

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: P232080

Luminaire Tested: **FVS4M-3-LD4-30-2STD-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232080
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-LD4-30-2STD-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PA187 LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

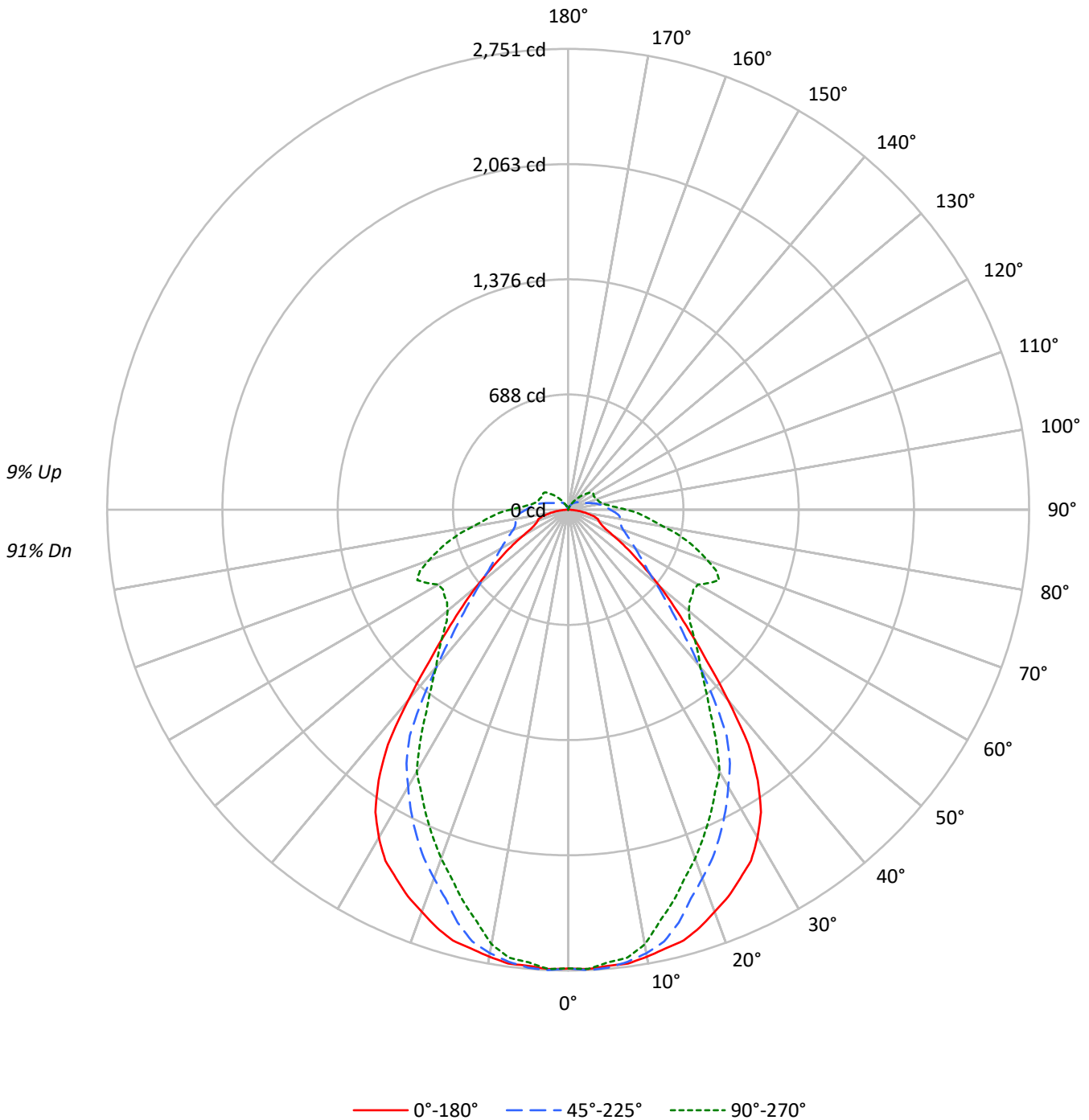
Lumens per Lamp: N/A
Luminaire Lumens: 6175.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Direct

Input Watts (W): 64
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°	32340	32340	32340
5°	32220	31243	30557
10°	32126	29770	28569
15°	32002	27708	25499
20°	31365	25130	22841
25°	30717	22916	20454
30°	29708	20490	18299
35°	27203	17870	14993
40°	21681	13443	12565
45°	16005	10176	11032
50°	12166	8053	10065
55°	9035	6741	9988
60°	6656	6021	10351
65°	5481	5552	12150
70°	5670	5240	11537
75°	5973	5396	10439
80°	4924	5847	8871
85°	3515	6289	7880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.5	4.2
10°-20°	714.6	11.6
20°-30°	999.2	16.2
30°-40°	1029.4	16.7
40°-50°	754.3	12.2
50°-60°	562.1	9.1
60°-70°	527.7	8.5
70°-80°	446.7	7.2
80°-90°	297.9	4.8
90°-100°	186.6	3.0
100°-110°	131.5	2.1
110°-120°	101.1	1.6
120°-130°	78.8	1.3
130°-140°	48.0	0.8
140°-150°	25.2	0.4
150°-160°	10.0	0.2
160°-170°	2.1	0.0
170°-180°	0.0	0.0
0°-30°	1973.4	32.0
0°-40°	3002.8	48.6
0°-60°	4319.2	69.9
0°-90°	5591.5	90.6
90°-120°	419.3	6.8
90°-150°	571.4	9.3
90°-180°	583.0	9.4
0°-180°	6175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2738	2738	2738	2738	2738	
5°	2733	2748	2744	2730	2713	261
15°	2663	2640	2552	2446	2421	748
25°	2428	2289	2144	2046	2009	1118
35°	1972	1779	1647	1512	1477	1208
45°	1020	955	896	956	1057	805
55°	479	494	547	734	901	437
65°	223	308	399	828	994	232
75°	162	174	326	733	741	165
85°	45	97	296	447	457	48
90°	1	55	251	351	345	3
95°	0	52	219	275	255	0
105°	0	50	150	198	190	0
115°	0	47	94	175	175	0
125°	0	39	76	150	177	0
135°	1	31	61	91	124	1
145°	1	24	46	55	65	1
155°	1	14	26	29	27	1
165°	2	6	12	8	12	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°	2738.5	2738.5	2738.5	2738.5	2738.5
2.5°	2744.7	2745.6	2750.9	2750.0	2743.8
5°	2733.2	2748.2	2743.8	2729.7	2712.9
7.5°	2732.3	2724.4	2721.7	2709.4	2697.0
10°	2709.4	2708.5	2688.2	2661.7	2634.4
12.5°	2682.9	2687.3	2640.6	2555.0	2518.8
15°	2662.6	2639.7	2551.5	2445.6	2420.9
17.5°	2614.1	2577.1	2434.1	2355.6	2308.8
20°	2554.1	2494.1	2341.5	2259.4	2214.4
22.5°	2499.4	2390.0	2250.6	2161.5	2112.1
25°	2428.0	2288.6	2143.9	2045.9	2008.9
27.5°	2362.7	2170.3	2030.9	1939.2	1899.5
30°	2259.4	2049.5	1910.1	1842.1	1806.8
32.5°	2141.2	1922.4	1796.3	1716.9	1645.4
35°	1971.8	1778.6	1647.2	1512.2	1476.9
37.5°	1767.1	1608.3	1428.4	1358.7	1344.5
40°	1482.2	1372.8	1215.7	1199.9	1225.4
42.5°	1224.6	1136.3	1036.6	1069.3	1142.5
45°	1019.9	954.6	895.5	955.5	1056.9
47.5°	855.8	811.7	776.4	860.2	982.8
50°	712.9	675.8	683.7	798.4	939.6
52.5°	580.5	574.3	600.8	754.3	911.4
55°	479.1	494.1	547.0	734.0	900.8
57.5°	390.0	434.1	502.0	739.3	886.7
60°	313.2	385.5	462.3	762.3	893.7
62.5°	254.1	342.3	428.8	794.9	948.4
65°	223.2	307.9	398.8	828.4	994.3
67.5°	205.6	270.0	371.4	861.1	959.0
70°	193.2	234.7	347.6	895.5	884.9
72.5°	187.0	201.2	332.6	830.2	814.3
75°	162.3	173.8	325.6	733.1	741.1
77.5°	129.7	157.9	321.1	650.2	663.5
80°	98.8	139.4	315.0	574.3	574.3
82.5°	73.2	120.0	309.7	510.8	512.6
85°	45.0	97.0	295.6	447.3	457.0
87.5°	19.4	73.2	272.6	390.0	409.4
90°	0.9	54.7	250.6	351.1	345.0
92.5°	0.0	52.9	235.6	314.1	294.7
95°	0.0	52.1	218.8	275.3	255.0
97.5°	0.0	52.1	202.0	246.1	228.5
100°	0.0	51.2	187.0	222.3	210.9
102.5°	0.0	50.3	170.3	208.2	198.5
105°	0.0	50.3	150.0	198.5	189.7
107.5°	0.0	49.4	131.5	189.7	186.2
110°	0.0	49.4	115.6	180.9	183.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	47.6	102.3	175.6	180.9
115°	0.0	46.8	94.4	174.7	174.7
117.5°	0.0	45.0	88.2	176.4	172.9
120°	0.0	43.2	82.9	176.4	174.7
122.5°	0.0	41.5	79.4	167.6	178.2
125°	0.0	38.8	75.9	150.0	177.3
127.5°	0.0	37.1	72.3	133.2	169.4
130°	0.0	34.4	68.8	118.2	152.6
132.5°	0.9	32.6	64.4	104.1	137.6
135°	0.9	30.9	60.9	90.9	123.5
137.5°	0.9	29.1	57.3	81.2	107.6
140°	0.9	28.2	54.7	72.3	92.6
142.5°	0.9	26.5	51.2	63.5	77.6
145°	0.9	23.8	45.9	54.7	65.3
147.5°	0.9	22.1	41.5	47.6	52.9
150°	0.9	19.4	36.2	41.5	42.3
152.5°	0.9	16.8	30.9	35.3	33.5
155°	0.9	14.1	25.6	29.1	27.3
157.5°	1.8	12.4	21.2	22.9	22.1
160°	1.8	10.6	17.6	17.6	18.5
162.5°	1.8	8.8	14.1	12.4	15.9
165°	1.8	6.2	11.5	7.9	11.5
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)