

Alphalite

PROJECT NAME

CATALOG NO.

TYPE

DATE

NOTE

HIGH PERFORMANCE LED HIGH-BAY AND LOW-BAY

HBX

DESCRIPTION

The HBX Series LED High Bay and Low Bay delivers high lumen output, long life, dimming capabilities, and no restrike time. This energy-efficient LED luminaire offers one-to-one replacement of existing HID or fluorescent high bays. Quality manufactured die cast body integrated with high performance components enables long life and lower maintenance costs.

APPLICATION

Warehouse, manufacturing facilities, retail, gymnasiums, grocery.

SPECIFICATION FEATURES

Construction

Rugged die-cast aluminum housing withstands environments without climate control. Outer surface treated with durable powder coating to provide resistance to corrosion, rust, weathering, and UV degradation. Performance-engineered, integral heat dissipation fins and LED thermal substrate provides superior thermal management for long life and reliability.

Electrical

Luminaire utilizes long life, high efficacy LEDs and a highly efficient, reliable LED driver. 120V-277V input voltage for increased versatility. Comes equipped with quick disconnect for compliance with US code.

Mounting

Comes standard equipped with hook mounting. Various mounting options available: J-box, pendant with 3/4" HUB.



Optics

Various optical reflector systems available to adjust distribution.

Finish

Outer surface treated with durable powder coating to provide resistance to corrosion, rust, weathering, and UV degradation.

Certifications / Regulatory

UL listed. DLC QPL listed. All components have safety approvals.

Warranty

5-year limited warranty. See complete warranty terms for details.

HBX

HBX Series

80W, 100W, 120W,
150W, and 200W



Quick Ship Product

HBX-H120/50K
HBX-VH200/50K-10V

ORDERING INFORMATION

Sample Number: HBX-100/50K

HBX	L100	50K	(Blank)	(Blank)		
Series HBX -LED High Bay (round)	Nominal Wattage (Lumen Package) L80 - 80W L100 - 100W H120 - 120W H150 - 150W VH200 - 200W	Nominal CCT 50K - 5000K	Input Voltage (Blank) - 120V-277V 347 - 347V 480 - 480V	Mounting (Blank) - Hook and Cord P - Pendant	Control Options 10V - 0-10V dimming driver PIR - PIR occupancy sensor	Plug/Cord TBD

ENERGY DATA

HBX

SUMMARY

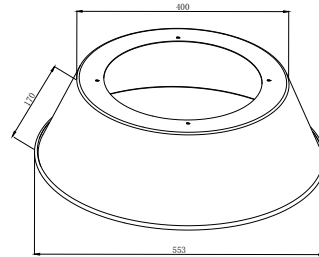
Input Voltage	120V-277V
Input Frequency	50/60 Hz
Input Power	See energy data for details
Power Factor	> 0.95
THD (Max.)	20%
Efficacy	> 110 LPW
Delivered Lumens	See energy data for details
CRI	> 75
CCT	5000K
IP Rating	IP44
Operating Temp.	-40 ~ +50 C
Rated Life	50,000 hours

PERFORMANCE DATA

Lumen package	Input watts	Lumens	LPW	CCT
HBX-L80	80	8800	110	5000K
HBX-L100	100	11000	110	5000K
HBX-H120	120	13200	110	5000K
HBX-H150	150	16500	110	5000K
HBX-VH200	200	23000	115	5000K

REFLECTOR OPTION

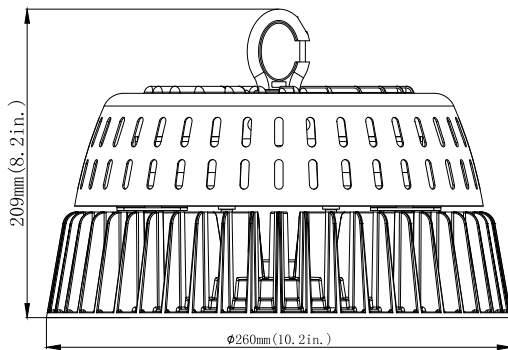
Available for HBX-200



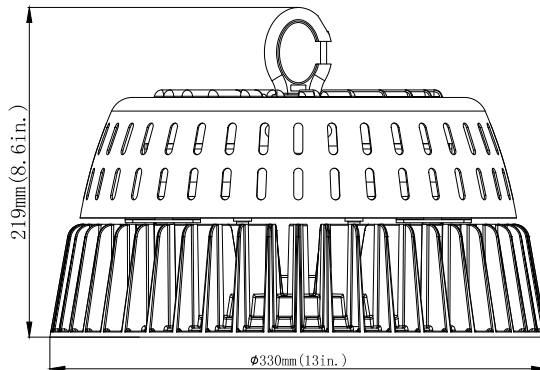
PHYSICAL PARAMETERS

DIMENSION

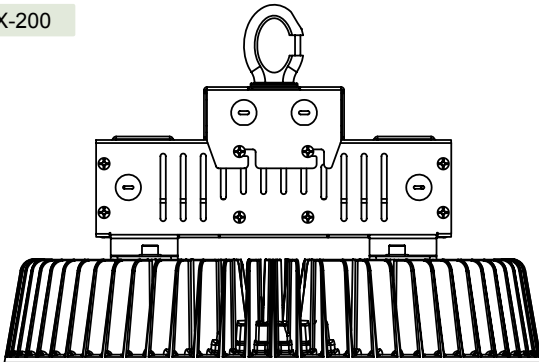
HBX-80, and 100



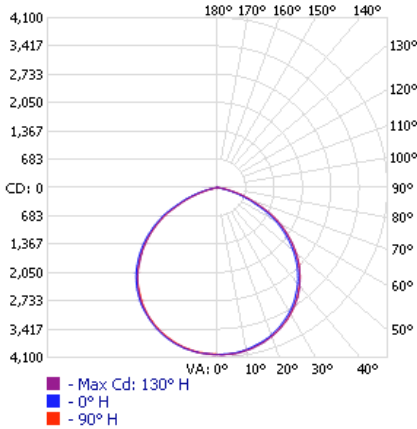
HBX-120, and 150



HBX-200



HBX-100



LCS TABLE

BUG RATING	B0 - UX - G1	
FORWARD LIGHT	LUMENS	LUMENS %
LOW(0-30):	1,581.70	15.80%
MEDIUM(30-60):	2,977.60	29.80%
HIGH(60-80):	801.1	8%
VERY HIGH(80-90):	17.6	0.20%
BACK LIGHT		
LOW(0-30):	1,585.50	15.90%
MEDIUM(30-60):	3,011.80	30.10%
HIGH(60-80):	844.7	8.40%
VERY HIGH(80-90):	21.2	0.20%
TRAPPED LIGHT:	0	0%

Zonal Lumen Summary

ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	3,167.20	31.70%	29.20%
0-40	5,213.80	52.10%	48.10%
0-60	9,155.40	91.60%	84.50%
60-90	1,684.60	16.80%	15.50%
0-90	10,839.90	108.40%	100%

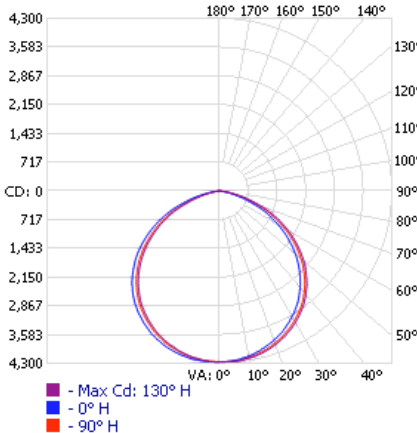
Candlepower

ANGEL IN DEG	0	20	40	60	80	90	110	130	150	170	180	200	220	240	260	280	300	320	340	360
0	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025
5	4014	4018	4010	4013	4005	4017	4019	4018	4022	4026	4019	4023	4020	4028	4011	4024	4009	4013	4012	4019
10	3972	3979	3973	3973	3972	3978	3978	3976	3985	3977	3985	3994	3997	3991	3984	3993	3979	3977	3973	3971
15	3890	3893	3900	3901	3890	3897	3912	3909	3913	3914	3911	3924	3920	3923	3909	3925	3912	3907	3905	3904
20	3787	3791	3784	3799	3786	3798	3809	3814	3824	3815	3822	3824	3827	3816	3810	3821	3809	3804	3797	3801
25	3643	3645	3641	3657	3655	3660	3668	3672	3686	3681	3686	3689	3692	3688	3671	3680	3664	3657	3649	3654
30	3471	3473	3477	3479	3489	3492	3499	3507	3512	3518	3517	3520	3516	3522	3498	3505	3497	3490	3480	3492
35	3258	3267	3262	3268	3280	3285	3299	3301	3309	3318	3311	3323	3316	3320	3304	3321	3291	3282	3277	
40	3009	3011	3018	3018	3033	3043	3055	3055	3073	3071	3078	3082	3074	3093	3062	3072	3057	3058	3042	3047
45	2722	2727	2735	2744	2752	2763	2769	2772	2791	2794	2798	2802	2792	2805	2785	2786	2770	2772	2763	2756
50	2391	2399	2400	2416	2424	2432	2445	2453	2462	2476	2466	2477	2476	2480	2461	2466	2453	2444	2433	2431
55	2026	2031	2039	2053	2061	2071	2086	2090	2099	2115	2106	2129	2117	2121	2105	2112	2090	2085	2078	2072
60	1633	1645	1648	1650	1673	1677	1692	1702	1717	1732	1728	1724	1724	1740	1727	1711	1694	1698	1684	1683
65	1174	1172	1190	1200	1221	1237	1240	1237	1274	1281	1288	1308	1299	1296	1282	1278	1248	1265	1244	1240
70	744	746	761	764	757	793	795	822	828	843	825	841	828	834	836	826	830	811	815	799
75	369	379	399	394	390	409	425	423	440	442	431	455	445	438	439	445	429	443	428	423
80	117	118	125	125	137	144	151	150	157	158	163	158	161	164	161	163	151	158	150	144
85	18	19	20	20	22	22	23	24	25	25	26	26	26	26	25	25	24	23	22	22
90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	

Coefficients of Utilization - Zonal Cavity Method

		EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%																	
RCC	80	70				50				30				10				0	
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0	
RCR: 0	1.29	1.29	1.29	1.29	1.26	1.26	1.26	1.08	1.2	1.2	1.2	1.15	1.15	1.15	1.11	1.11	1.11	1.08	
1	1.19	1.14	1.1	1.07	1.16	1.12	1.08	0.94	1.07	1.04	1.02	1.03	1.01	0.98	0.99	0.97	0.96	0.93	
2	1.09	1.01	0.94	0.88	1.06	0.99	0.92	0.8	0.95	0.89	0.85	0.91	0.87	0.83	0.88	0.84	0.81	0.79	
3	1	0.89	0.8	0.74	0.97	0.87	0.79	0.69	0.84	0.77	0.72	0.81	0.75	0.71	0.78	0.73	0.69	0.67	
4	0.91	0.79	0.7	0.63	0.89	0.77	0.69	0.59	0.75	0.67	0.61	0.72	0.66	0.61	0.7	0.64	0.6	0.58	
5	0.84	0.71	0.61	0.54	0.82	0.69	0.6	0.52	0.67	0.59	0.53	0.65	0.58	0.53	0.63	0.57	0.52	0.5	
6	0.78	0.64	0.54	0.47	0.76	0.63	0.54	0.46	0.61	0.53	0.47	0.59	0.52	0.46	0.57	0.51	0.46	0.44	
7	0.72	0.58	0.48	0.42	0.7	0.57	0.48	0.41	0.55	0.47	0.41	0.54	0.46	0.41	0.52	0.46	0.41	0.39	
8	0.67	0.53	0.44	0.37	0.65	0.52	0.43	0.36	0.5	0.43	0.37	0.49	0.42	0.37	0.48	0.41	0.36	0.34	
9	0.63	0.48	0.39	0.34	0.61	0.48	0.39	0.33	0.46	0.39	0.33	0.45	0.38	0.33	0.44	0.38	0.33	0.31	
10	0.59	0.44	0.36	0.3	0.57	0.44	0.36	0.3	0.43	0.35	0.3	0.42	0.35	0.3	0.41	0.35	0.3	0.28	

HBX-120



LCS TABLE

BUG RATING	B0 - UX - G1	
FORWARD LIGHT	LUMENS	LUMENS %
LOW(0-30):	1,664.00	14.90%
MEDIUM(30-60):	3,138.20	28.20%
HIGH(60-80):	913.9	8.20%
VERY HIGH(80-90):	24.6	0.20%
BACK LIGHT		
LOW(0-30):	1,695.20	15.20%
MEDIUM(30-60):	3,325.60	29.90%
HIGH(60-80):	1,080.80	9.70%
VERY HIGH(80-90):	44.6	0.40%
TRAPPED LIGHT:	0	0%

Zonal Lumen Summary

ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	3,359.10	30.20%	28.30%
0-40	5,543.20	49.80%	46.60%
0-60	9,821.60	88.20%	82.60%
60-90	2,064.00	18.50%	17.40%
0-90	11,885.60	106.70%	100%

Candlepower

ANGEL IN DEG	0	20	40	60	80	90	110	130	150	170	180	200	220	240	260	280	300	320	340	360
0	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262	4262
5	4244	4237	4241	4242	4240	4248	4252	4252	4257	4254	4258	4260	4265	4269	4265	4262	4262	4262	4263	4259
10	4180	4174	4184	4189	4191	4198	4209	4209	4206	4216	4232	4233	4236	4236	4243	4242	4236	4238	4242	4234
15	4081	4084	4091	4095	4108	4118	4123	4121	4122	4146	4150	4162	4175	4181	4180	4176	4178	4172	4174	4172
20	3963	3966	3970	3980	3987	4003	4014	4015	4028	4037	4048	4061	4074	4078	4076	4083	4081	4084	4081	4078
25	3806	3806	3818	3821	3835	3852	3866	3871	3882	3902	3917	3925	3940	3946	3948	3952	3961	3957	3953	3943
30	3613	3615	3636	3635	3646	3669	3689	3699	3708	3732	3744	3764	3771	3787	3789	3793	3790	3793	3790	3780
35	3400	3395	3401	3422	3441	3451	3474	3484	3497	3539	3543	3562	3577	3590	3589	3602	3596	3598	3594	3578
40	3127	3131	3143	3161	3178	3195	3220	3236	3256	3288	3309	3321	3340	3353	3355	3367	3369	3368	3361	3352
45	2824	2830	2844	2860	2878	2886	2925	2939	2959	2991	3016	3034	3055	3071	3077	3092	3087	3088	3077	3072
50	2479	2477	2493	2512	2543	2555	2587	2605	2628	2663	2687	2706	2728	2749	2760	2771	2768	2762	2756	2751
55	2097	2102	2122	2138	2163	2178	2212	2229	2259	2297	2312	2340	2359	2379	2389	2402	2402	2398	2391	2380
60	1698	1697	1722	1737	1756	1786	1812	1830	1861	1890	1914	1937	1953	1979	1990	1998	2001	2002	1995	1981
65	1282	1270	1280	1304	1343	1364	1391	1410	1442	1468	1491	1520	1540	1556	1566	1578	1575	1583	1568	1562
70	828	812	841	833	879	914	931	950	977	1000	1013	1025	1056	1097	1098	1123	1120	1123	1113	1109
75	431	430	463	449	480	516	543	559	579	602	596	619	627	659	663	685	686	677	664	651
80	142	147	166	161	174	186	210	218	232	249	259	264	278	295	300	312	310	310	290	290
85	18	18	20	20	22	25	27	32	34	40	45	51	57	61	65	68	68	68	63	60
90	1	1	1	1	1	1	1	1	1	1	4	6	7	8	8	8	8	8	8	8

Coefficients of Utilization - Zonal Cavity Method

		EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%																	
RCC	80	70				50				30				10				0	
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0	
RCR: 0	1.27	1.27	1.27	1.27	1.24	1.24	1.24	1.07	1.19	1.19	1.13	1.13	1.13	1.09	1.09	1.09	1.09	1.07	
1	1.17	1.12	1.08	1.04	1.14	1.1	1.06	0.92	1.05	1.02	0.99	1.01	0.99	0.96	0.97	0.95	0.93	0.91	
2	1.07	0.98	0.91	0.85	1.04	0.96	0.9	0.78	0.92	0.87	0.82	0.89	0.85	0.81	0.86	0.82	0.79	0.77	
3	0.97	0.86	0.78	0.71	0.95	0.85	0.77	0.67	0.82	0.75	0.69	0.79	0.73	0.68	0.76	0.71	0.67	0.65	
4	0.89	0.77	0.68	0.61	0.87	0.75	0.67	0.57	0.73	0.65	0.59	0.7	0.64	0.58	0.68	0.62	0.58	0.55	
5	0.82	0.69	0.59	0.52	0.8	0.67	0.58	0.5	0.65	0.57	0.51	0.63	0.56	0.51	0.61	0.55	0.5	0.48	
6	0.76	0.62	0.52	0.45	0.74	0.61	0.52	0.44	0.56	0.51	0.45	0.57	0.5	0.44	0.55	0.49	0.44	0.42	
7	0.7	0.56	0.47	0.4	0.68	0.55	0.46	0.39	0.53	0.45	0.4	0.52	0.45	0.39	0.5	0.44	0.39	0.37	
8	0.65	0.51	0.42	0.36	0.64	0.5	0.42	0.35	0.49	0.41	0.35	0.47	0.4	0.35	0.46	0.4	0.35	0.33	
9	0.61	0.47	0.38	0.32	0.59	0.46	0.38	0.31	0.45	0.37	0.32	0.44	0.37	0.32	0.43	0.36	0.32	0.3	
10	0.57	0.43	0.35	0.29	0.56	0.43	0.34	0.29	0.41	0.34	0.29	0.4	0.34	0.29	0.4	0.33	0.29	0.27	