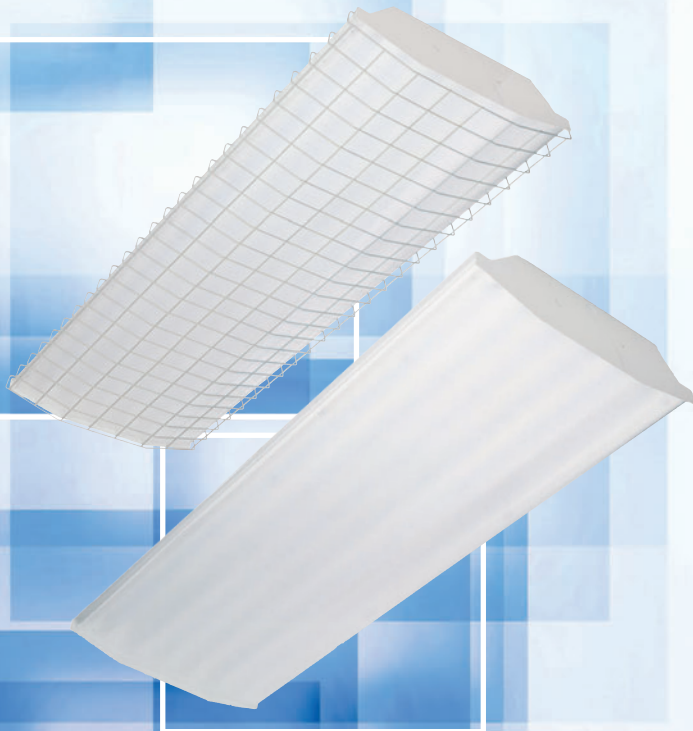




LED Technical Data

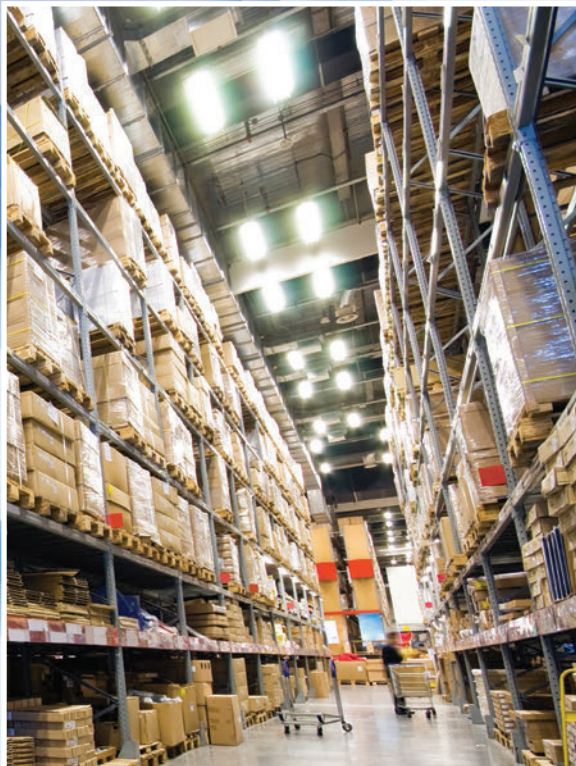


## LED Sky Bay™

High efficiency LED Sky Bays™. Use anywhere you need exceptional light distribution for mounting heights up to 60 feet.

### **LIMITLESS OPTIONS for the following applications:**

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



## Great Features/Benefits

- Energy-efficient – Up to 54% energy savings compared to HID
- Smooth, uniform dimming
- Instant on
- Long life: 50,000 hours
- Replaces traditional metal halide and linear fluorescent high bay systems
- Excellent color rendering
- Heavy duty 20 gauge housing is code grade steel

**NOTE:** Due to fixture construction, TCP advises against pendant mounting.

# LED Sky Bay™

## Features/Benefits

Up to 54% 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.

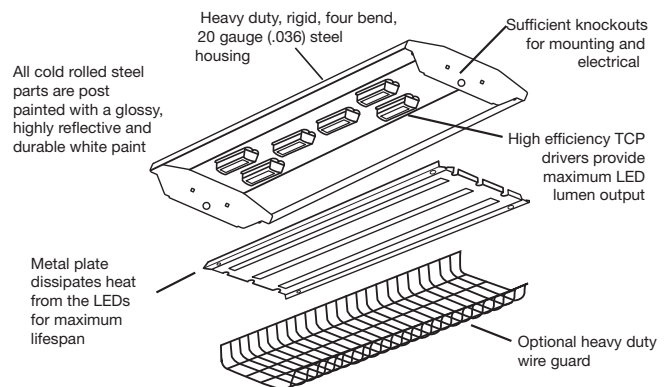
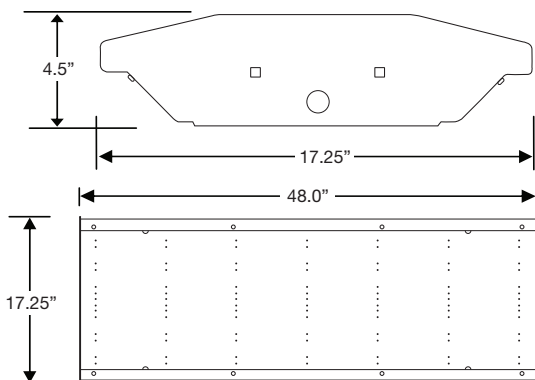
## Specifications

Input Line Voltage	120-277/347/480 VAC
Input Power	210W-250W for 120-277V (225W-270W 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%

## Replacement Comparison

TYPE	WATTAGE	ENERGY SAVINGS (%)
<b>TCP LED Sky Bay - 20,000L</b>	<b>210W</b>	—
400W Metal Halide	458W	54%
6 Lamp T5HO	351W	40%
8 Lamp T8 HBF	293W	28%
<b>TCP LED Sky Bay - 24,000L</b>	<b>250W</b>	—
8 Lamp T5HO	482W	48%
400W Metal Halide	458W	45%
10 Lamp T8 HB	366W	32%

## Dimensions and Mounting Data



LED Sky Bay™



LED Sky Bay™ with Prismatic Wraparound Lens



LED Sky Bay™ with Prismatic Lens and Wire Guard



Not all versions of this product are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products List at [www.designlights.org/qpl](http://www.designlights.org/qpl).

# LED Sky Bay™

## Applications

The TCP LED Sky Bay's superior lumen package is ideal for replacing traditional metal halide and linear fluorescent high bay systems. Benefits include high efficiency, excellent color rendering, long life, instant on, and improved uniformity. Suggested mounting heights from 30'-60' 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 Sky 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. Full range dimming is optional.

## Optics

The optional impact resistant acrylic diffuser comes in one style. The prismatic wraparound lens is designed to be used with the wire guard or on its own without the wire guard.



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

## Lumen Maintenance

Lumen Maintenance Factor (LMF)			
36,000 hours <sup>1</sup>	50,000 hours <sup>2</sup>	100,000 hours <sup>2</sup>	L <sub>70</sub> (hours) <sup>2</sup>
92.62%	90.21%	82.1%	185,000

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

## Catalog Ordering Matrix Example: TCPSB4UNI2041K

TCP	SB4					
BRAND	FAMILY	VOLTAGE	CONTROLS/DIMMING	LUMEN PACKAGE (Power) <sup>12</sup>	COLOR TEMPERATURE	OPTIONS
TCP	SB4 – 4' LED Sky Bay	UNI – 120V-277V 347 – 347V 480 – 480V	(blank) – Non Dimming ZD – 0-10V Dimming	20 – 20,000 Lumens (210W) 24 – 24,000 Lumens (250W)	41K – 4100K 50K – 5000K	(see below)

<sup>1</sup> Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.  
<sup>2</sup> 20,000L: 210W for 120-277V and 225W for 347V & 480V. 24,000L: 250W for 120-277V and 270W 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 SJTOW NO PLUG
- 6C4 - 6' PCord 300V 18/4 SJTOW NO PLUG
- 6W - 6' WHIP PCord 600V 16/3 NO PLUG
- 10C - 10' PCord 277V SJTOW NO PLUG
- 10C6 - 10' PCord 600V 15A 16/3 STOW NO PLUG
- 20C - 20' PCord 277V 20A 16/3 SJTOW 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
- PWL - Prismatic Lens

#### 4 SPECIAL PACKAGING

- SP - Single Packed

#### AVAILABLE HANGING KITS (ordered separately)

- EZHANGER - 15' adjustable aircraft cable hanging kit\*

#### AVAILABLE ACCESSORIES (ordered separately)

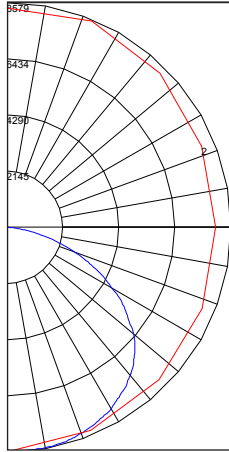
- FWGL - Wire Guard kit complete with Wire Guard and hardware (for use with lens)
- ELITELENS - Acrylic Lens

\* Due to fixture construction, TCP advises against pendant mounting.

## Photometric Reports

### Luminous Intensity Distribution Diagram

TCPSB4UNI2441K



Maximum Candela = 8579.16  
 Located At  
 Horizontal Angle = 270,  
 Vertical Angle = 20.5  
 # 1 - Vertical Plane Through  
 Horizontal Angles (270 - 90)  
 (Through Max. Cd.)  
 # 2 - Horizontal Cone Through  
 Vertical Angle (20.5) (Through  
 Max. Cd.)

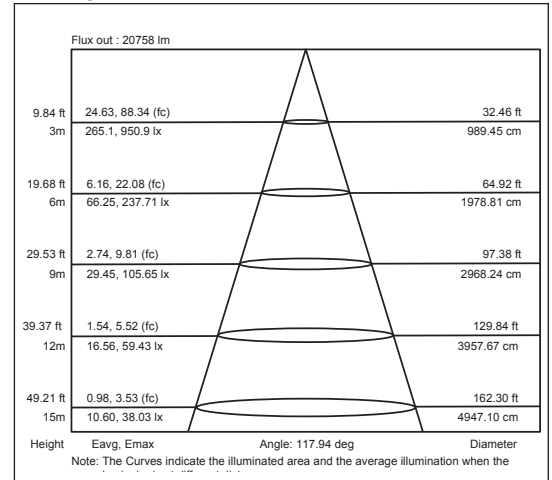
Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	6876.7	N.A.	25.60
0-40	11525.64	N.A.	42.90
0-60	21186.89	N.A.	78.80
0-90	26829.11	N.A.	99.80
90-120	26.65	N.A.	0.10
90-130	34.96	N.A.	0.10
90-150	48.14	N.A.	0.20
90-180	55.71	N.A.	0.20
0-180	26884.83	N.A.	100.00

Total Luminaire Efficiency = N.A.%

### Average Luminance (Candelas / Square Meter)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	15325	16495	17547
55	15095	16491	17373
65	14376	15743	15982
75	10229	13227	12701
85	191	1530	5260

### AAI Figure

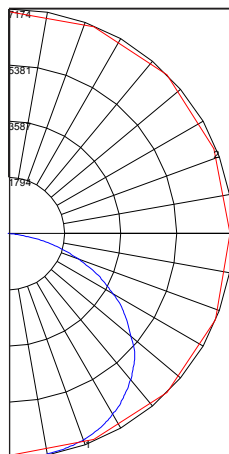


### Coefficient of Utilization Table Effective Floor Cavity Reflectance = 20%

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	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	0	
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84	84	
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70	70	
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58	58	
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	51	49	49	
5	75	62	53	46	73	61	52	46	59	51	46	57	50	45	55	49	44	42	42	
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37	37	
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32	32	
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29	29	
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26	26	
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23	23	

### Luminous Intensity Distribution Diagram

TCPSB4UNI2041K



Maximum Candela = 7174.12  
 Located At  
 Horizontal Angle = 315,  
 Vertical Angle = 4  
 # 1 - Vertical Plane Through  
 Horizontal Angles (315 - 135)  
 (Through Max. Cd.)  
 # 2 - Horizontal Cone  
 Through Vertical Angle (4)  
 (Through Max. Cd.)

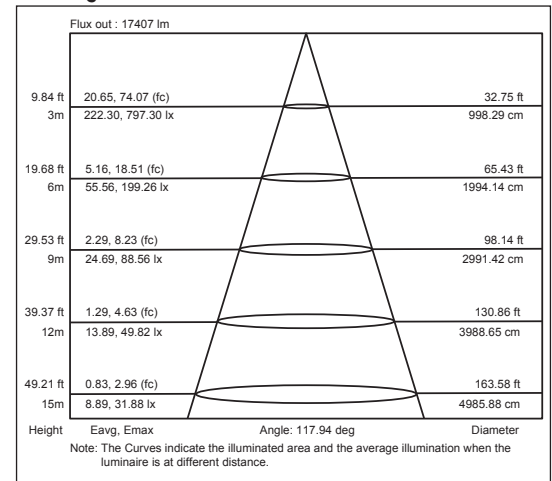
Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	5753.95	N.A.	25.50
0-40	9650.1	N.A.	42.80
0-60	17766.98	N.A.	78.90
0-90	22479.78	N.A.	99.80
90-120	21.07	N.A.	0.10
90-130	27.42	N.A.	0.10
90-150	38.52	N.A.	0.20
90-180	44.99	N.A.	0.20
0-180	22524.77	N.A.	100.00

Total Luminaire Efficiency = N.A.%

### Average Luminance (Candelas / Square Meter)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9678	10055	11409
55	9553	10028	11206
65	9149	9714	10335
75	6210	6490	8182
85	129	375	3359

### 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	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	0	
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84	84	
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70	70	
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58	58	
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	51	49	49	
5	75	62	53	46	73	61	52	46	59	51	46	57	50	45	55	49	44	42	42	
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37	37	
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32	32	
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29	29	
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26	26	
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23	23	