START BALLAST ONLY EXCEPT P/NS 14070, 14070B, 14071, 14076 AND 14077!**  
 2. Retrofit Conversion Kits accommodate fixture 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. **Our Retrofit Conversion Kits may be suitable for use with Linear LED Retrofit Lighting.** These designated Retrofit Conversion Kit part numbers fitted with "non-shunted" lamp holders are suitable for use with linear LED engines (T5 and T8 shaped LED tubes) as long as the LED engine is classified per UL 1598C.

Specifications subject to change without prior notice.



## TYPICAL APPLICATIONS:

- Commercial and 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 lighting systems will provide improved lumen output and energy savings.

[www.engproducts.com](http://www.engproducts.com)

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# STRIP-LIGHT RETROFIT CONVERSION KITS

## BALLAST COVERS AND REFLECTORS

- 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.
- Standard Ballast Cover (Steel) - P/N 14080: White, Reflectance 92%.
- 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%.

P/N 14080: Standard Ballast Cover



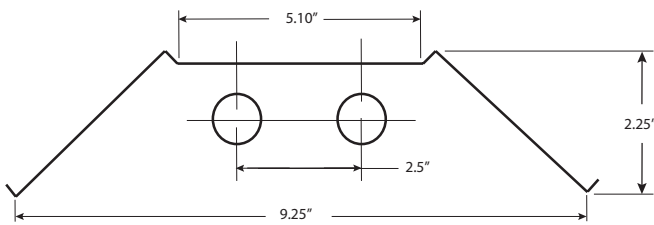
P/Ns 14091 and 14095: White Reflector



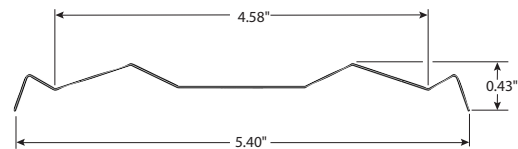
P/Ns 14092 and 14096: Specular Reflector



P/N 14085: 1/4 Turn Retainer Clips

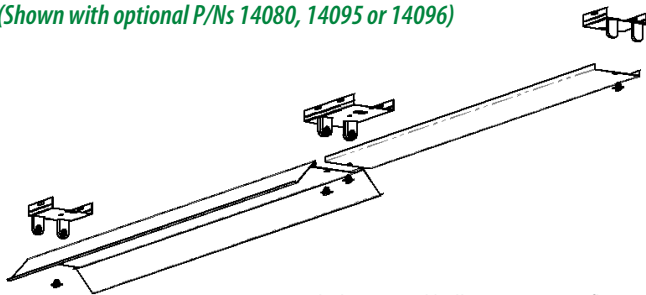


10-inch Reflector



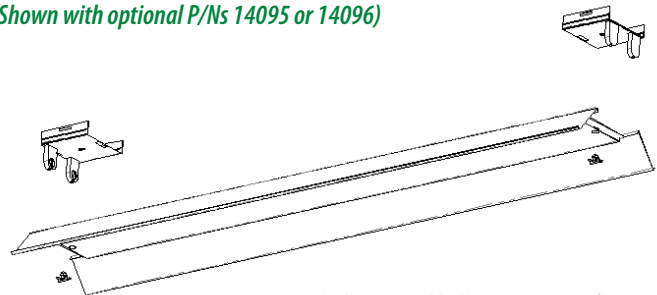
6-inch Reflector

**Part Numbers - 14060 and 14050:** Converts an 8-foot, 2 Lamp T12 "strip-type" Light Fixture into an 8-foot, 4 Lamp T5 or T8 Light Fixture (Shown with optional P/Ns 14080, 14095 or 14096)



**Note:** Does not include optional ballast covers or reflectors.

**Part Numbers -14066 and 14090:** Converts a 4-foot, 2 Lamp T12 "strip-type" Light Fixture into a 4-foot, 2 Lamp T5 or T8 Light Fixture (Shown with optional P/Ns 14095 or 14096)



**Note:** Does not include optional ballast covers or reflectors.

## What Are You Spending on Annual Light Fixture Cost? Energy Savings Comparison: T12 Lamps vs. T8 Lamps

1. Annual Energy Cost to operate one (1) 8-foot Light Fixture with two (2) T12 F95 HO Lamps

**Note:** One (1) F95 HO Lamp consumes 95-watts. The 8-foot Light Fixture is configured for 2 Lamps = 190-watts.  
Convert to kWh: 190-watts divided by 1000 = .190 x 24 hours x .10 kWh = \$0.456 per day.

- Daily Usage: 24 hours
- Energy Cost @ \$0.10 per kWh per Day
- Cost of Energy Used per Day: \$0.456
- Operating Days per Year: 365
- Annual Cost of Energy Used: \$166.44

**100,000 Sq. Ft.  
Warehouse with  
375 Fixtures**

\$166.44

2. Annual Energy Cost to operate one (1) 8-foot Light Fixture (operating with standard power ballast) with four (4) F32 T8 Lamps

- Daily Usage: 24 hours
- Energy Cost @ \$0.10 per kWh per Day
- Cost of Energy Used per Day: \$0.307
- Operating Days per Year: 365
- Annual Cost of Energy Used: \$112.10

\$112.10

3. Annual Energy Cost to operate 375 8-foot Light Fixtures with two (2) T12 F95 Lamps

\$62,415.00

4. Annual Energy Cost to operate 375 8-foot Light Fixtures with four (4) T8 F32 Lamps

- \$42,037.50

5. Annual Energy Savings to operate 375 8-foot Light Fixtures with four (4) T8 F32 Lamps

\$20,377.50

6. Annual Savings for the Facility Owner

33% per Fixture

## What Your New Light Fixtures Will Cost to Install

1. Purchase price of 375 8-foot, four lamp T8 "strip-type" Light Fixtures including four (4) F32 T8 Lamps per Fixture.

\$31,875.00<sup>(1)</sup>

2. Removal and Recycling Cost for 375 Light Fixtures (includes T12 light fixture housing, magnetic ballasts, lamp holders and lamps). Install 375 new 8-foot "strip-type" Light Fixtures and four (4) F32 T8 Lamps per Fixture.

+ \$30,468.75<sup>(2)</sup>

3. Total Installed Cost for 375 new 8-foot Light Fixtures

\$62,343.75

4. Less Rebate from Electric Utility

- \$10,500.00<sup>(3)</sup>

5. Net Cost for 375 new 8-foot Light Fixtures

\$51,843.75

6. Return on Investment (ROI) to Facility Owner

30 Months

## The Installed Cost of EPCO's T8 Retrofit Conversion Kits vs. Installing New Light Fixtures

1. Recycling Cost to Retrofit 375 8-foot "strip-type" Light Fixtures (includes removal of T12 magnetic ballast, lamps and lamp holders). Install 375 EPCO T8 Retrofit Conversion Kits including four (4) F32 T8 Lamps per Fixture

\$37,132.50<sup>(4)</sup>

2. Total Installed Cost for 375 EPCO T8 Retrofit Conversion Kits

\$37,132.50

3. Less Rebate from Electric Utility

- \$10,500.00<sup>(3)</sup>

4. Net Cost for 375 EPCO T8 Retrofit Conversion Kits

\$26,632.50

5. Total Savings to the Facility Owner when installing EPCO T8 Retrofit Conversion Kits vs. New Fixtures

49%

6. Return on Investment Time frame to the Facility Owner

15 Months

**Note:** 1. Average Price of an 8-foot, 4 Lamp T8 Light Fixture is approximately \$75.00/each (includes taxes and shipping) plus an average price of \$10.00 for four (4) T8 F32 Lamps.

2. Based on the 2011 US Average Contractor Rate of \$65.00/hour. De-powering, removal and recycling time for the old T12 Light Fixture; re-hang, re-pipe, re-power and re-lamp a new 8-foot, T8, 4 lamp Light Fixture is approximately 1.25 hours or \$81.25 per Light Fixture.

3. Based on the 2010 Excel Energy (Minnesota) Lighting Retrofit Rebate schedule. The listed rebate for an 8-foot two (2) lamp Fluorescent Light Fixture with High Efficiency Electronic Ballast is approximately \$28.00. Note: The Lighting Retrofit Rebate schedule from your local Electric Utility may be higher or lower!

4. Trade Price for EPCO's T8 Retrofit Conversion Kit including ballast is \$40.27 each, plus an average price of \$10.00 for four (4) T8 F32 Lamps. Approximate time to install EPCO's Retrofit Conversion Kit, recycle old magnetic ballast, old T2 Lamps and Lamp Holders for each Light Fixture is approximately 0.75 per hour or \$48.75 per Light Fixture.

# STRIP-LIGHT RETROFIT CONVERSION KITS

Catalog Number	UPC Number	Description	Order Unit	Order Qty	Unit Pkg	Units/Case	TL Case Qty	Min Order Qty	MM Req	Ship Wt (Lbs)
<b>T5 Retrofit Conversion Kits</b>										
14060†	14060	T5 Retrofit Conversion Kit: for 8-FT Fixture, 4 Lamp	EA	1	BG	10	10	10	Yes	11
14065†	14065	T5 Retrofit Conversion Kit: for 8-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	11
14066†	14066	T5 Retrofit Conversion Kit: for 4-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	6
14067†	14067	T5 Retrofit Conversion Kit: for 4-FT Fixture, 1 Lamp	EA	1	BG	10	10	10	Yes	6
<b>T8 Retrofit Conversion Kits*</b>										
14050	14050	T8 Retrofit Conversion Kit: for 8-FT Fixture, 4 Lamp	EA	1	BG	10	10	10	Yes	11
14050B	14052	T8 Retrofit Conversion Kit (BULK): for 8-FT Fixture, 4 Lamp	EA	1	BN	20	20	20	Yes	23
14051	14051	T8 Retrofit Conversion Kit: for 8-FT Fixture, 4 Lamp, with Jumper and WAGO® Connector	EA	1	BG	10	10	10	Yes	12
14051B	14053	T8 Retrofit Conversion Kit (BULK): for 8-FT Fixture, 4 Lamp with Jumper and WAGO® Connector	EA	1	BN	20	20	20	Yes	24
14055	14055	T8 Retrofit Conversion Kit: for 8-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	11
14056	14056	T8 Retrofit Conversion Kit: for 8-FT Fixture, 2 Lamp, with Jumper and WAGO® Connector	EA	1	BG	10	10	10	Yes	11
14057	14057	T8 Retrofit Conversion Kit: for 4-FT Fixture, 1 Lamp	EA	1	BG	10	10	10	Yes	6
14070†	14070	T8 Retrofit Conversion Kit: for 8-FT Fixture, 4 Lamp, to be used with Programmed Start Ballast ONLY	EA	1	BG	10	10	10	Yes	11
14070B†	14072	T8 Retrofit Conversion Kit (BULK): for 8-FT Fixture, 4 Lamp to be used with Programmed Start Ballast ONLY	EA	1	BN	20	20	20	Yes	24
14071†	14071	T8 Retrofit Conversion Kit: for 8-FT Fixture, 2 Lamp, to be used with Programmed Start Ballast ONLY	EA	1	BG	10	10	10	Yes	12
14076†	14076	T8 Retrofit Conversion Kit: for 4-FT Fixture, 2 Lamp, to be used with Programmed Start Ballast ONLY	EA	1	BG	10	10	10	Yes	6
14077†	14077	T8 Retrofit Conversion Kit: for 4-FT Fixture, 1 Lamp, to be used with Programmed Start Ballast ONLY	EA	1	BG	10	10	10	Yes	6
14090	14090	T8 Retrofit Conversion Kit: for 4-FT Fixture, 2 Lamp	EA	1	BG	10	10	10	Yes	6
<b>Retrofit Conversion Kit Accessories</b>										
14080	14080	Standard Ballast Cover: 4-FT - White, 1/4 Turn Retainer Clips for 4.25" Wide Fixture Housing ONLY	EA	1	BX	20	20	20	Yes	27
14085	14085	1/4 Turn Retainer Clips: for Ballast Cover and Reflectors	EA	1	BG	42	42	42	Yes	1
14091	14091	White Reflector: 6-inch - Nominal Width 5.40", with 1/4 Turn Retainer Clips, for 4.58" Wide Fixture Housing ONLY	EA	1	BX	20	20	20	Yes	14
14092	14092	Specular Reflector: 6-inch - Nominal Width 5.40", with 1/4 Turn Retainer Clips, for 4.58" Wide Fixture Housing ONLY	EA	1	BX	20	20	20	Yes	14
14095	14095	White Reflector: 10-inch - Nominal Width 9.25", with 1/4 Turn Retainer Clips, for 5.10" Wide Fixture Housing ONLY	EA	1	BX	20	20	20	Yes	16
14096	14096	Specular Reflector: 10-inch - Nominal Width 9.25", with 1/4 Turn Retainer Clips, for 5.10" Wide Fixture Housing ONLY	EA	1	BX	20	20	20	Yes	16

## Shunted vs. Non-Shunted Lamp Holder Sockets

When converting old "strip-type" luminaires that use magnetic ballast to energy efficient 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 T8 LED Tubes are energized. See the example shown to the right.



## PRODUCT WARRANTY

EPSCO warrants the products described herein, will be furnished free from defects in material and workmanship for 1 year. Any exceptions will be indicated on the product or product packaging. EPSCO's 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. The Purchaser in a written notice to Engineered Products Company's Warranty Department must specify any Product(s) that is deemed to be defective 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 person not party to or associated with Engineered Products Company.

## UNITS OF MEASURE KEY

Order Unit: The Unit to be ordered; Order Qty: Number of pieces in each Unit; Unit Pkg: Packaging types - BG (Bag), BX (Box), BN (Bulk); 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.

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