

CATALOG #:	TYPE:
PROJECT:	NOTES:

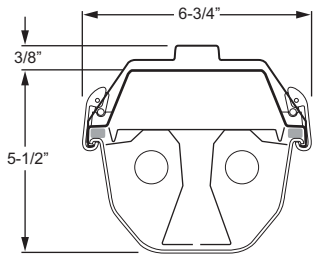


EXAMPLE

97 - 4 - 2 32 - A - OPTIONS - EB2 - UNV

SERIES NOMINAL LENGTH TOTAL WATTAGE/LAMPS SHIELDING OPTIONS/ACCESSORIES BALLAST TYPE VOLTAGE

CROSS SECTION



ORDERING INFORMATION

SERIES
97 Fully Enclosed Wide Distribution Industrial

NOMINAL LENGTH

4	4'
8	8'

TOTAL LAMPS
2 or 4 (2-lamp cross-section)

LAMP WATTAGE/TYPE

28T5S	4', 28-watt T5 (2-lamp ballast only)
32	4', 32-watt T8
54T5H	4', 54-watt T5HO
59	8', 59-watt T8

SHIELDING

A	Clear, 100% acrylic, impact-resistant diffuser with frosted ends (standard)
FR	Frosted, 100% acrylic, impact-resistant diffuser

OPTIONS/ACCESSORIES

Wet location cord sets are yellow.
 For generic EM ballast options (must specify voltage), see [Technical Info.](#)^{2, 3}

3WC6	3-wire, 6' STOW cord
3WC20	3-wire, 20' STOW cord
4WC6	4-wire, 6' STOW cord
4WC20	4-wire, 20' STOW cord
3WMR	3-wire mini-male receptacle only
3WMRC6	3-wire mini-male receptacle with 6' STOW cord
3WMRC20	3-wire mini-male receptacle with 20' STOW cord
4WMR	4-wire mini-male receptacle only
4WMRC6	4-wire mini-male receptacle with 6' STOW cord
4WMRC20	4-wire mini-male receptacle with 20' STOW cord

OPTIONS/ACCESSORIES (Continued)

WET/1	(1) 1/2" watertight hub (factory-installed in end of housing)
WET/2	(2) 1/2" watertight hubs (factory-installed in ends of housing; not available with occupancy sensor option)
SSCMB	Stainless steel chain mounting brackets (2 per fixture)
HA/40C³	High-ambient, 40°C max. operating temp. ³
GMF⁴	Fuse, slow blow (specify voltage) ⁴
GLR⁴	Fuse, fast blow (specify voltage) ⁴
TP⁵	Tamper-resistant polycarbonate latches ⁵
SS LATCH	Stainless steel latches
TP/SS LATCH⁵	Tamper-resistant stainless steel latches ⁵

OCCUPANCY SENSORS¹
 Specify from the following options (must specify 120 or 277V; IP65 certified when specified with occupancy sensor):

OCCWS HB350W-L3W	Factory-installed occupancy and daylight sensor, must specify lens, see page 3 for details. Optional FSIR-100 remote controller available, ordered separately.
OCCWS HB350W-L4W	
OCCWS FSP-211B-L_	
FSIR-100	Remote controller for occupancy sensor, please specify quantity required per project, ships separately, see page 3 for details

BALLAST TYPE

EB2	2-lamp electronic ballast
EB4	4-lamp electronic ballast
EB2/2	(2) 2-lamp electronic ballasts

VOLTAGE

Must specify 120V or 277V when using occupancy sensor.

120	120V
277	277V
UNV	120-277V
347	347V
480	480V (T5HO only)

FEATURES

- ▶ Fully gasketed fixture resists dust, bugs, and moisture.
- ▶ Polycarbonate toggle latches (standard) ensure a tight seal and easy access to electrical components.
- ▶ Optional stainless steel, tamper-resistant stainless steel, or tamper-resistant polycarbonate latches available.
- ▶ NSF/ANSI Standard 2–Splash Zone certified.
- ▶ IP65, IP66, and IP67¹ certified.
- ▶ UL listed as fluorescent fixture suitable for wet locations² when ordered with factory-installed watertight hubs, STOW cord, or mini-male receptacle option.
- ▶ Can operate up to 40°C/104°F with high-ambient (HA/40C) option.³
- ▶ Closed-cell polyurethane gasket poured and formed in place to ensure tight seal—does not absorb water or promote fungal growth.
- ▶ This fixture is proudly made in the USA.

¹ Fixture is IP65 certified when specified with occupancy sensor.
² EM ballast for enclosed and gasketed fixtures is required for fixture to be suitable for wet locations (not available with HA/40C option). Wet location cord sets are yellow.
³ Amalgam lamps recommended. HA/40C option not available with EM ballast.
⁴ Two (2) fuses required when specifying 208V or 240V.
⁵ This option requires a tamper-resistant tool (must be ordered separately). Please specify quantity required per project.



SPECIFICATIONS

Enclosure – Outer housing consists of 5VA (f1) fiberglass, rated for flame and weather resistance.

Internal Housing – 25-gauge die-formed C.R.S.

Latching – Injection-molded polycarbonate latches.

Reflector – 95% reflective highly specular aluminum.

Shielding – Clear, 100% acrylic, impact-resistant, UV resistant, injection-molded diffuser with frosted ends.

Electrical – Electronic ballast standard, instant start T8, program start T5, rated Class P.

Mounting – Surface or suspended. Stainless steel ceiling mounting bracket standard.

Labels & Certifications – UL/CUL listed as fluorescent luminaire suitable for dry or damp locations. UL/CUL listed as suitable for wet locations when specified with watertight hub, STOW cord, or mini-male receptacle option. 2 NSF/ANSI Standard 2–Splash Zone certified, IP65, IP66, and IP671 certified, and rated for NEMA 4X.

Warranty – 5-year limited warranty, see hew.com/warranty.

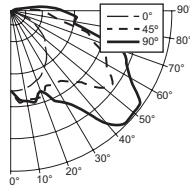
IMPORTANT:

Electrostatic sensitive unit. Observe precautions when handling.

PHOTOMETRY – T5

TEST REPORT INFORMATION

- ▶ Test Report #: 15340.0
- ▶ Date: 03/25/10
- ▶ Lamp Type: FP54T5H0
- ▶ Lamp Quantity: 2



ZONAL CAVITY COEFFICIENTS

	Ceiling			Wall			Floor		
	.80	.70	.50	.80	.70	.50	.80	.70	.50
0	.85	.85	.85	.83	.83	.83	.78	.78	.78
1	.76	.71	.67	.73	.69	.65	.65	.62	.59
2	.67	.60	.54	.65	.58	.53	.55	.50	.46
3	.61	.52	.45	.58	.50	.44	.47	.42	.37
4	.55	.45	.38	.53	.44	.37	.41	.35	.30
5	.49	.39	.31	.47	.38	.31	.35	.29	.25
6	.45	.34	.27	.43	.33	.26	.31	.25	.20
7	.41	.30	.23	.39	.29	.22	.27	.22	.17
8	.38	.27	.20	.36	.26	.19	.24	.19	.14
9	.35	.24	.17	.33	.23	.17	.22	.16	.12
10	.32	.22	.15	.31	.21	.15	.20	.14	.11

Effective Floor Cavity Reflectance = .20

CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle			Zonal Lumens
	0°	45°	90°	
0	1058	1058	1058	
5	1060	1229	1192	112.1
15	1022	1206	1252	336.0
25	936	1087	1309	530.2
35	804	1126	1581	744.0
45	625	1338	2134	1059.1
55	491	1659	2120	1284.2
65	310	1394	1714	1194.4
75	141	1046	1179	913.2
85	47	548	870	556.6
90	27	455	718	

LUMEN SUMMARY

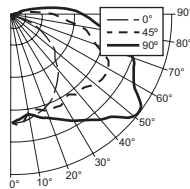
Zone	Lumens	% Lamp	% Fixture
0 - 30	978	9.8	13.4
0 - 40	1722	17.2	23.6
0 - 60	4066	40.7	55.8
0 - 90	6730	67.3	92.4
90 - 120	506	5.1	6.9
90 - 130	538	5.4	7.4
90 - 150	555	5.5	7.6
90 - 180	556	5.6	7.6
Total Luminaire:			
0 - 180	7286	72.9	100.0

Total Luminaire Optical Efficiency: **72.9%**
IES Spacing Criteria: End = 1.2, Diagonal = 1.8, Across = 2.5

PHOTOMETRY – T8

TEST REPORT INFORMATION

- ▶ Test Report #: 15341.0
- ▶ Date: 03/24/10
- ▶ Lamp Type: F32
- ▶ Lamp Quantity: 2



ZONAL CAVITY COEFFICIENTS

	Ceiling			Wall			Floor		
	.80	.70	.50	.80	.70	.50	.80	.70	.50
0	.91	.91	.91	.88	.88	.88	.83	.83	.83
1	.81	.76	.71	.77	.73	.69	.68	.65	.62
2	.72	.64	.57	.69	.62	.56	.57	.52	.48
3	.65	.55	.47	.62	.53	.46	.50	.44	.39
4	.58	.48	.40	.56	.46	.39	.43	.37	.32
5	.53	.41	.33	.50	.40	.33	.37	.31	.26
6	.48	.37	.29	.46	.35	.28	.33	.27	.22
7	.44	.32	.25	.42	.31	.24	.29	.23	.19
8	.41	.29	.22	.39	.28	.21	.26	.20	.16
9	.37	.26	.19	.36	.25	.18	.24	.18	.13
10	.35	.23	.17	.33	.23	.16	.21	.16	.12

Effective Floor Cavity Reflectance = .20

CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle			Zonal Lumens
	0°	45°	90°	
0	813	813	813	
5	810	835	784	77.6
15	763	734	797	214.4
25	706	766	869	355.8
35	598	735	965	478.9
45	461	775	1086	593.7
55	358	840	1202	725.8
65	220	804	1023	698.9
75	96	621	882	604.9
85	29	412	629	413.0
90	16	345	559	

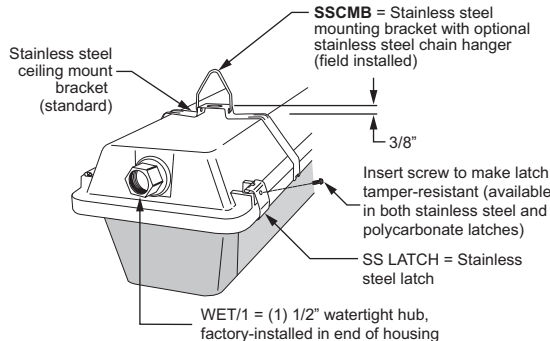
LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0 - 30	648	11.0	14.0
0 - 40	1127	19.1	24.4
0 - 60	2446	41.5	53.0
0 - 90	4163	70.6	90.3
90 - 120	422	7.1	9.1
90 - 130	437	7.4	9.5
90 - 150	447	7.6	9.7
90 - 180	449	7.6	9.7
Total Luminaire:			
0 - 180	4612	78.2	100.0

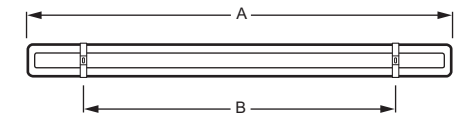
Total Luminaire Optical Efficiency: **78.2%**
IES Spacing Criteria: End = 1.2, Diagonal = 1.4, Across = 1.9

FIXTURE DETAILS

OPTIONS & MOUNTING



BACK VIEW



Nominal Length	Overall Length (A)	Mounting Distance (B)
4'	51-7/8"	36" - 41" OC
8'	100-1/4"	70" - 80" OC

OCCUPANCY SENSOR

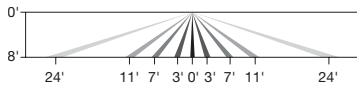
EXAMPLE

OCCWS FSP-211B - L2

OCCUPANCY
SENSOR

LENS

- ▶ Fully adjustable high and low dimmed light levels.
- ▶ Designed for LED fixtures; rated for extreme temperatures and up to 200,000 on/off cycles.
- ▶ Hold-off setpoint with automatic calibration option for convenience and added energy savings.
- ▶ Adjustable via handheld wireless configuration tool (ordered separately, see Accessory Details).
- ▶ IP66 rated with choice of lenses for wet and outdoor locations, and mounting heights from 8' to 20'.
- ▶ Adjustable time delay and cutoff delay.
- ▶ Factory set to 10% dimming at 5 minutes, cutoff at 1 hour.



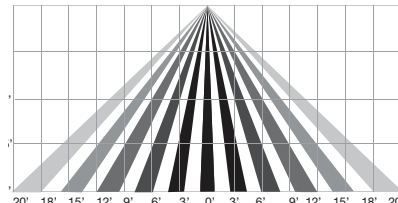
L2 Lens

ORDERING INFORMATION

OCCWS FSP-211B-__ Factory-installed occupancy sensor, must specify lens (120V or 277V only)

LENS

- L2** Coverage at 8' mounting height: $\phi 48'$
- L3** Coverage at 20' mounting height: $\phi 40'$



L3 Lens

ACCESSORY DETAILS

FSIR-100 – Occupancy Sensor Remote



Initial setup and subsequent sensor adjustments are made using a handheld configuration tool (FSIR-100). The wireless tool stores up to five sensor parameter profiles to speed configuration of multiple sensors. Please specify quantity required per project.

Visit www.wattstopper.com for more information.

