

TCP's LED Direct Troffer Luminaires feature back-lit technology with a robust construction that still offers a slim, low-profile with beautiful full panel diffusion and superior uniformity.

These energy efficient troffers offer a cost-effective solution to maximize energy savings and take advantage of utility rebates while using the best LED technology.

Applications: T-bar Grid Ceilings

## Reasons to choose the LED Direct Troffer Luminaires from TCP

- Provides energy savings over fluorescent alternatives, providing instant energy savings and potential rebate eligibility
- Long 50,000 hour rated life significantly reduces maintenance labor & material costs
- Excellent color consistency & CRI Enhances color of focal point while maintaining uniformity throughout lighting installation
- Mercury free construction is great for all environments
- Fits standard 1" and 9/16" T-bar grid ceilings
- Utilizes back-lit technology for full diffusion with excellent uniformity
- Slim, low-profile design and lightweight for easy handling

## **Ideal Applications**

- Office
- Retail Stores

- Schools
- Hospitality

- Restaurants
- Healthcare









# 2x4 LED DT Series Luminaires with Fixed Wattage

### **Applications**

TCP LED Direct Troffer luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED Direct Troffers use back-lit technology to deliver full panel diffusion and superior uniformity that meets or exceeds the output from edge-lit panels. 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

#### 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

#### **Optics**

- Back-lit technology provides even uniform lighting
- 120° beam angle
- Frosted diffuser for reduced glare and aesthetic appeal
- Meets or exceeds the look and performance of edge-lit panels





# Catalog Ordering Matrix Example: DTF4UZD2941K

DT	F	4	U	ZD			
FAMILY	LENS TYPE	SIZE	VOLTAGE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS
DT = Direct Back Lit Troffer	<b>F</b> = Frosted	<b>4</b> = 2' × 4'	<b>U</b> = 120V-277V	<b>ZD</b> = 0-10V Dimming	29 = 3300 Lumens 39 = 4400 Lumens 46 = 5100 Lumens	<b>30K</b> = 3000K <b>35K</b> = 3500K <b>41K</b> = 4100K <b>50K</b> = 5000K	<b>EB</b> = Battery Back-up

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

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

#### Accessories:

Item Number	Description
YHANGER6PK	Y FIT CABLE HANGER 6 PACK
DTSK4	SURFACE MOUNT KIT FOR DIRECT TROFFER 2X4
DTFLK4	RECESS MOUNT FLANGE KIT FOR 2X4 TROFFERS AND PANELS
DRVEXTCABLE	3FT DRIVER EXTENSION CABLE

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







<sup>&</sup>lt;sup>3</sup> 29W and 39W are permanently fixed; 46W is adjustable.

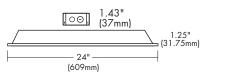


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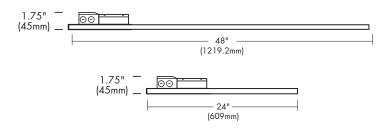
## Dimensions and Mounting Data

# Back-lit Direct Troffer





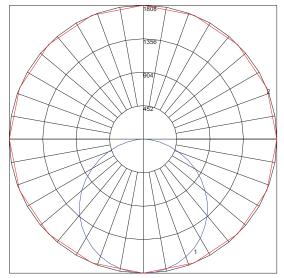
#### **Edge-lit Flat Panel**



## Photometric Report

Based on photometric data for TCP Item # DTF4UZD4630K (46VV)

### **Polar Graph**



 $\label{eq:maximum Candela = 1808.2 Located At Horizontal Angle = 0, Vertical Angle = 0 \\ \#\ 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.) \\ \#\ 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.) \\ \end{aligned}$ 

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2333	2317	2318
55	2254	2237	2229
65	2125	2092	2083
75	1904	1866	1822
8.5	1/100	1.470	1304

## 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	91	88	90	87	85	83
2	99	90	83	78	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	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	661.93	N.A.	12.70
0-30	1407.56	N.A.	26.90
0-40	2309.2	N.A.	44.20
0-60	4094.49	N.A.	78.40
0-80	5115.44	N.A.	97.90
0-90	5222.48	N.A.	100.00
10-90	5051.35	N.A.	96.70
20-40	1647.27	N.A.	31.50
20-50	2584.72	N.A.	49.50
40-70	2431.84	N.A.	46.60
60-80	1020.95	N.A.	19.50
70-80	374.40	N.A.	7.20
80-90	107.04	N.A.	2.00
90-110	0.62	N.A.	0.00
90-120	0.62	N.A.	0.00
90-130	0.62	N.A.	0.00
90-150	0.67	N.A.	0.00
90-180	1.55	N.A.	0.00
110-180	0.94	N.A.	0.00
0-180	5224.04	N.A.	100.00

Total Luminaire Efficiency = N.A.%

