

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: P232078

Luminaire Tested: **FVS4M-3-LD4-40-2LO-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232078
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-LD4-40-2LO-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PA187 LENS
Light Source: (168) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

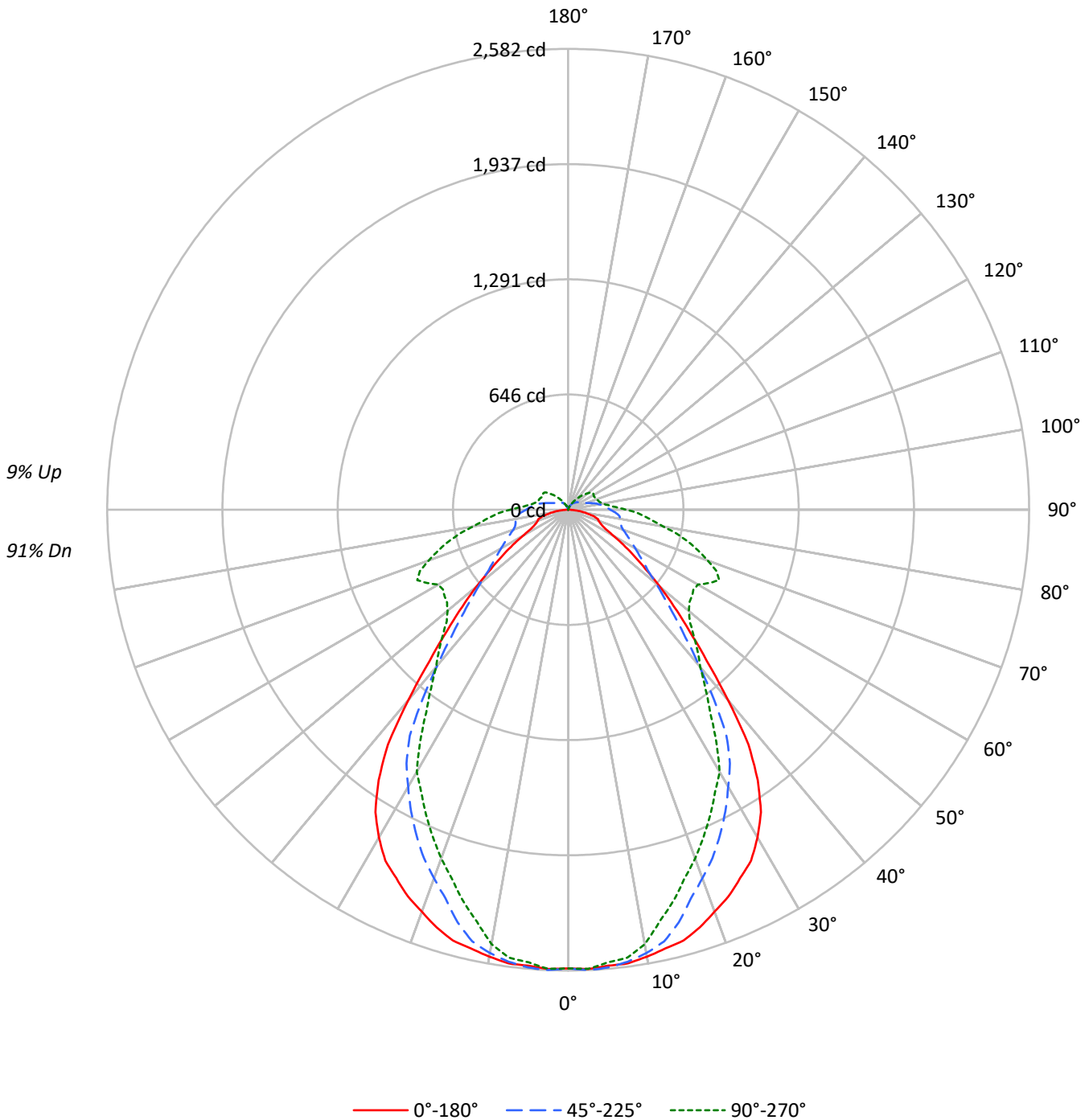
Lumens per Lamp: N/A
Luminaire Lumens: 5795.0 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Direct

Input Watts (W): 56.8
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	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°	30351	30351	30351
5°	30237	29320	28677
10°	30150	27939	26811
15°	30033	26003	23929
20°	29434	23584	21436
25°	28826	21505	19196
30°	27880	19229	17174
35°	25529	16770	14070
40°	20347	12616	11792
45°	15019	9550	10354
50°	11416	7558	9446
55°	8479	6325	9373
60°	6246	5650	9714
65°	5145	5209	11403
70°	5320	4917	10826
75°	5605	5063	9797
80°	4620	5487	8326
85°	3296	5902	7396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.6	4.2
10°-20°	670.6	11.6
20°-30°	937.7	16.2
30°-40°	966.1	16.7
40°-50°	707.9	12.2
50°-60°	527.5	9.1
60°-70°	495.3	8.5
70°-80°	419.2	7.2
80°-90°	279.6	4.8
90°-100°	175.1	3.0
100°-110°	123.4	2.1
110°-120°	94.9	1.6
120°-130°	74.0	1.3
130°-140°	45.1	0.8
140°-150°	23.7	0.4
150°-160°	9.4	0.2
160°-170°	2.0	0.0
170°-180°	0.0	0.0
0°-30°	1851.9	32.0
0°-40°	2818.0	48.6
0°-60°	4053.4	69.9
0°-90°	5247.4	90.6
90°-120°	393.5	6.8
90°-150°	536.2	9.3
90°-180°	548.0	9.5
0°-180°	5795.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2570	2570	2570	2570	2570	
5°	2565	2579	2575	2562	2546	244
15°	2499	2477	2394	2295	2272	702
25°	2278	2148	2012	1920	1885	1049
35°	1850	1669	1546	1419	1386	1134
45°	957	896	840	897	992	755
55°	450	464	513	689	845	410
65°	210	289	374	778	933	217
75°	152	163	306	688	696	155
85°	42	91	277	420	429	45
90°	1	51	235	330	324	3
95°	0	49	205	258	239	0
105°	0	47	141	186	178	0
115°	0	44	89	164	164	0
125°	0	36	71	141	166	0
135°	1	29	57	85	116	1
145°	1	22	43	51	61	1
155°	1	13	24	27	26	1
165°	2	6	11	8	11	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°	2570.0	2570.0	2570.0	2570.0	2570.0
2.5°	2575.8	2576.6	2581.6	2580.7	2574.9
5°	2565.0	2579.1	2574.9	2561.7	2546.0
7.5°	2564.2	2556.7	2554.2	2542.7	2531.1
10°	2542.7	2541.8	2522.8	2497.9	2472.3
12.5°	2517.8	2522.0	2478.1	2397.8	2363.8
15°	2498.8	2477.2	2394.5	2295.1	2271.9
17.5°	2453.2	2418.5	2284.3	2210.6	2166.8
20°	2396.9	2340.6	2197.4	2120.4	2078.2
22.5°	2345.6	2242.9	2112.1	2028.5	1982.1
25°	2278.5	2147.7	2011.9	1920.0	1885.3
27.5°	2217.3	2036.8	1906.0	1819.8	1782.6
30°	2120.4	1923.3	1792.5	1728.8	1695.7
32.5°	2009.5	1804.1	1685.7	1611.2	1544.1
35°	1850.5	1669.2	1545.8	1419.1	1386.0
37.5°	1658.4	1509.4	1340.5	1275.1	1261.8
40°	1391.0	1288.3	1140.9	1126.0	1150.0
42.5°	1149.2	1066.4	972.8	1003.5	1072.2
45°	957.1	895.8	840.4	896.7	991.9
47.5°	803.1	761.7	728.6	807.3	922.3
50°	669.0	634.2	641.7	749.3	881.8
52.5°	544.8	539.0	563.8	707.9	855.3
55°	449.6	463.7	513.3	688.9	845.3
57.5°	366.0	407.4	471.1	693.8	832.1
60°	293.9	361.8	433.8	715.4	838.7
62.5°	238.5	321.2	402.4	746.0	890.1
65°	209.5	289.0	374.2	777.5	933.1
67.5°	192.9	253.4	348.6	808.1	900.0
70°	181.3	220.2	326.2	840.4	830.4
72.5°	175.5	188.8	312.1	779.1	764.2
75°	152.3	163.1	305.5	688.0	695.5
77.5°	121.7	148.2	301.4	610.2	622.6
80°	92.7	130.8	295.6	539.0	539.0
82.5°	68.7	112.6	290.6	479.4	481.0
85°	42.2	91.1	277.4	419.8	428.9
87.5°	18.2	68.7	255.8	366.0	384.2
90°	0.8	51.3	235.1	329.5	323.7
92.5°	0.0	49.7	221.1	294.8	276.5
95°	0.0	48.8	205.3	258.3	239.3
97.5°	0.0	48.8	189.6	231.0	214.4
100°	0.0	48.0	175.5	208.6	197.9
102.5°	0.0	47.2	159.8	195.4	186.3
105°	0.0	47.2	140.8	186.3	178.0
107.5°	0.0	46.4	123.4	178.0	174.7
110°	0.0	46.4	108.5	169.7	172.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	44.7	96.0	164.8	169.7
115°	0.0	43.9	88.6	163.9	163.9
117.5°	0.0	42.2	82.8	165.6	162.3
120°	0.0	40.6	77.8	165.6	163.9
122.5°	0.0	38.9	74.5	157.3	167.2
125°	0.0	36.4	71.2	140.8	166.4
127.5°	0.0	34.8	67.9	125.0	159.0
130°	0.0	32.3	64.6	110.9	143.2
132.5°	0.8	30.6	60.4	97.7	129.2
135°	0.8	29.0	57.1	85.3	115.9
137.5°	0.8	27.3	53.8	76.2	101.0
140°	0.8	26.5	51.3	67.9	86.9
142.5°	0.8	24.8	48.0	59.6	72.9
145°	0.8	22.4	43.1	51.3	61.3
147.5°	0.8	20.7	38.9	44.7	49.7
150°	0.8	18.2	33.9	38.9	39.7
152.5°	0.8	15.7	29.0	33.1	31.5
155°	0.8	13.2	24.0	27.3	25.7
157.5°	1.7	11.6	19.9	21.5	20.7
160°	1.7	9.9	16.6	16.6	17.4
162.5°	1.7	8.3	13.2	11.6	14.9
165°	1.7	5.8	10.8	7.5	10.8
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)