

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: P231878

Luminaire Tested: **FVS4M-2-LD4-40-1STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231878  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-3)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-2-LD4-40-1STD-P125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
2FT LENGTH, 1-MODULE LED WITH P125 LENS  
Light Source: (42) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

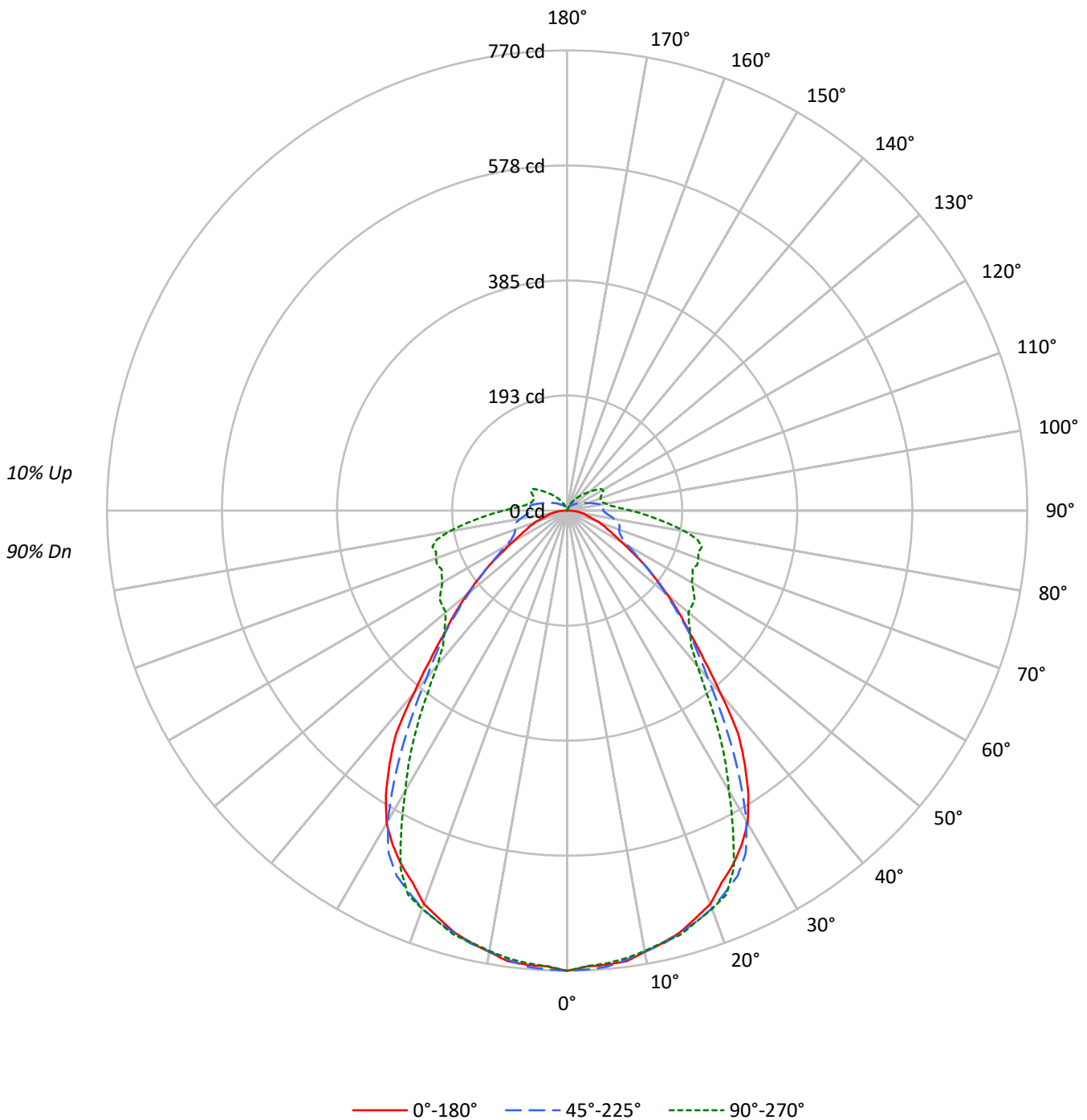
Lumens per Lamp: N/A  
Luminaire Lumens: 1791.0 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.1 / 1.12  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 16.99  
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	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	72	76	72	68	72	68	65	63
3	89	79	71	65	86	77	70	64	72	66	61	68	63	59	65	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	49	74	63	55	49	59	53	47	56	51	46	54	49	45	42
6	71	58	50	44	68	57	49	43	54	47	42	52	46	41	49	44	40	38
7	66	53	45	40	64	52	45	39	50	43	38	48	42	37	45	40	36	34
8	62	49	41	36	60	48	41	35	46	39	35	44	38	34	42	37	33	31
9	58	45	38	33	56	45	37	32	43	36	32	41	35	31	39	34	30	28
10	55	42	35	30	53	41	34	30	40	33	29	38	32	28	37	32	28	26

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

	0°	45°	90°
0°	13840	13840	13840
5°	13644	13248	13033
10°	13452	12574	12347
15°	13242	12015	11773
20°	12934	11487	11134
25°	12421	10873	10224
30°	11862	9689	8346
35°	10636	7799	6737
40°	8646	6079	5262
45°	6737	4898	4622
50°	5481	3768	4322
55°	4346	2891	4390
60°	3239	2277	4244
65°	2650	2043	4311
70°	2315	2061	4632
75°	1857	2199	5005
80°	1784	2163	4706
85°	1499	2090	3870



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	4.0
10°-20°	206.4	11.5
20°-30°	302.6	16.9
30°-40°	299.2	16.7
40°-50°	225.4	12.6
50°-60°	162.4	9.1
60°-70°	128.5	7.2
70°-80°	123.7	6.9
80°-90°	91.0	5.1
90°-100°	54.8	3.1
100°-110°	40.4	2.3
110°-120°	34.3	1.9
120°-130°	24.9	1.4
130°-140°	14.3	0.8
140°-150°	7.5	0.4
150°-160°	2.9	0.2
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-30°	581.4	32.5
0°-40°	880.6	49.2
0°-60°	1268.4	70.8
0°-90°	1611.5	90.0
90°-120°	129.5	7.2
90°-150°	176.1	9.8
90°-180°	179.0	10.0
0°-180°	1791.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	763	763	766	764	760	72
15°	730	728	731	734	734	206
25°	655	659	674	671	660	301
35°	518	533	478	445	436	320
45°	291	284	288	298	291	229
55°	158	141	157	212	260	141
65°	75	76	99	180	232	77
75°	36	59	90	190	234	40
85°	15	28	67	155	148	14
90°	0	17	60	109	106	1
95°	0	15	62	82	79	0
105°	0	13	46	60	60	0
115°	0	11	30	66	64	0
125°	0	11	21	48	61	0
135°	0	10	14	30	39	0
145°	0	7	10	18	23	0
155°	0	4	6	9	10	0
165°	0	1	2	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°	770.1	770.1	770.1	770.1	770.1
2.5°	763.6	768.5	768.5	765.3	762.8
5°	762.8	762.8	766.1	764.5	760.4
7.5°	760.4	758.0	758.0	755.5	755.5
10°	749.9	749.9	749.0	752.3	748.2
12.5°	740.9	740.9	742.6	741.8	740.1
15°	730.4	728.0	731.2	734.5	734.5
17.5°	715.0	716.6	720.7	724.7	720.7
20°	700.4	700.4	708.5	709.3	709.3
22.5°	674.5	682.6	691.5	696.4	695.5
25°	655.0	659.1	674.5	671.2	659.9
27.5°	631.5	638.8	646.9	618.5	600.7
30°	603.9	608.0	599.9	552.9	541.5
32.5°	564.2	578.0	539.9	497.7	490.4
35°	518.0	532.6	478.3	445.1	436.1
37.5°	470.2	467.7	419.9	391.5	381.8
40°	398.8	391.5	366.4	352.6	337.2
42.5°	339.7	334.0	324.3	321.8	307.2
45°	291.0	284.5	287.8	297.5	291.0
47.5°	254.5	241.6	248.1	274.0	276.4
50°	218.9	201.9	214.0	249.7	265.1
52.5°	185.6	169.4	183.2	228.6	262.7
55°	158.1	141.1	157.3	211.6	260.2
57.5°	126.5	116.7	135.4	200.2	250.5
60°	105.4	98.1	117.5	192.1	240.8
62.5°	88.4	85.1	105.4	183.2	236.7
65°	75.4	76.2	98.9	180.0	231.8
67.5°	65.7	71.3	94.8	177.5	235.9
70°	55.9	67.3	92.4	182.4	233.5
72.5°	43.8	64.0	92.4	187.3	230.2
75°	36.5	59.2	90.0	190.5	233.5
77.5°	31.6	51.1	85.9	193.7	222.9
80°	26.8	43.8	79.4	192.1	200.2
82.5°	20.3	35.7	73.8	180.0	172.7
85°	15.4	28.4	67.3	154.8	147.5
87.5°	6.5	21.9	63.2	132.1	126.5
90°	0.0	17.0	60.0	109.4	106.2
92.5°	0.0	15.4	60.8	93.2	89.2
95°	0.0	14.6	62.4	81.9	78.6
97.5°	0.0	13.8	62.4	73.8	69.7
100°	0.0	13.8	57.6	67.3	66.5
102.5°	0.0	13.8	51.9	64.0	61.6
105°	0.0	13.0	46.2	60.0	60.0
107.5°	0.0	13.0	41.3	60.0	59.2
110°	0.0	12.2	36.5	63.2	59.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	12.2	33.2	66.5	60.8
115°	0.0	11.3	30.0	66.5	64.0
117.5°	0.0	11.3	27.6	62.4	68.1
120°	0.0	11.3	25.1	58.4	68.9
122.5°	0.0	11.3	23.5	53.5	67.3
125°	0.0	11.3	21.1	47.8	60.8
127.5°	0.0	11.3	18.6	43.0	55.1
130°	0.0	10.5	17.0	38.1	48.6
132.5°	0.0	10.5	15.4	33.2	43.0
135°	0.0	9.7	13.8	30.0	38.9
137.5°	0.0	8.9	13.0	25.9	34.0
140°	0.0	8.9	12.2	23.5	30.0
142.5°	0.0	8.1	11.3	20.3	26.8
145°	0.0	7.3	10.5	17.8	22.7
147.5°	0.0	6.5	9.7	15.4	19.5
150°	0.0	5.7	8.9	13.0	16.2
152.5°	0.0	4.9	8.1	11.3	13.0
155°	0.0	4.1	6.5	8.9	10.5
157.5°	0.0	3.2	4.9	6.5	7.3
160°	0.0	2.4	4.1	4.9	4.9
162.5°	0.0	1.6	2.4	2.4	2.4
165°	0.0	0.8	1.6	0.8	0.8
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)