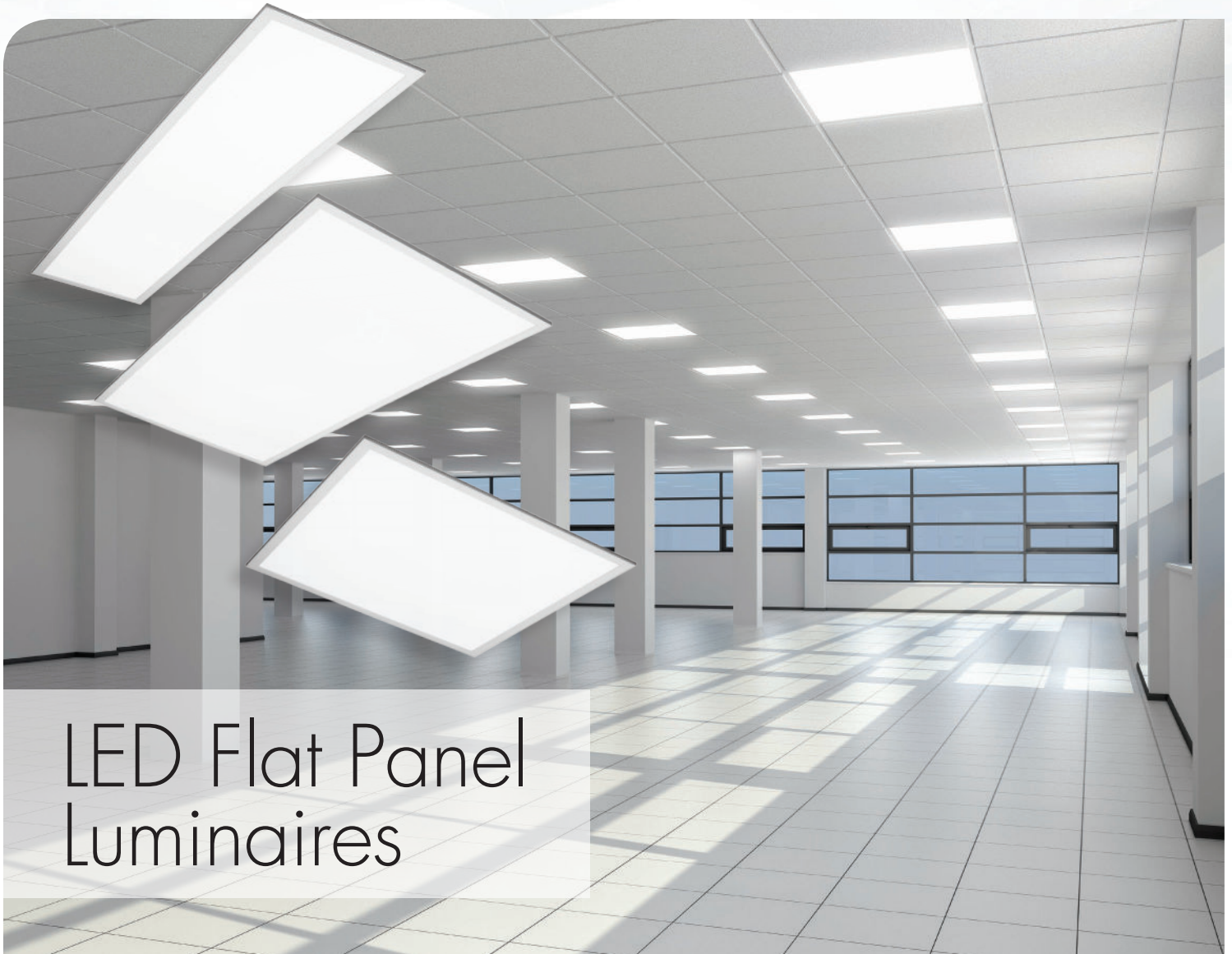


Luxterior

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



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 & 2x2 = 36W (39.5W for EB option) 2x4 = 50W (53.5W for EB option)
Lumens (L)	1x4 & 2x2 = 3600L 2x4 = 5000L
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)



1x4



2x2



2x4



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%
TCP LED Flat Panel - 2x2	—	3600	36	—
2 Lamp 34W T12 U-Bend	0.88	4420	74	51%
2 Lamp 32W T8 U-Bend	0.88	4275	58	38%
2 Lamp 24W T5HO	1.0	3145	54	33%
TCP LED Flat Panel - 2x4	—	5000	50	—
3 Lamp 32W T8 HBF	1.18	6960	93	46%
3 Lamp 32W T8 NBF	0.88	6681	89	44%
2 Lamp 32W T8 HBF	1.18	4658	65	23%
2 Lamp 28W T5	1.0	4675	63	21%
2 Lamp 32W T8 NBF	0.88	4468	59	15%

*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

2x2 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

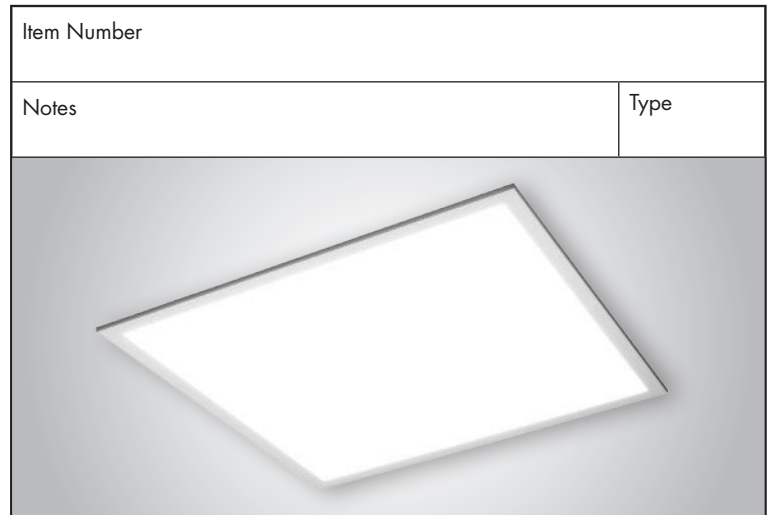
- Housing: metal back panel and wiring compartment
- Frame: aluminum, post-painted white
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings

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
91.17%	80.98%	71.93%	>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: TCPFP2UZD3630K

TCP	FP	2	U	ZD	36		
BRAND	FAMILY	SIZE	VOLTAGE	CONTROLS/DIMMING	LUMEN PACKAGE (Power) ¹²	COLOR TEMPERATURE	OPTIONS
TCP	FP – Flat Panel	2 – 2' x 2'	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 selected.

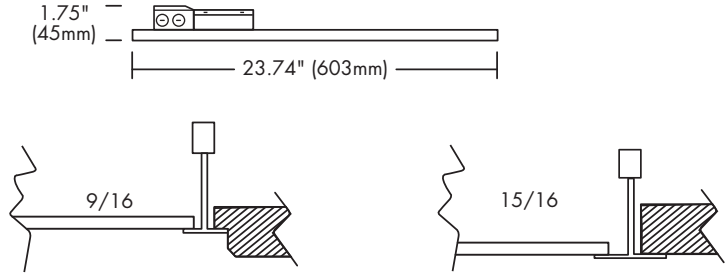
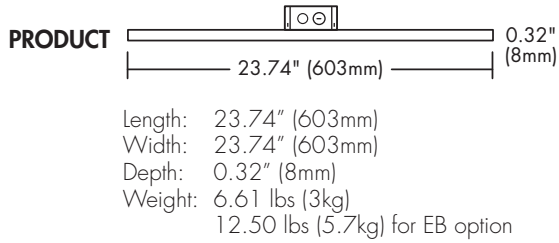
Installation Kit (ordered separately)

FPSK2 – 2x2 Surface Mount Kit

For the most up-to-date specs and warranty information, please visit www.tcp.com

2x2 LED Flat Panel Luminaire

Dimensions and Mounting Data



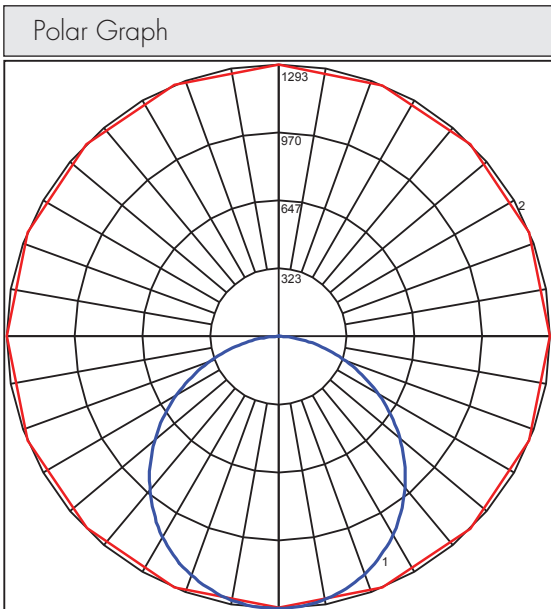
Photometric Report

Based on photometric data for
 TCP Item # TCPFP2UZD3630K

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	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	61	53	47	59	52	46	57	51	46	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	36	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24



Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	473.40	12.70	12.70
0-30	1006.83	27.00	26.90
0-40	1652.48	44.30	44.20
0-60	2934.73	78.60	78.50
0-80	3663.99	98.20	98.00
0-90	3734.11	100.00	99.90
10-90	3611.73	96.80	96.60
20-40	1179.08	31.60	31.50
20-50	1851.48	49.60	49.50
40-70	1747.94	46.80	46.80
60-80	729.26	19.50	19.50
70-80	263.57	7.10	7.10
80-90	70.13	1.90	1.90
90-110	0.88	0.00	0.00
90-120	1.31	0.00	0.00
90-130	1.85	0.00	0.00
90-150	2.95	0.10	0.10
90-180	3.70	0.10	0.10
110-180	2.83	0.10	0.10
0-180	3737.82	100.10	100.00

Total Luminaire Efficiency = 100.10%

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4412	4513	4581
55	4251	4376	4450
65	3986	4136	4196
75	3419	3623	3671
85	2294	2610	2618

Specifications and dimensions subject to change without notice.

2x4 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

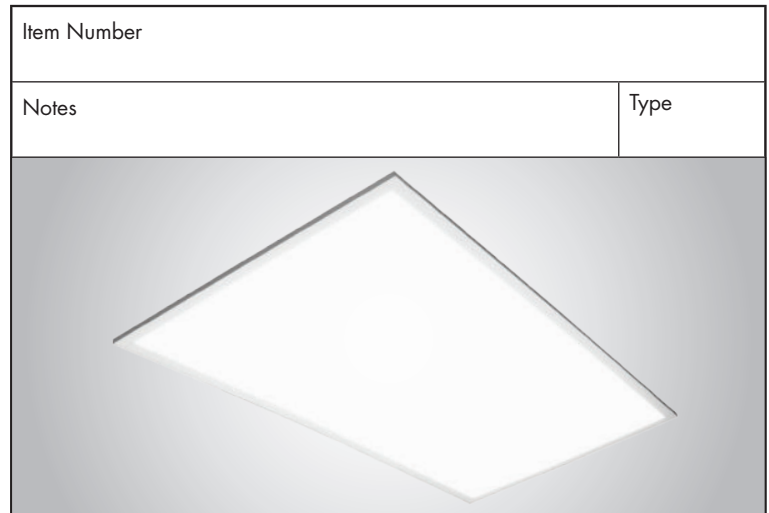
- Housing: metal back panel and wiring compartment
- Frame: aluminum, post-painted white
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings

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
91.21%	81.05%	72.02%	>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: TCPFP4UZD5030K

TCP	FP	4	U	ZD	50		
BRAND	FAMILY	SIZE	VOLTAGE	CONTROLS/DIMMING	LUMEN PACKAGE (Power) ^{1,2}	COLOR TEMPERATURE	OPTIONS
TCP	FP – Flat Panel	4 – 2' x 4'	U – 120V-277V	ZD – 0-10V Dimming	50 – 5000 Lumens (50W) 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 53.5W when emergency back-up (EB) option is selected.

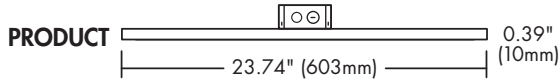
Installation Kit (ordered separately)

FPSK4 – 2x4 Surface Mount Kit

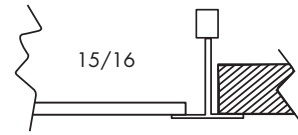
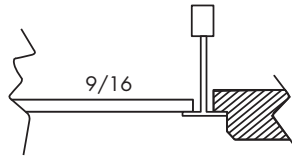
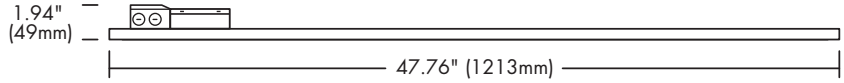
For the most up-to-date specs and warranty information, please visit www.tcp.com

2x4 LED Flat Panel Luminaire

Dimensions and Mounting Data



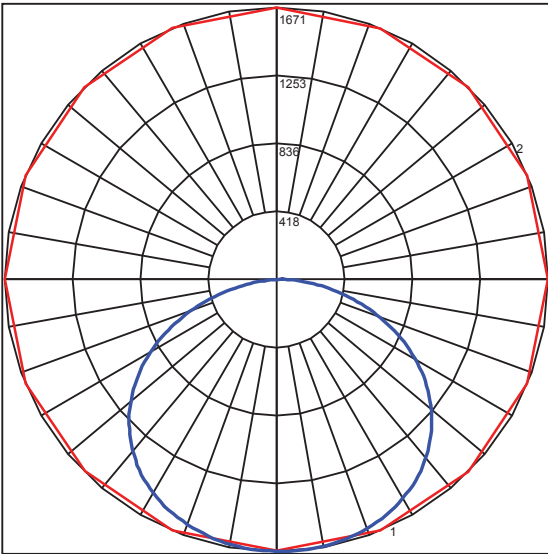
Length: 47.76" (1213mm)
 Width: 23.74" (603mm)
 Depth: 0.39" (10mm)
 Weight: 13.23 lbs (6kg)
 20.40 lbs (9.3kg) for EB option



Photometric Report

Based on photometric data for
 TCP Item # TCPFP4UZD5030K

Polar Graph



Maximum Candela = 1671.01 Located At Horizontal Angle = 10, Vertical Angle = 5
 # 1 - Vertical Plane Through Horizontal Angles [0 - 190] (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	6675	6374	5773
55	6442	6200	5563
65	6001	5775	5155
75	5091	4888	4329
85	3113	3077	2764

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	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	69	60	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	36
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	28
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	619.00	11.90	11.90
0-30	1334.47	25.60	25.60
0-40	2224.17	42.70	42.70
0-60	4046.01	77.70	77.60
0-80	5102.2	98.00	97.90
0-90	5207.95	100.00	99.90
10-90	5049.38	97.00	96.90
20-40	1605.16	30.80	30.80
20-50	2553.85	49.10	49.00
40-70	2493.74	47.90	47.80
60-80	1056.19	20.30	20.30
70-80	384.29	7.40	7.40
80-90	105.75	2.00	2.00
90-110	2.01	0.00	0.00
90-120	2.59	0.00	0.00
90-130	3.05	0.10	0.10
90-150	3.66	0.10	0.10
90-180	4.06	0.10	0.10
110-180	2.05	0.00	0.00
0-180	5212.01	100.10	100.00

Total Luminaire Efficiency = 100.10%

Specifications and dimensions subject to change without notice.

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

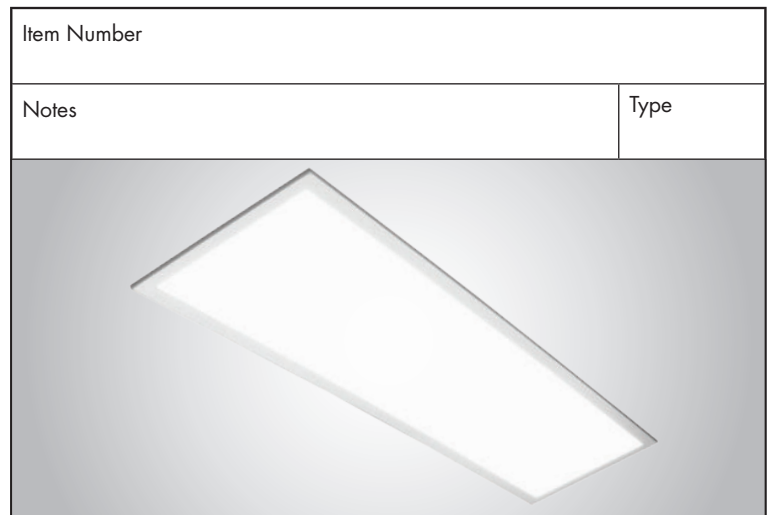
- Housing: metal back panel and wiring compartment
- Frame: aluminum, post-painted white
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings

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.

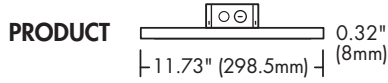
Installation Kit (ordered separately)

FPSK1 – 1x4 Surface Mount Kit

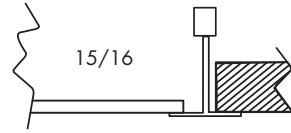
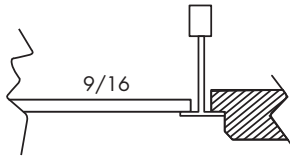
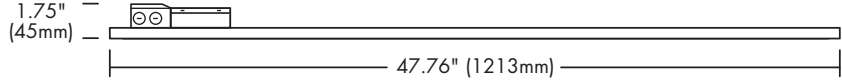
For the most up-to-date specs and warranty information, please visit www.tcp.com

1x4 LED Flat Panel Luminaire

Dimensions and Mounting Data



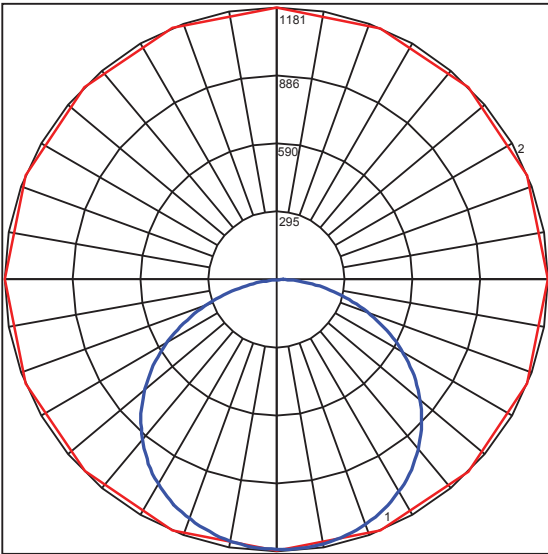
Length: 47.76" (1213mm)
 Width: 11.73" (298.5mm)
 Depth: 0.32" (8mm)
 Weight: 6.61 lbs (3kg)
 12.70 lbs (5.7kg) for EB option



Photometric Report

Based on photometric data for
 TCP Item # TCPFP1UZD3630K

Polar Graph



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
	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%

Specifications and dimensions subject to change without notice.