

Product Specifications

TCP's DT Series 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 DT Series Luminaires from TCP

- Provides energy savings over fluorescent alternatives 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

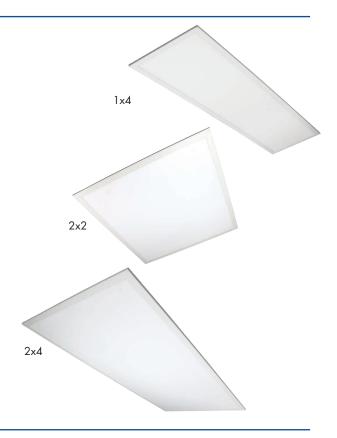
- Restaurants
- Healthcare





# **Specifications**

Input Line Frequency (Hz)	
Wattage (W)	
Lumens (L)	
2x4	
Lumens per Watt (LPW)	
Rated Life	
	20°C
	<20%
	CUL damp location rated, IC rated, IP20, DLC Standard 5.0
Controls	



# **Replacement Strategy**

SYSTEM	BALLAST FACTOR	LUMENS	INPUT WATTS*	LED ENERGY SAVINGS
TCP LED Direct Troffer - 2x2, 1x4	-	3200	29	_
2 Lamp 34W T12 U-Bend 2 Lamp 32W T8 U-Bend 2 Lamp 24W T5HO	0.88 0.88 1.0	4420 4275 3145	74 58 54	61% 50% 46%
TCP LED Direct Troffer - 2x4	_	5100	46	_
3 Lamp 32W T8 HBF 3 Lamp 32W T8 NBF 2 Lamp 32W T8 HBF 2 Lamp 28W T5 2 Lamp 32W T8 NBF	1.18 0.88 1.18 1.0 0.88	6960 6681 4658 4675 4468	93 89 65 63 59	50% 48% 29% 27% 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





## **Applications**

TCP LED DT Series Luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED DT Series Luminaires 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



#### Warranty

Five year limited warranty against defects in manufacturing.

#### Catalog Ordering Matrix Example: DTF1UZD38CCT

DT	F	1	U	ZD		ССТ			
FAMILY	LENS TYPE	SIZE	VOLTAGE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS	CONTROL	FRAME OPTIONS⁴
DT = DT Series	<b>F</b> = Frosted	1 = 1' x 4'	<b>U</b> = 120-277V	<b>ZD</b> = 0-10V Dimming	<b>23</b> = 2600 Lumens <b>29</b> = 3200 Lumens <b>38</b> = 4200 Lumens	<b>CCT =</b> 3500/4100/5000K Selectable		SM = SmartBox SBS = SmartBox with Sensor	BLANK = WHITE FRAME BLK = BLACK FRAME

<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%.
 <sup>3</sup> 23W and 29W are permanently fixed; 38W is adjustable

<sup>4</sup> Special frame colors are special order only. Please work with supply chain for lead times.

#### Accessories:

Item Number Description							
YHANGER6PK Y FIT CABLE HANGER 6 PACK (HANGS 2 UNITS)							
DTSK1	SURFACE MOUNT KIT FOR DIRECT TROFFER 1X4						
DTFLK1	RECESS MOUNT FLANGE KIT FOR 1X4 TROFFERS AND PANELS						
DRVEXTCABLE	3FT DRIVER EXTENSION CABLE						

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



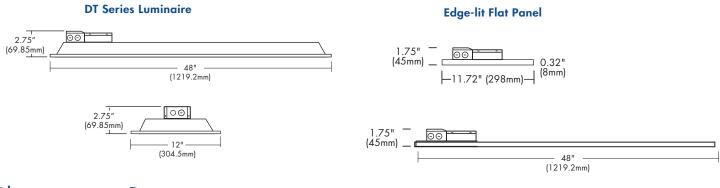
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YEAR

WARRANTY



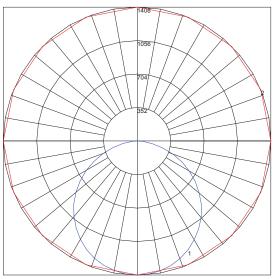
# Dimensions and Mounting Data



## Photometric Report

Based on photometric data for TCP Item # DTF1UZD38CCT (38W, 41K)

### **Polar Graph**



Maximum Candela = 1407.6 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	3631	3602	3585			
55	3506	3474	3437			
65	3292	3239	3179			
75	2892	2795	2680			
85	2165	1983	1746			

Specifications and dimensions subject to change without notice.

## Coefficients of Utilization – Zonal Cavity Method

Effe	ctive	Floo	r Ca	vity R	Reflect	ance	0.2	0										
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	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
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	37	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	515.20	N.A.	12.70
0-30	1095.31	N.A.	27.10
0-40	1796.69	N.A.	44.40
0-60	3184.62	N.A.	78.70
0-80	3967.55	N.A.	98.10
0-90	4044.17	N.A.	100.00
10-90	3910.96	N.A.	96.70
20-40	1281.49	N.A.	31.70
20-50	2010.58	N.A.	49.70
40-70	1887.56	N.A.	46.70
60-80	782.93	N.A.	19.40
70-80	283.30	N.A.	7.00
80-90	76.63	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	0.01	N.A.	0.00
90-180	0.76	N.A.	0.00
110-180	0.76	N.A.	0.00
0-180	4044.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%





WARRANTY



## Applications

TCP LED DT Series Luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED DT Series Luminaires 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



#### Warranty

Five year limited warranty against defects in manufacturing.

# Catalog Ordering Matrix Example: DTF2UZD38CCT

DT	F	2	U	ZD		ССТ			
FAMILY	LENS TYPE	SIZE	VOLTAGE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS	CONTROL	FRAME OPTIONS <sup>4</sup>
DT = DT Series	<b>F</b> = Frosted	<b>2</b> = 2' × 2'	<b>U</b> = 120-277V	<b>ZD</b> = 0-10V Dimming	23 = 2600 Lumens 29 = 3200 Lumens 38 = 4200 Lumens (Wattage Selectable to 38W/29W/23W)	<b>CCT =</b> 3500/4100/5000K Selectable	BLANK = None EB = Battery Back-up	SM = SmartBox SBS = SmartBox with Sensor	BLANK = WHITE FRAME BLK = BLACK FRAME

<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%.

<sup>3</sup> 23W and 29W are permanently fixed; 38W is adjustable

<sup>4</sup> Special frame colors are special order only. Please work with supply chain for lead times.

#### Accessories:

Item Number Description							
YHANGER6PK	Y FIT CABLE HANGER 6 PACK (HANGS 3 UNITS)						
DTSK2	SURFACE MOUNT KIT FOR DIRECT TROFFER 2X2						
DTFLK2	RECESS MOUNT FLANGE KIT FOR 2X2 TROFFERS AND PANELS						
DRVEXTCABLE	3FT DRIVER EXTENSION CABLE						

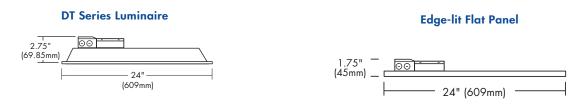
For the most up-to-date specs and warranty information, please visit www.tcpi.com

Spacing Criterion (0-180): 1.28 Spacing Criterion (90-270): 1.28





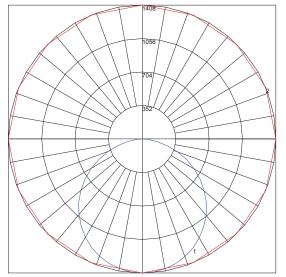
# Dimensions and Mounting Data



# Photometric Report

Based on photometric data for TCP Item # DTF2UZD38CCT (38W, 41K)

### **Polar Graph**



Maximum Candela = 1407.6 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	3631	3602	3585
55	3506	3474	3437
65	3292	3239	3179
75	2892	2795	2680
85	2165	1983	1746

# Coefficients of Utilization – Zonal Cavity Method

Ette	ctive Flo	oor	Cav	vity R	letlect	ance	0.20	0										
RC	8	30				70				50			30			10		0
RW	70 5	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119 11	19	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109 10	)4 1	00	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99 9	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90 7	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82 7	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76 6	53	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70 5	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65 5	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60 4	17	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29
9	56 Z	13	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53 3	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	515.20	N.A.	12.70		
0-30	1095.31	N.A.	27.10		
0-40	1796.69	N.A.	44.40		
0-60	3184.62	N.A.	78.70		
0-80	3967.55	N.A.	98.10		
0-90	4044.17	N.A.	100.00		
10-90	3910.96	N.A.	96.70		
20-40	1281.49	N.A.	31.70		
20-50	2010.58	N.A.	49.70		
40-70	1887.56	N.A.	46.70		
60-80	782.93	N.A.	19.40		
70-80	283.30	N.A.	7.00		
80-90	76.63	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	0.01	N.A.	0.00		
90-180	0.76	N.A.	0.00		
110-180	0.76	N.A.	0.00		
0-180	4044.93	N.A.	100.00		

Total Luminaire Efficiency = N.A.%



Specifications and dimensions subject to change without notice.



## Applications

TCP LED DT Series Luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED DT Series Luminaires 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



#### Warranty

Five year limited warranty against defects in manufacturing.

# Catalog Ordering Matrix Example: DTF4UZD46CCT

DT	F	4	U	ZD		CCT			
FAMILY	LENS TYPE	SIZE	VOLTAGE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS	CONTROL	FRAME OPTIONS⁴
DT = DT Series		<b>4</b> = 2' × 4'	<b>U</b> = 120-277V	<b>ZD</b> = 0-10V Dimming	<b>29</b> = 3300 Lumens <b>39</b> = 4400 Lumens <b>46</b> = 5100 Lumens (Wattage Selectable to 46W/39W/29W)	<b>CCT =</b> 3500/4100/5000K Selectable	BLANK = None EB = Battery Back-up	SM = SmartBox SBS = SmartBox with Sensor	BLANK = WHITE FRAME BLK = BLACK FRAME

<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%.

<sup>3</sup> 23W, 29W and 38W are permanently fixed; 46W is adjustable

<sup>4</sup> Special frame colors are special order only. Please work with supply chain for lead times.

#### Accessories:

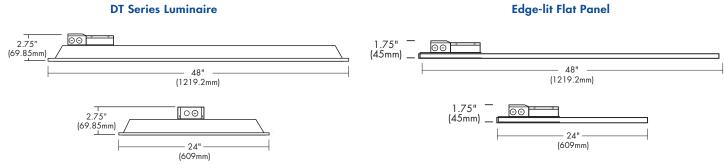
Item Number	Description
YHANGER6PK	Y FIT CABLE HANGER 6 PACK (HANGS 2 UNITS)
DTSK4	SURFACE MOUNT KIT FOR DIRECT TROFFER 2X4
DTFLK4	RECESS MOUNT FLANGE KIT FOR 2X4 TROFFERS AND PANELS
DRVEXTCABLE	3FT DRIVER EXTENSION CABLE

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





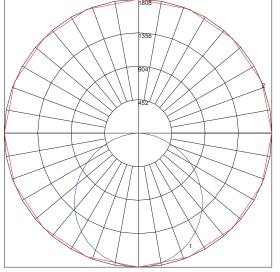
# Dimensions and Mounting Data



## Photometric Report

Based on photometric data for TCP Item # DTF4UZD46CCT (46W, 41K)

### **Polar Graph**



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.)

#### 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
85	1499	1470	1394

Specifications and dimensions subject to change without notice.

## 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.%



# TECHNOLOGY CAST IN A BEAUTIFUL LIGHT

For over 20 years, TCP has been designing, developing and delivering energy-efficient lighting into the market. Thanks to our cutting-edge technology and manufacturing expertise, we have shipped billions of high quality lighting products. With TCP, you can count on a lighting product that is designed to meet the needs of the market - that transforms your surroundings and envelopes you in warmth - lighting that generates beauty with every flip of the switch.

Sales:	Catalog Number:
Date:	Туре:
Model:	Notes:
Project:	TCD
Rep:	we know light."

For more information on the quality and care TCP can deliver, call us at 800.324.1496 or visit tcpi.com