

UDE-20004

Light Linear Denver 1 Single Head

microVos
TECHNOLOGY

LIGMAN
NORTH AMERICA



152w LED
16891 Lumens

IP65
Suitable for wet locations

IK08
Impact Resistant [Vandal Resistant]

Weight 60 lbs

EPA - 1.20

POLE NOT INCLUDED

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

8 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

LM6 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 thermal 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.

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

BUG Rating

B1 - U0 - G1

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 are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

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 resistant)
- TGIC free (non-toxic)

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

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.
LED 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)

Public realm contemporary column family.
Exclusive and charismatic column-mounting system offering infinite opportunities and different permutations.

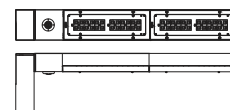
New adjustable architectural linear housings and high performance type II, III, & IV optics give the Denver series greater flexibility for designers to specify single, double, two step, and three step luminaires with 360 degree aiming on a 4.5" round pole. Available in 2700K, 3000K, 3500K and 4000K color temperatures and >80CRI LEDs this Dark Sky rated fixture is perfectly suited for use in pedestrian, streetscapes, plazas and area/parking lots.

The fixture is manufactured with a low copper content corrosion resistant die-cast aluminum construction for durable performance. Non aging silicone gaskets, IK rated clear tempered glass lens and standard 10kv surge protection add peace of mind to this product. The luminaire is treated with a chemical nickel and zinc phosphate protection before powder coating (4.7 mil thickness), ensuring high corrosion resistance. Integral control gear and 316 stainless hardware.

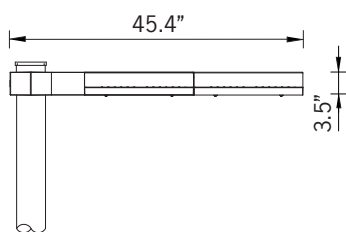
(WATT-ADJ) This luminaire is provided with a programmable driver so that specific wattage requirements can be achieved. These settings are done at the factory during assembly. (See options on page 2) .

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

Additional Options (Consult Factory For Pricing)

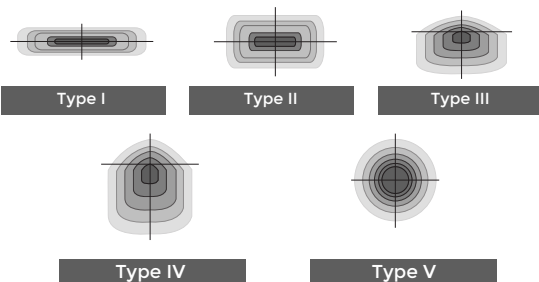


OS
Occupancy Sensor

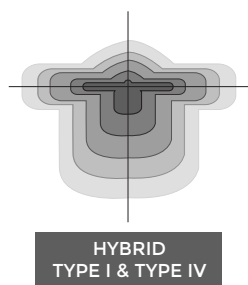


microVos
TECHNOLOGY

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.



UDE-20004

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PROJECT					DATE	
QUANTITY		TYPE		NOTE		

ORDERING EXAMPLE || UDE - 20004 - 152w - T2 - W30 - 02 - 120/277v - Options

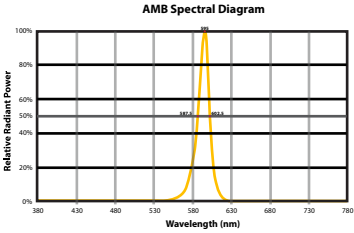
UDE-20004					
LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE	
152w LED 16891 Lumens	T1 - Type I Distribution T2 - Type II Distribution T3 - Type III Distribution T4 - Type IV Distribution	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify	

ADDITIONAL OPTIONS			
DIM - 0-10v Dimming NAT - Natatorium Rated A20491 - Root Mount Kit F - Frosted Lens GFCI - GFCI Box		WLC - Wireless Lighting Controls HSS - House Side Shield AMB - Turtle Friendly Amber LED OS - FSP Occupancy Sensor [See last page] FSIR - Occupancy Sensor Remote Programmer [See last page]	

INSPIRED BY NATURE FINISHES	
SW01 - OAK FINISH	
SW02 - WALNUT FINISH	
SW03 - PINE FINISH	
DF - DOUGLAS FIR FINISH	
CW - CHERRY WOOD FINISH	
NW - NATIONAL WALNUT FINISH	
SU01 - CONCRETE FINISH	
SU02 - SOFTSCAPE FINISH	
SU03 - STONE FINISH	
SU04 - CORTEN FINISH	

THERE IS AN ADDITIONAL
COST FOR THESE FINISHES

CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



Narrow-Spectrum Amber LEDs
Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.

More Custom Finishes Available Upon Request

Consult factory for pricing and lead times

Oak	Cherry	Beech	Carbon
Walnut	Chestnut	Bamboo	Galvanized
Pine	Mahogany	Birch	Steel



Example: Inspired by Nature Finish



Denver Product Family



LL Denver 1

- UDE-20001-54w-6193lm
- UDE-20002-80w-5926lm
- UDE-20003-106w-12518lm
- UDE-20004-152w-16891lm



LL Denver 2

- UDE-20011-2x54w-2x6193lm
- UDE-20012-2x80w-2x5926lm
- UDE-20013-2x106w-2x12518lm
- UDE-20014-2x152w-2x16891lm



LL Denver 3

- UDE-20021-2x54w-2x6193lm
- UDE-20022-2x80w-2x5926lm
- UDE-20023-2x106w-2x12518lm
- UDE-20024-2x152w-2x16891lm



LL Denver 4

- UDE-20031-3x54w-3x6193lm
- UDE-20032-3x80w-3x5926lm
- UDE-20033-3x106w-3x12518lm
- UDE-20034-3x152w-3x16891lm

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

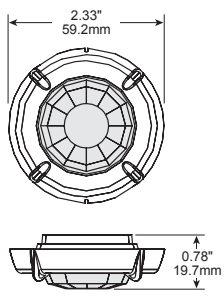
LIGMAN
NORTH AMERICA

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

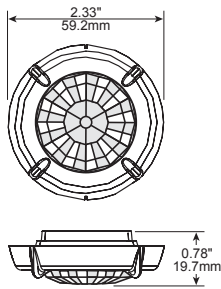


FSP-221B

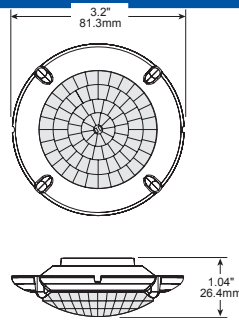
Dimensions of Lens Options



FSP-L2 dimensions



FSP-L3 dimensions



FSP-L7 dimensions

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.

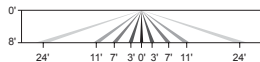
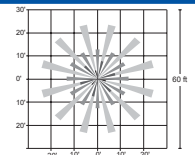
The sensors control 0-10VDC or nondimming LED drivers or ballasts.

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

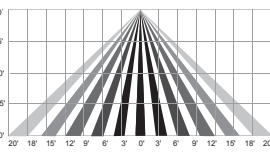
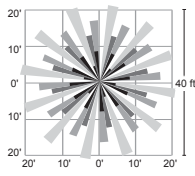
Initial setup and subsequent sensor adjustments are made using a Wireless Handheld Configuration Tool (FSIR-100). This tool enables adjustment of sensor parameters including high/low mode, sensitivity, time delay, cut off and more.

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

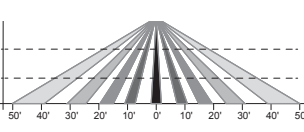
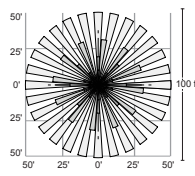
Coverage



FSP-L2 top and side coverage patterns



FSP-L3 top and side coverage patterns



FSP-L7 top and side coverage patterns

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)

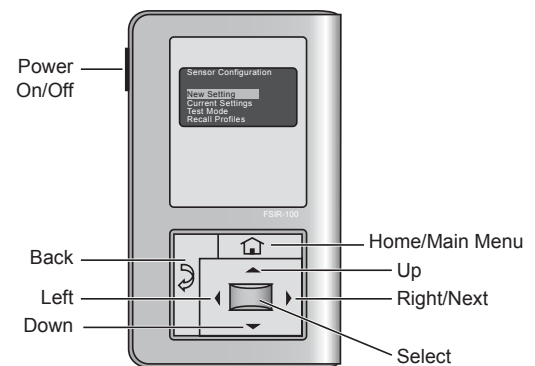
Operating temperature: -40°F to +167°F (-40°C to +75°C)

IP66 rated

Five year warranty

Factory Defaults

High mode:	10V
Low mode:	1V
Time delay:	5 minutes
Cut off:	1 hour
Setpoint:	Disabled
Sensitivity:	Max
Ramp up time:	Disabled
Fade down time:	Disabled
Photocell On/Off:	Disabled



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

Catalog #	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