

Luxterior

by TCP



LED 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: Tbar 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

we know light.™



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 2x2 & 2x4 = 50W |
| Lumens (L) | 1x4 & 2x2 = 3600L 2x2 & 2x4 = 5000L |
| 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, DLC, IC rated, IP20 |
| Controls | 0-10V dimming (standard) |



1x4



2x2



2x4



5 YEAR WARRANTY

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 - 2x2 or 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

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 includes junction box for wiring
- 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

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 diffuser
- 120° beam angle
- Delivers full panel diffusion and excellent uniformity



Listings

UL/cUL Listed DLC v4.4 Standard IC Rated RoHS Compliant

Warranty

Five year limited warranty against defects in manufacturing.

Lumen Maintenance

| Lumen Maintenance Factor (LMF) ¹ | | | Reported L ₇₀ ² |
|---|--|---|---------------------------------------|
| 25,000 Hour Projected LMF ² | 50,000 Hour Projected LMF ² | 75,000 Hour Calculated LMF ³ | |
| 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: TCPFP1UZD3635K

| TCP | FP | 1 | U | ZD | 36 | | |
|-------|-----------------|-------------|---------------|--------------------|--------------------------------------|---|---------------------|
| BRAND | FAMILY | SIZE | VOLTAGE | CONTROLS/DIMMING | LUMEN PACKAGE (Power) ^{1,2} | COLOR TEMPERATURE | OPTIONS |
| TCP | FP = Flat Panel | 1 = 1' x 4' | U = 120V-277V | ZD = 0-10V Dimming | 36 = 3600 Lumens (36W) | 35K = 3500K 41K = 4100K 50K = 5000K | EB = Battery backup |

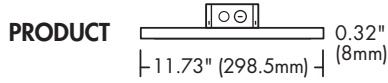
¹ Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

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

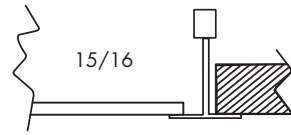
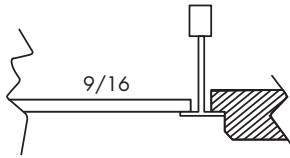
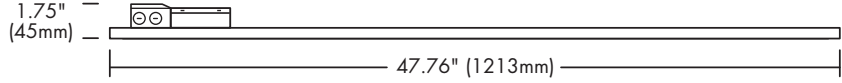
For the most up-to-date specs and warranty information, please visit www.tcpi.com

1x4 LED Flat Panel Luminaire

Dimensions and Mounting Data



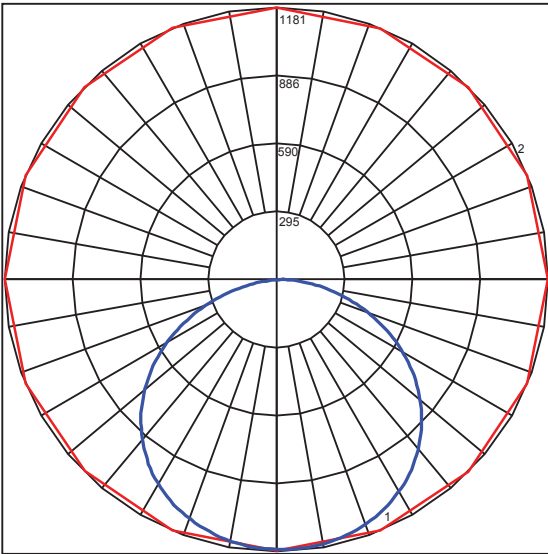
Length: 47.76" (1213mm)
 Width: 11.73" (298.5mm)
 Depth: 0.32" (8mm)
 Weight: 6.61 lbs (3kg)



Photometric Report

Based on photometric data for
 TCP Item # TCPFP1UZD3635K

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 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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%

Specifications and dimensions subject to change without notice.