



The Brighter Choice



APEX High Power Linear LED Highbays

V.02

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NEW AL-LHB2110BD

2ft



100-277V
110W 14000lm

Description

Ideal one-for-one replacement of conventional lighting systems such as HID and fluorescent. Applications include manufacturing, warehousing and other large indoor spaces with mounting heights from 10'-40'. Luminaire shall be suspended a minimum 24" from ceiling. Surface mounting is not permitted.

IES files available on the ALL-LEDUSA website.

Features

- Suitable for use in warehousing, manufacturing, conference centers, industrial and retail applications
- Significant energy savings and maintenance free
- Suitable for most 0-10V dimmers - allows for installation with daylight or occupancy sensors
- Suspension from heights of 10' to 40'
- Accessories: suspension hangers, suspension chains, mounting box when installing with 3/4" all thread pipe
- Operating temperature -4°F to 122°F
- Suitable for Damp location
- High transmission PS diffuser fitted as standard
- 120° beam angle
- High power factor 0.90
- Color temperature 5000K
- (L70) at 50,000 hour lifetime
- **5 Year warranty**

NEW AL-LHB2160BD

2ft



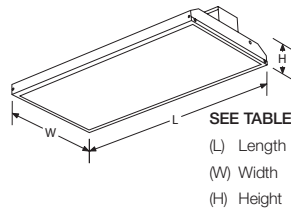
100-277V
160W 21000lm

NEW AR-LHB4225BD

4ft



100-277V
225W 29000lm



**0-10V DIMMABLE
COMPATIBLE WITH
LUTRON DVSTV**

Compliance & Approvals

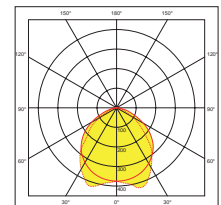


Cat. No.	Voltage	Watts	HID Equiv	Lumens	lm/W	Color Temp	Life (hrs)	L x W x H	Weight
2ft									
AL-LHB2110BD/50*	100-277V	110W	250W	14000lm	130	5000K	50,000	23.96 x 9.58 x 1.97"	9.53lbs
AL-LHB2160BD/50*	100-277V	160W	400W	21000lm	130	5000K	50,000	23.96 x 12.60 x 1.97"	12.1lbs
4ft									
AR-LHB4225BD/50*	100-277V	225W	>400W	29000lm	130	5000K	50,000	45.78 x 12.58 x 3.77"	17.82lbs

Accessories

AL-MSLH	Twist & Lock Microwave Motion Sensor
AL-RCLH	Microwave Sensor Remote Controller for AL-MSLH
AL-PMLH	Pole Mount Plate

AL-LHB2110BD/50

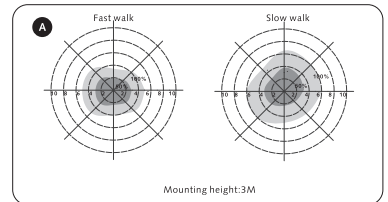




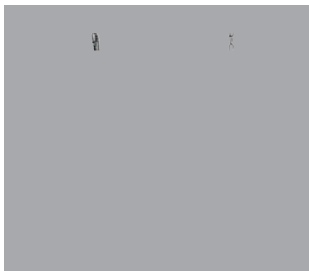
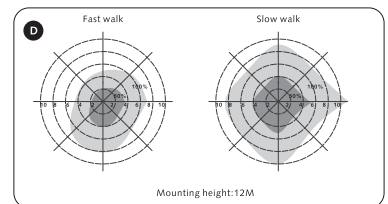
Features

- Microwave Motion Detection
- 120-277V 50-60Hz
- Twist & Lock Sensor
- Detection area 100%, 75%, 50%, 25%
- 8 Hold Time options from 30 minutes to 5 seconds
- Stand by Dimmed level 50%, 30%, 20%, 10%
- 8 Stand-by options from continuously on to 0 seconds
- 6 Daylight Sensor options from 5 lux (darkness) to 150 lux
- Programmable by the ALL-LED USA remote control (AL-RCLH)
- Suitable to wire into 0-10V LED Dimmable Driver, 3 level solution (100%, Dim, Off)

AL-MSLH detection pattern - height 10ft



AR-MSLH detection pattern - height 40ft



AL-LHB2160BD shown suspended



AL-PMLH pole mount plate



AL-MSLH microwave sensor controller



AL-RCLH microwave sensor controller

- 200ft x 200ft
- Half of the warehouse is for open area storage, packing and dispatch and half of the area is with full height racking.
- 100 Existing Fittings

Existing Installation 1 - 400W MBFU

5 Year Period Cost:

Total operating costs over the 5 year period = Energy @ (\$19,543.68 x 5)
+ Maintenance @ (\$3,500.00 x 3 lamp changes) = **\$108,218.40**

Existing Installation 2 - 250W HQI-E

5 Year Period Cost:

Total operating costs over the 5 year period = Energy @ (\$12,355.20 x 5)
+ Maintenance @ (\$3,500.00 x 3 lamp changes) = **\$72,276.00**

Proposed Ostia SQR2 Installation - 160W LED AL-LHB2160BD/50 with 50% fitted with ALL-LED USA Microwave Sensor

5 Year Period Cost:

Total operating costs over the 5 year period = Capital Cost @ \$24,500.00
+ Energy @ \$28,922.40 = **\$53,422.40**

Benefit

Saving over 5 years for the existing **400 Watt MBFU installation** has an operating cost @ **\$108,218.40 - \$53,422.40 = \$54,796.00 = 51% Saving!**
Saving over 5 years for the existing **250 Watt HQI-E installation** has an operating cost @ **\$72,276.00 - \$53,422.40 = \$18,853.60 = 26% Saving!**



Check your local utility supplier for rebate availability!

Accumulated Costs

Light Source	Total cost at end of Year 1	Total cost at end of Year 2	Total cost at end of Year 3	Total cost at end of Year 4	Total cost at end of Year 5
MBFU Payback during year 2	\$23,044	\$42,588	\$65,632	\$85,176	\$108,218
HQI-E Payback during year 3	\$15,855	\$28,210	\$44,065	\$56,420	\$72,276
LED AL-LHB2160B/50	\$30,284	\$36,068 ROI achieved vs MBFU	\$41,582 ROI achieved vs HQI-E	\$47,636	\$53,422

Calculation

For comparison, it is assumed that within the existing installation, the lighting is used on at full output during all hours of operation.

For the proposed installation, it is assumed that the lighting within the open area is also used on at full output during all hours of operation and the lighting within the racking area is on when the microwave sensor (AL-MSH) detects movement and at 10% for safety reasons when no movement is detected. For calculations purposes, it is assumed the isles are illuminated through use for 50% of the time and at 10% lighting level for the remaining 50% of the time. As power usage does not track lighting level then an additional amount of energy is added to the 10% operation period to account for this usage.

Assumed hours of operation @ 3744 hours per annum

Assumed energy costs @ \$.12c per kW hour. (No uplift energy costs have been factored into the calculation - it is assumed energy costs remain static over the full period)

USA Sales

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Warranty:

For full warranty information please visit:

Website: www.all-ledusa.com