



# LED Volumetric Luminaires

Limitless Options  
for the following applications:

When appearance is most important, TCP's LED Volumetric Luminaires turn any location into something truly exceptional. The precision-formed diffuser produces comfortable and pleasant illumination, enhancing productive spaces in various applications—providing architectural aesthetics for retail, schools, offices, healthcare, and other various commercial applications.

- Offices
- Restaurants
- Retail Stores
- Lobbies
- Schools
- Healthcare
- Grid Ceilings

c  US LISTED 5 YEAR WARRANTY

we know light.™

# LED Volumetric Luminaires

## Features/Benefits

Up to 50% less energy than fluorescent alternatives	Instant energy savings
Long 50,000 hour rated life	Minimizes replacements & maintenance costs
Very low heat generation	Less energy wasted as heat
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 grids	Easy installation and retrofit application
TCP LED drivers are specifically designed for high efficient LED combination	Optimal performance and efficiency



2x2 LED  
Volumetric Luminaire



2x4 LED  
Volumetric Luminaire

## Specifications

Input Line Voltage	120-277 VAC
Input Power	2x2: 20W, 30W, 40W 2x4: 20W, 30W
Input Line Frequency	50Hz/60Hz
Luminaire Life (Rated)	50,000 hours
Minimum Starting Temperature	-30°C
Maximum Operating Temperature	45°C
CRI	85
Power Factor	>90%
THD	<20%

## Warranty

Five year limited warranty against defects in manufacturing





## 2x2 LED Volumetric Luminaires

### LED TECHNICAL DATA

#### Applications

The TCP LED Volumetric Luminaires are high efficiency alternatives to T5, T8 and T12 linear fluorescent troffers. Our intelligent high performance LED light engines and drivers deliver long life, consistent color, and superior lumen maintenance. Applications include offices, schools, retail locations, hospitals, and other grid ceilings.

#### Construction

The TCP LED volumetric luminaire is constructed of rugged cold-rolled steel, post painted with a highly diffuse white finish, and an impact resistant acrylic diffuser. The housing is designed to mount in a variety of grid ceiling types.

#### Electrical

All electrical components are cULus listed. TCP high efficiency drivers provide consistent power to ensure even lighting from the long life LEDs. Each driver is matched to a light engine to deliver 50,000 hours life. Full range dimming is optional.

#### Optics

The impact resistant acrylic diffuser conceals the LEDs while providing even light distribution across the luminaire. The smooth white reflector curves into the diffuser, creating volumetric illumination by softening and distributing the light evenly in a wide pattern. The curved design also softens the contrast between the luminaire and ceiling.



#### Listings

cULus Listed – damp location rated  
RoHS Compliant

#### Warranty

Five year limited warranty against defects in manufacturing.

#### LUMENS

TR22D2035K – 2300  
TR22D2041K – 2400  
TR22D2050K – 2450  
TR22D3035K – 3450  
TR22D3041K – 3500  
TR22D3050K – 3550  
TR22D4035K – 4450  
TR22D4041K – 4700  
TR22D4050K – 4800

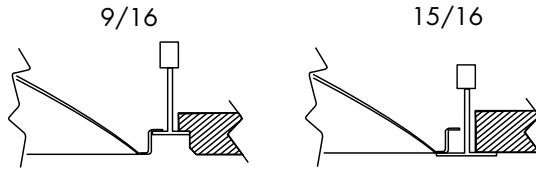
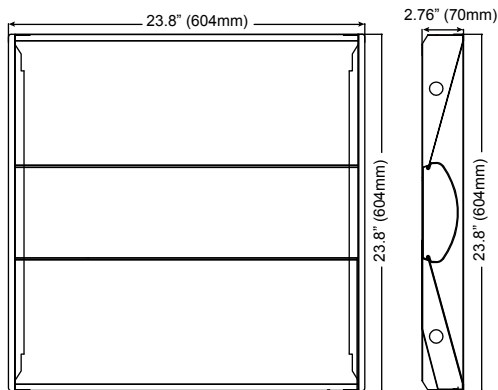
## Catalog Ordering Matrix

Example: TR22D3035K

FAMILY	SIZE	DIMMING	WATTAGE <sup>1</sup>	COLOR TEMPERATURE
TR – Troffer	22 – 2' x 2'	D – 0-10V Dimming	20 – 20W 30 – 30W 40 – 40W	35K – 3500K 41K – 4100K 50K – 5000K

<sup>1</sup> Actual wattage may differ by +/- 5%; when operating between 120-277V +/- 10%.

## Dimensions and Mounting Data



All dimensions are in inches unless otherwise specified.

## Photometric Report

### Luminous Intensity Distribution Diagram

TR22D3041K

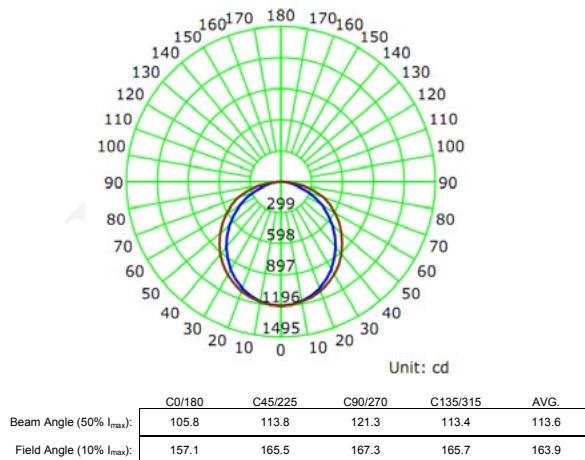
#### Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.0	60	0.2380	28.42	0.9930

#### Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I <sub>max</sub> (cd)	S/MH (C0/180)	S/MH (C90/270)
3497.6	123.12	1196.1	1.21	1.28

#### Luminous Intensity Distribution



### Zonal Lumen Density Measurement

Deg	Flux (lm)	%	Deg	Flux (lm)	%
0-5	28.5	0.82	0-5	28.5	0.82
5-10	84.6	2.42	0-10	113.1	3.23
10-15	137.5	3.93	0-15	250.6	7.17
15-20	185.6	5.31	0-20	436.2	12.47
20-25	227.2	6.50	0-25	663.4	18.97
25-30	261.0	7.46	0-30	924.5	26.43
30-35	286.2	8.18	0-35	1210.7	34.62
35-40	302.0	8.63	0-40	1512.7	43.25
40-45	308.0	8.80	0-45	1820.7	52.06
45-50	304.2	8.70	0-50	2124.9	60.75
50-55	291.3	8.33	0-55	2416.3	69.08
55-60	269.9	7.72	0-60	2686.1	76.80
60-65	241.0	6.89	0-65	2927.1	83.69
65-70	205.9	5.89	0-70	3133.0	89.57
70-75	164.5	4.70	0-75	3297.5	94.28
75-80	116.5	3.33	0-80	3414.0	97.61
80-85	63.2	1.81	0-85	3477.2	99.42
85-90	17.7	0.51	0-90	3494.9	99.92
90-95	0.0	0.00	0-95	3494.9	99.92
95-100	0.0	0.00	0-100	3494.9	99.92
100-105	0.0	0.00	0-105	3494.9	99.92
105-110	0.0	0.00	0-110	3494.9	99.92
110-115	0.0	0.00	0-115	3494.9	99.92
115-120	0.0	0.00	0-120	3494.9	99.92
120-125	0.0	0.00	0-125	3494.9	99.92
125-130	0.0	0.00	0-130	3494.9	99.92
130-135	0.1	0.00	0-135	3495.0	99.92
135-140	0.2	0.01	0-140	3495.2	99.93
140-145	0.3	0.01	0-145	3495.5	99.94
145-150	0.4	0.01	0-150	3495.9	99.95
150-155	0.4	0.01	0-155	3496.3	99.96
155-160	0.4	0.01	0-160	3496.7	99.97
160-165	0.4	0.01	0-165	3497.1	99.99
165-170	0.3	0.01	0-170	3497.4	99.99

Specifications and dimensions subject to change without notice.