



# LED Standard Flat Panel Luminaires



TCP's LED Flat Panel Luminaire features a slim, low-profile design with full panel diffusion and superior uniformity.

It offers a cost effective solution to maximize savings and take advantage of utility rebates without sacrificing performance.

## Reasons to choose the LED Standard Flat Panel Luminaires from TCP

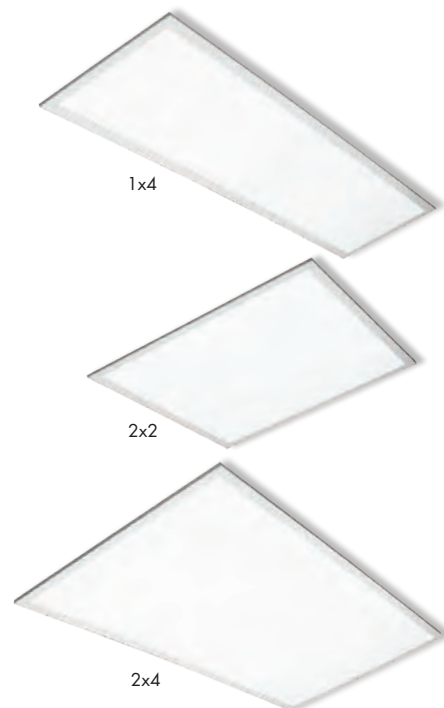
- Up to 51% less energy than fluorescent alternatives
- Long life: 50,000 hours
- Excellent color consistency & CRI to enhance color of focal point and maintaining uniformity throughout lighting installations
- Mercury free, great for all environments
- Fits standard 1" and 9/16" T-bar grid ceilings for easy installation and retrofit application
- Utilizes edge-lit technology for full diffusion with excellent uniformity
- Slim, low-profile design is lightweight for easy handling, allows more items per pallet to reduce shipping cost and storage space.

## Ideal Applications

- Offices
- Schools
- Restaurants
- Retail Stores
- Hospitality
- Healthcare

### Specifications

Input Line Voltage .....	120-277 VAC
Input Line Frequency (Hz) .....	50/60HZ
Wattage (W)	
1x4 .....	23W/29W/38W
2x2 .....	23W/29W/38W
2x4 .....	29W/39W/46W
Lumens (L)	
1x4 .....	2600L/3200L/4200L
2x2 .....	2700L/3200L/4100L
2x4 .....	3600L/4600L/5200L
Lumens per Watt (LPW).....	>100 LPW
Rated Life.....	50,000 hours
Minimum Starting Temperature .....	-20°C
Maximum Operating Temperature.....	40°C
CRI.....	>80
Power Factor .....	>90%
THD.....	<20%
Ratings .....	UL/cUL damp location rated, IC rated, IP20
Controls .....	0-10V dimming (standard)



### Replacement Strategy

SYSTEM	BALLAST FACTOR	LUMENS	INPUT WATTS*	LED ENERGY SAVINGS
<b>TCP LED Flat Panel - 1x4</b>		<b>3200</b>	<b>29</b>	
2 Lamp 28W T5	1.0	3968	64	55%
1 Lamp 54W T5HO	1.0	3395	61	52%
2 Lamp 32W T8 NBF	0.88	3827	54	46%
<b>TCP LED Flat Panel - 2x2</b>	—	<b>4100</b>	<b>38</b>	—
2 Lamp 34W T12 U-Bend	0.88	4420	74	49%
2 Lamp 32W T8 U-Bend	0.88	4275	58	35%
2 Lamp 24W T5HO	1.0	3145	54	30%
<b>TCP LED Flat Panel - 2x4</b>	—	<b>5200</b>	<b>46</b>	—
3 Lamp 32W T8 HBF	1.18	6960	93	51%
3 Lamp 32W T8 NBF	0.88	6681	89	48%
2 Lamp 32W T8 HBF	1.18	4658	65	29%
2 Lamp 28W T5	1.0	4675	63	27%
2 Lamp 32W T8 NBF	0.88	4468	59	22%

\*Actual wattage may differ by +/- 5%, when operating between 120-277V +/- 10%.

**NOTE:** Charts show system lumens (delivered lumens), NOT straight lamp lumen output. This is calculated as follows:

**System lumens = mean lumens x # lamps x ballast factor x luminaire efficiency factor**

### Applications

TCP LED Flat Panel luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED flat panels use edge-lit technology to deliver full panel diffusion and superior uniformity. Applications include offices, schools, retail locations, healthcare, hospitality and other T-grid and commercial ceilings.

### Construction

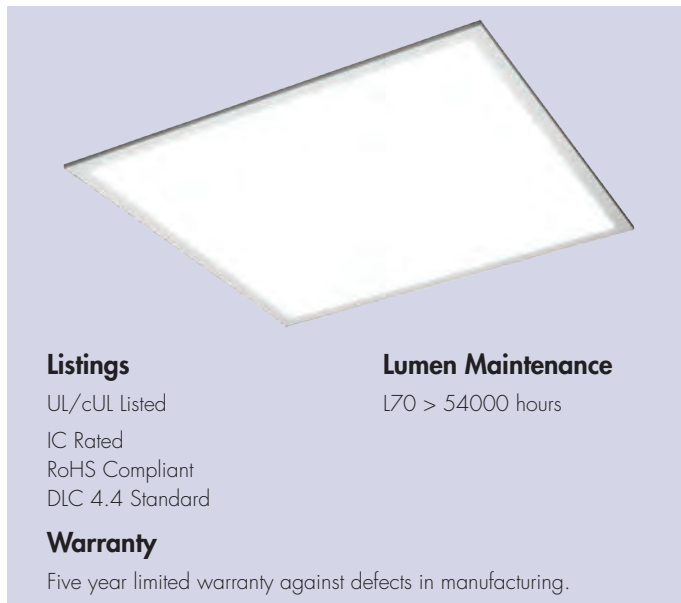
- Rectangular white frame
- Lens: frosted white diffuser
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings
- PMMA light guide

### Electrical

- UL/cUL damp location rated
- 0-10V dimming driver (standard)
- LED Driver with integrated junction box
- System rated for long 50,000 hour life
- Optional Emergency Backup

### Optics

- Innovative edge-lit technology paired with acrylic light guide and thin frosted white diffuser
- 120° beam angle
- Delivers full panel diffusion and excellent uniformity with low glare



#### Listings

UL/cUL Listed  
IC Rated  
RoHS Compliant  
DLC 4.4 Standard

#### Lumen Maintenance

L70 > 54000 hours

#### Warranty

Five year limited warranty against defects in manufacturing.

## Catalog Ordering Matrix Example: FP2UZD2941K

FP2UZD3835KEB					
FAMILY	SIZE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS
FP = Flat Panel	2 = 2' x 2'	UZD = 0-10V Dimming	23 = 2700 Lumens 29 = 3200 Lumens 38 = 4100 Lumens	30K = 3000K 35K = 3500K 41K = 4100K 50K = 5000K	EB - Emergency Backup

<sup>1</sup> Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

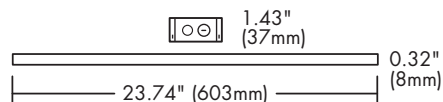
<sup>2</sup> Actual wattage may differ by +/- 5%; when operating between 120-277V +/- 10%.

<sup>3</sup> 23W and 29W are permanently fixed; 38W is adjustable

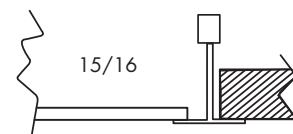
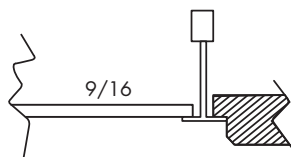
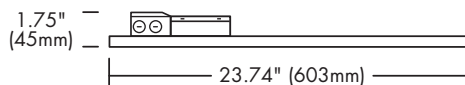
#### Accessories:

Item Number	Description	Item Number	Description
FPSK2	2X2 FLAT PANEL SURFACE MOUNT KIT (WHITE)	DTFLK2	RECESS MOUNT FLANGE KIT FOR 2X2 TROFFERS AND PANELS (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK	DRVEXTCABLE	3FT DRIVER EXTENSION CABLE

### Dimensions and Mounting Data



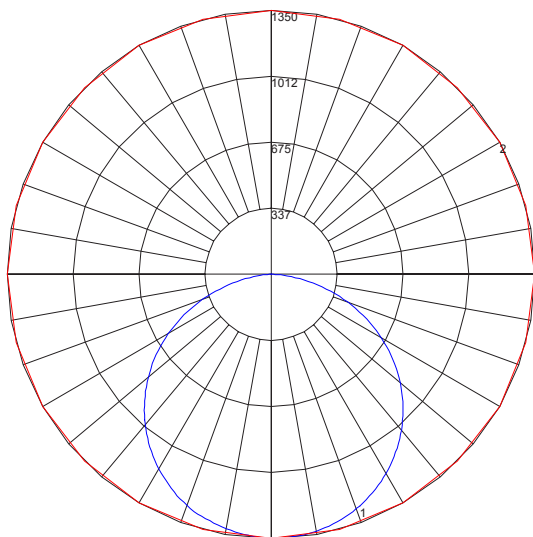
Length: 23.74" (603mm)  
Width: 23.74" (603mm)  
Depth: 0.32" (8mm)  
Weight: 6.61 lbs (3kg)



### Photometric Report

Based on photometric data for  
TCP Item #FP1UZD3830K

#### Polar Graph



Maximum Candela = 1349.9 Located At Horizontal Angle = 0, Vertical Angle =  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

#### Average Luminance

candelas/square meter (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3630	3637	3593
55	3572	3573	3514
65	3438	3421	3335
75	3038	2983	2839
85	2017	1849	1583

Specifications and dimensions subject to change without notice.

### Coefficients of Utilization – Zonal Cavity Method

#### 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	111	111	111	106	106	106	102	102	102	100
0	119	119	119	119	116	116	116	116	111	111	111	111	111	111	106	106	106	102	102	102	100
1	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	84	84	84
2	99	90	83	78	96	88	82	77	85	79	75	81	77	73	78	75	71	71	69	69	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	60	58	58	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	52	49	49	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	45	42	42	42
6	69	56	47	40	68	55	46	40	53	46	40	52	45	39	50	44	39	37	37	37	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33	33	33	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29	29	29	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26	26	26	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24	24	24	24

### Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	495.50	N.A.	12.40
0-30	1058.64	N.A.	26.50
0-40	1745.99	N.A.	43.60
0-60	3133.88	N.A.	78.30
0-80	3935.6	N.A.	98.30
0-90	4002.83	N.A.	100.00
10-90	3875.11	N.A.	96.80
20-40	1250.5	N.A.	31.20
20-50	1974.25	N.A.	49.30
40-70	1900.73	N.A.	47.50
60-80	801.72	N.A.	20.00
70-80	288.87	N.A.	7.20
80-90	67.23	N.A.	1.70
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	4002.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %