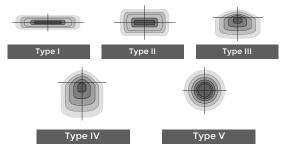
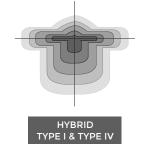




Ligman's micro Variable Optical System provides the ability to interchange, mix & rotate optics to provide specific light distributions for optimized spacing and uniformity.



The variable optic system allows for the designer to create hybrid distributions for precise lighting requirements.



Construction

Aluminum. Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength , clean detailed product lines and excellent heat dissipation.

Pre paint

B step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

I M6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

<u>Surge Suppression</u> Standard 10kv surge suppressor provided with all fixtures.

BUG Rating B2 - U0 - G2

3.5"

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence

Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Inspired by Nature Finishes The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

The Coating Process After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There currently in use. V colors, designs, etc. There are over 300 combinations of designs se. Wood grains can be made with different

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

Added Benefits

Resistance to salt-acid room, accelerated aging Boiling water, lime and condensed water resistant
Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
Super durable (UV restant) istant

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

TGIC free (non-toxic)

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light. . FD CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Ligman Lighting USA reserves the right to change specifications without prior notice, please contact factory for latest information. Due to the continual improvements in LED technology data and components may change without notice

Public realm contemporary column family. Stylish but technically precise area lighting solutions as part of a large flexible family.

Light Linear PT is an elegant minimalistic lighting column that is suitable for both modern and classic architecture. Ideal for creating visual guidance with exceptional visual comfort. The dual sealed optical chamber with integrated heat sinks houses a range of field interchangeable optically controlled LED's, providing Type II, III, IV & V distribution, as well as variations of this for precise light distribution requirements.

An example of this, is using a combination of Type II and Type IV distribution optics inside the same fixture. This product range is available in multiple wattage options and as single & double head styles. Customer specific wattages can be provided, contact the factory for more information.

This luminaire complies to Dark Sky requirements. The sleek and minimalistic shape provides distinctive lighting effects by night and decorative urban effect during the day. Suitable for use in pedestrian precincts, building surrounds, shopping centers,

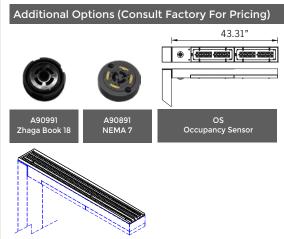
This product range is complemented with high performance optics in the bollard and wall mounted luminaires, to provide a consistent range of design aesthetics for the project. See website for more information. Poles can be provided with GFCI boxes positioned to specific heights specified by the customer. A flat low profile hand hole cover with vandal resistant screws is provided for easy installation.

Internal house side shields are available as an option.

squares, parks and parking lots.

Available with a selection of integral electronic drivers and dimming electronic drivers as well as a provision to install wireless lighting controls to integrate with building management systems, as well as pole mounted occupancy sensors [contact the factory for more information] Easy access to the luminaire for maintenance. (WATT-ADJ) This luminaire is provided with a programmable driver so that specific wattage requirements can be achieved. These settings are done at the factory during assembly. (See options on page 2)

To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected and luminaire fix mounted (+/- 15° allowable to permit leveling).



BSP Bird Spikes



LIGHTCONNECT IoT Ready Light Linear

(Shown with up & down configuration)

ULI-21182

Pine

Light Linear PT 6 Double Head Streetlight





<u> </u>						
PROJEC	T				DAT	E
QUANTI	TY	TYPE	N	OTE		
ORDERING	EXAMPLE	ULI - 21182 -	2x106w - T2	- W30 - 02 - 18' - [·]	120/277v - Optior	IS
			·	7		
ULI-21182						
	LAMP	BEAM	LED COLOR	FINISH COLOR	POLE HEIGHT	VOLTAGE
		11 - Type I Distribution 12 - Type II Distribution	W27 - 2700K 🚇 W30 - 3000K 🚇	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043	8' - 20' (For over 20', contact factory)	120/277v Other - Specify
	1	13 - Type III Distribution 14 - Type IV Distribution	W35 - 3500K W40 - 4000K	03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006		
	WATT-ADJ	15 - Type V Distribution	W40 - 4000K	05 - MATTE SILVER RAL 9006		
	(2x106w MAX)			06 - LIGMAN BRONZE 07 - CUSTOM RAL		
				INSPIRED BY NATURE FINISHES		
				SW02 - WALNUT FINISH SW03- PINE FINISH		
				DF - DOUGLAS FIR FINISH CW - CHERRY WOOD FINISH		
ADDITIONA	L OPTIONS			NW - NATIONAL WALNUT FINISH		
DIM - 0-10v Dimming		haga Book 18 Mounted Or		SU01 - CONCRETE FINISH SU02 - SOFTSCAPE FINISH		
NAT - Natatorium Rated AMB - Turtle Friendly Am	ber LED OS - FSP Occ	haga Book 18 Mounted Be supancy Sensor [See last p		SU03 - STONE FINISH SU04 - CORTEN FINISH		
GFCI - GFCI Box WLC - Wireless Lighting C	-	al House Side Shield ernal Right House Side Shie	ld	THERE IS AN ADDITIONAL COST FOR THESE FINISHES		
F - Frosted Lens BSP - Bird Spikes		rnal Left House Side Shield ancy Sensor Remote Prog				
A90891 - NEMA 7	[See last pag	e]				
	À .		FLAGSTAFF & TURTLE FRI	ENDLY COMPLIANT		
			AMB Spectral Diagram			
			005			
ERHSS External Right House	ELHSS External Left H	OUSE Peak wavele	200 400 500 500 500 600 600 Wavelength (nm) ctrum Amber LEDs ngth between 585 & 595 nanomete	rs and a full width of 50%		
Side Shield	Side Shield		eater than 15 nanometers.t			
More Custon Consult factory for pri		ailable Upon I	request			
Oak	Cherry	Beech	Ca	rbon		
Walnut	Chestnut	Bambo	o Ga	Ivanized		

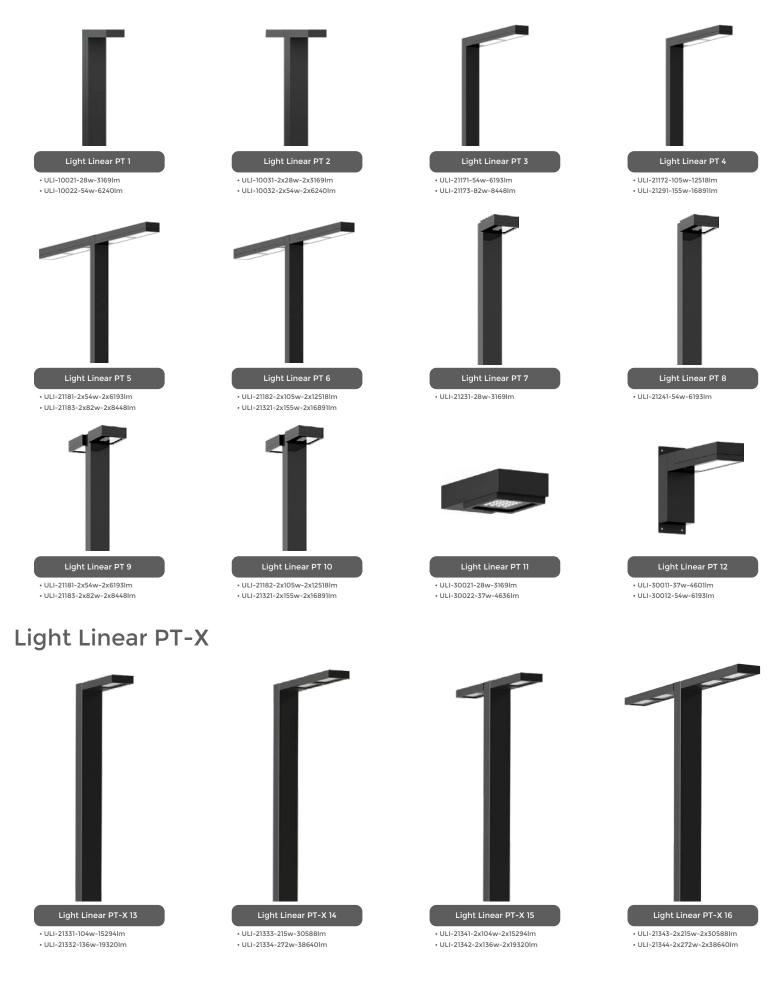
Steel

Example: Inspired by Nature Finish

Birch Ligman Lighting USA reserves the right to change specifications without prior notice, please contact factory for latest information. Due to the continual improvements in LED technology data and components may change without notice

Mahogany

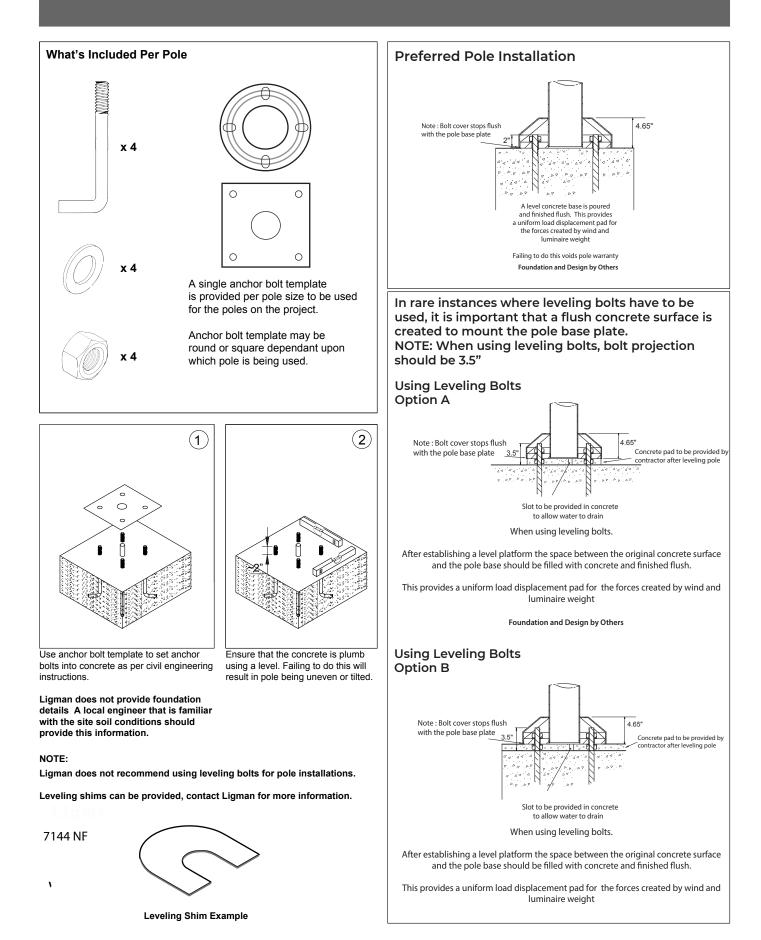
Light Linear PT Product Family



INSTALLATION AND SERVICE MANUAL



Anchor Bolt Installation for Poles



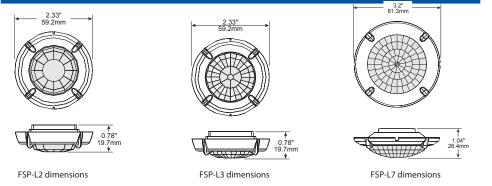
HIGH/LOW/OFF PIR OUTDOOR PHOTO/MOTION SENSOR IP66 - **Diegrand**° Integrated photocell

Ligman provides integrated photocell control using the wattstopper legrand FSP-221B. These units are installed inside the fixture housing with only the external lenses being visible



FSP-221B

Dimensions of Lens Options



Product Overview

The FSP-221B is a family of passive infrared (PIR) outdoor sensors that raise or lower the electric lighting level to high, low or off based on motion and/or daylight contribution. Typically, once the sensor stops detecting movement and the time delay elapses, lights will first fade to low mode, and eventually switch off. When motion is detected, the sensor ramps the light level to high mode unless the daylight contribution is sufficient.

The integral photocell can also switch the lights on and off for dusk to dawn control, so that lighting remains on overnight even without motion detection.

The sensors control 0-10VDC or nondimming LED drivers or ballasts.

The low voltage FSP-201B may be used with dim-to-off drivers or ballasts.

Initial setup and subsequent sensor adjustments are made using a Wireless Handheld Configuration Tool (FSIR-100). This tool enables adjustment of sensor parameters including high/low mode, sensitivity, time delay, cut off and more.

The FSIR-100 can read current parameter settings, and stores up to six sensor parameter profiles to speed commissioning of multiple sensors.



Models

FSP-221B, 100-347 VAC

Specifications and Features

Three interchangeable lenses for mounting between 8' and 40'

Remote setup and adjustment with handheld wireless configuration tool

Adjustable high and low modes (high: 0 to 10V, low: off, 0 to 9.8V)

Adjustable time delay (30 seconds, 1 to 30 minutes)

Adjustable cut off delay (none, 1 to 59 minutes, 1 to 5 hours)

Adjustable sensitivity/service mode (low, med, max; on-fix, off-fix)

Adjustable setpoints: hold off setpoint (none, 1 to 250 fc, auto); photocell on/ off setpoint (1 to 250 fc)

Adjustable ramp and fade times (1 to 60 seconds)

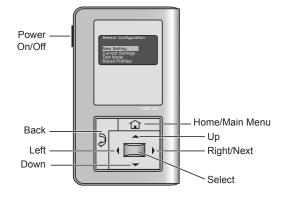
Operating temperature: -40°F to +167°F (-40°C to +75°C)

IP66 rated

Five year warranty

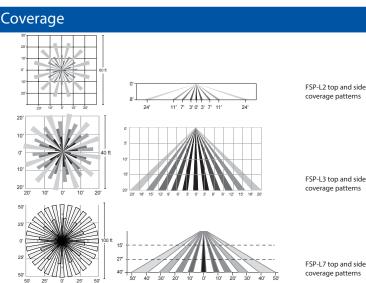
Factory Defaults

10V
1V
5 minutes
1 hour
Disabled
Max
Disabled
Disabled
Disabled



The FSIR-100 is a convenient handheld remote tool for sensor setting. Adjustable settings can be changed as needed for specific applications.

Catalog #		alog #	Color	Description	
		FSP-L2	White/Grey/Black/Brown The Trim color option will be selected to closest match fixture color. e.g [Matte silver fixture - grey trim]	360° lens, maximum coverage 48' diameter from 8' height	
		FSP-L3	White/Grey/Black/Brown The Trim color option will be selected to closest match fixture color, e.g [Matte silver fixture - grey trim]	360° lens, maximum coverage 40′ diameter from 20′ height	
		FSP-L7	White/Grey/Black/Brown The Trim color option will be selected to closest match fixture color. e.g [Matte silver fixture - grey trim]	360° lens, maximum coverage 100' diameter from 40' height	
		FSIR-100	Black	Remote Handheld Configuration Tool	



FSP-L7 top and side coverage patterns