HBL4
LED Linear Low Bay / High Bay

Project
_____

Catalog
_____

Type
_____

Date
_____

Product Description

The HBL4 LED Linear Low Bay/High Bay improves upon the HBL line by providing increased performance and DLC 5.1 Premium ratings. With an ideal lumen package for replacing metal halide and linear fluorescent high bay systems, the HBL4 provides energy efficiency greater than 130 lumens per watt. The improved design offers high-performance with an improved lifespan, excellent color rendering, and even light uniformity. The HBL4 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

Optical System
• Frosted acrylic lens
• CCTs of 4000K or 5000K with >80 CRI

Electrical
• Offers four power levels: 105W, 155W, 210W, 300W
• Utilizes advanced LED technology with CCT of 4000K and 5000K with >74 CRI
• Operating temperature rating of -40ºF to 122ºF (-40ºC to 50ºC)
• 10kA surge protection standard
• Input voltage of 120-277V, 347-480V input option available
• Dimming: 0-10V standard

Controls
• 12VDC sensor socket standard - compatible with NICOR H12V or NLC sensors
• Field installable multifunction MW or PIR sensor available
• Standard full-range dimming with compatible 1-10VDC dimmers
• 12VDC output provides power to off-board sensors or controls

NLC (Network Lighting Controls)
• Bluetooth Low Energy (BLE) mesh network providing Luminaire Level Lighting Control
• Field installable BLE PIR/Daylight sensor available
• Configurable with the NICOR NLC app available on iOS and Android devices
• Provides full dimming control with occupancy and daylight harvesting functions

Mounting and Installation
• V-hook and chain mounting system included
• Wireguard option available for increased fixture protection
• Pendant mount or surface mount kits available
• Motion sensor options available
• Cord or FMC options available
• For installations where power surge may be possible, NICOR recommends installing additional surge protection at the fixture or electrical distribution panel

Listings
• UL/cUL1598 Listed for damp locations
• DLC 5.1 Premium Listed (for standard version only. HV option not listed)
• RoHS Compliant
• Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
• TM-21 Reported L70(10k) life >72,000 hours
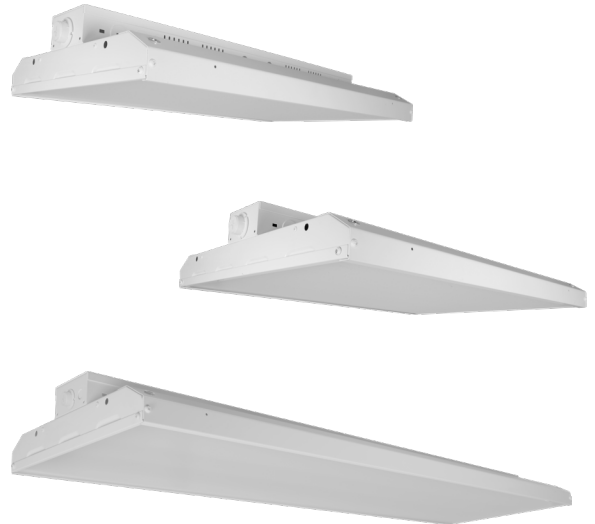• LM-79, LM-80 testing performed in accordance with IESNA standards

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

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105W, 155W, 210W, 300W
LED LInear Low/High Bay

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Ordering Information

Series	Version	Wattage	Input Voltage	12V output	CCT	Emergency	Wiring Options
HBL	**4**	**105** (14700 lm)	**U** (120-277V)	**V** (12VDC output)	**4K** (4000K)	___ (none)	___ (none)
		155 (21500 lm)	**H** (347-480V)		**5K** (5000K)	**E** (EMB250)	**C** (3-wire Cord)[2]
		210 (27300 lm)					**C4** (4 -wire Cord)[2]
		300 (41000 lm)					**F** (Flexible Metal Conduit)[3]

Specifications and dimensions subject to change without notice.

1. Field installed plugs are placed inside the carton for field attachment only. Plug not available on emergency enabled fixtures

2. Cord is 18/3 wire, 6' long, black. Consult factory for other lengths

3. Flexible metal conduit is 6' long, 18/3 wire configuration. Consult factory for other lengths

Wireguard Accessories

Wireguard for 105W & 155W HBL4	HBL4105155WG
Wireguard for 210W HBL4	HBL3223-WG
Wireguard for 300W HBL4	HBL4300WG

Pendant Kit

Pendant Kit for 105W, 155W, 300W HBL4	HBL3110162321-P
Pendant Kit for 210W & all High Voltage HBL4	HBL3223-P

Plug Accessories
Plug options are field install only & requires wiring option.

15 amp 120V Straight Blade Plug	515P
15 amp 120V Twist Lock Plug	L515P
15 amp 240V Twist Lock Plug	L615P
15 amp 277V Twist Lock Plug	L715P
20 amp 277V Twist Lock Plug	L720P
20 amp 347V Twist Lock Plug	L2320P
20 amp 480V Twist Lock Plug	L820P

Plugs not available for C4 (4-wire cord) options.

Motion Sensors

Low Voltage Adjustable Arm	H12VADJARM1WH
Low Voltage Infrared Motion Sensor	H12VSENSORPIR
Microwave Motion Sensor	H12VSENSORMW
Remote Control for H12V Sensors	H12VREMOTE
NLC Bluetooth PIR/Daylight Sensor	NLCIND3.5A

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

NLC Controls

See www.nicorlighting/network-lighting-controls for more information and NLC Component Data Sheets

12VDC Output

There is an additional 12VDC output on the driver. This output can be used to provide power to external low voltage sensors or controls. Do not use the 12VDC output if a sensor is installed in the socket.

Performance Data

Model Number	Normal Operation			25W Emergency
	Lumens	Watts	Lumens/Watt	Lumens
HBL4105UNV40K	14780	106.0	139.4	3486
HBL4105UNV50K	14914		140.7	3517
HBL4155UNV40K	21460	154.9	138.5	3463
HBL4155UNV50K	21546		139.1	3477
HBL4210UNV40K	27302	205.2	133.1	3326
HBL4210UNV50K	27550		134.3	3356
HBL4300UNV40K	41178	304.8	135.1	3377
HBL4300UNV50K	41933		137.6	3439

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Photometric Data

105W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	106.0
Delivered Lumens (Lm)	14914
System Efficacy (Lm/W)	140.7
Correlated Color Temp (K)	5000
Color Rendering Index (CRI)	80
Beam Angle (0)	104.0
Beam Angle (90)	104.9
Spacing Criteria (0)	1.26
Spacing Criteria (90)	1.26

5773
4330
2887
1443
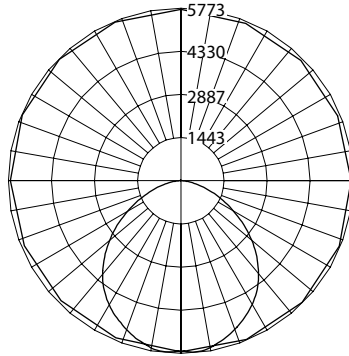
Cone of Light Tabulation		
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	25.4	38.4
17	29.1	35.8
20	14.3	51.2
23	10.8	58.9
25	9.2	64.0
28	7.3	71.7
30	6.4	76.8

CCT Data Multiplier	
HBL4105U4K	0.991

155W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	154.9
Delivered Lumens (Lm)	21546
System Efficacy (Lm/W)	139.1
Correlated Color Temp (K)	5000
Color Rendering Index (CRI)	80
Beam Angle (0)	103.4
Beam Angle (90)	104.5
Spacing Criteria (0)	1.26
Spacing Criteria (90)	1.26

8403
6302
4201
2101
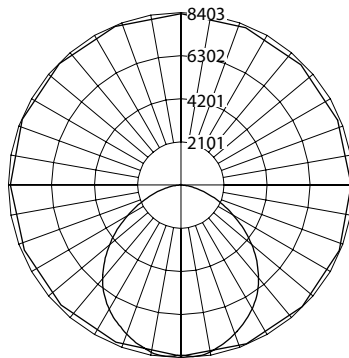
Cone of Light Tabulation		
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	37.0	38.0
17	28.8	43.1
20	20.8	50.6
23	15.8	58.2
25	13.4	63.3
28	10.6	70.9
30	9.3	76.0

CCT Data Multiplier	
HBL4155U4K	0.996

210W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	205.2
Delivered Lumens (Lm)	27550
System Efficacy (Lm/W)	134.3
Correlated Color Temp (K)	5000
Color Rendering Index (CRI)	80
Beam Angle (0)	102.4
Beam Angle (90)	102.9
Spacing Criteria (0)	1.24
Spacing Criteria (90)	1.24

10818
8114
5409
2705
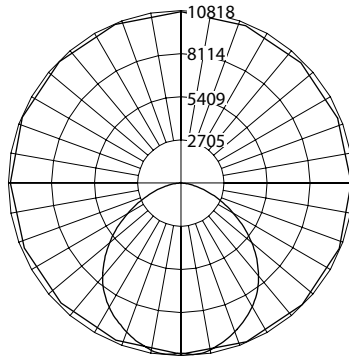
Cone of Light Tabulation		
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	47.8	37.3
17	37.2	42.3
20	26.9	49.7
23	20.4	57.2
25	17.3	62.2
28	13.7	69.6
30	12.0	74.6

CCT Data Multiplier	
HBL4155U4K	0.991

300W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	304.8
Delivered Lumens (Lm)	41933
System Efficacy (Lm/W)	137.6
Correlated Color Temp (K)	5000
Color Rendering Index (CRI)	80
Beam Angle (0)	102.3
Beam Angle (90)	104.3
Spacing Criteria (0)	1.26
Spacing Criteria (90)	1.24

16418
12314
8209
4105
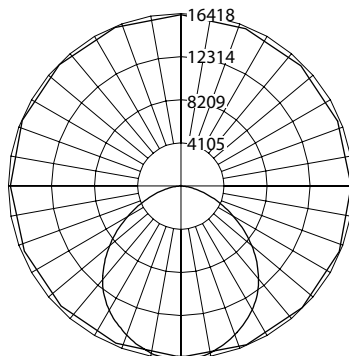
Cone of Light Tabulation		
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	71.9	37.2
17	55.7	42.2
20	40.3	49.7
23	30.4	57.1
25	25.8	62.1
28	20.5	69.5
30	17.9	74.5

CCT Data Multiplier	
HBL4155U4K	0.982

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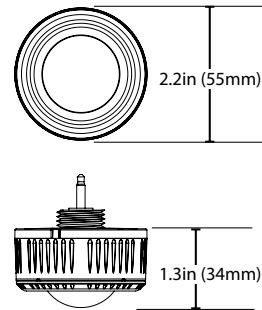
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Sensors and Dimmers

H12V PIR Low Voltage Motion Sensor
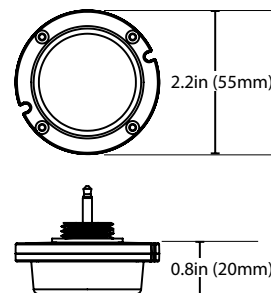See the individual spec sheet for further information

- Field installed 12VDC sensor
- Infrared motion detector with built in daylight sensor
- Remote control programmable
- Highly configurable:
  - Detection area
  - Hold time
  - Dimming level
  - Stand-by period
  - Stand-by dimming
  - Daylight harvesting threshold
- Max mounting height: 40ft (12m)
- IP65 Rated

2.2in (55mm)

1.3in (34mm)

Microwave Low Voltage Motion Sensor
See the individual spec sheet for further information

- Field installed 12VDC sensor
- Microwave motion detector with built in daylight sensor
- Remote control programmable
- Highly configurable:
  - Detection area
  - Hold time
  - Dimming level
  - Stand-by period
  - Stand-by dimming
  - Daylight harvesting threshold
- Max mounting height: 40ft (12m)
- IP65 Rated

2.2in (55mm)

0.8in (20mm)

Remote Control for H12V Sensors
See the individual spec sheet for further information

- Allows programming of MW or PIR sensors
- Allows adjustment of:
  - Brightness
  - Hold time
  - Sensor Sensitivity
  - Daylight harvesting threshold
  - Stand-by dimming level
  - Stand-by time
  - Stand-by dimming

Adjustable Arm for H12V Sensors
See the individual spec sheet for further information

- Compatible with H12V and NLC sensors
- Allows repositioning of sensor
- Elbow range -90° - +90°
- Elbow can be rotated 360°

NLC Bluetooth PIR/Daylight Sensor
See the individual spec sheet for further information

- Field installed 12VDC sensor
- 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

Recommended Dimmers*
Lutron NTSTV
Lutron DVSTV
Cooper SF10P
Legrand RH4FBL3PW

*Not a complete list. Check compatibility before installation.

12VDC Output

There is an additional 12VDC output on the driver. This output can be used to provide power to external low voltage sensors or controls. Do not use the 12VDC output if a sensor is installed in the socket.

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Dimensions

Product Measurements

	HBL4105	HBL4155	HBL4210	HBL4300
Length:	23.8 in. (605mm)		23.8 in. (605mm)	46 in. (1166mm)
Width:	13.0 in. (330mm)		17.3 in. (440mm)	13.0 in. (330mm)
Height:	3.6 in. (92mm)		3.6 in. (92mm)	3.6 in. (92mm)
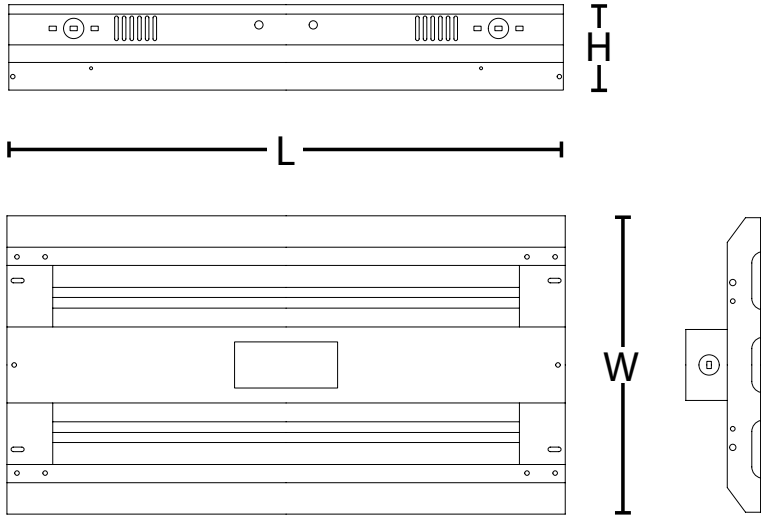
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

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