GH LED
Compact Modular High Bay

Williams

CATALOG #: _____

3-5/16″

17-5/8″

Type: _____

PROJECT: _____

FEATURES

BUY AMERICAN ACT COMPLIANT

- Scalable design up to 72,000 lumens
- Optimized for single-person installation
- Multiple shielding and distribution options
- High-performance up to 154 lm/W
- Frosted lens reduces glare
- Energy-saving alternative designed to replace traditional HID or fluorescent high bay fixtures
- Variety of mounting options for surface and suspended applications
- Available with Avi-on wireless fixture controls
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-formed steel housing.
- SHIELDING – Frosted acrylic.
- 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. L70 at 65,000 hours. 40°C maximum ambient operating temperature standard. 55°C max when specified with HA option. 45°C max when specified with EM battery.
- MOUNTING – Suspended. Surface mount kit available. Indoor applications only.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - DesignLights Consortium qualified product. Not all versions of this product may be DLC qualified, see the DLC Qualified Products List at designlights.org/QPL.
  - 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.

DLC LISTED   AVI-ON Bluetooth® Lighting Controls

ORDERING EXAMPLE: GH - 2 - L240/840 - FA - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES	LENGTH	LUMENS [1]		CRI	CCT	TEMPERATURE	SHIELDING
GH	2 2′ 4 4′	**2′** L80 8,000lm L120 12,000lm L180 18,000lm L240 24,000lm L300 30,000lm L360 36,000lm	**4′** L120 12,000lm L180 18,000lm L240 24,000lm L300 30,000lm L400 40,000lm L480 48,000lm L540 54,000lm L600 60,000lm L660 66,000lm L720 72,000lm	8 80 9 90 [2]	30 3000K 35 3500K 40 4000K 50 5000K	- 40°C ambient operating temperature HA High ambient operating temperature, 55°C [3]	FA Frosted acrylic FP Frosted polycarbonate HE High efficiency, no lens included ND Narrow distribution

OPTIONS [4]

EM/10W	10-watt emergency battery [5]	VBY	(2) Y-hangers
EM/14W	14-watt emergency battery [6]	VBY-2	(2) Y-hangers with 2′ chains
EM/20W	20-watt emergency battery [7]	GC2/Y18/5	(2) Cable suspension kits, 5′ length (1 pair)
UP	Uplight [8]	GC2/Y18/10	(2) Cable suspension kits, 10′ length (1 pair)
(L__)	Additional lower lumen packages available Example: 8,000 lumens = GH-4-L120/835-(L80) [9]	HUB MT	Cast iron hub and junction box for single 3/4″ pendant mount [12]
SDT	Stepdown transformer [10]	HUB/HOOK MT	Cast iron hub with mounting hook [13]
WG11	11-gauge wireguard, field-installed [11]	HOOK/CABLE	Hook and cable mounting kit, 10′
WG11 F&I	11-gauge wireguard, factory installed	GH-SMK	Surface mount kit
		6CPI/L5-15P/TWLK	6′ cord and NEMA twistlock 15 AMP plug, 120V [14]
		6CPI/L7-15P/TWLK	6′ cord and NEMA twistlock 15 AMP plug, 277V [15]
		6CPI/L8-20P/TWLK	6′ cord and NEMA twistlock 20 AMP plug, 480V [16]

CONTROL [17]

–	None
AVI-LVFA	Avi-on wireless fixture control [19]
AVI-LVFA-PIR	Avi-on wireless fixture control with PIR motion and daylight sensor, bottom mount [20]

DRIVER [18]

DIM	Driver with external dimming wires
DRV	Driver without external dimming wires
DA	Driver with 12V auxiliary power, without external dimming wires [21]

VOLTAGE

120	120V
277	277V
UNV	120-277V
347	347V [22]
480	480V [23]

NOTES

1. Lumen output based on FA shielding, 80 CRI/4000K CCT. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
2. Extended lead times may apply. Consult factory for availability.
3. May increase fixture width. Must be suspended minimum 18″ from ceiling. Lumen restrictions apply. See page 2 for FIXTURE PERFORMANCE DATA.
4. See page 3 for MOUNTING DETAILS.
5. Increases fixture size. See page 4 for FIXTURE DETAILS.
6. Increases fixture size. See page 4 for FIXTURE DETAILS.
7. Increases fixture size. See page 4 for FIXTURE DETAILS.
8. Percentage of uplight depends on fixture width. See page 2 for FIXTURE PERFORMANCE DATA.
9. Specify in increments of 1000 nominal lumens. Option must be specified with next higher lumen package.
10. Fixtures greater than L480 require (2) step down transformers.
11. Shipped separately.
12. Shipped separately.
13. Shipped separately.
14. DRV only.
15. DRV only.
16. DRV only
17. See page 7 for ADDITIONAL CONTROL OPTIONS. See page 6 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page 5 for SENSOR PLACEMENT DETAILS.
18. Consult factory for additional driver options.
19. DA Driver only.
20. DA Driver only.
21. Avi-on Controls only.
22. Not available with EM batteries or Avi-on Controls.
23. Not available with EM batteries or Avi-on Controls.

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FIXTURE PERFORMANCE DATA

	LED PACKAGE	STANDARD TEMPERATURE (40°C MAXIMUM AMBIENT)				HA TEMPERATURE (55°C MAXIMUM AMBIENT)			
		DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	WIDTH	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	WIDTH
2'	L80	8,075	55.9	144	12"	8,075	55.9	144	12"
	L120	11,922	90.8	131	12"	12,246	79.4	154	18"
	L180	18,009	125.9	143	18"	18,357	121.5	151	24"
	L240	23,470	176.8	133	18"	24,001	163.9	146	24"
	L300	31,000	227.7	136	24"	–	–	–	–
	L360	35,765	272.6	131	24"	–	–	–	–
4'	L120	–	–	–	–	12,246	79.4	154	12"
	L180	18,009	125.9	143	12"	–	–	–	–
	L240	23,510	177.9	132	12"	–	–	–	–
	L300	–	–	–	–	31,210	215.8	145	18"
	L400	40,295	293.2	137	18"	40,268	268.9	150	24"
	L480	47,687	363.5	131	18"	48,002	327.9	146	24"
	L540	54,031	372.2	145	24"	–	–	–	–
	L600	61,173	429.8	142	24"	–	–	–	–
	L660	66,420	495.9	134	24"	–	–	–	–
	L720	72,181	539.7	134	24"	–	–	–	–

MULTIPLIER TABLES

COLOR TEMPERATURE

	CCT	CONVERSION FACTOR
80 CRI	3000K	0.96
	3500K	0.97
	4000K	1.00
	5000K	1.03
90 CRI	3000K	0.79
	3500K	0.80
	4000K	0.83
	5000K	0.86

SHIELDING

CATALOG NUMBER	CONVERSION FACTOR
FA	1.00
FP	0.95
HE	1.09
ND	1.08

WIDTH	UPLIGHT %	
	FA	HE | ND
12"	16	12
18"	10	7
24"	8	4

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25ºC ambient temperature.
- Wattage shown is average for 120V through 277V input.
- Results based on FA shielding, 80 CRI/4000K CCT, actual lumens may vary +/-5%
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

PHOTOMETRY

GH-2-L240/840-FA-DIM-UNV Report #: 13309242.03; 04/16/20 | Total Luminaire Output: 23470 lumens; 176.8 Watts | Efficacy: 132.7 lm/W | 80 CRI; 4000K CCT
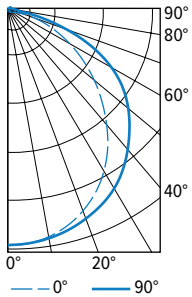
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	7864	7864	7864	
5	7830	7838	7828	188
15	7462	7557	7617	906
25	6743	7012	7218	1499
35	5682	6194	6579	1882
45	4375	5143	5680	1983
55	3108	4068	4699	1854
65	1942	2930	3361	1507
75	982	1717	1749	970
85	267	619	733	421
90	9	301	458	

| ZONE	LUMENS	% FIXTURE
0 - 40	9946	42
0 - 60	17436	74
0 - 90	22488	96
90 - 180	981	4
0 - 180	23470	100

GH-2-L240/840-HE-DIM-UNV Report #: 13309242.04; 04/16/20 | Total Luminaire Output: 25500 lumens; 177.1 Watts | Efficacy: 144.0 lm/W | 80 CRI; 4000K CCT
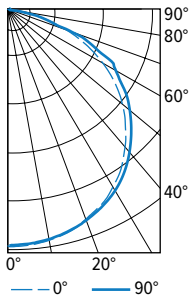
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	8597	8597	8597	
5	8610	8577	8552	205
15	8378	8349	8310	998
25	7828	7861	7843	1673
35	6995	7065	7100	2142
45	5861	5966	6058	2311
55	4609	4721	4877	2204
65	3121	3256	3397	1798
75	1536	1590	1348	1011
85	260	284	270	265
90	9	90	65	

ZONE	LUMENS	% FIXTURE
0 - 40	11191	44
0 - 60	20026	79
0 - 90	25244	99
90 - 180	263	1
0 - 180	25500	100

GH-2-L240/840-ND-DIM-UNV Report #: 13309242.01; 04/14/20 | Total Luminaire Output: 25350 lumens; 177.9 Watts | Efficacy: 142.5 lm/W | 80 CRI; 4000K CCT
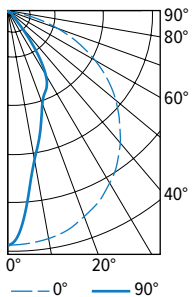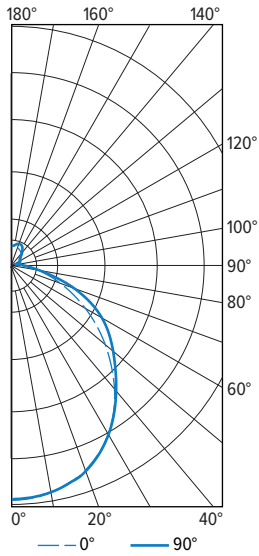
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	23290	23290	23290	
5	23160	21230	19520	533
15	22430	14040	11900	1960
25	20750	9761	8524	2581
35	18260	7524	4111	2763
45	15060	3348	621	2013
55	11550	525	406	1400
65	7463	313	271	828
75	3238	178	70	369
85	288	68	20	92
90	5	37	12	

ZONE	LUMENS	% FIXTURE
0 - 40	16787	66
0 - 60	23010	91
0 - 90	25091	99
90 - 180	264	1
0 - 180	25350	100

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GH-2-L240/840-FA-UP-DIM-UNV Report #: 13309242.02; 04/10/20 | Total Luminaire Output: 22670 lumens; 176.8 Watts | Efficacy: 128.2 lm/W | 80 CRI; 4000K CCT

CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	7970	7970	7970	
5	7940	7936	7913	190
15	7590	7599	7597	913
25	6878	6949	6901	1493
35	5790	5890	5830	1807
45	4460	4628	4710	1819
55	3172	3478	3752	1631
65	1988	2405	2594	1279
75	1011	1339	1161	779
85	279	357	356	281
90	11	103	123	113
95	53	149	177	63
105	153	225	258	104
115	254	252	292	130
125	350	349	314	154
135	435	502	423	180
145	499	640	590	190
155	557	688	721	166
165	589	667	718	110
175	609	632	638	45
180	628	628	628	

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 40	9732	43
0 - 60	16403	72
0 - 90	20408	90
90 - 180	2259	10
0 - 180	22670	100

— — 0° —— 90°

MOUNTING DETAILS

GC2/Y18/_

HUB MT

HUB/HOOK MT

4' fixture requires two hubs for mounting
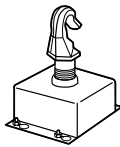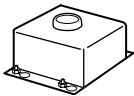
Mounting hook with safety screw allows easy replacement of existing HID fixtures. Hook attaches to the fixture with 3/4" cast iron hub and junction box.

A 10' long aircraft cable and Y style hanger with toggle clips are factory furnished for leveling fixture from single support.
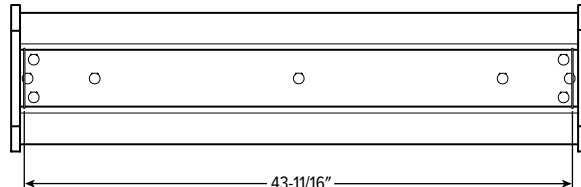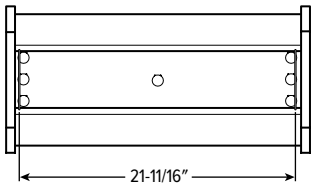
HOOK/CABLE
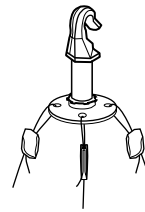
Hook and 10' cable mounting kit. Mounting hook is secured to the structure by eye bolt or loop (furnished by others).

Attached at the base of the hook is a circular mounting plate with four (4) 10' adjustable cables, oriented in 90° intervals, suspended below.
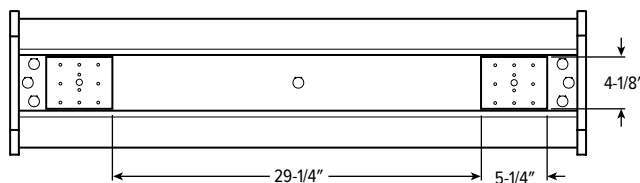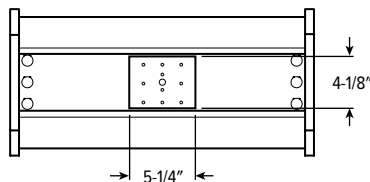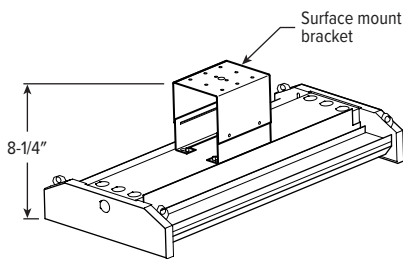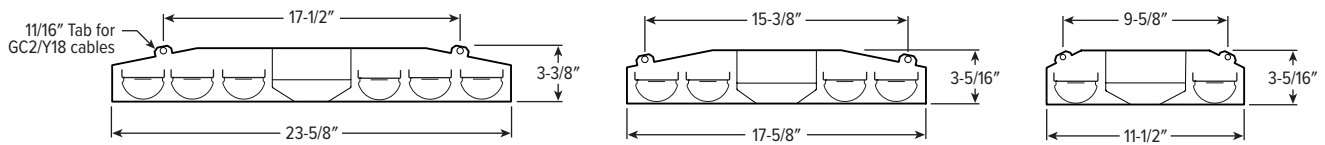
VBY | VBY-2

2'

21-11/16"

4'

43-11/16"
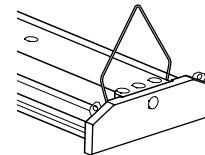
GH-SMK

4' fixture requires two brackets for mounting

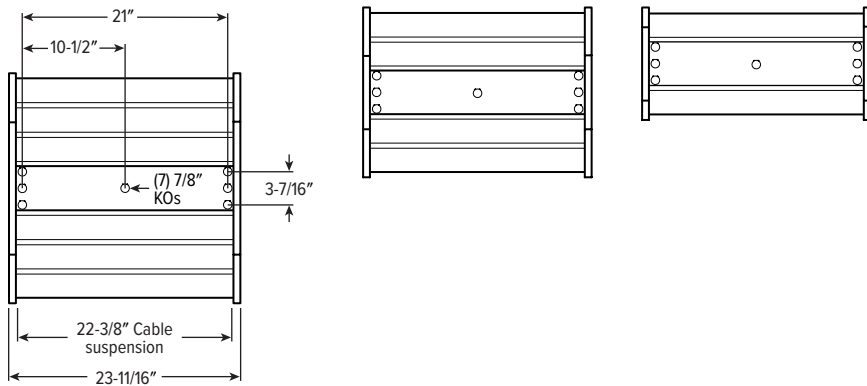Surface mount bracket

8-1/4"

4-1/8"

5-1/4"

4-1/8"

29-1/4" 5-1/4"

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CROSS SECTIONS

11/16" Tab for GC2/Y18 cables

17-1/2"
3-3/8"
23-5/8"

15-3/8"
3-5/16"
17-5/8"

9-5/8"
3-5/16"
11-1/2"

FIXTURE DETAILS

BACKVIEW

2′

21"
10-1/2"
(7) 7/8" KOs
3-7/16"
22-3/8" Cable suspension
23-11/16"

4′

43-3/16"
21-5/8"
16-1/4"
(9) 7/8" KOs
3-7/16"
44-5/8" Cable suspension
45-15/16"

EM BATTERY

27-5/16"
16-15/16"
Bracket
EM battery

16-15/16"
EM battery
2-5/8"
5-9/16"

16-15/16"
EM battery
2-5/8"
6-15/16"
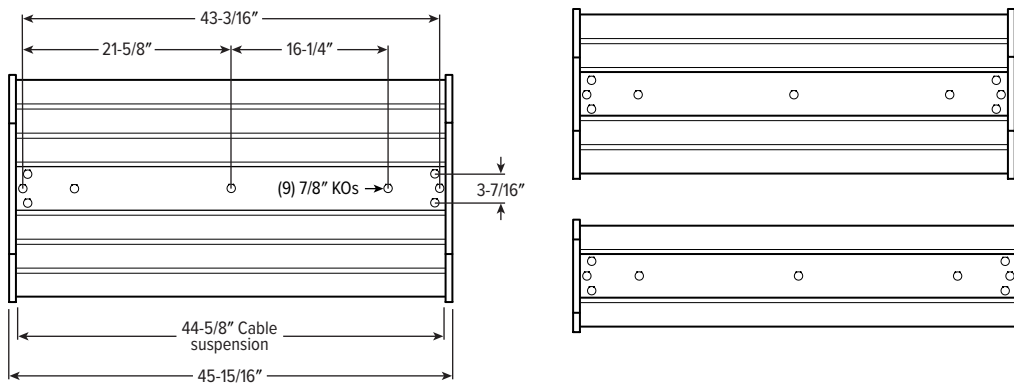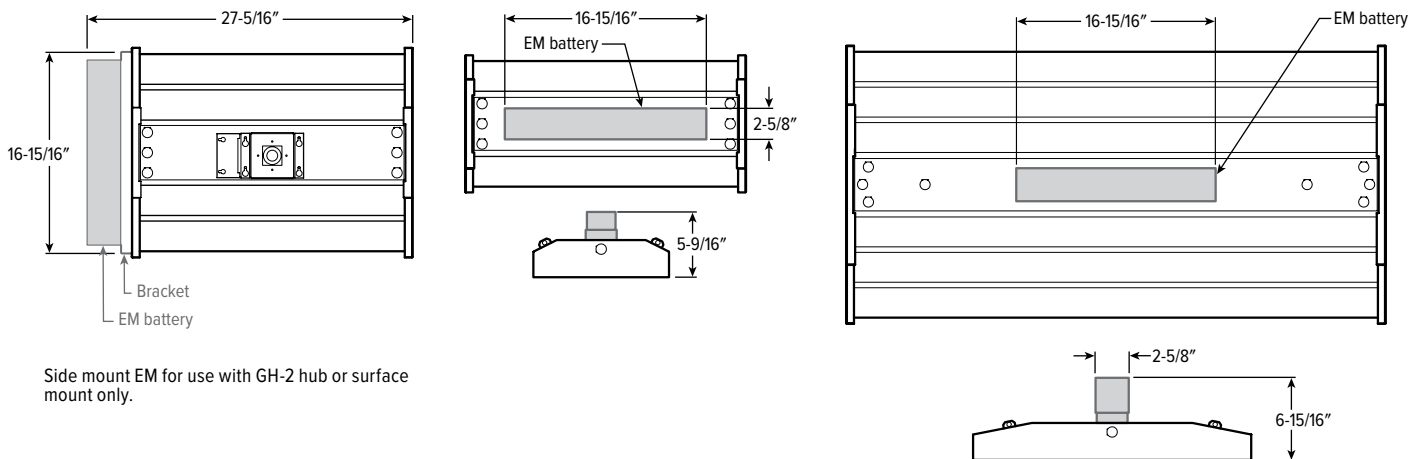
Side mount EM for use with GH-2 hub or surface mount only.

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SENSOR PLACEMENT DETAILS

AVI-LVFA-PIR
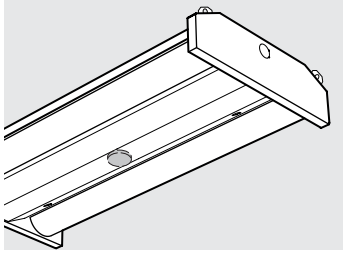
WS-FSP | WS-HBP | LV-OSFHU | SS-LSXR
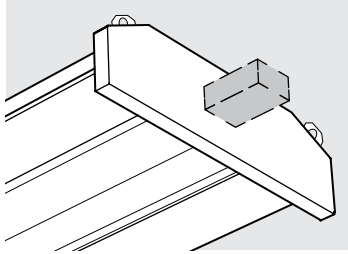
SEE NEXT PAGE FOR CONTROL DETAILS.

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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 areas to large garages
- Flexible control strategies

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

DIGITAL INSTALLATION TOOLS

Avi-On mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS

Remote Management & Monitoring

Mobile Apps

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

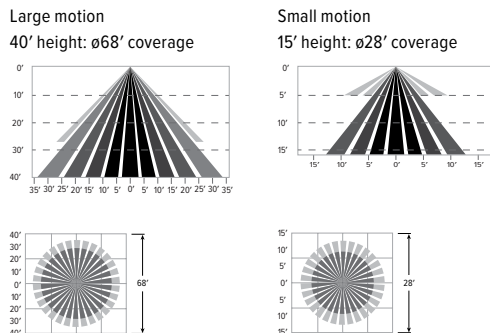|	
AVI-RAB-LTE	Remote access bridge – LTE connection
AVI-2001RAB-01-C	Remote access bridge – Wifi connection
AVI-KIT-NTM	Network time manager with battery backup

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-PIR Avi-on wireless fixture control with high bay PIR motion and daylight sensor, bottom mount. DA Driver only.

SPECIFICATIONS

TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 45'
LENS	Single lens detects high and low bay motion.
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 70°C
RELATIVE HUMIDITY	90 to 95% at 30°C
COMMISSIONING	App (iOS or Android)
SYSTEM REQUIREMENTS	Avi-On wireless fixture controls plus desktop and mobile apps
MANUFACTURER	Avi-On

Bluetooth® Lighting Controls

SENSOR COVERAGE PATTERNS

Large motion
40' height: ø68' coverage

Small motion
15' height: ø28' coverage

SENSOR DETAIL

Dimensions: 2-5/16" x 1-7/16"

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ADDITIONAL CONTROL OPTIONS

OCCWS-FSP-321B-L_-120-480 Wattstopper PIR motion and daylight sensor using 0-10V internal control, 120V-480V. Must specify lens: L2, L3 or L7. Factory installed.
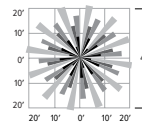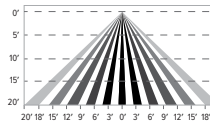
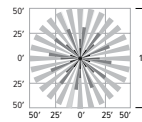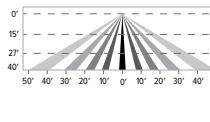| SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 40'
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	App (iOS or Android)

SENSOR COVERAGE PATTERNS

L2 8' height: ø48' coverage
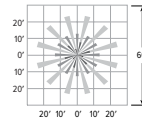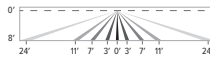
L3 20' height: ø40' coverage

L7 40' height: ø100' coverage

SENSOR DETAIL

OCCWS-HBP-111-L7-120/277/347 Wattstopper PIR motion and daylight hold off sensor, 120/277/347V. Adjustable via remote. Optional FSIR-100 remote controller available.
FSIR-100 Remote controller for HBP-111 sensor. Please specify quantity required per project. Ordered and shipped separately.
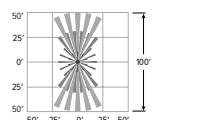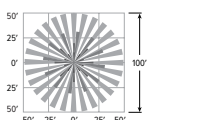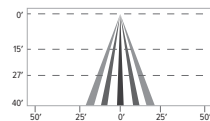
SPECIFICATIONS	
TYPE	PIR Motion + Daylight Hold Off
MOUNTING HEIGHT	15' – 40'
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 70°C
RELATIVE HUMIDITY	5 to 95%, non-condensing
COMMISSIONING	FSIR-100 Remote

SENSOR COVERAGE PATTERNS

40' height: ø100' coverage
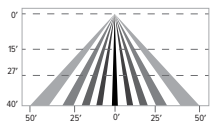
With mask: 40' height: ø50' coverage
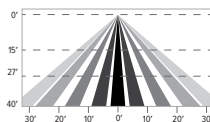

SENSOR DETAIL

OCCLV-OSFHU-ITW-120-347 Leviton PIR motion sensor, 120-347V
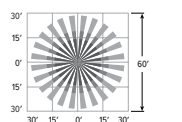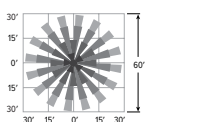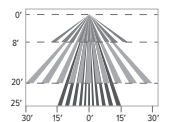**OCCLV-OSFHU-I4W-208/240/480** Leviton PIR motion sensor, 208/240/480V

SPECIFICATIONS	
TYPE	PIR Motion
MOUNTING HEIGHT	8' – 40'
LENS	Interchangeable high bay, low bay or aisle mask
DETECTION ANGLE	360°
TEMPERATURE RANGE	-10° to 71°C
RELATIVE HUMIDITY	20% to 90% non-condensing

SENSOR COVERAGE PATTERNS

High bay
40' height: ø60' coverage

Low bay
25' height: ø60' coverage

SENSOR DETAIL
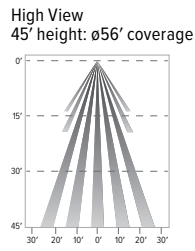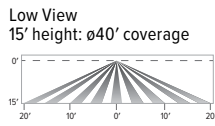
H.E. Williams, Inc. ▪ Carthage, Missouri ▪ www.hew.com ▪ 417-358-4065 ▪ Designed and Manufactured in the USA

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High Bay
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GH LED Compact Modular High Bay

OCCSS LSXR-6-120-277 Sensor Switch PIR motion sensor, 120-277V
OCCSS LSXR-6-347/480 Sensor Switch PIR motion sensor, 347/480V

SPECIFICATIONS

TYPE	PIR Motion
MOUNTING HEIGHT	15′ – 45′
DETECTION ANGLE	360°
TEMPERATURE RANGE	-10° to 60°C
RELATIVE HUMIDITY	Up to 90% non-condensing

SENSOR COVERAGE PATTERNS

Low View
15′ height: ø40′ coverage

High View
45′ height: ø56′ coverage

SENSOR DETAIL

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High Bay
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