

HBL-20

LED Linear Low Bay / High Bay

Product Description

The HBL LED Linear Low Bay/High Bay provides a lumen package that is ideal for replacing metal halide and linear fluorescent low bay systems. With output greater than 135 lumens per watt, this energy-efficient and economical fixture offers high performance and long life, excellent color rendering, and even uniformity. The HBL is available in 4000K and 5000K color temperatures and has suggested mounting heights from 15ft to 80ft, making it an ideal 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 acrylic lens also available

Electrical

- Long-life LED system coupled with electrical driver to deliver optimal performance with over 135 lumens per watt with clear lens
- Utilizes advanced LED technology with CCT of 4000K and 5000K with >80 CRI
- Operating temperature rating of -0°F to 104°F (-18°C to 40°C)
- 10kA surge protection standard
- Input voltage of 120-277V
- 347-480V input option available
- Dimming: 0-10V standard
- DLC Premium Qualified

Mounting and Installation

- V-hook and chain 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)
- TM-21 Projected L70 (9K) life > 122,000 hours
- LM-79, LM-80 testing performed in accordance with IESNA standards

Product Measurements

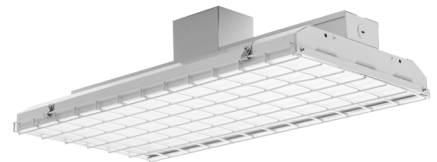
| | HBL-110W 50K | HBL-162W 50K | HBL-223W 50K | HBL-321W 50K |
|---------|------------------|------------------|------------------|------------------|
| Length: | 23.8 in. (605mm) | 23.8 in. (605mm) | 46 in. (1166mm) | 46 in. (1166mm) |
| Width: | 12.6 in. (320mm) | 17.3 in. (440mm) | 12.6 in. (320mm) | 17.3 in. (440mm) |
| Height: | 3.6 in. (92mm) | 3.6 in. (92mm) | 3.6 in. (92mm) | 3.6 in. (92mm) |

Project

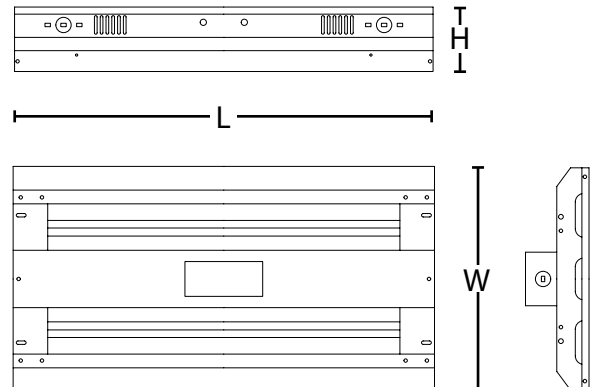
Catalog

Type

Date



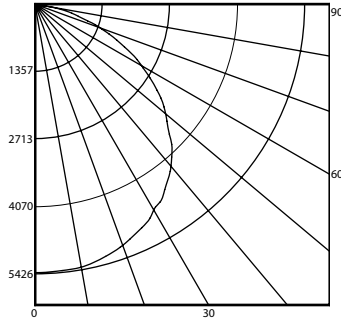
Shown with optional frosted diffuser, wireguard and pendant kit



Photometric Data

5000K 110W HBL-20

| | |
|-----------------------------|-------|
| Luminaire | 5000K |
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 110 |
| Delivered Lumens* (Lm) | 14850 |
| System Efficacy (Lm/W) | 135 |
| Correlated Color Temp (K) | 5237 |
| Color Rendering Index (CRI) | 83 |
| Total Harmonic Distortion | 10% |
| Power Factor | >0.90 |
| Beam Angle | 112° |
| Spacing Criteria | 1.30 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 5426 |
| 5 | 5408 |
| 15 | 5264 |
| 25 | 4949 |
| 35 | 4491 |
| 45 | 3781 |
| 55 | 2857 |
| 65 | 1699 |
| 75 | 624 |
| 85 | 52 |
| 90 | 10 |

CCT Data Multiplier

HBL-20-110W-UNV-40K 0.993

Diffused Lens Multiplier

HBL-10-100-FROS-DIFU 0.97

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 15 | 23.95 | 44.48 |
| 17 | 18.65 | 50.41 |
| 20 | 13.47 | 59.30 |
| 23 | 10.19 | 68.20 |
| 25 | 8.62 | 74.13 |
| 28 | 6.87 | 83.02 |
| 30 | 5.98 | 88.95 |

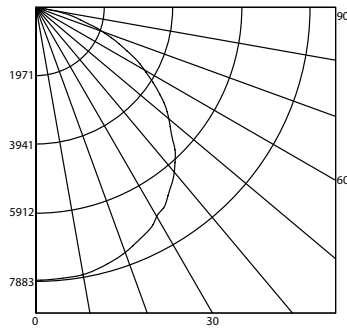
Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 4250 | 28.6% |
| 0-40 | 7033 | 47.4% |
| 0-60 | 12421 | 83.6% |
| 0-90 | 14798 | 99.7% |
| 90-180 | 51 | 0.3% |
| 0-180 | 14850 | 100% |

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

5000K 162W HBL-20

| | |
|-----------------------------|-------|
| Luminaire | 5000K |
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 162 |
| Delivered Lumens* (Lm) | 21870 |
| System Efficacy (Lm/W) | 135 |
| Correlated Color Temp (K) | 5159 |
| Color Rendering Index (CRI) | 83 |
| Total Harmonic Distortion | 10% |
| Power Factor | >0.90 |
| Beam Angle | 113° |
| Spacing Criteria | 1.30 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 7883 |
| 5 | 7865 |
| 15 | 7645 |
| 25 | 7187 |
| 35 | 6515 |
| 45 | 5515 |
| 55 | 4169 |
| 65 | 2554 |
| 75 | 971 |
| 85 | 65 |
| 90 | 11 |

CCT Data Multiplier

HBL-20-162W-UNV-40K 0.993

Diffused Lens Multiplier

HBL-10-150-FROS-DIFU 0.97

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 15 | 34.92 | 44.48 |
| 17 | 27.19 | 50.41 |
| 20 | 19.65 | 59.30 |
| 23 | 14.85 | 68.20 |
| 25 | 12.57 | 74.13 |
| 28 | 10.02 | 83.02 |
| 30 | 8.73 | 88.95 |

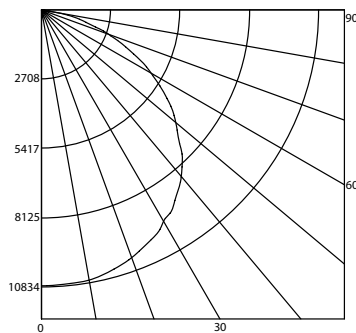
Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 6198 | 28.3% |
| 0-40 | 10257 | 46.9% |
| 0-60 | 18173 | 83.1% |
| 0-90 | 21807 | 99.7% |
| 90-180 | 63 | 0.3% |
| 0-180 | 21870 | 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 HBL-20

| | |
|-----------------------------|-------|
| Luminaire | 5000K |
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 223 |
| Delivered Lumens* (Lm) | 30105 |
| System Efficacy (Lm/W) | 135 |
| Correlated Color Temp (K) | 5220 |
| Color Rendering Index (CRI) | 83 |
| Total Harmonic Distortion | 10% |
| Power Factor | >0.90 |
| Beam Angle | 111° |
| Spacing Criteria | 1.30 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 10834 |
| 5 | 10794 |
| 15 | 10491 |
| 25 | 9871 |
| 35 | 8973 |
| 45 | 7609 |
| 55 | 5808 |
| 65 | 3497 |
| 75 | 1322 |
| 85 | 108 |
| 90 | 16 |

CCT Data Multiplier

HBL-20-223W-UNV-40K 0.993

Diffused Lens Multiplier

HBL-10-200-FROS-DIFU 0.97

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 15 | 48.07 | 44.48 |
| 17 | 37.43 | 50.41 |
| 20 | 27.04 | 59.30 |
| 23 | 20.45 | 68.20 |
| 25 | 17.31 | 74.13 |
| 28 | 13.80 | 83.02 |
| 30 | 12.02 | 88.95 |

Zonal Lumen Summary

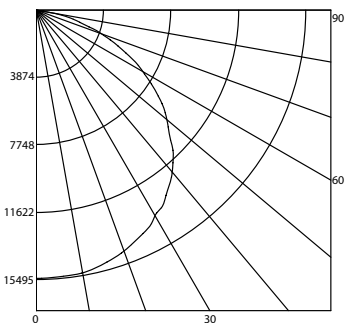
| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 8523 | 28.3% |
| 0-40 | 14114 | 46.9% |
| 0-60 | 25085 | 83.3% |
| 0-90 | 30024 | 99.7% |
| 90-180 | 82 | 0.3% |
| 0-180 | 30105 | 100.0% |

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 HBL-20

| | |
|-----------------------------|-------|
| Luminaire | 5000K |
| Input Voltage (VAC) | 120 |
| System Level Power (W) | 321 |
| Delivered Lumens* (Lm) | 43335 |
| System Efficacy (Lm/W) | 135 |
| Correlated Color Temp (K) | 5141 |
| Color Rendering Index (CRI) | 83 |
| Total Harmonic Distortion | 10% |
| Power Factor | >0.90 |
| Beam Angle | 112° |
| Spacing Criteria | 1.30 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 15495 |
| 5 | 15456 |
| 15 | 15014 |
| 25 | 14144 |
| 35 | 12841 |
| 45 | 10894 |
| 55 | 8325 |
| 65 | 5114 |
| 75 | 1965 |
| 85 | 154 |
| 90 | 23 |

CCT Data Multiplier

HBL-20-321W-UNV-40K 0.993

Diffused Lens Multiplier

HBL-10-320-FROS-DIFU 0.97

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 15 | 68.47 | 44.48 |
| 17 | 53.31 | 50.41 |
| 20 | 38.52 | 59.30 |
| 23 | 29.12 | 68.20 |
| 25 | 24.65 | 74.13 |
| 28 | 19.65 | 83.02 |
| 30 | 17.12 | 88.95 |

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 12157 | 28.1% |
| 0-40 | 20129 | 46.4% |
| 0-60 | 35831 | 82.7% |
| 0-90 | 43221 | 99.7% |
| 90-180 | 114 | 0.3% |
| 0-180 | 43335 | 100% |

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 |
|---------------------|--------|-------|-------------|
| HBL-20-110W-UNV-50K | 14850 | 110 | 135 |
| HBL-20-162W-UNV-50K | 21870 | 162 | 135 |
| HBL-20-223W-UNV-50K | 30105 | 223 | 135 |
| HBL-20-321W-UNV-50K | 43335 | 321 | 135 |

Recommended Dimmers*

Lutron NTSTV
 Lutron DVSTV
 Cooper SF10P
 Legrand RH4FBL3PW

*Not a complete list. Check compatibility before installation.

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.

Ordering Information

Example: HBL-20-162W-HV-50K-DMF

| Series | Version | Wattage | Voltage | CCT | Lens | Motion Sensor (Factory Install) | Emergency | Wiring Options | Plug Options |
|--------|---------|---------|-------------------|-------------|------------------|---------------------------------|-----------------------------------|--------------------------------|---|
| HBL | 20 | 110W | UNV (120-277V) | 40K (4000K) | (Blank) Clear | (Blank) No Motion Sensor | (Blank) No Emergency Backup | (Blank) No Cord | (Blank) No Plug |
| | | 162W | HV (347-480V) | 50K (5000K) | D Diffused | M PIR Sensor | E Emergency Backup | C ¹ Cord | 1 (515P) 15 amp 120V Straight Blade Plug |
| | | 223W | | | | W Microwave Sensor | | F Flexible Metal Conduit | 2 (L515P) 15 amp 120V Twist Lock Plug |
| | | 321W | | | | | | | 3 (L615P) 15 amp 240V Twist Lock Plug |
| | | | | | | | | | 4 (L720P) 20 amp 277V Twist Lock Plug |
| | | | | | | | | | 5 (L2420P) 20 amp 347V Twist Lock Plug |
| | | | | | | | | | 6 (L820P) 20 amp 480V Twist Lock Plug |
| | | | | | | | | | 7 (L715P) 15 amp 277V Twist Lock Plug |

¹ Plug option requires cord wiring option

Specifications and dimensions subject to change without notice.

Wireguard Accessories*

| | |
|------------------------|---------------|
| Wireguard for 110W HBL | HBL-10-100-WG |
| Wireguard for 162W HBL | HBL-10-150-WG |
| Wireguard for 223W HBL | HBL-10-200-WG |
| Wireguard for 321W HBL | HBL-10-320-WG |

Lens Accessories*

| | |
|---------------------------|----------------------|
| HBL 110W Frosted Diffuser | HBL-10-100-FROS-DIFU |
| HBL 162W Frosted Diffuser | HBL-10-150-FROS-DIFU |
| HBL 223W Frosted Diffuser | HBL-10-200-FROS-DIFU |
| HBL 321W Frosted Diffuser | HBL-10-320-FROS-DIFU |

Pendant Kit*

| | |
|---------------------|----------------|
| Pendant Kit for HBL | HBL-10-PENDANT |
|---------------------|----------------|

Motion Sensors*

| | |
|-------------------------|-----------|
| Microwave Motion Sensor | MWOS360 |
| Infrared Motion Sensor | HBOS360WH |

*HBL-20 is a version upgrade and accessories will use the current part number for ease of transition