Luxterior
by TCP

LED Flat Panel Luminaires

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

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

Great Features/Benefits

- Up to 51% less energy than fluorescent alternatives
- Long 50,000 hour rated life
- Excellent color consistency & CRI
- Mercury free
- Fits standard 1" and 9/16" T-bar grid ceilings

- Utilizes edge-lit technology
- Slim, low-profile design
- Ideal for:
  - Offices
  - Retail Stores
  - Schools
  - Hospitality
  - Restaurants
  - Healthcare

TCP

Features/Benefits

Up to 51% less energy than fluorescent alternatives	Instant energy savings; potential rebate eligibility
Long 50,000 hour rated life	Significantly reduce maintenance labor & material costs
Excellent color consistency & CRI	Enhances color of focal point while maintaining uniformity throughout lighting installation
Mercury free	Great for all environments
Fits standard 1" and 9/16" T-bar grid ceilings	Easy installation and retrofit application
Utilizes edge-lit technology	Full diffusion with excellent uniformity
Slim, low-profile design	Lightweight for easy handling. Fit more per pallet to reduce shipping cost and storage space

Specifications

Input Line Voltage	120-277 VAC
Input Line Frequency (Hz)	50/60HZ
Wattage (W)	1x4 = 36W (39.5W for EB option)
Lumens (L)	1x4 = 3600L
Lumens per Watt (LPW)	100 LPW
Rated Life	50,000 hours
Minimum Starting Temperature	-20°C (0°C for EB option)
Maximum Operating Temperature	40°C
CRI	>80
Power Factor	>0.9
THD	<20%
Ratings	UL/cUL damp location rated, DLC, IC rated, IP20
Controls	0-10V dimming (standard)

c UL US LISTED   DLC QPL LISTED   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/qpl.

Replacement Strategy

SYSTEM	BALLAST FACTOR	LUMENS	INPUT WATTS*	LED ENERGY SAVINGS
TCP LED Flat Panel - 1x4		3600	36	
2 Lamp 28W T5	1.0	3968	64	44%
1 Lamp 54W T5HO	1.0	3395	61	41%
2 Lamp 32W T8 NBF	0.88	3827	54	33%

*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

1x4 LED Flat Panel Luminaire

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 uses 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

• Housing: metal back panel and wiring compartment
• Frame: aluminum, post-painted white
• IP20 rated
• IC rated for direct contact with insulation
• Designed for easy drop into T-bar grid ceilings

Electrical

• UL/cUL damp location rated
• 0-10V dimming driver (standard)
• Easy-to-access wiring compartment on back of fixture
• System rated for long 50,000 hour life

Optics

• Innovative edgelit technology paired with acrylic light guide and thin frosted white polypropylene diffuser
• 120° beam angle
• Delivers full panel diffusion and excellent uniformity
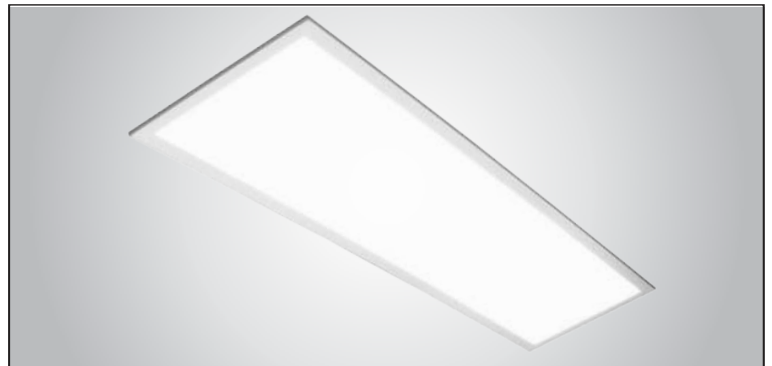
Listings

UL/cUL Listed   DLC v4.0 Standard   IC Rated   RoHS Compliant

Warranty

Five year limited warranty against defects in manufacturing.

Lumen Maintenance

Lumen Maintenance Factor (LMF)[1]			
25,000 Hour Projected LMF[2]	50,000 Hour Projected LMF[2]	75,000 Hour Calculated LMF[3]	Reported L$_{70}$[2]
91.19%	81.01%	71.97%	>60,000 Hours

[1] Lumen Maintenance calculated per TM-21-11 at 25°C based on LM-80-08 data and in-situ luminaire testing.
[2] IESNA TM-21-11 projected value based on 6X IESNA LM-80-08 total test duration.
[3] IESNA TM-21-11 calculated value exceeds 6X IESNA LM-80-08 total test duration.

Catalog Ordering Matrix   Example: TCPFP1UZD3630K

TCP	FP	1	U	ZD	36		
BRAND	**FAMILY**	**SIZE**	**VOLTAGE**	**CONTROLS/DIMMING**	**LUMEN PACKAGE (Power)**[12]	**COLOR TEMPERATURE**	**OPTIONS**
TCP	FP – Flat Panel	1 – 1' x 4'	U – 120V-277V	ZD – 0-10V Dimming	36 – 3600 Lumens (36W)[3]	**30K** – 3000K **35K** – 3500K **41K** – 4100K **50K** – 5000K	**EB** – Emergency Back-Up

[1] Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.
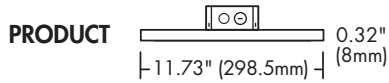[2] Actual wattage may differ by +/- 10%.
[3] 39.5W when emergency back-up (EB) option is selected.
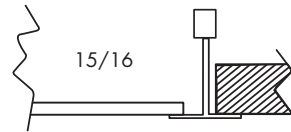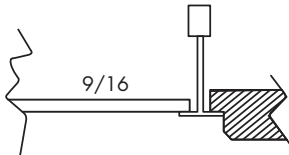
Installation Kit (ordered separately)

FPSK1 – 1x4 Surface Mount Kit

1x4 LED Flat Panel Luminaire

Dimensions and Mounting Data

PRODUCT

11.73" (298.5mm)   0.32" (8mm)

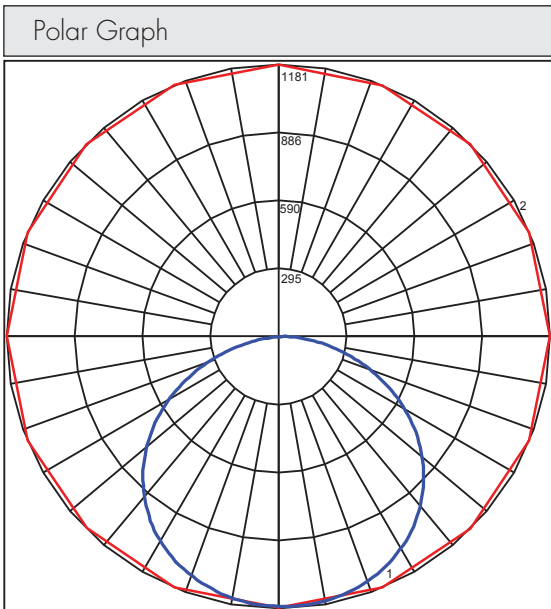1.75" (45mm)

47.76" (1213mm)

Length: 47.76" (1213mm)
Width: 11.73" (298.5mm)
Depth: 0.32" (8mm)
Weight: 6.61 lbs (3kg)
       12.70 lbs (5.7kg) for EB option

9/16

15/16
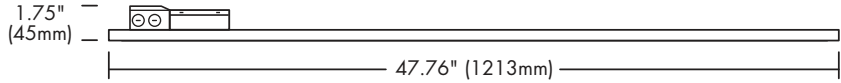
Photometric Report

Based on photometric data for
TCP Item # TCPFP1UZD3630K

Polar Graph

1181
886
590
295

Maximum Candela = 1180.97 Located At Horizontal Angle = 310, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (310 - 130) (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	4527	4319	3862
55	4346	4165	3702
65	3992	3813	3434
75	3284	3098	2942
85	1765	1634	2081

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	57
4	82	70	61	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	49	41	35	48	40	35	46	40	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	29
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	435.36	12.00	11.90
0-3	937.31	25.70	25.70
0-40	1559.07	42.80	42.80
0-60	2827.75	77.70	77.60
0-80	3564.55	97.90	97.80
0-90	3640.63	100.00	99.90
10-90	3528.99	96.90	96.80
20-40	1123.72	30.90	30.80
20-50	1784.7	49.00	49.00
40-70	1736.7	47.70	47.60
60-80	736.81	20.20	20.20
70-80	268.78	7.40	7.40
80-90	76.08	2.10	2.10
90-110	2.03	0.10	0.10
90-120	2.43	0.1	0.10
90-130	2.84	0.10	0.10
90-150	3.74	0.10	0.10
90-180	4.56	0.10	0.10
110-180	2.53	0.10	0.10
0-180	3645.19	100.10	100.00

Total Luminaire Efficiency = 100.10%