

Phuzion™

PHG LED High Bay



Catalog Number	
Notes	Type

Description

The PHG LED luminaire is designed for light industrial applications where environments are less extreme, but comfortable, uniform lighting and dependable performance are still highly desired. Typical applications include manufacturing, warehouses, automotive, retail, food storage and gymnasiums. Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. [Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.](#)

Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. [Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.](#)

Optics

- One-piece prismatic borosilicate glass reflector and refractor offer the highest levels of uniformity and glare-free performance in its class. Refractor protects LEDs from unwanted dust, helping to maintain delivered lumens.
- Borosilicate glass won't fade and offer the highest levels of luminosity over time.
- IP65 rated refractor protects LEDs from unwanted dust helps maintain delivered lumens.
- Prismatic acrylic available for food storage areas or where glass is not preferred.
- PrismPack® optic: Prismatic borosilicate optic with sealed aluminum cover to minimize dirt accumulation and improve optical efficiency. Use when uplight is not desired or required.

Mechanical

- Hands free wiring design allows for quick and easy installations.
- Open ventilated design naturally pulls heat up and away from luminaire, extending the life of critical components.
- Robust cast aluminum heat sink (0.6% CU content) and offset aluminum electrical compartment maximize thermal performance.
- Super durable TGIC thermoset powder coat finish provides 1500 hours salt fog rating.

Electrical

- 0-10V dimming driver is standard. Dims to 10%.
- Fault-tolerant LED light engine.
- XVOLT is an optional robust driver solution designed to assist with power quality issues and a dropped neutral in 277V input as derived from 480V Wye. Supports 277-480V; 6kV surge rated.
- Standard Surge Protection Level: Designed to withstand up to 6kV/3kA per ANSI C82.77-5-2015.
- Optional Surge Protection Level: Designed to withstand up to 10kV/10kA per ANSI C82.77-5-2015, provided when ordered with any controls, emergency battery or when SPD is specified in the nomenclature.

- CCT: 3000K, 3500K, 4000K, 5000K.
- CRI: 70CRI, 80CRI & 90CRI.
- Dynamic temperature sensing is standard to protect the electronic components in the event the maximum operating ambient temperature is exceeded.

Wireless Networking

nLight® AIR is the ideal solution for retrofit or new construction spaces where additional wiring can be labor intensive. It is available with or without an integral sensor. Integrated smart sensors or dimming and switching modules must be part of each luminaire in the nLight Air network, which can be grouped to control multiple luminaires. It pairs to other luminaires and wall switches through our mobile app, CLARITY PRO, which allows for simple sensor adjustment. The granularity of control with the digital PIR occupancy detection and daylight sensing makes this a great solution for any application.

Listings

- CSA Certified to meet US and Canadian standards.
- Suitable for use damp locations.
- -40°F (-40°C) up to 131°F (55°C) (see chart on page 6)
- NOM certified.
- DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Government Procurement

BAA – Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations. BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

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

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

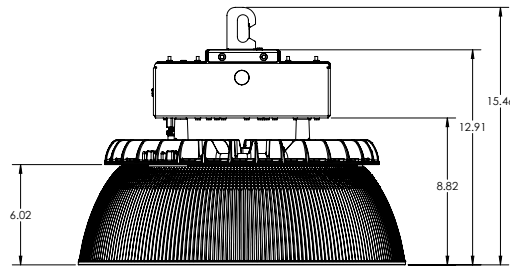
Typical Applications

- Light Manufacturing
- Warehousing
- Retail
- Food Storage
- Automotive
- Gymnasium

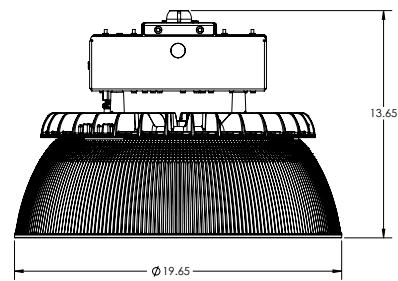
Dimensions: Inches (millimeters) unless otherwise noted.

Diameter: 19.8"
Height: 12.65"
Weight: Glass 29 lbs., Acrylic 17 lbs.
Emergency Internal: Add 10.5 lbs.

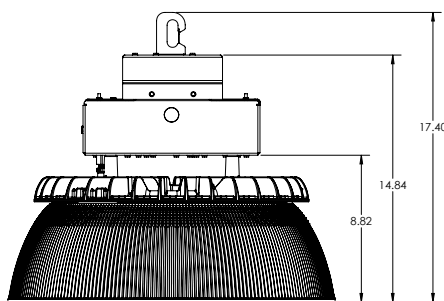
DIMENSIONAL DATA



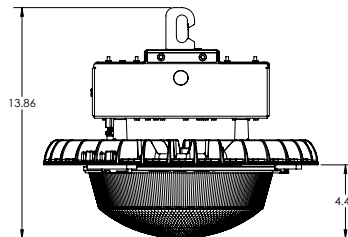
WHK Mounting (Wire Hook)



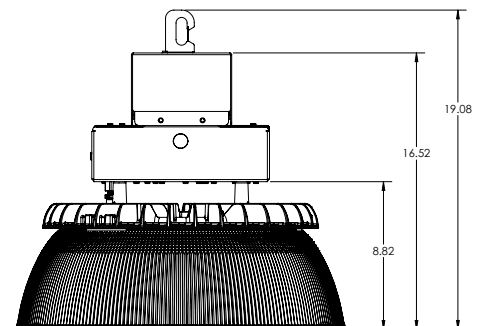
PM Mounting (Pendant)



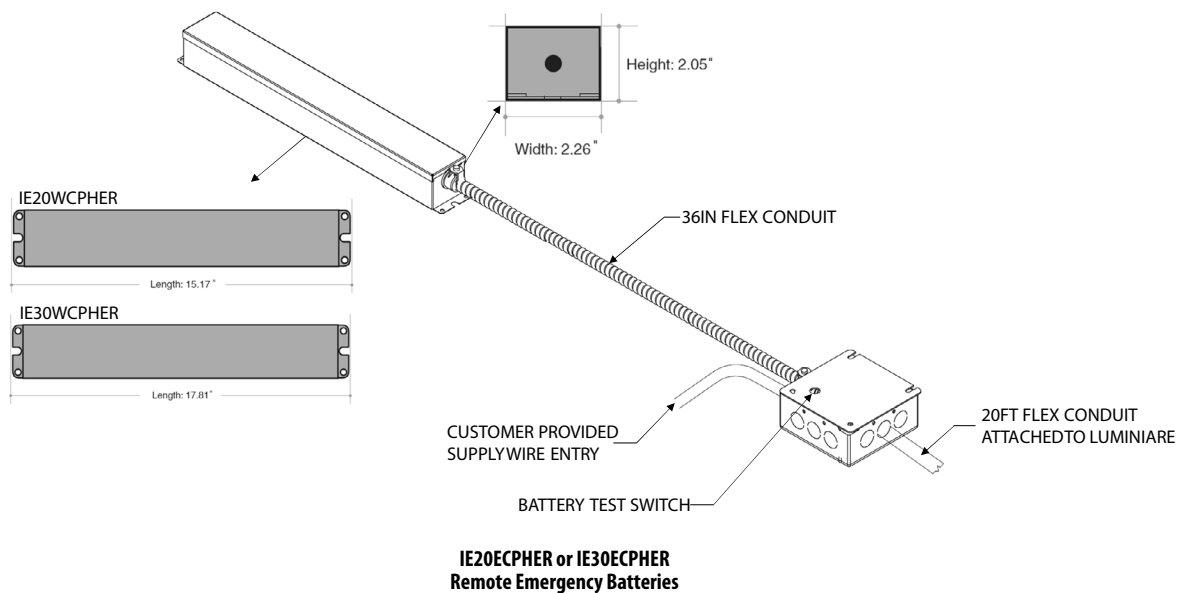
WHK Mounting (36000LM and E10WMCP or E15WMCP options) Top Battery Box



WHK Mounting (NGLR, MGLR, WGLR, MALR options) No Reflector



WHK Mounting (IE20WCPHE or IE30WCPHE options) Top Battery Box



ORDERING INFORMATION *

Example: PHG 24000LM SEF NGG MVOLT 40K 80CRI WHK DWHXD

Series	Lumens	Performance package	Optical Assembly	Voltage
PHG	9000LM 9,000 nominal lumens	SEF Standard efficiency	NGG Narrow glass refractor and glass reflector	MVOLT Auto sensing (120-277V, 50/60Hz)
	12000LM 12,000 nominal lumens	HEF High efficiency	MGG Medium glass refractor and glass reflector	120 120V, 50/60Hz
	15000LM 15,000 nominal lumens		WGG Wide glass refractor and glass reflector	208 208V, 50/60Hz
	18000LM 18,000 nominal lumens		NGGFR Frosted narrow glass refractor and glass reflector	240 240V, 50/60Hz
	24000LM 24,000 nominal lumens		MGGFR Frosted medium glass refractor and glass reflector	277 277V, 50/60Hz
	26000LM 26,000 nominal lumens		WGGFR Frosted wide glass refractor and glass reflector	HVOLT Auto sensing (347-480V, 50/60Hz) *
	30000LM 30,000 nominal lumens		NAA Narrow acrylic refractor and acrylic reflector	347 347V, 50/60Hz *
	36000LM 36,000 nominal lumens		WAA Wide acrylic refractor and acrylic reflector	480 480V, 50/60Hz *
			NGA Narrow glass refractor and acrylic reflector	XVOLT Enhanced Power Protection (277-480V, 50/60Hz) *
			MGA Medium glass refractor and acrylic reflector	277X 277V XVOLT driver, 50/60Hz *
			WGA Wide glass refractor and acrylic reflector	347X 347V XVOLT Driver, 50/60Hz *
				480X 480V XVOLT Driver, 50/60Hz *

Color temperature	Color rendering index	Mounting	Options
30K 3000K CCT	70CRI	WHK Wire hook	Non-Dimming Sensors: * LSXR6 360° High Mount PIR Sensor, (15-45' mounting heights), on/off occupancy (LINK) LSXR10 360° Low Mount PIR Sensor, (7-15' mounting heights), on/off occupancy (LINK) LSXR50 High Mount Aisleway PIR Sensor, (40' mounting height, detects 50' in either direction), on/off occupancy (LINK) LSXR6 P 360° High Mount PIR Sensor, (15-45' mounting heights), on/off switching photocell (LINK) LSXR10 P 360° Low Mount PIR Sensor, (7-15' mounting heights), on/off switching photocell (LINK) LSXR50 P High Mount Aisleway PIR Sensor, (40' mounting height, detects 50' in either direction), on/off switching photocell (LINK)
35K 3500K CCT	80CRI	PM Pendant 3/4" female	
40K 4000K CCT	90CRI	QD Quick disconnect *	Dimming Sensors: * LSXR6 HL 360° High Mount PIR Sensor, (15-45' mounting heights), high/low/off occupancy operation (LINK) LSXR10 HL 360° Low Mount PIR Sensor, (7-15' mounting heights), high/low/off occupancy operation (LINK) LSXR50 HL High Mount Aisleway PIR Sensor, (40' mounting height, detects 50' in either direction), high/low/off occupancy operation (LINK)
50K 5000K CCT		NDT Non-disconnect thru-wire *	
		QR Quick disconnect retrofit *	Bluetooth® Sensors: * LSX45 OCC BTP LT 360° High Mount Sensor, (10-40' mounting heights), on/off occupancy, utilizes smart hub for Bluetooth® programmability, low temp/high humidity (LINK) LSX45 HL BTP LT 360° High Mount Sensor, (10-40' mounting heights), high/low/off occupancy dimming, utilizes smart hub for Bluetooth® programmability, low temp/high humidity (LINK) LSX45 ADC BTP LT 360° High Mount Sensor, (10-40' mounting heights), on/off occupancy with auto dimming photocell, utilizes smart hub for Bluetooth® programmability, low temp/high humidity (LINK) LSX45 ANL BTP LT 360° High Mount Sensor, (10-40' mounting heights), high/low/off occupancy dimming with auto dimming photocell, utilizes smart hub for Bluetooth® programmability, low temp/high humidity (LINK)
		NR Non-disconnect retrofit *	
		AC10 10' aircraft cables (ships as pair)	nLight® Wired: * NPP16 D nLight® wired power/relay pack, 0-10VDC dimming output (LINK) * NPP16 D ER nLight® wired Power/relay pack, 0-10VDC dimming output, UL924 Emergency operation (LINK) *
		AC20 20' aircraft cables (ships as pair)	
			nLight® Air Wireless: NLTAIR2 RLSXR6 nLight® Air Generation 2 enabled, 360° high mount sensor, (15 to 45' heights) (LINK) * NLTAIR2 RLSXR6 EM nLight® Air Generation 2 enabled, 360° high mount sensor, (15 to 45' heights), UL 924 Emergency Operation via power interrupt detection (not available with battery pack) (LINK) * NLTAIR2 RLSXR6 ER nLight® Air Generation 2 enabled, 360° high mount sensor, (15 to 45' heights), UL 924 Emergency Operation utilizing Iota ETS (not available with battery pack) (LINK) * NLTAIR2 RLSXR10 nLight® Air Generation 2 enabled, 360° low mount sensor, (7 to 15' heights) (LINK) * NLTAIR2 RLSXR10 EM nLight® Air Generation 2 enabled, 360° low mount sensor, (7 to 15' heights), UL 924 Emergency Operation via power interrupt detection (not available with battery pack) (LINK) * NLTAIR2 RLSXR10 ER nLight® Air Generation 2 enabled, 360° low mount sensor, (7 to 15' heights), UL 924 Emergency Operation utilizing Iota ETS (not available with battery pack) (LINK) * NLTAIR2 RIO nLight® Air Generation 2 enabled, fixture embedded, 0-10V dimming output (LINK) * NLTAIR2 RIO ER nLight® Air Generation 2 enabled, fixture embedded, 0-10V dimming output, UL 924 Emergency Operation utilizing Iota ETS (not available with battery pack) (LINK) * NLTAIR2 RPP20 D nLight® Air Generation 2 enabled, power/relay pack, 0-10V dimming output (LINK) * NLTAIR2 RPP20 D EM nLight® Air Generation 2 enabled, power/relay pack, 0-10V dimming output, UL924 EM operation via power interrupt detection (not available with battery pack) (LINK) * NLTAIR2 RPP20 D ER nLight® Air Generation 2 enabled, power/relay pack, 0-10V dimming output, UL 924 Emergency Operation utilizing Iota ETS (not available with battery pack) (LINK) *
			Other Controls: AO Adjustable output (step dimming) *

ORDERING INFORMATION (cont'd.) ‡

Options (continued)		Finish
Damp Location Cord Sets: ‡	Emergency:	DGXD Gray, super durable
CPSB16W Cord with 15-amp NEMA straight blade plug, 16-gauge, 3 conductors, white, 6ft (120V only) ‡	E10WMCP Power Sentry® PS1055MCP, 10 watt internal constant power emergency driver, self-diagnostic, 5°C min, UL924 Compliant, Certified in CA Title 20 MAEDBS (120-277) (LINK) ‡	DWHXD White, super durable
CPTL16W Cord with 15-amp NEMA twist lock plug, 16-gauge, 3 conductors, white, 6ft (120-277V only) ‡	E15WMCP Power Sentry® PS1555MCP, 15 watt internal constant power emergency driver, self-diagnostic, 5°C min, UL924 Compliant, Certified in CA Title 20 MAEDBS (120-277V) (LINK) ‡	DNXD Satin nickel, super durable
CPTL20A16W Cord with 20-amp NEMA twist lock plug, 16-gauge, 3 conductors, white, 6ft (120-480V) ‡	IE20WCPHE IOTA® ILBHI CP20 HE SD HV B, 20 watt internal constant power emergency driver, self-diagnostic, 0°C min, UL924 Compliant, Certified in CA Title 20 MAEDBS, (347-480V) (LINK) ‡	DBXD Black, super durable
*see page 8 for additional cord set options.	IE30WCPHE IOTA® ILBHI CP30 HE SD HV B, 30 watt internal constant power emergency driver, self-diagnostic, 0°C min, UL924 Compliant, Certified in CA Title 20 MAEDBS, (347-480V) (LINK) ‡	DGRXD Graphite, super durable
Damp Location Cords (no plug): ‡	IE20WCPHER IOTA® ILBLP CP20 HE SD HV S, 20 watt remote constant power emergency driver, self-diagnostic, 0°C min, UL924 Compliant, Certified in CA Title 20 MAEDBS (120-277) (LINK) ‡	
CNP16W Cord only, 16-gauge, 3 conductors, white, 6ft	IE30WCPHER IOTA® ILBLP CP30 HE SD HV S 30 watt remote constant power emergency driver, self-diagnostic, 0°C min, UL924 Compliant, Certified in CA Title 20 MAEDBS (120-277V) (LINK) ‡	
CNP16 Cord only, 16-gauge, 3 conductors, black, 6ft	IE18WCPHECW IOTA® ILB CP18 HE CW 1LA, 18 watt internal constant power emergency driver, cold weather, -20°C min, UL924 compliant, Certified in CA Title 20 MAEDBS (120-277) (LINK) ‡	
CNP164CW Cord only, 16-gauge, 4 conductors, white, 6ft ‡	ETS IOTA® ETS DR, Automatic load control relay device (ALCR) for UL924 compliance when using an auxiliary generator or central inverter (LINK) ‡	
CNP164C Cord only, 16-gauge, 4 conductors, black, 6ft ‡		
CNP165CDW Cord only, 16-gauge, 5 conductors, includes 0-10V dimming leads, white, 6ft ‡		
CNP165CD Cord only, 16-gauge, 5 conductors, includes 0-10V dimming leads, black, 6ft ‡		
CNP165CW Cord only, 16-gauge, 5 conductors for use with ER controls or ETS option with 2 power sources, white, 6ft ‡		
CNP165C Cord only, 16-gauge, 5 conductors for use with ER controls or ETS option with 2 power sources, black, 6ft ‡		
*see page 8 for additional cord options.		
UPH Cord Sets: ‡	Hooks: ‡	
PHCB Cord with locking plug for use with power hook (UPH) only, 16-gauge, 3 conductors, white, 2ft (120-347V only), includes LPMD loop	HKM455 ¾" aluminum male safety hook (PF-455)	
PHCBL8480 Cord with locking plug for use with power hook (UPH) only, 16-gauge, 3 conductors, white, 2ft (480V only), includes LPMD loop	HKMAR ¾" male anti-rotational hook (PF-129)	
	HKMD ¾" male safety hook (PF-121-A)	
	LPMD ¾" male loop (PF-105-B)	
UPH Hangers: ‡	Other Options:	
UPH35 Thru-way powerhook for use with PHCB, surface mount	2PA 72 Inch stainless steel safety chain attached in two places, factory installed ‡	
UPH36 Thru-way powerhook for use with PHCB, pendant mount	BAA Buy America(n) Act and/or Build America Buy America Qualified	
	GRR Rod and ring optic assembly ‡	
Modular Wiring: ‡	NSG Non-silicone gasket (EPDM)	
OCS Reloc® One Pass circuit selector drop cable, 18-gauge, 3 conductors, 6ft (LINK) ‡	SCKX X Inch stainless steel safety chain, factory installed ‡	
	SPD Secondary surge device, 10kV ‡	
	WGX Zinc plated wire guard ‡	

Accessories: Order as separate catalog number.	
HAC10	10ft aircraft cables (ships as pair)
HAC20	20ft aircraft cables (ships as pair)
HKFD	¾" female safety hook (PF-122-A)
HKM455	¾" aluminum male safety hook (PF-455)
HKMAR	¾" male anti-rotational hook (PF-129)
HKMD	¾" male safety hook (PF-121-A)
LPFD	¾" female loop (PF-116)
LPMD	¾" male loop (PF-105-B)
PHGCHAIN XIN	X Inch stainless steel safety chain kit ‡
PHGWGA	Zinc plated wire guard ‡
UPH 35SM XXX DWHXD	Universal power hook, thru-wire/surface mount, must specify voltage. Available with 120, 208, 240, 277, 348V. PHCB required. ‡
UPH 35SM L8480 DWHXD	Universal power hook, thru-wire/surface mount, must specify voltage. Available with 480V. PHCB required. ‡
UPH 36PM XXX DWHXD	Universal power hook, pendant mount, must specify voltage. Available with 120, 208, 240, 277, 348V. PHCB required. ‡
UPH 36PM L8480 DWHXD	Universal power hook, pendant mount, must specify voltage. Available with 480V. PHCB required. ‡

NOTE: ‡ indicates option chosen has ordering restrictions or notes. Please reference ordering restrictions and notes chart, page 5. Options are sorted alphanumerically.

Option Value Ordering Restrictions and Notes	
Option value	Restriction
277X, 347X, 480X	Utilizes Xvlt Driver. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with RIO or LSX BTP controls.
347, 480	Ships standard with SPD. SPD is not called out in the nomenclature.
AO	Available with 3 conductor cords with or without plug. Available with 4 conductor cords without plug when utilizing a battery pack. Available with non-dimming sensors only.
ZPA	Not available with SCKX, safety chain already included.
Bluetooth Sensors	Ships standard with SPD. SPD is not called out in the nomenclature. Available with 3 conductor cords with or without plug. Not available with XVOLT, 277X, 347X, 480X or other controls. Available with ER option by adding to sensor nomenclature. Example: LSX45 OCC BTP LT ER. Utilizes IOTA ETS device, not available with emergency battery options. ER version is available with MVOLT, 120, 208, 240, 277, 277X only. If cord is required with ER, Available with (CNP165W or CNP165C) 5 conductor dual input cord.
CNP164CW, CNP164C	Available with Emergency battery only.
CNP165CDW, CNP165CD	5 Conductor cord for dimming. Not available with Dimming Sensors, Bluetooth Sensors, nLight Wired, nLight Wireless or AO.
CNP165CW, CNP165C	5 Conductor dual input cord for emergency. Available with ETS, ER sensors or ER controls only.
CPSB16W	NEMA plug configuration: 120 = 5-15P.
CPTL16W	NEMA plug configurations: 120 = L5-15P, 208 or 240 = L6-15P, 277 = L7-15P.
CPTL20A16W	NEMA plug configurations: 120 = L5-20P, 208 or 240 = L6-20P, 277 = L7-20P, 347 = L24-20P, 480 = L8-20P.
Damp Location Cords (no plug)	6' is standard, but other lengths are available. Must specify length in the nomenclature. Example: CNP16W10FT. See page 8 for more information.
Damp Location Cordsets	6' is standard, but other lengths are available. Must specify length in the nomenclature. Example: CPTL16W3FT. See page 8 for more information.
Dimming Sensors	Ships standard with SPD. SPD is not called out in the nomenclature. Available with 3 conductor cords with or without plug. Not available with other controls. Available with ER option by adding to sensor nomenclature. Example: LSXR50 HL ER. Utilizes IOTA ETS device, not available with emergency battery options. ER version is available with MVOLT, 120, 208, 240, 277, 277X. If cord is required with ER, available with (CNP165CW or CNP165C) 5 conductor cord.
E10WMCP	Available with MVOLT, 120, 208, 240, 277, 277X. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with ETS or ER controls. Available with (CNP164CW or CNP164C) 4 conductor cord, but not required. When ordered with 36000LM package, fixture will utilize top battery box.
E15WMCP	Available with MVOLT, 120, 208, 240, 277, 277X. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with ETS or ER controls. Available with (CNP164CW or CNP164C) 4 conductor cord, but not required. When ordered with 36000LM package, fixture will utilize top battery box.
ETS	Available with MVOLT, 120, 208, 240, 277, 277X only. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with other controls. Available with (CNP165CW or CNP165C) 5 conductor dual input cord.
GRR	Available with NGG, MGG, WGG, NGGFR, MGGFR, WGGFR, NGGAL, MGGAL or WGGAL only. Not available with Acrylic reflectors.
Hooks	Available with PM only.
HVOLT	Ships standard with SPD. SPD is not called out in the nomenclature.
IE18WPCPW	Available with MVOLT, 120, 208, 240, 277, 277X. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with ETS or ER controls. Available with (CNP164CW or CNP164C) 4 conductor cord, but not required.
IE20WCPHE	Available with HVOLT, 347, 480, 347X, 480X. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with ETS or ER controls. Available with (CNP164CW or CNP164C) 4 conductor cord, but not required. Will utilize top battery box.
IE20WCPHER	Available with MVOLT, 120, 208, 240, 277, 277X. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with ETS or ER controls. Available with (CNP164CW or CNP164C) 4 conductor cord, but not required.
IE30WCPHE	Available with HVOLT, 347, 480, 347X, 480X. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with ETS or ER controls. Available with (CNP164CW or CNP164C) 4 conductor cord, but not required. Will utilize top battery box.
IE30WCPHER	Available with MVOLT, 120, 208, 240, 277, 277X. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with ETS or ER controls. Available with (CNP164CW or CNP164C) 4 conductor cord, but not required.
Lumens	See Ambient chart for ambient ratings.
Modular Wiring	Available with WHK, PM or NDT only. Must Specify voltage. Dry listed.
NDT	The NDT (non-disconnect thru-wiring) system is made up of 2 parts. The top portion is removable and is meant to be installed in the ceiling. The bottom portion is factory installed to the fixture. The 2 part junction box used on top of the fixture will be empty.
nLight Wired	Ships standard with SPD. SPD is not called out in the nomenclature. Available with 120, 277 or 347 only. Not available with Emergency Batteries or any other controls. Available with 3 conductor cords with or without plug. Available with ER option by adding to power pack nomenclature. Example: NPP16 D ER. If cord is required with ER, Available with (CNP165CW) 5 conductor dual input cord.
NLTAIR RIO ER	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with MVOLT, 120, 208, 240, 277, 277X only. Utilizes Iota ETS. Available with (CNP165CW or CNP165) 5 conductor dual input cord. Not available with other controls.
NLTAIR2 RIO	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with 3 conductor cords with or without plug. Not available with XVOLT, 277X, 347X, 480X or other controls.
NLTAIR2 RLSXR6 ER, NLTAIR2 RLSXR10 ER	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with MVOLT, 120, 208, 240, 277, 277X only. Utilizes Iota ETS. Available with (CNP165CW or CNP165) 5 conductor dual input cord. Not available with other controls.
NLTAIR2 RLSXR6, NLTAIR2 RLSXR10	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with 3 conductor cords with or without plug. Not available with other controls. Normal luminaires (non-emergency) can be used as a normal power sensing device for nearby nLight AIR devices and luminaires with EM emergency options.
NLTAIR2 RLSXR6 EM, NLTAIR2 RLSXR10 EM	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with 3 conductor cords with or without plug. Not available with other controls.
NLTAIR2 RPP20D	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with 3 conductor cords with or without plug. Not available with other controls. Normal luminaires (non-emergency) can be used as a normal power sensing device for nearby nLight AIR devices and luminaires with EM emergency options.
NLTAIR2 RPP20D EM	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with 3 conductor cords with or without plug. Not available with other controls.
NLTAIR2 RPP20D ER	Ships Standard with SPD. SPD is not called out in the nomenclature. Available with MVOLT, 120, 208, 240, 277, 277X only. Utilizes Iota ETS. Available with (CNP165CW) 5 conductor dual input cord. Not available with other controls.
NPP16 D	Ships standard with SPD. SPD is not called out in the nomenclature. Available with 120, 277 or 347 only. Not available with Emergency Batteries or any other controls. Available with 3 conductor cords with or without plug.
NPP16 D ER	Ships standard with SPD. SPD is not called out in the nomenclature. Available with 120, 277 or 347 only. Not available with Emergency Batteries or any other controls. Available with 5 conductor cord only.
NR	Ordering this option assumes the top portion of the QD option (QDH) or the top portion of the NDT option is already installed. This is a for retrofit applications only.
Non-Dimming Sensors	Ships standard with SPD. SPD is not called out in the nomenclature. Available with 3 or 5 (dimming type) conductor cords with or without plug. Available with ER option by adding to sensor nomenclature. Example: LSXR50 ER. Utilizes IOTA ETS device, not available with emergency battery options. ER version is available with MVOLT, 120, 208, 240, 277, 277X only. If cord is required with ER, Available with (CNP165W or CNP165) 5 conductor dual input cord.
OCS	Please note all modular wiring options are dry listed and fixture will have a dry listed label. Actual Reloc® System Drop Cable used depends upon voltage chosen in the fixture nomenclature. Example: 277V = OCS 277.
PHGCHAIN XIN	X denotes length. Chain shipped separately as an accessory. Available in multiple sizes. Replace X with size in inches. Example: PHGCHAIN 120IN = 120 inches or 10 feet.
PHGWGA	Cannot be field installed on a fixture that utilizes an NGLR, MGLR, WGLR, MALR Optical assembly.
QD	Not available with emergency battery pack options. The QD (quick disconnect) system is made up of 2 parts. The top portion "QDH" ships separately to be installed in the ceiling. The Bottom portion is factory installed to the fixture. The 2 part quick disconnect will include components to allow voltage to pass between the top and bottom portions.
QR	Ordering this option assumes the top portion of the QD option (QDH) or the top portion of the NDT option is already installed. This is a for retrofit applications only.
SCKX	X denotes length. Safety Chain is available in multiple sizes. Replace X with size in inches. Example: SCK120 = 120 inches or 10 feet
SPD	Not available with HVOLT, 347, 480, XVOLT, 277X, 347X, 480X, any emergency battery option listed or any control option listed (sensors, power packs or controllers). SPD is already included anytime you order one of these options.
UPH 35SM L8480 DWHXD, UPH 36PM L8480 DWHXD	Available with PHCBL8480 option only.
UPH 35SM XXX DWHXD, UPH 36PM XXX DWHXD	XXX denotes voltage. Available with PHCB option only.
UPH Cord Sets	Available with PM only. Must Specify voltage. For new installation, order matching UPH accessory. For existing installation, match PHCB voltage to existing UPH.
UPH Hangers	Available with PHCB or PHCBL8480 only. Must Specify voltage.
WGX	Not available with NGLR, MGLR, WGLR, MALR Optical assemblies.
XVOLT	Utilizes Xvlt Driver. Ships standard with SPD. SPD is not called out in the nomenclature. Not available with RIO or LSX BTP controls.

PRODUCT DATA

LAT

Ambient Temp	25C	30C	35C	40C	45C	50C	55C	100%
LAT Multiplier	1.00	0.99	0.99	0.98	0.97	0.97	0.96	99%

ADJUSTABLE OUTPUT (AO)

AO Position	% Lumen Output	% Wattage
1	19%	19%
2	29%	27%
3	42%	40%
4	55%	53%
5	70%	68%
6	81%	79%
7	95%	94%
8	100%	100%

OPERATING AMBIENT CHART

Lumen	Standard	LSXR, rLSXR, LSX BTP, SBOR, rSBOR	RIO	NPP16 D	RPP20 D	ETS
9000	55 C	55 C	55 C	35 C	45 C	35 C
12000	55 C	55 C	55 C	35 C	45 C	35 C
15000	55 C	55 C	55 C	35 C	45 C	35 C
18000	55 C	55 C	55 C	35 C	45 C	35 C
24000	55 C	55 C	55 C	35 C	45 C	35 C
26000	55 C	55 C	55 C	35 C	45 C	35 C
30000	55 C	55 C	55 C	35 C	45 C	35 C
36000	50 C	50 C	50 C	35 C	45 C	35 C

Lumen	E10WMCP E15WMCP	IE18WCPHECW	IE20WCPHE IE30WCPHE	IE20WCPHER IE30WCPHER
9000	25 C	30 C	30 C	55 C (remote mount)
12000	25 C	30 C	30 C	55 C (remote mount)
15000	25 C	30 C	30 C	55 C (remote mount)
18000	25 C	30 C	30 C	55 C (remote mount)
24000	25 C	30 C	30 C	55 C (remote mount)
30000	25 C	30 C	30 C	55 C (remote mount)
36000	25 C	30 C	30 C	50 C (remote mount)

Nominal Emergency Lumens

SEF	E10WMCP	E15WMCP	IE18WCPHECW	IE20WCPHE/R	IE30WCPHE/R
9000	1808	2622	3077	3689	5385
12000	1812	2627	3083	3696	5394
15000	1775	2587	3044	3611	5289
18000	1773	2583	3040	3606	5282
24000	1800	2630	3099	3752	5436
30000	1834	2680	3159	3824	5541
36000	1861	2724	3213	3872	5617
HEF	E10WMCP	E15WMCP	IE18WCPHECW	IE20WCPHE/R	IE30WCPHE/R
9000	1915	2777	3258	3910	5708
12000	1876	2734	3217	3818	5594
15000	1860	2713	3194	3793	5570
18000	1967	2873	3386	3995	5866
24000	1960	2864	3375	4087	5922
30000	2022	2959	3491	4208	6105
36000	1959	2870	3387	4068	5908

PRODUCT DATA

OPERATIONAL DATA

PHG SEF	Lumen Package	Wattage (120V)	Lumen Output	LPW
SEF 5000K, 80CRI MGG	9000 LM	59	9257	157
	12000 LM	81	12252	152
	15000 LM	101	15173	150
	18000 LM	123	17944	145
	24000 LM	158	24306	154
	26000LM	167	26020	156
	30000 LM	201	30539	152
	36000 LM	237	36453	154

PHG HEF	Lumen Package	Wattage (120V)	Lumen Output	LPW
HEF 5000K, 80CRI MGG	9000 LM	55	9232	169
	12000 LM	75	12310	165
	15000 LM	94	15069	161
	18000 LM	108	18254	170
	24000 LM	144	24471	170
	26000LM	161	27909	173
	30000 LM	178	31068	174
	36000 LM	219	36538	167

SCALING FACTOR TABLES

CCT/CRI Multipliers			
SEF	70 CRI	80 CRI	90 CRI
5000K	1.06	1.00	0.88
4000K	1.05	0.98	0.86
3500K	1.03	0.96	0.81
3000K	1.02	0.94	0.78

CCT/CRI Multipliers			
HEF	70 CRI	80 CRI	90 CRI
5000K	1.00	1.00	0.83
4000K	0.99	0.98	0.82
3500K	0.97	0.93	0.80
3000K	0.96	0.92	0.77

LUMEN MAINTENANCE

Projected Lumen Maintenance - SEF (Standard Efficiency)						
Ambient	0	15,000	30,000	45,000	60,000	100,000
25° C	1.00	0.97	0.94	0.91	0.89	0.82

Projected Lumen Maintenance - HEF (High Efficiency)						
Ambient	0	15,000	30,000	45,000	60,000	100,000
25° C	1.00	0.97	0.95	0.93	0.9	0.85

Note: Table shown is accurate for all available lumen packages.

NUMBER OF LED BOARDS AND DRIVERS USED

Lumen Package	Performance Package	Number of LED Boards	Number of drivers
9000LM	SEF	1	1
	HEF	1	1
12000LM	SEF	1	1
	HEF	1	1
15000LM	SEF	1	1
	HEF	1	1
18000LM	SEF	1	1
	HEF	1	1
24000LM	SEF	1	1
	HEF	1	1
26000LM	SEF	1	1
	HEF	1	1
30000LM	SEF	1	2
	HEF	1	1
36000LM	SEF	1	2
	HEF	1	2

Optic	Multiplier
NA	1.06
WAA	1.05
NAA	1.04
MG	1.03
WG	1.03
NG	1.03
WGA	1.02
MGA	1.02
WGG	1.00
MGG	1.00
NGA	1.00
NGG	0.98
NGAFR	0.91
WGGAL	0.90
MGAFR	0.89
MGGAL	0.89
NGGFR	0.87
NGGAL	0.86
MGGFR	0.86
WGAFR	0.84
WGGFR	0.81

CORD SET ORDERING INFORMATION

Plug Option	Plug Type ‡	Amperage	Gauge	# of Conductors	Color	Location	Length
CNP Cord only	(blank) No plug	(blank) 15 Amp	(blank) 18 Gauge	(blank) 3 Conductors	(blank) Black	(blank) Damp Location	(blank) 6 Foot
CP Cord with plug ‡	TL Locking type ‡	20A 20 Amp	16 16 Gauge	4C 4 Conductors ‡	W White	WL Wet location ‡	3FT 3 Foot
	SB Straight blade ‡			5C 5 Conductors, dual voltage ‡			10FT 10 Foot
				5CD 5 Conductors with 0-10V dimming leads ‡			12FT 12 Foot
							15FT 15 Foot
							20FT 20 Foot
							25FT 25 Foot

Notes

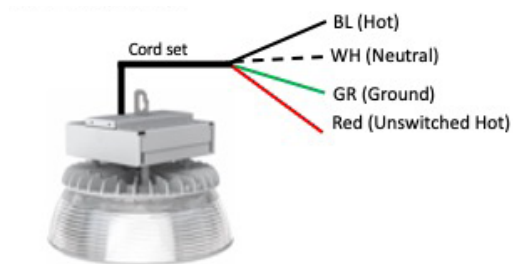
4C	Includes 2 hot inputs for use with EM battery options.
5C	Includes 2 hots and 2 neutrals for use with ETS or sensors with ER option.
5CD	Includes purple and pink or gray wire for 0-10V dimming
CP	Must specify voltage.
SB	Not available with WL (wet location)
TL	See NEMA Plug Configuration chart on right for plug type used based on voltage.
WL	Not available with SB (plug type).

NEMA Plug Configurations

Voltage	15A Straight Blade	15A Twist Lock	20A Twist Lock
MVOLT	NA	NA	NA
120	5-15P	L5-15P	L5-20P
208	NA	L6-15P	L6-20P
240	NA	L6-15P	L6-20P
277	NA	L7-15P	L7-20P
HVOLT	NA	NA	NA
347	NA	NA	L24-20P
480	NA	NA	L8-20P
XVOLT	NA	NA	NA
277X	NA	L7-15P	L7-20P
347X	NA	NA	L24-20P
480X	NA	NA	L8-20P

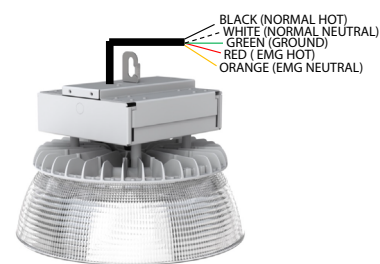
CORD SETS WITH EMERGENCY WIRING DETAILS

When battery is ordered with a 4-conductor cord set:



The 4 conductor cord set (CNP164CW or CNP164C) will include the hot (BL), neutral (WH), and ground (GR) conductors AND the unswitched hot will be a separate conductor (RED).

When ETS is ordered with a 5-conductor dual voltage cord:



The 5 conductor dual voltage cord set (CNP165CW or CNP165C) will include the normal hot (BL), normal neutral (WH), ground (GR), EMG hot (RED), and EMG neutral (OR).

EMERGENCY OPERATION SCENARIOS

	Standard Sensor or Control Device (commonly used with Battery Pack Option)	EM Solution (Used when switching single incoming hot to generator power)	ER Solution (Used when switching to generator power via a 2nd hot lead)
Emergency Lighting Strategy	*Luminaire-integral battery pack and emergency driver *Generator transfer device	*Diesel genset emergency backup supply *Slow transfer inverter (>30ms) emergency backup supply	*Fast Transfer (FT) inverter emergency backup supply *Uninterruptible Power System (UPS) emergency
Recommended Control Device Option	*Not specifically listed for emergency use. *Wired such that a separately listed emergency device provides emergency lighting power and/or control during loss of normal power scenarios.	*UL924 listed *Utilizes Power Interruption Detection to initiate lighting control override during loss of normal power scenarios. *Requires power interruption > 30 ms to luminaire during transfer to emergency backup supply.	*UL924 listed *Utilizes dedicated Normal Power sensing leads to initiate lighting control override during loss of normal power scenarios. *Requires connections to both emergency and normal power circuits.

	Function	Sequence of Operations	Standard Sensor or Control Device	EM Solution (Generator 1 Hot)	ER Solution* (Generator 2 Hots)	Standard Sensor Settings				
						Vacancy Time Out	Dim to Off Time Delay	High Trim	Low Trim	Photocell Set Point
Standalone Sensors (Individual control per fixture)	On/Off	Lights turn on when motion detected; Upon vacancy, Lights turn off after timeout.	LSXR6	NLTAIR2 RLSXR6 EM	LSXR6 ER	10 min	NA	NA	NA	NA
	High/Low (Off)	Lights turn on to high trim when presence is detected; Upon vacancy, the lights dim to low trim after timeout and turn off after "Dim To Off" Time Delay. For High/Low (Never Off) function, bypass the relay by bringing power directly into driver rather than wiring hot through LSXR device.	LSXR6 HL	NLTAIR2 RLSXR6 EM	LSXR6 HL ER	10 min	2.5 min	100%	10%	NA
	Photocell	Lights turn on unless ambient light level is above set point; If ambient light levels in the space exceed the photocell set point, lights will turn off even during occupancy.	LSXR6 P	NLTAIR2 RLSXR6 EM	LSXR6 P ER	NA	NA	NA	NA	4 fc
Note: Different lenses are available to accommodate specific mounting heights. For 360° integral Low Mount sensors, replace "6" in nomenclature with "10". Ex. LSXR10 P. For 360° integral High Mount Aisleway sensors, replace "6" in nomenclature with "50". Ex. LSXR50 P.										

Bluetooth Sensors (Configurable via mobile Bluetooth app)	On/Off	Lights turn on when motion detected; Upon vacancy, Lights turn off after timeout.	LSX45 OCC BTP LT	NA	LSX45 OCC BTP LT ER	10 min	NA	NA	NA	NA
	High/Low (Off)	Lights turn on to high trim when presence is detected; Upon vacancy, the lights dim to low trim after timeout and turn off after "Dim To Off" Time Delay.	LSX45 HL BTP LT	NA	LSX45 HL BTP LT ER	10 min	2.5 min	100%	10%	NA
	Dimming + Photocell	Lights turn on when presence is detected unless ambient light level is above set point; Upon vacancy, the lights dim to low trim during timeout; During occupancy, automatically raise and lower electric light level to maintain set point and turn off, depending on ambient light.	LSX45 ADC BTP LT	NA	LSX45 ADC BTP LT ER	10 min	NA	NA	10%	50 fc
	Dimming + Photocell + High/Low (Never Off)	Lights turn on when presence is detected unless ambient light level is above set point; Upon vacancy, lights dim to low trim after timeout and remain at low trim until presence is detected; Automatically raise and lower electric light level to maintain set point during occupancy and during vacancy keeps lights at low trim if ambient light is not sufficient.	LSX45 ANL BTP LT	NA	LSX45 ANL BTP LT ER	10 min	NA	100%	10%	50 fc

nLight wired Networked Controls	Dimming	Programmable On/Off control only with dimming - no sensor (device externally mounted)	NPP16 D	NA	NPP16 D ER	NA	NA	100%	10%	NA

nLight AIR Wireless Sensors and Networked Controls	Dimming + Photocell + Occupancy	Wirelessly programmable network sensor - On/Off control with dimming, occupancy detection, and daylight harvesting (Sensor embedded in fixture)	NLTAIR2 RLSXR6	NLTAIR2 RLSXR6 EM	NLTAIR2 RLSXR45 ER	7.5 min	NA	100%	10%	50fc
	Dimming	Wirelessly programmable On/Off control with dimming - no sensor (Device embedded in fixture)	NLTAIR2 RIO	NLTAIR2 RPP20 D EM	NLTAIR2 RIO ER	NA	NA	100%	10%	NA
	Dimming	Wirelessly programmable On/Off control with dimming - no sensor (Device External)	NLTAIR2 RPP20 D	NLTAIR2 RPP20 D EM	NLTAIR2 RPP20 ER	NA	NA	100%	10%	NA
Note: Different lenses are available to accommodate specific mounting heights. For 360° integral Low Mount sensors, replace "6" in nomenclature with "10". Ex. NLTAIR2 RLSXR10. For 360° integral High Mount Aisleway sensors, replace "6" in nomenclature with "50". Ex. NLTAIR2 RLSXR50.										

*All ER solutions except nLight wired (NPP16 D ER) and nLight AIR (NLTAIR2 RPP20 D ER), include standard sensor or control device with a factory-installed --Iota ETS##-DR (UL924 bypass device). This device is integral to the fixture and will include a hot and neutral lead for the dedicated emergency circuit.

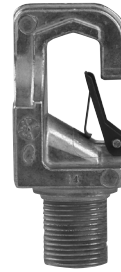
COMPONENTS & OPTIONS DATA



HKMAR (PF-129-A) Hook



HKFD (PF-122-A) Hook



HKM455 (PF-455) Hook



LPFD (PF-116) Loop



AO
Field adjustable output dimming.



nLight Wired NPP16 D Power Pack



nLight Wired NPP16 D Power Pack



LSXR Sensor



LSX45 BTP Sensor and SMHB BTP Control Module



**OCS Reloc® One Pass®
Drop Cable**



**nLight Air RPP20 D
Power Pack**



**nLight Air RPP20 D EM or
ER Power Pack**



nLight Air RLSXR Sensor



nLight Air RIO Control Module