

## TKB – Full Distribution Troffer Conversion

### Convert Full Cutoff 3-Lamp Parabolic Troffers to Full Distribution 2-Lamp Troffers.

- Older 3-Lamp, Full Cutoff, Deep Cell Specular Louvered Troffer systems were designed with 1st generation CRT and Monitor glare management in mind.
- CRT technology has changed, and the aesthetic paradigm has evolved. Today's office environments often require full distribution lighting, updated aesthetics, and maximum energy efficiency.
- The TKB system will convert a thirty year old T12 or even a five year old T8 Parabolic Troffer, with 3-lamp cross section, to modern 2-lamp Full Distribution system utilizing the latest electronic ballast technology.

### Convert instead of replacing fixtures on your re-lighting project;

- Order with step-dim ballast and GTS for instant Hi-Lo Controls
- Lower cost...
- Reduced labor...
- No landfill of old fixture body.

### Why P2? It's Simple, Our Experience

- We've been focused on nothing but supporting energy efficient re-lighting projects since 1992. Hit a dead end? Give our application support team a try.

### TKB -Conversion Kit



### Kit Includes

- T5 Kits are pre-wired.
- T8 Kits are wired during install.
- (1) New Fixture Liner
- (1) New Double Barrel Louver Assembly
- (2) Socket Bars
- (4) Sockets
- (4) Self Tapping Tech Screws
- (1) Electronic Ballast
- (1) Ballast Disconnect
- (1) Installation Instructions
- Lamps Optional

## TKB – 2x4 – T5 – UL1 – MN – UE

TKB	2x4	T5	UL1	MN	UE	IS	
Model	Fixt Size	Lamp Type	Voltage	Ballast Factor	Ballast Grade	Ballast Starting	Other

#### Fixture Series

TKB = Standard Troffer Kit

#### Fixture Size

2X4 = 2x4 Nominal  
2x2 = 2x2 Nominal

#### Lamp Type

T5 = Linear T5 Lamps  
T5H0 = Linear T5HO Lamps  
T8 = Linear T8 Lamps

#### Voltage

UL1 = Universal 120-277  
UH1 = Universal 347-480

#### Numeric Footnote

- (1) Ballast factors outside ranges shown to be called out numerically.
- (2) Contact Factory for Ordering Assistance)
- (3) Can only be used in conjunction with a step dim ballast or 2 standard ballasts

#### Ballast Factor (1)

LP = Low Power (.75 - .78)  
MP = Mid Power (.85 - .88)  
MN = Neutral Power (.97 - 1.04)  
HP = High Power (1.15 - 1.20)

#### Ballast Grade

ST = Standard Grade  
UE = Ultra Efficient T8

#### Ballast Starting Method

IS = Instant Start  
ISD = Instant Start Step Dimming  
IVD = Instant Start 0-10v Variable Dim  
PS = Programmed Start  
PSD = Program Start Step Dimming  
PSH = Program Start Hi-Lo  
PVD = Program Start 0-10v Variable Dim

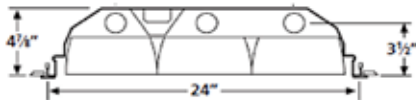
#### Other

GTS = Hi-Lo Control Single  
Circuit Toggle Switch (3)

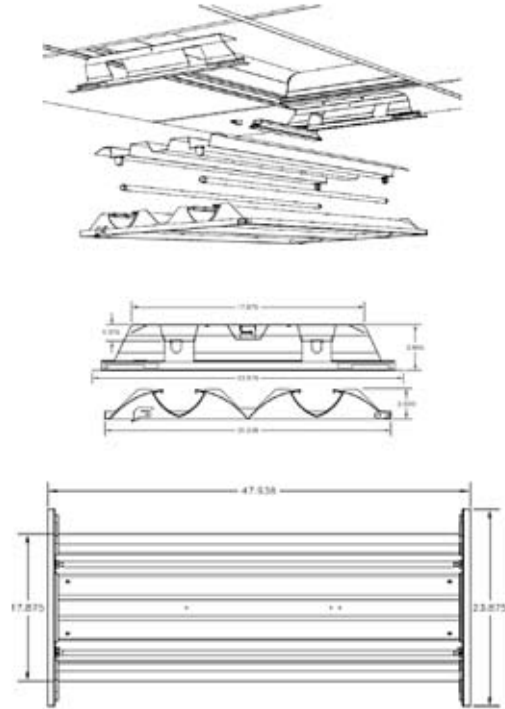
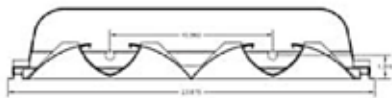
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### Conversion Example

Before: 3L40 T12, 115 Watts  
Full Cutoff



After: 2L28 T5, 63 Watts  
Full Distribution



### Existing System

Existing Lamp / Ballast System	Lamp Quantity & Type	Mean Lumens Per Lamp	Mean Lumens Per Fixture	Ballast Factor	Net Lumens Per Fixture	Input Watts	Net Lumens Per Watt
3L40-T12 Mag	3 F40/T12/WM	2,280	6,840	0.88	6,019	115	52
3L32-T8-MP Elec	3 F32T8/741	2,660	7,980	0.87	6,943	80	87

### Re-Lighting Options

Proposed Lamp / Ballast System	Lamp Quantity & Type	Mean Lumens Per Lamp	Mean Lumens Per Fixture	Ballast Factor	Net Lumens Per Fixture	Input Watts	Net Lumens Per Watt
2L28-T5 Elec	2 F28T5/841	2,418	4,836	1.00	4,836	63	77
2L54-T5-HO Elec	2 F54/T5HO/841	4,600	9,200	1.00	9,200	117	79
2L32-T8-LP Elec	2 F32T8/841	2,800	5,600	0.77	4,312	48	90
2L32-T8-MP Elec	2 F32T8/841	2,800	5,600	0.87	4,872	53	92
2L32-T8-MN Elec	2 F32T8/841	2,800	5,600	1.04	5,824	64	91
2L32T8-HP Elec	2 F32T8/841	2,800	5,600	1.15	6,440	73	88

### General Notes

- Lamp/ballast system values shown are a general reference intended to supply a quick comparison of several common lamp/ballast systems, the associated energy consumption, and net lumen output.
- Fixture efficiencies and layout are not comprehended in the table, but will determine the usefulness of the system.
- Values shown are based on normal operating temperatures (25c T8 and 35c T5) and at 277 volts.
- There are many operating variables that affect system output, in addition to rating variances from brand to brand.
- All T8 electronic ballast values shown are based on Ultra Efficient (aka 3rd Generation) T8 ballasts.
- All T5 and T8 lamp values shown are for basic grade lamps. Extended life and higher lumen lamps types are available.
- In addition to those shown there are a wide variety of systems to choose from, each with distinct features and cost points.
- Please consult the lamp/ballast manufacturer's catalogs for the detailed information required to model your system.