

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: P232040

Luminaire Tested: **FVS4M-3-LD4-30-1LO-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232040
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-LD4-30-1LO-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PA187 LENS
Light Source: (84) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

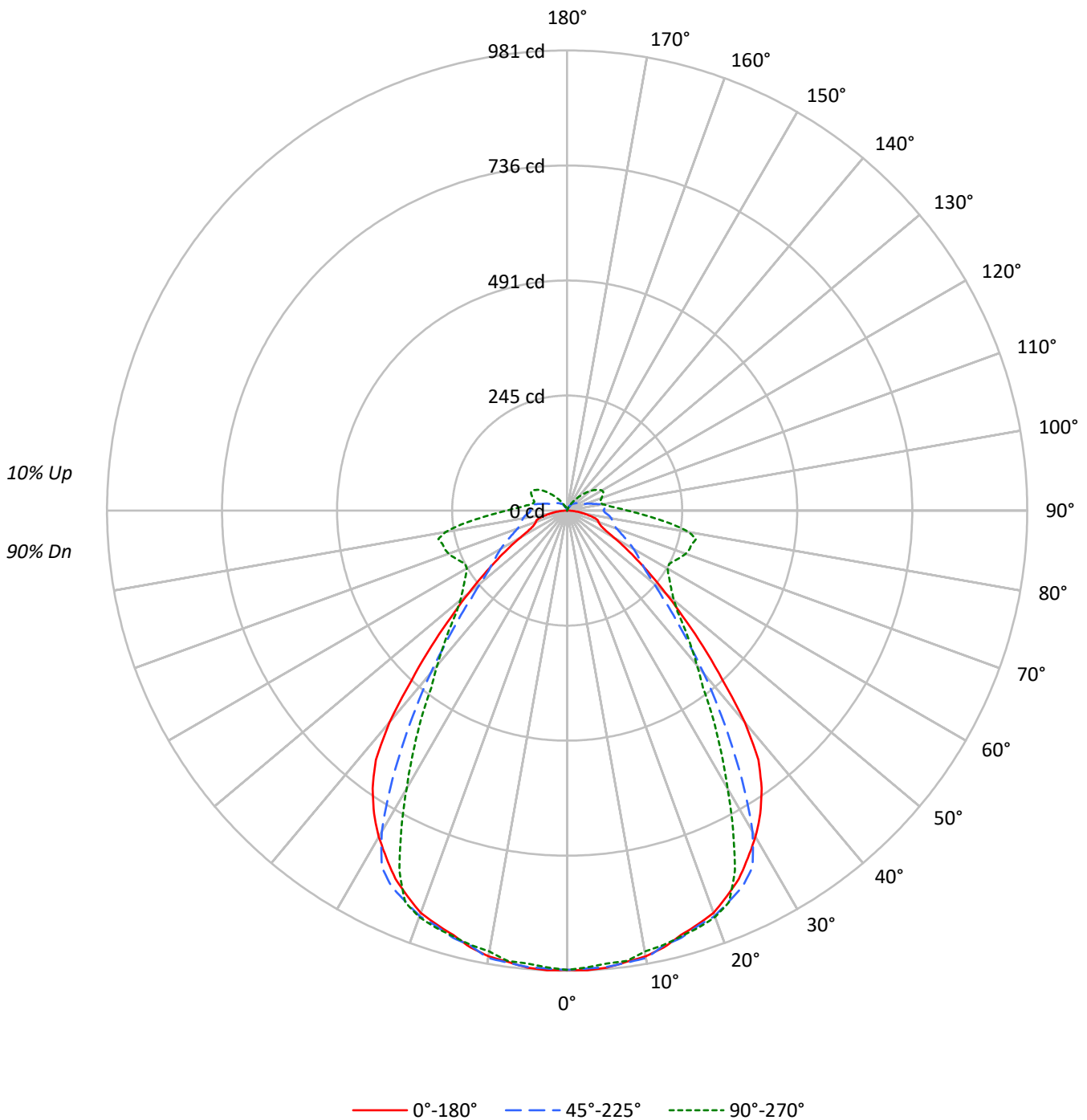
Lumens per Lamp: N/A
Luminaire Lumens: 2253.9 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.1 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

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: P232040

CATALOG NUMBER: FVS4M-3-LD4-30-1LO-PA187-UNV-EDC1

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	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°	11563	11563	11563
5°	11528	11120	10916
10°	11440	10727	10349
15°	11261	10235	9895
20°	11208	9870	9511
25°	10958	9458	8618
30°	10558	8481	6934
35°	9974	6646	5508
40°	8617	5006	4412
45°	6421	3720	3683
50°	4678	2834	3182
55°	3402	2368	2970
60°	2438	2140	2859
65°	1979	1874	3092
70°	2075	1691	3508
75°	2237	1696	3878
80°	1794	1773	4070
85°	1211	1821	3240



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	4.1
10°-20°	265.9	11.8
20°-30°	396.0	17.6
30°-40°	389.5	17.3
40°-50°	272.9	12.1
50°-60°	190.7	8.5
60°-70°	160.3	7.1
70°-80°	146.6	6.5
80°-90°	113.1	5.0
90°-100°	68.8	3.1
100°-110°	51.1	2.3
110°-120°	43.2	1.9
120°-130°	31.4	1.4
130°-140°	18.6	0.8
140°-150°	9.3	0.4
150°-160°	3.4	0.2
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	754.5	33.5
0°-40°	1144.0	50.8
0°-60°	1607.6	71.3
0°-90°	2027.6	90.0
90°-120°	163.1	7.2
90°-150°	222.4	9.9
90°-180°	226.0	10.0
0°-180°	2253.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	979	979	979	979	979	
5°	978	979	977	974	969	93
15°	937	939	942	942	939	265
25°	866	869	885	874	846	398
35°	723	716	613	557	543	446
45°	409	358	327	326	353	319
55°	180	187	192	236	268	165
65°	81	115	135	227	253	85
75°	61	63	102	221	275	61
85°	16	34	86	199	188	17
90°	0	19	78	140	128	1
95°	0	19	81	100	95	0
105°	0	18	56	80	72	0
115°	0	17	35	82	85	0
125°	0	14	28	60	77	0
135°	0	11	22	37	51	0
145°	0	9	16	21	25	0
155°	0	4	8	10	10	0
165°	1	2	2	2	3	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232040

CATALOG NUMBER: FVS4M-3-LD4-30-1LO-PA187-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	979.1	979.1	979.1	979.1	979.1
2.5°	981.0	977.2	977.2	976.6	974.8
5°	977.9	979.1	976.6	973.5	969.2
7.5°	970.4	970.4	971.7	967.9	968.6
10°	964.8	963.0	968.6	954.3	954.3
12.5°	953.7	953.1	950.0	953.7	948.7
15°	936.9	939.4	942.5	941.9	939.4
17.5°	925.2	925.8	928.3	931.4	932.0
20°	912.7	908.4	919.6	927.6	922.1
22.5°	889.8	893.5	901.6	915.8	902.8
25°	866.2	868.7	884.8	874.3	846.4
27.5°	834.6	847.6	856.3	797.4	765.2
30°	803.0	816.0	790.6	710.6	684.6
32.5°	766.4	782.5	701.9	632.5	610.8
35°	723.0	715.6	612.6	557.4	542.6
37.5°	669.7	616.4	528.9	487.4	475.6
40°	589.1	512.8	452.7	429.1	430.3
42.5°	491.1	426.6	382.0	372.7	390.6
45°	409.2	358.4	327.4	326.2	352.8
47.5°	334.8	300.7	277.8	291.4	319.3
50°	274.1	254.2	240.6	262.9	297.0
52.5°	222.6	214.5	211.4	245.5	280.3
55°	180.4	186.6	192.2	235.6	267.9
57.5°	145.7	163.1	178.0	230.0	256.1
60°	114.7	143.9	164.3	226.9	246.8
62.5°	93.6	128.4	148.2	226.9	245.5
65°	80.6	114.7	134.6	226.9	253.0
67.5°	75.0	99.8	122.2	226.9	261.1
70°	70.7	86.2	112.2	223.2	269.1
72.5°	68.8	72.5	105.4	222.0	273.5
75°	60.8	63.2	102.3	221.4	275.3
77.5°	47.1	56.4	99.2	218.3	281.5
80°	36.0	49.6	95.5	221.4	263.5
82.5°	26.0	41.5	91.2	220.7	227.6
85°	15.5	33.5	85.6	199.0	187.9
87.5°	6.2	24.8	80.0	166.2	153.8
90°	0.0	19.2	77.5	139.5	128.4
92.5°	0.0	18.6	79.4	117.8	109.8
95°	0.0	18.6	81.2	99.8	94.9
97.5°	0.0	18.6	80.6	91.2	86.2
100°	0.0	18.6	74.4	83.1	76.9
102.5°	0.0	18.0	64.5	80.0	74.4
105°	0.0	18.0	55.8	80.0	72.5
107.5°	0.0	18.0	48.4	81.2	75.0
110°	0.0	17.4	42.2	82.5	78.1



TEST NUMBER: P232040

CATALOG NUMBER: FVS4M-3-LD4-30-1LO-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	16.7	37.8	84.3	81.2
115°	0.0	16.7	34.7	81.8	85.0
117.5°	0.0	16.1	32.2	77.5	86.8
120°	0.0	15.5	30.4	72.5	85.6
122.5°	0.0	14.3	29.1	66.3	81.8
125°	0.0	13.6	27.9	60.1	76.9
127.5°	0.0	13.0	26.0	53.3	71.9
130°	0.0	12.4	24.8	47.1	65.7
132.5°	0.0	11.8	22.9	41.5	58.3
135°	0.0	11.2	21.7	36.6	50.8
137.5°	0.0	10.5	20.5	32.2	44.0
140°	0.0	9.9	19.2	27.9	37.2
142.5°	0.0	9.3	18.0	24.2	31.0
145°	0.0	8.7	16.1	21.1	25.4
147.5°	0.0	7.4	14.3	18.0	20.5
150°	0.0	6.8	11.8	14.9	16.1
152.5°	0.0	5.6	9.9	13.0	12.4
155°	0.0	4.3	8.1	10.5	9.9
157.5°	0.6	3.7	6.2	8.1	8.1
160°	0.6	3.1	5.0	5.6	6.2
162.5°	0.6	2.5	3.1	3.7	5.0
165°	0.6	1.9	1.9	1.9	3.1
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)