

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: P231908

Luminaire Tested: **FVS4M-2-LD4-30-2LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231908  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-8)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-2-LD4-30-2LO-P125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
2FT LENGTH, 2-MODULE LED WITH P125 LENS  
Light Source: (84) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

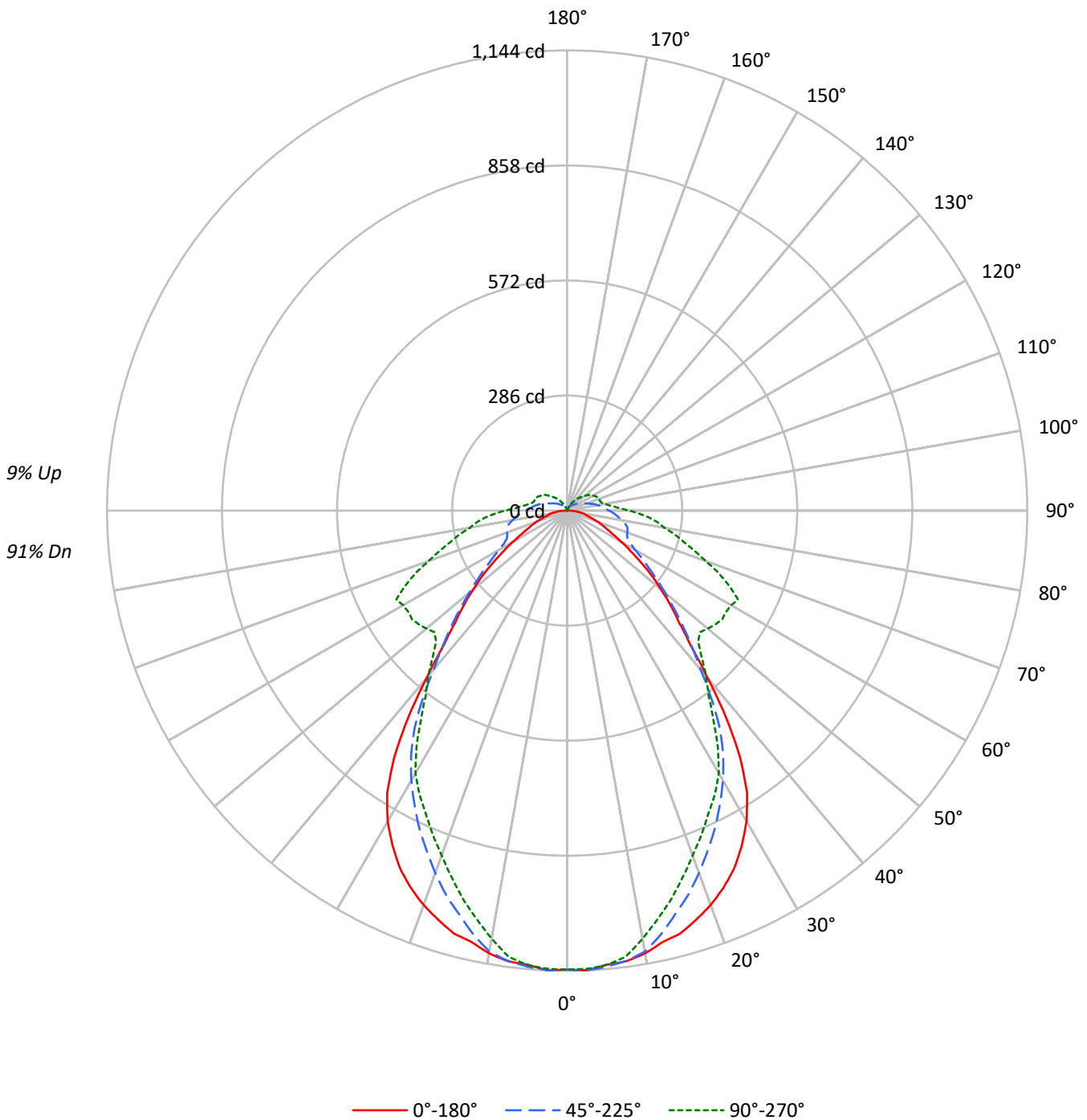
Lumens per Lamp: N/A  
Luminaire Lumens: 2614.0 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.01 / 1.1  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')  
CIE Type: Direct

Input Watts (W): 24.1  
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	106	106	106	99	99	99	93	93	93	91
1	106	101	96	92	102	97	93	90	91	88	85	86	83	81	81	79	77	74
2	97	88	81	76	93	86	79	74	81	75	71	76	72	68	72	68	65	62
3	89	78	70	64	85	76	69	63	72	66	60	68	63	58	64	60	56	54
4	82	70	62	55	79	68	60	54	64	58	52	61	55	51	58	53	49	47
5	76	63	55	48	73	62	54	48	58	51	46	55	50	45	53	48	44	41
6	70	57	49	43	68	56	48	42	53	46	41	51	45	40	48	43	39	37
7	65	53	44	38	63	51	43	38	49	42	37	47	41	36	45	39	35	33
8	61	48	40	35	59	47	40	34	45	38	33	43	37	33	41	36	32	30
9	57	45	37	31	56	44	36	31	42	35	31	40	34	30	39	33	29	27
10	54	41	34	29	52	41	33	29	39	32	28	37	32	27	36	31	27	25

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

	0°	45°	90°
0°	20510	20510	20510
5°	20267	19676	19432
10°	20052	18695	17832
15°	19731	17070	16025
20°	19270	15541	14315
25°	18626	14026	12879
30°	17521	12510	11621
35°	15397	10794	9782
40°	11772	8557	8381
45°	9117	6943	7313
50°	7617	5584	7438
55°	6141	4540	7947
60°	4782	3769	8291
65°	3856	3423	8277
70°	3321	3551	7275
75°	2726	3775	6420
80°	2549	3760	5764
85°	2122	3770	5413



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.5	4.1
10°-20°	293.1	11.2
20°-30°	406.8	15.6
30°-40°	417.9	16.0
40°-50°	331.5	12.7
50°-60°	261.3	10.0
60°-70°	229.5	8.8
70°-80°	190.5	7.3
80°-90°	129.7	5.0
90°-100°	80.5	3.1
100°-110°	58.3	2.2
110°-120°	44.1	1.7
120°-130°	31.3	1.2
130°-140°	18.4	0.7
140°-150°	9.7	0.4
150°-160°	3.5	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	807.4	30.9
0°-40°	1225.4	46.9
0°-60°	1818.2	69.6
0°-90°	2367.8	90.6
90°-120°	183.0	7.0
90°-150°	242.3	9.3
90°-180°	246.0	9.4
0°-180°	2614.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1141	1141	1141	1141	1141	
5°	1133	1135	1138	1134	1134	108
15°	1088	1084	1039	1006	1000	306
25°	982	924	870	841	831	450
35°	750	706	662	636	633	459
45°	394	403	408	466	460	311
55°	223	196	247	366	471	202
65°	110	110	166	374	445	111
75°	54	87	154	306	300	59
85°	22	44	121	194	206	20
90°	0	26	104	156	153	1
95°	0	24	90	120	116	0
105°	0	21	64	91	86	0
115°	0	18	42	75	81	0
125°	0	16	30	60	68	0
135°	0	12	20	38	47	0
145°	0	9	15	23	28	0
155°	1	4	9	11	12	0
165°	1	1	1	0	0	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°	1141.3	1141.3	1141.3	1141.3	1141.3
2.5°	1143.7	1143.1	1143.7	1140.7	1140.2
5°	1133.1	1134.8	1137.8	1134.3	1133.7
7.5°	1130.1	1130.7	1129.0	1122.5	1118.3
10°	1117.8	1118.9	1113.6	1090.6	1080.6
12.5°	1098.3	1100.1	1078.8	1052.9	1039.9
15°	1088.3	1084.1	1038.8	1005.7	999.8
17.5°	1066.5	1052.3	1001.6	964.5	955.6
20°	1043.5	1014.0	958.6	925.6	912.0
22.5°	1015.2	966.2	913.8	886.7	872.5
25°	982.2	923.8	870.1	841.3	831.2
27.5°	939.7	876.0	822.4	798.2	795.3
30°	892.0	826.5	774.6	754.6	754.0
32.5°	832.4	768.2	722.2	706.3	696.8
35°	749.9	706.3	662.0	635.5	633.2
37.5°	650.3	630.2	589.5	578.3	576.6
40°	543.0	550.6	515.8	534.1	537.1
42.5°	453.9	470.4	458.7	501.1	494.6
45°	393.8	402.7	408.0	466.3	460.4
47.5°	349.0	337.2	359.6	426.2	447.5
50°	304.2	285.9	317.2	398.5	456.3
52.5°	264.7	236.4	280.0	380.2	464.6
55°	223.4	196.3	247.0	366.1	471.0
57.5°	186.3	163.9	219.3	355.5	468.1
60°	155.6	139.7	194.5	352.0	470.4
62.5°	128.5	121.4	176.9	356.1	478.7
65°	109.7	109.7	165.7	374.4	445.1
67.5°	93.7	102.0	160.9	382.0	408.0
70°	80.2	97.3	159.2	363.7	366.7
72.5°	64.8	93.7	157.4	330.7	330.7
75°	53.6	86.7	154.5	306.0	299.5
77.5°	46.0	76.0	146.8	280.0	273.5
80°	38.3	65.4	138.0	250.0	245.2
82.5°	29.5	54.2	129.1	221.7	227.0
85°	21.8	43.6	121.4	194.5	206.3
87.5°	8.8	34.2	113.2	175.1	179.2
90°	0.0	26.5	103.8	156.2	153.3
92.5°	0.0	24.2	95.5	135.6	130.3
95°	0.0	23.6	89.6	119.7	116.1
97.5°	0.0	23.0	83.7	106.1	103.8
100°	0.0	22.4	77.2	97.9	96.1
102.5°	0.0	21.8	71.9	93.7	89.0
105°	0.0	21.2	64.3	90.8	85.5
107.5°	0.0	20.6	57.2	88.4	84.9
110°	0.0	20.0	51.3	83.7	84.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	18.9	46.6	79.0	83.7
115°	0.0	18.3	41.9	74.9	81.4
117.5°	0.0	17.7	38.3	73.7	77.8
120°	0.0	17.1	35.4	71.9	74.3
122.5°	0.0	16.5	32.4	66.6	71.3
125°	0.0	15.9	29.5	60.1	68.4
127.5°	0.0	15.3	26.5	54.2	62.5
130°	0.0	14.7	24.2	47.8	56.0
132.5°	0.0	13.6	21.8	42.4	51.3
135°	0.0	12.4	20.0	37.7	47.2
137.5°	0.0	11.8	18.9	33.0	42.4
140°	0.0	10.6	17.1	29.5	37.7
142.5°	0.0	9.4	16.5	25.9	33.0
145°	0.0	8.8	15.3	23.0	28.3
147.5°	0.6	7.7	14.1	20.0	24.2
150°	0.6	6.5	12.4	16.5	20.0
152.5°	0.6	5.3	10.6	13.6	16.5
155°	0.6	3.5	8.8	10.6	12.4
157.5°	0.6	2.4	6.5	7.7	8.3
160°	0.6	1.2	4.7	4.7	4.7
162.5°	0.6	0.6	2.9	2.4	2.4
165°	0.6	0.6	1.2	0.0	0.0
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)