

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: P231906

Luminaire Tested: **FVS4M-2-LD4-40-1HI-PA187-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231906  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-5)  
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-PA187-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
2FT LENGTH, 1-MODULE LED WITH PA187 LENS  
Light Source: (42) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

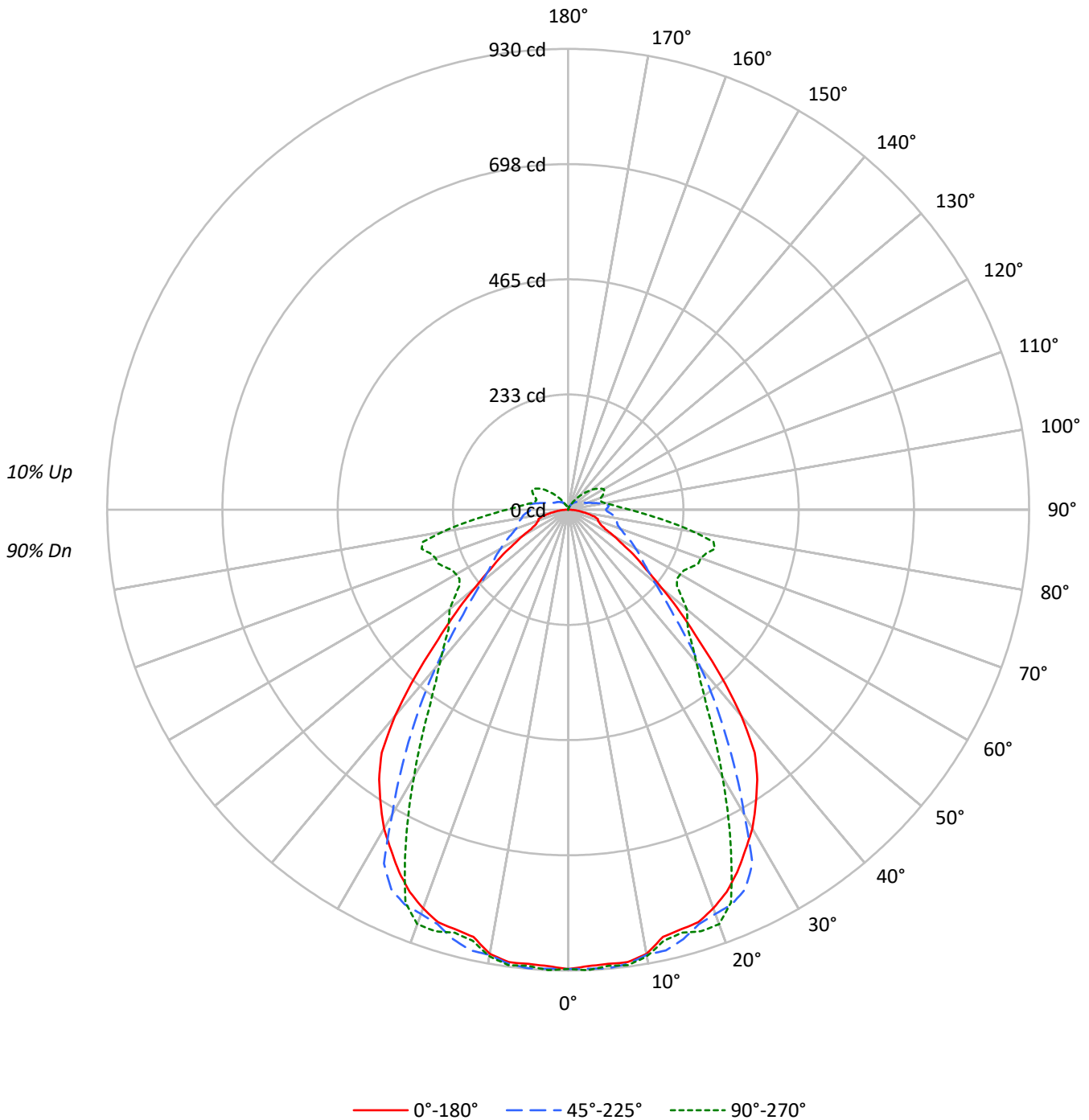
Lumens per Lamp: N/A  
Luminaire Lumens: 2147.0 lumens  
Efficiency: N/A  
Efficacy: 96.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.07 / 1.1  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')  
CIE Type: Semi-Direct

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	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90
1	106	101	96	92	102	97	93	90	91	88	85	86	83	81	81	78	77	74
2	97	89	82	76	93	86	80	75	81	76	71	76	72	68	72	68	65	63
3	89	79	71	65	86	77	69	64	72	66	61	68	63	59	64	60	57	54
4	82	71	63	56	79	69	61	55	65	59	54	62	56	52	59	54	50	48
5	76	64	56	50	74	63	55	49	59	53	47	56	51	46	54	49	45	42
6	71	59	50	44	69	57	49	44	54	47	42	52	46	41	49	44	40	38
7	66	54	45	40	64	52	45	39	50	43	38	48	42	37	46	40	36	34
8	62	49	41	36	60	48	41	36	46	39	35	44	38	34	42	37	33	31
9	58	46	38	33	56	45	37	32	43	36	32	41	35	31	39	34	30	29
10	55	42	35	30	53	42	35	30	40	34	29	38	33	29	37	32	28	26

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

	0°	45°	90°
0°	16659	16659	16659
5°	16456	16065	15837
10°	16324	15310	15100
15°	15900	14740	14169
20°	15808	14073	13970
25°	15304	13621	12070
30°	14594	11467	9586
35°	13654	9017	7539
40°	11772	6902	6273
45°	8589	5105	5417
50°	6185	3996	5086
55°	4563	3400	4522
60°	3289	3043	4600
65°	2566	2727	5095
70°	2650	2498	5654
75°	2798	2492	6559
80°	2197	2588	6041
85°	1460	2671	4644



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.8	4.1
10°-20°	252.4	11.8
20°-30°	370.0	17.2
30°-40°	355.8	16.6
40°-50°	255.0	11.9
50°-60°	184.7	8.6
60°-70°	161.3	7.5
70°-80°	151.6	7.1
80°-90°	111.0	5.2
90°-100°	67.0	3.1
100°-110°	47.8	2.2
110°-120°	40.9	1.9
120°-130°	30.0	1.4
130°-140°	18.0	0.8
140°-150°	9.3	0.4
150°-160°	3.6	0.2
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	710.2	33.1
0°-40°	1066.0	49.7
0°-60°	1505.7	70.1
0°-90°	1929.7	89.9
90°-120°	155.7	7.3
90°-150°	213.1	9.9
90°-180°	217.0	10.1
0°-180°	2147.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	927	927	927	927	927	
5°	920	927	929	922	924	88
15°	877	899	897	905	884	249
25°	807	817	845	804	779	371
35°	665	659	553	505	488	411
45°	371	326	300	312	341	293
55°	166	170	185	235	268	149
65°	73	105	132	238	274	77
75°	55	59	102	235	306	56
85°	15	32	86	193	177	16
90°	0	18	76	130	124	1
95°	0	18	82	100	94	0
105°	0	18	52	72	68	0
115°	0	16	33	79	79	0
125°	0	13	27	56	74	0
135°	0	11	22	35	49	0
145°	0	9	17	20	24	0
155°	0	5	9	11	10	0
165°	0	2	3	3	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	927	927	927	927	927
2.5°	922	925	927	928	930
5°	920	927	929	922	924
7.5°	921	920	924	921	927
10°	910	904	912	899	915
12.5°	883	906	911	902	891
15°	877	899	897	905	884
17.5°	873	877	877	896	892
20°	856	856	868	887	890
22.5°	835	834	862	865	858
25°	807	817	845	804	779
27.5°	774	792	805	723	699
30°	743	762	710	655	622
32.5°	704	728	630	572	552
35°	665	659	553	505	488
37.5°	618	557	482	447	439
40°	543	466	416	394	402
42.5°	456	386	354	353	370
45°	371	326	300	312	341
47.5°	307	274	261	282	326
50°	247	230	227	267	312
52.5°	198	196	203	256	288
55°	166	170	185	235	268
57.5°	130	149	172	229	260
60°	107	133	157	232	261
62.5°	84	118	145	235	264
65°	73	105	132	238	274
67.5°	68	92	120	239	284
70°	64	79	112	239	285
72.5°	63	68	105	238	292
75°	55	59	102	235	306
77.5°	44	53	100	235	300
80°	33	46	95	248	257
82.5°	24	39	92	225	215
85°	15	32	86	193	177
87.5°	6	24	79	158	146
90°	0	18	76	130	124
92.5°	0	18	79	112	106
95°	0	18	82	100	94
97.5°	0	18	79	88	85
100°	0	18	71	79	76
102.5°	0	18	61	74	70
105°	0	18	52	72	68
107.5°	0	17	46	74	67
110°	0	17	40	77	70



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	16	36	79	75
115°	0	16	33	79	79
117.5°	0	15	31	74	82
120°	0	15	29	69	83
122.5°	0	14	28	63	79
125°	0	13	27	56	74
127.5°	0	13	26	50	69
130°	0	12	24	44	63
132.5°	0	12	23	39	55
135°	0	11	22	35	49
137.5°	0	11	20	31	42
140°	0	11	20	27	36
142.5°	0	10	18	24	30
145°	0	9	17	20	24
147.5°	0	8	15	18	19
150°	0	7	13	15	15
152.5°	0	6	11	13	12
155°	0	5	9	11	10
157.5°	0	4	7	9	8
160°	0	3	6	7	7
162.5°	0	2	4	5	6
165°	0	2	3	3	4
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)