

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

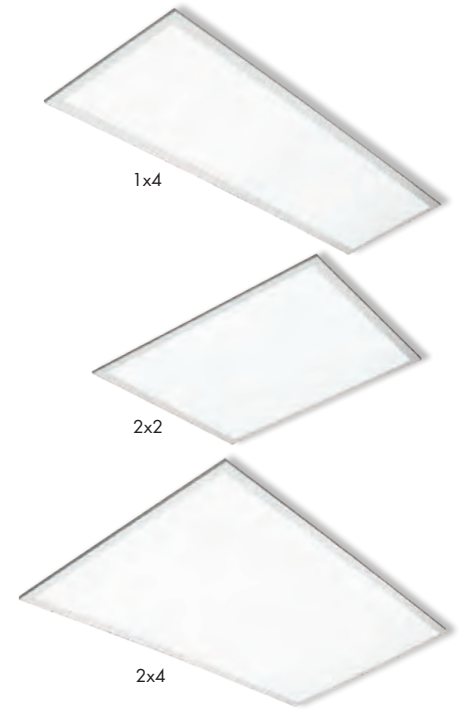
- Up to 51% less energy than fluorescent alternatives
- Long life: 50,000 hours
- Excellent color consistency & CRI to enhance color of focal point and maintaining uniformity throughout lighting installations
- Mercury free, great for all environments
- Fits standard 1" and 9/16" T-bar grid ceilings 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
- Retail Stores
- Schools
- Hospitality
- Restaurants
- 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
TCP LED Flat Panel - 1x4		3200	29	
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%
TCP LED Flat Panel - 2x2	—	4100	38	—
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%
TCP LED Flat Panel - 2x4	—	5200	46	—
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

Warranty

Five year limited warranty against defects in manufacturing.

Lumen Maintenance

L70 > 54000 hours

Catalog Ordering Matrix Example: FP1UZD2330K

FP1UZD3841KEB					
FAMILY	SIZE	DIMMING	WATTAGE ^{1,2,3}	COLOR TEMPERATURE	OPTIONS
FP = Flat Panel	1 = 1' x 4'	UZD = 0-10V Dimming	23 = 2600 Lumens 29 = 3200 Lumens 38 = 4200 Lumens	30K = 3000K 35K = 3500K 41K = 4100K 50K = 5000K	EB - Emergency Backup

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

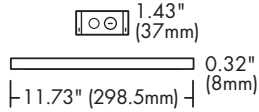
² Actual wattage may differ by +/- 5%; when operating between 120-277V +/- 10%.

³ 23W and 29W are permanently fixed; 38W is selectable

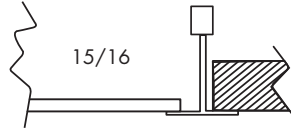
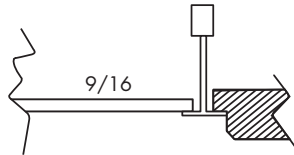
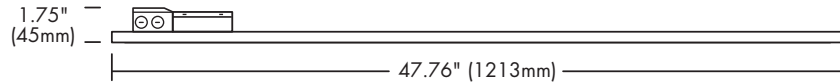
Accessories:

Item Number	Description	Item Number	Description
FPSK1	1X4 FLAT PANEL SURFACE MOUNT KIT (WHITE)	DTFLK1	RECESS MOUNT FLANGE KIT FOR 1X4 TROFFERS AND PANELS (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK	DRVEXTCABLE	3FT DRIVER EXTENSION CABLE

Dimensions and Mounting Data



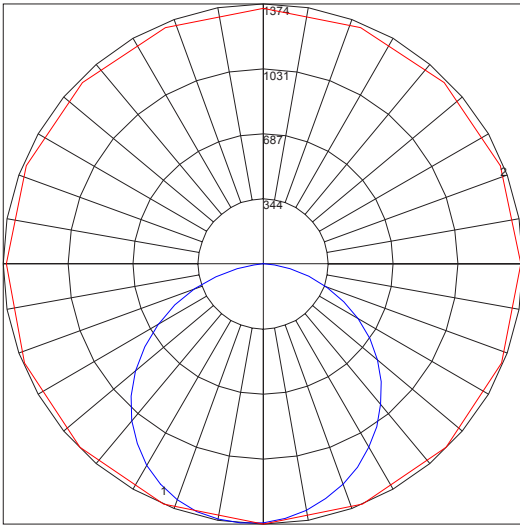
Length: 47.76" (1213mm)
 Width: 11.73" (298.5mm)
 Depth: 0.32" (8mm)
 Weight: 6.61 lbs (3kg)



Photometric Report

Based on photometric data for
 TCP Item #FP1UZD3830K

Polar Graph



Maximum Candela = 1374 Located At Horizontal Angle = 270, Vertical Angle = 5
 # 1 - Vertical Plane Through Horizontal Angles (270 - 90) (Through Max. Cd.)
 # 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

Average Luminance candelas/square meter (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3469	3356	3350
55	3340	3218	3224
65	3092	2996	2999
75	2609	2550	2591
85	1428	1724	1857

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	50	30	10	50	30	10	50	30	10	0	0	0	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100	100	100	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	86	84	82	84	84	84	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	72	70	68	70	70	70	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	67	62	58	62	58	55	59	59	59	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	57	52	48	50	50	50	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	50	45	41	43	43	43	43
6	70	57	48	41	68	56	47	41	54	46	36	52	45	40	50	45	40	46	40	36	38	38	38	38
7	65	51	42	36	63	40	42	36	49	41	36	47	41	36	46	40	35	40	35	31	33	33	33	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	39	33	29	30	30	30	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	36	30	26	27	27	27	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	33	27	23	24	24	24	24

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	500.56	N.A.	12.80
0-30	1064.6	N.A.	27.30
0-40	1746.17	N.A.	44.70
0-60	3091.16	N.A.	79.20
0-80	3836.19	N.A.	98.30
0-90	3901.75	N.A.	100.00
10-90	3772.39	N.A.	96.70
20-40	1245.61	N.A.	31.90
20-50	1952.01	N.A.	50.00
40-70	1825.49	N.A.	46.80
60-80	745.03	N.A.	19.10
70-80	264.53	N.A.	6.80
80-90	65.57	N.A.	1.70
90-110	0.05	N.A.	0.00
90-120	0.05	N.A.	0.00
90-130	0.05	N.A.	0.00
90-150	0.19	N.A.	0.00
90-180	1.31	N.A.	0.00
110-180	1.26	N.A.	0.00
0-180	3903.06	N.A.	100.00

Total Luminaire Efficiency = N.A.%

Specifications and dimensions subject to change without notice.