





PBL 4 HD | LED Heavy Duty High Bay

Features:

- High performance LED technology
- 0-10V dimming drivers standard on all models - dimmable to <10% on all models, with most dimmable to 1%
- DALI drivers available based on configuration
- Field replaceable LED boards and drivers through Re-boardABILITY (more info on Page 3)
- Frosted diffusers available to help minimize glare and improve aesthetics
- A wide variety of lumen packages allows for flexibility in design and helps maximize energy savings
- Multiple controls options available

Applications:

Suitable for most commercial, industrial and institutional applications

- Gymnasiums
- Recreation Centers
- Manufacturing
- Warehouse
- Cold/Frozen Storage

Ambient Operating Temp.:

• -30°C to 40°C

Predicted L70 Lifetime:

- Up to 189,000 hrs (calculated) (L70 information for specific configurations available upon request)
- For BAA compliant configurations up to 189,000 hrs (calculated)

Construction:

- Housing is precision brake formed from heavy duty 0.063" aluminum
- Pre-painted with a highly durable, highly reflective white finish

Certifications:

- UL 1598 listed for US and Canada, suitable for damp locations
- DesignLights Consortium qualified on specific configurations (refer to DLC qualified products list for exact model numbers) http://designlights.org/





Warranty:

- 5 year limited system warranty see <u>www.LumenFocus.com</u> 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











Ordering Guide:

_		uide:						•	e: PBL 4 HI UV FR 85		
Series	Length	Output	Performance	Voltage	Shielding	CRI/CCT	Gauge	Hanging	Controls	Options	Finish
PBL	4						HDW				
PBL	4 4'	SL Super Low	Blank Standard	UV 120-277	Blank No Lenses	835 80 CRI/3500K	HDW Heavy Duty	Blank None	Blank No Controls	Blank No Options	Blank White
		VL Very Low	HE High Efficiency	34 347V ⁽¹⁾	FR Frosted Acrylic Diffusers	840 80 CRI/4000K	0.063" Aluminum Wide-Body Housing	QC 10' Quick Hang Cable Kit	ZOS Occupancy Sensor (On/Off)	EXT10 10-Year Extended Warranty ⁽⁵⁾	BK Matte Black
		LW Low MD		48 480V ⁽¹⁾		850 80 CRI/5000K	, and g	QC20 20' Quick Hang Cable Kit	ZOSD Occupancy Sensor (On/Off/Dim)	C6 6' Single Circuit Cord	SL Metallic Silver
		Medium HI High						PMS Pendant Mount with Stabilizer	Z221BL_ Wattstopper Programmable Photo/	C65W 6' Single Circuit Cord with Low Voltage Connections	
								ST(x) 3/4" Stem (Specify	Motion Multi-Voltage Sensor (high/low/off) ⁽²⁾ Z321BL	C10 10' Single Circuit Cord	
Notes Length)					Wattstopper Bluetooth- enabled Programmable Photo/Motion Multi- Voltage Sensor	C105W 10' Single Circuit Cord with Low Voltage Connections					
[®] PBL 4 VL and PBL 4 VL HE currently only available in 120-277V, or with step-down transformer in an application where 347V-480V is needed.						(high/low/off) ⁽²⁾ ZPC	D6 6' Dual Circuit Cord				

= lens type. See Page 5 for lens descriptions.

(3) Max ceiling height for Douglas FMS sensor: 40 feet. See Page 4 for more details on advanced controls.

(4) Max ceiling height for Enlighted Ruggedized sensor 50 feet. See Page 4 for more details on advanced controls.

(5) Not available on all models. Certain conditions apply. Consult factory or sales representative for details.

(6) EM2 - Up to 16W. 120-277V / 0°C-50°C ambient.

Controls Accessories (order separately)



For Douglas Controls

BT-DMSW-U-A Bluetooth 1 Zone Dimmer BT-4BTSW-U-A Bluetooth 4-Button Wall Station BT-8BTSW-U-A Bluetooth 8-Button Wall Station



For Enlighted Controls

WS-2-00

WS-2-00-IL

Enlighted Remote Control Wall Switch (for Enlighted Connected & IoT) Enlighted Remote Control Wall Switch (for Enlighted One)

ZENLO

Enlighted Ruggedized Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted One System⁽⁴⁾

ZENLC

Enlighted Ruggedized Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted Connected System⁽⁴⁾

ZENLI

Enlighted Ruggedized Sensor with Dimming/ Occupancy/Daylight Harvesting and Enlighted IoT System⁽⁴⁾

Photocell

ZFMS

Douglas FMS Sensor with Dimming/Occupancy/ Daylight Harvesting with Newtork Capabilities(3)

WG Wire Guard

D10

10' Dual Circuit Cord

P(NEMA)

Plug (Specify NEMA

configuration)

WGE

Extended Wire Guard

for End-Mounted

SC

Safety Cable

F

Fuse

EM2

Emergency Pack⁽⁶⁾ SDT(480V) 480V to 277V Step

Down Transformer

Conformal Coating

LVL

0-10V Dimming Leads for Easy Field Access

BAA

Buy American Act Compliant





Schematic:





Performance Chart:

Catalog #	Lumens	Watts	LPW
PBL 4 SL HE UV 835	12018	84	143.1
PBL 4 VL HE UV 835	13905	100	139.1
PBL 4 LW HE UV 835	15913	118	134.9
PBL 4 MD HE UV 835	19697	140	140.7
PBL 4 HI HE UV 835	23543	174	135.3
PBL 4 SL UV 835	11998	86	139.5
PBL 4 VL UV 835	13982	104	134.4
PBL 4 LW UV 835	17193	136	126.4
PBL 4 MD UV 835	20866	155	134.6
PBL 4 HI UV 835	22943	174	131.9

Catalog #	Lumens	Watts	LPW
PBL 4 SL HE UV 840	12416	84	147.8
PBL 4 VL HE UV 840	14365	100	143.7
PBL 4 LW HE UV 840	16439	118	139.3
PBL 4 MD HE UV 840	20349	140	145.3
PBL 4 HI HE UV 840	24322	174	139.8
PBL 4 SL UV 840	12394	86	144.1
PBL 4 VL UV 840	14444	104	138.9
PBL 4 LW UV 840	17761	136	130.6
PBL 4 MD UV 840	21556	155	139.1
PBL 4 HI UV 840	23701	174	136.2

Catalog #	Lumens	Watts	LPW
PBL 4 SL HE UV 850	12788	84	152.2
PBL 4 VL HE UV 850	14796	100	148.0
PBL 4 LW HE UV 850	16932	118	143.5
PBL 4 MD HE UV 850	20959	140	149.7
PBL 4 HI HE UV 850	25051	174	144.0
PBL 4 SL UV 850	12766	86	148.4
PBL 4 VL UV 850	14877	104	143.1
PBL 4 LW UV 850	18294	136	134.5
PBL 4 MD UV 850	22203	155	143.2
PBL 4 HI UV 850	24412	174	140.3

Lumen Adjustment Factors: FR lens: 0.93

WG: 0.90 FR w/ WG: 0.85



The PBL HD 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.





<u>Click here for a video demonstration of the re-boarding process on a PBL.</u>

Note: Exact time varies depending on the model.



Douglas Lighting Controls, Inc.: Cloud-based controls

The PBL HD can be equipped with the Douglas FMS sensor, which is designed for high bay applications.

With a max sensor height up to 40 feet, the FMS is ideal for applications like warehouses and manufacturing facilities. It can be installed for on/off control or bilevel light functionality. The daylight sensor provides additional savings by dimming the lights to work with the amount of natural available daylight.



- Configuration from the floor via smartphone app
- Bluetooth mesh network is created between devices for control over a group of Douglas sensors
- · Occupancy and daylight sensing
- IP65-rated
- 0-10V dimming
- 150 feet clear line of site, 50 feet through standard walls (distances may vary based on location and environment)

CheckLight® Energy Management System

Douglas controls can be integrated with the CheckLight® Energy Management system. This system can help you uncover energy conversion opportunities, create conservation strategies, analyze lighting load inefficiencies, and make configuration changes from anywhere with Douglas' user-friendly interface. You can get measurements, reports, and control your system from a web-based application.

CheckLight® has the capability to look at different facilities within a portfolio and use data benchmarks to compare building performances.

- Find energy conservation opportunities
- Create energy saving strategies
- Analyze load inefficiencies
- Optimize energy management

Enlighted: All-in-one sensors, upgradeable systems

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

Enlighted sensors come standard with the Enlighted
One system (the "ZENLO" option). Enlighted
Connected ("ZENLC") offers even more options.
The Enlighted IoT ("ZENLI") option allows the full
implementation of Enlighted's services. Each system
can be fully upgraded to the next tier in the future. So if
you start with Enlighted One but want to add energy reporting
or building management systems integration in the future, you can.

Enlighted Capabilities*	Enlighted One (ZENLO)	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 & Beaconing			✓
Future App & API Ready			✓

Note: Additional equipment required for ZENLC and ZENLI

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



Learn more about our available advanced controls options here:

www.lumenfocus.com/controls-overview

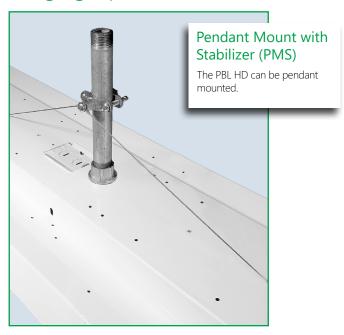
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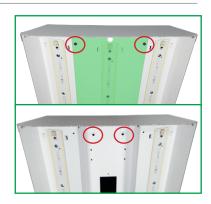


Hanging Options Available:



Surface Mount

The PBL HD is designed to be easily mounted to any sturdy surface. Simply remove the hex head screws holdingf the driver cover (top picture, in green) to access the bottom of the housing below. The housing can be mounted to the surface from the four holes in each corner of the channel (bottom picture, circled).





Cable Mount (QC, QC20)

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. A mechanically fastened safety cable (SC) is also optional.

Wireguard and shielding

Add an optional wireguard for added stability and protection - ideal for gymnasiums or other areas where the luminaire may be struck. Optional frosted acrylic diffuser lenses minimize glare and improve aesthetics.



Other controls available:



Dimming Sensors (Z221B/Z321B)

- 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

On/Off Occupancy Sensors (ZOS)

An occupancy sensor controls individual fixtures on or off based on occupancy in detection zone. Sensor used: Leviton OSFHU-ITW (pictured), or equivalent.



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.

Phone app

interface

for Z321B

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



