

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P231894

Luminaire Tested: **FVS4M-2-LD4-40-1HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231894  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-4)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-2-LD4-40-1HI-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
2FT LENGTH, 1-MODULE LED WITH PFS125 LENS  
Light Source: (42) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

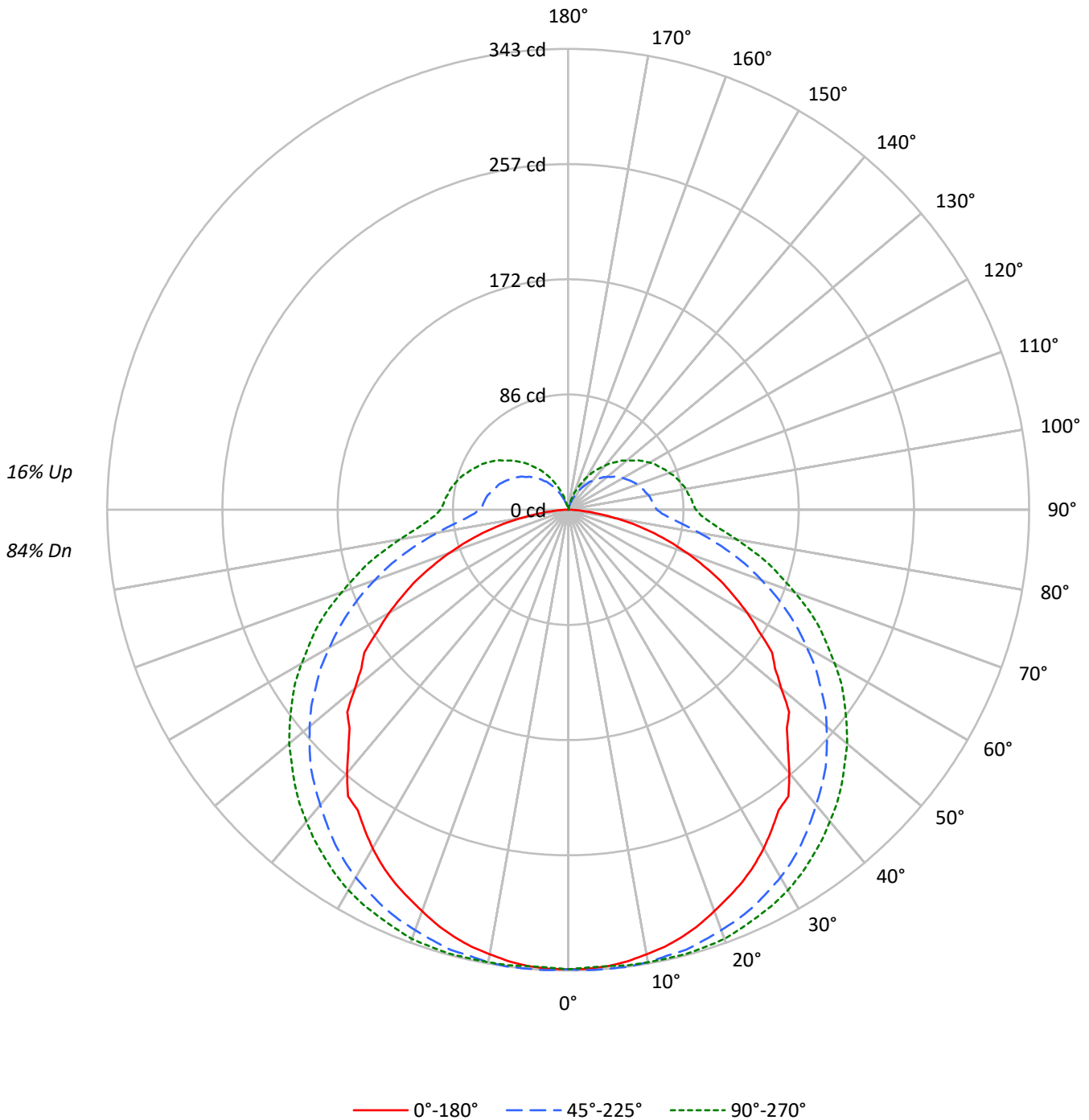
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1481.0 lumens  
Efficiency: N/A  
Efficacy: 66.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 22.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	115	115	115	115	111	111	111	111	102	102	102	95	95	95	87	87	87	84
1	103	98	93	88	99	94	89	85	86	83	80	80	77	74	74	71	69	66
2	93	84	76	70	89	81	74	68	74	69	64	69	64	60	63	60	56	53
3	84	73	64	57	80	70	62	56	65	58	53	60	54	50	55	51	47	44
4	77	64	55	48	73	62	53	47	57	50	44	53	47	42	49	44	40	37
5	70	57	47	41	67	55	46	40	51	43	38	47	41	36	44	38	34	31
6	65	51	42	35	62	49	40	34	46	38	33	42	36	31	39	34	30	27
7	60	46	37	31	57	44	36	30	41	34	29	39	32	27	36	30	26	24
8	55	42	33	27	53	40	32	27	38	31	25	35	29	24	33	27	23	21
9	52	38	30	24	49	37	29	24	35	28	23	32	26	22	30	25	21	19
10	48	35	27	22	46	34	26	21	32	25	20	30	24	20	28	23	19	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6146	6146	6146
5°	6099	5932	5845
10°	6027	5741	5644
15°	5965	5571	5482
20°	5872	5399	5337
25°	5803	5255	5175
30°	5716	5103	5040
35°	5605	4940	4882
40°	5550	4761	4728
45°	5325	4612	4575
50°	5183	4419	4418
55°	5086	4209	4235
60°	4733	3973	4036
65°	4394	3719	3831
70°	3893	3413	3551
75°	3255	3079	3301
80°	2330	2697	2985
85°	1071	2391	2781



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.6	2.2
10°-20°	95.3	6.4
20°-30°	149.1	10.1
30°-40°	187.3	12.6
40°-50°	204.9	13.8
50°-60°	200.0	13.5
60°-70°	171.8	11.6
70°-80°	125.7	8.5
80°-90°	78.3	5.3
90°-100°	61.2	4.1
100°-110°	54.2	3.7
110°-120°	44.7	3.0
120°-130°	33.9	2.3
130°-140°	22.9	1.5
140°-150°	12.9	0.9
150°-160°	5.2	0.4
160°-170°	0.8	0.1
170°-180°	0.0	0.0
0°-30°	277.1	18.7
0°-40°	464.4	31.4
0°-60°	869.3	58.7
0°-90°	1245.1	84.1
90°-120°	160.2	10.8
90°-150°	229.9	15.5
90°-180°	236.0	15.9
0°-180°	1481.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	342	342	342	342	342	
5°	341	342	343	343	341	32
15°	329	332	339	342	342	93
25°	306	314	326	333	334	141
35°	273	286	303	313	316	172
45°	230	248	271	284	288	179
55°	185	203	229	246	251	163
65°	125	150	180	200	206	123
75°	64	93	126	147	154	68
85°	11	43	77	99	106	14
90°	0	32	66	88	95	1
95°	0	29	63	85	92	0
105°	0	26	58	78	85	0
115°	0	22	51	70	75	0
125°	0	18	43	59	64	0
135°	0	13	33	46	50	0
145°	0	8	23	33	36	0
155°	0	3	11	19	20	0
165°	0	1	2	4	5	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231894

CATALOG NUMBER: FVS4M-2-LD4-40-1HI-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	342	342	342	342	342	342	342	342	342	342	342
2.5°	342	343	342	343	343	343	343	343	343	343	343
5°	341	341	341	342	342	342	342	343	343	343	343
7.5°	339	340	340	340	341	341	341	342	342	342	343
10°	336	337	337	338	339	339	339	339	340	341	342
12.5°	333	333	334	334	335	335	336	337	338	339	340
15°	329	329	330	331	332	332	333	335	336	338	339
17.5°	324	324	325	326	327	328	329	331	333	335	336
20°	318	319	320	321	323	324	325	327	329	332	333
22.5°	312	313	315	316	318	319	320	323	325	327	330
25°	306	307	308	310	313	314	315	318	321	323	326
27.5°	299	300	301	303	306	308	309	312	315	318	321
30°	291	292	293	296	299	301	303	306	309	313	316
32.5°	282	284	285	289	292	294	296	299	303	307	310
35°	273	275	276	280	283	286	287	291	295	299	303
37.5°	269	264	267	271	274	277	279	283	287	292	295
40°	256	254	256	261	265	267	270	275	279	284	287
42.5°	242	243	246	251	255	258	261	265	270	275	279
45°	230	232	235	240	245	248	251	256	261	266	271
47.5°	223	220	224	229	234	237	240	245	251	256	261
50°	207	209	213	218	223	227	229	235	241	246	251
52.5°	194	196	200	206	211	215	218	224	230	235	241
55°	185	184	188	193	200	203	206	212	218	224	229
57.5°	168	170	175	181	187	190	194	200	206	212	218
60°	154	156	161	167	174	177	181	187	194	199	205
62.5°	139	141	147	153	160	164	168	174	181	187	193
65°	125	127	133	139	146	150	154	161	167	174	180
67.5°	109	112	117	125	132	136	139	147	155	160	167
70°	94	96	103	110	118	121	125	133	140	147	153
72.5°	79	82	87	95	103	107	111	119	126	133	140
75°	64	67	73	81	89	93	97	105	113	120	126
77.5°	50	53	59	67	75	79	83	91	99	106	112
80°	35	38	45	53	61	65	70	78	85	93	99
82.5°	22	26	32	40	49	53	58	65	73	81	87
85°	11	15	21	30	39	43	47	55	63	71	77
87.5°	5	8	14	22	31	35	40	48	56	63	70
90°	0	4	11	19	27	32	36	44	52	59	66
92.5°	0	3	10	18	26	30	35	43	51	58	64
95°	0	3	9	17	25	29	34	42	49	57	63
97.5°	0	3	9	16	25	29	33	41	48	56	62
100°	0	3	8	16	24	28	32	40	47	54	61
102.5°	0	2	8	15	23	27	31	39	46	53	59
105°	0	2	8	14	22	26	30	37	45	52	58
107.5°	0	2	7	14	21	25	29	36	43	50	56
110°	0	2	7	13	20	24	28	35	42	49	55



TEST NUMBER: P231894

CATALOG NUMBER: FVS4M-2-LD4-40-1HI-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0	2	6	13	20	23	27	34	41	47	53
115°	0	1	6	12	19	22	26	32	39	45	51
117.5°	0	1	6	11	18	21	24	31	37	43	49
120°	0	1	5	11	17	20	23	30	36	41	47
122.5°	0	1	5	10	16	19	22	28	34	40	45
125°	0	1	4	9	15	18	21	27	32	38	43
127.5°	0	1	4	8	14	17	20	25	30	36	40
130°	0	1	3	8	13	15	18	23	29	34	38
132.5°	0	1	3	7	12	14	17	22	27	31	36
135°	0	1	3	6	11	13	15	20	25	29	33
137.5°	0	1	2	6	10	12	14	19	23	27	31
140°	0	0	2	5	9	11	13	17	21	25	28
142.5°	0	0	1	4	7	9	11	15	19	22	26
145°	0	0	1	3	6	8	10	13	17	20	23
147.5°	0	0	1	3	5	7	8	11	14	17	20
150°	0	0	1	2	4	5	7	9	12	15	17
152.5°	0	0	1	1	3	4	5	7	10	12	14
155°	0	0	1	1	2	3	4	6	8	10	11
157.5°	0	0	0	1	2	2	3	4	6	7	9
160°	0	0	0	1	1	1	2	3	4	5	6
162.5°	0	0	0	0	1	1	1	2	2	3	4
165°	0	0	0	0	0	1	1	1	1	2	2
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P231894

CATALOG NUMBER: FVS4M-2-LD4-40-1HI-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	342	342	342	342	342	342	342	342	342	342
2.5°	343	343	343	342	342	342	342	341	341	341
5°	343	343	343	343	343	342	342	341	341	341
7.5°	343	343	343	343	343	343	342	342	342	342
10°	342	343	343	343	343	343	343	343	343	342
12.5°	341	342	342	343	343	343	343	342	342	342
15°	340	341	342	342	342	343	343	342	342	342
17.5°	338	339	340	340	341	341	341	341	341	341
20°	335	336	338	339	339	339	339	340	340	340
22.5°	332	333	335	336	336	337	337	337	337	337
25°	328	330	331	332	333	334	334	334	335	334
27.5°	324	326	328	329	329	330	331	331	331	331
30°	318	321	322	324	325	325	326	327	327	327
32.5°	313	315	318	319	320	321	321	322	322	322
35°	306	308	311	313	313	314	315	316	316	316
37.5°	298	302	304	306	307	307	309	310	310	310
40°	291	294	297	299	300	300	302	302	303	303
42.5°	282	286	289	291	292	293	294	295	296	296
45°	275	278	281	283	284	285	287	288	288	288
47.5°	265	269	272	274	275	277	278	279	279	279
50°	255	259	263	266	266	268	269	271	271	271
52.5°	245	249	253	256	257	258	260	261	262	261
55°	234	238	242	245	246	247	249	250	251	251
57.5°	222	227	231	234	235	236	238	240	240	241
60°	211	215	219	222	224	225	227	228	229	229
62.5°	198	203	208	211	212	214	215	216	217	217
65°	185	190	195	198	200	201	203	204	205	206
67.5°	173	177	182	185	186	188	190	192	193	193
70°	159	164	168	172	174	175	177	178	180	179
72.5°	145	150	156	159	160	162	164	166	167	166
75°	132	137	142	145	147	148	151	153	153	154
77.5°	118	124	129	132	134	135	138	139	140	140
80°	105	111	115	119	122	122	125	126	127	127
82.5°	93	99	104	107	109	111	113	114	115	115
85°	83	89	93	98	99	101	103	105	106	106
87.5°	76	82	86	90	92	94	96	98	99	99
90°	72	78	82	86	88	90	92	94	95	95
92.5°	70	76	81	84	86	88	90	92	93	93
95°	69	75	79	83	85	86	89	90	91	92
97.5°	68	73	78	82	84	85	88	89	90	90
100°	67	72	77	80	82	84	86	88	88	89
102.5°	65	70	75	79	80	82	84	86	87	87
105°	63	69	73	77	78	80	82	84	85	85
107.5°	62	67	71	75	76	78	80	82	83	83
110°	60	65	69	73	74	76	78	79	80	80





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	58	63	67	70	72	73	75	77	78	78
115°	56	61	65	68	70	71	73	74	75	75
117.5°	54	58	62	66	67	68	70	72	72	73
120°	52	56	60	63	64	66	67	69	69	70
122.5°	49	54	57	60	62	63	65	66	66	67
125°	47	51	55	58	59	60	62	63	63	64
127.5°	45	48	52	55	56	57	59	60	60	60
130°	42	46	49	52	53	54	55	56	57	57
132.5°	40	43	46	49	50	51	52	53	54	54
135°	37	40	43	45	46	47	49	50	50	50
137.5°	34	37	40	42	43	44	45	46	47	47
140°	31	34	37	39	40	41	42	43	43	43
142.5°	29	31	34	36	37	37	38	39	39	39
145°	26	28	30	32	33	34	35	35	36	36
147.5°	23	25	27	29	30	30	31	32	32	32
150°	20	22	24	25	26	26	27	28	28	28
152.5°	17	19	21	22	22	23	24	24	24	24
155°	14	15	17	18	19	19	20	20	20	20
157.5°	10	12	13	15	15	16	16	16	16	16
160°	8	9	10	11	12	12	12	13	13	13
162.5°	5	6	6	7	8	8	9	9	9	9
165°	3	3	4	4	4	5	5	5	5	5
167.5°	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)