

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: P232019

Luminaire Tested: **FVS4M-3-LD4-50-1LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-3-LD4-50-1LO-P125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
3FT LENGTH, 1-MODULE LED WITH P125 LENS  
Light Source: (84) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

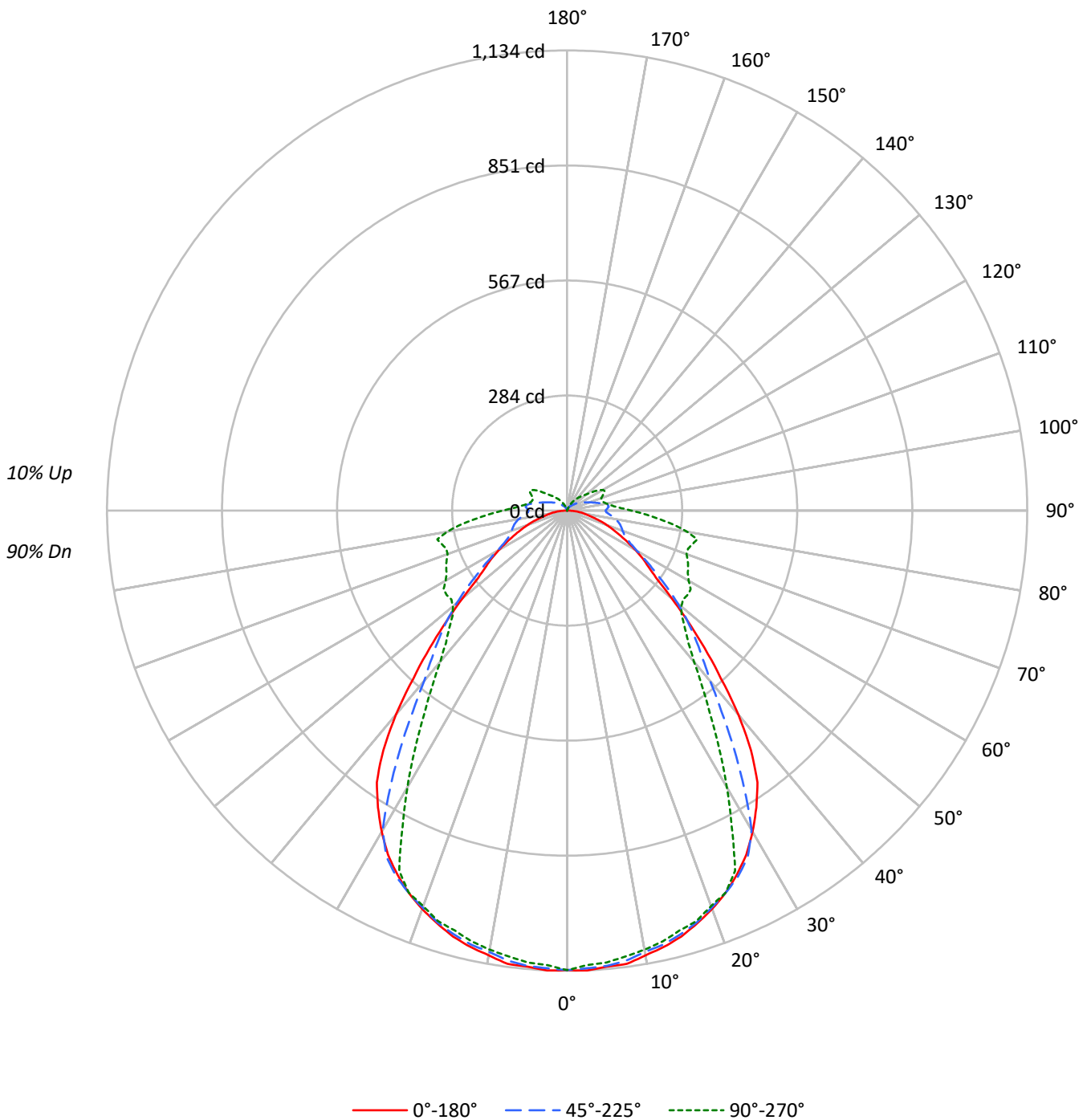
Lumens per Lamp: N/A  
Luminaire Lumens: 2701.0 lumens  
Efficiency: N/A  
Efficacy: 126.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.12  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')  
CIE Type: Direct

Input Watts (W): 21.3  
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	50	30	10	0	
RCR																						
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90				
1	106	101	96	92	102	98	94	90	92	88	85	86	83	81	81	79	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	62	56	79	69	61	55	65	59	53	62	56	52	58	54	50	48				
5	76	64	56	49	73	62	54	49	59	52	47	56	50	46	53	48	44	42				
6	71	58	50	44	68	57	49	43	54	47	42	51	45	41	49	44	40	38				
7	66	53	45	39	64	52	44	39	50	43	38	47	41	37	45	40	36	34				
8	62	49	41	35	60	48	40	35	46	39	34	44	38	33	42	37	33	31				
9	58	45	37	32	56	44	37	32	42	36	31	41	35	31	39	34	30	28				
10	54	42	34	29	53	41	34	29	39	33	29	38	32	28	36	31	28	26				

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

	0°	45°	90°
0°	13373	13373	13373
5°	13300	12823	12589
10°	13194	12230	11915
15°	13061	11740	11284
20°	12828	11174	10695
25°	12522	10640	9971
30°	12016	9751	7976
35°	11281	7773	6247
40°	9597	6059	4984
45°	7507	5085	4290
50°	5742	4187	3936
55°	4650	3272	4019
60°	4121	2598	4003
65°	3502	2240	4018
70°	3031	2192	4085
75°	2506	2247	4502
80°	2098	2242	4634
85°	1648	2213	3864



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.7	4.0
10°-20°	304.6	11.3
20°-30°	450.4	16.7
30°-40°	450.5	16.7
40°-50°	347.4	12.9
50°-60°	257.5	9.5
60°-70°	197.7	7.3
70°-80°	178.5	6.6
80°-90°	139.1	5.1
90°-100°	85.0	3.1
100°-110°	62.6	2.3
110°-120°	52.6	1.9
120°-130°	35.2	1.3
130°-140°	19.5	0.7
140°-150°	9.8	0.4
150°-160°	3.5	0.1
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-30°	861.7	31.9
0°-40°	1312.2	48.6
0°-60°	1917.1	71.0
0°-90°	2432.4	90.1
90°-120°	200.2	7.4
90°-150°	264.7	9.8
90°-180°	269.0	10.0
0°-180°	2701.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1128	1124	1126	1123	1118	107
15°	1087	1078	1081	1078	1071	306
25°	990	990	995	997	979	455
35°	818	825	716	641	615	502
45°	478	454	448	437	411	372
55°	247	249	266	318	362	226
65°	143	127	161	263	329	144
75°	68	88	136	256	320	73
85°	21	51	104	235	224	22
90°	0	28	95	166	158	1
95°	0	24	103	123	117	0
105°	0	20	74	93	90	0
115°	0	17	48	101	100	0
125°	0	16	32	66	84	0
135°	0	13	20	41	50	0
145°	0	8	13	24	31	0
155°	0	4	8	12	14	0
165°	1	1	1	1	1	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°	1132.4	1132.4	1132.4	1132.4	1132.4
2.5°	1134.5	1129.6	1128.9	1125.4	1121.2
5°	1128.2	1124.0	1126.1	1122.6	1117.7
7.5°	1126.8	1120.5	1118.4	1108.5	1107.8
10°	1112.7	1111.3	1104.3	1104.3	1098.7
12.5°	1101.5	1095.9	1095.2	1091.7	1087.4
15°	1086.7	1078.3	1081.1	1078.3	1071.3
17.5°	1066.4	1061.5	1063.6	1064.3	1060.1
20°	1044.6	1044.6	1041.1	1046.7	1036.9
22.5°	1020.0	1020.0	1020.0	1024.2	1019.3
25°	989.8	990.5	995.4	996.8	979.3
27.5°	956.1	960.3	963.1	918.9	878.1
30°	913.9	921.0	909.0	818.4	787.5
32.5°	867.6	877.4	812.8	730.6	698.3
35°	817.7	824.7	716.5	641.4	615.4
37.5°	744.6	743.9	624.5	571.8	546.5
40°	656.1	636.5	547.9	507.9	486.1
42.5°	561.3	534.6	493.8	466.5	441.9
45°	478.4	454.5	447.5	436.9	411.0
47.5°	402.5	394.8	401.1	410.3	382.2
50°	336.5	341.4	355.5	373.7	367.4
52.5°	281.0	294.3	309.1	344.2	359.7
55°	246.6	249.4	265.5	318.2	362.5
57.5°	222.0	210.0	231.8	297.9	361.1
60°	193.9	174.9	199.5	282.4	345.6
62.5°	167.2	145.4	176.3	272.6	335.1
65°	142.6	127.2	160.9	263.4	328.8
67.5°	122.2	113.8	151.7	255.7	321.7
70°	103.3	101.9	145.4	251.5	313.3
72.5°	85.0	92.7	140.5	250.8	312.6
75°	68.1	87.8	135.6	256.4	319.6
77.5°	52.7	83.6	128.6	267.6	328.1
80°	42.1	74.5	120.8	274.0	300.0
82.5°	32.3	62.5	112.4	268.3	263.4
85°	21.1	50.6	104.0	235.3	224.1
87.5°	9.8	37.2	96.9	199.5	189.0
90°	0.0	28.1	94.8	165.8	158.1
92.5°	0.0	25.3	98.3	140.5	133.5
95°	0.0	23.9	102.6	122.9	117.3
97.5°	0.0	23.2	101.9	111.0	106.1
100°	0.0	22.5	93.4	101.9	99.1
102.5°	0.0	21.1	83.6	95.5	92.7
105°	0.0	19.7	73.8	92.7	89.9
107.5°	0.0	19.0	66.0	94.8	89.2
110°	0.0	17.6	59.0	99.1	89.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	16.9	52.7	103.3	94.1
115°	0.0	16.9	47.8	101.2	99.8
117.5°	0.0	16.2	43.6	94.1	104.0
120°	0.0	16.2	39.3	85.0	101.9
122.5°	0.0	15.5	35.8	75.9	93.4
125°	0.0	15.5	32.3	66.0	83.6
127.5°	0.0	14.8	29.5	59.0	71.7
130°	0.0	14.0	26.0	52.0	62.5
132.5°	0.0	14.0	23.2	46.4	55.5
135°	0.0	12.6	20.4	40.7	49.9
137.5°	0.0	11.9	18.3	36.5	45.0
140°	0.0	10.5	16.9	31.6	40.0
142.5°	0.0	9.8	14.8	27.4	35.8
145°	0.0	8.4	13.3	23.9	30.9
147.5°	0.0	7.0	11.9	21.1	26.0
150°	0.0	6.3	11.2	17.6	21.1
152.5°	0.0	4.9	9.1	14.8	17.6
155°	0.0	3.5	7.7	11.9	14.0
157.5°	0.0	2.8	5.6	7.7	9.8
160°	0.7	1.4	4.2	4.9	6.3
162.5°	0.7	1.4	2.1	2.1	3.5
165°	0.7	0.7	0.7	0.7	0.7
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)