



**BPO LIGHTING**  
*Hazardous Area Lighting*

# HLL B TUNABLE



## Class 1 Division 2

### Key Features

**FEATURES:** Tunable Wattage  
Adjustable CCT

Compact Rugged Low-Bay/High-Bay Flood  
High Lumen Efficiency up to 165 lm/W  
Vibration and Impact Resistant

**OPTIONS:** 4 Body Sizes  
8 Mounting Styles  
T2, T3, T5, 40°, 60°, 90° or 120°  
Lens: Flat, Convex or Spherical / Clear or Frosted / Glass or PC  
High Voltage  
Emergency Back-Up

# Compliance

UL 844 Hazardous Locations  
Class I Division 2 Groups A, B, C, D  
Class I, Zone 2, Group IIC  
Class II Division 1 Groups E, F, G  
Class II Division 2 Groups F, G  
Class II, Zone 21, Group IIIC  
Zone 2, 21, 22  
Class III  
UL 1598 Suitable for Wet Locations  
UL 1598A Marine Saltwater  
UL 924 Emergency Lighting

IP66  
IP67  
IK08 (Glass Cover)  
IK10 (With Wire Guard)  
1000 Hours Salt Spray  
ETL (ATM for Report 105342415DAL-001)  
ABS  
CB (Ref. Certif. No.: DE 2-038462-M1)  
NSF  
EX II 3G Ex ec IIC T6...T3 Gc  
EX II 2D Ex tb IIIC T85°C...T103°C Db  
Ex ec IIC T6...T3 Gc  
Ex tb IIIC T85°C...T100°C Db  
DLC qualification varies for product versions.

# Applications

## **Oil and Gas**

Petroleum production and refining  
Petroleum loading, storage, transportation and retail  
Confined spaces with vapor accumulation  
LNG and LPG handling  
Oil tankers and shipping vessels  
Fuel system testing facilities

## **Power Plants**

Coal-fired power plants, including coal handling and storage areas  
Gas-fired power plants with fuel storage  
Nuclear power facilities in hazardous auxiliary areas  
Biomass or waste-to-energy plants with combustible dust risks

## **Industrial**

Industrial storage facilities  
Paper mills, sawmills and lumber yards  
Loading dock platforms  
Manufacturing plants for heavy industrial goods  
Warehouses handling flammable materials

## **Waste Treatment**

Wastewater treatment plants  
Pumping stations  
Solid waste processing and incineration facilities  
Sewage treatment with methane gas risks  
Hazardous waste recycling centers

## **Mining**

Operations and service areas  
Underground mining tunnels with gas accumulation

## **Chemical Industry**

Chemical production, processing and storage facilities  
Solvent handling and mixing areas  
Chemical research labs with flammable substances

## **Ocean, Marine and Aerospace**

Offshore platform operation facilities and structures  
Marine and saltwater environments  
Aerospace clean rooms and production areas  
Ocean vessel operations  
Shipyards and dry docks  
Aircraft hangars with fuel vapors

## **Metal Treatment**

Paint facilities  
Steel and aluminum factories  
Metal smelting, foundry and fabrication  
Welding and cutting areas with gas risks

## **Military and Defense**

Ammunition storage and handling  
Fuel depots and refueling stations  
Explosives manufacturing  
Vehicle maintenance bays in hazardous zones

## **Food, Alcohol and Agriculture Industry**

Flour and fine particle production and storage  
Food and distilling production  
Grain storage elevators and silos  
Breweries and fermentation tanks  
Feed mills with dust risks  
Fertilizer production and storage

## **Pharmaceutical Industry**

Drug manufacturing and solvent handling  
Clean rooms with volatile compounds  
Pill coating and drying areas  
Research and development labs

**Other high humidity, high dust, high temperature and vapor locations**

# Specifications

Wattage	20 W	25 W	30 W	35 W	40 W	50 W	60 W	70 W	20 W	30 W	40 W	50 W	60 W	80 W	100 W	20 W	40 W	50 W	60 W	80 W	100 W	120 W	150 W	180 W	200 W	240 W	150 W	180 W	200 W	250 W	300 W	350 W	400 W	500 W
Body	B2								B5								BX								B4									

## OPTICAL

Lumen Output	3000 lm	3750 lm	4500 lm	5250 lm	6000 lm	7500 lm	9000 lm	10500 lm	3000 lm	4500 lm	6000 lm	7500 lm	9000 lm	12000 lm	15000 lm	3000 lm	6000 lm	7500 lm	9000 lm	12000 lm	15000 lm	18000 lm	22500 lm	27000 lm	30000 lm	36000 lm	24750 lm	29700 lm	33000 lm	41250 lm	49500 lm	57750 lm	66000 lm	82500 lm		
Lumens Per Watt	150 lm/W																								165 lm/W											
Color Temperature: CCT	<b>SELECTABLE: Standard 5000K Options: 2700K/4000K/5000K/5700K/6500K</b>																																			
CRI (Color Rendering Index)	>70																																			
Beam Angle	<b>Standard: 120° Options: 40°/60°/90°/T2/T3/T5</b>																																			
Dimming	0-10V dimming																																			

## ENVIRONMENTAL

Ambient Operating Temperature	T4A: -40°C to +55°C (-40°F to +131°F)	T5: -40°C to +60°C (-40°F to +140°F)	T4A: -40°C to +50°C (-40°F to +122°F)	350W/400W T5: -40°C to +55°C (-40°F to +131°F) 500W T4: -40°C to +55°C (-40°F to +131°F)
Temperature Code	T4 +55°C	T5 +60°C	T4A +50°C	T5 +55°C, T4A +55°C
Power Model (120-277VAC/347VAC)	SS-100VA-56BHL	SS-150VA-56BHL	XLG-240-H-ABL	350W SS-500VP 400W/500W SS-600VP

## MECHANICAL

Housing Material	Die-cast Aluminum
Lens Diffuser	<b>Standard:</b> Clear Flat Glass <b>Options:</b> Clear Flat Glass, Clear Convex Glass, Clear Flat PC, Clear Convex PC, Frosted Flat Glass, Frosted Convex PC, Clear Spherical Glass (B2), Frosted Spherical Glass (B2)
Hardware	Stainless steel 304
Fixture Color	Grey RAL 7040 (Standard)
Mounting	Ceiling, Wall, Pole, Pendant
Cable Entry	3/4" NPT
LED Chip	2835
Warranty	5 Year Standard Warranty

ELECTRICAL		
Lifespan	L70> 150,000 Operational Hours @ 55°C	
Input Voltage	120-277VAC, 120-347VAC, 277-480VAC	
Input Frequency	50/60Hz	
Power Factor	> 0.95	
LED Driver	Sosen/Fahold (120-270VAC/120-347): Meanwell (200-480VAC)	
EMERGENCY		
Emergency Time	No Emergency Function	1.5 Hour, 3 Hour

# Ordering Logic

ORDER EXAMPLE: HLL B EX 100W B5 D 50 D120 T

(1) Product	(2) Product Category	(3) Rated Input Wattage	(4) Shape Series	(5) Dimming
HLL B	EX - Explosion Proof	80W: 80W/60W/40W [B2] 100W: 100W/80W/60W [B5] 200W: 200W/150W/120W [BX] <a href="#">Inquire About Additional Wattage Combinations:</a> B2: 20W, 25W, 30W, 35W, 40W, 50W, 60W, 70W B5: 20W, 30W, 40W, 50W, 60W, 80W, 100W BX: 20W, 40W, 50W, 60W, 80W, 100W, 120W, 150W, 180W, 200W, 240W B4: 150W, 180W, 200W, 250W, 300W, 350W, 400W, 500W	B2 B5 BX B4	Blank - Non-Dimmable D - Dimmable (S)
(6) Kelvin	(7) Beam Angle	(8) Lens	(9) Dual Tunable	(10) Backup Power Source
27 - 2700 K	D40 - 40°	CFG or Blank - Clear Flat Glass (S)	T- With Tunable	Blank - Without Emergency Battery
40 - 4000 K	D60 - 60°	CCG - Clear Convex Glass		EM - Emergency Battery (B5, BX & B4)
50 - 5000 K (S)	D90 - 90°	CFP - Clear Flat PC		
57 - 5700 K	D120 - 120° (S)	CCP - Clear Convex PC		
65 - 6500 K	T2 - 60°	CSG - Clear Spherical Glass (B2)		
	T3 - 90°	FFG - Frosted Flat Glass		
	T5 - 120°	FCG - Frosted Convex Glass		
		FSG - Frosted Spherical Glass (B2)		

(S) Standard

# Accessories



45° Bracket



Bracket



Lifting Hook



EX Junction Box



90° Stanchion Pole Mount



25° Stanchion Pole Mount



Threaded Pipe



Bent Threaded Pipe



Chain

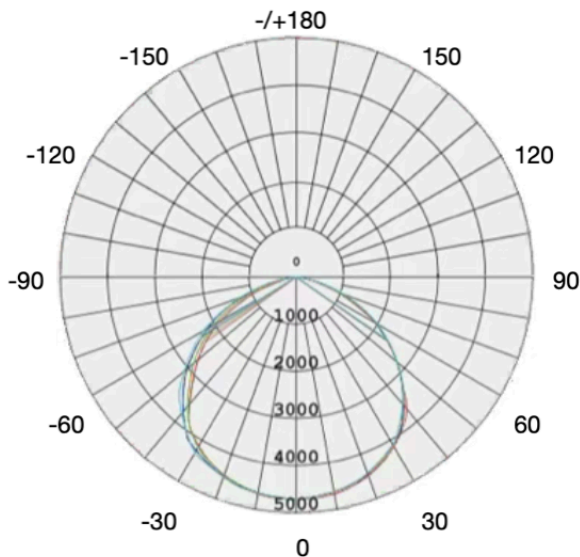


25° Stanchion Junction Box



90° Stanchion Junction Box

# Photometric



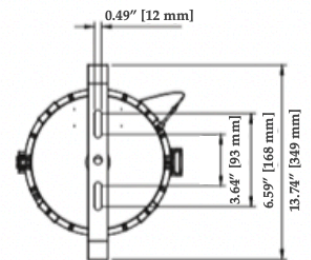
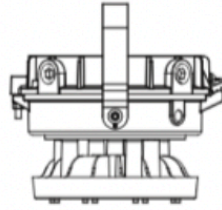
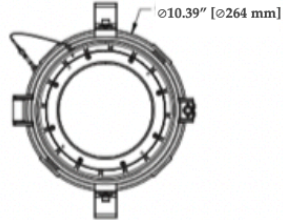
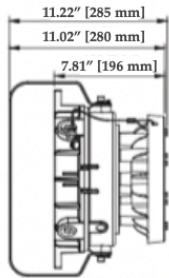
120 Degree

Average Beam Angle (50%): 112.1 Degree

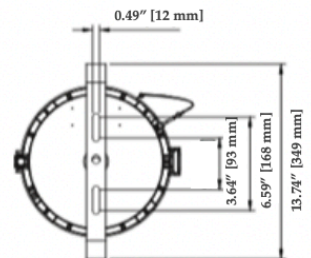
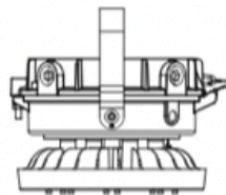
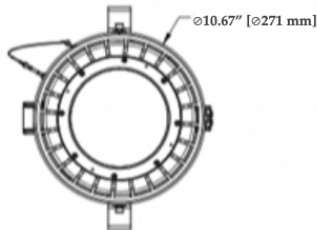
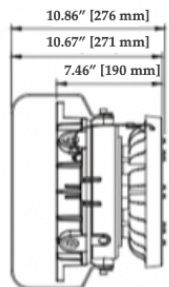
- UNIT: cd
- C0/180, 109.6°
- C30/210, 111.2°
- C60/240, 113.1°
- C90/270, 114.7°

# Product Dimensions

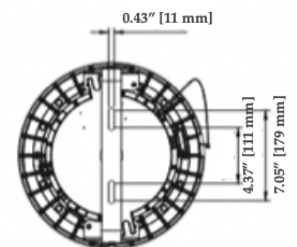
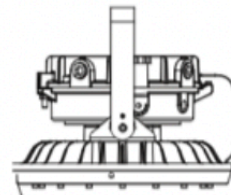
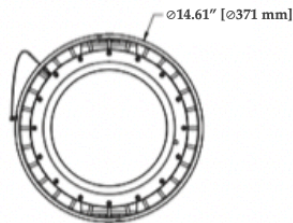
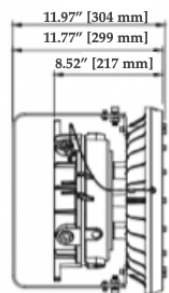
**B2**



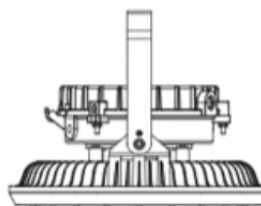
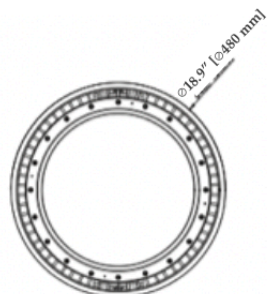
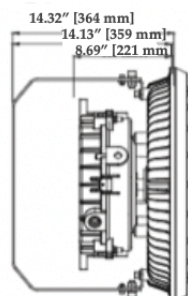
**B5**



**BX**



**B4**

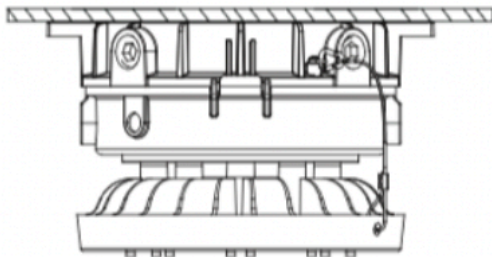


# Packaging Information

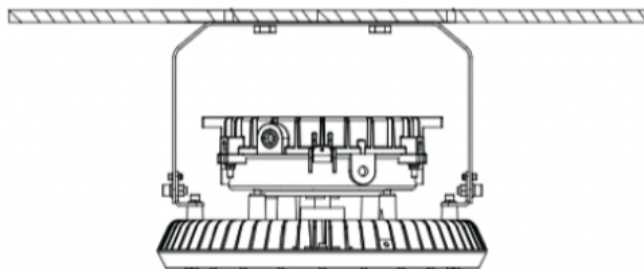
	B2	B5	BX	B4
Pieces	1	1	1	1
Fixture Dimensions	See Product Dimensions Drawing	See Product Dimensions Drawing	See Product Dimensions Drawing	See Product Dimensions Drawing
Package Dimensions	17.72 x 17.72 x 11.81 in (450 x 450 x 300 mm)	17.72 x 17.72 x 11.81 in (450 x 450 x 300 mm)	17.72 x 17.72 x 12.60 in (450 x 450 x 320 mm)	22.64 x 22.64 x 14.02 in (575 x 575 x 356 mm)
Net Fixture Weight	14.11 lb (6.4kg)	16.09 lb (7.3 kg)	25.13 lb (11.4kg)	37.48 lb (17.0 kg)
Gross Weight	15.65 lb (7.1 kg)	18.08 lb (8.2kg)	27.34 lb (12.4 kg)	51.81 lb (23.5 kg)

# Mounting Methods

## Option 1: Ceiling Mount



## Option 2: Bracket Mount

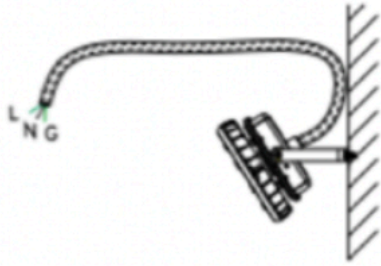


## Accessory



**Bracket**

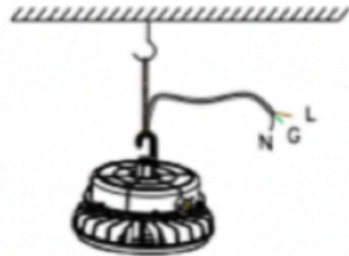
**Option 3: Wall Mount**



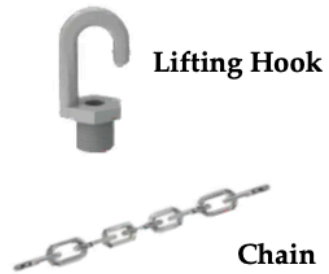
**Accessory**



**Option 4: Hook & Chain Mount**



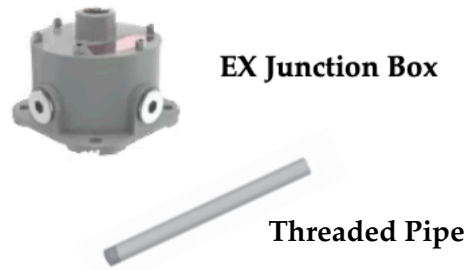
**Accessory**



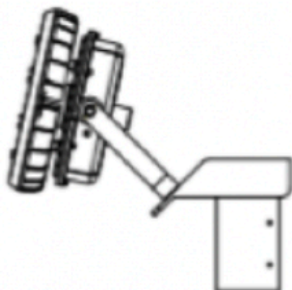
**Option 5: Pendant Mount**



**Accessory**



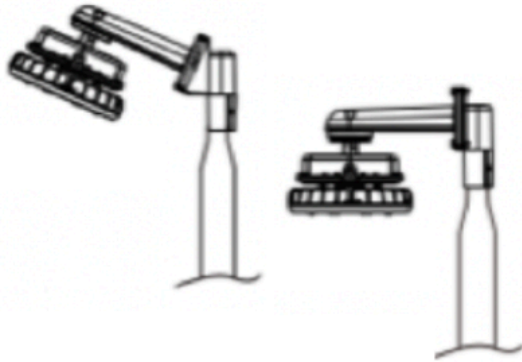
**Option 6: 45° Pole Mount**



**Accessory**



**Option 7: Stanchion Pole Mount**



**Accessory**

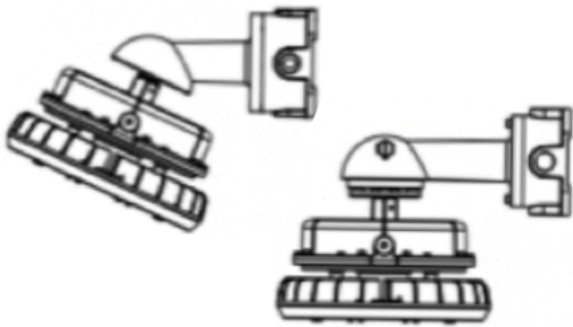


**25° Stanchion Pole Mount**



**90° Stanchion Pole Mount**

**Option 8: Wall Stanchion Mount With Junction Box**



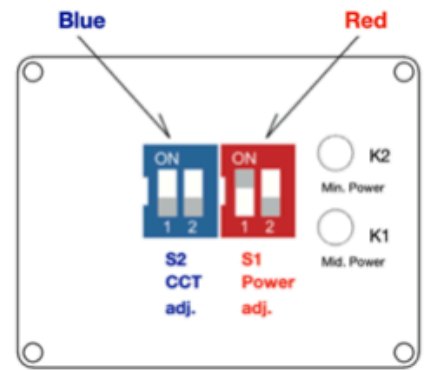
**Accessory**



**25° Stanchion Junction Box**






**90° Stanchion Junction Box**



## OPERATING INSTRUCTIONS




### S1 DIP SWITCH - RED (S1 Power adj.)

**The power adjustment dial switch can be set to three power levels, and the factory default setting can be defined according to order requirements.**

-  First gear (Max. power), 100% full power.  
Operation instructions: Dial 1 and 2 are both in the OFF position;  
Example: 100W
-  Second gear (Mid. power), 70%-80% power, can be set according to the required power.  
Operation instructions: Dial 1 is in the ON position, Dial 2 is in the OFF position;  
Example: 80W
-  Third gear (Min. power), 50%-60% power, can be set according to the required power.  
Operation instructions: Dial 1 is in the OFF position, Dial 2 is in the ON position;  
Example: 60W

### S2 DIP SWITCH - BLUE (S2 CCT adj.)

**The color temperature dial switch can be set to three levels of color temperature, and the factory default setting can be defined according to order requirements.**

-  First gear, the cold white temperature gear, for example, 6500K.  
Operation instructions: Dial 1 and 2 are both in the OFF position;  
6500K
-  Second gear, the neutral temperature gear, for example, 5000K.  
Operation instructions: Dial 1 is in the ON position, and Dial 2 is in the OFF position;  
5000K
-  Third gear, the warm white temperature gear, for example, 4000K.  
Operation instructions: Dial 1 and 2 are both in the ON position;  
4000K

#### (1) Power Adjuster:

Connect to the 0/1-10V dimming port of the LED driver.

#### (2) CCT Adjuster:

Connect the output voltage of the LED driver:  
DC20 - 60V LED driver maximum no - load output voltage: 68V max

#### (3) The three - gear power setting principle is as follows:

The first gear is 100%, the second gear is 70 - 80%, and the third gear is 50 - 60%.  
The minimum setting cannot be lower than 50%.