## NHBF1

## Indoor Industrial Flat High Bay



#### **DESCRIPTION**

Nordeon's flat high bay fixture is a perfect fit for numerous applications including manufacturing plants, industrial facilities, warehouses, and retail spaces. With a shallow form factor and a broad range of input voltages, lumen packages, color temperatures, and mounting options the flat high bay is both a functional and versatile light source. Numerous occupancy sensor and optical options allow you to configure the light perfectly for your application. With significant energy savings over HID, this LED high bay is a clear choice for performance and cost savings.





Date:	_ Type:	. Catalog Number:	
Project Name:			



#### ORDERING INFORMATION

LUMINAIRE						
MODEL	OUTPUT	ССТ	VOLTAGE	OPTIC	OPTIONS	CORD
NHBF1 Flat High Bay	<b>10L</b> 10,000 Nominal Lumens	<b>30K</b> 3000K	UNV 120-277V Dimming	<b>OPN</b> Open (Standard)	<b>EM</b> Emergency Battery Back-Up	BC6 Black SO Cord, 6' Length
	<b>15L</b> 15,000 Nominal Lumens	<b>35K</b> 3500K	<b>347V</b> 347-480V Dimming	<b>90</b> 90° Optic	<b>EMSD</b> Self-Diagnostic Emergency Battery Back-Up	BC10 Black SO Cord, 10' Length
	<b>20L</b> 20,000 Nominal Lumens	<b>40K</b> 4000K		<b>60</b> 60° Optic	EM20 20W Emergency Battery Back-Up	
	<b>25L</b> 25,000 Nominal Lumens	<b>50K</b> 5000K		<b>AO</b> Aisle Optic	OC1 Occupancy Sensor	
	<b>30L</b> 30,000 Nominal Lumens			<b>SPC</b> Smooth Clear Polycarbonate Lens	OC2 Occupancy Sensor 8' H X 48' Dia.	
	<b>35L</b> 35,000 Nominal Lumens			<b>SAF</b> Smooth Frosted Acrylic Lens	OC3 Occupancy Sensor 20' H X 40' Dia.	
	<b>40L</b> 40,000 Nominal Lumens				OC4 Occupancy Sensor 40' H X 100' Dia.	
	<b>45L</b> 45,000 Nominal Lumens				PDT Pendant Mount	
	<b>50L</b> 50,000 Nominal Lumens				<b>WG</b> Wire Guard	

CARLE HANG KIT (A)	fiustable Cable Mount Read	y- Kits Optional, Sold Separately
CADEL HAITO IIII (A	ajustable Cable Moulit Reau	y- Kits Optivilai, Joiu Jepaiately

#### ACH5

5' Adjustable Cable Hang Kit

#### ACH10

10' Adjustable Cable Hang Kit

#### ACH15

15' Adjustable Cable Hang Kit



## Indoor Industrial Flat High Bay



		10L	15L	20L	25L	30L	35L	40L	45L	50L
PHYSICAL	HOUSING		22 Gauge Steel							
	DIMENSIONS (L x W x H)	24.25" x 2.25" x 15.25"	27" x 2.35" x 18.68"	27" x 2.45	5" x 22.18"	46.8" x 2.3	37" x 18.74"	46	.8" x 2.45" x 22.8	3"
	OPERATING TEMPERATURE	, , , , , , , , , , , , , , , , , , ,								
	MOUNTING									

ELECTRICAL	POWER (Maximum Watts)	64	103	143	170	219	247	275	298	329
	AMPERAGE AT 120 VOLTS	0.53	0.86	1.19	1.42	1.83	2.06	2.29	2.48	2.74
	AMPERAGE AT 277 VOLTS	0.23	0.37	0.52	0.61	0.79	0.89	0.99	1.08	1.19
Values based on full output at 5000K.	AMPERAGE AT 347 VOLTS	0.18	0.30	0.41	0.49	0.63	0.71	0.79	0.86	0.95
	AMPERAGE AT 480 VOLTS	0.13	0.21	0.30	0.35	0.46	0.51	0.57	0.62	0.69
	CONTROL	0-10V Dimming								

PHOTOMETRIC	LED	Static White 3000K, 3500K, 4000K, or 5000K
	NUMBER OF DISTRIBUTIONS	Four
	BEAM ANGLES	15°, 60°, 90°, or None
	LUMEN MAINTENANCE	L70 > 100,000 Hours at 77°F*

CERTIFICATIONS	SAFETY	ETL Certified for Damp Locations
	INGRESS PROTECTION	IP20



# NHBF1

## Indoor Industrial Flat High Bay



LIGHT	LENS/OPTICS	EFFICACY (Im/w)	LUMEN OUTPUT
DISTRIBUTIONS		10L	
	Open	155.7	9949
	Smooth Clear Polycarbonate Lens	142.8	9124
	Smooth Frosted Acrylic Lens	138.6	8855
		15L	
	Open	152	15686
	Smooth Clear Polycarbonate Lens	139.4	14386
	Smooth Frosted Acrylic Lens	135.3	13961
		20L	
	Open	152	21782
	Smooth Clear Polycarbonate Lens	139.4	19976
	Smooth Frosted Acrylic Lens	135.3	19386
		25L	
	Open	148.9	25235
	Smooth Clear Polycarbonate Lens	136.5	23143
	Smooth Frosted Acrylic Lens	132.5	22459
		30L	
	Open	151.9	33230
	Smooth Clear Polycarbonate Lens	139.3	30475
	Smooth Frosted Acrylic Lens	135.2	29575
		35L	
	Open	149.1	36818
	Smooth Clear Polycarbonate Lens	136.8	33766
	Smooth Frosted Acrylic Lens	132.7	32768
		40L	
	Open	152	41785
	Smooth Clear Polycarbonate Lens	139.4	38321
	Smooth Frosted Acrylic Lens	135.3	37188
		45L	
	Open	151.7	45261
	Smooth Clear Polycarbonate Lens	139.2	41509
	Smooth Frosted Acrylic Lens	135	40282
		50L	
	Open	147.9	48638
Values based on full	Smooth Clear Polycarbonate Lens	135.7	44606
output at 5000K.	Smooth Frosted Acrylic Lens	131.7	43288
LUMEN MULTIPLIES	20004		0.05
LUMEN MULTIPLIER VARIABLE CCT	3000K		0.95
	3500K		0.97
	4000K		0.98
	5000K		1.0

3/7

# NHBF1

## Indoor Industrial Flat High Bay

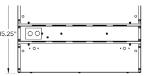


#### **DIMENSIONS**

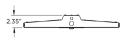
#### 10L MODEL



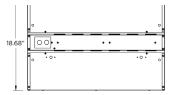




#### 15L MODEL

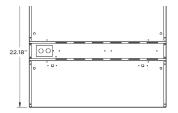




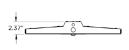


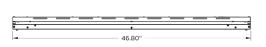
#### 20L AND 25L MODELS

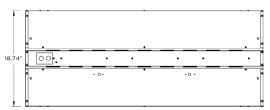




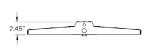
#### 30L AND 35L MODELS

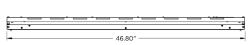


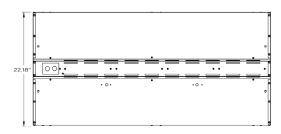




#### 40L, 45L, AND 50L MODELS









#### LIGHTING CONTROLS



# LINE VOLTAGE HIGH/LOW/OFF PIR FIXTURE INTEGRATED OUT- FSP-211 DOOR PHOTO/MOTION SENSOR

Fully adjustable high and low dimmed light levels; optional dusk to dawn control

Designed for LED fixtures; rated for extreme temperatures and up to 200,000 on/off cycles

Hold off setpoint with automatic calibration option for convenience and added energy savings



Adjustable via handheld wireless configuration tool

IP66 rated with choice of lenses for wet and outdoor locations, and mounting heights from 8' to 40'

Adjustable time delay and cut off delay





#### **Description**

The FSP-211 mounts in an outdoor lighting fixture and provides multi-level control based on motion and/or daylight contribution. It controls 0-10 VDC LED drivers or dimming ballasts, as well as non-dimming ballasts and, with an FSP-Lx Lens, is rated for wet and cold locations. All control parameters are adjustable via a wireless configuration tool capable of storing and transmitting sensor profiles.

#### Operation

Typically, the sensor ramps lighting On to the selected High mode level when motion is detected and the ambient light level is below the hold off setpoint. After the sensor stops detecting movement and the time delay elapses, lights fade to the Low mode level. If there is no motion during the subsequent cut off time delay, the lights will turn Off. For dusk to dawn control, the integral photocell can switch the lights On and Off based on the ambient light level so that lighting remains on overnight even without motion detection.

#### Wireless Handheld Configuration Tool

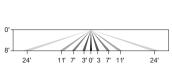
Initial setup and subsequent sensor adjustments are made using a handheld configuration tool (FSIR-100). This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cut off and more. The FSIR-100 is also used to initiate automatic calibration of the FSP-211 ambient light level setpoint. The setpoint is used to hold the controlled lighting off or at low level when there is sufficient daylight. The wireless tool stores up to six sensor parameter profiles to speed configuration of multiple sensors.

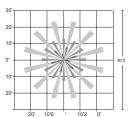
#### **Applications**

The slim, low-profile FSP-211 is designed for installation inside the bottom of a light fixture body. When fully assembled and installed in an IP66-rated fixture, the sensor and FSP-Lx lenses are IP66 outdoor rated. The sensor is ideal for areas such as parking facilities, gas stations, pedestrian pathways and warehouses. A choice of four lenses ensures complete coverage for mounting heights up to 40°.

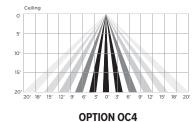
### OPTION OC2

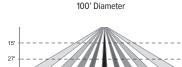
8' Mounting Height 40' Diameter



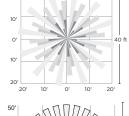


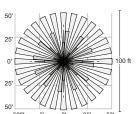
# OPTION OC3 20' Mounting Height 40' Diameter





40' Mounting Height







## NORDEON\* LIGHTING SOLUTIONS

**WATTSTOPPER®** 

#### LIGHTING CONTROLS



#### HIGH/LOW BAY PASSIVE INFRARED OCCUPANCY SENSOR HBP-100 SERIES

Compact line voltage sensor with integral lens for all high bay applications

360° coverage from 15'-40'; lens covers 100' diameter area from 40' height; rotatable snap-on aisleway masking

> Adjustible time delay and hold-off daylighting level



**OPTION OCA** 



HBP-111 adjustable via handheld wireless configuration tool

120, 277, 347V, 60Hz or 230V, single phase, 50Hz operation

cULus listed snap-in mounting hardware



#### **OPTION OCO**

#### **Description**

The HBP Series High Bay Passive Infrared (PIR) Occupancy Sensors provide automatic control of individual LED and fluorescent lighting fixtures in warehouses and other indoor high and low bay spaces. The lens is engineered to provide reliable coverage from a wide range of mounting heights (15' to 40'), and coverage can be masked for aisleway applications using a snap-on accessory (included). A hold-off daylighting feature keeps lighting off when the ambient light level is above the selected threshold. Time delay and light level settings can be adjusted via function-specific trimpots. The HBP-111 can also be adjusted remotely using a wireless configuration tool.

#### Operation

Line voltage HBP sensors are designed to mount directly to a lighting fixture, and can be wired to control some or all of the drivers or ballasts. When the sensor detects motion, the relay closes, and the connected loads are automatically turned on. When motion is no longer detected for the duration of the time delay setting, the relay opens and the lighting load is turned off. The sensor's time delay and hold-off light level are factory preset at 15 minutes and 300 footcandles, respectively, suitable for most high bay applications.

#### **OPTION OCO**

40' Mounting Height 100' Diameter

## **Wireless Remote Configuration Tool**

Initial setup and subsequent sensor adjustments of the HBP-111 may be made using a handheld configuration tool (FSIR-100). This tool simplifies adjustment of parameters including sensitivity, time delay and hold-off level with maximum granularity. The FSIR-100 is also used to enable or disable advanced features, including burn-in mode, walkthrough mode, visual alert and occupancy mode. The wireless tool stores up to five sensor parameter profiles to speed configuration of multiple sensors.

#### **Hold-off Daylighting**

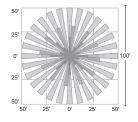
The hold-off daylighting light level feature provides additional energy savings. Once the lights turn off after the time delay has elapsed, this feature holds lighting off upon new occupancy if there is sufficient ambient light available.

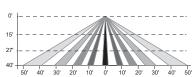
#### **Applications**

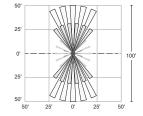
The high bay occupancy sensor is ideal for applications in warehouses, distribution centers, gymnasiums, and other high and low bay indoor spaces. The optional HBP-EM1 Extender Module provides additional mounting flexibility.

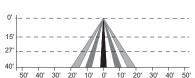
#### **OPTION OCA**

40' Mounting Height 100' Diameter













#### **MOUNTING**

#### ADJUSTABLE CABLE HANGER ACCESSORY

Please specify lengths when ordering this accessory separately with customer service. (For custom lengths, please consult factory)

#### ACH5

5 FT. ADJUSTABLE CABLE HANGER

#### ACH10

10 FT. ADJUSTABLE CABLE HANGER

#### ACH15

15 FT. ADJUSTABLE CABLE HANGER

#### PENDANT MOUNT 1/2" NPT

(OPTION PDT) ONE PER NHBF, FACTORY INSTALLED





