POINT FLASHING BEACON
PFB LED HIGH INTENSITY
FAA L-856 & DUAL ICAO TYPES A & B

THE ONLY FAA APPROVED LED SYSTEM THAT IS MADE IN USA

Compliances:
ETL Listed to UL 1598 & IP66
ETL Listed to CSA C22.2 No.250.0-04 Canada
ETL Verified FAA L-856 & L-864 to FAA Advisory Circular 150/5345-43H
Compliance to ICAO Annex 14 High Intensity Types A & B
Compliance to Transport Canada CL-856
Registered ISO 9001:2015

The PFB LED white high intensity flashing beacons are specified for use on very tall aviation obstructions typically only above 500-ft. The beacon is unidirectional covering 120-degrees horizontal and operates automatically at three intensities: day, twilight and night. Dual beacons are red in the night mode. Each beacon consists of a flashhead (FH) and a wall-mounted power supply (PS).

- ☑ The body casting is copper-free aluminum.
- ☑ The lens is glass.
- ☑ The hardware is 316 stainless steel.
- ☑ The LED's are rated for 100,000 hours.
- ☑ IP67 rated moisture & humidity venting.
- ☑ IP66 tested and listed.
- ☑ Standard with the exclusive Point Lighting Marine Treatment finish that is bonded to the metal and far exceeds the corrosion resistance of the standard FAA approved finish. See page 2.
- ☑ Three (3) years limited warranty subject to Point Lighting "Terms & Conditions of Sale".

Point Type	— Color	— Voltage	— Standard
PFB-38111	W: White	1: AC Power	F6: FAA L-856, 270K cds
	WR: Dual*	96 to 264V	HA: ICAO Type A, 200K cds
		50/60 Hz	HB: ICAO Type B, 100K cds
			T6: Transport Canada CL-856
			F4: FAA L-864 (dual only)
			MB: ICAO Med Type B (dual only)
			T4: T. Canada CL-864 (dual only)

* The dual (white-red) beacon emits red and infrared in night mode as defined by the character for standard in the catalog number. Day and twilight emit white at the required intensities.

Each beacon includes the flashhead (FH), cable loop and the separate wall-mounted power supply (PS).

It requires three (3) beacons for 360-degrees coverage if installed at a single high point.

Point Lighting can provide layouts for specific buildings and other solid structures to insure full coverage.

Note: A POC-68504-1 system controller switched automatically by photocontrol PPC-40702-1 is always required for operation. The system may incorporate other PFB medium intensity beacons and POL low intensity red obstruction lights.

PFB-38111-W-1-F6
HIGH INTENSITY WHITE BEACON FAA L-856
FOR USE WITH POC-68504-1 SYSTEM CONTROLLER
THE BEACON FLASHHEAD IS SHOWN
THE SEPARATE POWER SUPPLY IS INCLUDED BUT NOT SHOWN

ISO 9001 10604
3030033

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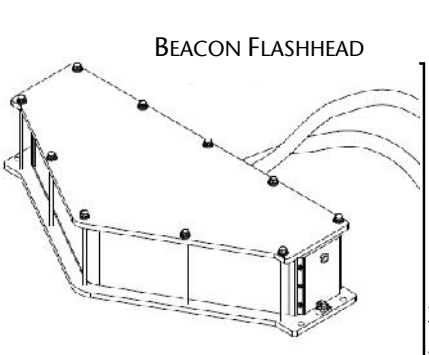
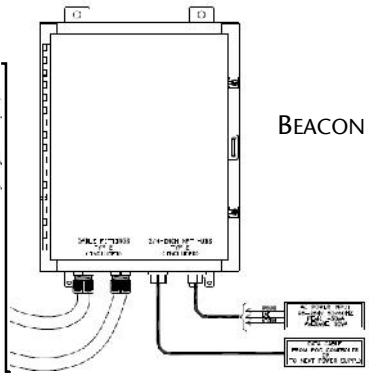
99 Hudson is the tallest building in New Jersey, overlooking Manhattan and Liberty Island. It is the third tallest residential building in the US.

A system of eight PFBH dual white-red high intensity beacons are installed at the top of the curtain wall. Operating 24 hours per day; white during the day & twilight with red at night.

Point Lighting team members commissioned the system in 2019 and conducted training of the building maintenance personnel.

Beacon Flashhead





Beacon Power Supply

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BEACON SELECTION TABLE

All beacons include marine treatment as standard. Dual beacon includes infrared LEDs with red portion.

PFB-38111-W-1-F6	White	FAA L-856 white flashing high intensity beacon
PFB-38111-WR-1-F6F4	White-Red	FAA L-856 & L-864 dual white/red flashing beacon
PFB-38111-W-1-HA	White	ICAO Type A white flashing high intensity beacon
PFB-38111-WR-1-HAMB	White-Red	ICAO Types high A & medium B dual white/red beacon
PFB-38111-W-1-T6	White	Transport Canada CL856 white high intensity beacon
PFB-38111-WR-1-T6T4	White-Red	TC CL-856 & CL-864 dual white/red flashing beacon

FAA L-856 HIGH INTENSITY WHITE BEACON

Intensity:	270,000 candelas white day
	20,000 candelas white twilight
(FAA)	2,000 candelas white night
	As defined by FAA L-856
	Advisory Circular 150/5345-43H
Flash Rate:	40 flashes per minute
Coverage:	120 degrees horizontal
Wattage:	417 watts AC Peak at 120V
(day mode)	401 watts AC Peak at 240V
	205 watts AC Average at 120V
	194 watts AC Average at 240V
Volt-Amps:	420 VA AC Peak at 120V
(day mode)	390 VA AC Peak at 240V
Flashhead	
Weight:	50.5 lbs 22.9 kg
Mounting:	4 Holes on a rectangle measuring 3.8-inches x 26.0-inches
Power Supply	
Weight:	40.0 lbs 18.1 kg
Temperature:	-40 deg C to + 55 deg C

FAA L856/L-864 DUAL WHITE/RED BEACON

Intensity:	270,000 candelas white day
	20,000 candelas white twilight
(FAA)	2,000 candelas red night
	As defined by FAA L-856 & L-864
	Advisory Circular 150/5345-43H
Flash Rate:	40 flashes per minute – white
	30 flashes per minute – red
Coverage:	120 degrees horizontal
Wattage:	29.9 watts AC Peak at 120V
(night mode red)	31.6 watts AC Peak at 240V
	10.8 watts AC Average at 120V
	10.4 watts AC Average at 240V
	For day mode, see data at left
Volt-Amps:	38.9 VA AC Peak at 120V
	69.9 VA AC Peak at 240V
Flashhead	
Weight:	50.5 lbs 22.9 kg
Mounting:	4 Holes on a rectangle measuring 3.8-inches x 26.0-inches Power
Power Supply	
Weight:	40.0 lbs 18.1 kg

Note: Each beacon assembly consists of a flashhead (FH) and a separate wall-mounted power supply (PS) in a NEMA 4X stainless steel enclosure. The PFB PS is connected to the FH by cable loops which exit the beacon and may not be spliced. The maximum cable run length is 30m.

Note: One (1) PPC-40702-1 is required for every system. Sold as a separate line item.

POINT FLASHING BEACON
PFB LED HIGH INTENSITY
FAA L-856 & DUAL
ICAO TYPES A & B

PFB BEACON VENTED TO IP67 & HAZARDOUS LOCATIONS
FOR PREVENTION OF MOISTURE INGRESS

Severe environmental conditions with varying temperatures and humidity cause an air pressure differential that results in seal failure of IP66 and IP67 enclosures. Certified fixtures and enclosures begin to leak moist air which the temperature changes turn into condensation. This water can cause failure of the electronic components and corrosion of the metal parts and housing. Point Lighting Corporation uses a very fine pore membrane vent that allows air to pass freely, but water, dust and dirt are prevented from entering. The vent is certified to IP66 & IP67, IEC 600-2-78 humidity, IEC60068-2-11 salt fog, GR-3108-CORE corrosive gases and other IEC standards.

Beacon PFB-38111
with PL10961-M12-HF Vent
Installed above the cable entry gland

PFB BEACON
FREEZE & HEAT CYCLING TEST PROGRAM
TO CONFIRM PREVENTION OF MOISTURE INGRESS
CALIBRATED ENVIRONMENTAL CHAMBER

Turn on the chamber, humidity control, dry air purge and ramp to 75°F (24°C) and 70% humidity for baseline readings.

Ramp to -67°F (-55°C) and 50% humidity at the rate of 2.5°F/min (1h 15m).

Hold at -67°F (-55°C) for 1 hour.

Ramp to 130°F (+55°C) and 95% humidity at a rate of 2.5°F/min (1h 15m).

Hold at 130°F (+55°C) and 95% humidity for 1 hour.

Repeat steps 2 - 5 Twenty (20) times

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STANDARD FINISH: MARINE TREATMENT

Our Marine Treatment tolerates marine, high salt content air and other corrosive environments. The FAA specified finish used by competitors flakes and fails in a short time under such conditions.

Point Lighting Corporation is the only obstruction lighting manufacturer that offers this standard finish. We are the foremost manufacturer of marine offshore helideck lighting operating in severe environments.

The fixture shall be treated for marine conditions by cleaning per US Department of Defense TT-C-490 method III, pretreated with chrome-free aluminum conversion coating per US MIL-C-5541 type II, epoxy powder base coat primer and glossy polyester powder coat finish. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.

MOUNTING BRACKETS

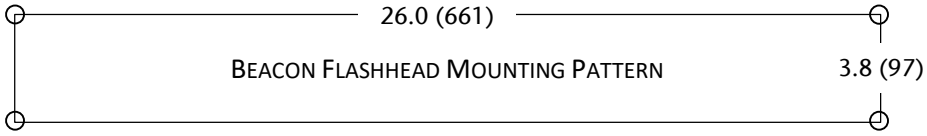
Beacon:

PL11359	Bracket, aluminum with hardware* for bolting in place
PL11360	Bracket, carbon steel with hardware* for welding in place Note: Installer to paint after installation

Power Supply:

PL11372	Bracket, aluminum with hardware* for bolting to a wall Fits both fiberglass and stainless steel enclosures
PL11372-TPM	Bracket, aluminum with hardware*; Tower-Pole Mount Fits same as above

* 316 stainless steel hardware for attaching the PFB to the bracket



Inches (mm)

SYSTEM CONTROLLER
WITH TOUCHSCREEN
POC-68504

DATA CABLE

A data cable is REQUIRED.

You may purchase the data cable from Point Lighting under stock number PL10836.

You may purchase the same data cable from others as Belden 9207 Twinax – Twinaxial Cable.

You may purchase a data cable from others equal to the above Belden cable with the characteristics listed below. Note: You are responsible to confirm the specifications are equal to the above cable which was used during certification testing. Use of inferior cable may result in improper operation of the system.

The data cable is used as one (1) run from the POC controller to the beacon #1 junction box and then to each beacon junction box in turn ("daisy-chain") that terminates at the last numbered beacon. The beacons are numbered in sequence and MUST be installed on the data cable in that sequence. This allows the POC system controller to identify and monitor each beacon and synchronize the flashing.

The data cable is a data bus and may be routed as required with the numbered beacons connected at any point. Each beacon is tagged and labeled with a location address number and the beacons must be connected to the data cable run in that numerical order.

PL10836-S shield solder sleeve is required to terminate shield at junction boxes or in-line splice the data cable. See Figure 5 below excerpted from our instructions.

Specifications for your cable supplier:

20 AWG stranded (7x28) one tinned copper conductor, one bare copper conductor, polyethylene (PE) insulation, PE inner jacket, metal foil-polyester taped shield 100% coverage, tinned copper braid shield 85% coverage, PVC outer jacket, suitable for outdoor use, UL maximum operating voltage 300V RMS.

Conductors:	Single pair (2 wires); #20 AWG; 7x28 strand
Insulation:	Polyethylene
Outer Shield:	Metal foil-polyester tape with tinned copper braid
Standard:	NEC/UL CMG & CL2 with CE mark

Impedance: 100 ohms Inductance: 0.155 µH/ft VP: 66% Delay: 1.54 ns/ft

Capacitance conductor to cond.: 14.5 pF/ft Capacitance cond. to shield: 23.0 pF/ft

The shield of the incoming data cable must be terminated with a PL10836-S Solder Sleeve. Using a heat gun, heat the solder sleeve until the solder melts, and the blue band has adhered to the data cable. See **Figure 5** for a correct example of this termination. The shield will become the green wire shown in **Figure 5**.

FIGURE 5
DATA CABLE (PL10836) WITH SOLDER SLEEVE (PL10836-S)

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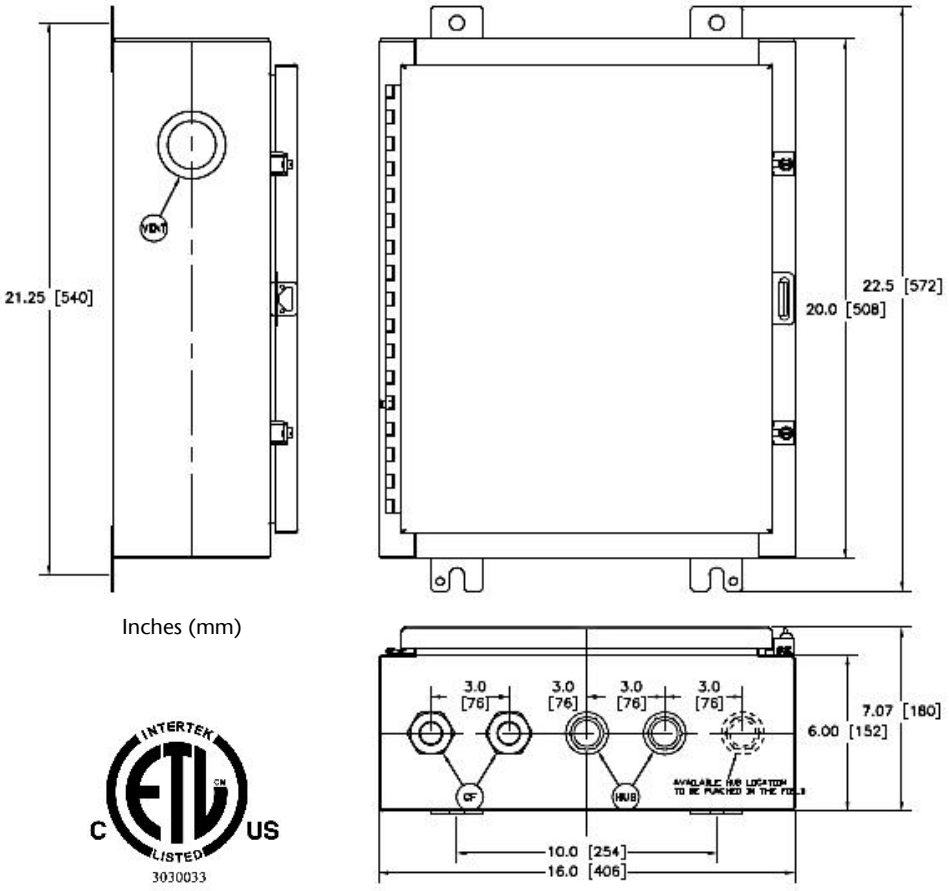
BEACON POWER SUPPLY DIMENSIONS

STANDARD STAINLESS STEEL ENCLOSURE



Inches (mm)

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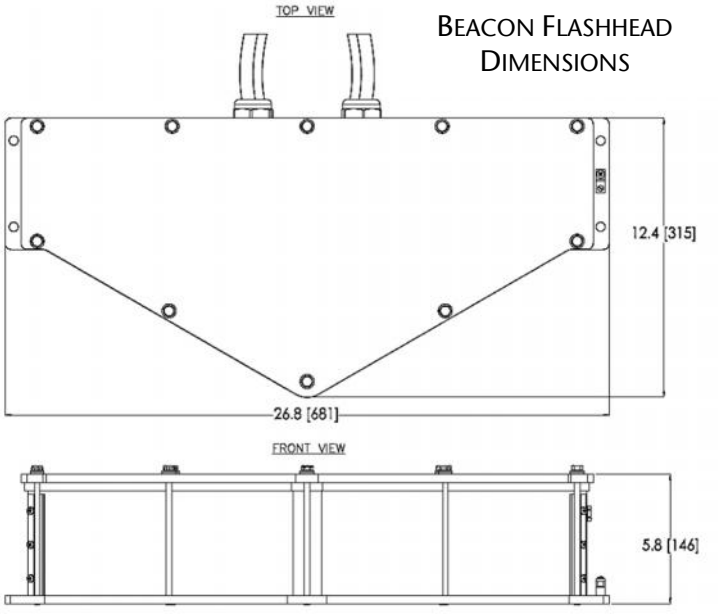
BEACON FLASHHEAD DIMENSIONS



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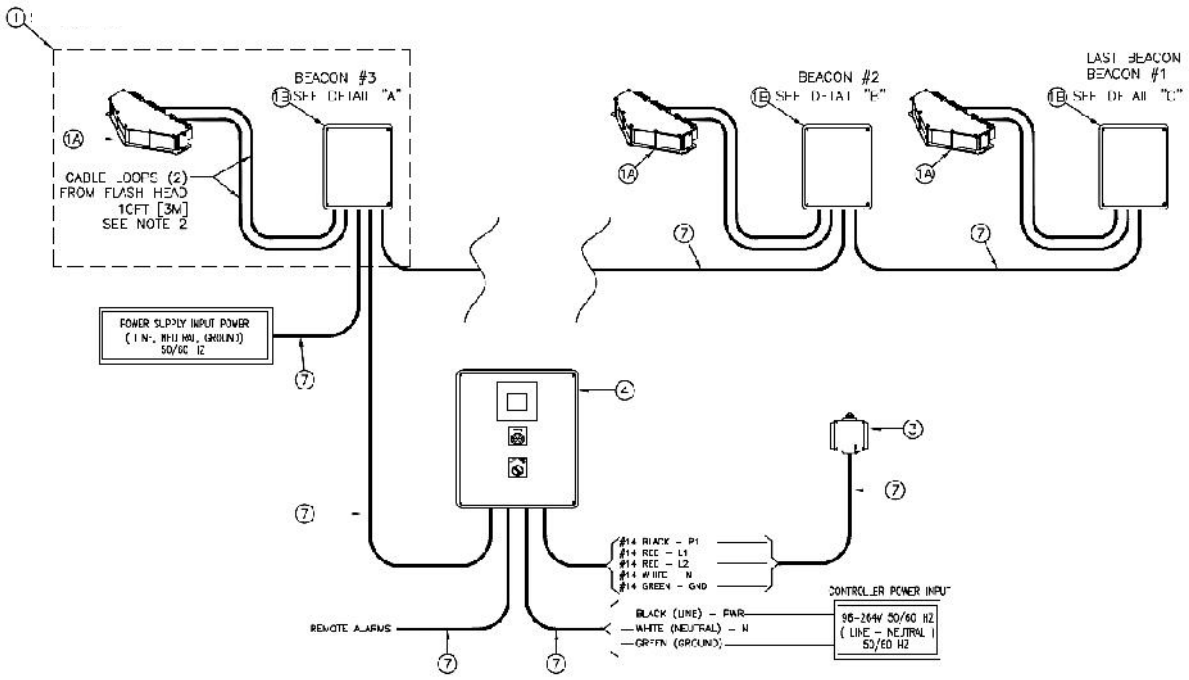

DRAWING SYMBOL	PART NO.	DESCRIPTION	QTY
WHITE ONLY BEACON		*xx = PHOTOMETRIC SPECIFICATION: F6, HA, HB, T6	
1	PFB-38111-W-1-xx	FLASHING BEACON WHITE HIGH INTENSITY 96-264V	3
1A	PFB-38111-W-FH-xx	FLASH HEAD LED WHITE HIGH INTENSITY	3
1B	PL11265-1-xx	POWER SUPPLY PFB-38111 WHITE 96-264V	3
WHITE / RED BEACON		*xxxx = PHOTOMETRIC SPECIFICATION: F6F4, HAMB, HBMB, T6T4	
1	PFB-38111-W-1-xxxx	FLASHING BEACON WHITE HIGH INTENSITY 96-264V	3
1A	PFB-38111-W-FH-xxxx	FLASH HEAD LED WHITE HIGH INTENSITY	3
1B	PL11265-1-xxxx	POWER SUPPLY PFB-38111 WHITE 96-264V	3
2	-	-	X
3	PPC-40702-1-34T	PHOTOELECTRIC CONTROLLER 96-305 VAC	1
4	POC-68504-1	CONTROLLER PFB-38111 96-264V 50/60HZ	1
5			
6	PL10836	DATA CABLE (BELDEN 9207)	X
7	-	CONDUIT 3/4-INCH IMC (BY OTHERS)	X
8	PL10836-S	SOLDER SLEEVE, DATA CABLE (SEE NOTE 4)	X

POINT LIGHTING CORPORATION

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