

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: P232085

Luminaire Tested: **FVS4M-3-LD4-35-2HI-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232085
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-30)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-3-LD4-35-2HI-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PA187 LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

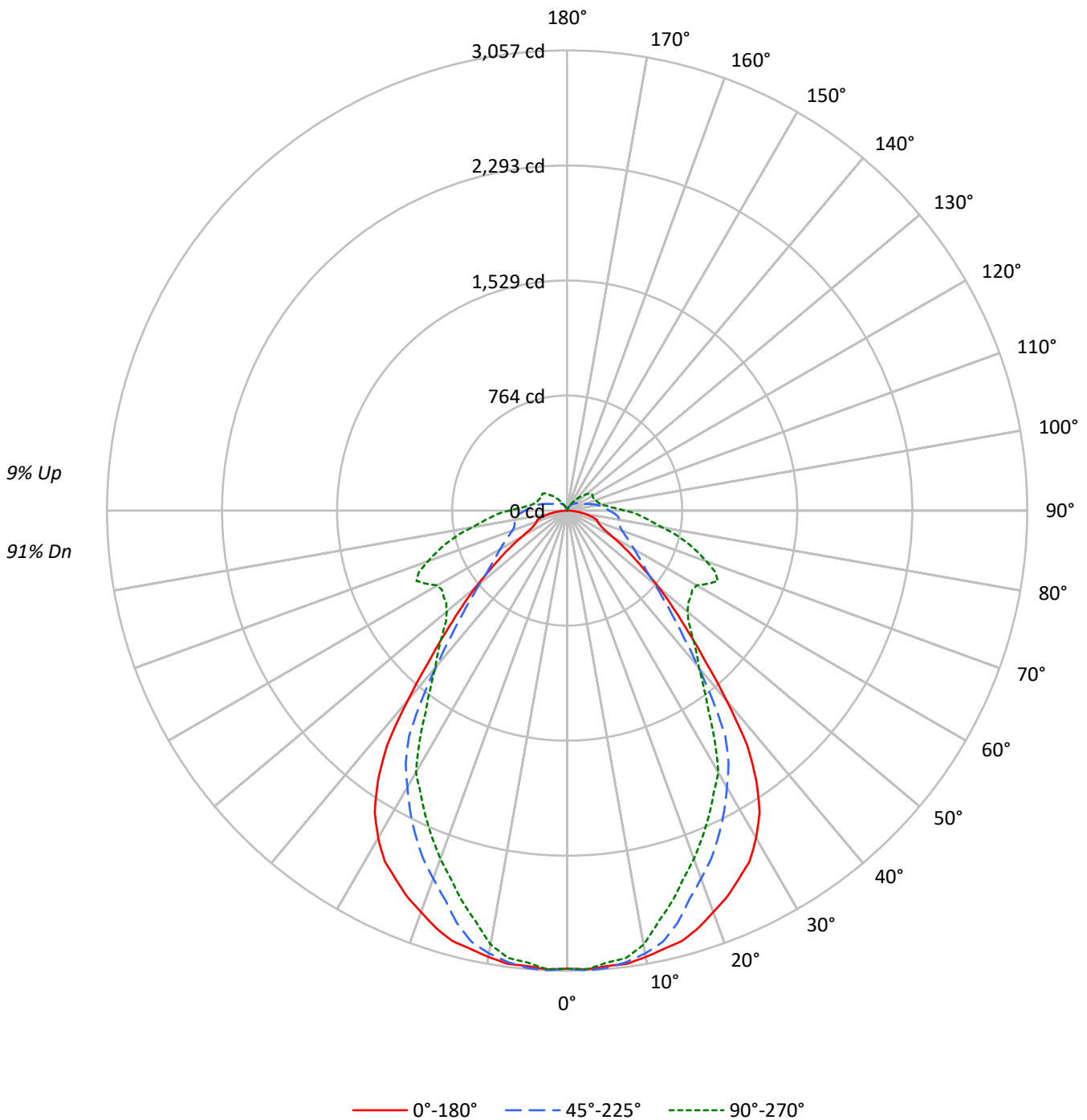
Lumens per Lamp: N/A
Luminaire Lumens: 6862.0 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Direct

Input Watts (W): 71.7
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: P232085

CATALOG NUMBER: FVS4M-3-LD4-35-2HI-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	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	98	94	90	92	88	85	86	84	81	81	79	77	74
2	97	89	82	76	93	86	80	75	81	76	71	76	72	68	72	69	65	63
3	89	79	71	65	86	76	69	63	72	66	61	68	63	59	64	60	57	54
4	82	71	62	56	79	69	61	55	65	58	53	62	56	51	58	54	50	47
5	76	64	55	49	73	62	54	48	59	52	47	56	50	46	53	48	44	42
6	71	58	50	44	68	57	49	43	54	47	42	51	45	41	49	44	40	38
7	66	53	45	39	64	52	44	39	50	43	38	47	41	37	45	40	36	34
8	62	49	41	35	60	48	40	35	46	39	34	44	38	33	42	37	33	31
9	58	45	37	32	56	44	37	32	42	36	31	41	35	31	39	34	30	28
10	55	42	35	30	53	41	34	29	40	33	29	38	32	28	37	31	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	35939	35939	35939
5°	35805	34719	33956
10°	35700	33083	31747
15°	35563	30790	28335
20°	34855	27926	25383
25°	34134	25466	22730
30°	33013	22770	20336
35°	30229	19857	16661
40°	24093	14939	13964
45°	17784	11308	12260
50°	13519	8949	11185
55°	10040	7491	11099
60°	7396	6690	11502
65°	6090	6168	13502
70°	6301	5823	12819
75°	6639	5996	11600
80°	5472	6497	9858
85°	3905	6987	8756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.4	4.2
10°-20°	794.1	11.6
20°-30°	1110.4	16.2
30°-40°	1144.0	16.7
40°-50°	838.2	12.2
50°-60°	624.6	9.1
60°-70°	586.4	8.5
70°-80°	496.4	7.2
80°-90°	331.1	4.8
90°-100°	207.4	3.0
100°-110°	146.1	2.1
110°-120°	112.4	1.6
120°-130°	87.6	1.3
130°-140°	53.4	0.8
140°-150°	28.1	0.4
150°-160°	11.1	0.2
160°-170°	2.3	0.0
170°-180°	0.0	0.0
0°-30°	2192.9	32.0
0°-40°	3336.9	48.6
0°-60°	4799.7	69.9
0°-90°	6213.6	90.6
90°-120°	465.9	6.8
90°-150°	634.9	9.3
90°-180°	648.0	9.4
0°-180°	6862.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3043	3043	3043	3043	3043	
5°	3037	3054	3049	3033	3015	290
15°	2959	2933	2835	2718	2690	832
25°	2698	2543	2382	2274	2232	1243
35°	2191	1976	1830	1680	1641	1342
45°	1133	1061	995	1062	1174	894
55°	532	549	608	816	1001	485
65°	248	342	443	921	1105	257
75°	180	193	362	815	824	183
85°	50	108	328	497	508	54
90°	1	61	278	390	383	3
95°	0	58	243	306	283	0
105°	0	56	167	221	211	0
115°	0	52	105	194	194	0
125°	0	43	84	167	197	0
135°	1	34	68	101	137	1
145°	1	26	51	61	72	1
155°	1	16	28	32	30	1
165°	2	7	13	9	13	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232085

CATALOG NUMBER: FVS4M-3-LD4-35-2HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3043.2	3043.2	3043.2	3043.2	3043.2
2.5°	3050.0	3051.0	3056.9	3055.9	3049.1
5°	3037.3	3054.0	3049.1	3033.4	3014.7
7.5°	3036.3	3027.5	3024.5	3010.8	2997.1
10°	3010.8	3009.8	2987.3	2957.9	2927.5
12.5°	2981.4	2986.3	2934.3	2839.3	2799.1
15°	2958.9	2933.4	2835.3	2717.7	2690.2
17.5°	2904.9	2863.8	2704.9	2617.7	2565.7
20°	2838.3	2771.6	2602.0	2510.8	2460.8
22.5°	2777.5	2655.9	2501.0	2402.0	2347.1
25°	2698.1	2543.2	2382.4	2273.6	2232.4
27.5°	2625.5	2411.8	2256.9	2154.9	2110.8
30°	2510.8	2277.5	2122.6	2047.1	2007.9
32.5°	2379.4	2136.3	1996.1	1907.9	1828.5
35°	2191.2	1976.5	1830.4	1680.4	1641.2
37.5°	1963.7	1787.3	1587.3	1509.8	1494.1
40°	1647.1	1525.5	1351.0	1333.3	1361.8
42.5°	1360.8	1262.8	1152.0	1188.2	1269.6
45°	1133.3	1060.8	995.1	1061.8	1174.5
47.5°	951.0	902.0	862.8	955.9	1092.2
50°	792.2	751.0	759.8	887.3	1044.1
52.5°	645.1	638.2	667.7	838.2	1012.8
55°	532.4	549.0	607.9	815.7	1001.0
57.5°	433.3	482.4	557.9	821.6	985.3
60°	348.0	428.4	513.7	847.1	993.1
62.5°	282.4	380.4	476.5	883.3	1053.9
65°	248.0	342.2	443.1	920.6	1104.9
67.5°	228.4	300.0	412.8	956.9	1065.7
70°	214.7	260.8	386.3	995.1	983.3
72.5°	207.8	223.5	369.6	922.6	904.9
75°	180.4	193.1	361.8	814.7	823.5
77.5°	144.1	175.5	356.9	722.6	737.3
80°	109.8	154.9	350.0	638.2	638.2
82.5°	81.4	133.3	344.1	567.7	569.6
85°	50.0	107.8	328.4	497.1	507.8
87.5°	21.6	81.4	302.9	433.3	454.9
90°	1.0	60.8	278.4	390.2	383.3
92.5°	0.0	58.8	261.8	349.0	327.5
95°	0.0	57.8	243.1	305.9	283.3
97.5°	0.0	57.8	224.5	273.5	253.9
100°	0.0	56.9	207.8	247.1	234.3
102.5°	0.0	55.9	189.2	231.4	220.6
105°	0.0	55.9	166.7	220.6	210.8
107.5°	0.0	54.9	146.1	210.8	206.9
110°	0.0	54.9	128.4	201.0	203.9



TEST NUMBER: P232085

CATALOG NUMBER: FVS4M-3-LD4-35-2HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	52.9	113.7	195.1	201.0
115°	0.0	52.0	104.9	194.1	194.1
117.5°	0.0	50.0	98.0	196.1	192.2
120°	0.0	48.0	92.2	196.1	194.1
122.5°	0.0	46.1	88.2	186.3	198.0
125°	0.0	43.1	84.3	166.7	197.1
127.5°	0.0	41.2	80.4	148.0	188.2
130°	0.0	38.2	76.5	131.4	169.6
132.5°	1.0	36.3	71.6	115.7	152.9
135°	1.0	34.3	67.6	101.0	137.3
137.5°	1.0	32.4	63.7	90.2	119.6
140°	1.0	31.4	60.8	80.4	102.9
142.5°	1.0	29.4	56.9	70.6	86.3
145°	1.0	26.5	51.0	60.8	72.5
147.5°	1.0	24.5	46.1	52.9	58.8
150°	1.0	21.6	40.2	46.1	47.1
152.5°	1.0	18.6	34.3	39.2	37.3
155°	1.0	15.7	28.4	32.4	30.4
157.5°	2.0	13.7	23.5	25.5	24.5
160°	2.0	11.8	19.6	19.6	20.6
162.5°	2.0	9.8	15.7	13.7	17.6
165°	2.0	6.9	12.7	8.8	12.7
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)