



LED Technical Data



LED Low Bay

High efficiency LED Low Bays. Use anywhere you need exceptional light distribution for mounting heights up to 25 feet.

LIMITLESS OPTIONS for the following applications:

- Warehouses
- Commercial Facilities
- Manufacturing Facilities
- Aisles (Open and Stack)



Great Features/Benefits

- Energy efficient – Up to 60% energy savings compared to HID
- Instant on
- Long life: 50,000 hours
- Replaces traditional metal halide and linear fluorescent low bay systems
- Excellent color rendering
- Heavy duty 20 gauge housing is code grade steel

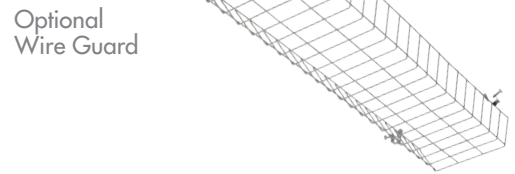
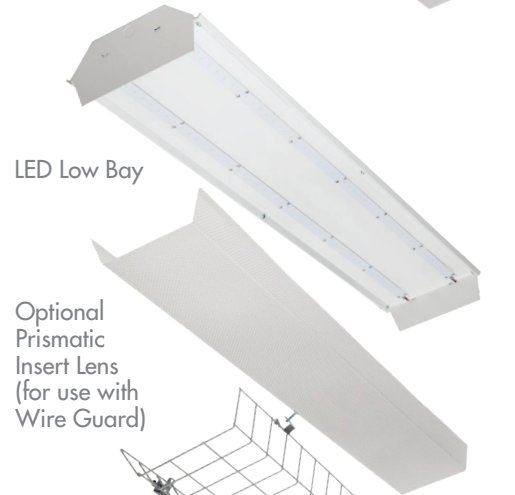
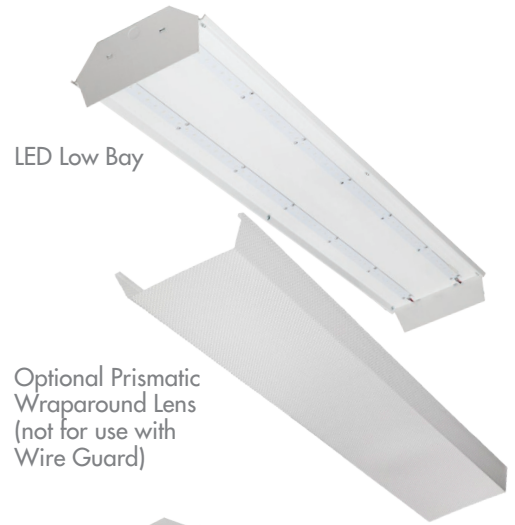


5 YEAR WARRANTY

LED Low Bay

Features/Benefits

Up to 60% less energy than HID 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.
UL approved for damp location.	Can be used outdoors when protected from elements. Withstands humidity indoors/outdoors.



Specifications

Input Line Voltage	120-277 / 347 / 480 VAC
Input Power	85W (92W for 347V & 480V)
Input Line Frequency	50/60HZ
Luminaire Life (Rated)	50,000 hours
Minimum Starting Temperature	-30°C
Maximum Operating Temperature	50°C
CRI	83
Power Factor	>90%
THD	<20% (>20% for 480V)

Warranty

Five year limited warranty against defects in manufacturing.

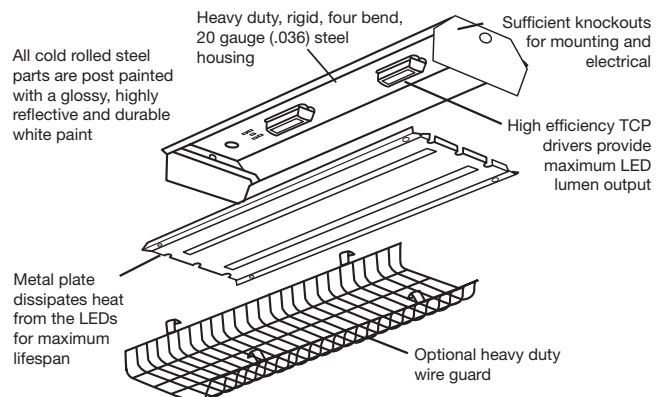
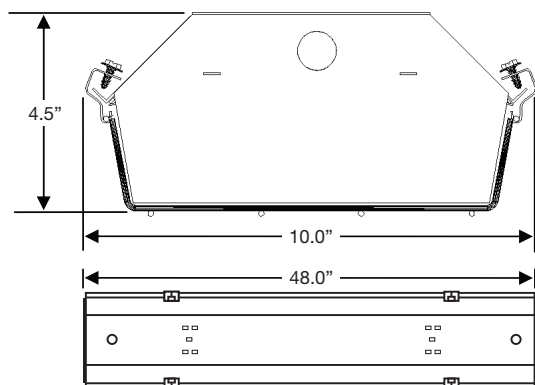
Replacement Comparison

TYPE	WATTAGE	ENERGY SAVINGS (%)
TCP LED Low Bay	85W	—
175W Metal Halide	215W	60%
3 Lamp T5 HO	182W	53%
4 Lamp T8 HBF	147W	42%



5 YEAR WARRANTY

Dimensions and Mounting Data



LED Low Bay

Applications

The TCP LED Low Bay's superior lumen package is ideal for replacing traditional metal halide and linear fluorescent low bay systems. Benefits include high efficiency, excellent color rendering, long life, instant on, and improved uniformity. Suggested mounting heights from 10' - 25' with primary applications including warehousing, commercial facilities, manufacturing facilities, open and stack aisle applications.

Construction

The full body assembly features TCP high efficiency drivers and high output LEDs. The LED Low Bay's heavy duty 20 gauge housing and 8 gauge wire guard is code gauge steel and all components, excluding the wire guard, have a baked white enamel finish that is electrostatically applied and post painted with a glossy, highly reflective and durable white paint.

Electrical

TCP high efficiency drivers are Class 2 rated, UL/cUL listed, and 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. Our drivers are tightly secured by mounting bolts.

Optics

The optional impact resistant acrylic diffuser comes in two styles. The prismatic insert lens is for use with the wire guard, while the prismatic wraparound lens is used on its own without the wire guard.



Catalog Number	
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Notes	Type
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Installation Suspension by chain, cable, or hook with appropriate accessories.	Listings UL/cUL Listed – damp location rated Design Lights Consortium (DLC) Qualified Products List RoHS Compliant
Warranty Five year limited warranty against defects in manufacturing.	

Lumen Maintenance

Lumen Maintenance Factor (LMF)			
36,000 hours ¹	50,000 hours ²	100,000 hours ²	L ₇₀ (hours) ²
93.67%	91.64%	84.73%	222,000

¹ IESNA TM-21-11 projected value based on 6X IESNA LM-80-08 total test duration of 6,000 hours.
² IESNA TM-21-11 calculated value exceeds 6X IESNA LM-80-08 total test duration of 6,000 hours.

Catalog Ordering Matrix Example: TCPLB4UNI841K

TCP	LB4			8		
BRAND	FAMILY	VOLTAGE	CONTROLS/DIMMING	LUMEN PACKAGE (Power) ^{2,3}	COLOR TEMPERATURE	OPTIONS
TCP	LB4 - 4' LED Low Bay	UNI – 120V-277V 347 – 347V ¹ 480 – 480V ¹	(blank) – Non Dimming	8 – 8,000 Lumens (85W)	41K – 4100K 50K – 5000K	(see below)

¹ Not DLC.
² Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.
³ 85W for 120-277V and 92W for 347V & 480V. Actual performance may vary based on options selected and end user application.

OPTIONS (Add to catalog number in order shown)

1 POWER CORDS

- 6C - 6' PCord 300V 16/3 SJTOOW NO PLUG
- 6C4 - 6' PCord 300V 18/4 SJTOW NO PLUG
- 6W - 6' WHIP PCord 600V 16/3 NO PLUG
- 10C - 10' PCord 277V SJTOOW NO PLUG
- 10C6 - 10' PCord 600V 15A 16/3 STOW NO PLUG
- 20C - 20' PCord 277V 20A 16/3 SJTOOW NO PLUG
- 20C4 - 20' PCord 300V 18/4 SJTOW NO PLUG

2 OCCUPANCY SENSORS

- TS1 - TCP Occupancy Sensor w/bracket and interchangeable lenses, 40' or less, 120V, 277V, or 347V.
- TS1C - TCP Cold Storage Occupancy Sensor w/bracket and interchangeable lenses, 40' or less, 120V, 277V, or 347V.
- TS4 - TCP Occupancy Sensor w/bracket and interchangeable lenses, 40' or less, 480V.
- TS4C - TCP Cold Storage Occupancy Sensor w/bracket and interchangeable lenses, 40' or less, 480V.

3 WIRE GUARD / LENS

- WG - Wire Guard
- PIL - Prismatic Insert Lens, to be used with Wire Guard
- PWL - Prismatic Wrap Lens, not to be used with Wire Guard

4 SPECIAL MOUNTING

- HCB - Hub Connector Box - 3/4" Threaded Hub Mount

5 SPECIAL PACKAGING

- SP - Single Packed

AVAILABLE HANGING KITS (ordered separately)

- EZHANGER - 15' adjustable aircraft cable hanging kit

AVAILABLE ACCESSORIES (ordered separately)

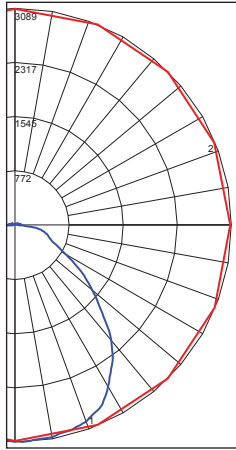
- PCWG - Wire Guard kit complete with Wire Guard and hardware
- PCINSERTLENS - Prismatic Insert Lens, to be used with Wire Guard
- PCWRAPLENS - Prismatic Wrap Lens, not to be used with Wire Guard

Photometric Reports

TCP LED Low Bay with Prismatic Wraparound Lens

LED Low Bay Luminaire with lumen rating of 8000 lumens and two high efficiency drivers operating at 120-277 VAC and 85 watts.

TCPLB4UNI841KPWL



Photometric Report

Efficiency (total) N.A.
Spacing Criterion (0-180) 1.14
Spacing Criterion (90-270) 1.36

Zonal Lumen Summary

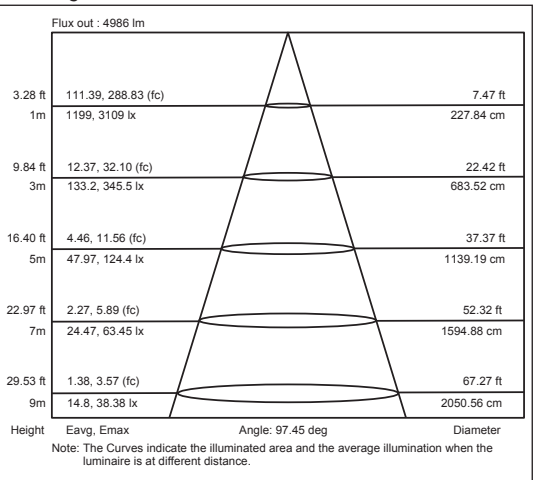
Zone	Lumens	%Lamp	%Fixture
0-20	1127.91	N.A.	14.00
0-30	2376.36	N.A.	29.50
0-40	3788.57	N.A.	47.10
0-60	6187.04	N.A.	76.90
0-80	7500.9	N.A.	93.30
0-90	7683.07	N.A.	95.50
10-90	7392.12	N.A.	91.90
20-40	2660.67	N.A.	33.10
20-50	3981.05	N.A.	49.50
40-70	3175.95	N.A.	39.50
60-80	1313.87	N.A.	16.30
70-80	536.39	N.A.	6.70
80-90	182.16	N.A.	2.30
90-110	199.14	N.A.	2.50
90-120	265.89	N.A.	3.30
90-130	310.28	N.A.	3.90
90-150	351.32	N.A.	4.40
90-180	360.49	N.A.	4.50
110-180	161.35	N.A.	2.00
0-180	8043.56	N.A.	100.00
Total Luminaire Efficiency = N.A.%			

Average Luminance

(Candelas / Square Meter)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6292	6033	7614
55	6478	5818	5529
65	6530	5919	3710
75	7261	6841	3373
85	5550	5434	4704

AAI Figure



Coefficient of Utilization Table

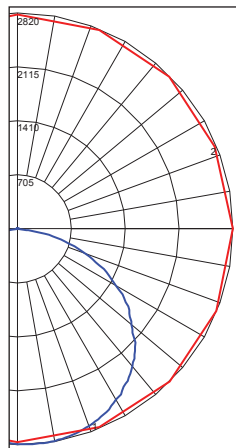
Effective Floor Cavity Reflectance = 20%

RC RW	70				50				30				10				0			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96		
1	108	103	99	95	105	100	97	93	95	92	89	91	88	86	86	84	83	80		
2	98	90	84	78	95	88	82	77	84	79	74	80	76	72	76	73	70	67		
3	90	80	72	66	87	78	71	65	74	68	63	71	66	61	68	64	60	57		
4	83	71	63	56	80	70	62	56	66	60	54	64	58	53	61	56	52	50		
5	76	64	55	49	74	63	54	48	60	53	47	57	51	46	55	50	46	43		
6	71	58	49	43	69	57	48	42	54	47	42	52	46	41	50	45	40	38		
7	66	53	44	38	64	52	44	38	50	42	37	48	41	37	46	40	36	34		
8	61	48	40	34	59	47	39	34	46	38	33	44	38	33	43	37	33	31		
9	57	44	36	31	56	43	36	31	42	35	30	41	34	30	39	34	30	28		
10	54	41	33	28	52	40	33	28	39	32	28	38	32	27	37	31	27	25		

TCP LED Low Bay

LED Low Bay Luminaire with lumen rating of 8000 lumens and two high efficiency drivers operating at 120-277 VAC and 85 watts.

TCPLB4UNI841K



Photometric Report

Efficiency (total) N.A.
Spacing Criterion (0-180) 1.32
Spacing Criterion (90-270) 1.38

Zonal Lumen Summary

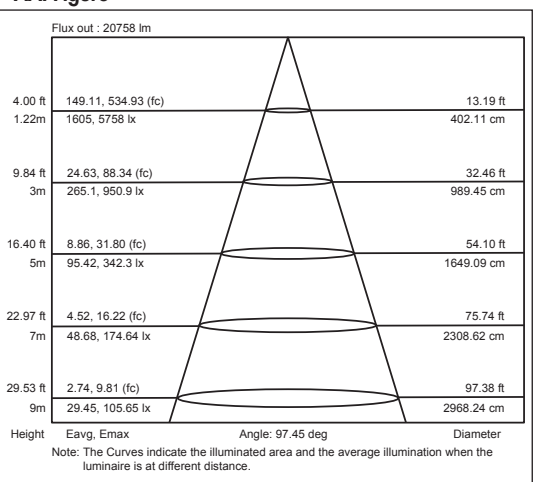
Zone	Lumens	%Lamp	%Fixture
0-20	1044.22	N.A.	11.90
0-30	2258.32	N.A.	25.70
0-40	3778.4	N.A.	43.10
0-60	6917.51	N.A.	78.80
0-80	8681.79	N.A.	98.90
0-90	8754.03	N.A.	99.80
10-90	8487.16	N.A.	96.70
20-40	2734.19	N.A.	31.20
20-50	4366.19	N.A.	49.80
40-70	4292.19	N.A.	48.90
60-80	1764.29	N.A.	20.10
70-80	611.21	N.A.	7.00
80-90	72.23	N.A.	0.80
90-110	8.01	N.A.	0.10
90-120	10.91	N.A.	0.10
90-130	13.50	N.A.	0.20
90-150	18.05	N.A.	0.20
90-180	20.88	N.A.	0.20
110-180	12.88	N.A.	0.10
0-180	8774.91	N.A.	100.00
Total Luminaire Efficiency = N.A.%			

Average Luminance

(Candelas / Square Meter)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7738	8141	8602
55	7653	8197	8397
65	7430	8002	7681
75	6752	7097	6171
85	26	352	2804

AAI Figure



Coefficient of Utilization Table

Effective Floor Cavity Reflectance = 20%

RC RW	70				50				30				10				0			
	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	95	98	94	92	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
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	57	52	61	56	52	49		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	69	56	47	40	67	55	46	40	53	45	40	51	45	39	50	44	39	37		
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32		
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29		
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26		
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23		