

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat. #: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Quantity: \_\_\_\_\_



## PBL U G2 2 | LED Lensed High Bay

### Features:

- High performance LED technology
- 0-10V dimming drivers standard on all models
- Field replaceable LED boards and drivers through Re-boardABILITY (more info on Page 3)
- Multiple shielding options available to help minimize glare and improve aesthetics
- Multiple controls options available
- 90+ CRI standard
- Buy American Act compliant *(All base luminaires are BAA compliant. Addition of options may change eligibility. Contact factory for details.)*

### Applications:

Suitable for most commercial, industrial and institutional applications

- Retail
- Warehouse
- Manufacturing
- Gymnasiums

### Predicted Lifetime:

- L70 ≥ 131,000 hrs (calculated)
  - L90 ≥ 40,000 hrs (reported)
- (based on LM-80, TM-21 and in-situ laboratory testing)

### Construction:

- Housing and LED tray is precision brake formed from aluminum
- Pre-painted with a highly durable, highly reflective white finish

### Certifications:

- UL 1598 listed for US and Canada, suitable for damp locations



### Warranty:

- 5 year limited system warranty - see [www.LumenFocus.com](http://www.LumenFocus.com) for complete warranty terms and conditions
- 10 year warranty option available on specific models  
*(Not available on all models. Certain conditions apply. Consult factory or sales representative for details.)*



Ordering Guide:

example: PBL U G2 2 MD UV A23F 940 QC20 C6

Series	Version	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls	Options	Finish
PBL U	G2	2								
PBL U	G2 Gen 2	2 2'	LW Low	UV 120-277	A23 High Efficiency 23 Pattern Acrylic	930 90 CRI/3000K	Blank None	Blank No Controls	Blank No Options	Blank White
			MD Medium	34 347V	A23F High Efficiency 23 Pattern Acrylic, Frosted	935 90 CRI/3500K	QC 10' Quick Hang Cable Kit	ZOS Occupancy Sensor (On/Off)	EXT10 10-Year Extended Warranty <sup>(5)</sup>	BK Matte Black
			HI High	48 480V	L118 0.118" Impact Resistant Lexan	940 90 CRI/4000K	QC20 20' Quick Hang Cable Kit	ZOSD Occupancy Sensor (On/Off/Dim)	C6 6' Single Circuit Cord	SL Metallic Silver
						950 90 CRI/5000K		ZOFD1 Leviton Bluetooth-enabled Programmable Dimming/ Occupancy/Daylight Harvesting Sensor with Grouping (120-277V) <sup>(1)</sup>	C65W 6' Single Circuit Cord with Low Voltage Connections	
								ZOFDU Leviton Bluetooth-enabled Programmable Dimming/ Occupancy/Daylight Harvesting Sensor with Grouping, Scheduling (120- 480V) <sup>(1)</sup>	C10 10' Single Circuit Cord	
								Z221BL_ Wattstopper Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) <sup>(2)</sup>	C105W 10' Single Circuit Cord with Low Voltage Connections	
								Z321BL_ Wattstopper Bluetooth- enabled Programmable Dimming/Occupancy/ Daylight Harvesting Multi- Voltage Sensor <sup>(2)</sup>	D6 6' Dual Circuit Cord	
								ZOSMHB Leviton High Bay Microwave 0-10V Multi-Level Occupancy Sensor with Photocell <sup>(3)</sup>	D10 10' Dual Circuit Cord	
								ZPC Photocell	P(NEMA) Plug (Specify NEMA configuration)	
								ZENLC Enlighted Ruggedized Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted Connected System <sup>(4)</sup>	WG Wire Guard	
								ZENLI Enlighted Ruggedized Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted IoT System <sup>(4)</sup>	WGE Extended Wire Guard for End-Mounted Sensor	
									SC Safety Cable	
									F Fuse	
									EM6 6.5W Emergency Pack <sup>(6)</sup>	
									EM10 10W Emergency Pack <sup>(6)</sup>	
									EM14 14W Emergency Pack <sup>(6)</sup>	
									EM20 20W Emergency Pack <sup>(6)</sup>	
									SDT(480V) 480V to 277V Step Down Transformer	
									CC Conformal Coating	
									LVL 0-10V Dimming Leads for Easy Field Access	
									BAA Buy American Act Compliant	

Notes

- <sup>(1)</sup> For 8' to 40' mounting heights. See Page 4 for more details.
- <sup>(2)</sup> " " = lens type. See Page 4 for lens descriptions.
- <sup>(3)</sup> 120-277V Only. Max ceiling height is 50 feet. See page 4 for more details.
- <sup>(4)</sup> Max ceiling height for Enlighted Ruggedized sensor 50 feet. See Page 5 for more details on advanced controls.
- <sup>(5)</sup> Not available on all models. Certain conditions apply. Consult factory or sales representative for details.
- <sup>(6)</sup> 120-277V / 0°C-55°C ambient. To estimate lumen output in emergency mode, multiply EM wattage by the Lumens per Watt of the luminaire it is installed in.  
ex. PBL U G2 2 MD UV A23F 940 EM14 → 141.6 LPW x 14W = 1,982 lm

Controls Accessories (order separately)



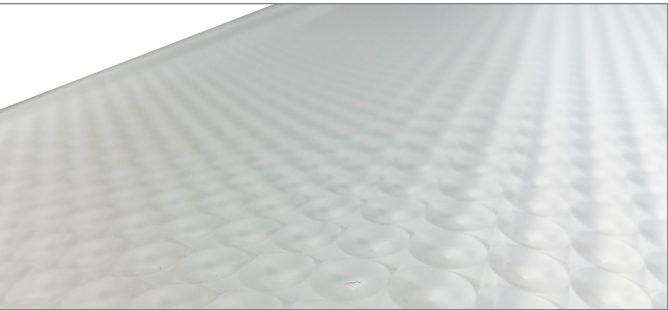
**For Enlighted Controls**  
WS-2-00 Enlighted Remote Control Wall Switch  
(for Enlighted Connected & IoT)



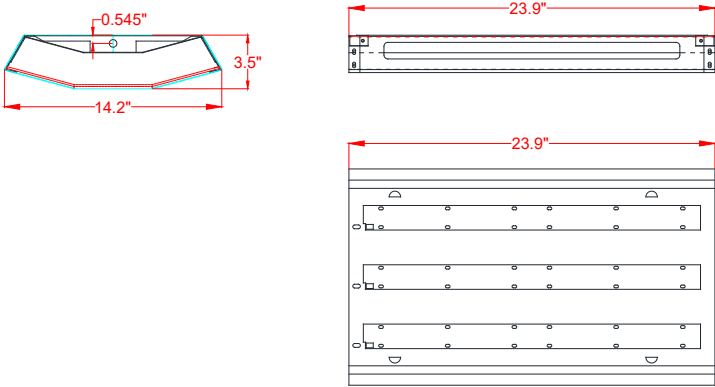
**For Z221BL\_ Sensor**  
FSIR-100 Wireless Configuration Tool



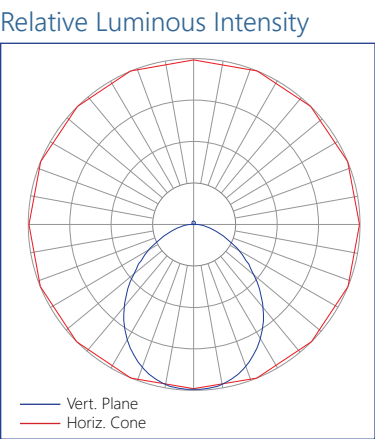
**For ZOSMHB Sensor**  
ZLSOR Wireless Configuration Tool



Schematic:



Photometric Data:



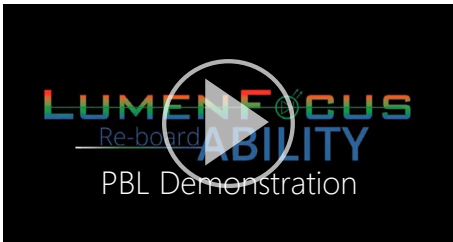
Performance Chart:

Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
PBL U G2 2 LW UV A23F 9xx	57.4	7968.2	138.8	8001.8	139.4	8191.9	142.7	8191.9	142.7
PBL U G2 2 MD UV A23F 9xx	85.8	11820.7	137.7	11870.5	138.3	12152.5	141.6	12152.5	141.6
PBL U G2 2 HI UV A23F 9xx	111.7	15666.7	140.3	15732.7	140.9	16106.4	144.2	16106.4	144.2

Lumen Adjustment Factors: WG: 0.95

LUMENFOCUS  
Re-boardABILITY

The PBL U G2 features field replaceable boards and drivers. This allows you to upgrade to more efficient technology in the future. Or, in the rare event of a failure, you can rapidly replace defective components. Re-boardABILITY helps to ensure you won't get stuck with an obsolete light fixture. [Learn more about Re-boardABILITY here.](#)



[Click here for a video demonstration of the re-boarding process on a PBL.](#)  
Note: Exact time varies depending on the model.



## Controls Summary:

Control Code	Type	Capabilities	Communication
ZOS	Motion (PIR)	On/Off	Wired
ZOSD	Motion (PIR), Photosensor	On/Low/Off	Wired 1-10V
ZOFD1	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)
ZOFDU	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)
Z221BLx	Motion (PIR), Photosensor	High/Low/Off, High-End Trim	Wired 0-10V, Programmable via IR remote (sold separately)
Z321BLx	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)
ZOSMHB	Motion (Microwave), Photosensor	On/Low/Off	Wired 0-10V, Programmable via ZLS0R IR remote (sold separately)
ZPC	Photosensor	On/Off	Wired
ZENLC	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitoring*, BMS Integration*, Upgradable to IoT (ZENLI), LLC (Enlighted IoT)*	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software
ZENLI	MoMotion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitoring*, BMS Integration*, LLC (Enlighted IoT)*, Space - Building Utilization*, Where - Real Time Location Services*	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software

LLC = Luminaire Level Lighting Control

\* Additional equipment required. Contact LumenFocus representative for details

## Programmable Dimming Sensors:

### ZOFDx Sensor Option

- Leviton Smart IP66 passive infrared (PIR) sensors
- Features mesh grouping (16 devices per group), occupancy sensing, daylight harvesting, scheduling (for ZOSFDU only), single-level switching
- Comes pre-installed on the end cap
- Rated for cold locations
- Configurable through the Leviton Smart Sensor App using a smartphone or other Bluetooth-enabled iOS or Android device



The ZOFD option includes four sensor lenses that can easily be installed or swapped out in the field. From left: the high bay lens (20'-40' mounting), the high bay lens with aisleway mask, the low bay lens (8'-20' mounting), and the low bay lens with aisleway mask.



### Z221B, Z321B Sensor Options

- The Wattstopper FSP sensor provides multi-level control based on motion and/or daylight contribution
- Comes pre-installed on the end cap
- Rated for cold locations
- Parameters for Bluetooth-enabled Z321B adjustable via phone app - iOS or Android
- Parameters for Z221B adjustable via wireless configuration tool (FSIR-100 - sold separately)
- Three lenses available, tailored for the ideal detection area and mounting height:
  - **L2**: 360° lens, maximum coverage 48', diameter from 8' height
  - **L3**: 360° lens, maximum coverage 40', diameter from 20' height
  - **L7**: 360° lens, maximum coverage 100', diameter from 40' height



Left: Phone app interface for Z321B

### ZOSMHB Sensor Option

- Provides occupancy detection and multi-level control with adjustable time-outs
- Tri-level dimming control
- Comes pre-installed on the end cap
- Suitable for cold storage locations
- Built-in photocell reads brightness values. Sensor does not switch luminaire on if there is sufficient ambient light
- Control parameters selected manually via DIP switches, or using the optional ZLS0R remote (sold separately) - adjustable parameters include sensitivity, hold time, lux level, stand-by light level, stand-by hold time
- Maximum mounting height of 50 feet, with adjustable coverage radius up to 30 feet



ZLS0R



## Enlighted: All-in-one sensors, upgradeable systems

Enlighted's IP65-rated Ruggedized Sensor is an all-in-one unit: task tuning, high-end trimming, daylight harvesting, and occupancy/vacancy detection. Max installation height is 50 feet.

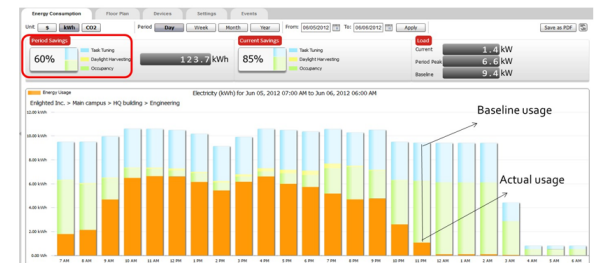
Enlighted Connected ("ZENLC") offers many features, including motion and switch groups, daylight harvesting, energy reporting, and more. The Enlighted IoT ("ZENLI") option allows the full implementation of Enlighted's services. Enlighted Connected can be fully upgraded to the next tier in the future. So if you start with ZENLC but want to add the functionality of the ZENLI option, you can.



## Real-time data analytics

Enlighted's control units compile data in real-time, which can be viewed via the Energy Manager. The Energy Manager is part of the Enlighted Connected and Enlighted IoT configurations.

- Real-time measurements and verification of energy savings
- Space analytics - data can be compiled into motion trails and heat maps
- Analyze traffic density and congestion in a space



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Enlighted Capabilities*	Enlighted Connected (ZENLC)	Enlighted IoT (ZENLI)
Motion and Switch Groups	✓	✓
Daylight Harvesting	✓	✓
Schedule Lighting	✓	✓
Energy Reporting & Optimization	✓	✓
Environment Data & Lighting Controls API	✓	✓
Building Management System Integration	✓	✓
Where & Space Applications		✓
Location & Occupancy APIs & Beacons		✓
Future App & API Ready		✓

## Other Options:



**Cords** are available in single circuit or dual circuit, 6' or 10'. Standard plug is optional, as are other NEMA configurations if specified.



**Shielding** Available in a high efficiency 23 pattern acrylic lens (frosted or clear), and an impact resistant clear lexan lens



**Conformal coating** Grants LED boards added protection from moisture and corrosion in more hazardous environments.



**Hanging** The QC hanging kit from ALP comes in 10' or 20'. Cables are pre-looped for easy installation and designed for easy fixture height adjustment. QCs come boxed with each fixture.

