



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





2x4 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

TR24D3035K – 3600
TR24D3041K – 3750
TR24D3050K – 3800
TR24D4035K – 4600
TR24D4041K – 5000
TR24D4050K – 5100

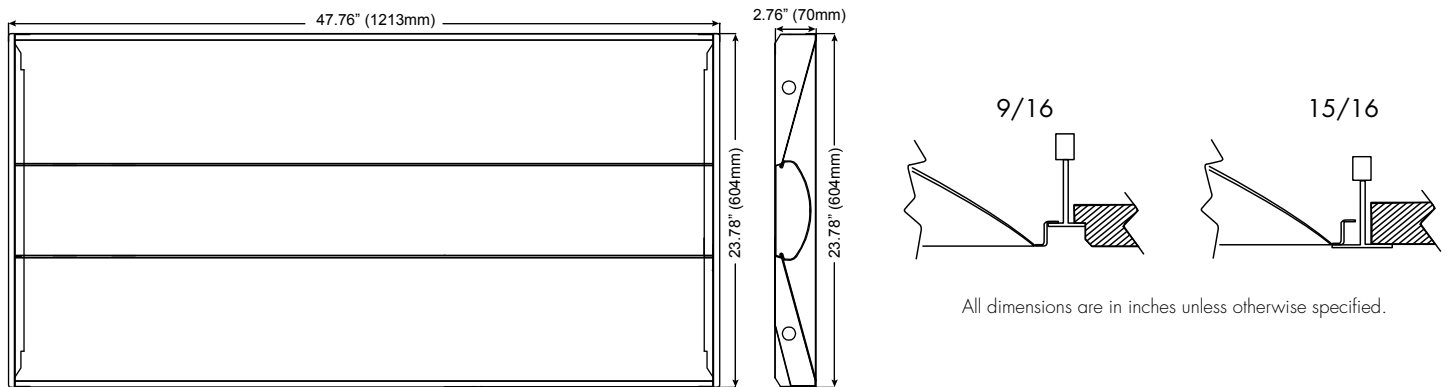
Catalog Ordering Matrix

Example: TR24D4050K

FAMILY	SIZE	DIMMING	WATTAGE ¹	COLOR TEMPERATURE
TR – Troffer	24 – 2' x 4'	D – 0-10V Dimming	30 – 30W 40 – 40W	35K – 3500K 41K – 4100K 50K – 5000K

¹ 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 TR24D3041K

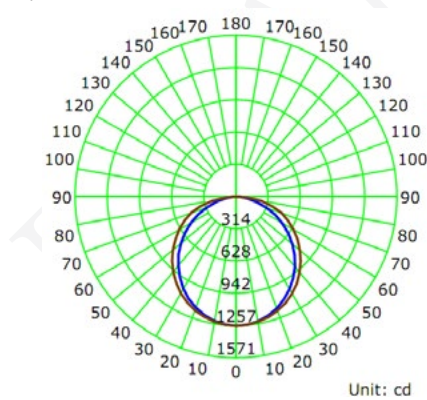
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.0	60	0.2440	29.05	0.9930

Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I _{max} (cd)	S/MH (C0/180)	S/MH (C90/270)
3756.1	129.35	1257.1	1.23	1.29

Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I _{max}):	108.7	115.1	121.9	115.3	115.3
Field Angle (10% I _{max}):	158.2	167.3	168.4	167.4	165.3

Zonal Lumen Density Measurement

Deg	Flux (lm)	%	Deg	Flux (lm)	%
0-5	30.0	0.80	0-5	30.0	0.80
5-10	88.9	2.37	0-10	118.9	3.17
10-15	144.8	3.86	0-15	263.8	7.02
15-20	195.8	5.21	0-20	459.6	12.24
20-25	240.1	6.39	0-25	699.7	18.63
25-30	276.5	7.36	0-30	976.2	25.99
30-35	303.7	8.09	0-35	1279.9	34.07
35-40	321.1	8.55	0-40	1601.0	42.62
40-45	328.2	8.74	0-45	1929.2	51.36
45-50	325.3	8.66	0-50	2254.5	60.02
50-55	312.7	8.33	0-55	2567.2	68.35
55-60	290.9	7.74	0-60	2858.1	76.09
60-65	261.2	6.96	0-65	3119.4	83.05
65-70	224.8	5.98	0-70	3344.2	89.03
70-75	181.7	4.84	0-75	3525.8	93.87
75-80	131.6	3.50	0-80	3657.4	97.37
80-85	75.5	2.01	0-85	3733.0	99.38
85-90	23.1	0.61	0-90	3756.1	100.00
90-95	0.0	0.00	0-95	3756.1	100.00
95-100	0.0	0.00	0-100	3756.1	100.00
100-105	0.0	0.00	0-105	3756.1	100.00
105-110	0.0	0.00	0-110	3756.1	100.00
110-115	0.0	0.00	0-115	3756.1	100.00
115-120	0.0	0.00	0-120	3756.1	100.00
120-125	0.0	0.00	0-125	3756.1	100.00
125-130	0.0	0.00	0-130	3756.1	100.00
130-135	0.0	0.00	0-135	3756.1	100.00
135-140	0.0	0.00	0-140	3756.1	100.00
140-145	0.0	0.00	0-145	3756.1	100.00
145-150	0.0	0.00	0-150	3756.1	100.00
150-155	0.0	0.00	0-155	3756.1	100.00
155-160	0.0	0.00	0-160	3756.1	100.00
160-165	0.0	0.00	0-165	3756.1	100.00
165-170	0.0	0.00	0-170	3756.1	100.00

Specifications and dimensions subject to change without notice.