

Shown with PCFR  
or HIAFR diffuser

CATALOG #: \_\_\_\_\_

TYPE:

PROJECT: \_\_\_\_\_



SERIES	LENGTH	LUMENS <sup>[1]</sup>		CRI	CCT	SHIELDING
96	2 2'	2'	8'	8 80	30 3000K	HIAFR Frosted, ribbed, impact-resistant acrylic
	4 4'	L21 2,100lm	L80 8,000lm	9 90	35 3500K	SFRA Frosted, smooth, impact-resistant acrylic
	8 8' <sup>[2]</sup>	L29 2,900lm	L130 13,000lm		40 4000K	PCFR Frosted, ribbed, UV stabilized polycarbonate <sup>[3]</sup>
		L40 4,000lm	L160 16,000lm		50 5000K	SFPC Frosted, smooth, UV stabilized polycarbonate
	4'		L220 22,000lm			DFR Drop, frosted, impact-resistant acrylic
		L40 4,000lm				DCL Drop, clear, impact-resistant acrylic with frosted ends
		L62 6,200lm				SCLA Clear, smooth, impact-resistant acrylic
		L81 8,100lm				SCPC Clear, smooth, UV stabilized polycarbonate
		L110 11,000lm				

<b>EM/6WC</b>	6-watt emergency, low temperature battery <sup>[5]</sup>	<b>TP</b>	Tamper-resistant screws <sup>[11]</sup>
<b>EM/10W</b>	10-watt emergency battery <sup>[6]</sup>	<b>WET/1</b>	(1) 1/2" watertight hub, side access <sup>[12]</sup>
<b>EM/10WRM/WET</b>	Remote mount 10-watt emergency battery with wet location enclosure. <sup>[7]</sup>	<b>WET/2</b>	(2) 1/2" watertight hubs, side access <sup>[13]</sup>
<b>(L____)</b>	Additional lower lumen packages available. <sup>[8]</sup> Example: 4,100 lumens = 96-4-L62/840-HIAFR-(L41)	<b>WTT/1</b>	(1) 1/2" watertight hub, back access <sup>[14]</sup>
<b>LA</b>	Low ambient operating temperature <sup>[9]</sup>	<b>WTT/2</b>	(2) 1/2" watertight hubs, back access <sup>[15]</sup>
<b>PCL</b>	Injection-molded polycarbonate latches <sup>[10]</sup>	<b>SSCMB</b>	(2) Stainless steel chain mounting brackets
		<b>WMB</b>	(2) Stainless steel 45° wall mount brackets
		<b>GC2/L/10</b>	10' adjustable cable suspension system with loop

–	None
<b>AVI-LVFA</b>	Avi-on wireless fixture control <sup>[17]</sup>
<b>AVI-LVFA-PIR-ELB</b>	Avi-on wireless fixture control with PIR motion and daylight sensor, end mount <sup>[18]</sup>

**DIM** Driver with external 0-10V dimming wires  
**DRV** Driver without external dimming wires  
**DA** Driver with 12V auxiliary power, without external dimming wires<sup>[19]</sup>

120 120V  
277 277V  
UNV 120-277V  
347 347V<sup>[20]</sup>

**TPTG TOOL** Tamper-resistant tool for tri-groove screws. [21]

- 1 Lumen output based on HIAFR Shielding, 80 CRI/4000K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options.
- 2 Acrylic diffusers only.
- 3 Not available with 8' units.
- 4 Stainless steel latches required for applications with harsh chemicals. Cord and receptacle options available. See page 4 for CORD OPTIONS. See page 3 for MOUNTING DETAILS.
- 5 Not available with L110 or L220 lumen packages. 4' or 8' only. Rated for -20°C to 25°C ambient temperature.
- 6 Not available with L110 or L220 lumen packages. 4' or 8' only. Temperature restrictions apply. See page 2 for FIXTURE PERFORMANCE DATA

7 40°C maximum ambient operating temperature. Max  
remote distance 50'. Includes (2) 1/2" watertight hubs.  
See page 3 for FIXTURE DETAILS.

8 Specify in increments of 100 nominal lumens. Option must  
be specified with next higher lumen package.

9 DIM driver only. Not available with EM batteries,  
controls, or 347V. Lumen restrictions apply. See FIXTURE  
PERFORMANCE DATA on page 2.

10 Not recommended for use in harsh environments, such as a  
car wash.

11 When P option is specified, fixture is not NSF/ANSI 2  
certified. Requires a tamper-resistant tool, see Accessories.

12 Factory-installed in end of housing. Increases overall length  
by 1/8"

13 Factory-installed in ends of housing. Not available with  
 14 occupancy sensor option. Increases overall length by 1/4"  
 15 4" only, factory-installed in back of fixture.  
 16 See page 8 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page  
 17 5 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.  
 18 DA Driver only.  
 19 DA Driver only. IP66-rated.  
 20 Avl-on Controls only.  
 21 Not available with EM batteries or DA Driver.  
 Ordered separately, please specify quantity required per  
 project.

## FEATURES

- Fully gasketed fixture is built tough to resist contaminants
- Standard stainless steel latches protect the fixture from corrosion in harsh environments
- Toggle latches ensure a tight seal and provide easy access to electrical components
- Tamper-resistant latches available
- Closed-cell polyurethane gasket poured and formed in place to ensure tight seal—does not absorb water or support fungal growth
- NEMA 4X, IP65, IP66, IP67, and NSF/ANSI Standard 2 – Splash Zone certified
- Low ambient option for extreme cold environments
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

## SPECIFICATIONS

- ENCLOSURE – Outer housing consists of 5VA (f1) fiberglass, rated for flame and weather resistance.
- INTERNAL HOUSING – .050" aluminum.
- LATCHING – Stainless steel latches. Injection-molded polycarbonate latches available (not recommended for use in harsh environments, such as a car wash).
- REFLECTOR – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal.
- SHIELDING – Frosted, ribbed, impact-resistant acrylic.
- ELECTRICAL – High-quality mid-power LED board. L70 >60,000 hours. -20°C to 40°C maximum ambient operating temperature, -40°C minimum with LA option (restrictions apply, see fixture performance data). 50/60 Hz constant current driver.

- MOUNTING – Surface or suspended. Stainless steel ceiling mount brackets included. Wall mount when specified with WMB.
- LISTINGS –
  - cETLus conforms to UL STD 1598 and UL STD 8750. Certified to CAN/CSA STD C22.2 No. 250.0. Suitable for wet locations when specified with watertight hub, STOW or SOOW cord, or mini-male receptacle option.
  - NSF/ANSI Standard 2–Splash Zone certified, IP65, IP66, and IP67 certified, and rated for NEMA 4X.
  - Build America, Buy American (BABA) and Buy American Act (BAA) compliant. Request certification at [hew.com/buy-american](http://hew.com/buy-american)
- WARRANTY – 5-year limited warranty, see [hew.com/warranty](http://hew.com/warranty)

## FIXTURE PERFORMANCE DATA

	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	MAXIMUM TEMPERATURE (°C)		MINIMUM TEMPERATURE (°C)
					STANDARD	EMERGENCY	
2'	L21	2201	18	122	40	–	30
	L29	3028	25	121	40	–	30
	L40	3836	31	124	40	–	30
4'	L40	4086	30	136	40	40	30
	L62	6434	48	134	40	30	40
	L81	8121	65	125	30	25	40
	L110	11075	88	126	30	–	40
	L80	8018	61	131	40	40	40
8'	L130	13026	95	137	40	30	40
	L160	16188	123	132	30	25	40
	L220	22056	166	133	30	–	40

- Photometrics tested in accordance with IESNA LM-79. Results based on HIAFR shielding, 80 CRI/4000K 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.

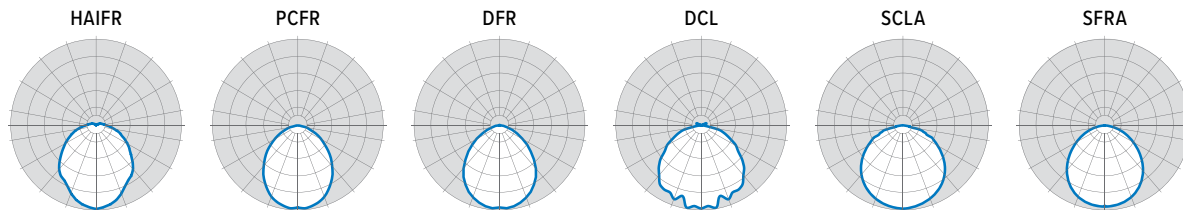
## MULTIPLIER TABLES

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	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	
LENS	CONVERSION FACTOR
HIAFR	1.00
SFRA	1.07
PCFR	0.91
SFPC	Consult Factory
DFR	1.05
DCI <sup>(1)</sup>	1.06
SCLA <sup>(1)</sup>	1.09
SCPC <sup>(1)</sup>	Consult Factory

<sup>1</sup> Due to clear lens, striations in the light distribution will be visible.

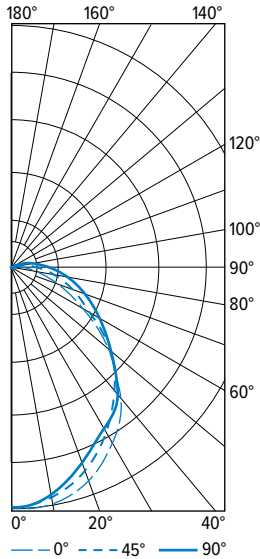
## PHOTOMETRY



96-4-L62/840-HIAFR-DRV Report #: 20008.0; 08/15/17 | Total Luminaire Output: 6434 lumens; 48.3 Watts | Efficacy: 133.1 lm/W | 83.6 CRI; 4041K CCT



# 96 LED Fully Enclosed & Gasketed Industrial

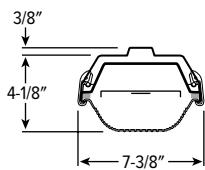


VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2318	2318	2318	
5	2352	2298	2283	220
15	2259	2169	2120	617
25	2066	1943	1865	899
35	1780	1666	1704	1065
45	1370	1379	1389	1055
55	943	1007	1062	901
65	546	695	828	691
75	231	449	599	457
85	38	251	361	252
90	15	185	272	
95	14	150	217	143
105	8	84	138	79
115	4	39	85	39
125	0	8	42	14
135	0	0	9	2
145	0	0	2	1
155	0	0	0	0
165	0	0	0	0
175	0	0	0	0
180	0	0	0	

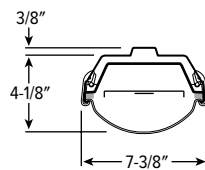
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1736	27
	0 - 40	2801	44
	0 - 60	4757	74
	0 - 90	6156	96
	90 - 120	262	4
	90 - 150	275	4
	90 - 180	278	4
	0 - 180	6434	100

## CROSS SECTIONS

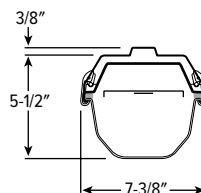
### PC | HIA



### SFRA | SFPC | SCLA | SCPC

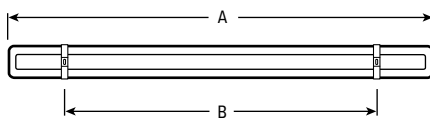


### DCL | DFR



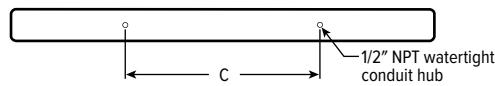
## FIXTURE DETAILS

### BACKVIEW



NOMINAL LENGTH	OVERALL LENGTH (A)	MOUNTING DISTANCE (B)
2'	27-5/8"	12"- 17" OC
4'	51-7/8"	30"- 42" OC
8'	100-1/4"	48"- 80" OC

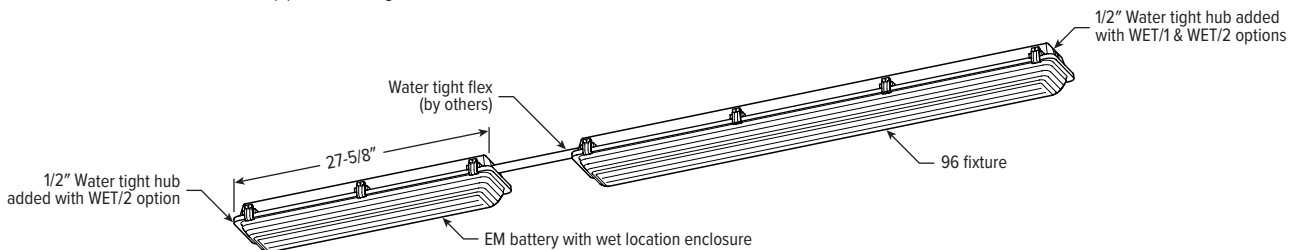
### WTT/1 | WTT/2 OPTIONS



NOMINAL LENGTH	DISTANCE (C)
4'	24" OC
8' (WTT/2 only)	45-3/4" OC

## REMOTE MOUNT BATTERY

Max remote distance 50'. Includes (2) 1/2" watertight hubs.

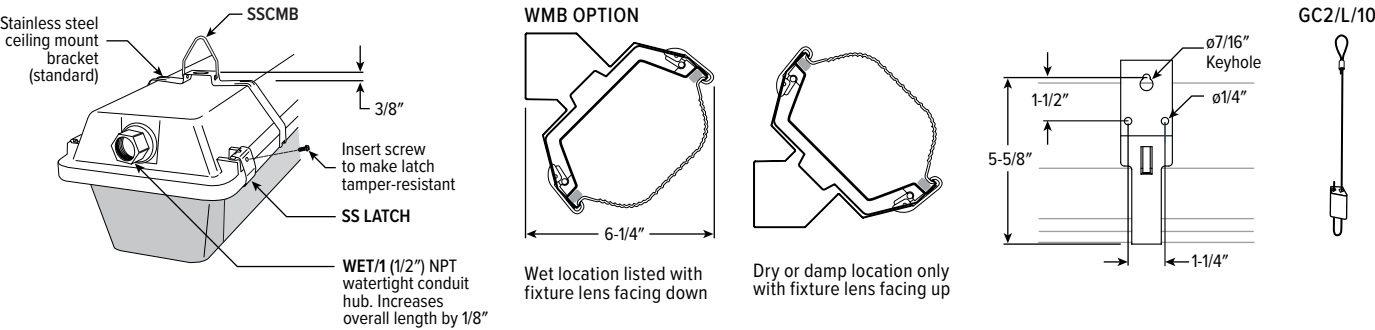


## MOUNTING DETAILS



96

LED  
Fully Enclosed & Gasketed Industrial

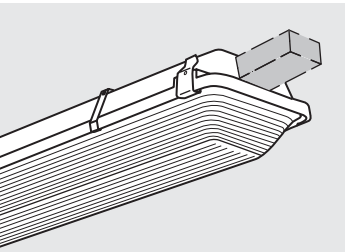


CORD OPTIONS

EXAMPLE: 5WMRC6		
NUMBER OF CONDUCTORS	POWER CONNECTION – NON-DIMMING	CORD LENGTH
3 3-wire 4 4-wire	WMR Mini-male receptacle only	-
	WC STOW cord	6 6'
	WMRC Mini-male receptacle with STOW cord	20 20'
POWER CONNECTION – DIMMING		
5 5-wire 6 6-wire	WMR Mini-male receptacle only	-
	WC SOOW cord	6 6'
	WMRC Mini-male receptacle with SOOW cord	20 20'

Wet location cord sets are yellow.

SENSOR PLACEMENT DETAILS



SEE NEXT PAGE FOR CONTROL DETAILS

## 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 areas to large garages
- 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



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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](http://hew.com/avi-on)

### AVI-LVFA-PIR-ELB Avi-on wireless fixture control with PIR motion and daylight sensor, end mount. DA Driver only.

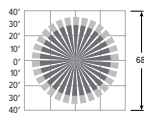
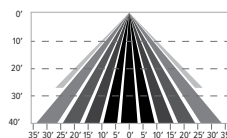
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 45'
LENS	Single lens detects high and low bay motion.
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 70°C
RELATIVE HUMIDITY	90 to 95% at 30°C
COMMISSIONING	App (iOS or Android)
SYSTEM REQUIREMENTS	Avi-On wireless fixture controls plus desktop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

IP66 certified for wet locations.

### SENSOR COVERAGE PATTERNS

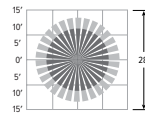
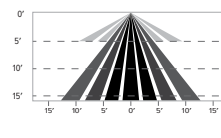
#### Large motion

40' height: ø68' coverage



#### Small motion

15' height: ø28' coverage



### SENSOR DETAIL



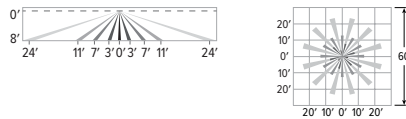
## ADDITIONAL CONTROL OPTIONS

**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.  
**OCCWS-FSP-221B-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.  
**FSIR-100** Remote controller for 221B sensor. Please specify quantity required per project. Ordered and shipped separately.

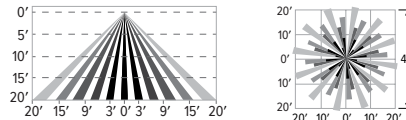
SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 40'
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 75°C
COMMISSIONING	321B Sensor: App (iOS or Android) 221B Sensor: FSIR-100 Remote

### SENSOR COVERAGE PATTERNS

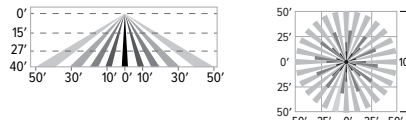
**L2 8' height: ø48' coverage**



**L3 20' height: ø40' coverage**



**L7 40' height: ø100' coverage**



### SENSOR DETAIL

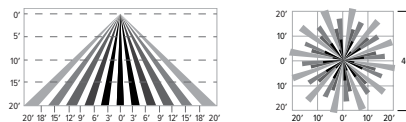


**OCCWS-HB350W-L3W-\_\_\_** Wattstopper PIR motion sensor. Must specify voltage: 120 or 277V.

SPECIFICATIONS	
TYPE	PIR Motion
MOUNTING HEIGHT	20'
DETECTION ANGLE	360°
TEMPERATURE RANGE	-40° to 70°C
RELATIVE HUMIDITY	20 to 90%, non-condensing

### SENSOR COVERAGE PATTERNS

**20' height: ø40' coverage**



### SENSOR DETAIL



IP65 certified for wet locations. Not rated for NEMA 4X.

## ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at [hew.com/product-builder](http://hew.com/product-builder)

CATALOG NUMBER	DESCRIPTION
DRV	Driver without external dimming wires prewired for non-dimming applications
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
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming driver

