

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: P232041

Luminaire Tested: **FVS4M-3-LD4-35-1LO-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232041
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-LD4-35-1LO-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PA187 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

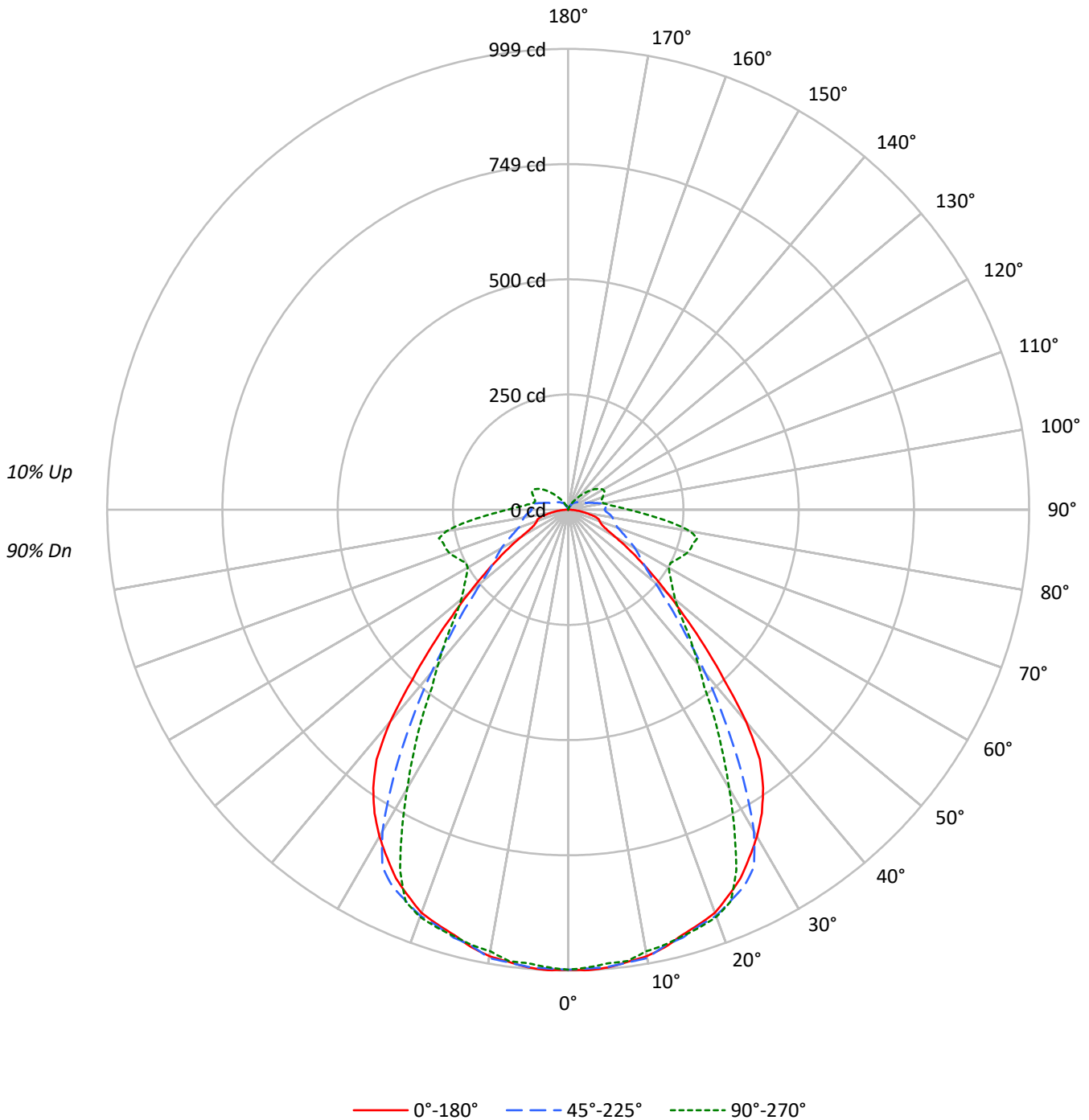
Lumens per Lamp: N/A
Luminaire Lumens: 2296.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.1 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

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: P232041

CATALOG NUMBER: FVS4M-3-LD4-35-1LO-PA187-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P232041

CATALOG NUMBER: FVS4M-3-LD4-35-1LO-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	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°	11778	11778	11778
5°	11742	11328	11119
10°	11653	10926	10542
15°	11471	10426	10079
20°	11418	10053	9688
25°	11163	9634	8779
30°	10755	8639	7062
35°	10161	6770	5611
40°	8776	5099	4495
45°	6542	3790	3752
50°	4765	2887	3242
55°	3466	2413	3026
60°	2484	2180	2912
65°	2016	1909	3149
70°	2113	1723	3573
75°	2278	1727	3950
80°	1824	1806	4146
85°	1234	1855	3300



TEST NUMBER: P232041

CATALOG NUMBER: FVS4M-3-LD4-35-1LO-PA187-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	4.1
10°-20°	270.8	11.8
20°-30°	403.4	17.6
30°-40°	396.8	17.3
40°-50°	278.0	12.1
50°-60°	194.3	8.5
60°-70°	163.3	7.1
70°-80°	149.3	6.5
80°-90°	115.2	5.0
90°-100°	70.1	3.1
100°-110°	52.1	2.3
110°-120°	44.0	1.9
120°-130°	32.0	1.4
130°-140°	18.9	0.8
140°-150°	9.5	0.4
150°-160°	3.5	0.2
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	768.6	33.5
0°-40°	1165.3	50.8
0°-60°	1637.6	71.3
0°-90°	2065.4	90.0
90°-120°	166.1	7.2
90°-150°	226.5	9.9
90°-180°	231.0	10.1
0°-180°	2296.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	997	997	997	997	997	
5°	996	997	995	992	987	95
15°	954	957	960	959	957	270
25°	882	885	901	891	862	405
35°	736	729	624	568	553	454
45°	417	365	334	332	359	325
55°	184	190	196	240	273	168
65°	82	117	137	231	258	86
75°	62	64	104	226	280	62
85°	16	34	87	203	191	17
90°	0	20	79	142	131	1
95°	0	19	83	102	97	0
105°	0	18	57	82	74	0
115°	0	17	35	83	86	0
125°	0	14	28	61	78	0
135°	0	11	22	37	52	0
145°	0	9	16	22	26	0
155°	0	4	8	11	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: P232041

CATALOG NUMBER: FVS4M-3-LD4-35-1LO-PA187-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	997.3	997.3	997.3	997.3	997.3
2.5°	999.2	995.4	995.4	994.8	992.9
5°	996.1	997.3	994.8	991.7	987.2
7.5°	988.5	988.5	989.8	986.0	986.6
10°	982.8	980.9	986.6	972.1	972.1
12.5°	971.4	970.8	967.7	971.4	966.4
15°	954.4	956.9	960.1	959.4	956.9
17.5°	942.4	943.0	945.5	948.7	949.3
20°	929.8	925.3	936.7	944.9	939.2
22.5°	906.4	910.2	918.4	932.9	919.7
25°	882.4	884.9	901.3	890.6	862.2
27.5°	850.2	863.4	872.3	812.3	779.4
30°	818.0	831.2	805.3	723.8	697.3
32.5°	780.7	797.1	715.0	644.3	622.2
35°	736.5	728.9	624.0	567.8	552.7
37.5°	682.2	627.8	538.8	496.5	484.5
40°	600.0	522.4	461.1	437.1	438.4
42.5°	500.2	434.6	389.1	379.6	397.9
45°	416.9	365.1	333.5	332.2	359.4
47.5°	341.1	306.3	283.0	296.9	325.3
50°	279.2	259.0	245.1	267.8	302.6
52.5°	226.8	218.5	215.4	250.1	285.5
55°	183.8	190.1	195.8	240.0	272.9
57.5°	148.4	166.1	181.3	234.3	260.9
60°	116.9	146.5	167.4	231.2	251.4
62.5°	95.4	130.7	151.0	231.2	250.1
65°	82.1	116.9	137.1	231.2	257.7
67.5°	76.4	101.7	124.4	231.2	265.9
70°	72.0	87.8	114.3	227.4	274.1
72.5°	70.1	73.9	107.4	226.1	278.5
75°	61.9	64.4	104.2	225.5	280.4
77.5°	48.0	57.5	101.1	222.3	286.8
80°	36.6	50.5	97.3	225.5	268.4
82.5°	26.5	42.3	92.8	224.9	231.8
85°	15.8	34.1	87.2	202.8	191.4
87.5°	6.3	25.3	81.5	169.3	156.6
90°	0.0	19.6	79.0	142.1	130.7
92.5°	0.0	18.9	80.8	120.0	111.8
95°	0.0	18.9	82.7	101.7	96.6
97.5°	0.0	18.9	82.1	92.8	87.8
100°	0.0	18.9	75.8	84.6	78.3
102.5°	0.0	18.3	65.7	81.5	75.8
105°	0.0	18.3	56.8	81.5	73.9
107.5°	0.0	18.3	49.3	82.7	76.4
110°	0.0	17.7	43.0	84.0	79.6



TEST NUMBER: P232041

CATALOG NUMBER: FVS4M-3-LD4-35-1LO-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	17.1	38.5	85.9	82.7
115°	0.0	17.1	35.4	83.4	86.5
117.5°	0.0	16.4	32.8	79.0	88.4
120°	0.0	15.8	30.9	73.9	87.2
122.5°	0.0	14.5	29.7	67.6	83.4
125°	0.0	13.9	28.4	61.3	78.3
127.5°	0.0	13.3	26.5	54.3	73.3
130°	0.0	12.6	25.3	48.0	67.0
132.5°	0.0	12.0	23.4	42.3	59.4
135°	0.0	11.4	22.1	37.3	51.8
137.5°	0.0	10.7	20.8	32.8	44.8
140°	0.0	10.1	19.6	28.4	37.9
142.5°	0.0	9.5	18.3	24.6	31.6
145°	0.0	8.8	16.4	21.5	25.9
147.5°	0.0	7.6	14.5	18.3	20.8
150°	0.0	6.9	12.0	15.2	16.4
152.5°	0.0	5.7	10.1	13.3	12.6
155°	0.0	4.4	8.2	10.7	10.1
157.5°	0.6	3.8	6.3	8.2	8.2
160°	0.6	3.2	5.1	5.7	6.3
162.5°	0.6	2.5	3.2	3.8	5.1
165°	0.6	1.9	1.9	1.9	3.2
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)