

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: P232043

Luminaire Tested: **FVS4M-3-LD4-50-1LO-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232043
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-25)
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-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PA187 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

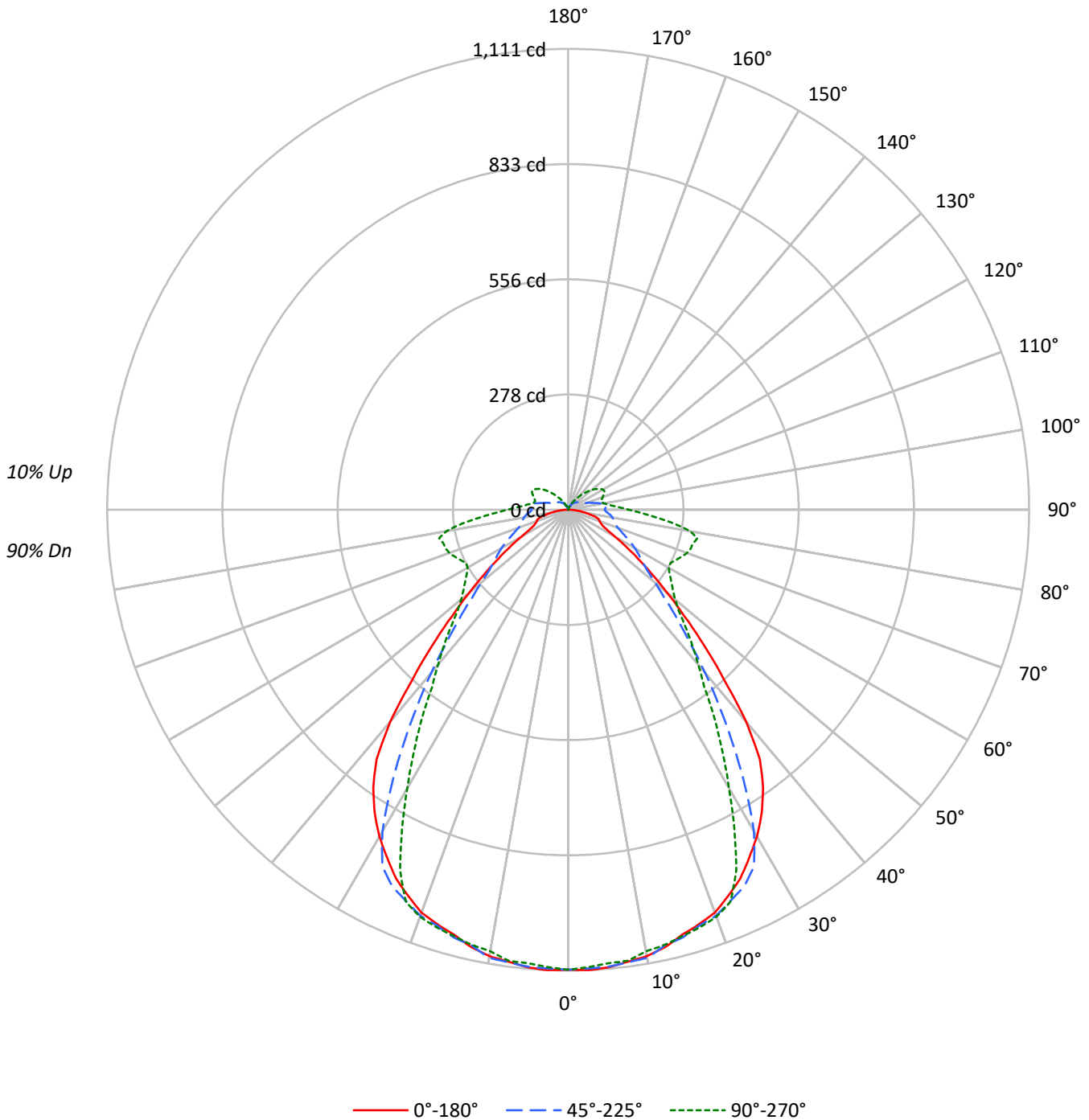
Lumens per Lamp: N/A
Luminaire Lumens: 2553.0 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.1 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

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

TEST NUMBER: P232043

CATALOG NUMBER: FVS4M-3-LD4-50-1LO-PA187-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P232043

CATALOG NUMBER: FVS4M-3-LD4-50-1LO-PA187-UNV-EDC1

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	97	93	102	98	94	90	92	88	86	86	84	81	81	79	77	74
2	97	89	83	77	94	86	80	75	81	76	72	77	73	69	72	69	66	63
3	89	79	72	66	86	77	70	64	73	67	62	69	64	60	65	61	57	55
4	83	71	63	57	80	70	62	56	66	59	54	62	57	52	59	55	51	48
5	77	65	56	50	74	63	55	49	60	53	48	57	51	47	54	49	45	43
6	71	59	51	45	69	58	50	44	55	48	43	52	46	42	50	45	41	39
7	67	54	46	40	64	53	45	40	50	44	39	48	42	38	46	41	37	35
8	62	50	42	36	60	49	41	36	47	40	35	45	39	34	43	38	34	32
9	59	46	38	33	57	45	38	33	43	37	32	42	36	32	40	35	31	29
10	55	43	35	30	53	42	35	30	40	34	30	39	33	29	37	32	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13097	13097	13097
5°	13057	12596	12364
10°	12958	12149	11722
15°	12755	11592	11207
20°	12695	11179	10773
25°	12413	10713	9761
30°	11959	9606	7853
35°	11297	7528	6238
40°	9759	5669	4998
45°	7273	4214	4171
50°	5297	3210	3604
55°	3855	2683	3364
60°	2761	2424	3237
65°	2242	2122	3502
70°	2351	1916	3974
75°	2532	1921	4392
80°	2028	2008	4611
85°	1375	2062	3669



TEST NUMBER: P232043

CATALOG NUMBER: FVS4M-3-LD4-50-1LO-PA187-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	4.1
10°-20°	301.1	11.8
20°-30°	448.5	17.6
30°-40°	441.2	17.3
40°-50°	309.1	12.1
50°-60°	216.0	8.5
60°-70°	181.6	7.1
70°-80°	166.0	6.5
80°-90°	128.1	5.0
90°-100°	77.9	3.1
100°-110°	57.9	2.3
110°-120°	48.9	1.9
120°-130°	35.6	1.4
130°-140°	21.1	0.8
140°-150°	10.5	0.4
150°-160°	3.8	0.1
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	854.6	33.5
0°-40°	1295.8	50.8
0°-60°	1820.9	71.3
0°-90°	2296.6	90.0
90°-120°	184.8	7.2
90°-150°	251.9	9.9
90°-180°	256.0	10.0
0°-180°	2553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1109	1109	1109	1109	1109	
5°	1108	1109	1106	1103	1098	105
15°	1061	1064	1068	1067	1064	300
25°	981	984	1002	990	959	450
35°	819	810	694	631	614	505
45°	464	406	371	369	400	362
55°	204	211	218	267	303	187
65°	91	130	152	257	287	96
75°	69	72	116	251	312	69
85°	18	38	97	225	213	19
90°	0	22	88	158	145	1
95°	0	21	92	113	108	0
105°	0	20	63	91	82	0
115°	0	19	39	93	96	0
125°	0	16	32	68	87	0
135°	0	13	25	41	58	0
145°	0	10	18	24	29	0
155°	0	5	9	12	11	0
165°	1	2	2	2	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232043

CATALOG NUMBER: FVS4M-3-LD4-50-1LO-PA187-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1109.0	1109.0	1109.0	1109.0	1109.0
2.5°	1111.1	1106.9	1106.9	1106.2	1104.1
5°	1107.6	1109.0	1106.2	1102.7	1097.7
7.5°	1099.1	1099.1	1100.5	1096.3	1097.0
10°	1092.8	1090.7	1097.0	1080.9	1080.9
12.5°	1080.2	1079.5	1076.0	1080.2	1074.6
15°	1061.2	1064.0	1067.5	1066.8	1064.0
17.5°	1047.9	1048.6	1051.4	1054.9	1055.6
20°	1033.8	1028.9	1041.6	1050.7	1044.4
22.5°	1007.8	1012.1	1021.2	1037.3	1022.6
25°	981.2	984.0	1002.2	990.3	958.7
27.5°	945.3	960.1	969.9	903.2	866.7
30°	909.5	924.3	895.5	804.9	775.4
32.5°	868.1	886.3	795.0	716.4	691.8
35°	818.9	810.5	693.9	631.4	614.5
37.5°	758.5	698.1	599.1	552.0	538.7
40°	667.2	580.8	512.7	486.0	487.4
42.5°	556.2	483.2	432.6	422.1	442.5
45°	463.5	405.9	370.8	369.4	399.6
47.5°	379.3	340.6	314.6	330.1	361.7
50°	310.4	288.0	272.5	297.8	336.4
52.5°	252.1	243.0	239.5	278.1	317.5
55°	204.4	211.4	217.7	266.9	303.4
57.5°	165.0	184.7	201.6	260.6	290.1
60°	129.9	162.9	186.1	257.1	279.5
62.5°	106.1	145.4	167.9	257.1	278.1
65°	91.3	129.9	152.4	257.1	286.6
67.5°	85.0	113.1	138.4	257.1	295.7
70°	80.1	97.6	127.1	252.8	304.8
72.5°	78.0	82.2	119.4	251.4	309.7
75°	68.8	71.6	115.9	250.7	311.8
77.5°	53.4	63.9	112.4	247.2	318.9
80°	40.7	56.2	108.2	250.7	298.5
82.5°	29.5	47.1	103.2	250.0	257.8
85°	17.6	37.9	96.9	225.4	212.8
87.5°	7.0	28.1	90.6	188.2	174.2
90°	0.0	21.8	87.8	158.0	145.4
92.5°	0.0	21.1	89.9	133.4	124.3
95°	0.0	21.1	92.0	113.1	107.5
97.5°	0.0	21.1	91.3	103.2	97.6
100°	0.0	21.1	84.3	94.1	87.1
102.5°	0.0	20.4	73.0	90.6	84.3
105°	0.0	20.4	63.2	90.6	82.2
107.5°	0.0	20.4	54.8	92.0	85.0
110°	0.0	19.7	47.8	93.4	88.5



TEST NUMBER: P232043

CATALOG NUMBER: FVS4M-3-LD4-50-1LO-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	19.0	42.8	95.5	92.0
115°	0.0	19.0	39.3	92.7	96.2
117.5°	0.0	18.3	36.5	87.8	98.3
120°	0.0	17.6	34.4	82.2	96.9
122.5°	0.0	16.2	33.0	75.1	92.7
125°	0.0	15.5	31.6	68.1	87.1
127.5°	0.0	14.7	29.5	60.4	81.5
130°	0.0	14.0	28.1	53.4	74.4
132.5°	0.0	13.3	26.0	47.1	66.0
135°	0.0	12.6	24.6	41.4	57.6
137.5°	0.0	11.9	23.2	36.5	49.9
140°	0.0	11.2	21.8	31.6	42.1
142.5°	0.0	10.5	20.4	27.4	35.1
145°	0.0	9.8	18.3	23.9	28.8
147.5°	0.0	8.4	16.2	20.4	23.2
150°	0.0	7.7	13.3	16.9	18.3
152.5°	0.0	6.3	11.2	14.7	14.0
155°	0.0	4.9	9.1	11.9	11.2
157.5°	0.7	4.2	7.0	9.1	9.1
160°	0.7	3.5	5.6	6.3	7.0
162.5°	0.7	2.8	3.5	4.2	5.6
165°	0.7	2.1	2.1	2.1	3.5
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)