MX2R LED
2″ Continuous – Recessed

Williams

3-3/4″

2-1/8″

T-bar 3-1/4″ O.C.

MX2RG Shown

CATALOG #: _____

TYPE: _____

PROJECT: _____

BAA & BABA COMPLIANT · CCEA Approved · WET/CC · UL 924

FEATURES

- Create elegant spaces with a seamless, continuous row of illumination
- Specify in one inch increments to create a perfect fit
- Flat, glowing edge, drop and regressed lenses give designers a variety of looks
- Widespread optic allows for increased luminaire spacing while enhancing ceiling uniformity
- Asymmetric optic directs light for targeted illumination
- High-performance up to 125 lm/W
- Linear extrusion contains snap-in light rails for ease of installation and maintenance
- Versatile MX2 system includes recessed, surface, suspended and in-wall mounting, see hew.com/MX2
- Corner configurations available, see Product Builder at hew.com/product-builder
- Diffuse acrylic lens provides uniform illumination for visual comfort
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- **HOUSING** – Extruded aluminum.
- **SHIELDING** – Extruded diffuse acrylic lens.
- **FINISH** – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- **ELECTRICAL** – High-quality mid-power LED boards. Reported L70: >54,000 hours. Reported L90: 52,000 hours. Estimated L70: 170,000 hours. 50/60 Hz constant current driver.
- **MOUNTING** – MX2RT: Drywall mount allowing for ceiling materials 1/4″ - 1-1/4″ thick. Fixture to be installed prior to drywall or finished ceiling material. MX2RG: NEMA Type "G" 15/16″ or 1″ grid standard. MX2SG: NEMA Type "SS" 9/16″ grid standard.
- **LISTINGS** –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - City of Chicago Environmental Air approved when specified with CP option.
  - UL 924 available, see Options.
  - Build America, Buy America (BABA) and Buy American Act (BAA) compliant. Request certification at hew.com/buy-american
- **WARRANTY** – 5-year limited warranty, see hew.com/warranty

ORDERING EXAMPLE: MX2RTR - 8′00 - L8/835 - F - OPTIONS - CONTROL/DIM - UNV

SERIES	FIXTURE STYLE	LENGTH
MX2R	**TR** Drywall or Hard Surface - Trim	Lengths specified in feet and inches using 1″ increments, 2′ minimum.
	TL Drywall or Hard Surface - Trimless	Example: **8′00** = 8′-0″
	G Grid [1]	
	SG Slot Grid [2]	

Product Builder

Easily build shapes & simplify ordering with the Williams Linear Product Builder at hew.com/product-builder [3]

LUMENS [4]	CRI	CCT	SHIELDING [5]	OPTIONS [6]
L4 400lm	**8** 80	**27** 2700K	**F** Flat	**EM/10WLP** Low-profile 10-watt emergency battery [8]
L8 800lm	**9** 90	**30** 3000K	**FW** Flat with widespread, batwing optic	**EM/10WRM** Remote mount 10-watt emergency battery
L10 1000lm		**35** 3500K	**FA** Flat with asymmetric optic	**EM/10WRM/RTS** Remote mount 10-watt emergency battery with regressed test switch
		40 4000K	**G** Glowing edge lens, 3/8″	**(L__)** Additional lower lumen packages available [9] Example: 600 lumens = MX2RTR-8′00-L8/835-**(L6)**
		50 5000K	**D** Drop lens, 1″	
			R Regressed lens, 1″ [7]	**WET/CC** Wet location under covered ceiling
				CP Chicago Plenum (CCEA)
				GEN Approved for UL 924 emergency generator circuit through-feed wiring [10]

CONTROL [11]

See page 5 for ADDITIONAL CONTROL OPTIONS.

–	None
AVI-LVFA	Avi-on wireless fixture control [12]
AVI-LVFA-CS2-PIR	Avi-on wireless fixture control with PIR motion and daylight sensor [13]
AWNR	Lutron Athena wireless node integral fixture control, RF only [14]
AWNS	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing [15]

DRIVER

See page 6 for ADDITIONAL DRIVER OPTIONS.

DIM	Driver with external 0-10V dimming wires
DA	Driver with 12V auxiliary power, without external dimming wires [16]
DSR	Sensor-ready driver without external dimming wires (D4i DALI-2) [17]

VOLTAGE

120	120V
277	277V
UNV	120-277V
347	347V [18]

NOTES

1. Earthquake clips provided.
2. Earthquake clips provided.
3. See page 3 for CORNER DETAILS.
4. Lumens per foot output based on F Shielding, 80 CRI/3500K CCT. Actual performance may vary ± 5%. See page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options.
5. G, D, and R Shielding not available with corner configurations. See page 2 for SHIELDING DETAILS.
6. Remote EM batteries: max remote distance 50′. Large remote box provided. Specify CEC in the option code when California Energy Commission regulations are required. See page 3 for REMOTE MOUNT BATTERY DETAILS.
7. Increases fixture height.
8. Not available with fixtures less than 4′.
9. (L4) lumen package minimum. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
10. Maximum mounting height is 20.5′ (6.2 m). Minimum lumen output is 400 lm/ft. See hew.com/UL924 for details.
11. Reduces portion of lit fixture, consult factory. See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page 3 for SENSOR & NODE PLACEMENT DETAILS.
12. DA Driver only.
13. DA Driver only.
14. DA and DSR Drivers only.
15. DA and DSR Drivers only.
16. Avi-on and Lutron Athena Controls only.
17. Lutron Vive and Athena Controls only.
18. Not available with EM batteries, control sensors, DA, or DSR Drivers.

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FIXTURE PERFORMANCE DATA

| PER FOOT			
	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L4	421.5	3.4	124
L8	843.0	6.7	126
L10	1264.5	10.1	125

- Photometrics tested in accordance with IESNA LM-79. Results based on F shielding, 80 CRI/3500K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.
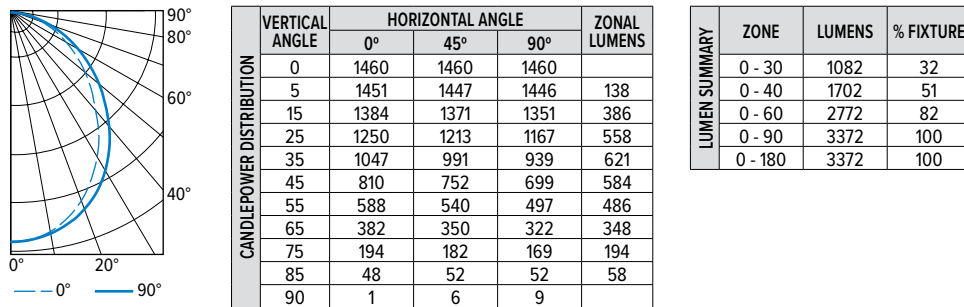
MULTIPLIER TABLES

COLOR TEMPERATURE		
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.97
	3000K	0.99
	3500K	1.00
	4000K	1.03
	5000K	1.06
90 CRI	2700K	0.80
	3000K	0.82
	3500K	0.83
	4000K	0.86
	5000K	0.89

SHIELDING		
LENS		CONVERSION FACTOR
F		1.00
FW		0.92
FA		0.96
G		0.98
D		1.05
R		0.91

PHOTOMETRY

FLAT　　WIDESPREAD　　ASYMMETRIC　　GLOWING　　DROP　　REGRESSED
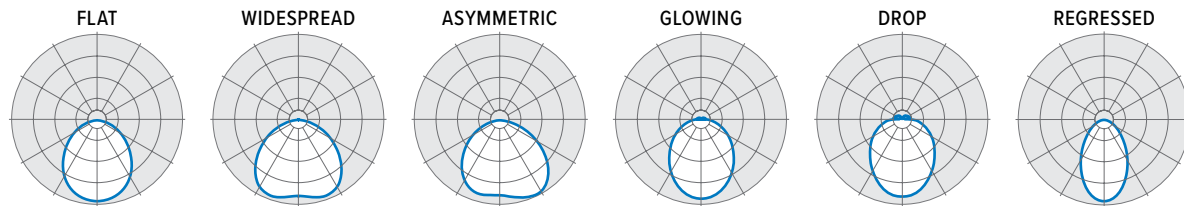
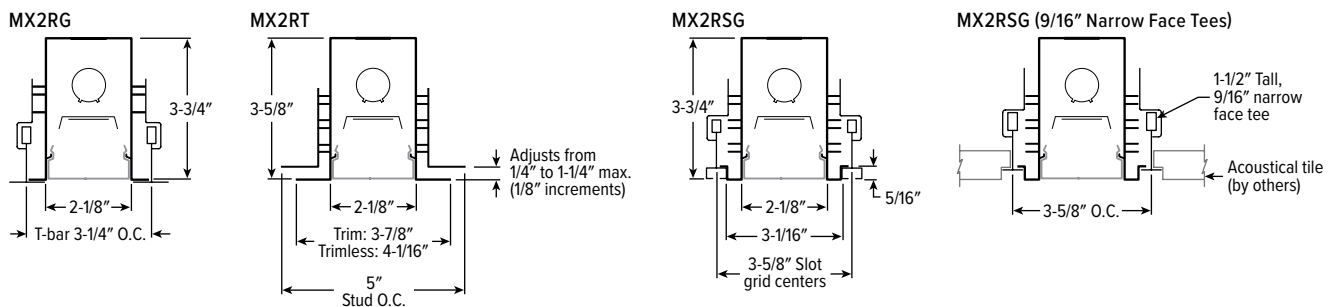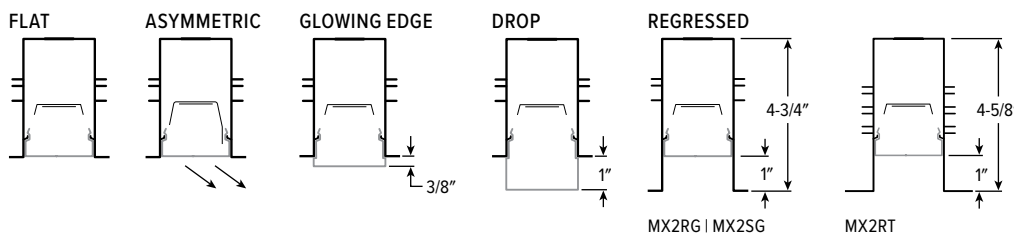**MX2RG-4'00-L8/835-F-DIM** Total Luminaire Output: 3373 lumens; 27 Watts | Efficacy: 125 lm/W | 80 CRI; 3500K CCT

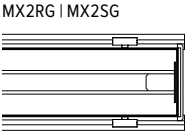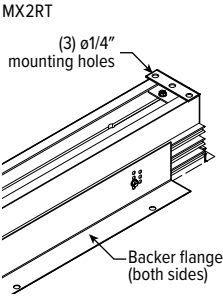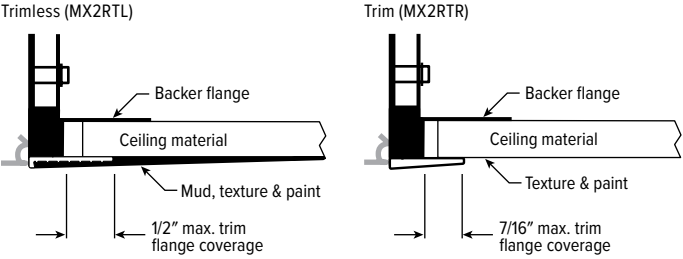| CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
		0°	45°	90°	
	0	1460	1460	1460	
	5	1451	1447	1446	138
	15	1384	1371	1351	386
	25	1250	1213	1167	558
	35	1047	991	939	621
	45	810	752	699	584
	55	588	540	497	486
	65	382	350	322	348
	75	194	182	169	194
	85	48	52	52	58
	90	1	6	9	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1082	32
	0 - 40	1702	51
	0 - 60	2772	82
	0 - 90	3372	100
	0 - 180	3372	100

CROSS SECTIONS

MX2RG

3-3/4″
2-1/8″
T-bar 3-1/4″ O.C.

MX2RT

3-5/8″
Adjusts from 1/4″ to 1-1/4″ max. (1/8″ increments)
2-1/8″
Trim: 3-7/8″
Trimless: 4-1/16″
5″ Stud O.C.

MX2RSG

3-3/4″
2-1/8″
3-1/16″
3-5/8″ Slot grid centers
5/16″

MX2RSG (9/16″ Narrow Face Tees)

1-1/2″ Tall, 9/16″ narrow face tee
Acoustical tile (by others)
3-5/8″ O.C.

SHIELDING DETAILS

FLAT　　ASYMMETRIC　　GLOWING EDGE　　DROP　　REGRESSED

GLOWING EDGE: 3/8″
DROP: 1″
REGRESSED: 4-3/4″, 1″ — MX2RG | MX2SG
4-5/8″, 1″ — MX2RT

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FIXTURE DETAILS

BACK VIEWS

MX2RT

(3) ø1/4"
mounting holes

Backer flange
(both sides)

MX2RG | MX2SG

TRIM FINISH DETAILS (MX2RT only)

Trimless (MX2RTL)

Backer flange

Ceiling material

Mud, texture & paint

1/2" max. trim
flange coverage

Trim (MX2RTR)

Backer flange

Ceiling material

Texture & paint

7/16" max. trim
flange coverage

ROUGH-IN DIMENSIONS

- Framing allowance for width (stand-alone) is 3-1/2" ± 1/4".
- Framing allowance for length (All Types) is length plus 1-1/2" minimum.

REMOTE MOUNT BATTERY DETAILS

EM/10WRM/RTS
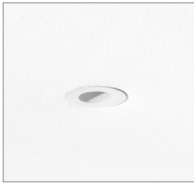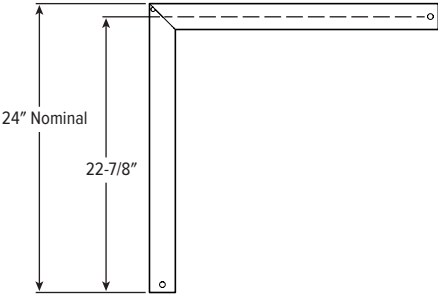
Regressed test switch
ø1-3/4"

EM/10WRM

Standard test switch
2-3/4" x 4-1/2"

Max remote distance is 50', connection by others.

Large remote box
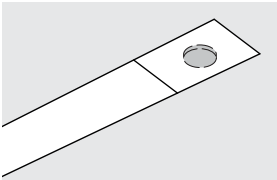9" x 24" x 2"

Fixture

Test switch
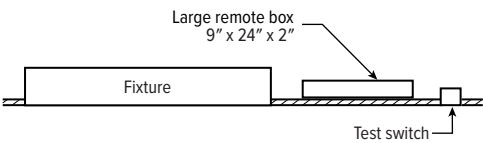
CORNER DETAILS

BACK VIEW

24" Nominal

22-7/8"

24" Nominal

24" Nominal

22-7/8"
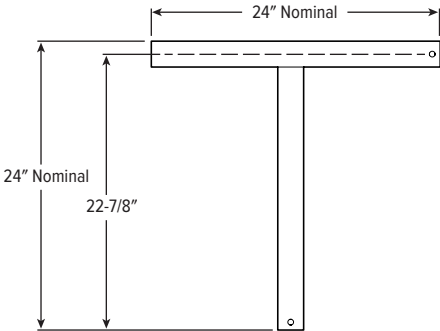
Note: Corner orientation determined in field.
Feeder corner end cap shipped separately.

SENSOR & NODE PLACEMENT DETAILS

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AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple
- Gateway-free distributed control
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable
- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure
- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS
Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.
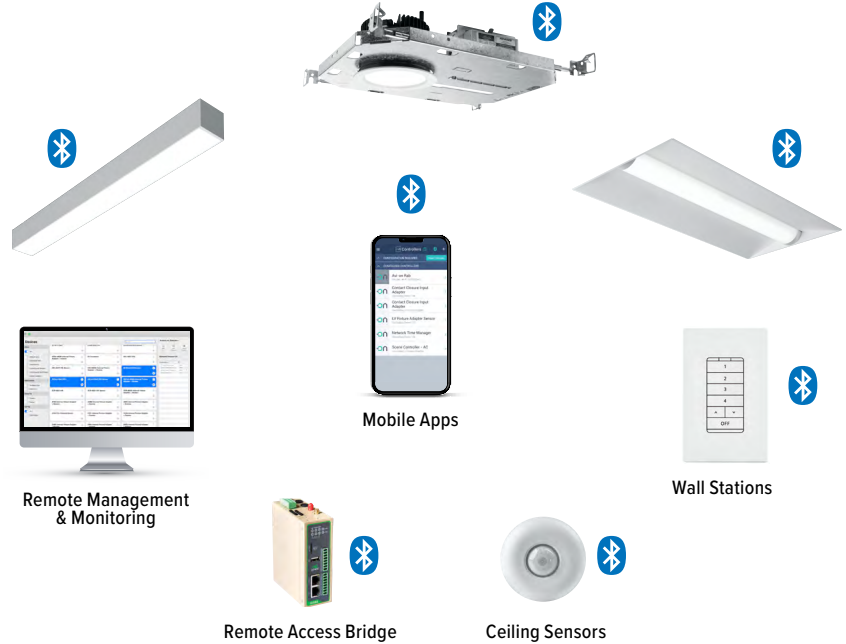
Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS

Mobile Apps

Wall Stations

Remote Management & Monitoring

Remote Access Bridge

Ceiling Sensors

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ACCESSORIES

WALL STATIONS	
AVI-B-2401AC-1	Scene controller - buttons numbered 1-4 and up/down/off, 120-277VAC
AVI-B-2402BAT-1	Scene controller - buttons numbered 1-4 and up/down/off, battery powered
AVI-B-2401AC-2	Dimmer with presets - buttons with percentages and up/down/off, 120-277VAC
AVI-B-2402BAT-2	Dimmer with presets - buttons with percentages and up/down/off, battery powered
AVI-B-2401AC-3	Two button control on/off or hold to dim up/down, 120-277VAC
AVI-B-2402BAT-3	Two button control on/off or hold to dim up/down, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-NTM	Network time manager with battery backup

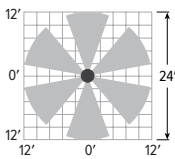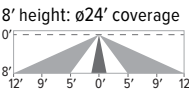| CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor. DA Driver only.

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 10′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 50°C
RELATIVE HUMIDITY	10 to 80% non-condensing
IP RATING	IP20
MANUFACTURER	Avi-On

avi-on
Bluetooth® Lighting Controls

SENSOR COVERAGE PATTERNS
Side View
8′ height: ø24′ coverage

SENSOR DETAIL

Dimensions: 13/16″ x 2-1/4″

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MX2R LED
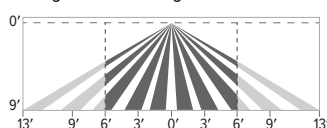## 2" Continuous – Recessed

ADDITIONAL CONTROL OPTIONS

AWNS Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing. DA and DSR Drivers only.

SPECIFICATIONS

TYPE	Radio Frequency
MOUNTING HEIGHT	8' – 12'
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55℃
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	Clear Connect gateway – Type X with app (iOS or Android)
MANUFACTURER	Lutron

⁂LUTRON

SENSOR COVERAGE PATTERNS

9' height: ø12' coverage

Motion Sensor Coverage

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8'	114
9'	144
10'	178
12'	256

SENSOR DETAIL

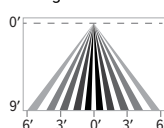Dimensions: ø1-1/8"

ATHENA CONTROL OPTIONS

CATALOG NUMBER	DESCRIPTION
AWNR	Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power.
AWNS	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power.
AWNR-BL	Lutron Athena wireless node integral fixture control, RF only, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish.
AWNS-BL	Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing, for use with D4i DALI-2 or driver with 12V auxiliary power, black finish.

VDO Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC). DSR or LDE Drivers only. LDE drivers require driver interface

SPECIFICATIONS

TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 12'
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55℃
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	App (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9' height: ø12' coverage

Motion Sensor Coverage

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8'	114
9'	144
10'	178
12'	256

SENSOR DETAIL

Dimensions: 2-11/16" x 1"

VIVE CONTROL OPTIONS

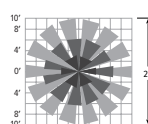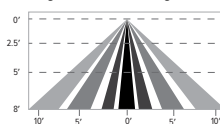| CATALOG NUMBER	DESCRIPTION
VRF	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF), for use with sensor-ready driver
VDO	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC), for use with sensor-ready driver
VRF/DBI	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver
VDO/DBI	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver

OCCWS-FS-305-L6-PP-120/277 Wattstopper PIR motion and daylight hold off sensor with power pack, 120/277V
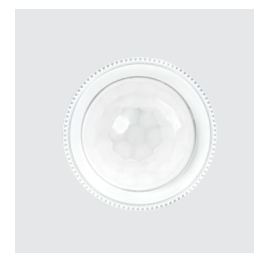
SPECIFICATIONS

TYPE	PIR Motion + Daylight Hold Off
MOUNTING HEIGHT	8'
LENS	Indoor, non-wet location use
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 55℃
RELATIVE HUMIDITY	5% to 95%, non-condensing
COMMISSIONING	Dials under lens

SENSOR COVERAGE PATTERNS

8' height: ø20' coverage

SENSOR DETAIL

Dimensions: ø1-5/16"

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OCCWS-LMFS-601-PP-120/277 Wattstopper PIR motion and daylight sensor with power pack, 120/277V

SPECIFICATIONS

TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 12'
LENS	Up to 300 sq/ft coverage
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 50°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	App (iOS or Android)

SENSOR COVERAGE PATTERNS

8' height: ø20' coverage
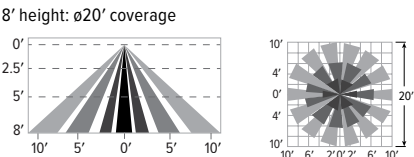
SENSOR DETAIL

Dimensions: ø1-5/16"

ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at hew.com/product-builder

CATALOG NUMBER	DESCRIPTION
DIM	Driver with external dimming wires prewired for 0-10V low voltage applications
DIM1	1% driver with external dimming wires prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V only)
DA	Driver with 12V auxiliary power, without external dimming wires
DSR	Sensor-ready driver without external dimming wires (D4i DALI-2)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming driver

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