

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

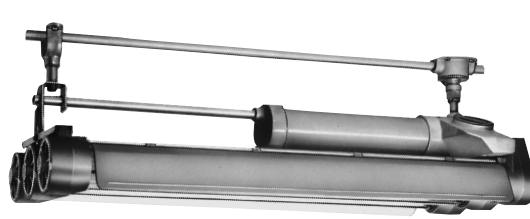
Features:

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 EVF21029/347	EVF22029/UNV EVF22029/347	EVF23029/UNV EVF23029/347	EVF24029/UNV EVF24029/347
40 watt, T-12 medium Bi-pin rapid start 430MA lamps†	3/4"	110-125	EVF21082 EVF21087 EVF21089/347	EVF22082 EVF22087 EVF22089/347	EVF23082 EVF23087 EVF23089/347	EVF24082 EVF24087 EVF24089/347
40 watt, T-12 single pin, slimline 425MA lamps	3/4"	110-125	EVF21032 EVF21037 EVF21039/347	EVF22032 EVF22037 EVF22039/347	EVF23032 EVF23037 EVF23039/347	EVF24032 EVF24037 EVF24039/347
60 watt, T-12 recessed contact, 800MA lamps†	3/4"	110-125	EVF21062 EVF21067 EVF21069/347	EVF22062 EVF22067 EVF22069/347	EVF23062 EVF23067 EVF23069/347	EVF24062 EVF24067 EVF24069/347
110 watt, T-12 recessed contact, 1500MA lamps†	3/4"	110-125	EVF21072 EVF21077 EVF21079/347	EVF22072 EVF22077 EVF22079/347	EVF23072 EVF23077 EVF23079/347	EVF24072 EVF24077 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

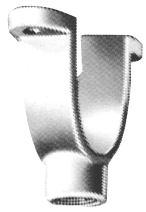
Electrical Rating Ranges:

- 32 to 110 watts

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

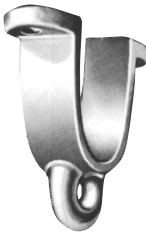
Lamp Type	Class I/Class II/Zone 1				Supply Wire
	1-Lamp	2-Lamp	3-Lamp	4-Lamp	
32/40W	T5	T5	T5	T5	75°C
60W	T5	T5	T5	T5	75°C
110W	T4	T4	T4	T4	90°C

Crouse-Hinds
 by **E•T•N**



Ceiling Saddle Conduit Support

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



Ceiling Saddle Support Hook

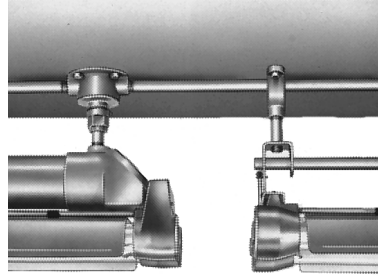
Description	Cat. #
Ceiling Saddle for Support Hook	EVF021



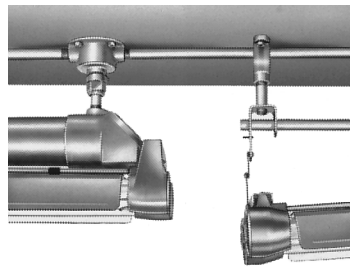
Support Hook for Conduit

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

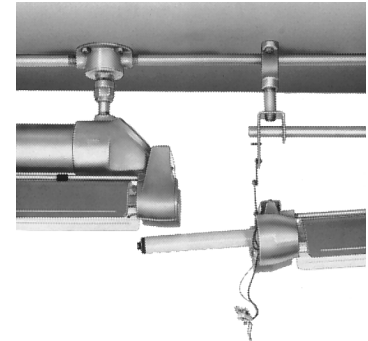
Relamping Information



Adjacent ends of two fixtures suspended in line close together



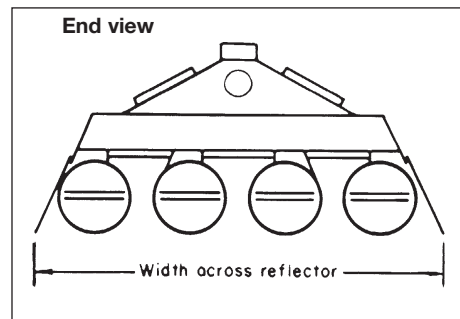
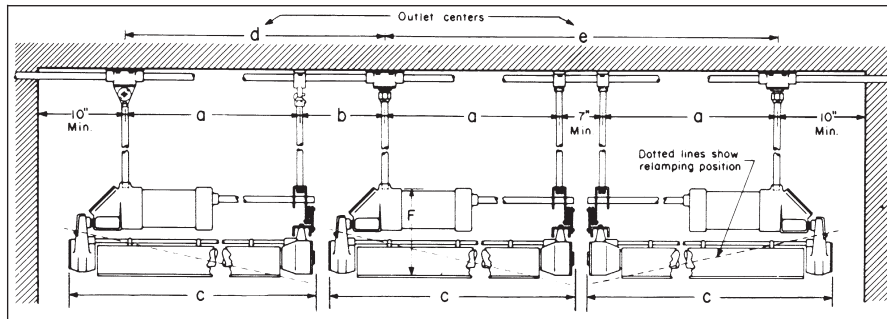
End of one fixture lowered for relamping



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:

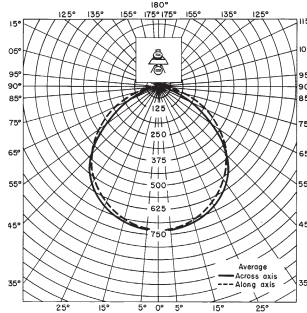


Fixture Type	No. Lamps	a	b	c	d	e	f
32 watt, T-8 Bi-pin							
40 watt, T-12 Bi-pin							
40 watt, T-12 Single pin slimline	1 or 2	44	11	53 ³ / ₈	55	95	10 ¹ / ₄
60 watt, T-12 Recessed contact	3 or 4	46 ¹ / ₂	8 ¹ / ₂	53 ³ / ₈	55	100	10 ¹ / ₄
110 watt, T-12 Recessed contact							

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			

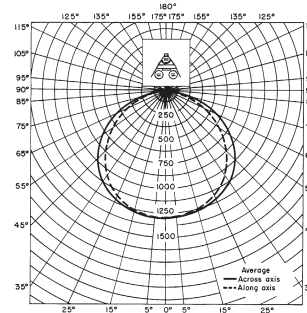


All data provided is for 40W rapid start cool white lamps. Use following candlepower/lumen multipliers for other lamp sizes:
 32W 0.90
 40W Slimline 0.84
 60W Cool white 1.29
 110W Cool white 2.19

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.	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.	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%

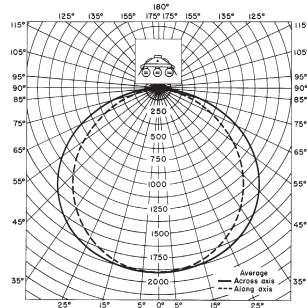
% Reflectance Eff. Ceil.	Wall	Room Cavity Ratio				
		1	2	3	4	5
80	50	.697	.616	.546	.485	.434
	30	.670	.574	.497	.430	.376
	10	.647	.539	.458	.388	.334
70	50	.682	.604	.538	.477	.425
	30	.658	.565	.490	.426	.372
	10	.635	.534	.454	.385	.331
50	50	.653	.580	.518	.460	.412
	30	.633	.549	.478	.416	.365
	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.	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
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	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

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

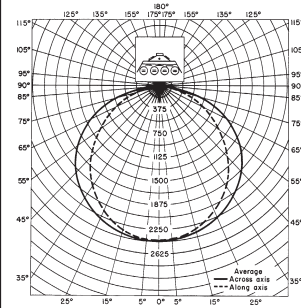


All data provided is for 40W rapid start cool white lamps. Use following candlepower/lumen multipliers for other lamp sizes:
 32W 0.90
 40W Slimline 0.84
 60W Cool white 1.29
 110W Cool white 2.19

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

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	Room Cavity Ratio						
	Eff. Ceil.	Wall	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	Room Cavity Ratio						
	Eff. Ceil.	Wall	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	

Coefficient of Utilization

Effective Floor Cavity Reflectance 20%

% Reflectance	Room Cavity Ratio						
	Eff. Ceil.	Wall	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	Room Cavity Ratio						
	Eff. Ceil.	Wall	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	

