

# HBL3

## LED Linear Low Bay / High Bay

### Product Description

The HBL3 LED Linear Low Bay/High Bay improves on the HBL model by providing higher performance with a slim new design. The ideal lumen package for replacing metal halide and linear fluorescent high bay systems the fixture supplies an output greater than 130 lumens per watt, meeting DLC premium. This energy-efficient and economical fixture offers high performance and long life, excellent color rendering, and even uniformity. The HBL3 is available in 4000K and 5000K color temperatures and has suggested mounting heights from 15ft and above, making it the perfect solution for warehouses, gymnasiums, garages and other storage areas, commercial and manufacturing facilities, as well as open and stack aisle applications.

#### Construction

- Durable steel construction with powder coat finish
- Vented steel housing provides thermal management through natural convection
- Top mounted wireway cover for easy wire access
- Offers four power level categories 110W, 162W, 223W, 321W
- Rated for use in damp locations.

#### Optical System

- Clear acrylic lens protects LEDs and provides optimal lumen output
- Frosted diffused acrylic lens also available

#### Electrical

- Long-life LED system coupled with electrical driver to deliver optimal performance with over 130 lumens per watt with clear lens
- Utilizes advanced LED technology with CCT of 4000K and 5000K with >80 CRI
- Operating temperature rating of -4°F to 113°F (-20°C to 45°C)
- Industry leading, 10kA surge protection standard, per ANSI C82.77-5-2015
- Input voltage of 120-277V
- 347-480V input option available, includes 20kA surge protection, per ANSI C82.77-5-2015
- Dimming: 0-10V standard
- Now available with a NLC Bluetooth sensor option to meet ASHRAE 90.1 energy efficiency requirements

#### Mounting and Installation

- V-hook and chain (41.3 in, 1050 mm) mounting system included
- Optional pendant mount kit available
- Motion Sensor options available
- Six foot cord or FMC option available
- Wireguard option available for increased fixture protection
- For installations where power surge may be possible, NICOR recommends installing additional surge protection at the fixture or electrical distribution panel

#### Warranty

- 5-year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge)

#### Listings

- UL and cUL listed for damp location
- DesignLights Consortium (DLC) Premium qualified
- ASHRAE 90.1 compliance when specified with P sensor option
- TM-21 Projected L70 (9K) Life > 122,000 hours
- LM-79, LM-80 testing performed in accordance with IESNA standards

### Product Measurements

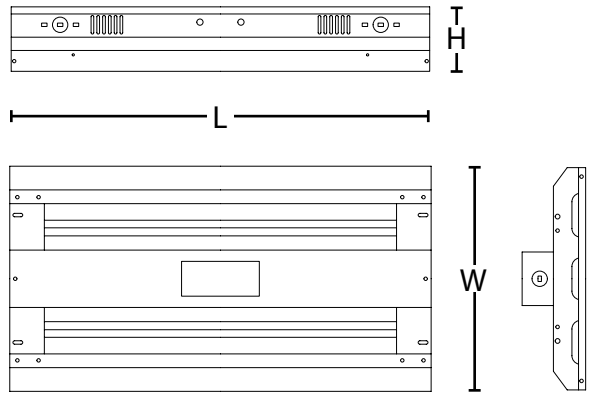
	HBL3110	HBL3162	HBL3223	HBL3321
Length:	23.8 in. (605mm)		23.8 in. (605mm)	46 in. (1166mm)
Width:	12.6 in. (320mm)		17.3 in. (440mm)	12.6 in. (320mm)
Height:	3.6 in. (92mm)		3.6 in. (92mm)	3.6 in. (92mm)

Project

Catalog

Type

Date

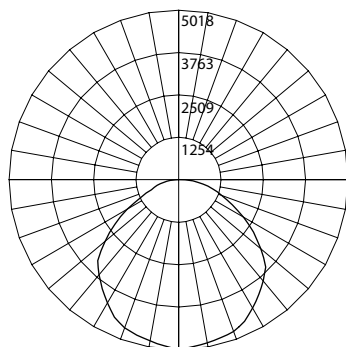


**NICOR**® LED

# Photometric Data

## 5000K 110W HBL3

Luminaire	5000K
Input Voltage (VAC)	120-277
System Level Power (W)	107.8
Delivered Lumens* (Lm)	14399
System Efficacy (Lm/W)	133.6
Correlated Color Temp (K)	5012
Color Rendering Index (CRI)	84
Total Harmonic Distortion	10%
Power Factor	0.995
Beam Angle	115.1
Spacing Criteria	1.32



### Intensity Summary (Candle Power)

Angle	Along	Across
0	5009	5009
5	5002	4996
15	4876	4897
25	4601	4631
35	4168	4166
45	3517	3551
55	2706	2754
65	1732	1798
75	728	455
85	74	40
90	9	9

### CCT Data Multiplier

HBL3110UNV40K 0.999

### Diffused Lens Multiplier

HBL3110162-FROS-DIFU 0.97

### Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	22.6	19.4
17	17.6	22.0
20	12.8	25.7
23	9.6	30.0
25	8.2	32.1
28	6.5	36.1
30	5.7	39.0

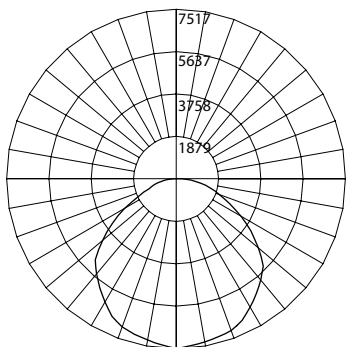
### Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	3989	27.7%
0-40	6605	45.9%
0-60	11777	81.8%
0-90	14252	99.0%
90-180	147	1.0%
0-180	14399	100.0%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

## 5000K 162W HBL3

Luminaire	5000K
Input Voltage (VAC)	120-277
System Level Power (W)	159.5
Delivered Lumens* (Lm)	21356
System Efficacy (Lm/W)	133.9
Correlated Color Temp (K)	4996
Color Rendering Index (CRI)	84
Total Harmonic Distortion	10%
Power Factor	0.995
Beam Angle	114.1°
Spacing Criteria	1.32



### Intensity Summary (Candle Power)

Angle	Along	Across
0	7509	7509
5	7505	7470
15	7315	7301
25	6916	6924
35	6295	6246
45	5317	5335
55	4121	4152
65	2643	2252
75	1100	776
85	110	54
90	11	5

### CCT Data Multiplier

HBL3162UNV40K 0.990

### Diffused Lens Multiplier

HBL3110162-FROS-DIFU 0.97

### Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	35.9	19.3
17	27.9	21.9
20	20.1	24.0
23	15.2	29.5
25	12.9	32.2
28	10.3	35.7
30	8.9	38.7

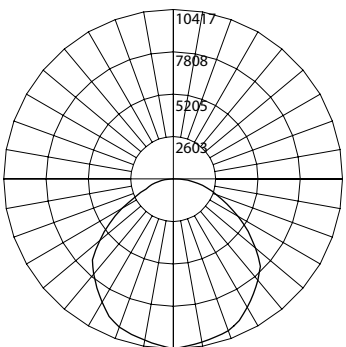
### Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	5971	28.0%
0-40	9902	46.4%
0-60	17700	82.9%
0-90	21278	99.6%
90-180	77	0.4%
0-180	21356	100.0%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

## 5000K 223W HBL3

Luminaire	5000K
Input Voltage (VAC)	120-277
System Level Power (W)	217.3
Delivered Lumens* (Lm)	29234
System Efficacy (Lm/W)	134.5
Correlated Color Temp (K)	5024
Color Rendering Index (CRI)	84
Total Harmonic Distortion	10%
Power Factor	0.995
Beam Angle	113.1
Spacing Criteria	1.31



### Intensity Summary (Candle Power)

Angle	Along	Across
0	10384	10384
5	10383	10357
15	10136	10067
25	9572	9509
35	8534	8676
45	7185	7345
55	5502	5627
65	3512	3149
75	1421	1206
85	120	71
90	13	10

### CCT Data Multiplier

HBL3223UNV40K 0.979

### Diffused Lens Multiplier

HBL3223-FROS-DIFU 0.97

### Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	47.6	19.4
17	37.1	21.9
20	26.7	25.8
23	20.2	29.8
25	17.2	32.2
28	13.7	36.0
30	11.9	38.8

### Zonal Lumen Summary

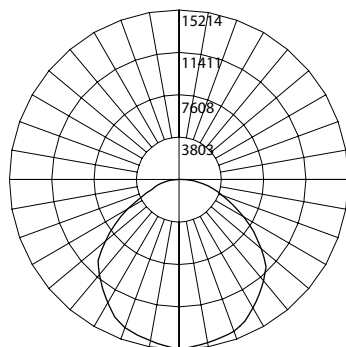
Zone	Lumens	% of Luminaire
0-30	8236	28.2%
0-40	13631	46.6%
0-60	24224	82.9%
0-90	29164	99.8%
90-180	69	0.2%
0-180	29234	100.0%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

## Ordering Information

### 5000K 321W HBL3

Luminaire	5000K
Input Voltage (VAC)	120-277
System Level Power (W)	318.7
Delivered Lumens* (Lm)	43026
System Efficacy (Lm/W)	135.0
Correlated Color Temp (K)	5014
Color Rendering Index (CRI)	84
Total Harmonic Distortion	10%
Power Factor	0.995
Beam Angle	115.1°
Spacing Criteria	1.32



### Intensity Summary (Candle Power)

Angle	Along	Across
0	15182	15182
5	15137	15196
15	14769	14833
25	13962	14040
35	12656	12635
45	10764	10718
55	8340	8251
65	5428	4576
75	2288	1637
85	230	109
90	15	9

### CCT Data Multiplier

HBL3321UNV40K	0.979
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### Diffused Lens Multiplier

HBL3321-FROS-DIFU	0.97
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### Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	68.5	19.4
17	53.4	22.0
20	38.6	25.9
23	29.2	29.8
25	24.7	32.3
28	19.7	36.2
30	17.1	38.8

### Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	12076	28.1%
0-40	20010	46.5%
0-60	35711	83.0%
0-90	42935	99.8%
90-180	91	0.2%
0-180	43026	100.0%

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

### Performance Data

Model Number	Lumens	Watts	Lumens/Watt
HBL3110UNV40K	14389	108.4	132.7
HBL3110UNV50K	14399	107.8	133.6
HBL3162UNV40K	21132	158.6	133.2
HBL3162UNV50K	21356	159.5	133.9
HBL3223UNV40K	28615	216.3	132.3
HBL3223UNV50K	29234	217.3	134.5
HBL3321UNV40K	42115	318.9	132.1
HBL3321UNV50K	43026	318.7	135.0

### Performance Data With Diffused Lens

Model Number	Lumens	Watts	Lumens/Watt
HBL3110UNV40K	13734	108.4	127.7
HBL3110UNV50K	13824	107.8	128.2
HBL3162UNV40K	20215	158.6	127.5
HBL3162UNV50K	20497	159.5	128.5
HBL3223UNV40K	27764	216.3	128.4
HBL3223UNV50K	28047	217.3	129.1
HBL3321UNV40K	40390	318.9	126.7
HBL3321UNV50K	41244	318.7	129.4

### Recommended Dimmers\*

- Lutron NTSTV
- Lutron DVSTV
- Cooper SF10P
- Legrand RH4FBL3PW

\*Not a complete list. Check compatibility before installation.

## Ordering Information

Example: HBL3162UNV40K

Series	Version	Wattage	Voltage	CCT	Lens	Sensor	Emergency	Wiring Options	Field Installed Plug Options <sup>1</sup>
HBL	3	110 (110 Watts) 14,000 lms	UNV (120-277V)	40K (4000K)	(Blank) Clear	(Blank) No Sensor	(Blank) No Backup	(Blank) No Cord	(Blank) No Plug
		162 (162 Watts) 21,000 lms	HV (347-480V)*	50K (5000K)	D (Diffuse)	P (HB011-PDX)	E3* (EMB250)	C (Cord) <sup>2</sup>	1 (515P) 15 amp 120V Straight Blade Plug
		223 (223 Watts) 29,000 lms				R (MWOS360R)		F (Flexible Metal Conduit) <sup>3</sup>	2 (L515P) 15 amp 120V Twist Lock Plug
		321 (321 Watts) 43,000 lms				S (3.5MM SOCKET)			3 (L615P) 15 amp 250V Twist Lock Plug
									4 (L715P) 15 amp 277V Twist Lock Plug
									5 (L720P) 20 amp 277V Twist Lock Plug
									6 (L2320P) 20 amp 347V Twist Lock Plug
									7 (L820P) 20 amp 480V Twist Lock Plug

Specifications and dimensions subject to change without notice.

- Field installed plugs are placed inside the carton for field attachment only. Plug not available on emergency enabled fixtures
- Cord is 18/3 wire, 6' long, black. Other lengths available upon request
- Flexible metal conduit is 6' long, 18/3 wire configuration. Other lengths available upon request
- The HV option is not available in 321W unit.
- Emergency not available on HV fixtures

## Sensors Accessories

PIR Dimming Sensor, High/Low Bay, 360, w/Daylighting	HB011-PDX
Microwave Motion Sensor	MWOS360R
Remote Control for MWOS360R	MWOS-REMOTE
NLC LLLC SENSOR	NLCIND3.5
Low Voltage Adjustable Arm	H12ADJARMWH

## Lens Accessories

Diffuser for 110W & 162W HBL3	HBL3110162-FROS-DIFU
Diffuser for 223W HBL3	HBL3223-FROS-DIFU
Diffuser for 321W HBL3	HBL3321-FROS-DIFU

## Pendant Kit

Pendant Kit for 110W, 162W, 321W HBL3	HBL3110162321-P
Pendant Kit for 223W HBL3 & High Voltage 162W, 223W, & 321W HBL3	HBL3223-P

## Wireguard Accessories

Wireguard for 110W & 162W HBL3	HBL3110162-WG
Wireguard for 223W HBL3	HBL3223-WG
Wireguard for 321W HBL3	HBL3321-WG

## NLC Bluetooth PIR/Daylight Sensor

See the individual spec sheet for further information

- Field installed 12VDC sensor NLC3.5IND
- Infrared motion detector with built in daylight sensor
- Commissioned with NLC App
- Highly configurable:
  - Occupancy/Vacancy Detection
  - Daylight Harvesting
  - High-End Trim
  - Full Range Dimming (0-10V)
  - Scene Control
  - Full Networking
- Max mounting height: 40ft (12m)
- IP65 Rated
- (S) option required



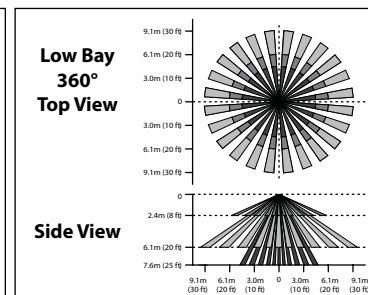
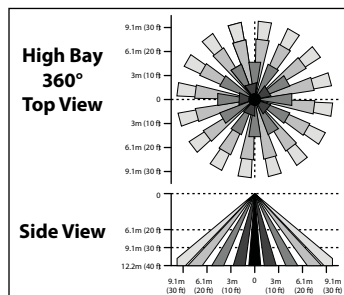
Both arm and sensor must be purchased in order to have sensor face the proper direction.

## SENSOR INFORMATION

### PIR Dimming Sensor - HB011-PDX

See the individual spec sheet for further information

- Auto Calibration for daylighting, easy ladderless configuration
- Integrated photocell
- Adjustable time delay
- 0-10V dimming
- Adjustable PIR sensitivity
- Daylighting configuration
- Visual LED indications for easy troubleshooting
- 360 degree field-of-view for 20' - 40' High Bay mounting heights
- 360 degree field-of-view for 8' to 20' Low Bay mounting heights
- ASHRAE 90.1 compliant
- Available as an accessory or an option installed at the factory



### Microwave Motion Sensor - MWOS360R

See the individual spec sheet for further information

- Microwave motion detector with built in daylight sensor
- Self contained relay, no power pack required
- Compatible with Electronic & Magnetic Ballasts, CFL, LED and Incandescent loads
- No minimum load requirement
- Remote and DIP switch programmable, additional setting options with remote handheld to adapt different installation environment and applications
- Highly configurable: Detection Area, Time Delay, Daylight
- Threshold, Dimming Level, Stand-by Period
- IP65 Rated
- Available with a remote control sold separately MWOS-REMOTE



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.