MX2UD LED
2" Continuous Up/Down – Suspended

Williams

4"

2-1/4"

CATALOG #: _____

TYPE: _____

PROJECT: _____

BUY AMERICAN ACT COMPLIANT

bios ILLUMINATED

ORDERING EXAMPLE: MX2UD - 12'00 - L8/835U/L8/835D - F/F - AC/D48 - OPTIONS - CONTROL/DIM - UNV

SERIES
MX2UD

ILLUMINATED LENGTH
Lengths specified in feet and inches using 1" increments, 2' minimum. Example: **12'00** = 12'-0"

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

LUMEN PACKAGE (EXAMPLE: L8/835U/L8/835D)
Specify lumen packages: **U** for Uplight and **D** for Downlight

LUMENS [1]		CRI		CCT		U or D	
L4	400lm	**8**	80	**27**	2700K	**U**	Uplight
L8	800lm	**9**	90 [2]	**30**	3000K	**D**	Downlight
L12	1200lm			**35**	3500K		
L20	2000lm			**40**	4000K		
				50	5000K		

SHIELDING UP
F Flat, diffuse acrylic
FW Flat, diffuse acrylic with widespread optic
FA Flat, diffuse acrylic with asymmetric optic
G Diffuse acrylic with glowing edge [6]

SHIELDING DOWN
F Flat, diffuse acrylic
FW Flat, diffuse acrylic with widespread optic
G Diffuse acrylic with glowing edge [7]
D Diffuse acrylic with 1" drop [8]
R Regressed diffuse acrylic, 1" [9]

MOUNTING (EXAMPLE: AC/D48) [4]

Prefix	Type	Length
AC/	**D** 1" grid & hardpan	**24** 24"
	N 9/16" grid	**48** 48"
	S Slot grid	**96** 96"
MSF_	Microstem, 1/4" IPS, specify length in inches [5]	

OPTIONS
See page 4 for FINISH OPTIONS.

EM/10WLP Low-profile 10-watt emergency battery [10]
EM/10WRM Remote mount 10-watt emergency battery [11]
(L__) Additional lower lumen packages available [12]
Example: 600 lumens = MX2UD-12'00-L8/835U/L8/835D-**(L6U/L6D)**

CONTROL [13]
See page 6 for ADDITIONAL CONTROL OPTIONS.

– None
AVI-LVFA Avi-on wireless fixture control [14]
AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor [15]
AWNR Lutron Athena wireless node integral fixture control, RF only [16]
AWNS Lutron Athena wireless node integral fixture control, RF with daylight and occupancy sensing [17]

DRIVER
See page 7 for ADDITIONAL DRIVER OPTIONS.

DIM Driver with external dimming wires. Up and down switch and dim together
DA Driver with 12V auxiliary power without external dimming wires. Up and down switch together [18]
DSR Sensor-ready driver without external dimming wires (D4i DALI-2). Up and down switch together [19]

VOLTAGE
120 120V
277 277V
UNV 120-277V
347 347V [20]

NOTES
[1] Lumens per foot output based on F Shielding, 80 CRI/3500K CCT. Actual performance may vary ± 5%. 2000 lumens per foot maximum. See page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options.
[2] Extended lead times may apply. Consult factory for availability.
[3] See page 4 for CORNER DETAILS.
[4] See page 4 for MOUNTING DETAILS.
[5] Power cord does not run through microstem.
[6] Not available with corner configurations
[7] Not available with corner configurations
[8] Not available with corner configurations

[9] Not available with corner configurations. Increases fixture height. See page 3 for SHIELDING DETAILS.
[10] Not available with fixture less than 4', maximum combined lumens cannot exceed 1600 per foot.
[11] See page 4 for MOUNTING DETAILS.
[12] (L3U/L3D) lumen package minimum. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
[13] Sensors not available in fixtures less than 48". Sensor recommended for use in downlight orientation only. Reduces portion of lit fixture, consult factory. See page 5 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page 4 for SENSOR & NODE PLACEMENT DETAILS.

[14] DA Driver only.
[15] DA Driver only.
[16] DA and DSR Drivers only.
[17] DA and DSR Drivers only.
[18] Avi-on and Lutron Athena Controls only.
[19] Lutron Athena Controls only.
[20] Not available with EM batteries, control sensors, DA, or DSR Drivers.

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Continuous
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MX2UD LED
2″ Continuous Up/Down – Suspended

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
- Moveable mounting hardware easily slides along the length of the fixture providing variable mounting points for continuous rows
- High-performance up to 126 lm/W
- Linear extrusion contains snap-in light rails for ease of installation and maintenance
- Factory installed row alignment system creates straight rows with ease
- Versatile MX2 system includes recessed, surface, suspended and in-wall mounting, see hew.com
- Corner configurations available, see Product Builder at hew.com/product-builder
- Wireless in-fixture control solutions available
- Available with BIOS® SkyBlue® technology to support proper daytime circadian stimulus
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Extruded aluminum with die-cast end plates.
- SHIELDING – Extruded, flat, diffuse acrylic lens.
- FINISH – Textured matte white polyester TGIC 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. 25°C maximum ambient operating temperature.
- MOUNTING – Suspended. 1/16″ diameter adjustable steel leveling aircraft cable and mounting hardware necessary for grid and hardpan ceiling applications provided.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

FIXTURE PERFORMANCE DATA

	PER FOOT (2000 LUMENS PER FOOT MAXIMUM)				
	DELIVERED LUMENS			TOTAL WATTAGE	EFFICACY (lm/W)
	UP	DOWN	TOTAL		
L4/835U/L4/835D	417	376	793	6.8	117
L4/835U/L8/835D	417	752	1168	10.1	116
L8/835U/L4/835D	834	376	1210	10.1	120
L8/835U/L8/835D	834	752	1585	13.4	118
L8/835U/L12/835D	834	1127	1961	16.2	121
L4/835U/L12/835D	417	1127	1544	13.5	114
L12/835U/L4/835D	1251	376	1627	13.5	121
L12/835U/L8/835D	1251	752	2002	15.9	126

- Photometrics tested in accordance with IESNA LM-79. Results based on F shielding for Up and Down compartments, 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
D	1.05
F	1.00
G	0.98
FA	0.96
FW	0.92
R	0.91

PHOTOMETRY

MX2UD-4'00-L8/835U/L8/835D-A/F-DIM Total Luminaire Output: 6341 lumens; 53.6 Watts | Efficacy: 118 lm/W | 80 CRI; 3500K CCT
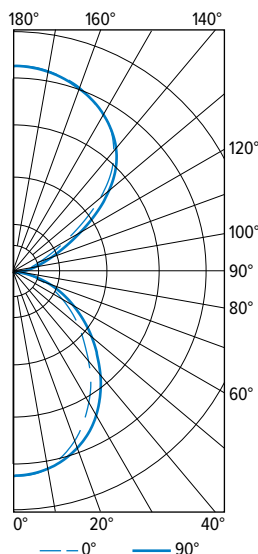
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1354	1354	1354	
5	1343	1344	1348	128
15	1277	1268	1246	357
25	1147	1110	1063	511
35	954	899	845	563
45	734	672	615	522
55	523	476	431	428
65	336	303	274	303
75	168	155	143	166
85	40	44	45	50
90	2	5	4	
95	44	30	25	37
105	147	112	98	127
115	306	258	214	262
125	585	538	470	477
135	892	861	836	661
145	1097	1090	1087	681
155	1228	1230	1224	567
165	1314	1319	1321	373
175	1362	1358	1367	130
180	1367	1367	1367	

	ZONE	LUMENS	% FIXTURE
LUMEN SUMMARY	0 - 30	996	16
	0 - 40	1559	25
	0 - 60	2509	40
	0 - 90	3027	48
	90 - 120	426	7
	90 - 130	903	14
	90 - 150	2246	35
	90 - 180	3150	50
	0 - 180	6341	100

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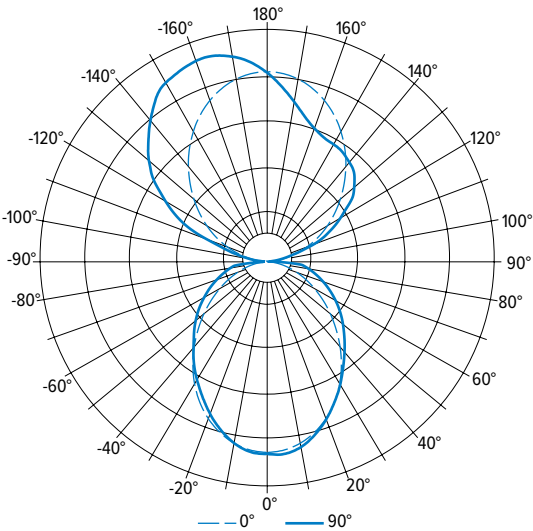Continuous
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MX2UD LED
2″ Continuous Up/Down – Suspended

MX2UD-4'00-L8/835U/L8/835D-FA/D-DIM Total Luminaire Output: 5884 lumens; 50.7 Watts | Efficacy: 116 lm/W | 80 CRI; 3500K CCT

VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
	0º	45º	90º	135º	180º	
0	1083	1083	1083	1083	1083	
5	1068	1080	1090	1080	1068	76
15	1005	1021	1019	1021	1005	162
25	889	901	888	901	889	215
35	731	750	745	750	731	233
45	555	599	618	599	555	222
55	390	467	505	467	390	193
65	245	347	393	347	245	150
75	122	237	288	237	122	101
85	32	142	190	142	32	33
90	7	21	22	21	7	
95	33	26	20	26	33	35
105	160	186	147	186	160	128
115	310	368	377	368	310	222
125	460	541	563	541	460	277
135	613	647	696	647	613	288
145	767	712	749	712	767	261
155	905	764	769	764	905	201
165	1008	873	841	873	1008	122
175	1066	1003	989	1003	1066	25
180	1066	1066	1066	1066	1066	

CANDLEPOWER DISTRIBUTION

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	1256	21
	0 - 60	2110	36
	0 - 90	2767	47
	90 - 180	3117	53

— 0° — 90°

FIXTURE DETAILS

Stand-alone fixtures up to 12' in length will require two suspension cables.

BACK VIEW

Hanger
1/8″ Endcap
1/2″ hole for power feed
Upper lens
Illuminated length
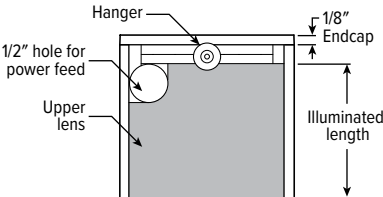
SHIELDING DETAILS

FLAT

FLAT   GLOWING EDGE   DROP   REGRESSED

5″   3/8″   1″   1″
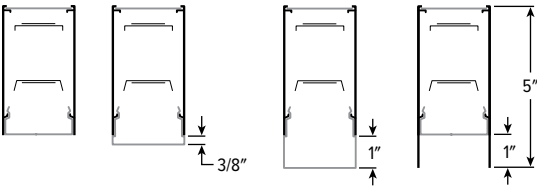
GLOWING EDGE

FLAT   GLOWING EDGE   DROP   REGRESSED

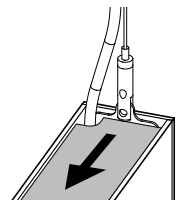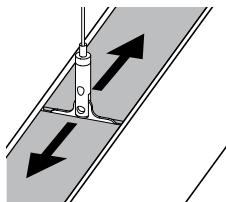3/8″   3/8″   3/8″   3/8″   3/8″   1″   5″   3/8″   1″
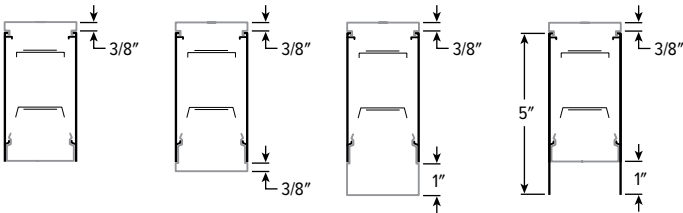
MX2UD LED
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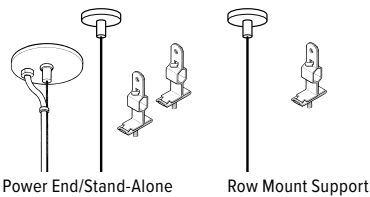
MOUNTING DETAILS

AIRCRAFT CABLE

Field-adjustable standalone hanger.

Joiner hanger slides to any position along extrusion. Lens may be cut to fit hanger.

STANDARD HARDWARE

Power End/Stand-Alone

Row Mount Support

Notes:

- Fixtures are provided with adjustable length aircraft cables and mounting hardware, must specify.
- Electrical supply is brought into the feeder (or stand-alone) fixture, either as part of a row or as an individual mount unit. Power feed locations are at end of fixture.
- One 5" canopy included for each feeder fixture. One 2" canopy included for each additional fixture required in a row.

AIRCRAFT CABLE

MICROSTEM

ROW ALIGNMENT SYSTEM
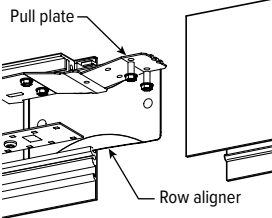
Pull plate

Row aligner

Installer friendly row aligners ensure seamless joining between fixtures while factory installed pull plate locks extrusions in place without disassembly of fixture internals.

REMOTE MOUNT BATTERY

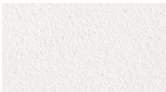Max remote distance 50'.
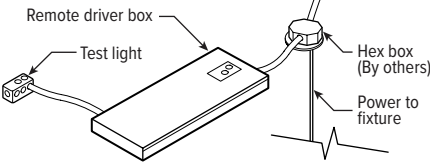
Remote driver box

Test light

Hex box (By others)
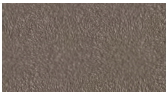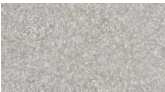
Power to fixture

FINISH OPTIONS

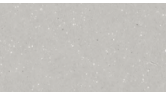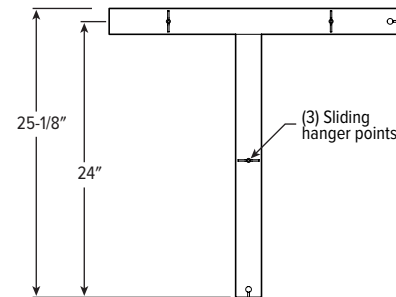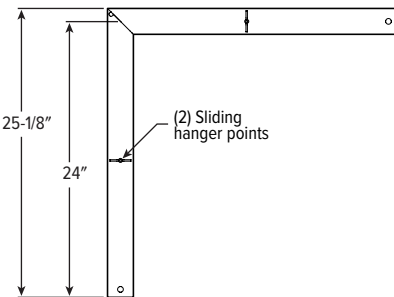| WHITE	BLACK	BRONZE	NICKEL	SILVER	ALUM

For custom color, please specify RAL code or a manufacturer code with description. All custom colors other than RAL require two sample swatches, minimum 1" square.
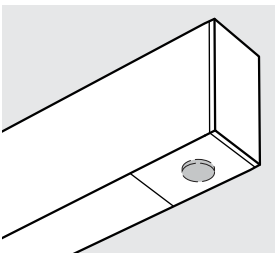
CORNER DETAILS

BACK VIEW

25-1/8"

24"

(2) Sliding hanger points
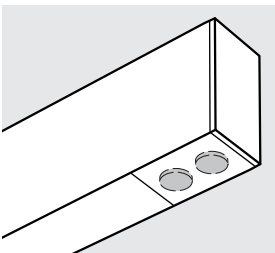
25-1/8"

24"

(3) Sliding hanger points

Note: Corner orientation determined in field. Feeder corner end cap shipped separately.

SENSOR & NODE PLACEMENT DETAILS

AVI-LVFA | WS-FS | WS-LMFS

AWNR | AWNS

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MX2UD LED
2″ Continuous Up/Down – Suspended

AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

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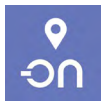- Flexible control strategies

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.
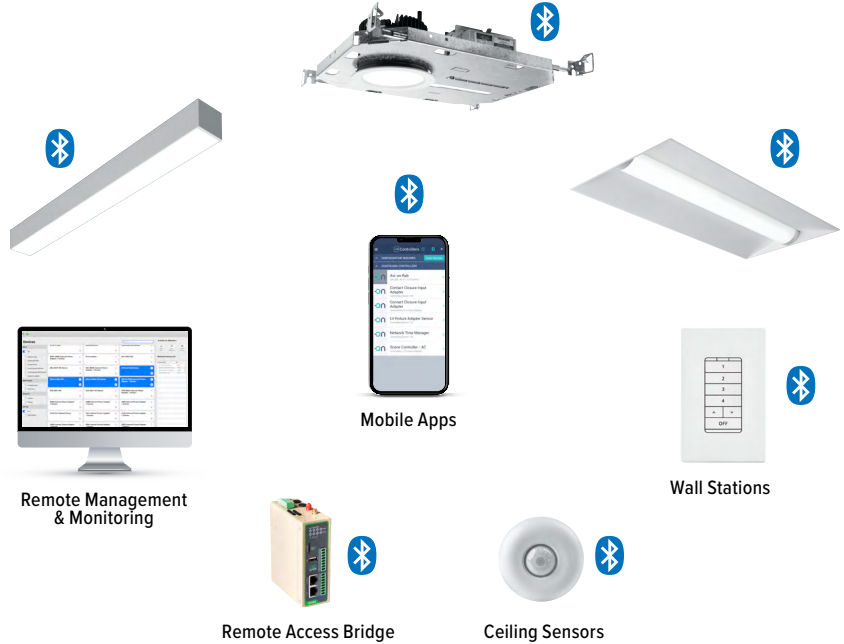
Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS

Mobile Apps

Remote Management & Monitoring

Wall Stations

Remote Access Bridge

Ceiling Sensors

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ACCESSORIES

WALL STATIONS	
AVI-2401AC	Scene controller - numbered 1-4, 120-277VAC
AVI-2402BAT	Scene controller - numbered 1-4, battery powered
AVI-2401AC-2	Dimmer with presets - percentages, 120-277VAC
AVI-2402BAT-2	Dimmer with presets - percentages, battery powered
AVI-2401AC-3	On/off/dimming, 120-277VAC
AVI-2402BAT-3	On/off/dimming, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-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

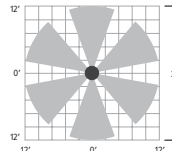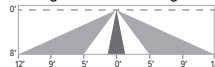### AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor. DA Driver only.

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

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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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°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	Clear Connect gateway – Type X with app (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9′ height: ø12′ coverage
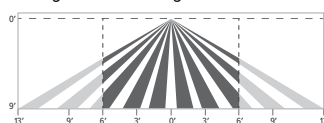
Motion Sensor Coverage

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

SENSOR DETAIL

Dimensions: 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.

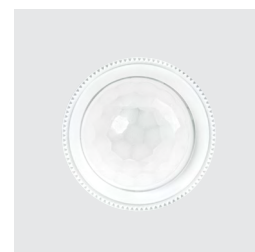### OCCWS-FS-305-L6-PP-120/277 Wattstopper PIR motion and daylight hold off sensor with power pack, 120/277V

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

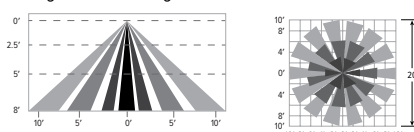**SENSOR COVERAGE PATTERNS**

8′ height: ø20′ coverage
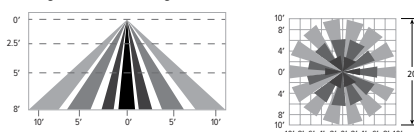
SENSOR DETAIL

Dimensions: ø1-5/16″

OCCWS-LMFS-601-PP-120/277 Wattstopper PIR motion and daylight sensor with power pack, 120/277V
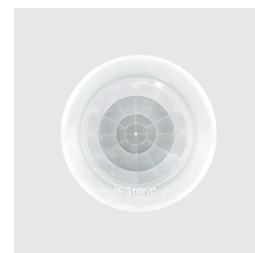
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8′ – 12′
LENS	Up to 300 sq/ft coverage
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 50°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	App (iOS or Android)

SENSOR COVERAGE PATTERNS

8′ height: ø20′ coverage

SENSOR DETAIL

Dimensions: ø1-5/16″

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ADDITIONAL DRIVER OPTIONS

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

CATALOG NUMBER	DESCRIPTION
DIM	Dimming driver prewired for 0-10V low voltage applications; entire fixture switches and dims together
DRVU/DIMD	Driver prewired for non-dimming applications; up and down portions switch separately; 0-10V on down portion only [2]
DIMU/DRVD	Up and down portions switch separately; dimming driver prewired for 0-10V low voltage applications on up portion only [1] [2]
DIMU/DIMD	Dimming driver prewired for 0-10V low voltage applications; up and down portions switch and dim separately [2]
DRVDIMU	Entire fixture switches together; dimming driver prewired for 0-10V low voltage applications on up portion only [2]
DRVDIMD	Entire fixture switches together; dimming driver prewired for 0-10V low voltage applications on down portion only [2]
DIM1	1% dimming driver 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)
DIM LINEU/DIM LINED	Line voltage switching and line voltage dimming; up and down portions switch separately
DIM LINEU/DRVD	Up and down portions switch separately; line voltage dimming on up portion only [1]
DRVU/DIM LINED	Up and down portions switch separately; line voltage dimming on down portion only [1]
DA	Driver with 12V auxiliary power without external dimming wires. Up and down switch together.
DA-U/D	Driver with 12V auxiliary power without external dimming wires. Up and down switch separately.
DSR	Sensor-ready driver without external dimming wires (D4i DALI-2). Up and down switch together.
DSR-U/D	Sensor-ready driver without external dimming wires (D4i DALI-2). Up and down switch separately.

1   Length restrictions may apply, consult factory.
2   Not available with L4U/L4D lumen package in fixtures less than 36″ long.

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