

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

Initial Delivered Lumens: 35,000 or 70,000
Efficacy: Up to 140 LPW
CRI: 70 CRI (70,000 lumen); 80 CRI (35,000 lumen)
CCT: 3500K (35,000 lumen), 4000K, or 5000K
Mounting: Hook and cord, J-box, or pendant
Input Voltage: 120-277 VAC (35,000 lumen), 208-277 VAC (70,000 lumen), 347/480V refer to transformer accessory
Dimming: 0-10V dimming to 10% (standard)
Assembled in the U.S.A. of U.S. and imported parts
Operating Temperature Range: -40°C to +65°C (-40°F - +149°F)
Lumen Maintenance: $L_{70} \geq 100,000$ hours at 65°C (149°F)
Limited Warranty[†]: 10 years on luminaire

[†] See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed		
Galvanized Safety Cables SC-5 - 5.0' (1.5m) Cable SC-10 - 10.0' (3.0m) Cable	Anti-Spin Adaptor HXB-AS - Anti-spin accessory for hook and cord mounting configuration	
Field-Installed NEMA® Plugs		
AP-515P - 15 amp 120V Straight Blade Plug - 35L only	AP-L615P - 15 amp 240V Twist Lock Plug	AP-L2420P - 20 amp 347V Twist Lock Plug
AP-L515P - 15 amp 120V Twist Lock Plug - 35L only	AP-L715P - 15 amp 277V Twist Lock Plug	AP-L820P - 20 amp 480V Twist Lock Plug
Reflectors		
Single Pack HXB-GS30-OP: White Opaque Reflector HXB-GS30-WH: Clear Translucent Reflector HXB-GS30-OPU: White Opaque Reflector w/Uplight - All reflectors are 30" (762mm) impact-resistant polycarbonate - Severe impact may dislodge reflector	Multi Packs HXB-GS30-OP-MP: White Opaque Reflector HXB-GS30-WH-MP: Clear Translucent Reflector HXB-GS30-OPU-MP: White Opaque Reflector w/Uplight - Single pack SKUs ship as one reflector per box - Multi-pack SKUs require a minimum order of 4 pieces or more, and ship together in as few boxes as possible	
Transformer		
HXB-TF-UH-HT - High temperature field-installed transformer accessory for 347/480V applications - Operating Temperature Range: -40°C - +65°C (-40°F - +149°F)		

Ordering Information

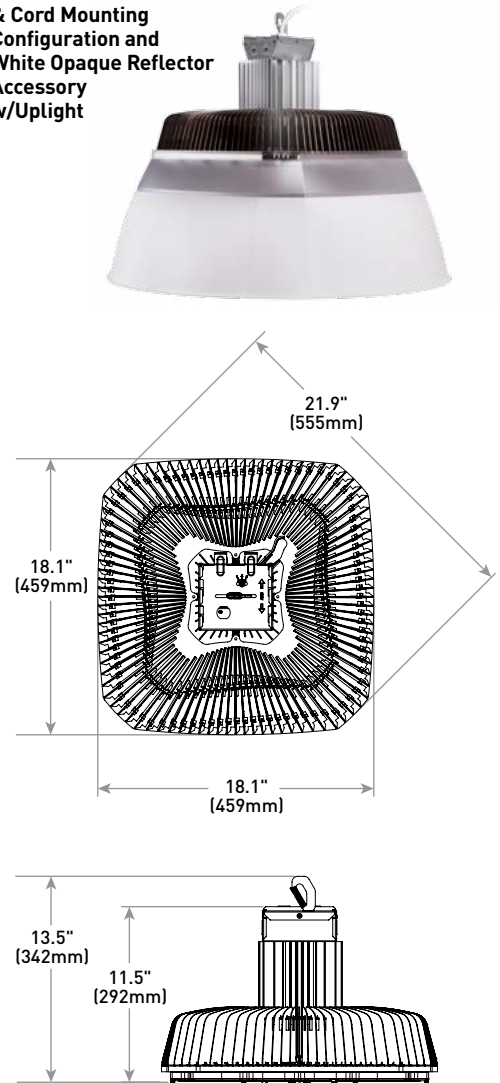
Example: HXB-A-UV-35L-M-35K-UL-SV

HXB	A	UV					SV	
Product	Version	Mounting	Lumen Package*	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 70L 495W, 70,000 lumens	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

* Refer to Initial Delivered Lumen tables for lumen values

** Available with 347/480V when ordered with field-installed transformer accessory (see table above)

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



Weight

28 lbs. (13kg)



US: lighting.cree.com

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Rev. Date: V7 05/04/2017

Canada: 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) and 208-277V (UM), 50/60Hz; 347/480V (Transformer Accessory), 60Hz
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20% (luminaire only)
- Integral 6kV surge suppression protection standard
- Designed with 0-10V dimming capabilities to 10%
- **10V Source Current:** 0.15mA
- **Operating Temperature Range:** 120-277V: -40°C - +65°C (-40°F - +149°F); 347/480V: Refer to field-installed transformer accessory on page 1 for details

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for damp locations
- Requires minimum 105C supply conductors
- Not for use when mounting to combustible surfaces
- 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
- RoHS compliant. Consult factory for additional details
- DLC Premium qualified. Please refer to www.designlights.org/QPL for most current information

Recommended HXB Series Lumen Maintenance ¹						
Ambient	Lumen Package	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
25°C (77°F)	35L/70L	1.00	0.96	0.92	0.89	0.86
30°C (86°F)	35L/70L	0.99	0.95	0.91	0.88	0.85
35°C (95°F)	35L/70L	0.98	0.94	0.90	0.87	0.84
40°C (104°F)	35L/70L	0.97	0.93	0.89	0.86	0.83
45°C (113°F)	35L/70L	0.96	0.92	0.89	0.85	0.82
50°C (122°F)	35L	0.95	0.91	0.88	0.84	0.82
	70L	0.95	0.91	0.88	0.85	0.82
55°C (135°F)	35L	0.94	0.90	0.87	0.84	0.81
	70L	0.94	0.89	0.86	0.82	0.79
60°C (140°F)	35L	0.92	0.89	0.86	0.83	0.80
	70L	0.92	0.87	0.83	0.80	0.76
65°C (149°F)	35L	0.91	0.87	0.85	0.82	0.79
	70L	0.91	0.86	0.81	0.77	0.73

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

² 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

³ 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

Reflector Illumination Performance		
Reflector	% of Uplight	Lumen Multiplier
HXB-GS30-OP	0.3%	0.96
HXB-GS30-OPU	4.5%	0.96
HXB-GS30-WH	2.1%	0.96

Electrical Data*										
Lumen Package	CCT	Initial Delivered Lumens**	System Watts		Total Current (A)					
			120-277V 50/60Hz	347/480V 60Hz Only	120V	208V	240V	277V	347V	480V
35L	3500K	33,775	273 (120V) 268 (208V-277V)	279	2.28	1.29	1.12	0.97	0.85	0.62
	4000K	35,000								
	5000K	36,925								
70L	4000K	67,755	495 (208V-277V)	521	N/A	2.40	2.07	1.80	1.51	1.10
	5000K	71,429								

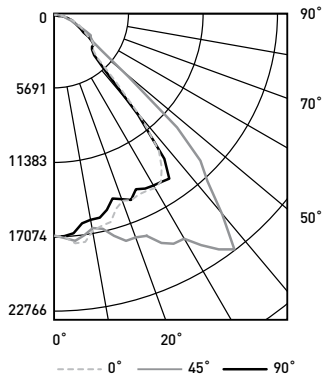
* Data provided at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120 or 208V-277V or 347/480V +/-10% with transformer accessory. Actual production yield may vary between -10 and +10% of initial delivered lumens

** Initial delivered lumen values based on luminaire without reflector. Refer to reflector Illumination Performance table for lumen multipliers when using reflector accessory

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 ²)			
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%

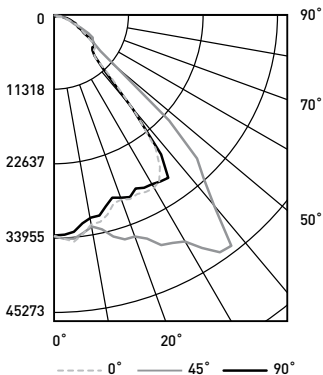
Effective Floor Cavity Reflectance: 20%

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 ²)			
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