



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

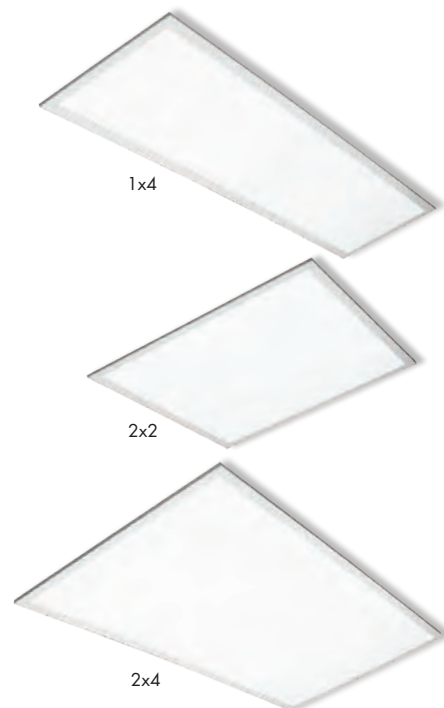


5 YEAR
WARRANTY

Not all versions of this product are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org/apl.

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:

$$\text{System lumens} = \text{mean lumens} \times \# \text{ lamps} \times \text{ballast factor} \times \text{luminaire efficiency factor}$$



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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

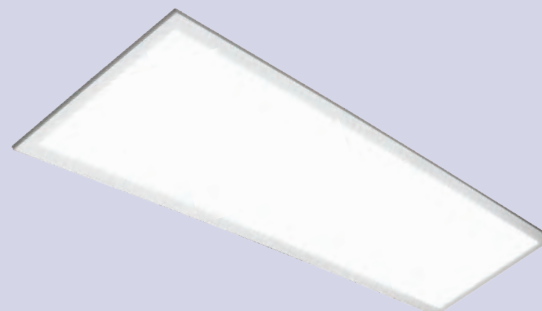
- Rectangular white frame
- Lens: frosted white diffuser
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings
- PMMA light guide

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: FP1UZD2330K

FP	2	UZD			
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:

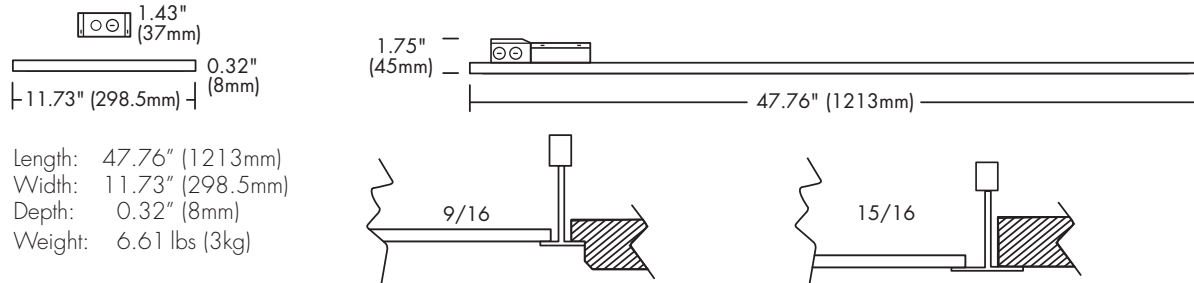
Item Number	Description	Item Number	Description
FPSK2	2X2 FLAT PANEL SURFACE MOUNT KIT (WHITE)	DTFLK1	RECESS MOUNT FLANGE KIT FOR 1X4 TROFFERS AND PANELS (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK	DRVEXTCABLE	3FT DRIVER EXTENSION CABLE



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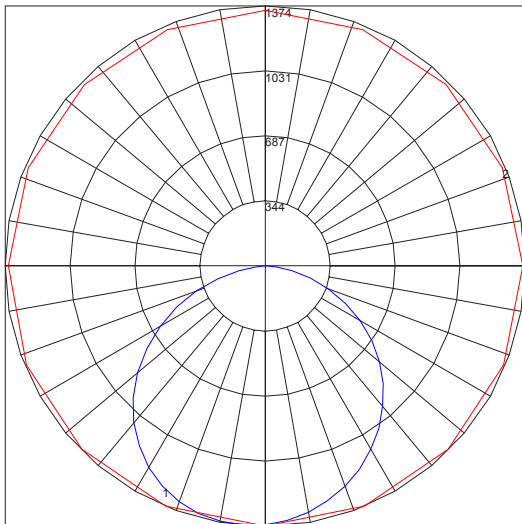
Dimensions and Mounting Data



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

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



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