

TCP's LED E-Series troffers gives you the appearance of fluorescent technology with a tube-like glow.

## Limitless options for the following applications:

- Offices
- Restaurants
- Retail Stores
- Lobbies
- Schools
- Hospitals
- Any Grid Ceiling

## Great features and benefits:

- Long life: 50,000 hours
- LM80 certified LEDs
- Smooth, uniform dimming (120V)
- High efficiency alternative to T12 and T8 linear fluorescent troffers
- Excellent color consistency and superior lumen maintenance
- UL/cUL listed



2 x 2 LED E-Series  
Flat Troffer



2 x 4 LED E-Series  
Flat Troffer



LED  
we know light.™



## TCP E-Series LED Flat Panel Troffers

**LED** 50,000 Hours average rated life, 120-277 Volts

### 2x2 LED Energy Savings

SYSTEM	BALLAST FACTOR	INPUT WATTS	LED ENERGY SAVINGS (%)
TCP 4000 Lumen 2X2 LED	1.0	45	
2 Lamp 34W T12 U-Bend	0.88	74	39%
2 Lamp 32W T8 Ubend	0.88	58	22%
2 Lamp 24W T5 HO	1.0	54	17%

### 2x4 LED Energy Savings

SYSTEM	BALLAST FACTOR	INPUT WATTS	LED ENERGY SAVINGS (%)
TCP 4000 Lumen 2X4 LED	1.0	45	
2 Lamp 32W T8 HBF	1.18	74	39%
2 Lamp 28W T5	1.0	63	29%
2 Lamp 32W T8 NBF	0.88	59	24%

### Features

Up to 39% less energy than fluorescent alternatives

Long life

Very low heat generation

Excellent color consistency and CRI

Mercury free

### Benefits

Instant energy savings.

Minimizes replacement and maintenance costs.

Less energy wasted as heat.

Enhances colors of focal point while maintaining uniformity throughout lighting installation.

Great for all environments

### Specifications

Input Line Voltage:	120 - 277 VAC
Input Line Frequency	50/60HZ
Lamp Life (Rated)	50,000 hrs
Minimum Starting Temp	-30°C
Maximum Operating Temp	40°C
CRI	82



**5** YEAR WARRANTY

For the most up-to-date specs and warranty information, please visit [www.tcp.com](http://www.tcp.com)

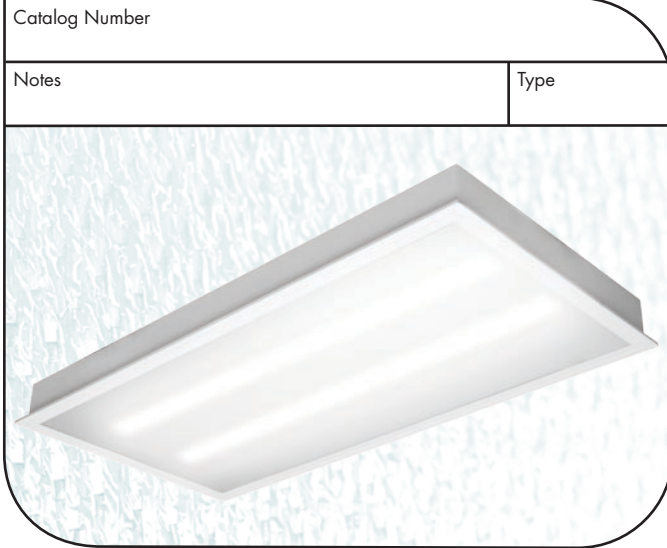
TCP

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## TCP E-Series 2x4 LED Flat Panel Troffer



### Application

The TCP LED lay-in troffers are high efficiency alternatives to T8 and T12 linear fluorescent troffers. Our intelligent high performance LED light engines and drivers deliver long life, consistent color, and superior lumen maintenance. Applications include offices, schools, retail locations, hospitals, and any other grid ceiling.

### Construction

The TCP LED troffer is constructed of rugged cold-rolled steel, post painted with a highly diffuse white finish. End plates are designed to mount in a variety of grid ceiling types. The diffuser is a one piece impact resistant acrylic which provides a wide distribution.

### Electrical

All electrical components are UL/cUL listed. TCP high efficiency drivers provide consistent power to ensure even lighting from the long life LEDs. Each driver is matched to a light engine to deliver LM80 rated performance for 50,000 hours. Full range dimming is optional.

### Optics

The one piece flat acrylic diffuser comes in two styles, opaque or A12 clear prismatic. The opaque lens provides an even glow while the clear prismatic lens mimics the look of traditional prismatic troffers.

### 2' x 4' LED Flat Panel Troffer

#### Installation

Grid ceiling mounted. Flat edge design provides mounting into standard 1" and 9/16" tee bar grids. Before installation, please consult your local ordinances and building codes for compliance.

#### Warranty

Five years against defects in manufacturing.

#### Listing

UL/cUL listed.

### Catalog Ordering Matrix

Brand	Family	Size	Voltage and Controls	Lumen Package	Color
TCPE - TCP E-Series	TRF - Flat Opaque TRP - Flat Prismatic	4 - 2' x 4'	UNI - 120V-277V 120DIM - 120V, Line Dim	40 - 4000 Lumens (2' x 4') 68 - 6800 Lumens (2' x 4')	30K - 3000K 35K - 3500K 41K - 4100K 50K - 5000K

### TCP

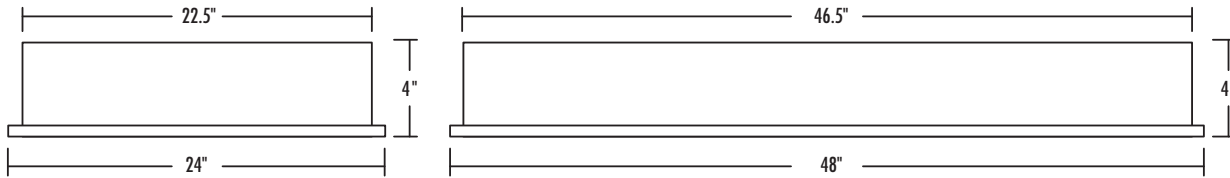
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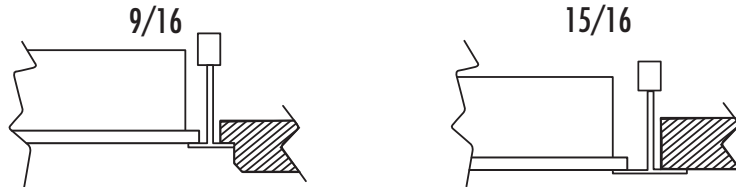
## TCP E-Series 2x4 LED Flat Panel Troffer

### Dimensions and Mounting Data



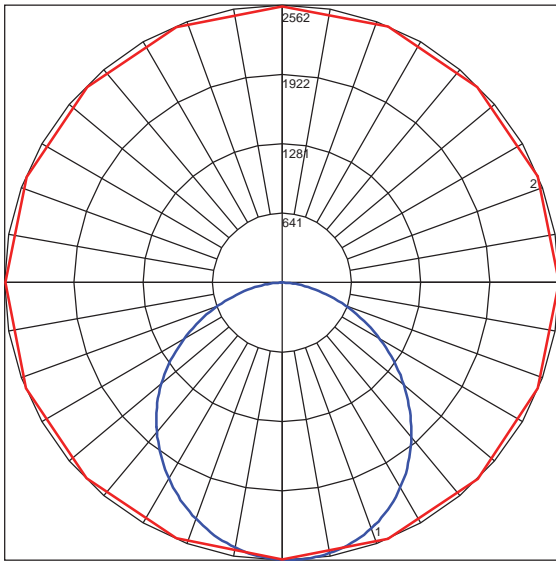
Length: 48"  
Width: 24"  
Depth: 4"

All dimensions are in inches unless otherwise specified.



### Photometric Report

#### Luminous Intensity Distribution Diagram TCPE TRF 4 UNI 68 30K



Maximum Candela = 2562.35 Located At Horizontal Angle = 292.5, Vertical Angle = 2  
# 1 - Vertical Plane Through Horizontal Angles (292.5 - 112.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2) (Through Max. Cd.)

#### Candela Distribution

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	82	78	74	79	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

#### Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	930.40	N.A.	13.70
0-30	1962.2	N.A.	28.80
0-40	3181.76	N.A.	46.70
0-60	5479.61	N.A.	80.50
0-80	6692.33	N.A.	98.30
0-90	6803.55	N.A.	99.90
10-90	6561.88	N.A.	96.40
20-40	2251.35	N.A.	33.10
20-50	3479.69	N.A.	51.10
40-70	3081.14	N.A.	45.20
60-80	1212.72	N.A.	17.80
70-80	429.43	N.A.	6.30
80-90	111.23	N.A.	1.60
90-110	1.86	N.A.	0.00
90-120	3.24	N.A.	0.00
90-130	4.40	N.A.	0.10
90-150	6.09	N.A.	0.10
90-180	6.91	N.A.	0.10
110-180	5.04	N.A.	0.10
0-180	6810.46	N.A.	100.00

Total Luminaire Efficiency = N.A.%

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