HBC7

Selectable Low-Bay / High-Bay

Project

Catalog

Type

Date

Product Description

The HBC7 LED Circular Low-Bay/High-Bay is a high-performance lighting solution featuring selectable wattage, selectable color temperature, and wireless control technology. With a sleek, compact design, it offers improved energy efficiency and supports low-voltage accessories. The die-cast aluminum housing features an integrated heatsink and multiple mounting points to accommodate various installation options and accessories. The HBC7 delivers an impressive efficacy exceeding 143 lumens per watt and excellent color rendering for accurate color representation. The impact-resistant polycarbonate lens provides consistent light distribution, while optional reflectors help reduce glare and provide targeted illumination. The HBC7 operates at 120–277 VAC (or 277–480 VAC) with 0–10V dimming and a 12V accessory connection for standard or smart (NLC) sensors. An optional 40W emergency battery backup is available for added safety and security. The HBC7 is an ideal fixture for warehouses, retail stores, gymnasiums, and other large indoor spaces.

Construction
- Ultra-slim construction with off-board driver for improved thermal management
- Vented aluminum heatsink provides superior cooling while reducing fixture weight
- Polyester powder coat

Optical System
- High efficiency LEDs with 90° polycarbonate optic
- 90° polycarbonate reflector available
- Polycarbonate glare shields available
- 90° aluminum reflector available
- Selectable CCT of 3500K/4000K/5000K
- Standard 80 CRI to improve safety and color definition in public places

Electrical
- Input voltage of 120-277VAC, 277-480VAC optional
- Selectable wattage of 100/120/150W, 150/200/240W or 240/270/300W
- Power factor: ≥ 0.9, THD ≤20%
- Luminaire surge protection level: designed to withstand up to 6kV ring wave and 6kV/3kA combination wave per ANSI C82.77-5-2017 requirements for high bay luminaires.
- 6ft power cord and 3ft accessory (0-10VDC dimming & 12VDC output) cord standard
- Operating temperature range: -40° to 122°F (-40° to 50°C), -22° to 122°F (-30° to 50°C) with sensor installed, 32° to 122°F (0° to 50°C) with EM pack installed.

Controls
- Sensor socket pre-installed on every fixture
- Field installable multifunction MW or PIR sensor available
- *Note: When using H12V sensors, set the fixture Wattage Selection Switch to the highest wattage. Lower wattages can then be set via the H12V Remote Control.*
- Standard full-range dimming with compatible 0-10VDC dimmers
- 12VDC output provides power to off-board sensors

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, scheduling, LLLC with occupancy and daylight harvesting functions

Mounting and Installation
- Includes hook with locking bolt (M10 thread) for simple, secure mounting
- 3/4" NPT pendant adapter available
- Yoke accessory available
- Wire guard at lens location available
- For installations where power surge may be possible, NICOR recommends installing additional surge protection at the fixture or electrical distribution panel

Listings
- cULus 1598 Listed for wet locations
- DLC 6.0 Premium listed
- NSF/ANSI 2 - Food Equipment listed
- IP65 rated
- RoHS compliant
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- TM-21 Reported L70(9k) life >102,000 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)





HBC7
100W/120W/150W
150W/200W/240W
240W/270W/300W
3500K/4000K/5000K
LED Low-Bay/High-Bay

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Ordering Information						*Example: HBC7150SHS8WH*
Series	**Version**	**Wattage**	**Voltage**	**CCT's**	**CRI**	**Finish**
HBC	**7**	☐ **150S** (100/120/150W)	☐ **U** (120-277VAC)	**S** (3500K/4000K/5000K)	**8** (80+)	☐ **BK** (Black)
		☐ **240S** (200/220/240W)	☐ **H** (277-480VAC)			☐ **WH** (White)
		☐ **300S** (240/270/300W)				

Specifications and dimensions subject to change without notice.

Optic Accessories *accessories sold separately*

90° Aluminum Reflector (150W) *	HBC5150RFLAL
90° Aluminum Reflector (240W) *	HBC4240RFLAL
90° Aluminum Reector (300W)	HBC7300RFAL
90° Polycarbonate Reector (150W)*	HBC5150RFLPC
90° Polycarbonate Reector (240W)*	HBC4240RFLPC
90° Polycarbonate Reector (300W)	HBC7300RFPC
Glare Shield for PC Reector (150W)	HBC5150GSPC
Glare Shield for PC Reector (240W)	HBC4240GSPC
Glare Shield for PC Reector (300W)	HBC7300GSPC
Wire Guard for Fixture (150W)	HBC7150WG
Wire Guard for Fixture (240W)	HBC7240WG
Wire Guard for Fixture (300W)	HBC7300WG
Relfector Adapter (150, 240W)	HBC7RFLADAPT

* Reflector requires HBC7RFLADAPT for proper installation

Mounting Accessories

3/4" NPT Pendant Adapter	HBC4100-240PEND
3/4" NPT Pendant Adapter, White	HBC4100-240PENDWH
Yoke Mount	HBC4100-200YOKE
Yoke Mount - White	HBC4100-200YOKEWH

Motion Sensor Accessories *(see specsheet for full information)*

PIR Motion Sensor	H12V3SENSORPIR3PWH
Microwave Motion Sensor	HBC5SENSORMW
Remote Control for Sensors	H12V2REMOTE
NLC Wireless PIR/Daylight Sensor w/Lens (Requires HBCSOCKETADAPT1)	NLCSPEJ1WH-LHW
NLC Wireless Long-Range Outdoor Node (Requires NLCWS06W)	NLCWPPA102AUXWC1
3.5mm Adapter for HBC 3-pin Socket	HBCSOCKETADAPT1
3.5mm IP66 Adapter for HBC 3-pin Socket	NLCWS06W

Emergency Accessories *(see specsheet for full information)*

40W Emergency Pack (120-277V)	EMB4002UNVBK
40W Emergency Remote Control	EMB4002REMOTE

High Voltage Transformer *(see specsheet for full information)*

High Voltage (277-480V) Transformer	NST1375HVWH
High Voltage (277-480V) Transformer IP65	NST1375HVWHIP

Note:
HBC4240 reflector accessories fit the HBC7240 using HBC7RFLADAPT
HBC5150 reflector accessories fit the HBC7150 using HBC7RFLADAPT



17.2 in Ø x 6.5 in H
(438 x 164 mm)



17.2 in Ø x 7.2 in H
(438 x 182 mm)



20.71 in Ø x 5.98 in H
(526 x 152 mm)



17.2 in Ø x6.5 in H
(411 x 160 mm)



17.2 in Ø x7.2 in H
(411 x 183 mm)



18.9 in Ø x6.26 in H
(480 x 159 mm)



16.0 in Ø x1.6 in H
(407 x 40 mm)



16.0 in Ø x1.6 in H
(407 x 40 mm)



18.7 in Ø x1.61 in H
(475 x 41 mm)



9.15 in Ø x0.71 in H
(232.5 x 18 mm)



11.22 in Ø x0.81 in H
(285 x 20.5 mm)



13.07 in Ø x0.71 in H
(332 x 18 mm)



HBC4100-200YOKE
Yoke Mount Kit
5.9"H x 8.1"L 1.8"W
(150 x 207 x 46mm)



HBC4100-200PEND
M10 to 3/4" NPT Pendant Adaptor
1.2"Ø x 1.3"L (30 x 32mm)

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Performance Data

Universal Input				
Model Number	CCT	Lumens	Watts	Lumens/Watt
HBC7150SUS8	3500	15600	100.0	156.0
	4000	16544	94.0	176.0
	5000	16200	100.0	162.0
	3500	17760	120.0	148.0
	4000	19494	114.0	171.0
	5000	18720	120.0	156.0
	3500	21536	151.0	142.6
	4000	23956	145.0	165.2
	5000	22485	150.7	149.2
HBC7240SUS8	3500	23500	150.0	157.0
	4000	24464	139.0	176.0
	5000	23700	150.0	158.0
	3500	29800	200.0	149.0
	4000	32148	188.0	171.0
	5000	30400	200.0	152.0
	3500	33084	230.9	143.3
	4000	36171	219.1	165.1
	5000	34129	234.4	145.6
HBC7300SUS8	3500	37200	240.0	155.0
	4000	38808	231.0	168.0
	5000	37400	240.0	156.0
	3500	39690	270.0	147.0
	4000	41958	259.0	162.0
	5000	40500	270.0	150.0
	3500	40641	287.0	141.6
	4000	43503	274.5	158.5
	5000	41667	290.2	143.6

Universal Input				
Model Number	CCT	Lumens	Watts	Lumens/Watt
HBC7150SHS8	3500	15408	98.1	157.0
	4000	16089	93.0	173.0
	5000	15538	97.1	160.0
	3500	17767	119.2	149.0
	4000	18871	113.0	167.0
	5000	18171	118.0	154.0
	3500	21324	148.2	143.9
	4000	22662	140.5	161.3
	5000	21666	146.7	147.7
HBC7240SHS8	3500	22140	141.0	157.0
	4000	23142	133.0	174.0
	5000	22323	139.5	160.0
	3500	28787	191.9	150.0
	4000	30408	181.0	168.0
	5000	29241	189.9	154.0
	3500	33744	234.2	144.1
	4000	35678	220.9	161.6
	5000	34191	231.7	147.6
HBC7300SHS8	3500	36022	237.0	152.0
	4000	38250	225.0	170.0
	5000	37548	239.2	157.0
	3500	39098	269.6	145.0
	4000	42496	256.0	166.0
	5000	41088	272.1	151.0
	3500	40364	290.6	139.1
	4000	44227	275.9	160.3
	5000	42290	293.3	144.2

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

Ambient Temperature Ratings			
Model Number	**Normal**	**Sensor**	**EM**
HBC7150	-40°- 122°F (-40°- 50°C)	-22°-122°F (-30°- 50°C)	32°-122°F (0°- 50°C)
HBC7240			
HBC7300			

Operation with H12V sensors		
The following table should be used to determine proper H12V2REMOTE "Brightness" setting to obtain desired fixture wattage. Set fixture wattage selection switch to highest setting.		
Fixture	Brightness Setting	Wattage
HBC7150S*S8	60%	97
	75%	122
	100%	150
HBC7240S*S8	70%	157
	75%	195
	100%	240
HBC7300S*S8	70%	237
	75%	271
	100%	300

Lumens v. Ambient Temperature		
Ambient °C	**Ambient °F**	**Lumen Multiplier**
-40	-40	1.15
-35	-31	1.12
-30	-22	1.10
-25	-13	1.0
-20	-4	1.05
-15	5	1.04
-10	14	1.04
-5	23	1.03
0	32	1.03
5	41	1.03
10	50	1.02
15	59	1.01
20	68	1.00
25	77	1.00
30	86	0.98
35	95	0.96
40	104	0.94
45	113	0.92
50	122	0.90

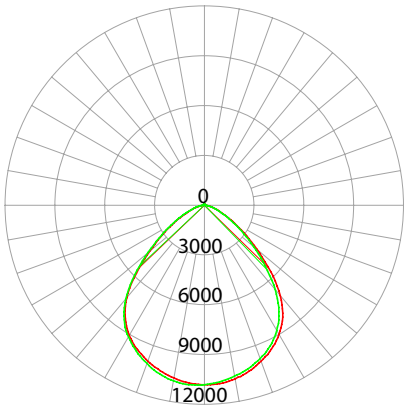
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Photometric Data

HBC7 150W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	150.72
Delivered Lumens (Lm)	22485
System Efficacy (Lm/W)	149.18
Correlated Color Temp (K)	5186
Color Rendering Index (CRI)	83.7
Spacing Criteria	1.24



Cone of Light Tabulation

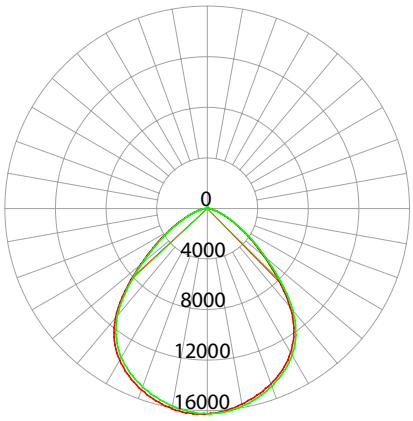
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	48.2	30.7
17	37.5	34.8
20	27.1	41
23	20.5	47.1
25	17.4	51.2
28	13.8	57.4
30	12.1	61.5

Data Multiplier

	3500K	4000K	5000K
100W	0.679	0.736	0.704
120W	0.782	0.867	0.822
150W	0.958	1.065	1.000

HBC7 240W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	234.4
Delivered Lumens (Lm)	34129
System Efficacy (Lm/W)	145.6
Correlated Color Temp (K)	4934
Color Rendering Index (CRI)	82.6
Spacing Criteria	1.26



Cone of Light Tabulation

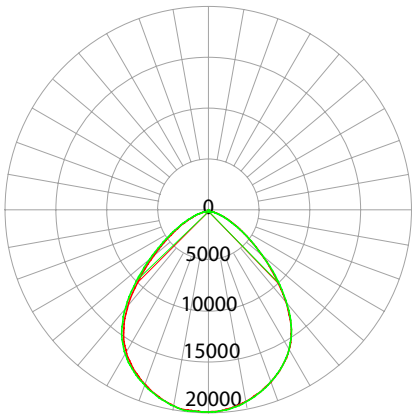
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	72.4	31.0
17	56.4	35.1
20	40.7	41.3
23	30.8	47.6
25	26.1	51.7
28	20.8	57.9
30	18.1	62.0

Data Multiplier

	3500K	4000K	5000K
100W	0.674	0.717	0.688
120W	0.865	0.942	0.896
150W	0.969	1.060	1.000

HBC7 300W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	290.15
Delivered Lumens (Lm)	41667
System Efficacy (Lm/W)	143.61
Correlated Color Temp (K)	5247
Color Rendering Index (CRI)	84.2
Spacing Criteria	1.22



Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
15	89.8	29.9
17	69.9	33.9
20	50.5	39.9
23	38.2	45.9
25	32.3	49.9
28	25.8	55.9
30	22.4	59.9

Data Multiplier

	3500K	4000K	5000K
100W	0.898	0.931	0.914
120W	0.955	1.007	0.986
150W	0.975	1.044	1.000

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Dimmers and Sensors

Recommended Dimmers*
Lutron NTSTV
Lutron DVSTV
Cooper SF10P
Legrand RH4FBL3PW

12VDC Output

Included 12VDC output can be used to provide power to off-board, low voltage sensor or controls. Do not use the 12VDC output if a sensor is installed in the fixture socket.

Note: When using H12V sensors, set the fixture Wattage Selection Switch to the highest wattage. Lower wattages can then be set via the H12V Remote Control.

H12V3SENSORPIR3PWH

Passive Infrared (PIR) Motion Sensor

See the individual spec sheet for further information

- Field installed 12VDC sensor
- PIR 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



H12V3SENSORMW3PWH

Microwave 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: 50ft (15m)
- IP65 Rated





H12V2REMOTE

Remote Control for Sensors

See the individual spec sheet for further information

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



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Sensors (continued)

NLCSPEJ1WH-LHW WITH HBCSOCKETADAPT1

NLC Bluetooth PIR/Daylight Sensor & Adapter

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)
- IP40 Rated



NLCEFS106-WHBL WITH NLCWSC06W

NLC Bluetooth PIR/Daylight Sensor & Adapter

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
  - Scene Control
  - High-End Trim
  - Full Range Dimming (0-10V)
  - Full Networking
- Max mounting height: 40ft (12m)
- IP66 Rated



NLCWPPA102AUXWC1 WITH NLCWSC06W

NLC Bluetooth Node & Adapter

See the individual spec sheet for further information

- Field installed 12VDC node
- Commissioned with NLC App
- Enhanced long-range antenna
- IP66 Rated
- Highly configurable:
  - Full Range Dimming (0-10V)
  - Scene Control
  - Full Networking
  - Full Range Dimming (0-10V)
  - Scheduling via NLC App



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EMB400 Details

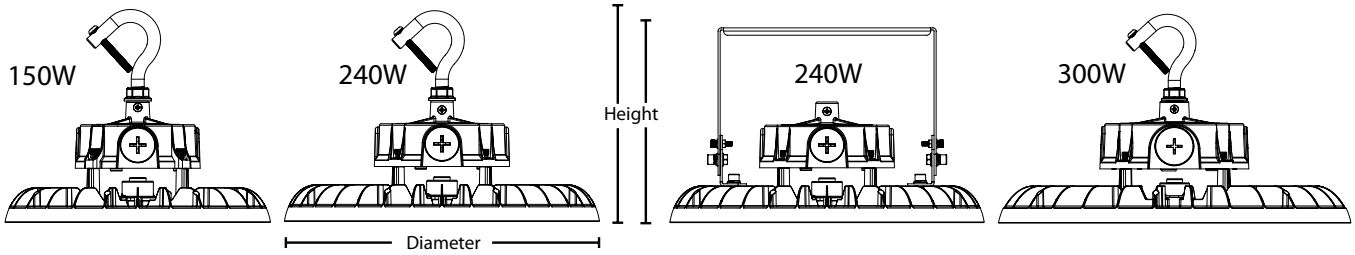


The NICOR EMB400 is an LED emergency driver for field installations. It enables normal and emergency operation of an LED fixture up to 300W (120-277V) that utilize 0-10V dimming or 40W non-dimming. During a power failure, the unit activates emergency mode to maintain constant output power to the fixture for a minimum of 90 minutes without light degradation. The unit contains a lithium battery, charger, and converter circuit in a single housing and features a built-in junction box for simple installation. The EMB400 also features automatic monthly and annual self-testing features with unit status communicated via the illuminated test button.



Optional remote test controller

Dimensions



	HBC7150	HBC7240	HBC7300
Height w/ hook	7.79 in. (197.8 mm)	7.85 in. (199.5 mm)	8.06 in. (204.6 mm)
Height w/ yoke	7.18 in. (182.3 mm)	7.28 in. (184.8 mm)	7.64 in. (186.4 mm)
Height w/ hook & sensor	8.65 in. (219.8 mm)	8.72 in. (221.5 mm)	8.92 in. (226.6 mm)
Height w/ yoke & sensor	8.04 in. (204.3 mm)	8.14 in. (206.8 mm)	8.20 in. (208.4 mm)
Fixture Diameter	9.7 in. (246.3 mm)	11.73 in. (298 mm)	13.59 in. (345.2 mm)

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.