

# Alphalite

## LINEAR LED HIGH BAY

## LHB Series

PROJECT NAME

CATALOG NO.

TYPE

DATE

NOTE

### DESCRIPTION

The LHB Series Linear LED High 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. Precision-formed reflectors delivers adequate light in high mounting applications. Modular driver and LED arrays. Economic solution to optimize payback. Capable of being operated with occupancy sensor

### APPLICATION

Warehouse, manufacturing facilities, retail, gymnasiums, grocery.

### SPECIFICATION FEATURES

#### Construction

Rigid, low-profile steel housing. Precision-engineered and manufactured optics to optimize light delivery to the working plane. Convenient mounting options and sufficient knockouts for controls integration and multiple connection options. Housing features radiator slots for heat dissipation and low temperature LED operation.

#### 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 V-hooks for mounting. Accepts various other mounting options: surface, suspension, air craft cable, chain.

#### Optics

Die formed, 95% reflectivity optical reflectors optimizes performance and light delivery.

#### Finish

White enamel finish.

#### Warranty

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



### LHB

High Performance  
Linear  
LED High Bay

2' and 4'

9000 Lm  
12000 Lm  
15000 Lm  
22000 Lm  
30000 Lm



### Quick Ship Items

LHB2-90/850  
LHB2-120/850  
LHB4-150/850

## ORDERING INFORMATION

Sample Number: LHB4-150/850

LHB	4	150	8	50	(Blank)	(Blank)
<b>Series</b>	<b>Nominal Length</b>	<b>Nominal Lumen Package</b>	<b>CRI</b>	<b>Nominal CCT</b>	<b>Lens</b>	<b>Control Options</b>
LHB = LED	LHB = LED	2' length	8 = 82+ CRI	2' length	(Blank) = No Lens	PIR = PIR
Linear High	2 = 2'	90 = 9,000 Lm		40 = 4000K	CLN = Clear Lens	Occupancy Sensor
Bay	4 = 4'	120 = 12,000 Lm		50 = 5000K	FLN = Frosted Lens	
		4' length		4' length		
		150 = 15,000 Lm		40 = 4000K		
		220 = 22,000 Lm		50 = 5000K		
		300 = 30,000 Lm		57 = 5700K		



Specifications and dimensions subject to change without notice.

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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	> 100 LPW
Delivered Lumens	See energy data for details
Controls/Dimming	0-10V dimming, Occupancy sensor options available.
CRI	> 82
CCT	5000K
Operating Temp.	-20°C ~ +55°C

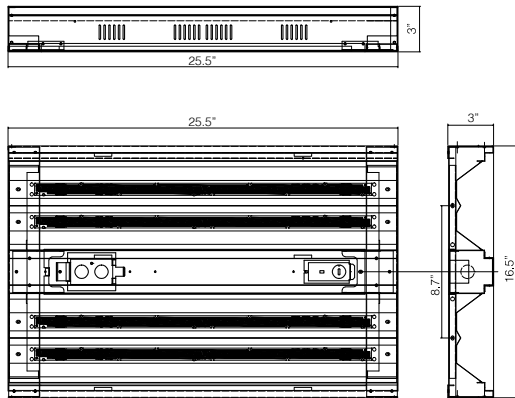
ENERGY PERFORMANCE DATA

Lumen package	Lens	Input watts	Lumens	LPW	CCT
LHB2-90/850	No/Clear	68	8281	122	5000K
	Frosted	68	6940	102	5000K
LHB2-120/850	No/Clear	104	12900	124	5000K
	Frosted	104	10610	102	5000K
LHB4-150/850	No/Clear	140	16650	119	5000K
	Frosted	140	14290	102	5000K
LHB4-220/850	No/Clear	210	24835	118	5000K
	Frosted	210	20905	100	5000K
LHB4-300/850	No/Clear	280	35280	126	5000K
	Frosted	280	28450	102	5000K

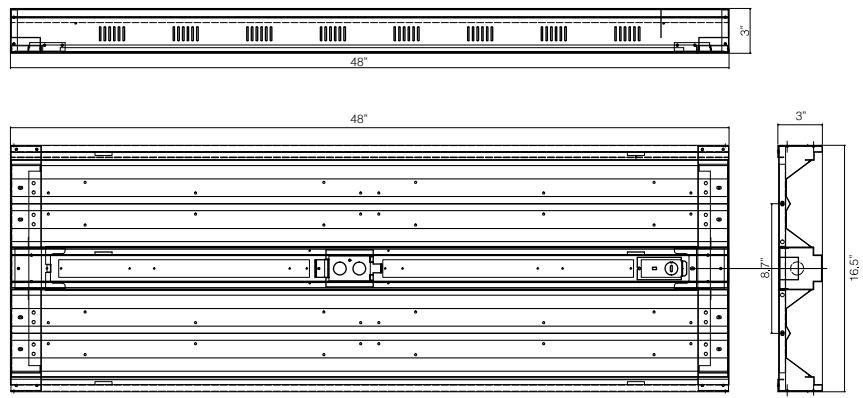
PHYSICAL PARAMETERS

DIMENSION

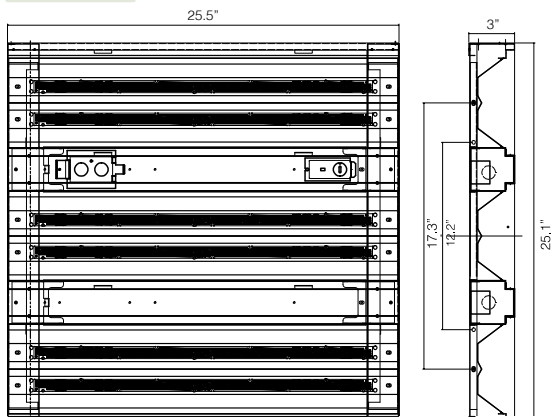
LHB2-90



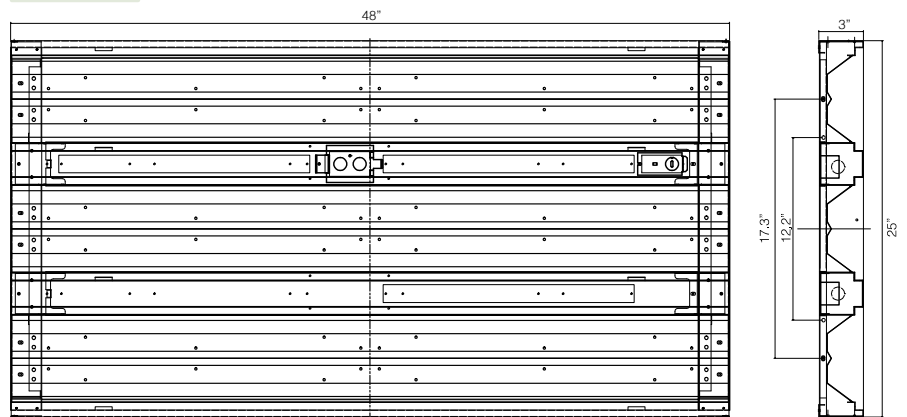
LHB4-150



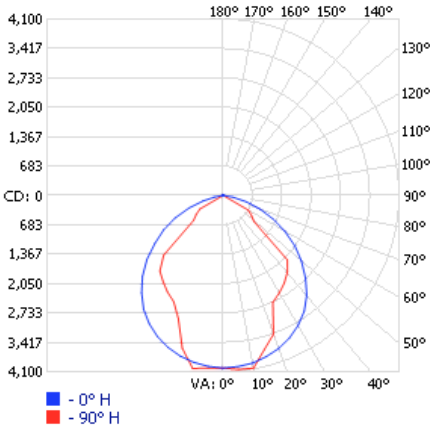
LHB2-120



LHB4-220



LHB2-90



Candlepower

ANGLE IN DEG	0	45	90
0	4014	4014	4014
5	3992	4031	4059
10	3956	3979	4077
15	3880	3963	3709
20	3785	3646	3431
25	3655	3381	2740
30	3491	2825	2617
35	3292	2487	2483
40	3032	2323	2329
45	2715	2142	2120
50	2384	1943	936
55	2043	1681	806
60	1658	694	670
65	1279	546	30
70	914	406	20
75	561	36	18
80	248	28	18
85	42	20	17
90	6	4	2

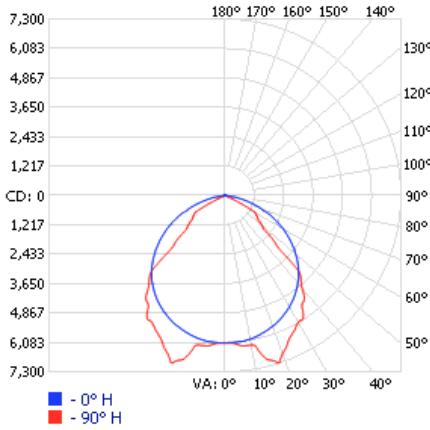
Coefficients of Utilization - Zonal Cavity Method

RCC	EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%																	
	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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1
1	1.11	1.07	1.03	1	1.08	1.05	1.02	0.89	1	0.98	0.96	0.97	0.95	0.93	0.93	0.91	0.9	0.88
2	1.02	0.95	0.9	0.85	1	0.93	0.88	0.77	0.9	0.86	0.82	0.87	0.83	0.8	0.84	0.81	0.78	0.76
3	0.94	0.85	0.78	0.72	0.92	0.84	0.77	0.68	0.81	0.75	0.71	0.78	0.73	0.69	0.76	0.72	0.68	0.66
4	0.87	0.77	0.69	0.63	0.85	0.75	0.68	0.6	0.73	0.67	0.62	0.71	0.65	0.61	0.68	0.64	0.6	0.58
5	0.81	0.69	0.61	0.55	0.79	0.68	0.6	0.53	0.66	0.59	0.54	0.64	0.58	0.54	0.62	0.57	0.53	0.51
6	0.75	0.63	0.55	0.49	0.73	0.62	0.54	0.47	0.6	0.53	0.48	0.58	0.52	0.48	0.57	0.52	0.47	0.45
7	0.7	0.57	0.49	0.44	0.68	0.56	0.49	0.42	0.55	0.48	0.43	0.54	0.47	0.43	0.52	0.47	0.42	0.41
8	0.65	0.53	0.45	0.39	0.64	0.52	0.44	0.38	0.51	0.44	0.39	0.49	0.43	0.39	0.48	0.43	0.38	0.37
9	0.61	0.48	0.41	0.36	0.6	0.48	0.41	0.35	0.47	0.4	0.35	0.46	0.4	0.35	0.45	0.39	0.35	0.33
10	0.57	0.45	0.37	0.33	0.56	0.44	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.42	0.36	0.32	0.3

Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	2,943.30	35.60%
0-40	4,643.70	56.20%
0-60	7,426.50	89.90%
60-90	824.5	10%
70-100	204.8	2.50%
90-120	3.5	0%
0-90	8,251.00	99.80%
90-180	14.1	0.20%
0-180	8,265.10	100%

LHB4-150



Candlepower

ANGLE IN DEG	0	45	90
0	6109	6109	6109
5	6088	6154	6204
10	6034	6220	6283
15	5911	6235	7051
20	5758	6754	6968
25	5564	6720	6438
30	5323	6324	6062
35	5042	5793	5552
40	4703	5385	4946
45	4300	4778	3751
50	3831	4171	2046
55	3328	2607	1659
60	2796	1487	1447
65	2218	1163	335
70	1605	636	105
75	1032	105	77
80	517	70	65
85	109	33	32
90	6	4	0

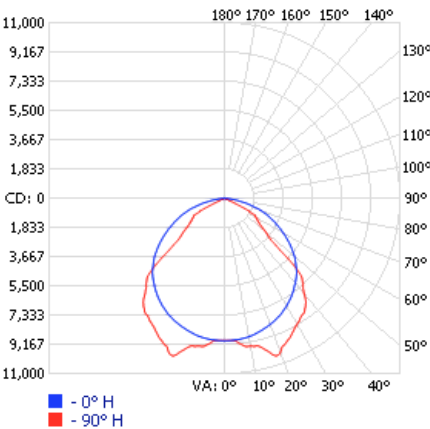
Coefficients of Utilization - Zonal Cavity Method

RCC	EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%																	
	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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1
1	1.11	1.07	1.03	1	1.08	1.04	1.01	0.88	1	0.97	0.95	0.96	0.94	0.92	0.93	0.91	0.89	0.87
2	1.02	0.95	0.89	0.84	0.99	0.93	0.87	0.76	0.89	0.85	0.81	0.86	0.82	0.79	0.83	0.8	0.77	0.75
3	0.94	0.84	0.77	0.71	0.91	0.83	0.76	0.66	0.8	0.74	0.69	0.77	0.72	0.68	0.74	0.7	0.67	0.65
4	0.86	0.75	0.67	0.61	0.84	0.74	0.66	0.58	0.71	0.65	0.6	0.69	0.64	0.59	0.67	0.62	0.58	0.56
5	0.79	0.68	0.59	0.53	0.77	0.66	0.59	0.51	0.64	0.57	0.52	0.62	0.56	0.52	0.61	0.55	0.51	0.49
6	0.74	0.61	0.53	0.47	0.72	0.6	0.52	0.45	0.58	0.51	0.46	0.57	0.5	0.46	0.55	0.5	0.45	0.43
7	0.68	0.55	0.47	0.41	0.67	0.55	0.47	0.4	0.53	0.46	0.41	0.52	0.45	0.41	0.5	0.45	0.4	0.38
8	0.64	0.51	0.43	0.37	0.62	0.5	0.42	0.36	0.49	0.42	0.37	0.47	0.41	0.36	0.46	0.41	0.36	0.34
9	0.59	0.47	0.39	0.33	0.58	0.46	0.38	0.33	0.45	0.38	0.33	0.44	0.37	0.33	0.43	0.37	0.33	0.31
10	0.56	0.43	0.35	0.3	0.54	0.42	0.35	0.3	0.41	0.35	0.3	0.4	0.34	0.3	0.4	0.34	0.3	0.28

Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	5,310.20	31.90%
0-40	8,875.60	53.30%
0-60	14,805.40	88.90%
60-90	1,823.50	11%
70-100	437.5	2.60%
90-120	4.1	0%
0-90	16,628.80	99.90%
90-180	17.5	0.10%
0-180	16,646.40	100%

LHB4-220



Candlepower

ANGLE IN DEG	0	45	90
0	8943	8943	8943
5	8917	8961	9034
10	8818	9159	9424
15	8635	9283	9835
20	8410	9517	10270
25	8139	9695	9668
30	7794	9296	9109
35	7380	8648	8719
40	6908	8022	7743
45	6386	7274	6677
50	5748	6357	3463
55	4989	4578	2601
60	4186	2574	2217
65	3421	1781	372
70	2616	874	132
75	1727	140	82
80	855	79	73
85	131	55	59
90	2	1	0

Coefficients of Utilization - Zonal Cavity Method

RCC	EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%																	
	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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1
1	1.1	1.06	1.03	1	1.08	1.04	1.01	0.88	1	0.97	0.95	0.96	0.94	0.92	0.93	0.91	0.89	0.87
2	1.02	0.94	0.88	0.83	0.99	0.93	0.87	0.76	0.89	0.84	0.8	0.86	0.82	0.79	0.83	0.8	0.77	0.75
3	0.93	0.84	0.76	0.71	0.91	0.82	0.75	0.66	0.79	0.74	0.69	0.77	0.72	0.68	0.74	0.7	0.66	0.64
4	0.86	0.75	0.67	0.61	0.84	0.74	0.66	0.57	0.71	0.65	0.59	0.69	0.63	0.59	0.67	0.62	0.58	0.56
5	0.79	0.67	0.59	0.53	0.77	0.66	0.58	0.5	0.64	0.57	0.52	0.62	0.56	0.51	0.6	0.55	0.51	0.49
6	0.73	0.61	0.52	0.46	0.71	0.6	0.52	0.45	0.58	0.51	0.46	0.56	0.5	0.45	0.55	0.49	0.45	0.43
7	0.68	0.55	0.47	0.41	0.66	0.54	0.46	0.4	0.53	0.46	0.41	0.51	0.45	0.4	0.5	0.44	0.4	0.38
8	0.63	0.5	0.42	0.37	0.62	0.5	0.42	0.36	0.48	0.41	0.36	0.47	0.41	0.36	0.46	0.4	0.36	0.34
9	0.59	0.46	0.38	0.33	0.58	0.46	0.38	0.32	0.44	0.37	0.33	0.43	0.37	0.32	0.42	0.37	0.32	0.31
10	0.55	0.43	0.35	0.3	0.54	0.42	0.35	0.29	0.41	0.34	0.3	0.4	0.34	0.29	0.39	0.33	0.29	0.28

Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	7,739.40	31.20%
0-40	12,988.20	52.30%
0-60	22,046.90	88.80%
60-90	2,770.40	11.20%
70-100	694.4	2.80%
90-120	3.7	0%
0-90	24,817.30	99.90%
90-180	15.6	0.10%
0-180	24,832.90	100%

