

## CKU-RR Recessed Row Retail Conversion Kits

### 👁️ Retailers Demand Performance

- Once the epitome of energy efficiency, F96 based recessed row main ceiling systems now represent major opportunities to reduce costs and improve the illuminated environment on the sales floor.
- The CKU-RR, and other P2 custom solutions, provide retailers an opportunity to upgrade outside of a complete store remodel.

### 👁️ Eliminate Costly F96 Lamps

- Short life, 12,000 hours. Frequent outages, heavy maintenance costs.
- Energy hogs, 50-60 lumens per watt.
- Steep lumen depreciation leads to reduced light levels between group relamp cycles.

### 👁️ CKU-RR Pre-Wired Units deliver...

- Labor saving pre-wired installation.
- Modern T8 efficiency, 80-90 lumens per watt.
- High T8 color rendering (80+) with most common lamp types.
- Excellent lumen maintenance 90%+ at end of life.

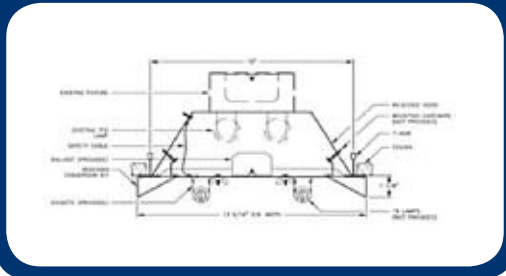
### 👁️ Why P2? It's Simple, Our Experience

- We have designed custom products and supplied energy efficient lighting systems used in major retail projects since 1991.
- Our experience in retail grocery energy efficient relighting is second to none.
- The CKU-RR is just one example of custom solutions we've provided for major retail grocers. Got an application challenge? Bring it to us, you'll be glad you did.

### 👁️ CKU-RR Pre-Wired Conversion Kits



### 👁️ Cross Section



### CKU - RR - 4L - T8 - 1x8 - ETO - UL1 - MP - UE - IS

CKU	RR	4L	T8	1x8	ETO	UL1	MP	UE	IS	
Model	Unit Type	Lamp Qty	Lamp Type	Fixt Size	Channel Detail	Voltage	Ballast Factor	Ballast Grade	Ballast Starting	Other

#### Fixture Series

CKU = Unitized Conversion Kit

#### Unit Type

RR = Recessed Row

#### Lamp Quantity

2L = 2 Lamps

4L = 4 Lamps

#### Lamp Type

T8 = Linear T8 Lamps

T5 = Linear T5 Lamps

T5HO = Linear T5HO Lamps

#### Fixture Size

1X8 = 1x8 Nominal

1X4 = 1x4 Nominal

#### Channel Detail

ETO = Engineered to Order

#### Voltage (1)

UL1 = Universal 120-277

#### Ballast Factor (2)

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

PS = Rapid/Programmed Start

IS = Instant Start

ISD = Instant Start Step Dimming

IVD = Instant Start 0-10v Variable Dim

PSD = Program Start Step Dimming

PSH = Program Start Hi-Lo

PVD = Program Start

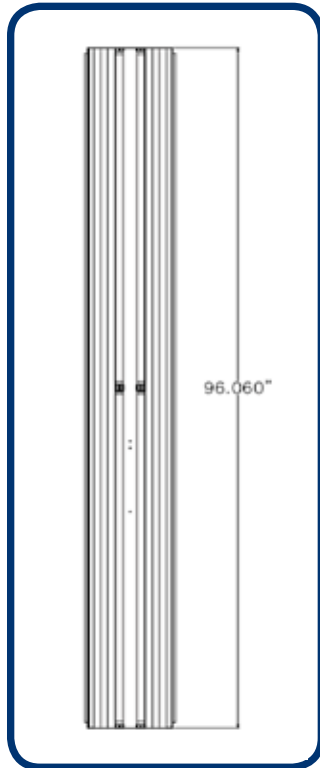
0-10v Variable Dim

#### Numeric Footnotes

(1) Numeral indicates number ballasts per fixture.

(2) Ballast factors outside ranges shown to be called out numerically.

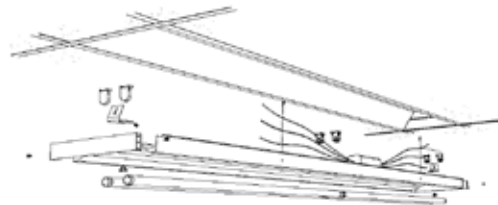
## CKU-RR Recessed Row Retail Conversion Kits



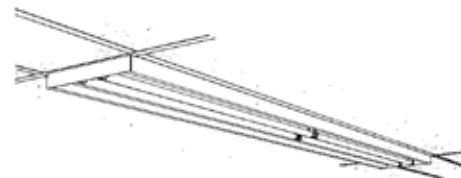
Before: F96T12/ES = 123 Watts  
12,000 Hours, 70% Lumen Maint  
60+CRI



During: Low Cost Conversion  
Existing Main Ceiling  
No Interruption to Retail  
Hours



After: F32T8/LP = 96 Watts  
30,000 Hours, 90% Lumen Maint  
80+CRI



### 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
1L96-T12 Mag	1 F96/T12/ES	4,750	4,750	0.88	4,180	76	55
2L96-T12 Mag	2 F96/T12/ES	4,750	9,500	0.88	8,360	126	66
1L96-T12HO Mag	1 F96/T12HO/ES	6,950	6,950	0.95t	6,603	125	53
2L96-T12HO Mag	2 F96/T12HO/ES	6,950	13,900	0.93	12,927	210	62

### 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
2L32-T8-LP Elec	2 F32T8/841	2,800	5,600	0.77	4,312	48	90
4L32-T8-LP Elec	4 F32T8/841	2,800	11,200	0.77	8,624	96	90
2L32-T8-MP Elec	2 F32T8/841	2,800	5,600	0.87	4,872	53	92
4L32-T8-MP Elec	4 F32T8/841	2,800	11,200	0.87	9,744	107	91
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
4L32T8-HP Elec	4 F32T8/841	2,800	11,200	1.15	12,880	147	88
2L54-T5-HO Elec	2 F54/T5HO/841	4,600	9,200	1.00	9,200	117	79
2L54-T5-HO Elec	4 F54/T5HO/841	4,600	18,400	1.00	18,400	234	79

#### 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.
- Values shown are based on normal operating temperatures (25c T8 and 35c T5) and at 277 volts.
- Fixture efficiency percentages are generally representative of each system type, actual values will vary.
- 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.