

# Phuzion™

LED High Bay



DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org](http://www.designlights.org) to confirm which versions are qualified.

Catalog Number	
Notes	Type

## Description

The Phuzion LED luminaire takes high-bay lighting to new levels of lumen output and temperature tolerance. By marrying the latest in LED technology with the legendary illuminating dynamics of HoloPhane's prismatic glass, the Phuzion high bay brings to the industrial environment LED lighting of unparalleled performance and reliability.

## Optics

- Prismatic borosilicate glass maintains highest levels of luminosity over time.
- Glass doesn't fade, discolor or otherwise degrade in harsh environments.
- Three distributions (narrow, medium and wide) available to maximize versatility.
- Highly engineered LED system ensures superior uniformity and maximizes spacing.
- IP65 rated optics.

## Mechanical

- Robust cast aluminum housing with low copper content (0.6% CU content) withstands hot and dirty environments.
- Pendant mount standard.
- Achieves up to 149°F (65°C) ambient rating.

## Electrical

- 0-10V dimming driver is standard (must specify the D option to enable dimming), 2kV/1kA level of surge protection provided by driver.
- An added 6kV/3kA level of surge protection is an option on 120-277 and is a standard option on 347/480V.

- An added 20kA in-line surge protection is also an option on 120-277.
- CRI > 70 (nominal) is standard.
- 3000K, 4000K or 5000K CCT available.
- Fault-tolerant LED light engine continues to provide light even in the failure of one LED.
- Aluminum core printed circuit board.
- For AS (120-277V), dimming source current = 300 micro amps (18L, 24L, 27L) and 150 micro amps (12L).
- For AH (347/480V), dimming source current = 2000 micro amps (18L, 24L, 27L) and 1000 micro amps (12L).

## Listings

- CSA Certified for use in damp locations, 65°C ambient environments.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org](http://www.designlights.org) to confirm which versions are qualified.

## Warranty

5-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/CustomerResources/Terms\\_and\\_Conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_Conditions.aspx)

Actual performance may differ as a result of end-user environment and application.

Actual wattage may differ by +12%/-12% when operating between 120-480V +/- 10%.

NOTE: Specifications subject to change without notice.

## Typical Applications

- Heavy industrial
- Light manufacturing
- Warehousing
- Large indoor

## Dimensions: Inches (millimeters) unless otherwise noted.

Diameter: 21.22 (538.99)  
Height: 19.02-23.46 (483.11-595.88)  
Weight: 33-38 lbs. (15.0-17.2 kg)

## ORDERING INFORMATION

Example: PHZ 18L 4K AS P G W

Series	Lumens	Color temperature <sup>1</sup>	Voltage	Mounting	Finish	Optics
PHZ	12L 12,000 nominal lumens	3K 3000K CCT	AS Auto sensing (120-277)	P Pendant	W White	N Narrow
	18L 18,000 nominal lumens	4K 4000K CCT	AH Auto sensing (347/480) <sup>2</sup>	Q Quick disconnect	G Gray	M Medium
	24L 24,000 nominal lumens	5K 5000K CCT	12 120V	N Non-disconnect thru-wiring	K Black paint	W Wide
	27L 27,000 nominal lumens		20 208V	QR Quick disconnect retrofit	L Satin nickel paint	
			24 240V	NR Non-disconnect thru-wiring retrofit	TDC Tiger Drylac paint	

## Options

MSE6NDL	360° motion sensor embedded, high bay 15-45 ft., on/off. <sup>3</sup>	CDP-L5-15-X	120V cord and plug <sup>8,9</sup>	C6	6 ft. Safety chain
MSE62L3VDL	360° motion sensor embedded, high bay 15-45 ft., on/off with second time-out period, goes to a dimmed state before turning off max./ 3volt min. dim setting. <sup>3,4</sup>	CDP-L6-15-X	208V/240V cord and plug <sup>8,9</sup>	CX	X ft. Safety chain <sup>9</sup>
MSE6NDL DSCNDL	Photocell with two selectable modes of operation. Defaults to on/off mode. Photocell has full control during periods of occupancy. <sup>3</sup>	CDP-L7-15-X	277V cord and plug <sup>8,9</sup>	SPAS	Surge protector, 120V-277V, added 6kV/3kA level of surge protection
AXA10	XPoint Wireless enabled <sup>4,5</sup>	CDP-L24-20-X	347V cord and plug <sup>8,9</sup>	SPAHL	Surge protector, 347V-480V, added 6kV/3kA level of surge protection, STANDARD OPTION
MSE6XADL DSCXA	XPoint Wireless enabled with photocell sensor & occupancy sensor <sup>4,5</sup>	CDP-L8-20-X	480V cord and plug <sup>8,9</sup>	SPAS20K	Surge protector, 120V-277V, added 20kA in-line surge protection
F1	Single fusing <sup>6</sup>	CDP-5-15-X	Straight blade 120V plug and cord <sup>8,9</sup>	D	Dimming terminal <sup>10</sup>
F2	Double fusing <sup>7</sup>	PF-129	Anti-rotational hook, 3/4" male	PHCB	Powerhook cord for 120V-277V, 347V <sup>11,12</sup>
		PF-105	Loop, 3/4" male	PHCB-L8-480	Powerhook cord for 480V <sup>12</sup>
		PF-121-A	Safety hook, 3/4" male	WG	Wire guard installed
		CD-3	3 ft. cord <sup>8</sup>	FR	Frosted glass
		CD-6	6 ft. cord <sup>8</sup>	80CRI	80 CRI CCT
		CD-X	X ft. cord <sup>8,9</sup>	BSL722	Remote emergency battery pack, standard version <sup>13,14</sup>
		C3	3 ft. Safety chain	BSL722C	Remote emergency battery pack, cold version <sup>13,14</sup>

For accessories and footnotes, see page 2.

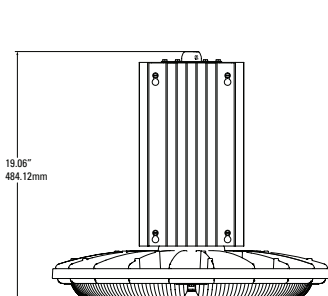
## ORDERING INFORMATION (cont'd.)

Accessories: Order as separate catalog number.					
PHZCHAIN3	3 ft. safety chain	UPH-35-L8-480-WH	Thru-way powerhook for 480V	PF-122-A	Safety hook, 3/4" female
PHZCHAIN6	6 ft. safety chain	UPH-36-***-WH	Powerhook for 120V, 208V, 240V, 277V and 347V <sup>12</sup>	PF-129-A	Anti-rotational hook, 3/4" male
PHZCHAINX	X ft. safety chain <sup>9</sup>	UPH-36-L8-480-WH	Pendant powerhook for 480V	PF-105-B	Loop, 3/4" male
UPH-35-***-WH	Thru-way powerhook for 120V, 208V, 240V, 277V and 347V <sup>12</sup>	PF-116-A	Loop, 3/4" female	PF-121-A	Safety hook, 3/4" male
				WGLED	Wire guard

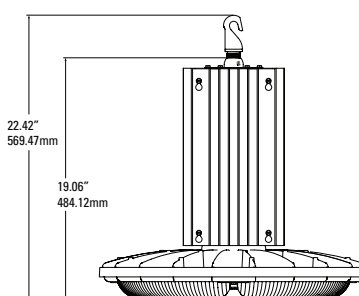
### Notes

- 1 70 CRI standard.
- 2 60° C max. ambient.
- 3 Not available with XPoint, 50° C max. ambient.
- 4 Not available with D option.
- 5 AS voltage not available; 120V 50° C rated; 208, 240 and 277V 60° C rated only.
- 6 For 120V, 240V, 277V and 347V units; factory installed.
- 7 For 208V, 240V and 480V units; factory installed.
- 8 Order PF also; 3ft to 6ft standard cord length.
- 9 X = length of cord/chain in feet; 6 feet is standard.
- 10 Not available with MSE62L3VDL, AXA10, MSE6XADL DSCXA.
- 11 Order UPH also, PF-105 installed.
- 12 \*\*\* = voltage.
- 13 P mount only, 120-277V only, not available with F2 fusing. Not available with CDP options. Battery pack ships separate. Max 50° C listed.
- 14 Un-switched supply power must be provided. To switch emergency fixture, controls must be used (sensor, X-point, etc.). Remote emergency battery pack provided with 20-ft flex conduit.

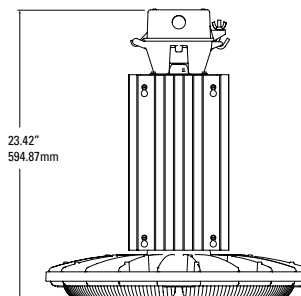
## DIMENSIONAL DATA



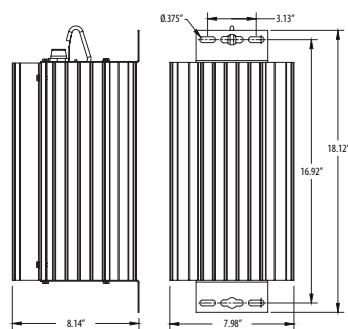
Pendant (P)



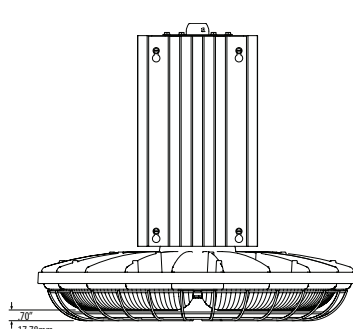
Hook (PF-129)



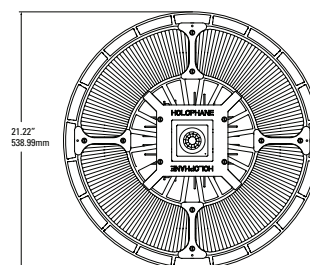
Quick Disconnect (Q)



Remote Emergency Battery Pack



Wire Guard (WG)



Diameter

## OPERATIONAL DATA

## Ambient Temperature Ratings

Mounting	Thru-wire	Fuse, Surge	Occupancy Sensor	QDH or Non-disconnect	Voltage	Ambient C° 18L, 24L, 27L <sup>1,2</sup>	Ambient C° 12L <sup>3,4</sup>	Ambient C° 12L, 18L, 24L, 27L with Emergency option	Supply Wire Temperature
Ceiling	Yes	Yes	Yes	Yes	120-277 347/480	50	60	NA	194°F (90°C)
Ceiling	Yes	Yes	No	Yes	120-277 347/480	55	55	NA	194°F (90°C)
Ceiling	Yes	Yes	No	Yes	120-277	65	65	NA	221°F (105°C)
Ceiling	Yes	Yes	No	Yes	347/480	60	60	NA	221°F (105°C)
Ceiling	No	Yes	No	Yes	120-277	65	65	NA	194°F (90°C)
Ceiling	No	Yes	No	Yes	347/480	60	60	NA	194°F (90°C)
Pendant	No	Yes	Yes	No	120-277 347/480	50	60	50	194°F (90°C)
Pendant	No	Yes	No	No	120-277	65	65	50	194°F (90°C)
Pendant	No	Yes	No	No	347/480	60	60	50	194°F (90°C)

## Notes

1 For Xpoint option with 18L, 24L, 27L no sensor = 50C (120V only), 60C (208V, 240V, 277V only). Above ambient values over-ride this ambient if lower, -20°C.

2 For Xpoint option with 18L, 24L, 27L with sensor = 50C (120-277V only), -20°C.

3 For Xpoint option with 12L, no sensor = 65C (120-277V only). Above ambient values over-ride this ambient if lower, -20°C.

4 For Xpoint option with 12L with sensor = 60C (120-277V only), -20°C.

## Operating Characteristics

Lumen Package	Ambient Rating (120V-277V)	Ambient Rating (347V-480V)	Distribution	Delivered Lumens, 3000K CCT, 70 CRI @25°C <sup>1</sup>	Delivered Lumens, 4000K CCT, 70 CRI @25°C <sup>1</sup>	Delivered Lumens, 5000K CCT, 70 CRI @25°C <sup>1</sup>	Delivered Lumens, 3000K CCT, 80 CRI @25°C <sup>1</sup>	Delivered Lumens, 4000K CCT, 80 CRI @25°C <sup>1</sup>	Delivered Lumens, 5000K CCT, 80 CRI @25°C <sup>1</sup>	Frosted Lens Multiplier
12L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)	N	11129	12310	12278	10314	11409	11380	0.92
18L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		16918	18713	18665	15680	17344	17299	0.92
24L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		22143	24493	24430	20523	22701	22642	0.92
27L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		23331	25808	25741	21624	23919	23858	0.92
12L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)	M	11136	12318	12286	10321	11416	11387	0.92
18L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		16928	18725	18676	15689	17355	17310	0.92
24L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		22157	24508	24445	20535	22715	22656	0.92
27L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		23346	25824	25757	21638	23934	23872	0.92
12L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)	W	11151	12334	12302	10335	11432	11402	0.91
18L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		16951	18750	18702	15711	17378	17333	0.91
24L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		22187	24542	24478	20563	22746	22687	0.91
27L	-40°F to 149°F (-40°C-65°C)	-40°F to 140°F (-40°C-60°C)		23377	25859	25792	21667	23967	23905	0.91

## Notes

1 Absolute photometry calculated in accordance with IESNA LM-79-08

## OPERATIONAL DATA CONTINUED

### Emergency Lumens

Package	Narrow	Medium	Wide	Frosted Lens Multiplier
PHZ 12L, 18L, 24L, 27L	1666 Lumens	1706 Lumens	1691 Lumens	.92

### Projected Lumen Maintenance (TM-21)<sup>1</sup>

Package	0 Hours	15,000 Hours	30,000 Hours	45,000 Hours	60,000 Hours	100,000 Hours
PHZ 12L, 18L, 24L, 27L @ 25C	1.00	0.99	0.98	0.98	0.97	0.96
PHZ 12L, 18L, 24L, 27L @ 40C	1.00	0.98	0.97	0.96	0.96	0.94
PHZ 12L, 18L, 24L, 27L @ 55C	1.00	0.98	0.96	0.95	0.94	0.91
PHZ 12L, 18L, 24L, 27L @ 65C	1.00	0.96	0.94	0.93	0.91	0.88

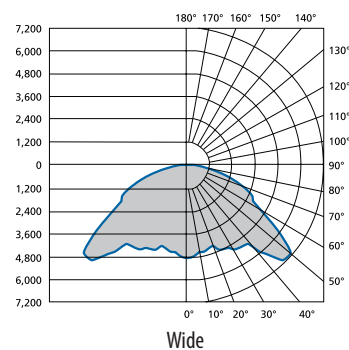
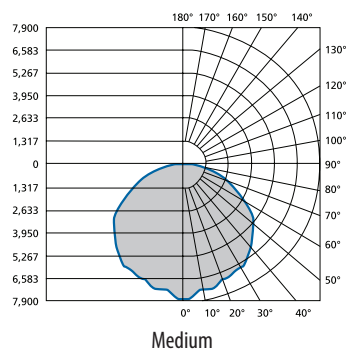
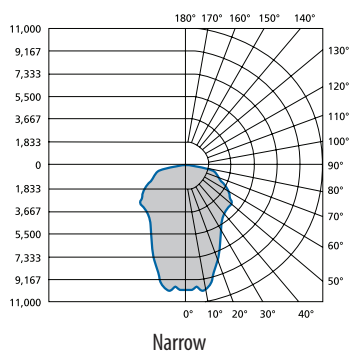
#### Notes

<sup>1</sup> Calculated using data collected according to LM-80 and represents lumen maintenance of the LED package.

### Wattage

Lumen Package	120V	277V	347V	480V	Comparable Light Source
12L	120	118.8	121.0	120.3	4-lamp T8, 250W HID
18L	185	183.1	186.6	185.4	4-lamp T5HO, 6-lamp T8
24L	238	235.6	240.1	238.5	6-lamp T5HO, 8-lamp T8, 400W HID
27L	255	252.4	257.2	255.6	8-lamp T5HO, 8-lamp T8

## DISTRIBUTION DATA

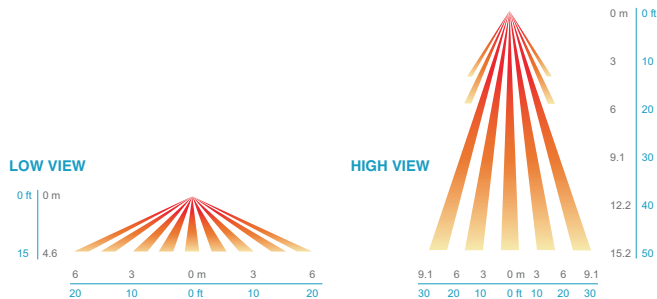


## CONTROLS



### MSE6NDL, MSE62L3VDL, MSE6NDL DSCNDL, AXA10, MSE6XADL DSCXA; Sensor Coverage Data

- Best choice for 15 to 45 ft. (4.57 to 13.72 m) mounting heights
- 15 to 20 ft. (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Large motion (e.g., walking) detection up to a 35-ft. (10.76 m) mounting height
- Extra large motion (e.g., forklifts) detection up to a 45-ft. (13.72 m) mounting height

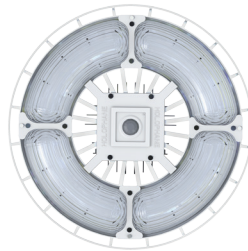


## COMPONENTS & OPTIONS DATA



### XPoint wireless

Integrated wireless control technology connecting fixtures, sensors, and other modules together.



### Sensors

Occupancy-only mode that controls on/off and dimming of the fixture. Photocell option reads daylight levels to dim lights or prevent start-up.



### Dimming drivers

Drivers use 0-10V protocol with dimming down to 10% power / 30% lumen output.



### Surge protection

Phuzion drivers provide 2kV of surge protection as standard. The optional (SPAS or SPAH) provides 10kV of protection while the SPAS20 provides 20kV of protection.



### Fusing

Integrated internal fast-blow fusing is available for all configurations.



### Optics

Standard prismatic, borosilicate glass that doesn't fade or degrade. Optional frosted optics provide even greater visual comfort.



### Wireguard

Steel wireguard available to further protect fixture from impact.



### Hook and cord

3/4" hub standard. Multiple hooks and other mountings available. Cord sets can be specified with or without plug.