

5L EVF Series Fluorescent Luminaires

Cl. I, Div. 1, Groups C, D
 Cl. I, Zone 1, Group IIB
 Cl. II, Div. 1, Groups E, F, G
 Cl. III, Simultaneous Presence

Paint Spray (Suffix S718)
 Wet Locations (Suffix S718)
 3, 3R, IP54 (Suffix S718)

Applications:

- EVF Luminaires are used in areas where hazardous fumes, gases, or dusts are present
- EVF Luminaires with S718 option are designed specifically for use inside paint spray booths where hazardous fumes, gases, and paint residue are present; this includes powder paint process areas
- EVF Luminaires with S718 option are also suitable for use in wet locations

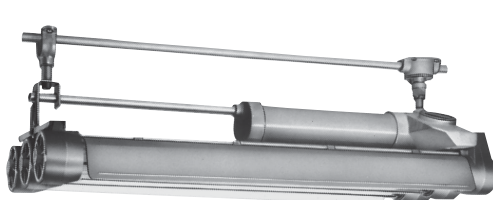
Features:

All EVF Luminaires:

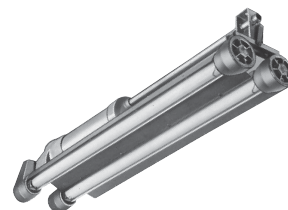
- Provide cool, even light with natural color rendition
- Reduce relamping schedule (long lamp life)
- Continuous and uniform illumination made possible by mounting end to end (no space needed between luminaires for relamping)
- No special tools required for relamping; threaded lamp tube cover provides quick and easy access for relamping
- Threaded joints on lamp tube and wiring chamber covers permit easy access for lower maintenance costs
- Reflectors can be removed or replaced with only a screwdriver
- Easy to install; factory-sealed and wired luminaire facilitates installation
- Standard electronic ballast for 32 watt and 40 watt rapid start luminaires
- Standard energy-efficient ballast for 40 watt slimline, 60 watt and 110 watt luminaires
- Low temperature ballast is supplied as standard on 32 watt T8 (0°F), 40 watt slimline (0°F), 60 watt and 110 watt luminaires (-20°F)
- All exposed hardware is stainless steel for maximum protection against corrosion, and for longer luminaire life
- Copper-free aluminum construction throughout means lighter luminaire weight, easier installation, and excellent corrosion resistance
- All exterior materials are non-sparking
- Type P ballasts furnished in compliance with NEC
- Heavy-duty glass lamp tubes provide maximum strength and impact resistance to protect lamps

EVF Luminaires with S718 Option:

- All joints sealed
- Inside paint booth mounting capabilities provide greater flexibility in luminaire placement, avoids necessity of complicated design and installation work, and improves task lighting control
- Smooth, simple design makes it easy to remove any accumulated deposits of paint residue



3-lamp



2-lamp with angle reflector

Ordering Information:

Furnished For Use with	Hub Size	Line Volts 60 Hz	1-Lamp Cat. #	2-Lamp Cat. #	3-Lamp Cat. #	4-Lamp Cat. #
32 watt, T-8 medium Bi-pin 265MA lamps	3/4"	120-277	EVF21029/UNV	EVF22029/UNV	EVF23029/UNV	EVF24029/UNV
	3/4"	347	EVF21029/347	EVF22029/347	EVF23029/347	EVF24029/347
40 watt, T-12 medium Bi-pin rapid start 430MA lamps†	3/4"	110-125	EVF21082	EVF22082	EVF23082	EVF24082
	3/4"	277	EVF21087	EVF22087	EVF23087	EVF24087
	3/4"	347	EVF21089/347	EVF22089/347	EVF23089/347	EVF24089/347
40 watt, T-12 single pin, slimline 425MA lamps	3/4"	110-125	EVF21032	EVF22032	EVF23032	EVF24032
	3/4"	277	EVF21037	EVF22037	EVF23037	EVF24037
	3/4"	347	EVF21039/347	EVF22039/347	EVF23039/347	EVF24039/347
60 watt, T-12 recessed contact, 800MA lamps†	3/4"	110-125	EVF21062	EVF22062	EVF23062	EVF24062
	3/4"	277	EVF21067	EVF22067	EVF23067	EVF24067
	3/4"	347	EVF21069/347	EVF22069/347	EVF23069/347	EVF24069/347
110 watt, T-12 recessed contact, 1500MA lamps†	3/4"	110-125	EVF21072	EVF22072	EVF23072	EVF24072
	3/4"	277	EVF21077	EVF22077	EVF23077	EVF24077
	3/4"	347	EVF21079/347	EVF22079/347	EVF23079/347	EVF24079/347

†50 Hz not available.

Certifications and Compliances:

- NEC and CEC:
 - Class I, Division 1, Groups C, D
 - Class I, Zone 1, Group IIB
 - Class II, Groups E, F, G
 - Class III Simultaneous Presence (Cl. I and Cl. II)
- Paint Spray (S718)
- UL Standards:
 - 844 Hazardous (Classified) Locations
 - 1598 Luminaires
- CSA Standards:
 - C22.2 No. 137

Standard Materials:

- Copper-free aluminum except sheet aluminum reflectors

Standard Finishes:

- Natural except reflectors
- Reflectors – white epoxy powder coat

Options:

Description	Suffix
• For suitability for wet locations and locations having deposits of readily combustible paint residue	S718
• Corro-free™ epoxy powder coat.....	S752
• With 45° angle reflectors in lieu of straight down reflectors	S369
• Fused (not suitable for marine applications).....	S658
• Furnished with lamps.....	S714
• Low temperature electromagnetic ballast for 40 watt T12 rapid start luminaires rated for 0°F	BY

Mounting Accessories:

Various hazardous area fittings are used to mount EVF Luminaires. The fittings shown on next page support the unwired (relamping) end. For the wired (ballast) end any of the luminaire hangers for hazardous locations (listed in Section 7L) can be used. CPS conduit outlet bodies with hub covers (listed in Section 3F) are also suitable.

Size Ranges:

- 1, 2, 3, and 4-lamp

Electrical Rating Ranges:

- 32 to 110 watts

Temperature Performance Data: (Based on 40°C Ambient)

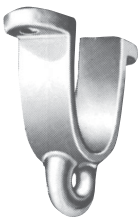
Lamp Type	Class I/Class II/Zone 1				Supply Wire
	1-Lamp	2-Lamp	3-Lamp	4-Lamp	
32/40W	T5	T5	T5	T5	75°C
60W	T5	T5	T5	T5	75°C
110W	T4	T4	T4	T4	90°C

Crouse-Hinds
by **F.T.M.**



Ceiling Saddle Conduit Support

Description	Size (In.)	Cat. #
Ceiling Saddle for Conduit Support	3/4	EVF20



Ceiling Saddle Support Hook

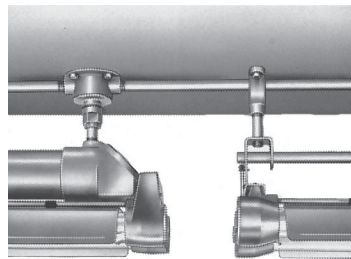
Description	Cat. #
Ceiling Saddle for Support Hook	EVF021



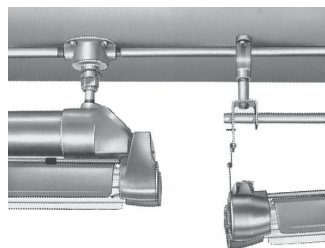
Support Hook for Conduit

Description	Size (In.)	Cat. #
Support Hook for Conduit	3/4	EVF21

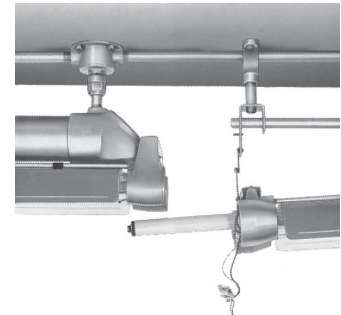
Relamping Information



Adjacent ends of two fixtures suspended in line close together



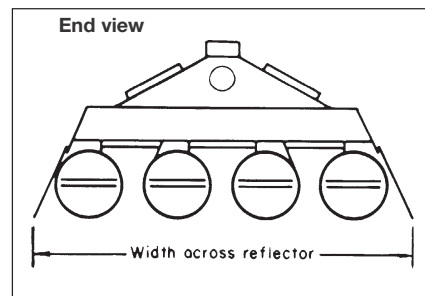
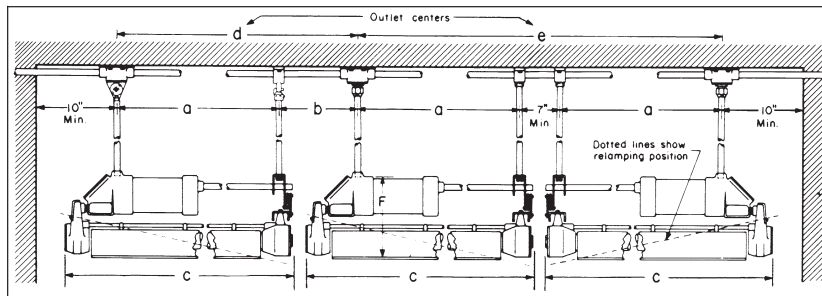
End of one fixture lowered for relamping



One cover removed and lamp partly withdrawn

Where fixtures abut, space for relamping is obtained by lowering one end of the tube assembly as shown. Without tools, the lamp receptacle and mounting plate assemblies can be removed and the lamp withdrawn. In inserting, the reverse procedure is followed.

Dimensions:

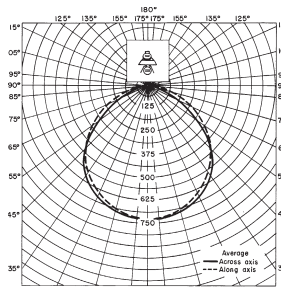


Fixture Type	No. Lamps	a	b	c	d	e	f
32 watt, T-8 Bi-pin							
40 watt, T-12 Bi-pin							
40 watt, T-12 Single pin slimline	1 or 2	44	11	53 ³ / ₈	55	95	10 ¹ / ₄
60 watt, T-12 Recessed contact	3 or 4	46 ¹ / ₂	8 ¹ / ₂	53 ³ / ₈	55	100	10 ¹ / ₄
110 watt, T-12 Recessed contact							

No. of Lamps	Width
1-Lamp	6 ¹ / ₈
2-Lamp	11 ¹ / ₂
3-Lamp	18
4-Lamp	24 ¹ / ₂

Luminaire: All 1-Lamp EVF Luminaires

Lamp: 1-40/T-12, 1-60/T-12
Zonal Degrees: 0-30 0-40 0-60 0-90
Zonal Lumens: 580 953 1633 1897
Total Bare Lamp Lumens: 3100

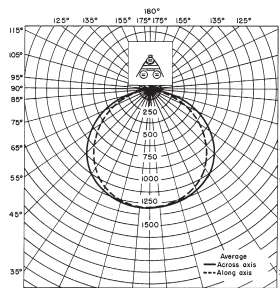


All data provided is for 40W rapid start cool white lamps. Use following candlepower/lumen multipliers for other lamp sizes:
 32W 0.90
 40W Slimline 0.84
 60W Cool white 1.29
 110W Cool white 2.19

Example: Zonal lumens of 1-40W lamp for 0-60° is 1633. Zonal lumens of 1-60W lamp for 0-60° is 1633 x 1.29 = 2107

Luminaire: All 2-Lamp EVF Luminaires

Lamp: 2-40/T-12, 2-38/T-12, 2-60/T-12, 2-110/T12
Zonal Degrees: 0-30 0-40 0-60 0-90
Zonal Lumens: 1055 1765 3262 4125
Total Bare Lamp Lumens: 6300



All data provided is for 40W rapid start cool white lamps. Use following candlepower/lumen multipliers for other lamp sizes:
 32W 0.90
 40W Slimline 0.84
 60W Cool white 1.29
 110W Cool white 2.19

Example: Zonal lumens of 2-40W lamp for 0-60° is 3262. Zonal lumens of 2-60W lamps for 0-60° is 3262 x 1.29 = 4208

Coefficient of Utilization

Effective Floor Cavity Reflectance 20%

% Reflectance Eff. Ceil.	% Reflectance Wall	Room Cavity Ratio				
		1	2	3	4	5
80	50	.697	.616	.546	.485	.434
	30	.670	.574	.497	.430	.376
	10	.647	.539	.458	.388	.334
70	50	.682	.604	.538	.477	.425
	30	.658	.565	.490	.426	.372
	10	.635	.534	.454	.385	.331
50	50	.653	.580	.518	.460	.412
	30	.633	.549	.478	.416	.365
	10	.616	.520	.446	.380	.329
30	50	.627	.559	.500	.445	.399
	30	.612	.533	.467	.407	.357
	10	.597	.509	.438	.375	.325
10	50	.605	.539	.484	.431	.388
	30	.591	.517	.455	.397	.351
	10	.579	.498	.431	.370	.321
% Reflectance Eff. Ceil.	% Reflectance Wall	Room Cavity Ratio				
		6	7	8	9	10
80	50	.391	.351	.316	.289	.252
	30	.334	.295	.262	.235	.198
	10	.294	.257	.223	.197	.164
70	50	.384	.346	.312	.285	.248
	30	.330	.292	.260	.233	.198
	10	.290	.255	.222	.197	.164
50	50	.372	.336	.303	.277	.242
	30	.324	.286	.255	.229	.195
	10	.288	.252	.221	.196	.162
30	50	.361	.325	.295	.270	.236
	30	.319	.283	.251	.225	.192
	10	.286	.249	.219	.194	.161
10	50	.351	.318	.287	.263	.230
	30	.312	.278	.247	.222	.189
	10	.283	.248	.218	.193	.159

Coefficient of Utilization

Effective Floor Cavity Reflectance 20%

% Reflectance Eff. Ceil.	% Reflectance Wall	Room Cavity Ratio				
		1	2	3	4	5
80	50	.697	.616	.546	.485	.434
	30	.670	.574	.497	.430	.376
	10	.647	.539	.458	.388	.334
70	50	.682	.604	.538	.477	.425
	30	.658	.565	.490	.426	.372
	10	.635	.534	.454	.385	.331
50	50	.653	.580	.518	.460	.412
	30	.633	.549	.478	.416	.365
	10	.616	.520	.446	.380	.329
30	50	.627	.559	.500	.445	.399
	30	.612	.533	.467	.407	.357
	10	.597	.509	.438	.375	.325
10	50	.605	.539	.484	.431	.388
	30	.591	.517	.455	.397	.351
	10	.579	.498	.431	.370	.321
% Reflectance Eff. Ceil.	% Reflectance Wall	Room Cavity Ratio				
		6	7	8	9	10
80	50	.391	.351	.316	.289	.252
	30	.334	.295	.262	.235	.198
	10	.294	.257	.223	.197	.164
70	50	.384	.346	.312	.285	.248
	30	.330	.292	.260	.233	.198
	10	.290	.255	.222	.197	.164
50	50	.372	.336	.303	.277	.242
	30	.324	.286	.255	.229	.195
	10	.288	.252	.221	.196	.162
30	50	.361	.325	.295	.270	.236
	30	.319	.283	.251	.225	.192
	10	.286	.249	.219	.194	.161
10	50	.351	.318	.287	.263	.230
	30	.312	.278	.247	.222	.189
	10	.283	.248	.218	.193	.159

5L

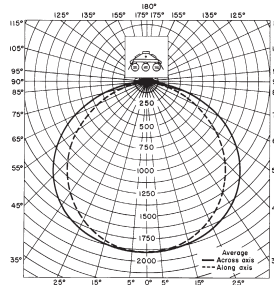
EVF Series Fluorescent Luminaires

Photometric Data

5L

Luminaire: All 3-Lamp EVF Luminaires

Lamp: 3-40/T-12, 3-38/T-12, 3-60/T-12, 3-110/T-12
 Zonal Degrees: 0-30 0-40 0-60 0-90
 Zonal Lumens: 1917 3226 6066 7919
 Total Bare Lamp Lumens: 9300



All data provided is for 40W rapid start cool white lamps. Use following candlepower/lumen multipliers for other lamp sizes:
 32W 0.90
 40W Slimline 0.84
 60W Cool white 1.29
 110W Cool white 2.19

Example: Zonal lumens of 3-40W lamps for 0-40° is 3226. Zonal lumens of 3-40W Slimline lamps for 0-40° is 3226 x 0.84 = 2710

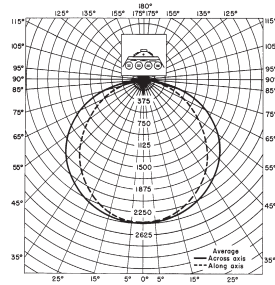
Coefficient of Utilization

Effective Floor Cavity Reflectance 20%

% Reflectance Eff. Ceil.	Wall	Room Cavity Ratio				
		1	2	3	4	5
80	50	.712	.626	.553	.489	.436
	30	.683	.581	.500	.431	.376
	10	.658	.544	.459	.386	.331
70	50	.697	.614	.544	.481	.427
	30	.670	.572	.494	.426	.371
	10	.646	.539	.455	.383	.328
50	50	.667	.589	.524	.463	.414
	30	.645	.555	.481	.416	.364
	10	.626	.524	.446	.378	.326
30	50	.640	.567	.505	.447	.400
	30	.623	.539	.469	.407	.356
	10	.607	.513	.439	.374	.322
10	50	.617	.547	.488	.433	.388
	30	.602	.523	.457	.397	.350
	10	.589	.502	.431	.368	.318
% Reflectance Eff. Ceil.	Wall	Room Cavity Ratio				
		6	7	8	9	10
80	50	.392	.352	.317	.289	.252
	30	.332	.293	.260	.233	.196
	10	.290	.254	.219	.194	.160
70	50	.385	.347	.312	.285	.248
	30	.329	.290	.258	.230	.196
	10	.287	.251	.218	.194	.160
50	50	.372	.336	.303	.277	.242
	30	.322	.284	.253	.227	.193
	10	.285	.248	.217	.192	.159
30	50	.362	.325	.295	.269	.236
	30	.317	.280	.248	.223	.190
	10	.282	.245	.215	.191	.157
10	50	.351	.317	.286	.262	.230
	30	.310	.276	.244	.220	.187
	10	.279	.244	.214	.189	.156

Luminaire: All 4-Lamp EVF Luminaires

Lamp: 4-40/T-12, 4-38/T-12, 4-60/T-12, 4-110/T-12
 Zonal Degrees: 0-30 0-40 0-60 0-90
 Zonal Lumens: 1961 3305 6250 8224
 Total Bare Lamp Lumens: 12400



All data provided is for 40W rapid start cool white lamps. Use following candlepower/lumen multipliers for other lamp sizes:
 32W 0.90
 40W Slimline 0.84
 60W Cool white 1.29
 110W Cool white 2.19

Example: Zonal lumens of 4-40W lamps for 0-30° is 1961. Zonal lumens of 4-110W Slimline lamps for 0-30° is 1961 x 2.19 = 4295

Coefficient of Utilization

Effective Floor Cavity Reflectance 20%

% Reflectance Eff. Ceil.	Wall	Room Cavity Ratio				
		1	2	3	4	5
80	50	.692	.607	.535	.473	.421
	30	.664	.563	.484	.416	.362
	10	.639	.526	.442	.372	.318
70	50	.678	.595	.526	.465	.412
	30	.652	.554	.477	.411	.357
	10	.628	.521	.439	.369	.315
50	50	.648	.571	.507	.447	.399
	30	.627	.538	.465	.401	.351
	10	.609	.507	.431	.364	.313
30	50	.622	.550	.488	.432	.386
	30	.606	.522	.453	.392	.343
	10	.590	.497	.423	.360	.309
10	50	.600	.530	.472	.418	.374
	30	.585	.506	.442	.383	.337
	10	.572	.486	.416	.354	.305
% Reflectance Eff. Ceil.	Wall	Room Cavity Ratio				
		6	7	8	9	10
80	50	.379	.340	.306	.279	.243
	30	.320	.282	.250	.224	.189
	10	.278	.243	.210	.185	.153
70	50	.372	.335	.301	.275	.239
	30	.316	.279	.248	.221	.189
	10	.275	.240	.209	.185	.153
50	50	.359	.324	.292	.267	.233
	30	.310	.273	.243	.218	.185
	10	.273	.238	.208	.184	.152
30	50	.349	.313	.284	.260	.227
	30	.305	.269	.238	.214	.182
	10	.271	.235	.206	.183	.150
10	50	.339	.306	.276	.253	.221
	30	.298	.265	.235	.211	.179
	10	.268	.234	.205	.181	.149

5L