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)

Application:

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

3-lamp

2-lamp with angle reflector

EVF

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	¾″	110-125	EVF21022	EVF22022	EVF23022	EVF24022
Bi-pin 265MA lamps	¾″	277	EVF21027	EVF22027	EVF23027	EVF24027
40 watt, T-12 medium	¾″	110-125	EVF21082	EVF22082	EVF23082	EVF24082
Bi-pin rapid start	¾″	277	EVF21087	EVF22087	EVF23087	EVF24087
430MA lamps	¾″	347	EVF21089/347	EVF22089/347	EVF23089/347	EVF24089/347
40 watt, T-12 single	¾″	110-125	EVF21032	EVF22032	EVF23032	EVF24032
pin, slimline	¾″	277	EVF21037	EVF22037	EVF23037	EVF24037
425MA lamps	¾″	347	EVF21039/347	EVF22039/347	EVF23039/347	EVF24039/347
60 watt, T-12 recessed	¾″	110-125	EVF21062	EVF22062	EVF23062	EVF24062
contact, 800MA lamps	¾″	277	EVF21067	EVF22067	EVF23067	EVF24067
	¾″	347	EVF21069/347	EVF22069/347	EVF23069/347	EVF24069/347
110 watt, T-12 recessed	¾″	110-125	EVF21072	EVF22072	EVF23072	EVF24072
contact, 1500MA lamps	¾″	277	EVF21077	EVF22077	EVF23077	EVF24077
	¾″	347	EVF21079/347	EVF22079/347	EVF23079/347	EVF24079/347

* For 220 volt 50 hz, 240 volt 50 hz or 240 volt 60 hz operation change the last ''2'' in the 120 volt 60 hz catalog number to a ''9'' and add ''/220 50'', ''/240 50'' or ''/240 60'' respectively.
ie. For a 2 lamp, 40 watt rapid start luminaire for 220 volt 50 hz operation order an EVF22089/220 50.

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

Mounting Accessories:

Various hazardous area fittings are used to mount EVF luminaires. The fittings shown on page 838 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 4F) are also suitable

Options:

- For suitability for wet locations and locations having deposits of readily combustible paint residue – add Cat. No. Suffix **S718**
- *Corro-free*™ epoxy powder coat – add Cat. No. Suffix **S752**
- With 45° angle reflectors in lieu of straight down reflectors – add Cat. No. Suffix **S369**
- Clear disposable polyester tube wrap – consult Crouse-Hinds
- Fused – add suffix **S658**
- Furnished with lamps - add suffix **S714.**
- Low temperature electromagnetic ballast for 40 watt T12 rapid start luminaires rated for 0°F - add suffix **BY.**

Size Ranges:

- 1, 2, 3, and 4-lamp

Electrical Rating Ranges:

- 32 to 110 watts

Standard Materials:

- Copper-free aluminum except sheet aluminum reflectors

Standard Finishes:

- Natural except reflectors
- Reflectors – white epoxy powder coat

Certifications and Compliances:

- NEC and CEC:
  Class I, Division 1 Group C, D
  Class I, Zone 1 Group IIB
  Class II Group 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

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

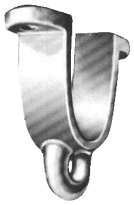
Lamp Type	Class I/Class II/Zone 1 1 Lamp	2 Lamp	3 Lamp	4 Lamp	Supply Wire
32/40W	T5	T5	T5	T5	75°C
60W	T5	T5	T5	T5	75°C
110W	T4	T4	T4	T4	90°C

EVF Series
Fluorescent Luminaires

Accessories
Relamping Information

Ceiling Saddle for Conduit Support

Size	Cat. #
¾	EVF20



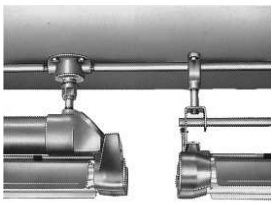
Ceiling Saddle for Support Hook

Cat. #
EVF021

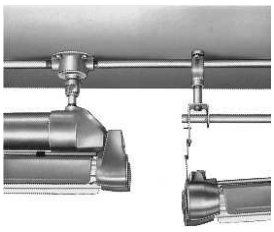
Support Hook for Conduit

Size	Cat. #
¾	EVF21

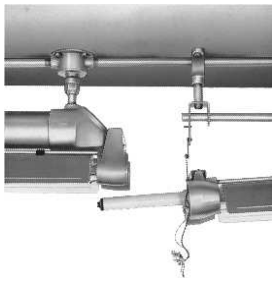
Relamping Information



Adjacent ends of two fixtures suspended in line close together



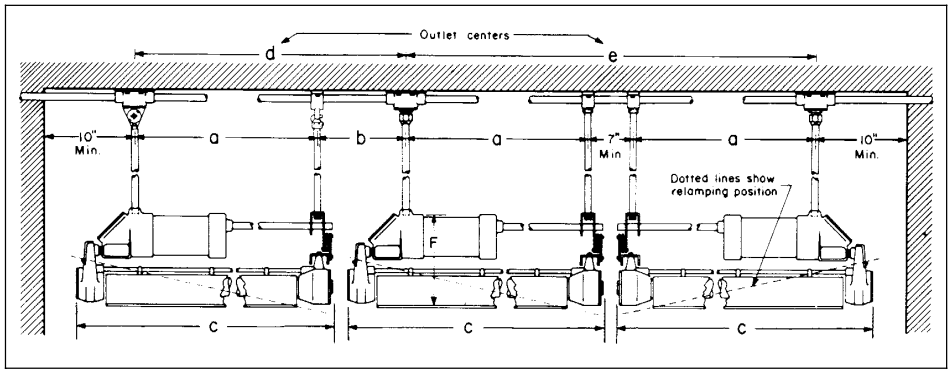
End of one fixture lowered for relamping



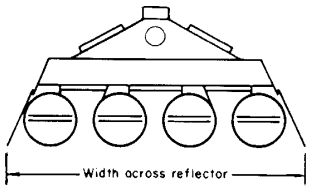
One cover removed and lamp partly withdrawn

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



End view



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** **60 watt, T-12 Recessed contact** **110 watt, T-12 Recessed contact**	1 or 2	44	11	53⅜	55	95	10¼
	3 or 4	46½	8½	53⅜	55	100	10¼

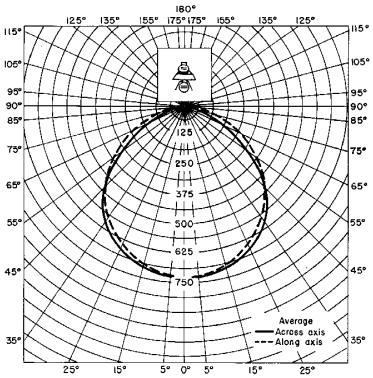
	Width
1-Lamp	6⅛
2-Lamp	11½
3-Lamp	18
4-Lamp	24½

EVF Series
Fluorescent Luminaires

Photometric Data

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
To determine number and placement of luminaires, see Lighting Selector Guide, pages 662 to 686.



NOTE: 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 × 1.29 = 2107

Coefficient of Utilization

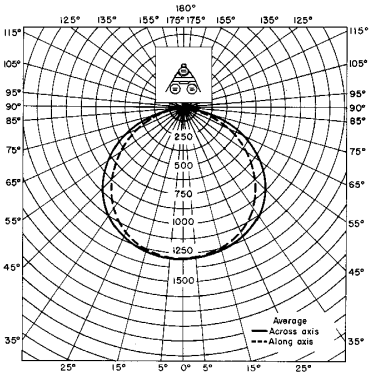
Effective Floor Cavity Reflectance 20%

% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	1	2	3	4	5
	50	.697	.616	.546	.485	.434
80	30	.670	.574	.497	.430	.376
	10	.647	.539	.458	.388	.334
	50	.682	.604	.538	.477	.425
70	30	.658	.565	.490	.426	.372
	10	.635	.534	.454	.385	.331
	50	.653	.580	.518	.460	.412
50	30	.633	.549	.478	.416	.365
	10	.616	.520	.446	.380	.329
	50	.627	.559	.500	.445	.399
30	30	.612	.533	.467	.407	.357
	10	.597	.509	.438	.375	.325
	50	.605	.539	.484	.431	.388
10	30	.591	.517	.455	.397	.351
	10	.579	.498	.431	.370	.321

% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	6	7	8	9	10
	50	.391	.351	.316	.289	.252
80	30	.334	.295	.262	.235	.198
	10	.294	.257	.223	.197	.164
	50	.384	.346	.312	.285	.248
70	30	.330	.292	.260	.233	.198
	10	.290	.255	.222	.197	.164
	50	.372	.336	.303	.277	.242
50	30	.324	.286	.255	.229	.195
	10	.288	.252	.221	.196	.162
	50	.361	.325	.295	.270	.236
30	30	.319	.283	.251	.225	.192
	10	.286	.249	.219	.194	.161
	50	.351	.318	.287	.263	.230
10	30	.312	.278	.247	.222	.189
	10	.283	.248	.218	.193	.159

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
To determine number and placement of luminaires, see Lighting Selector Guide, pages 662 to 686.



NOTE: 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 × 1.29 = 4208

Coefficient of Utilization

Effective Floor Cavity Reflectance 20%

% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	1	2	3	4	5
	50	.697	.616	.546	.485	.434
80	30	.670	.574	.497	.430	.376
	10	.647	.539	.458	.388	.334
	50	.682	.604	.538	.477	.425
70	30	.658	.565	.490	.426	.372
	10	.635	.534	.454	.385	.331
	50	.653	.580	.518	.460	.412
50	30	.633	.549	.478	.416	.365
	10	.616	.520	.446	.380	.329
	50	.627	.559	.500	.445	.399
30	30	.612	.533	.467	.407	.357
	10	.597	.509	.438	.375	.325
	50	.605	.539	.484	.431	.388
10	30	.591	.517	.455	.397	.351
	10	.579	.498	.431	.370	.321

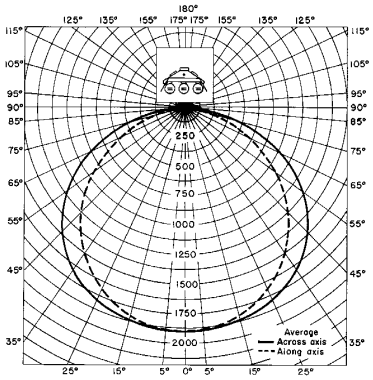
% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	6	7	8	9	10
	50	.391	.351	.316	.289	.252
80	30	.334	.295	.262	.235	.198
	10	.294	.257	.223	.197	.164
	50	.384	.346	.312	.285	.248
70	30	.330	.292	.260	.233	.198
	10	.290	.255	.222	.197	.164
	50	.372	.336	.303	.277	.242
50	30	.324	.286	.255	.229	.195
	10	.288	.252	.221	.196	.162
	50	.361	.325	.295	.270	.236
30	30	.319	.283	.251	.225	.192
	10	.286	.249	.219	.194	.161
	50	.351	.318	.287	.263	.230
10	30	.312	.278	.247	.222	.189
	10	.283	.248	.218	.193	.159

EVF Series
Fluorescent Luminaires

Photometric Data

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
To determine number and placement of luminaires, see Lighting Selector Guide, pages 662 to 686.



NOTE: 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 × 0.84 = 2710

Coefficient of Utilization

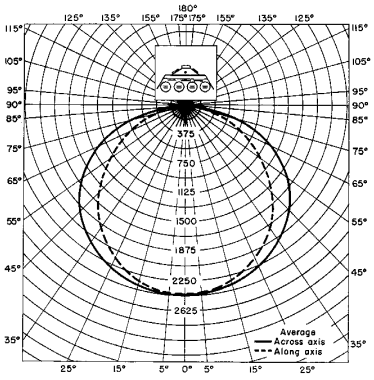
Effective Floor Cavity Reflectance 20%

% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	1	2	3	4	5
	50	.712	.626	.553	.489	.436
80	30	.683	.581	.500	.431	.376
	10	.658	.544	.459	.386	.331
	50	.697	.614	.544	.481	.427
70	30	.670	.572	.494	.426	.371
	10	.646	.539	.455	.383	.328
	50	.667	.589	.524	.463	.414
50	30	.645	.555	.481	.416	.364
	10	.626	.524	.446	.378	.326
	50	.640	.567	.505	.447	.400
30	30	.623	.539	.469	.407	.356
	10	.607	.513	.439	.374	.322
	50	.617	.547	.488	.433	.388
10	30	.602	.523	.457	.397	.350
	10	.589	.502	.431	.368	.318

% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	6	7	8	9	10
	50	.392	.352	.317	.289	.252
80	30	.332	.293	.260	.233	.196
	10	.290	.254	.219	.194	.160
	50	.385	.347	.312	.285	.248
70	30	.329	.290	.258	.230	.196
	10	.287	.251	.218	.194	.160
	50	.372	.336	.303	.277	.242
50	30	.322	.284	.253	.227	.193
	10	.285	.248	.217	.192	.159
	50	.362	.325	.295	.269	.236
30	30	.317	.280	.248	.223	.190
	10	.282	.245	.215	.191	.157
	50	.351	.317	.286	.262	.230
10	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
To determine number and placement of luminaires, see Lighting Selector Guide, pages 662 to 686.



NOTE: 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 lamps for 0-30° is 1961 × 2.19 = 4295

Coefficient of Utilization

Effective Floor Cavity Reflectance 20%

% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	1	2	3	4	5
	50	.692	.607	.535	.473	.421
80	30	.664	.563	.484	.416	.362
	10	.639	.526	.442	.372	.318
	50	.678	.595	.526	.465	.412
70	30	.652	.554	.477	.411	.357
	10	.628	.521	.439	.369	.315
	50	.648	.571	.507	.447	.399
50	30	.627	.538	.465	.401	.351
	10	.609	.507	.431	.364	.313
	50	.622	.550	.488	.432	.386
30	30	.606	.522	.453	.392	.343
	10	.590	.497	.423	.360	.309
	50	.600	.530	.472	.418	.374
10	30	.585	.506	.442	.383	.337
	10	.572	.486	.416	.354	.305

% Reflectance		Room Cavity Ratio				
Eff. Ceil.	Wall	6	7	8	9	10
	50	.379	.340	.306	.279	.243
80	30	.320	.282	.250	.224	.189
	10	.278	.243	.210	.185	.153
	50	.372	.335	.301	.275	.239
70	30	.316	.279	.248	.221	.189
	10	.275	.240	.209	.185	.153
	50	.359	.324	.292	.267	.233
50	30	.310	.273	.243	.218	.185
	10	.273	.238	.208	.184	.152
	50	.349	.313	.284	.260	.227
30	30	.305	.269	.238	.214	.182
	10	.271	.235	.206	.183	.150
	50	.339	.306	.276	.253	.221
10	30	.298	.265	.235	.211	.179
	10	.268	.234	.205	.181	.149