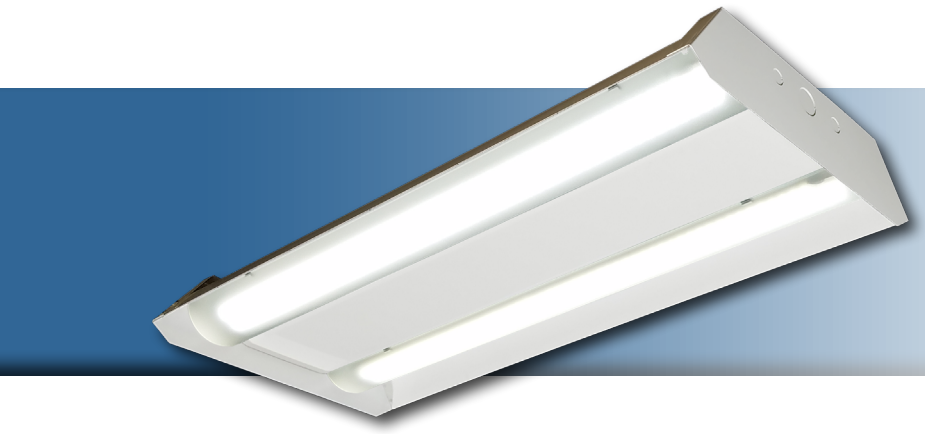
LUMENFOCUS



Project: _____

Location: _____

Cat. #: _____

Type: _____

Quantity: _____

LED

PBL V2 2 | LED High Bay

Features:

- High performance LED technology
- 0-10V dimming drivers standard on all models - dimmable to 5% 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
- The PBL V2's unibody design is surface mountable with easy access to the driver compartment from below

Applications:

Suitable for most commercial, industrial and institutional applications

- Retail
- Warehouse
- Manufacturing
- **Not** recommended for cold/frozen storage applications

Ambient Operating Temp.:

- -30°C to 40°C*

** for suspended mount applications. Contact factory for ambient temperature ratings for surface mount applications.*

Construction:

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

MADE IN USA

USING DOMESTIC AND FOREIGN COMPONENTS

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/

DLC LISTED c UL us

Predicted Lifetime:

- L70: 172,000 hrs (calculated)
- L80: 108,000 hrs (calculated)
- L90: 52,000 hrs (reported)
- 88% lumen maintenance @ 60,000 hrs

(based on LM80 and insitu laboratory testing)

Warranty:

- 5 year limited system warranty - see www.LumenFocus.com for complete warranty terms and conditions

www.lumenfocus.com
880 Facet Rd. | Henderson, NC 27537
252-430-6970

Ordering Guide:

example: PBL V2 2 HI UV 850 QC20 C6

Series	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls [1]	Options	Finish
PBL V2	2								
PBL V2 PBL Version 2	**2** 2'	**LW** Low **MD** Medium **HI** High **VH** Very High	**UV** 120-277 **34** 347V **48** 480V	**Blank** No Lenses **FR** Frosted Acrylic Diffusers	**835** 80 CRI/3500K **840** 80 CRI/4000K **850** 80 CRI/5000K	**Blank** None **QC** 10' Quick Hang Cable Kit **QC20** 20' Quick Hang Cable Kit **SM** Surface Mount	**Blank** No Controls **ZOS** Occupancy Sensor (On/Off) **ZOSMHB** Leviton Microwave 0-10V Multi-Level Occupancy Sensor with Photocell **ZOSD** 0-10V Dimming Occupancy Sensor with Daylight Harvesting **Z221B*xx*** [2] Wattstopper Programmable 0-10V Multi-Level Occupancy Sensor with Photocell, Task Tuning **Z321B*xx*** [2] Wattstopper Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning **ZOFD1** Leviton Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping **ZOFDU** Leviton Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling **ZSLHB** Keystone SmartLoop Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling **ZESMC** Philips EasySense Bluetooth-enabled Programmable DALI Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling **ZLTS*xx*** [2] LiteTrace Bluetooth-enabled Programmable 0-10V Dimming Occupancy Sensor with Daylight Harvesting, Task Tuning, Grouping, Scheduling, and Advanced Networking & IoT Capabilities **ZLTC** LiteTrace Bluetooth-enabled Programmable 0-10V fixture controller with Task Tuning, Grouping, Scheduling, and Advanced Networking & IoT Capabilities	**Blank** No Options **C6** 6' Single Circuit Cord **C65W** 6' Single Circuit Cord with Low Voltage Connections **C10** 10' Single Circuit Cord **C105W** 10' Single Circuit Cord with Low Voltage Connections **D6** 6' Dual Circuit Cord **D10** 10' Dual Circuit Cord **P(NEMA)** Plug (Specify NEMA configuration) **SC** Safety Cable **F** Fuse **EM6** 6.5W Emergency Pack [3] **EM10** 10W Emergency Pack [3] **EM14** 14W Emergency Pack [3] **EM20** 20W Emergency Pack [3] **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	**Blank** White **BK** Matte Black **SL** Metallic Silver

Notes

[1] See 'Control Summary' on Page 4 for more details.
[2] '*xx*' = select lens type based on mounting height and coverage area. See 'Control Summary' on Page 4 for more details.
[3] 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 V2 2 MD UV 850 EM14 → 158.8 LPW x 14W = 2,223 lm

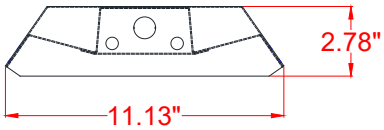
Accessories *(order separately)*

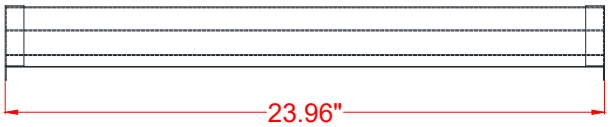
WG(PBL2) Wire Guard
WGE(PBL2) Extended Wire Guard for use with end-mounted sensor

Controls Accessories *(order separately)*

Accessory Code	Description	Control Compatibility	Additional Info
ZLSOR	Wireless IR Configuration Tool	ZOSMHB	pg. 4
FSIR-100	Wireless IR Configuration Tool	Z221B*xx*	pg. 4
KTSL-WS1-B-SG/G2	5-Button Bluetooth Wireless Wall Switch (battery powered)	ZSLHB	pg. 5
KTSL-TK1-USB	USB Time Keeper	ZSLHB	pg. 5
ZBT-S1AWH	Single Rocker ZigBee Wireless Wall Switch (self powered)	ZESMC	pg. 5
ZBT-S2AWH	Dual Rocker ZigBee Wireless Wall Switch (self powered)	ZESMC	pg. 5
WP1013	3-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS*xx*, ZLTC	pg. 6
WP1025	5-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS*xx*, ZLTC	pg. 6
WP1018	8-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS*xx*, ZLTC	pg. 6
WP1018A	8-Button Bluetooth Wireless Wall Switch (battery powered)	ZLTS*xx*, ZLTC	pg. 6
WP10135S	3-Button Bluetooth Wireless Wall Switch (line voltage)	ZLTS*xx*, ZLTC	pg. 6
WP1017S	7-Button Bluetooth Wireless Wall Switch (line voltage)	ZLTS*xx*, ZLTC	pg. 6
IWS102	Bluetooth Wireless Wall Switch w/ PIR Sensor (line voltage)	ZLTC	pg. 6

Schematic:





Performance Chart:

Catalog #	Lumens	Watts	LPW
PBL V2 2 LW UV 835	8586.3	54.7	156.9
PBL V2 2 MD UV 835	11440.2	74.0	154.5
PBL V2 2 HI UV 835	13330.6	88.0	151.5
PBL V2 2 VH UV 835	16264.3	104.0	156.4
PBL V2 2 LW UV FR 835	8088.2	54.7	147.8
PBL V2 2 MD UV FR 835	10776.6	74.0	145.0
PBL V2 2 HI UV FR 835	12449.1	88.0	141.5
PBL V2 2 VH UV FR 835	15288.4	104.0	147.0

Catalog #	Lumens	Watts	LPW
PBL V2 2 LW UV 840	8824.5	54.7	161.3
PBL V2 2 MD UV 840	11757.6	74.0	158.8
PBL V2 2 HI UV 840	13700.5	88.0	155.7
PBL V2 2 VH UV 840	16715.6	104.0	160.7
PBL V2 2 LW UV FR 840	8312.7	54.7	151.9
PBL V2 2 MD UV FR 840	11075.7	74.0	149.0
PBL V2 2 HI UV FR 840	12794.5	88.0	145.4
PBL V2 2 VH UV FR 840	15712.7	104.0	151.1

Catalog #	Lumens	Watts	LPW
PBL V2 2 LW UV 850	8824.5	54.7	161.3
PBL V2 2 MD UV 850	11757.6	74.0	158.8
PBL V2 2 HI UV 850	13700.5	88.0	155.7
PBL V2 2 VH UV 850	16715.6	104.0	160.7
PBL V2 2 LW UV FR 850	8312.7	54.7	151.9
PBL V2 2 MD UV FR 850	11075.7	74.0	149.0
PBL V2 2 HI UV FR 850	12794.5	88.0	145.4
PBL V2 2 VH UV FR 850	15712.7	104.0	151.1

Lumen Adjustment Factors: WG: 0.947

LUMENFOCUS Re-boardABILITY

The PBL V2 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	Occupancy	Daylight	Tech	Voltage	Dim	Max Mounting Ht.	Networking	Scheduling	BMS Integration	User Interface	Add. Info
ZOS	On/Off	N/A	PIR	120-347V, 480V	N/A	20', 40', Aisle Mask (all included)	N/A	x	x	On Device	-
ZOSMHB	On/Low/Off	Hold Off	Microwave	120/277V	0-10V	50'	N/A	x	x	On Device, IR Remote*	pg. 4
ZOSD	On/Low/Off	Daylight Harvesting	PIR	120-277V, 347V	0-10V	20', 40', Aisle Mask (all included)	N/A	x	x	On Device	-
Z221B*xx*	High/Low/Off	High/Low/Off	PIR	120-347V, 480V	0-10V	L2 | L3 | L7 8' | 20' | 40' (select one)	N/A	x	x	IR Remote*	pg. 4
Z321B*xx*	High/Low/Off	Daylight Harvesting	PIR	120-347V, 480V	0-10V	L2 | L3 | L7 8' | 20' | 40' (select one)	N/A	x	x	iOS / Android App	pg. 4
ZOFD1	High/Low/Off	Daylight Harvesting	PIR	120-277V	0-10V	20', 40', Aisle Mask (all included)	Bluetooth Mesh	x	x	iOS / Android App	pg. 4
ZOFDU	High/Low/Off	Daylight Harvesting	PIR	120-277V, 347V, 480V	0-10V	20', 40', Aisle Mask (all included)	Bluetooth Mesh	✓	x	iOS / Android App	pg. 4
ZSLHB	High/Low/Off	Daylight Harvesting	PIR	120-277V	0-10V	40'	Bluetooth Mesh	✓	x	iOS / Android App, Wireless Wall Switch*	pg. 5
ZESMC	High/Low/Off	Daylight Harvesting	PIR	DALI-2 (120-277V)	DALI	52'	ZigBee 2.4GHz Mesh	✓	x	iOS / Android App, Wireless Wall Switch*	pg. 5
ZLTS*xx*	High/Low/Off	Daylight Harvesting	PIR	120-277V	0-10V	MBL1 | HBL1 | HBL3 20' | 40' | 50' (select one)	Bluetooth LE Mesh	✓	✓	iOS / Android App, Wireless Wall Switch*, Autani Web Interface*	pg. 6
ZLTC	N/A	N/A	N/A	12VDC	0-10V	N/A	Bluetooth LE Mesh	✓	✓	iOS / Android App, Wireless Wall Switch*, Autani Web Interface*	pg. 6

* Sold Separately

Programmable Dimming Sensors:

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 suffcient 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

FSP with L7 lens

FSIR-100

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:** 360º lens, maximum coverage 48' diameter from **8' height**
  - **L3:** 360º lens, maximum coverage 40' diameter from **20' height**
  - **L7:** 360º lens, maximum coverage 100' diameter from **40' height**

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.

Keystone SmartLoop Wireless Control System

The SmartLoop wireless lighting control system by Keystone is a Bluetooth mesh lighting control system that allows you to set up and manage your lighting ecosystem quickly and easily. It's powerful enough to run a space with multiple lighting zones, but simple enough to program in minutes with your smartphone – perfect for warehouses, offices, schools, and auditoriums, whether new construction or retrofit.

- Wireless Bluetooth 2.4 GHz mesh network
- Supports up to 100 devices on a single region, with unlimited regions
- Independent per-fixture control: Occupancy, Daylight Harvesting, Task Tuning, Grouping, Scene Setting, Scheduling
- Commissioned via SmartLoop mobile app for iPhone and Android

ZSLFC2

- External Line Voltage High Bay Sensor, Side-Mount
- 120-277VAC Input
- PIR + Daylight Harvesting
- IP40 Rated
- 0-10V DC dimmable
- **Up to 40' mounting height.** 40' radius at 40' height.

SmartLoop Accessories

- Bluetooth Wireless Wall Switch: **KTSL-WS1-B-SG/G2**
  - Battery Powered: 2x CR2032
  - 5 Button: Power Toggle, Dimming, Automatic Sensor/Preset Level Operation, Scene Activation

- USB Time Keeper: **KTSL-TK1-USB**
  - Relays time to system components after a power loss
  - Powered by standard USB charging port
  - Internal CR1220 battery backup

Philips EasySense Wireless Control System

EasySense MC Sensors are the ideal solution for per-luminaire control of new LED luminaires. It combines occupancy and daylight sensing in one package. The result is a cost-effective and easy-to-install solution ideal for energy savings. Commissioning and configuration during and after installation is quick and easy using the Philips MasterConnect app. This app works via Bluetooth Low Energy (BLE) technology and is available for free in the App Store and the Google Play Store.

ZESMC

- Occupancy sensing, daylight harvesting, and task tuning in one device
- **up to 52' mounting height.** 26' radius at 52' height.
- Groups/networks up to 120 lights
- Enables auto-off/manual-on and auto-off/partial-on application
- Independent per-fixture control: Occupancy, Daylight Harvesting, Task Tuning
- Occupancy Sharing
- Scene Setting
- Advanced grouping to select Zigbee wireless wall switches
- Simple room level energy reporting with CSV file saved on the phone
- ZigBee 2.4 GHz Wireless Mesh Network
- Works with Advance Xitanium SR 120-277V drivers or other D4i certified LED drivers

Room Controllers

- Illumra ZBT-S1AWH (Single Rocker) or ZBT-S2AWH (Dual Rocker) wireless Zigbee wall switch
  - Self-Powered
  - Up to 120 sensors can be grouped to a single switch
  - Functions: On/Off, Dim-Up/Dim-Down, Scene 1, Scene 2 (Scenes: Dual Rocker Only)
  - Range: 30-100' (typical)

ZBT-S1AWH

ZBT-S2AWH

LiteTrace | Keilton+autani: Wireless networked controls, upgradeable systems

LiteTrace makes your existing building smarter by integrating the Keilton lighting controls platform with Autani's proven energy management, reporting, and control platform. Keilton+autani systems are flexible, adaptable, and resilient, providing solutions designed to scale up without having to change hardware.

Scalable product tiers allow implementing a solution aligned to your current needs, with robust upgrade pathways to expand capabilities as requirements evolve.

Capabilities	Keilton +autani (ZLTSx)	Energy Center by Autani *	Autani Insights *
Motion and Switch Groups	✓	✓	✓
Daylight Harvesting	✓	✓	✓
Schedule Lighting	✓	✓	✓
Energy Reporting & Optimization	✓	✓	✓
Overrides & Automated Demand Response	✓	✓	✓
Environment Data & Lighting Controls API		✓	✓
Building Management & System Integration		✓	✓
Building Optimization Application			✓
Location & Occupancy APIs & Beaconing			✓
Future App & API Ready			✓

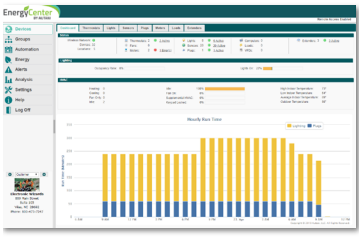
** additional hardware and software required.*

Keilton +autani

An easy and affordable stand-alone (gateway-free) room-based Bluetooth lighting control solution controllable via mobile app (iOS & Android).

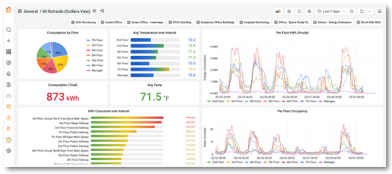
EnergyCenter BY AUTANI

A networked control solution which offers additional functionality such as advanced scheduling, reporting, metering, and building management integration.



INSIGHTS Autani

The most advanced offering, providing valuable data insights into a single building or a portfolio of buildings. This allows for asset tracking, campus-wide wayfinding, 3D facility monitoring and more.



ZLTSxx

- External Line Voltage High Bay Sensor, Side-Mount
- 120-277VAC Input
- PIR + Daylight Harvesting
- 50-ft max mounting height (with HBL3 lens)
- IP40 Rated
- 0-10V DC dimmable
- Bluetooth-enabled
- Replaceable lens options
  - **MBL1**: Mid Bay Lens
    - 360° coverage
    - **8′ - 20′ mounting height**
    - up to 50′ diameter @ 20′ height
  - **HBL1**: High Bay Lens
    - 360° coverage
    - **20′ - 40′ mounting height**
    - up to 80′ diameter @ 40′ height
  - **HBL3**: High Bay Lens
    - 360° coverage
    - **20′ - 50′ mounting height**
    - up to 100′ diameter @ 50′ height

ZLTC

- Wireless 0-10V fixture controller
- Integral Bluetooth module
- 12VDC Input

Room Controllers

WP1013 WP1025 WP1018 WP1018A

Battery Powered

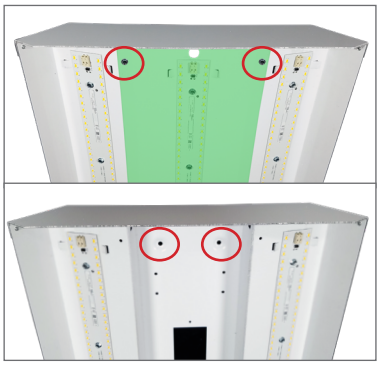
- 3-, 5-, and 8-button configurations
- Bluetooth Enabled
- 1 x CR2032 battery (WP1013, WP1025, WP1018)
- 2 x AAA batteries (WP1018A)
- Approx. 3 year battery life (batteries not included)

WP1013S WP1017S IWS102

Line Voltage

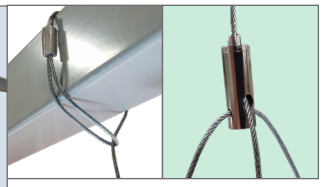
- 3-, 7-button configurations, and Occ/Vac Sensor Switch
- Line voltage powered: 120-277V
- Bluetooth Enabled

Mounting:



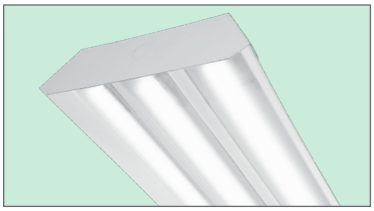
Surface Mount

The PBL V2 is designed to be easily mounted to any sturdy surface. Simply remove the hex head screws holding 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 The optional QC hanging kit 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 when ordered.

Other Options:



Shielding Frosted acrylic diffuser lenses minimize glare and improve aesthetics.

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

Conformal coating

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

Finish

In addition to the standard white finish, the PBL V2 is also available in matte black (BK) and metallic silver (SL).

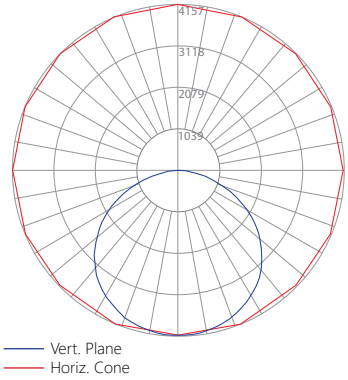
Photometric Data:

PBL V2 2 MD UV 850

Test No.: LLIA001687-005A
Luminaire Lumens: 11,758 lm
Luminaire Watts: 74.0W
Efficacy: 158.8 LPW
Spacing Criterion (0-180): 1.32
Spacing Criterion (90-270): 1.26

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	24587	23467	23385
55	24034	22879	23277
65	22310	21908	23281
75	17920	20503	3172
85	6526	4709	5382



Coefficients Of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

RC		80				70				50				30	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106
1	109	105	101	97	107	102	99	95	98	95	92	94	92	90
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46
6	70	57	48	42	68	56	47	41	54	47	41	52	46	41
7	65	51	43	37	63	51	42	36	49	42	36	48	41	36
8	60	47	38	33	59	46	38	32	45	38	32	44	37	32
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08

Zonal Lumen Summary

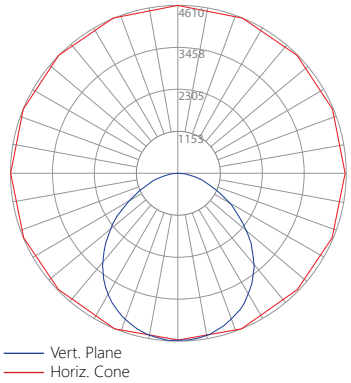
Zone	Lumens	%Fixt
0-20	1499.6	12.8
0-30	3198.6	27.2
0-40	5277.2	44.9
0-60	9484.5	80.7
0-80	11652.4	99.1
0-90	11756.2	100.0
90-120	1.5	0.0
90-130	1.5	0.0
90-150	1.5	0.0
90-180	1.5	0.0
0-180	11757.7	100.0

PBL V2 2 HI UV FR 850

Test No.: LLIA001687-002
Luminaire Lumens: 12,795 lm
Luminaire Watts: 88.0W
Efficacy: 145.4 LPW
Spacing Criterion (0-180): 1.24
Spacing Criterion (90-270): 1.26

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	23567	25184	26204
55	20538	24310	26058
65	16788	23309	25335
75	12710	20435	13956
85	7871	13523	11774



Coefficients Of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

RC		80				70				50				30	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08

Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20	1679.2	13.1
0-30	3560.1	27.8
0-40	5819.4	45.5
0-60	10221.8	79.9
0-80	12588.1	98.4
0-90	12792.8	100.0
90-120	1.8	0.0
90-130	1.8	0.0
90-150	1.8	0.0
90-180	1.8	0.0
0-180	12794.6	100.0