



LED Wattage Selectable Flat Panel Luminaires

Great Features/Benefits

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.

APPLICATIONS: T-bar Grid Ceilings

- 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



5 YEAR WARRANTY



Features/Benefits

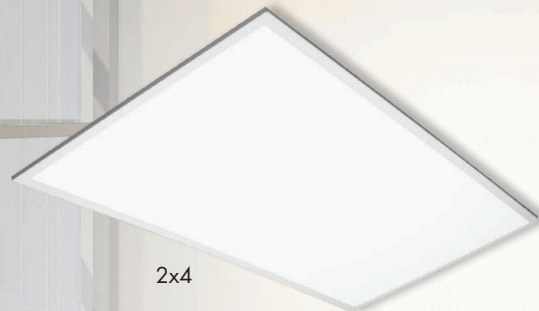
Up to 51% less energy than fluorescent alternatives	Instant energy savings; potential rebate eligibility
Long 50,000 hour rated life	Significantly reduce maintenance labor & material costs
Excellent color consistency & CRI	Enhances color of focal point while maintaining uniformity throughout lighting 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)	2x2 - 23W/29W/38W Selectable 2x4 - 29W/39W/46W Selectable
Lumens (l)	2x2 - 2700L/3200L/4100L 2x4 - 3600L/4200L/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)



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		3800	38	
2 Lamp 28W T5	1.0	3968	64	41%
1 Lamp 54W T5HO	1.0	3395	61	38%
2 Lamp 32W T8 NBF	0.88	3827	54	30%
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	34%
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

2x2 LED Wattage Selectable 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

- Remote driver and junction box
- 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)
- Selectable wattage driver with quick connect to panel
- System rated for long 50,000 hour life

Optics

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



Listings

UL/cUL Listed
IC Rated

DLC v4.4 Standard
RoHS Compliant

Lumen Maintenance

Reported L70 > 54000 hours

Warranty

Five year limited warranty against defects in manufacturing.

Catalog Ordering Matrix

Example: FP2UZDB141K

Item Number	Lumens/ Selectable Wattages		
FP2UZDB130K	2700L	3200L	4000L
	23W	29W	38W
FP2UZDB135K	2700L	3200L	4100L
	23W	29W	38W
FP2UZDB141K	2700L	3200L	4100L
	23W	29W	38W
FP2UZDB150K	2700L	3200L	4350L
	23W	29W	38W

THESE ITEMS SHIP IN CONTRACTOR FRIENDLY BULK QUANTITIES (LED PANEL AND DRIVERS SHIP SEPARATELY.)

Accessories:

Item Number	Description
FPSK2	2X2 FLAT PANEL SUR MOUNT KIT (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK

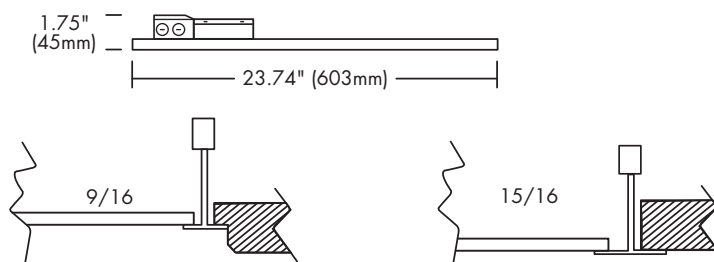
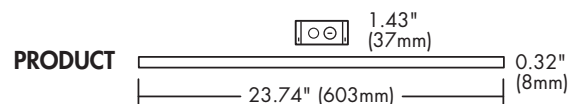
¹ Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

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

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

2x2 LED Wattage Selectable Flat Panel Luminaire

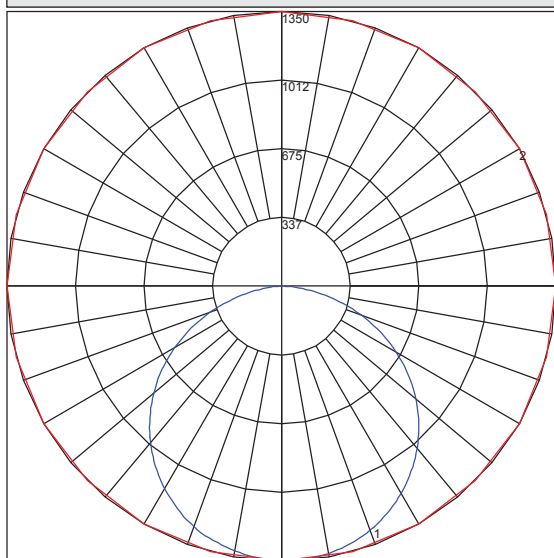
Dimensions and Mounting Data



Photometric Report

Based on photometric data for
TCP Item # FP2UZDB130K (38W)

Polar Graph



Maximum Candela = 1293.063 Located At Horizontal Angle = 0, Vertical Angle = 0
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	4012	4020	3971
55	3948	3949	3884
65	3800	3781	3686
75	3357	3297	3137
85	2229	2043	1750

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	84
2	99	90	83	78	96	88	82	77	85	79	75	81	77	73	78	75	71	69	69	69	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58	58	58	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49	49	49	49
5	75	62	53	40	73	61	53	46	59	51	46	57	50	45	55	49	45	42	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.	26.40
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. %

Specifications and dimensions subject to change without notice.

2x4 LED Wattage Selectable 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

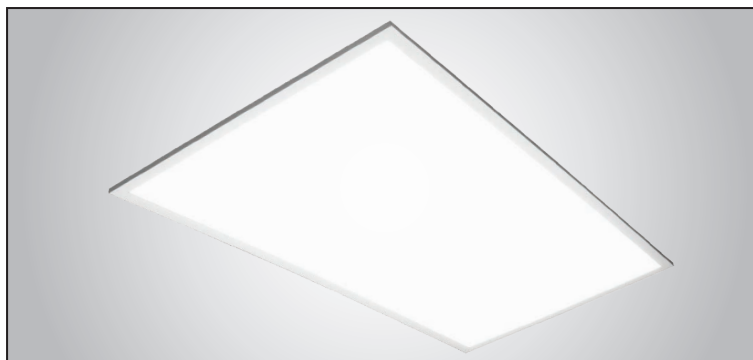
- Remote driver and junction box
- Rectangular white frame
- Lens: frosted white diffuser
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings
- PMMA light guide

Electrical

- UL/cUL damp location rated
- 0-10V dimming driver (standard)
- Selectable wattage driver with quick connect to panel
- System rated for long 50,000 hour life

Optics

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



Listings

UL/cUL Listed
IC Rated

DLC v4.4 Standard
RoHS Compliant

Lumen Maintenance

Reported L70 > 54000 hours

Warranty

Five year limited warranty against defects in manufacturing.

Catalog Ordering Matrix

Example: FP4UZDB141K

Item Number	Lumens/ Selectable Wattages		
FP4UZDB130K	3600L	4200L	5000L
	29W	39W	46W
FP4UZDB135K	3600L	4200L	5200L
	29W	39W	46W
FP4UZDB141K	3600L	4200L	5200L
	29W	39W	46W
FP4UZDB150K	3600L	4200L	5500L
	29W	39W	46W

THESE ITEMS SHIP IN CONTRACTOR FRIENDLY BULK QUANTITIES (LED PANEL AND DRIVERS SHIP SEPARATELY.)

Accessories:

Item Number	Description
FPSK4	2X4 FLAT PANEL SUR MOUNT KIT (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK

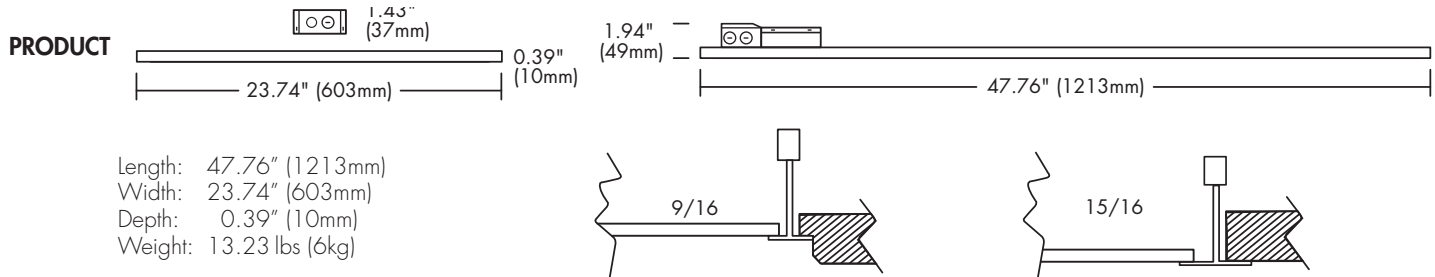
¹ Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

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

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

2x4 LED Wattage Selectable Flat Panel Luminaire

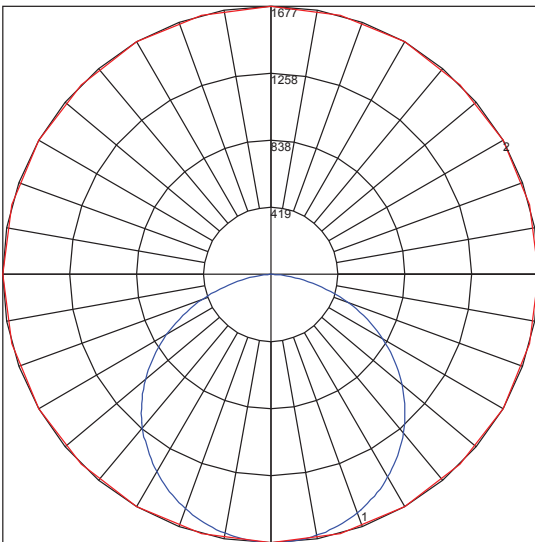
Dimensions and Mounting Data



Photometric Report

Based on photometric data for
 TCP Item # FP4UZDB130K (46W)

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	4990	5209	5372
55	4906	5227	5471
65	4680	5105	5418
75	4147	4645	5006
85	2772	3327	3559

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83	83	83	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69	69	69	69
3	89	78	70	63	87	77	69	63	74	67	62	71	65	60	69	64	60	57	57	57	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	52	61	56	51	49	49	49	49
5	75	62	52	46	73	60	52	45	58	51	45	57	50	45	55	49	44	42	42	42	42
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9	55	42	33	28	54	41	33	28	40	33	27	39	32	28	38	32	27	26	26	26	26
10	52	38	30	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23	23	23	23

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	618.21	N.A.	11.80
0-30	1326.99	N.A.	25.40
0-40	2204.13	N.A.	42.20
0-60	4025.9	N.A.	77.10
0-80	5119.54	N.A.	98.10
0-90	5219.87	N.A.	100.00
10-90	5060.99	N.A.	97.00
20-40	1585.93	N.A.	30.40
20-50	2527.21	N.A.	48.40
40-70	2514.33	N.A.	48.20
60-80	1093.64	N.A.	21.00
70-80	401.08	N.A.	7.70
80-90	100.33	N.A.	1.90
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	5219.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %