

# lighting Solutions closer to nature

## **DESCRIPTION**

The HB LED High Bay is a true alternative to HID High Bay's and the T8 and T5 Fluorescent High Bay's. This rugged LED High Bay will save up to 50% energy cost on HID, 30% over T8 and 15% over T5.

### **SPECIFICATION FEATURES**

#### Construction

Die formed 22 gauge galvanized steel painted high gloss white. Hinge Frame and Frosted Lens plus a painted metal Wire Guard are available as an option

#### **Controls**

The LED High Bay is powered by Ultrasave drivers and modules

#### **Electrical**

Long Life LED System complete with electrical driver to deliver the optimal performance. LED's available in a 3500K, 4000K and 5000K with a typical CRI: 80. Rated for 94,000 hours. Electronic Drivers are available in 120/277 and 347 Volt applications

#### **Driver and Module Access**

Drivers can be accessed by removing the module plate

#### **Finish**

22 gauge galvanized steel and high gloss enamel paint finish ensures maximum bonding and rust inhibition

A hinge frosted frame and lens are available as an option

#### Compliance

Modules and Drivers are UL recognized components and indoor luminaires are cULus listed

## Warranty

5 years



# **LED HIGH BAY LUMINAIRE**

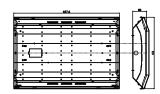








HB24LED24 **Dimension** mm | 1170(L) x 411(W) x 80(D) inch | 46"(L) x 16"(W) x 3"(D)



HB12LED12 **Dimension** mm | 608(L) x 411(W) x 80(D) inch | 24"(L) x 16"(W) x 3"(D)



HB16LED16 / HB80LED08

Dimension mm | 1172(L) x 283(W) x 79(D) inch | 46"(L) x 11"(W) x 3"(D)

### ORDERING CODE. ENERGY AND PERFORMANCE DATA

	Model No.	Delivered Lumens (Im)	Input Watts (W)	Voltage (V)	Colour Temp. (K)	Efficacy (Im/W)	Status
	HB24LED24	26490 26490	249 249	120M / 347 120M / 347	4000K 3500K / 5000K	106 99 / 110	Stock MTO
The same	HB16LED16	17600 17600	166 166	120M / 347 120M / 347	4000K 3500K / 5000K	106 99 / 110	Stock MTO
	HB12LED12	13240 13240	125 125	120M / 347 120M / 347	4000K 3500K / 5000K	106 99 / 110	Stock MTO
	HB80LED08	8830 8830	83 83	120M / 347 120M / 347	4000K 3500K / 5000K	106 99 / 110	Stock MTO

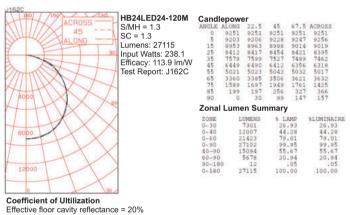
#### **OPTIONAL ACCESSORIES**

HB LED FRAME/LENS | Frame and Lens for HB16 & HB80 (Frosted) HB LED WG | Wire Guard for HB16 & HB80 (Painted White) HB12 LED FRAME/LENS | Frame and Lens for HB12 (Frosted) HB12-WG | Wire Guard for HB12 (Painted White) HB24 LED FRAME/LENS | Frame and Lens for HB24 (Frosted) HB24-WG | Wire Guard for HB24 (Painted White) YM2502 | HB Occupancy Sensor

### SHIPPING DATA

Model No. HB24LED04 HB16LED16 HB12LED12 HB80LED08 Weight 7kg / 16lbs 7.7kg / 17lbs 4kg / 9lbs 5.3kg / 11.7lbs

#### **PHOTOMETRICS**



CC 80 70 50 30 10 0 AALL 70 50 30 10 50 30 10 0

RCR

0 1.191.191.191.19 1.161.161.161.16 1.111.111.11 1.061.061.06 1.021.021.02 1.00

1 1.101.051.01 .98 1.071.03 .99 .96 .99 .96 .93 .95 .92 .90 .91 .89 .87 .85

2 1.00 .93 .87 .81 .98 .91 .85 .80 .87 .83 .78 .84 .80 .77 .81 .78 .75 .73

3 .92 .82 .74 .68 .90 .80 .73 .68 .78 .72 .67 .75 .70 .65 .72 .68 .64 .62

4 .85 .73 .65 .59 .83 .72 .65 .58 .70 .63 .58 .67 .62 .57 .65 .60 .56 .54

5 .78 .66 .57 .50 .76 .64 .56 .50 .62 .55 .50 .60 .54 .49 .58 .53 .49 .47

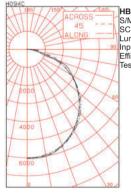
6 .72 .59 .50 .44 .70 .58 .49 .43 .56 .49 .43 .54 .48 .43 .53 .47 .42 .40

7 .66 .52 .44 .38 .64 .52 .43 .38 .50 .43 .37 .48 .42 .37 .47 .41 .37 .35

8 .61 .47 .39 .33 .59 .47 .39 .33 .45 .38 .33 .44 .38 .33 .43 .37 .32 .31

9 .56 .43 .35 .29 .55 .43 .35 .29 .41 .34 .29 .40 .34 .29 .39 .33 .29 .27

10 .52 .39 .31 .26 .51 .39 .31 .26 .38 .31 .26 .37 .30 .25 .36 .30 .25 .24



HB16LED16-120M
S/MH = 1.3
SC = 1.3
Lumens: 17617
Input Watts: 166.39
Efficacy: 105.9 Im/W
Test Report: H094C

Test Report: H094C

Candlepower
ANGLE ALONG
10 60024
10 5987
10 5987
10 5987
20 5661
21 5661
22 5456
40 4205
45 4205
45 3297
46 50 3764
55 3364
56 3297
70 1653
71 1063

	ANGLE	ALONG	22.5	45	67.5	ACROS
	0	6024	6024	6024	6024	6024
	5	5986	6006	5998	6021	6038
	10	5917	5944	5962	5994	6004
	15	5811	5853	5867	5882	5886
,	20	5661	5712	5714	5669	5655
V	25	5456	550B	5462	5415	5412
	30	5215	5263	5160	5131	5125
	35	4918	4971	4850	4816	4801
	40	4575	4607	4507	4472	4456
	45	4205	4164	4125	4084	4079
	50	3764	3728	3707	3673	3666
	55	3297	3245	3265	3254	3259
	60	2777	2740	2774	2852	2892
	65	2217	2201	2316	2480	2523
	70	1633	1665	1876	2030	1749
	75	1061	1152	1321	744	749
	80	536	715	435	488	506
	85	138	147	345	563	636
	90	0	В	10	8	6

Zonal Lu	ımen Sum	ımary	
ZONE	LUMENS	* LAMP	*LUMINAIRE
0-30	4742	26.92	26.92
0-40	7786	44.20	44.20
0-60	13876	78.77	78.77
0-90	17617	100.00	100.00
40-90	9830	55.80	55.80
60-90	3740	21.23	21.23
90-180	0	.00	.00
0-180	17617	100.00	100.00

10

# Coefficient of Ultilization Effective floor cavity reflectance = 20%

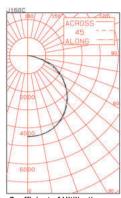
70

WAI																			
MIT.			50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCE	8																		
0	1.19	1,	191	.19	1,19	1.16	1.16	.16	1.16	1.11	1.11	1.11	1,061	.06	.06	1.02	.02	1.02	1.00
1	1.10	1.	051	.01	.97	1,071	1.03	,99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2	1.00		93	.87	.81	.98	.91	.85	.80	.87	.83	.78	.84	.80	.77	.81	.78	.75	.73
3	. 92		82	.74	.68	.89	.80	.73	.68	.78	.71	.66	.75	.70	.65	.72	.68	.64	.62
4	. 85		73	.65	.59	. 83	.72	.65	, 58	.70	.63	.58	.67	.61	.57	.65	.60	.56	.54
5	. 78		65	.57	.50	. 76	.64	.56	.50	.62	.55	.50	.60	.54	.49	.58	.53	.48	.46
6	. 72		59	.50	.44	.70	.58	.49	. 43	.56	.49	.43	.54	.48	.43	,53	. 47	.42	.40
7	. 66		52	.44	.38	.64	.52	. 43	.37	.50	.42	.37	.48	.42	.37	.47	.41	.37	.35
8	.61		47	.39	.33	.59	.47	.39	.33	.45	.38	.33	.44	.37	.33	.43	.37	.32	.31
9	. 56		43	.35	.29	. 55	.43	.35	.29	.41	.34	,29	.40	.33	.29	.39	.33	.28	.27
10	. 52		39	.31	.26	.51	.39	.31	, 26	.38	.31	,26	.37	.30	.25	.36	.30	. 25	.24

50



#### **PHOTOMETRICS**



Input Watts: 112.3 Efficacy: 115.6 lm/W Test Report: J160C

ANGLE	ALONG	22.5	45	67.5	ACROSS
0	4470	4470	4470	4470	4470
5	4460	4457	4462	4466	4471
15	4345	4338	4339	4343	4348
25	4073	4070	4082	4067	4059
35	3656	3657	3638	3614	3597
45	3097	3124	3090	3068	3046
55	2377	2387	2432	2428	2433
65	1565	1582	1676	1756	1744
75	713	770	926	650	622
85	71	89	122	201	226

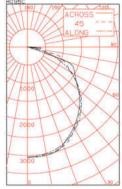
#### Zonal Lumen Summary

ZONE	LUMENS	% LAMP	<b>%LUMINAIRE</b>
0-30	3527	27.19	27.19
0-40	5797	44.68	44.68
0-60	10325	79.56	79.57
0-90	12975	99.99	99.99
40-90	7178	55.31	55.31
60-90	2650	20.43	20.43
90-180	1	.01	.01
0-180	12977	100.00	100.00

#### Coefficient of Ultilization Effective floor cavity reflectance = 20%

MAT 1			7										20			-0		
WALL	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0 1.	191	.191	.191	.19	1,161	,161	.161	.16	1,111	.111	.11	1.061	.061	.06	1.021	.021	.02	1.00

****																		
0	1.19	1.19	1.19	1.19	1,16	1,16	1.16	1.16	1.11	1,11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.10	1.05	1.01	.98	1.07	1.03	1.00	.96	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2	1.01	.93	.87	.82	.98	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	. 73
3	,92	,82	. 75	.69	.90	.81	.74	.68	.78	.72	.67	. 75	.70	.66	.73	.68	.65	.63
4	. 85	.74	.65	. 59	.83	.72	.65	. 59	.70	.63	,58	.68	.62	,57	.66	.61	.56	.54
5	. 78	.66	.57	.51	.76	.65	.56	.51	.63	.55	.50	.61	.54	.49	.59	.53	. 49	. 47
6	,72	.59	.50	.44	.70	.58	.50	.44	,56	,49	.43	.54	.48	.43	.53	.47	.43	, 41
7	.66	.53	.44	.38	.64	.52	.44	.38	.50	.43	.38	. 49	.42	.37	.48	.42	.37	.35
8	.61	.48	.39	.34	.60	.47	.39	.33	.46	.38	.33	.44	.38	,33	, 43	.37	.33	,31
9	.57	. 43	.35	. 29	.55	.43	.35	. 29	.41	,34	.29	.40	.34	.29	.39	.33	.29	.27
10	. 53	.39	.31	.26	.51	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	,24



HB80LED08-120M Candlepower S/MH = 1.3 ANGLE ALONG 2 SC = 1.3 0 3046 3 Lumens: 8871 5 3024 3 10 2998 3 Input Watts: 83.85 Efficacy: 105.8 lm/W Test Report: H095C

	Cand	iepowe	er			
	ANGLE	ALONG	22.5	45	67.5	ACROS
	0	3046	3046	3046	3046	3046
	5	3024	3034	3037	3045	3049
	10	2988	3004	3015	3035	3038
	15	2936	2956	2976	2995	2999
V	20	2860	2883	2911	2904	2874
٧	25	2756	2791	2801	2723	2715
	30	2631	2678	2598	2573	2562
	35	2486	2541	2432	2411	2397
	40	2301	2374	2256	2234	2220
	45	2108	2114	2062	2038	2033
	50	1879	1860	1849	1840	1842
	55	1648	1622	1631	1634	1648
	60	1386	1362	1407	1475	1516
	65	1105	1098	1207	1360	1413
	70	812	845	1044	1217	1103
	75	525	611	831	123	122
	80	260	421	79	84	
	85	63	32	166	352	387
	90	0	2	2	1	0

#### **Zonal Lumen Summary**

ZONE	LUMENS	% LAMP	*LUMINAIRE
0-30	2401	27.07	27.07
0-40	3936	44.37	44.37
0-60	6992	78.83	78.83
0-90	8871	100.00	100.00
40-90	4934	55.63	55.63
60-90	1878	21.17	21.17
90-180	0	.00	.00
0-180	8871	100.00	100.00

### Coefficient of Ultilization

Effective floor cavity reflectance = 20%

CC				8	0			35	70			50			30			10		0
WAI	ele:	70	3	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCI	2																			
0	1.	191		191	.19	1.19	1.161	1.16	1.161	1.16	1.11	1.11	1,11	1.061	.06	.06	1,021	.02	1.02	1.00
1	1.	101	. (	51	.01	.98	1.07	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.88	.86
2	1.	01	. !	93	.87	.81	.98	.91	. 85	.80	.88	.83	.79	.84	.81	.77	.82	.78	. 75	. 73
3	8	92	. 1	32	.75	.68	.90	.81	.74	.68	.78	.72	,67	.75	.70	.66	.73	.68	.64	.62
4	S	85		73	.65	. 59	.83	.72	.65	.58	.70	.63	.58	.67	.62	.57	.65	.60	.56	.54
5	+	78	. 1	56	.57	,50	.76	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6		72		59	.50	. 44	.70	.58	. 49	. 43	.56	.49	. 43	.54	.48	.43	.53	.47	. 42	.40
7		66	,	52	.44	.38	.64	.52	.43	.38	.50	,43	,37	.49	.42	.37	-47	.41	.37	.35
8	4	61	2	17	.39	.33	.60	.47	.39	.33	.45	.38	.33	.44	.38	.33	.43	.37	.33	.31
9	7	57		13	.35	,29	.55	.43	.35	.29	.41	.34	-29	.40	.34	.29	.39	.33	.29	.27
10	9	52		39	.31	.26	,51	.39	.31	.26	.38	.31	.26	,37	.30	.26	.36	.30	. 25	.24

