

# HXB Series

LED High-Bay Luminaire

## Product Description

The HXB Series LED High-Bay luminaire delivers 35,000 and 70,000 lumens with illumination performance to allow one-for-one replacement of 500W and 1000W HID luminaires. With exceptional rated lifetimes and operating temperatures, industry-leading lumens per watt and lightweight construction, the HXB Series provides phenomenal light quality and energy efficiency and reduced maintenance in the most demanding environments.

**Applications:** Industrial, warehouse, and retail spaces

## Performance Summary

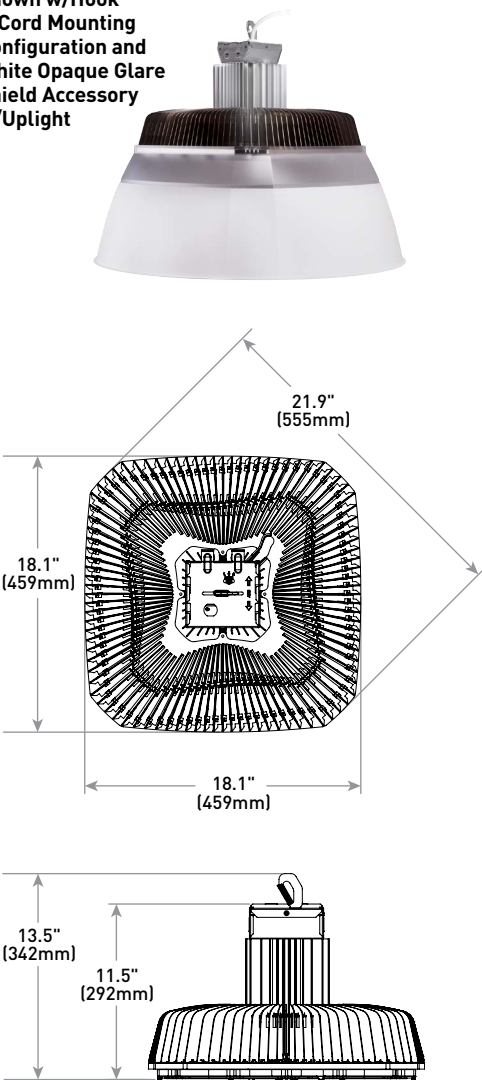
<b>Initial Delivered Lumens:</b> 35,000 or 70,000
<b>Efficacy:</b> Up to 140 LPW
<b>CRI:</b> 70 CRI (70,000 lumen); 80 CRI (35,000 lumen)
<b>CCT:</b> 3500K (35,000 lumen), 4000K, or 5000K
<b>Mounting:</b> Hook and cord, J-box, or pendant
<b>Input Voltage:</b> 120-277 VAC (35,000 lumen), 208-277 VAC (70,000 lumen)
<b>Dimming:</b> 0-10V dimming to 10% (standard)
Made in the U.S.A. of U.S. and imported parts
<b>Operating Temperature Range:</b> -40°C to +65°C (-40°F - +149°F)
<b>Lumen Maintenance:</b> L <sub>70</sub> > 100,000 hours at 65°C (149°F)
<b>Limited Warranty<sup>1</sup>:</b> 10 years on luminaire

<sup>1</sup>See <http://lighting.cree.com/warranty> for warranty terms

## Accessories

Field-Installed	
<b>Galvanized Safety Cables</b> SC-5 - 5.0' (1.5m) Cable SC-10 - 10.0' (3.0m) Cable	<b>Anti-Spin Adaptor</b> HXB-AS - Anti-spin accessory for hook and cord mounting configuration
Field-Installed NEMA® Plug	
<b>AP-515P</b> - 15 amp 120V Straight Blade Plug - 35L only <b>AP-L515P</b> - 15 amp 120V Twist Lock Plug - 35L only	<b>AP-L615P</b> - 15 amp 240V Twist Lock Plug <b>AP-L715P</b> 15 amp 277V Twist Lock Plug
Glare Shield	
<b>HXB-GS30-OP (Single Pack)</b> <b>HXB-GS30-OP-MP (Multi-Pack)</b> - 30" (762mm) white opaque glare shield - Impact-resistant polycarbonate - Single pack ships as one glare shield per box - Multi-pack ships up to 4 glare shields per box - Severe impact may dislodge glare shield <b>HXB-GS30-OPU (Single Pack)</b> <b>HXB-GS30-OPU-MP (Multi-Pack)</b> - 30" (762mm) white opaque glare shield with uplight - Impact-resistant polycarbonate - Single pack ships as one glare shield per box - Multi-pack ships up to 4 glare shields per box - Severe impact may dislodge glare shield	<b>HXB-GS30-WH (Single Pack)</b> <b>HXB-GS30-WH-MP (Multi-Pack)</b> - 30" (762mm) white translucent glare shield - Impact-resistant polycarbonate - Single pack ships as one glare shield per box - Multi-pack ships up to 4 glare shields per box - Severe impact may dislodge glare shield

Shown w/Hook & Cord Mounting Configuration and White Opaque Glare Shield Accessory w/Uplight



### Weight

28 lbs. (13kg)

## Ordering Information

Example: HXB-A-UV-35L-M-35K-UL-SV

Light Engine										
HXB	A	UV							SV	
Product	Version	Mounting	Initial Delivered Lumens	Optic	CCT	Voltage	Color			
HXB	A	UV Universal Mount: hook and cord with 6ft whip, adaptor plate for J-box and pendant	35L 268-273W, 35,000 lumens - 140LPW 70L 495W, 70,000 lumens - 140LPW	M Medium optic; 1.45C A Aisle optic - 35L only	35K 3500K - 35L only 40K 4000K	50K 5000K	UL 120-277V - 35L only UM 208-277V - 70L only	SV Silver		



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US: [lighting.cree.com/lighting](http://lighting.cree.com/lighting)

T (800) 236-6800 F (262) 504-5415

Canada: [www.cree.com/canada](http://www.cree.com/canada)

T (800) 473-1234 F (800) 890-7507

# HXB Series LED High-Bay Luminaire

## Product Specifications

### CONSTRUCTION & MATERIALS

- Aluminum bonded zipper fin heatsink
- Low-profile, lightweight design provides ease of installation
- Mounting choices of direct J-Box/pendant and hook, cord & plug
- J-box mount mounts directly over existing 4" (102mm) single gang square, rectangular and octagonal junction boxes for direct mount
- J-box mount has provision to accept ¾ IP pendant (by others)
- UV mount is provided with factory installed spring lock hook for mounting and factory installed 6' (1.8m) 16/3 AWG white power cord
- Factory calibrated to hang straight
- Designed for downlight applications only

### OPTICAL SYSTEM

- Fresnel lenslet optics for medium flood (1.4SC) and aisle lighting applications

### ELECTRICAL SYSTEM

- Integral, high-efficiency driver
- **Input Voltage:** 120-277V (UL), 208-277V (UM), 60Hz
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20%
- Integral 6kV surge suppression protection standard
- Designed with 0-10V dimming capabilities to 10%
- **10V Source Current:** 0.15mA
- **Operating Temperature Range:** -40°C - +65°C [-40°F - +149°F]

### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for damp locations
- Not intended for use in environments containing airborne corrosive agents such as chemical solvents, cleaners, or cutting fluids
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- DLC Premium qualified. Please refer to [www.designlights.org/OPL](http://www.designlights.org/OPL) for most current information

Recommended HXB Series Lumen Maintenance <sup>1</sup>					
Ambient	Initial LMF	25K hr Projected <sup>2</sup> LMF	50K hr Calculated <sup>3</sup> LMF	75K hr Calculated <sup>3</sup> LMF	100K hr Calculated <sup>3</sup> LMF
25°C (77°F)	1.00	0.97	0.95	0.93	0.90
30°C (86°F)	0.99	0.96	0.94	0.92	0.90
35°C (95°F)	0.98	0.95	0.93	0.91	0.89
40°C (104°F)	0.97	0.94	0.92	0.90	0.88
45°C (113°F)	0.96	0.93	0.91	0.89	0.87
50°C (122°F)	0.95	0.92	0.90	0.88	0.86
55°C (135°F)	0.94	0.91	0.89	0.87	0.85
60°C (140°F)	0.92	0.90	0.88	0.86	0.84
65°C (149°F)	0.91	0.89	0.87	0.85	0.83

<sup>1</sup>Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

<sup>2</sup>In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

<sup>3</sup>In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

Glare Shield Uplight Illumination Performance	
Glare Shield	% of Uplight
HXB-GS30-OP	0.8%
HXB-GS30-OPU	4.5%
HXB-GS30-WH	1.0%

Electrical Data*							
Lumen Designator	CCT	Initial Delivered Lumens	System Watts 120-277V	Total Current (A)			
				120V	208V	240V	277V
35L	3500K	33,775	273 (120V) 268 (208V-277V)	2.28	1.29	1.12	0.97
	4000K	35,000					
	5000K	36,925					
70L	4000K	67,755	495 (208V-277V)	N/A	2.40	2.07	1.80
	5000K	71,429					

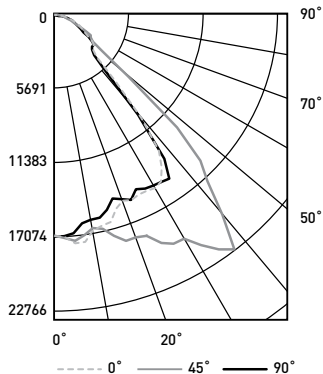
\* Data provided at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%. Actual production yield may vary between -10 and +10% of initial delivered lumens



**Photometry**

**HXB-A-UV-35L-M-50K-UL BASED ON RESTL REPORT TEST #: PL08638-001B**

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	107	103	100
2	103	96	90	86
3	95	86	80	74
4	88	78	71	65
5	82	71	63	58
6	77	65	57	51
7	71	59	52	46
8	67	55	47	42
9	63	51	43	38
10	59	47	40	35

Average Luminance Table (cd/m <sup>2</sup> )			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	32,994	122,223	34,721
55°	33,714	33,647	33,159
65°	25,623	27,120	27,993
75°	28,469	19,066	27,556
85°	32,242	21,147	32,451

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	14,068	N/A	38.2%
0-40	24,290	N/A	65.9%
0-60	33,320	N/A	90.4%
0-90	36,744	N/A	99.7%
0-180	36,867	N/A	100%

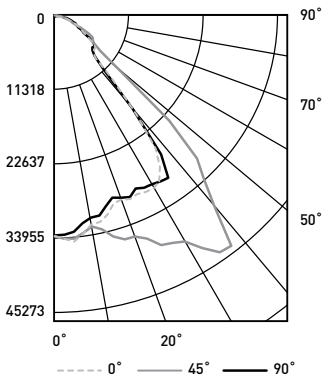
Effective Floor Cavity Reflectance: 20%

Reference <http://lighting.cree.com/products/indoor/high-bay-low-bay/hxb-series> for detailed photometric data

**Photometry**

**HXB-A-UV-70L-M-50K-UM BASED ON RESTL REPORT TEST #: PL08933-001A**

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	107	103	100
2	103	96	90	86
3	95	86	80	74
4	88	78	71	65
5	82	71	63	57
6	76	65	57	51
7	71	59	52	46
8	67	55	47	42
9	63	50	43	38
10	59	47	39	35

Average Luminance Table (cd/m <sup>2</sup> )			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	67,899	235,811	65,226
55°	69,982	68,536	68,164
65°	58,275	55,345	50,644
75°	56,217	38,367	55,704
85°	66,663	43,236	60,873

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	27,603	N/A	38.1%
0-40	47,624	N/A	65.8%
0-60	65,233	N/A	90.1%
0-90	72,074	N/A	99.6%
0-180	72,391	N/A	100%

Effective Floor Cavity Reflectance: 20%

Reference <http://lighting.cree.com/products/indoor/high-bay-low-bay/hxb-series> for detailed photometric data