

# ENVIROSEAL™

## Food Processing Luminaires

### FES SERIES

#### PRODUCT FEATURES:

- » Ceiling or wall mount – 12"×24", 12"×36", 12"×48", 12"×72", 12"×96"
- » One-piece 20-gauge housing with UV-stabilized polycarbonate lens
- » IP65 option available
- » For Hazardous applications please refer to the HES series



#### PROJECT INFORMATION

Job Name \_\_\_\_\_

Fixture Type \_\_\_\_\_

Catalog Number \_\_\_\_\_

Approved by \_\_\_\_\_

#### SPECIFICATIONS:

**HOUSING:** One-piece, seam-welded 20-gauge CRS. Base provided with two-point mounting holes and one wireway hole. Lens is positioned in baseplate channels and retained with stainless steel fastener(s). Base mounts flush to ceiling or wall surface.

**LENS/GASKET:** UV-stabilized, pearlescent or clear polycarbonate. Smooth exterior, linear prismatic interior. Nominal thickness .125". Linear silicone gasket to seal doorframe to housing.

**FINISH:** Brushed stainless steel finish (#4B) or white TGIC polyester powder coat – 5-stage pre-treatment; Salt spray test: 1,000 hours; Reflectance: 92%.

**SOCKETS:** Shock-resistant sockets with internal locking collar to ensure positive lamp retention.

**HARDWARE:** Two Type 302 stainless steel Phillips head fasteners secure lens in housing channel.

**ELECTRICAL:** LED: Available 3000K, 3500K, 4000K and 5000K color temperatures, 82 CRI. 120-277VAC or 347VAC, 50/60Hz electrical input with serviceable high power factor electronic, constant-current driver (<20% THD, >0.95 PF). Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities (non dim-to-dark with 347V); max source current 330µA. LE: Class P ballast. Fluorescent electronic 120/277 or 347 voltage ballasts, high power factor. Optional one-lamp 90 minute nickel-cadmium battery pack (EL) includes inverter charger, test switch and charging indicator lamp.

**SENSOR & CONTROLS:** Optional sensor available with compatible third party controls. To see the full list of compatible controls, [click here](#).

**PHOTOMETRICS:** Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric data, please go to [www.kenall.com](#).

**WARRANTY:** Limited five (5) year LED warranty. [Peace of Mind Guarantee against breakage](#).

**LISTINGS:** UL and CUL listed for Wet Location – ceiling mount covered ceiling. UL and CUL listed for Damp Location – horizontal wall mount. Optional UL certified IP65 in compliance with IEC 60598 (IP65 Option) – ceiling mount. NSF2 Splash/Non-Food Zone. Rated for use in FED-STD 209E/Class 1 (ISO 3) Cleanrooms.



#### ORDERING INFORMATION (Ex: FES12-48-45L50K-DCC-1-DV-2H-PP-FS)

Model	Length	Lamp Qty/Type	Ballast/Driver Type	Ballast/Driver Qty	Voltage	Housing	Lens Type	Options	
<b>FES12</b>									
<b>Nominal Length</b>		<b>Lamp Qty/Type Continued</b>	<b>8' Lengths (Lamp Qty per 4' Cross Section)</b>		<b>Housing Options</b>				
24	2'	<b>4' Lengths</b>	<b>1-45L30K</b>	45 Watt 3000K LED	<b>1-45L30K</b>	45 Watt 3000K LED	<b>2H</b>	20-Ga CRS; Painted	
36	3'	<b>1-45L30K</b>	45 Watt 3000K LED	<b>1-45L35K</b>	45 Watt 3500K LED	<b>1-45L35K</b>	45 Watt 3500K LED	<b>P5H</b>	20-Ga 304SS; Painted
48	4'	<b>1-45L35K</b>	45 Watt 3500K LED	<b>1-45L40K</b>	45 Watt 4000K LED	<b>1-45L40K</b>	45 Watt 4000K LED	<b>5H</b>	20-Ga 304SS; Brushed
72	6'	<b>1-45L40K</b>	45 Watt 4000K LED	<b>1-45L50K</b>	45 Watt 5000K LED	<b>1-45L50K</b>	45 Watt 5000K LED	<b>PXH</b>	20-Ga 316SS; Painted
96	8'	<b>1-45L50K</b>	45 Watt 5000K LED	<b>1-67L30K</b>	67 Watt 3000K LED	<b>1-67L30K</b>	67 Watt 3000K LED	<b>XH</b>	20-Ga 316SS; Brushed
		<b>1-67L30K</b>	67 Watt 3000K LED	<b>1-67L35K</b>	67 Watt 3500K LED	<b>1-67L35K</b>	67 Watt 3500K LED	<b>Lens Type</b>	
		<b>1-67L35K</b>	67 Watt 3500K LED	<b>1-67L40K</b>	67 Watt 4000K LED	<b>1-67L40K</b>	67 Watt 4000K LED	<b>PP</b>	Pearlescent Polycarbonate
		<b>1-67L40K</b>	67 Watt 4000K LED	<b>1-67L50K</b>	67 Watt 5000K LED	<b>1-67L50K</b>	67 Watt 5000K LED	<b>CP*</b>	Clear Polycarbonate
		<b>1-67L50K</b>	67 Watt 5000K LED	<b>1-90L30K</b>	90 Watt 3000K LED	<b>1-90L30K</b>	90 Watt 3000K LED	<b>Options</b>	
		<b>1-90L30K</b>	90 Watt 3000K LED	<b>1-90L35K</b>	90 Watt 3500K LED	<b>1-90L35K</b>	90 Watt 3500K LED	<b>LEL</b>	LED Emergency Battery Backup (45L lamp type only; n/a with 347V)
		<b>1-90L35K</b>	90 Watt 3500K LED	<b>1-90L40K</b>	90 Watt 4000K LED	<b>1-90L40K</b>	90 Watt 4000K LED	<b>EL* ‡</b>	Standard Lumen EL Pack (450 lumens) (n/a LED)
		<b>1-90L40K</b>	90 Watt 4000K LED	<b>1-90L50K</b>	90 Watt 5000K LED	<b>1-90L50K</b>	90 Watt 5000K LED	<b>PEL* ‡</b>	High Lumen EL Pack (1100 lumens) (n/a LED)
		<b>1-90L50K</b>	90 Watt 5000K LED	<b>2-28</b>	F28T5	<b>2-28</b>	F28T5	<b>SEL* ‡</b>	Specified EL Pack (n/a LED)
		<b>2-28</b>	F28T5	<b>3-28</b>	F28T5	<b>3-28</b>	F28T5	<b>FS</b>	Single Fuse & Holder (n/a with 347V)
		<b>3-28</b>	F28T5	<b>4-28</b>	F28T5	<b>4-28</b>	F28T5	<b>HC^</b>	Row Mount Hub Connector(see KO option)
		<b>4-28</b>	F28T5	<b>2-32</b>	F32T8	<b>2-32</b>	F32T8	<b>KO^</b>	Continuous Row Mount – .875" diameter knockout in end caps (see HC option for Kenall supplied attachment connector)
		<b>2-32</b>	F32T8	<b>3-32</b>	F32T8	<b>3-32</b>	F32T8	<b>PM^▲</b>	Pendant Mount (damp locations only) – suspension hardware by others
		<b>3-32</b>	F32T8	<b>4-32</b>	F32T8	<b>4-32</b>	F32T8	<b>IP65**●</b>	UL certified IP65 Listing (Ceiling Mount)
		<b>4-32</b>	F32T8	<b>2-54</b>	F54T5HO	<b>2-54</b>	F54T5HO	<b>TR</b>	Tamper Resistant Torx with center pin fastener
		<b>2-54</b>	F54T5HO	<b>3-54</b>	F54T5HO	<b>3-54</b>	F54T5HO	<b>* Option not available with 2' fixtures with LED, or F21T5 lamps</b>	
		<b>3-54</b>	F54T5HO	<b>4-54</b>	F54T5HO	<b>4-54</b>	F54T5HO	<b>** Not available with KO or PM options</b>	
		<b>4-54</b>	F54T5HO	<b>Ballast/Driver Type</b>		<b>Ballast/Driver Type</b>		<b>^ Not available with IP65 option</b>	
		<b>6' Lengths</b>	<b>2-72</b>	F72T8HO (2)	<b>DCC</b>	Dimming Constant Current (LED)	<b>IS</b>	Elec <10% THD Instant Start (T8)	<b>‡ 347V available only with F25T8/F32T8 Lamps</b>
		<b>2-72</b>	F72T8HO (2)	<b>IS</b>	Elec <10% THD Instant Start (LED)	<b>IS</b>	Elec <10% THD Instant Start (T8)	<b>▲ Consult factory for pendant mount hole locations.</b>	<b>● Add .375" to overall length</b>
		<b>3-72</b>	F39T5HO	<b>RS</b>	Elec <10% THD Rapid Start (T5, T5HO, T8, T8HO, Biax)	<b>RS</b>	Elec <10% THD Rapid Start (T5, T5HO, T8, T8HO, Biax)	<b>▼ n/a with LED</b>	
		<b>4-72</b>	F39T5HO	<b>SB</b>	Specified Ballast	<b>SB</b>	Specified Ballast		
		<b>2-39</b>	F39T5HO	<b>Ballast/Driver Quantity</b>		<b>Ballast/Driver Quantity</b>			
		<b>3-39</b>	F39T5HO	<b>1</b>	One	<b>1</b>	One		
		<b>4-39</b>	F39T5HO	<b>2</b>	Two	<b>2</b>	Two		
				<b>Voltage</b>		<b>Voltage</b>			
				<b>DV</b>	120-277 Volts	<b>DV</b>	120-277 Volts		
				<b>347</b>	347 Volt	<b>347</b>	347 Volt		



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## Food Processing Luminaires

For additional photometry, go to [www.kenall.com](http://www.kenall.com)

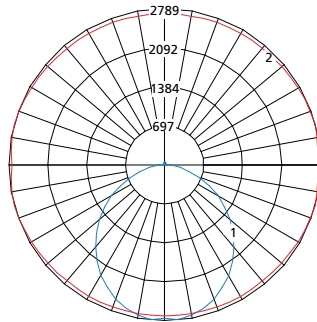
### FES SERIES

#### PERFORMANCE

Lamp Type	Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (hrs)
	@ 25°C (lm)	Efficacy (lm/W)			
45L30K	4,751	97	49	100	80,000
45L35K	4,898	100			
45L40K	5,065	103			
45L50K	5,198	106			
67L30K	7,360	101	73	75	80,000
67L35K	7,587	104			
67L40K	7,846	107			
67L50K	8,053	110			
90L30K	9,436	96	98	100	60,000
90L35K	9,728	99			
90L40K	10,060	103			
90L50K	10,325	105			

Displayed information above is for PP lens type. Info subject to change. Visit [www.kenall.com](http://www.kenall.com) for IES files and additional information.

Model: ES12-48-67L40K-DCC-DV-2H-PP

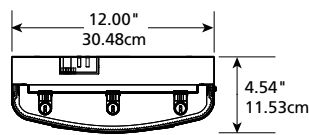


Max Candela = 2789 Located At Horizontal Angle = 15, Vertical Angle = 5

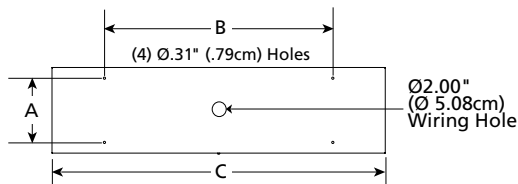
- 1 - Vertical Plane Through Horizontal Angles (15 - 195) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

#### DIMENSIONAL DATA

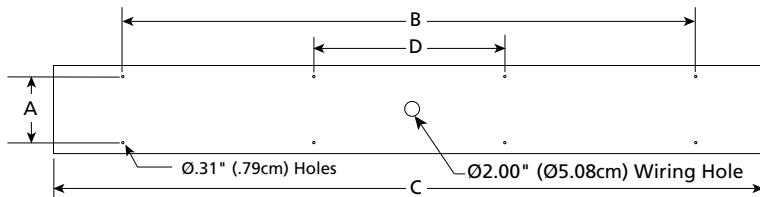
##### CROSS SECTION



##### BASEPLATE



##### 96\"/>



##### DIMENSIONAL DATA (IN INCHES)

	A	B	C	D
FES1224 – T5	9.00	16.00	23.25	
FES1224 – T8	9.00	16.00	24.75	
FES1236 – T5	9.00	20.00	35.00	
FES1236 – T8	9.00	20.00	36.75	
FES1248 – T5	9.00	32.00	46.75	
FES1248 – T8	9.00	32.00	48.75	
FES1248 – LED	9.00	32.00	48.75	
FES1272 – T8	9.00	56.00	72.75	
FES1248 – T5	9.00	32.00	46.75	
FES1248 – T8	9.00	32.00	48.75	
FES1296 – T5	9.00	78.00	92.87	26.00
FES1296 – T8	9.00	78.00	96.87	26.00
FES1296 – LED	9.00	78.00	96.87	26.00



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