

CATALOG #: _____

TYPE: _____

PROJECT: _____

FEATURES

- Available with BIOS® SkyBlue® technology to support proper daytime circadian stimulus
- Slim, low-profile suspended or surface mount fixture provides an architectural alternative to standard wrap-around fixtures
- Round or square profile provides design choices for a variety of applications
- Quality, frosted, extruded acrylic lens snaps securely in place to provide gentle diffused illumination
- Slim end plates are designed to conform to lens shape and prevent unsightly light leaks
- Internal, self-aligning joining method ensures straight rows
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 20-gauge die-formed C.R.S.
- SHIELDING – Frosted, matte acrylic, round or square profile.
- 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. Rated for 50,000 hours at 70% lumen maintenance (L70). See fixture performance data for lumen maintenance.
- MOUNTING – Surface (ceiling or wall) or suspended (hanging hardware required)
- LISTINGS – cCSAus certified as luminaire suitable for dry or damp locations.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.



ORDERING EXAMPLE: LLM - 4 - L6/835 - S - SQ - ACF/D48 - OPTIONS - DIM - UNV

ORDERING INFO

SERIES	NOMINAL LENGTH ^[1]	LUMENS ^[2]	CRI	CCT	MOUNTING TYPE	
LLM	Stand-alone: 2', 4' & 8' nominal lengths, fixture ships assembled. Example: 4 = 4'	L6	600lm	8 80	27 2700K	S Surface
		L10	1,000lm	9 90 ^[3]	30 3000K	P Suspended
	Row-mount: Lengths specified in 4' increments Example: 12 = 12'	L15	1,500lm		35 3500K	
		L20	2,000lm		40 4000K	
Product Builder Simplify ordering & layout design with the Williams Linear Product Builder at hew.com						

SHIELDING

- RD Round frosted acrylic
- SQ Square frosted acrylic

MOUNTING

AIRCRAFT CABLES (EXAMPLE: ACF/D48) ^[4]

Prefix	Type	Length
ACF/ Feeder	D 1" grid & hardpan	24 24"
ACJ/ Joiner	N 9/16" grid	48 48"
	S Slot grid	96 96"

OPTIONS ^[5]

- EM/7WRM Remote mount 7-watt emergency battery
- EM/10WLP Low profile 10-watt emergency battery ^[7]
- EM/10WRM Remote mount 10-watt emergency battery
- EM/12WRM Remote mount 12-watt emergency battery
- PS/120 Pull switch, single circuit ^[8]
- WRS/120 White rocker switch ^[9]
- 45AMB (2) 45° adjustable mounting brackets ^[10]
- (L___) Additional lower lumen packages available ^[11]
Example: 800 lumens = LLM-4-L10/835-(L8)

CONTROL ^[6]

- DIM Dimming driver
- DRV Non-dimming driver

VOLTAGE

- 120 120V
- 277 277V
- UNV 120-277V
- 347 347V ^[15]

INTEGRAL OCCUPANCY SENSORS ^[12]

- Passive Infrared (PIR):**
- OCCWS FSP-311-L2-120/277 Digital high/low with L2 lens, 120V or 277V ^[13]
- OCCSS SFR-7-120/277 Line voltage, 120V or 277V
- Ultrasonic:**
- OCCWS FS-505-PP-___ Low voltage ultrasonic ^[14]

NOTES

- 8' length ships with (2) 4' lenses.
- Lumens per foot output based on 3500 CCT. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see Options.
- Extended lead times may apply. Consult factory for availability.
- Specify with P Mounting Type only. See page 3 for SUSPENDED MOUNTING DETAILS.
- See page 3 for FINISH OPTIONS.
- See page 2 for ADDITIONAL CONTROL OPTIONS.
- Available in 4' and 8' lengths only. Not available with L20 lumen package.
- 120V only. Surface mount only.
- 120V only. Surface mount only.
- Surface mount only. Cord recommended, ships separately. See page 3 for SUSPENDED MOUNTING DETAILS. Field-adjustable up and down in 7-1/2" increments.
- (L5) lumen package minimum. Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
- End mount. See page 4 for OCCUPANCY SENSORS DETAILS.
- See page 4 for OCCUPANCY SENSORS DETAILS.
- Must specify 120V, 277V or 347V.
- Not available with EM batteries or OCC sensors.

FIXTURE PERFORMANCE DATA

	PER FOOT					LUMEN MAINTENANCE			
	DELIVERED LUMENS		EFFICACY (lm/W)		WATTAGE	L70	L80	L85	L90
	RD LENS	SQ LENS	RD LENS	SQ LENS					
L6	597	609	147.7	150.7	3.9	>72000	>72000	>72000	50000
L10	990	1010	144.8	147.8	6.7	>72000	>72000	>72000	50000
L15	1505	1536	141.1	144.0	10.4	>72000	>72000	58000	36000
L20	1986	2027	140.0	142.8	13.8	>72000	>72000	58000	36000

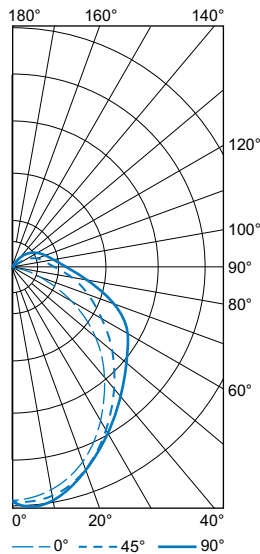
- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is average for 120V through 277V input.
- Results based on 3500K, 80 CRI, actual lumens may vary +/-5%
- Use multiplier table to calculate additional options.

MULTIPLIER TABLE

	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

PHOTOMETRY

LLM-4-L10/835-S-SQ Total Luminaire Output: 3920 lumens; 24.7 Watts | Efficacy: 159 lm/W | 80 CRI; 3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1196	1196	1196	
5	1201	1206	1209	114
15	1107	1126	1131	318
25	956	991	1005	457
35	772	838	884	520
45	553	676	779	520
55	363	538	683	479
65	219	428	584	413
75	105	314	443	319
85	31	229	330	224
90	5	173	250	
95	0	165	232	154
105	0	134	180	122
115	0	110	148	94
125	0	90	126	72
135	0	73	103	51
145	0	64	90	35
155	0	48	63	20
165	0	36	41	8
175	0	12	24	1
180	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	889	23
	0 - 40	1408	36
	0 - 60	2407	61
	0 - 90	3363	86
	90 - 180	557	14
	0 - 180	3920	100

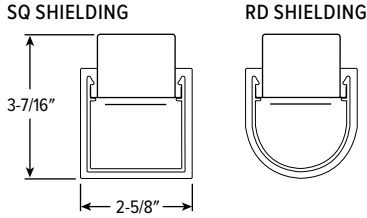
ADDITIONAL CONTROL OPTIONS

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

CATALOG NUMBER	DESCRIPTION
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
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)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LTE LINE	Lutron Hi-lume 1% 2-wire dimming driver forward phase line voltage controls (120V only)
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver
ELDO SOLOB	EldoLED Solodrive, 0.1% dimming driver for 0-10V controls
ELDO SOLOB DALI	EldoLED Solodrive, 0.1% dimming driver for DALI controls
ELDO ECO1	EldoLED Ecodrive, 1% dimming driver for 0-10V controls
ELDO ECO1 DALI	EldoLED Ecodrive, 1% dimming driver for DALI controls

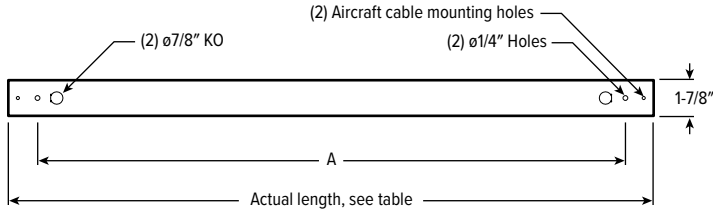


CROSS SECTIONS



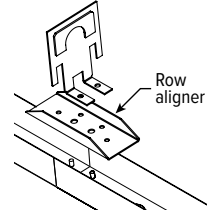
FIXTURE DETAILS

BACKVIEW



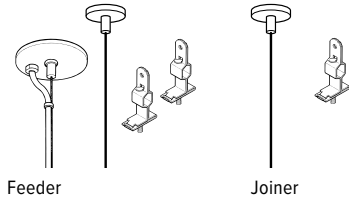
NOMINAL LENGTH	ACTUAL LENGTH	A
2'	24-5/16"	23-5/16"
4'	46-7/16"	45-7/16"
8'	92-15/16"	91-15/16"

ROW ALIGNER DETAIL



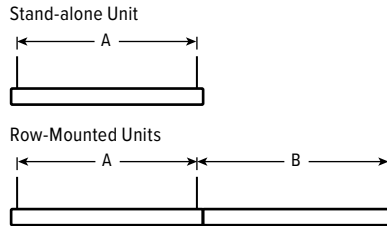
SUSPENDED MOUNTING DETAILS

STANDARD HARDWARE (Grid and Hardpan)



- Fixtures are provided with adjustable length aircraft cables and mounting hardware, must specify.
- Electrical supply is brought into the feeder fixture, either as part of a row or as a stand-alone unit. Joiner fixtures complete the row.
- The feeder kits are standard with a 5" canopy to cover the junction box and a 2" canopy at the non-feed point. No J-box is required at non-feed points.

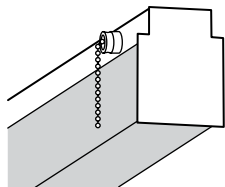
CENTER-TO-CENTER MOUNTING CABLE DETAIL



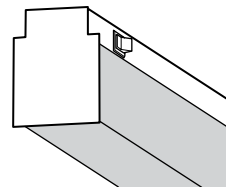
	CABLE MOUNT	
	A	B
2'	23-1/4"	24-1/4"
4'	45-3/8"	46-3/8"
8'	91-3/4"	92-3/4"

OPTIONS DETAILS (surface mount only)

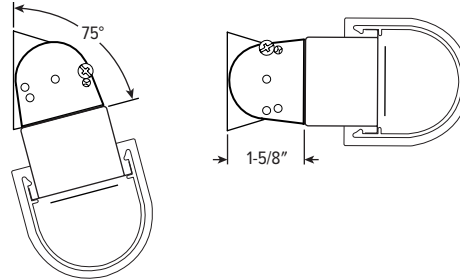
PS/120 (Pull switch)



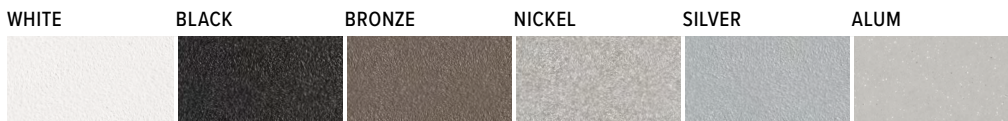
WRS/120 (White rocker switch)



45AMB



FINISH OPTIONS



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.



OCCUPANCY SENSORS DETAILS

ORDERING EXAMPLE: OCCWS FSP-311 - L2 - 120/277

FEATURES

- Fully adjustable high and low dimmed light levels.
- Designed for LED fixtures; rated for up to 200,000 on/off cycles.
- Hold-off setpoint with automatic calibration option for convenience and added energy savings.
- Adjustable via sensor configuration app.
- Adjustable time delay and cutoff delay.
- Factory set to 10% dimming at 5 minutes, cutoff at 1 hour.

SENSOR CONFIGURATION APP

Initial setup and subsequent sensor adjustments are made using the iOS or Android Sensor Configuration App. This app enables adjustment of parameters including high and low modes, sensitivity, time delay, cut off and more. The smartphone app is also used to initiate automatic calibration of the FSP-3x1B ambient light level setpoint. The setpoint is used to hold the controlled lighting off or at low level when there is sufficient daylight. The wireless tool stores an unlimited number of sensor parameter profiles to speed configuration of multiple sensors.

Visit www.wattstopper.com for more information.

LENS COVERAGE PATTERNS

L2 Coverage at 8' mounting height: ø48'

