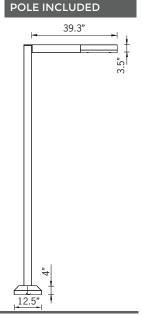
Light Linear PT 3 Single Head Streetlight







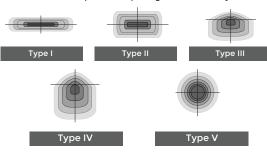




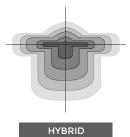


Mounting Detail

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.



TYPE I & TYPE IV

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 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

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.

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

<u> Anti Seize Screw Holes</u>

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

Crystal Clear Low Iron Glass Lens

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

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. 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, squares, parks and parking lots.

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

Internal house side shields are available as an option. 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

Additional Options (Consult Factory For Pricing)



LIGHTCONNECT IoT Ready Light Linear

(Shown with up & down configuration)

Light Linear PT 3 Single Head Streetlight





PROJECT

Ekwill Street at S. Patterson Avenue

DATE

4/28/22

QUANTITY

NOTE

ORDERING EXAMPLE || ULI - 21173 - 80w - T2 - W30 - 02 - 18' - 120/277v - Options

W08

T3

W40

20'

120/277

LAMP

BEAM

LED COLOR

FINISH COLOR

POLE HEIGHT

(For over 20', contact factory)

VOLTAGE

120/277v

Other - Specify

T1 - Type I Distribution 8448 Lumens

T2 - Type II Distribution T3 - Type III Distribution

T4 - Type IV Distribution

W27 - 2700K W30 - 3000K W35 - 3500K

W40 - 4000K

02 - DARK GREY RAL 7043

01 - BLACK RAL 9011

03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006

05 - MATTE SILVER RAL 9006

06 - LIGMAN BRONZE 07 - CUSTOM RAL

WATT-ADJ **Specify Watts** (80w MAX)



ADDITIONAL OPTIONS

DIM - 0-10v Dimmina

NAT - Natatorium Rated

OS - Occupancy Sensor

AMB - Turtle Friendly Amber LED

GFCI - GFCI Box

WLC - Wireless Lighting Controls

HSS - House Side Shield

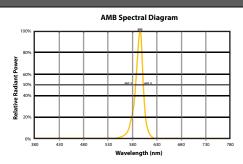
F - Frosted Lens

A90991-U - Zhaga Book 18 Mounted On Top of Fixture

A90991-D - Zhaga Book 18 Mounted Below Fixture

A90891 - NEMA 7

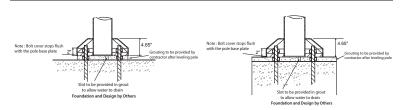
CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.t

MOUNTING OPTIONS



Light Linear PT Product Family

















Liaman Liahting 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

Light Linear PT 3 Single Head Streetlight





PROJECT

Ekwill Street at S. Patterson Avenue

DATE

4/28/22

QUANTITY

NOTE

ORDERING EXAMPLE || ULI - 21173 - 80w - T2 - W30 - 02 - 18' - 120/277v - Options

W08

T4

W40

20'

120/277

LAMP

BEAM

LED COLOR

01 - BLACK RAL 9011

02 - DARK GREY RAL 7043

03 - WHITE RAL 9003

04 - METALLIC SILVER RAL 9006

FINISH COLOR

05 - MATTE SILVER RAL 9006

POLE HEIGHT

VOLTAGE

WATT-ADJ

8448 Lumens

T1 - Type I Distribution T2 - Type II Distribution

T3 - Type III Distribution

T4 - Type IV Distribution

W35 - 3500K W40 - 4000K

W27 - 2700K

W30 - 3000K

06 - LIGMAN BRONZE

07 - CUSTOM RAL

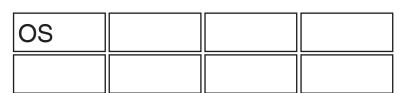
(For over 20', contact factory)

120/277v

Other - Specify

(80w MAX)

Specify Watts



ADDITIONAL OPTIONS

DIM - 0-10v Dimmina

NAT - Natatorium Rated

OS - Occupancy Sensor

AMB - Turtle Friendly Amber LED

GFCI - GFCI Box

WLC - Wireless Lighting Controls

HSS - House Side Shield

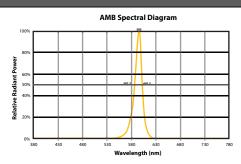
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A90891 - NEMA 7

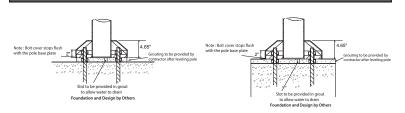
CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.t

MOUNTING OPTIONS



















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

LIGHTING

Ligman provides integrated photocell control using the wattstopper legrand FSP-211B. These units are installed inside the fixture housing with only the external lenses being visible



FSP-211B

Dimensions of Lens Options 3.2" 81.3mm 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.

Models

FSP-211B, 120-277 VAC 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

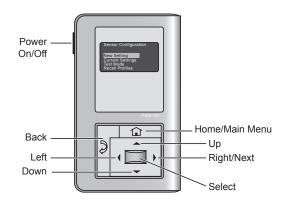
Operating temperature: -40°F to +167°F (-40°C to +75°C)

IP66 rated

Five year warranty

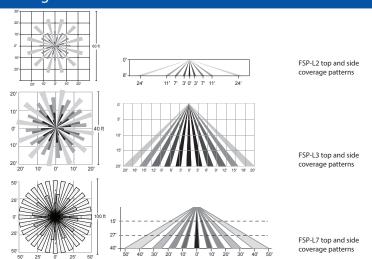
Factory Defaults

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.

Coverage

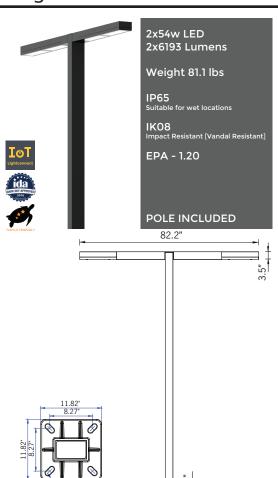


Cat	alog #	Color	Description
	FSP-L2	White/Grey/Black/Brown The Trim color option will be selected to closest match fixture color. e.g. [Matte silver fixture - grey trim]	360° lens, maximum coverage 48′ diameter from 8′ height
	FSP-L3	White/Grey/Black/Brown The Trim color option will be selected to closest 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

Light Linear PT 5 Double Head Streetlight



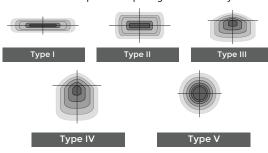




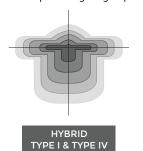


Mounting Detail

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

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 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

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.

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

<u> Anti Seize Screw Holes</u>

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

Crystal Clear Low Iron Glass Lens

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

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. 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, squares, parks and parking lots.

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

Internal house side shields are available as an option. 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

Additional Options (Consult Factory For Pricing)



LIGHTCONNECT IoT Ready Light Linear

(Shown with up & down configuration)

Light Linear PT 5 Double Head Streetlight





PROJECT

Ekwill Street at S. Patterson Avenue

DATE

QUANTITY



NOTE

ORDERING EXAMPLE || ULI - 21181 - 2x54w - T2 - W30 - 02 - 18' - 120/277v - Options

2x54w

T3

W40

20'

120/277

LAMP

BEAM

LED COLOR

FINISH COLOR

POLE HEIGHT

VOLTAGE

2x54w LED

2x6193 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 (For over 20', contact factory) Other - Specify

Specify Watts (2x54w MAX)

WATT-ADJ

OS

ADDITIONAL OPTIONS

DIM - 0-10v Dimmina

NAT - Natatorium Rated

OS - Occupancy Sensor

AMB - Turtle Friendly Amber LED

GFCI - GFCI Box

WLC - Wireless Lighting Controls

HSS - House Side Shield

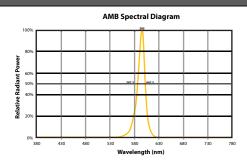
F - Frosted Lens

A90991-U - Zhaga Book 18 Mounted On Top of Fixture

A90991-D - Zhaga Book 18 Mounted Below Fixture

A90891 - NEMA 7

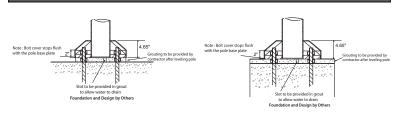
CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.t

MOUNTING OPTIONS



















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

LIGHTING

Ligman provides integrated photocell control using the wattstopper legrand FSP-211B. These units are installed inside the fixture housing with only the external lenses being visible



FSP-211B

Dimensions of Lens Options 3.2" 81.3mm 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.

Models

FSP-211B, 120-277 VAC 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

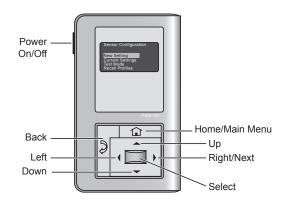
Operating temperature: -40°F to +167°F (-40°C to +75°C)

IP66 rated

Five year warranty

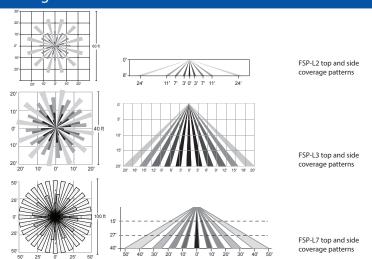
Factory Defaults

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.

Coverage

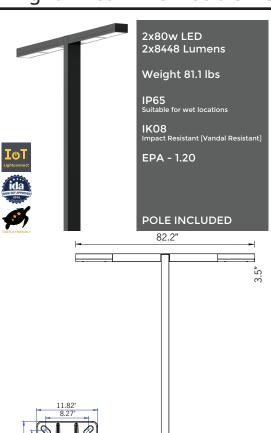


Cat	alog #	Color	Description
	FSP-L2	White/Grey/Black/Brown The Trim color option will be selected to closest match fixture color. e.g. [Matte silver fixture - grey trim]	360° lens, maximum coverage 48′ diameter from 8′ height
	FSP-L3	White/Grey/Black/Brown The Trim color option will be selected to closest 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

Light Linear PT 5 Double Head Streetlight



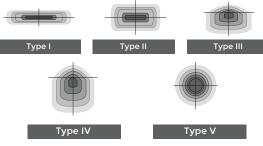




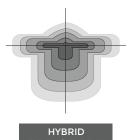


Mounting Detail

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TYPE I & TYPE IV

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Aluminum

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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.

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

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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

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Additional Options (Consult Factory For Pricing)



LIGHTCONNECT IoT Ready Light Linear

(Shown with up & down configuration)

Light Linear PT 5 Double Head Streetlight





PROJECT

Ekwill Street at S. Patterson Avenue

DATE

4/28/22

OUANTITY

NOTE

ORDERING EXAMPLE || ULI - 21183 - 2x80w - T2 - W30 - 02 - 18' - 120/277v - Options

2x80w

T3

W40

20'

120/277

LAMP

BEAM

LED COLOR

FINISH COLOR

POLE HEIGHT

VOLTAGE

2x80w LED

T1 - Type I Distribution 2x8448 Lumens

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

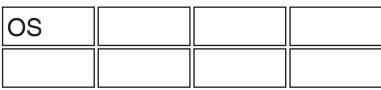
07 - CUSTOM RAL

(For over 20', contact factory)

120/277v Other - Specify

WATT-ADJ

Specify Watts (2x80w MAX)



ADDITIONAL OPTIONS

DIM - 0-10v Dimmina

NAT - Natatorium Rated

OS - Occupancy Sensor

AMB - Turtle Friendly Amber LED

GFCI - GFCI Box

WLC - Wireless Lighting Controls

HSS - House Side Shield

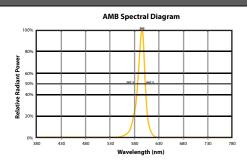
F - Frosted Lens

A90991-U - Zhaga Book 18 Mounted On Top of Fixture

A90991-D - Zhaga Book 18 Mounted Below Fixture

A90891 - NEMA 7

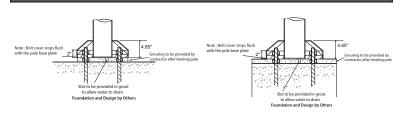
CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT

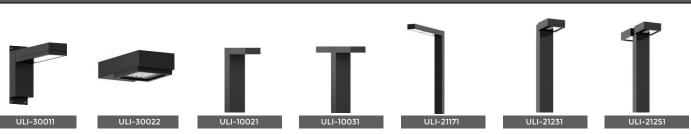


Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.t

MOUNTING OPTIONS







Light Linear PT 5 Double Head Streetlight





PROJECT

Ekwill Street at S. Patterson Avenue

4/28/22

QUANTITY

5

NOTE

ORDERING EXAMPLE || ULI - 21183 - 2x80w - T2 - W30 - 02 - 18' - 120/277v - Options

2x80w

T4

W40

20'

120/277

LAMP

BEAM

LED COLOR

FINISH COLOR

POLE HEIGHT

VOLTAGE

2x80w LED

2x8448 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

(For over 20', contact factory)

120/277v

Other - Specify

WATT-ADJ **Specify Watts**

(2x80w MAX)



ADDITIONAL OPTIONS

DIM - 0-10v Dimmina

NAT - Natatorium Rated

OS - Occupancy Sensor

AMB - Turtle Friendly Amber LED

GFCI - GFCI Box

WLC - Wireless Lighting Controls

HSS - House Side Shield

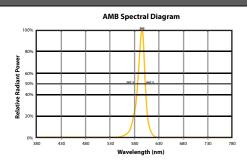
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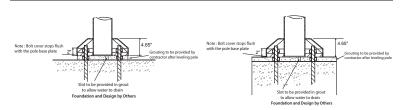
CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT

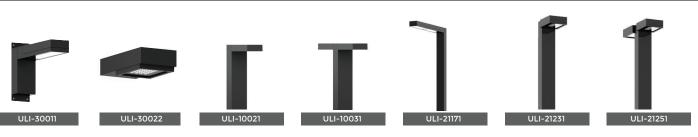


Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.t

MOUNTING OPTIONS







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

LIGHTING

Ligman provides integrated photocell control using the wattstopper legrand FSP-211B. These units are installed inside the fixture housing with only the external lenses being visible



FSP-211B

Dimensions of Lens Options 3.2" 81.3mm 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.

Models

FSP-211B, 120-277 VAC 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

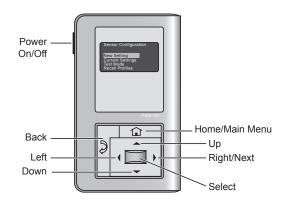
Operating temperature: -40°F to +167°F (-40°C to +75°C)

IP66 rated

Five year warranty

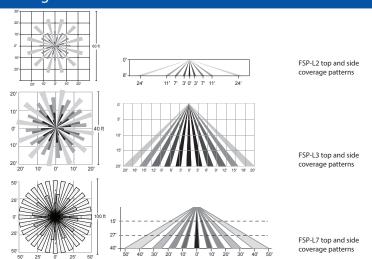
Factory Defaults

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.

Coverage



Cat	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

UVK-30042

Vekter 10 Large Adjustable Arm

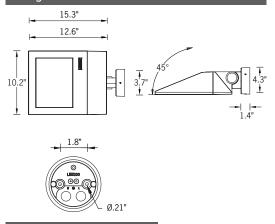






54w LED 6879 Lumens

IP65 • Suitable For Wet Locations IK08 • Impact Resistant (Vandal Resistant) Weight - 14.5 lbs

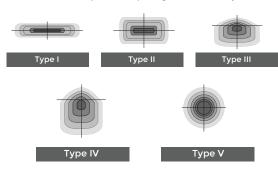




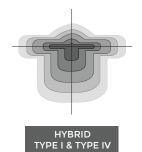
Mounting Detail

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.



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 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.

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

BUG Rating

B2 - U0 - G0

Finishing

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

<u>Paint</u>

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.

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)

Flexible wall-mounted floodlighting and area luminaires. Sleek, angular, technical and powerful professional lighting solutions.

A wedge shaped range of small profile wall mounted luminaires, with no visible external hardware for use in uplight or downlight applications. This product is provided with a range of high powered LEDs with a selection of optics.

The Vekter is unique as it is available with Type II, III, IV & V light distribution options that facilitates wider spacing and even light distribution between the light fixtures. Wide spacings of up to 40' on center can be achieved using a type II optic with uniformity that complies to path of egress requirements. This provides higher energy saving and reduced installation costs. The Vekter can be manufactured using different type beam optics to achieve custom distribution, e.g using type II and type IV optics inside the same luminaire.

Integral electronic control gear is housed in a special waterproof box that can be detached from the optical chamber for easy installation. Mounting plate for 3" and 4" junction box is provided with the fixture. Matching surface mount conduit boxes are available as an option.

The Vekter is suitable for lighting footpaths, building facades, building entrances and parking areas around buildings.

Additional Options (Consult Factory For Pricing)



SCE Surface Conduit Decorative Trim



UVK-30042

Vekter 10 Large Adjustable Arm





PROJECT

Ekwill Street at S. Patterson Avenue

DATE

4/28/22

QUANTITY

2

TYPE



NOTE

ORDERING EXAMPLE || UVK - 30042 - 54w - T2 - W30 - 02 - 120/277v - Options

UVK-30042

54w

T4

W40

W27 - 2700K

W30 - 3000K

W35 - 3500K

W40 - 4000K

120/277

LAMP

BEAM

LED COLOR

01 - BLACK RAL 9011

02 - DARK GREY RAL 7043

03 - WHITE RAL 9003

04 - METALLIC SILVER RAL 9006

06 - LIGMAN BRONZE

07 - CUSTOM RAL

FINISH COLOR

120/277v

VOLTAGE

Other - Specify

05 - MATTE SILVER RAL 9006

54w LED 6879 Lumens T1 - Type I Distribution

T2 - Type II Distribution

T3 - Type III Distribution

T4 - Type IV Distribution

M - Medium 32°

W - Wide 52° VW - Very Wide 65°

EW - Extra Wide 108°

ADDITIONAL OPTIONS

NAT - Natatorium Rated

F - Frosted Lens

DIM - 0-10v Dimming EMR - Remote Emergency Pack

SCE - Surface Conduit Decorative Trim

Vekter Product Family

















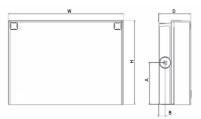








Specifications



Front View

Side View

Luminaire	Height (H)	Width (W)	Depth (D)	Side Conduit Location		Weight	
Lummaire	neight (n)	wiath (w)	veptii (v)	A	В	weight	
WPX1	8.1" (20.6 cm)	11.1" (28.3 cm)	3.2" (8.1 cm)	4.0" (10.3 cm)	0.6" (1.6 cm)	6.1 lbs (2.8kg)	
WPX2	9.1" (23.1 cm)	12.3" (31.1 cm)	4.1" (10.5 cm)	4.5" (11.5 cm)	0.7" (1.7 cm)	8.2 lbs (3.7kg)	
WPX3	9.5" (24.1 cm)	13.0" (33.0 cm)	5.5" (13.7 cm)	4.7" (12.0 cm)	0.7" (1.7 cm)	11.0 lbs (5.0kg)	

Catalog Number WPX1-LED-P2-40K Rotes Ekwill Street at S. Patterson Avenue Type W1

Hit the Tab key or mouse over the page to see all interactive elements

Introduction

The WPX LED wall packs are energy-efficient, cost-effective, and aesthetically appealing solutions for both HID wall pack replacement and new construction opportunities. Available in three sizes, the WPX family delivers 1,550 to 9,200 lumens with a wide, uniform distribution.

The WPX full cut-off solutions fully cover the footprint of the HID glass wall packs that they replace, providing a neat installation and an upgraded appearance. Reliable IP66 construction and excellent LED lumen maintenance ensure a long service life. Photocell and emergency egress battery options make WPX ideal for every wall mounted lighting application.

Ordering Information

EXAMPLE: WPX2 LED 40K MVOLT DDBXD

Series		Color Temperature	Voltage	Ор	ptions		Finish	
WPX1 LED P1 (WPX1 LED P2) WPX2 LED WPX3 LED	1,550 Lumens, 11W ¹ 2,900 Lumens, 24W 6,000 Lumens, 47W 9,200 Lumens, 69W	30K 3000K (40K) 4000K 50K 5000K	MVOLT 120 347 347	7V ³ E ⁴	E4WH E14WC	None Emergency battery backup, CEC compliant (4W, 0°C min) ² Emergency battery backup, CEC compliant (14W, -20°C min) ² Photocell ³	DDBXD DWHXD DBLXD Note : For	Dark bronze White Black other options, consult factory.

Note: The lumen output and input power shown in the ordering tree are average representations of all configuration options. Specific values are available on request.

NOTES

- All WPX wall packs come with 6kV surge protection standard, except WPX1 LED P1 package which comes with 2.5kV surge protection standard. Add SPD6KV option to get WPX1 LED P1 with 6kV surge protection. Sample nomenclature: WPX1 LED P1 40K MVOLT SPD6KV DDBXD
- 2. Battery pack options only available on WPX1 and WPX2.
- Battery pack options only available with 347V and PE options.

FEATURES & SPECIFICATIONS

INTENDED USE

The WPX LED wall packs are designed to provide a cost-effective, energy-efficient solution for the one-for-one replacement of existing HID wall packs. The WPX1, WPX2 and WPX3 are ideal for replacing up to 150W, 250W, and 400W HID luminaires respectively. WPX luminaires deliver a uniform, wide distribution.

CONSTRUCTION

WPX feature a die-cast aluminum main body with optimal thermal management that both enhances LED efficacy and extends component life. The luminaires are IP66 rated, and sealed against moisture or environmental contaminants.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs and LED lumen maintenance of L90/100,000 hours. Color temperature (CCT) options of 3000K, 4000K and 5000K with minimum CRI of 70. Electronic drivers ensure system power factor >90% and THD <20%. All luminaires have 6kV surge protection (Note: WPX1 LED P1 package comes with a standard surge protection rating of 2.5kV. It can be ordered with an optional 6kV surge protection).

All photocell (PE) operate on MVOLT (120V - 277V) input.

Note: The standard WPX LED wall pack luminaires come with field-adjustable drive current feature. This feature allows tuning the output current of the LED drivers to adjust the lumen output (to dim the luminaire).

INISTALLATION

WPX can be mounted directly over a standard electrical junction box. Three 1/2 inch conduit ports on three sides allow for surface conduit wiring. A port on the back surface allows poke-through conduit wiring on surfaces that don't have an electrical junction box. Wiring can be made in the integral wiring compartment in all cases. WPX is only recommended for installations with LEDs facing downwards.

LISTINGS

CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. IP66 Rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY

5-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/CustomerResources/Terms and conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.



Performance Data

Electrical Load

Luminaire	Input Power (W)	120V	208V	240V	277V	347V
WPX1 LED P1	11W	0.09	0.05	0.05	0.04	0.03
WPX1 LED P2	24W	0.20	0.12	0.10	0.09	0.07
WPX2	47W	0.39	0.23	0.20	0.17	0.14
WPX3	69W	0.58	0.33	0.29	0.25	0.20

Projected LED Lumen Maintenance

Data references the extrapolated performance projections in a 25° C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.94	>0.92	>0.90

HID Replacement Guide

Luminaire	Equivalent HID Lamp	WPX Input Power
WPX1 LED P1	100W	11W
WPX1 LED P2	150W	24W
WPX2	250W	47W
WPX3	400W	69W

Lumen Output

Luminaire	Color Temperature	Lumen Output
	3000K	1,537
WPX1 LED P1	4000K	1,568
	5000K	1,602
	3000K	2,748
WPX1 LED P2	4000K	2,912
	5000K	2,954
	3000K	5,719
WPX2	4000K	5,896
	5000K	6,201
	3000K	8,984
WPX3	4000K	9,269
	5000K	9,393

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

•					
Ambient	Ambient	Lumen Multiplier			
0°C	32°F	1.05			
5°C	41°F	1.04			
10°C	50°F	1.03			
15°C	59°F	1.02			
20°C	68°F	1.01			
25°C	77°F	1.00			
30°C	86°F	0.99			
35°C	95°F	0.98			
40°C	104°F	0.97			

Emergency Egress Battery Packs

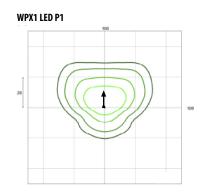
The emergency battery backup is integral to the luminaire — no external housing or back box is required. The emergency battery will power the luminaire for a minimum duration of 90 minutes and deliver minimum initial output of 550 lumens. Both battery pack options are CEC compliant.

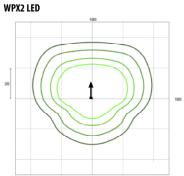
Battery Type	Minimum Temperature Rating	Power (Watts)	Controls Option	Ordering Example
Standard	0°C	4W	E4WH	WPX2 LED 40K MVOLT E4WH DDBXD
Cold Weather	-20°C	14W	E14WC	WPX2 LED 40K MVOLT E14WC DDBXD

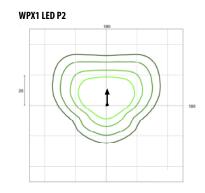
Photometric Diagrams

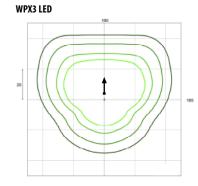
To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WPX LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards











Mounting Height = 12 Feet.



Application

This LED wall luminaire has light output in two directions. It is ideal for upward and downward lighting effects for interior and exterior locations. Arranged individually or in groups, this is a great design element for a host of lighting applications.

Materials

Luminaire housing constructed of die-cast marine grade, copper free (\leq 0.3% copper content) A360.0 aluminum alloy White safety glass

Silicone applied robotically to casting, plasma treated for increased adhesion

High temperature silicone gasket

Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations Protection class IP64

Weight: 2.7 lbs

Electrical

Operating voltage 120-277VAC
Minimum start temperature -30°C
LED module wattage 7.9W
System wattage 11 W
Controllebility 0.10V dimme

Controllability 0-10V dimmable

Color rendering index Ra > 90

Luminaire lumens 548 lumens (3000K) Lifetime at Ta=15° C 50,000 h (L70)

LED color temperature

□ 4000K - Product number + **K4**○ 3500K - Product number + **K35**○ 3000K - Product number + **K3**○ 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

 Type: W2

BEGA Product: 33326

Project: Ekwill Street at S. Patterson Avenue

Modified:



		S	two side	luminaire · light output on	LED wall lu
Required wiring box	С	В	А	LED	
19537	51/2	21/8	113/4	7.9W	33326



Application

This wall mounted LED luminaire features a forward throw light distribution and is designed for the general illumination of pathways and walkways from various mounting heights. Downlight applications only.

Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy

Clear safety glass with optical texture High temperature silicone gasket

Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations

Protection class IP64

Weight: 3.7 lbs

Electrical

Operating voltage 120-277VAC -30° C Minimum start temperature LED module wattage 13.9 W System wattage 17 W

Controllability 0-10V dimmable Color rendering index Ra > 80

1659 lumens (3000K) Luminaire lumens Lifetime at Ta = 15° C >500,000 h (L70) Lifetime at Ta = 50° C 101,000 h (L70)

LED color temperature

O 4000K - Product number + K4

○ 3500K - Product number + K35 ○ 3000K - Product number + K3 O 2700K - Product number + K27

BEGA can supply you with suitable LED replacement modules for up to

20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors O Black (BLK) O White (WHT) O RAL:

> O Bronze (BRZ) O Silver (SLV) OCUS:

Type: W3

BEGA Product: 33817

Project: Ekwill Street at S. Patterson Avenue

Modified:



LED wall luminaire · shielded with forward throw

С LFD В 33817 13.9W 51/8 91/8 5 3/8

