

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: P232004

Luminaire Tested: **FVS4M-4-LD4-30-2LO-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-4-LD4-30-2LO-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH PA187 LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

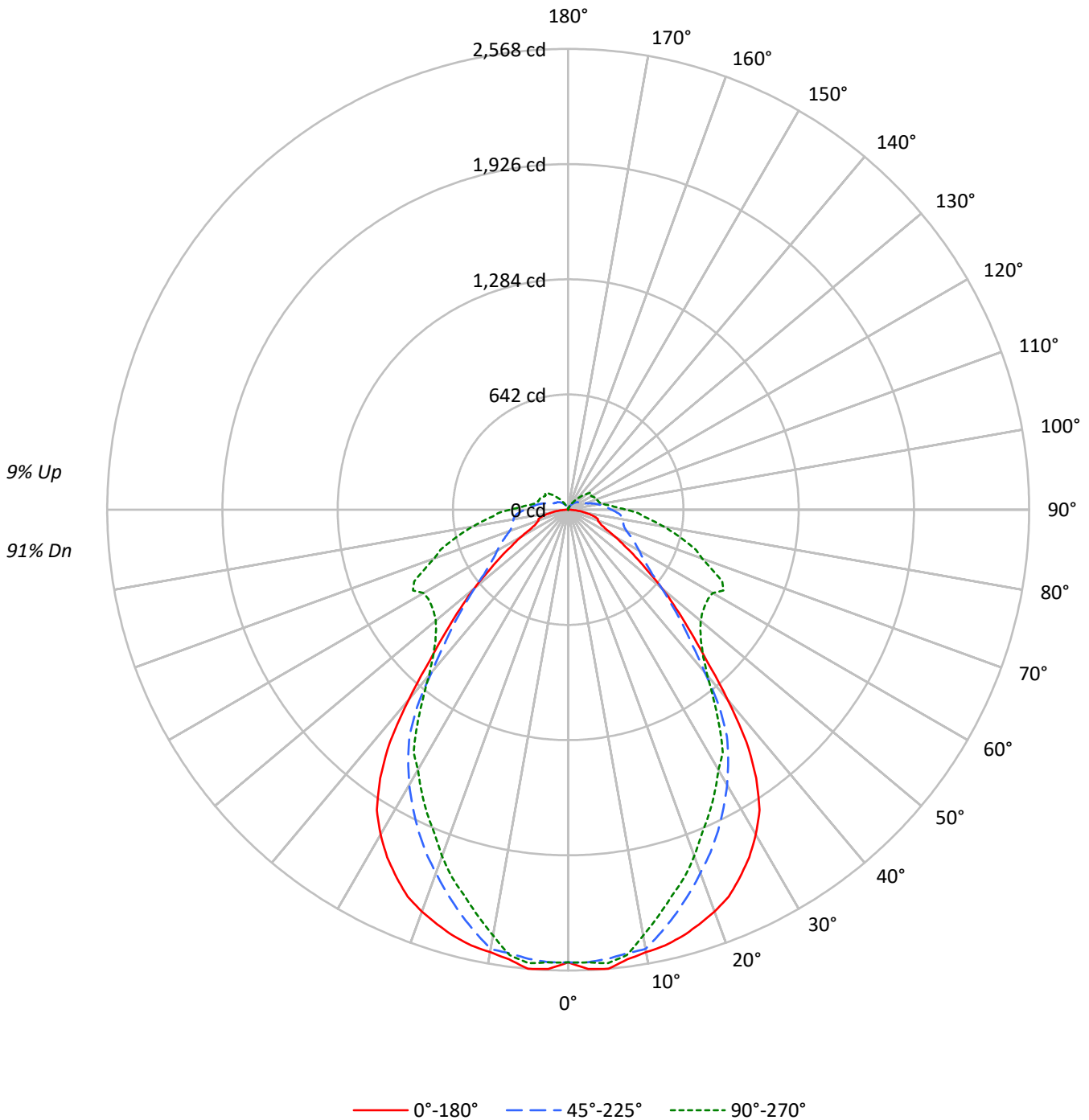
Lumens per Lamp: N/A
Luminaire Lumens: 5848.0 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.02 / 1.12
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')
CIE Type: Direct

Input Watts (W): 57.4
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	100	100	100	94	94	94	91
1	106	101	96	92	102	98	94	90	92	89	85	86	84	81	81	79	77	75
2	97	89	82	76	93	86	80	74	81	76	71	76	72	68	72	69	66	63
3	89	79	71	64	86	76	69	63	72	66	61	68	63	59	64	60	57	54
4	82	70	62	55	79	68	61	55	65	58	53	61	56	51	58	54	50	47
5	76	64	55	49	73	62	54	48	59	52	47	56	50	45	53	48	44	42
6	70	58	49	43	68	56	48	43	54	47	42	51	45	40	49	44	39	37
7	66	53	44	39	63	52	44	38	49	42	37	47	41	36	45	40	36	34
8	61	49	40	35	59	48	40	35	45	39	34	44	38	33	42	36	32	30
9	58	45	37	32	56	44	37	31	42	36	31	40	35	30	39	34	30	28
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	36	31	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22918	22918	22918
5°	23316	22026	21978
10°	22893	21208	20101
15°	22836	19487	18055
20°	22633	17843	16299
25°	22160	16305	14588
30°	21318	14678	13035
35°	19570	12939	11455
40°	15706	10132	9512
45°	11796	7915	8406
50°	9135	6201	7929
55°	6758	5100	7929
60°	5077	4623	8276
65°	4007	4323	8894
70°	4123	4068	7951
75°	4566	4121	7304
80°	3828	4493	6418
85°	2777	4782	5580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.0	4.1
10°-20°	659.8	11.3
20°-30°	924.4	15.8
30°-40°	974.4	16.7
40°-50°	740.1	12.7
50°-60°	559.1	9.6
60°-70°	518.1	8.9
70°-80°	417.9	7.1
80°-90°	280.5	4.8
90°-100°	173.4	3.0
100°-110°	121.9	2.1
110°-120°	92.0	1.6
120°-130°	70.7	1.2
130°-140°	43.4	0.7
140°-150°	22.2	0.4
150°-160°	8.4	0.1
160°-170°	1.7	0.0
170°-180°	0.0	0.0
0°-30°	1824.3	31.2
0°-40°	2798.7	47.9
0°-60°	4097.8	70.1
0°-90°	5314.3	90.9
90°-120°	387.3	6.6
90°-150°	523.6	9.0
90°-180°	534.0	9.1
0°-180°	5848.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2523	2523	2523	2523	2523	
5°	2568	2546	2512	2534	2537	242
15°	2460	2452	2327	2269	2228	694
25°	2262	2113	1975	1897	1863	1039
35°	1826	1664	1542	1468	1467	1118
45°	964	931	899	947	1047	758
55°	457	473	533	753	930	417
65°	206	290	399	835	946	217
75°	154	169	319	668	674	156
85°	42	94	287	414	421	46
90°	2	56	241	330	322	4
95°	1	51	201	251	241	1
105°	1	48	135	187	175	1
115°	1	43	85	156	162	1
125°	1	36	72	130	157	1
135°	2	27	56	83	110	1
145°	2	20	40	50	57	1
155°	3	12	21	23	24	1
165°	3	5	9	5	8	1
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°	2522.8	2522.8	2522.8	2522.8	2522.8
2.5°	2561.7	2550.6	2524.2	2530.4	2524.9
5°	2567.9	2545.7	2512.4	2533.9	2536.7
7.5°	2527.0	2533.9	2493.6	2509.6	2503.4
10°	2503.4	2517.9	2485.3	2452.7	2409.6
12.5°	2488.1	2486.0	2408.2	2360.3	2319.4
15°	2460.3	2452.0	2327.0	2269.4	2228.4
17.5°	2423.5	2393.0	2242.3	2171.5	2150.0
20°	2383.3	2299.3	2154.2	2080.6	2054.2
22.5°	2334.7	2211.8	2068.8	1992.4	1948.7
25°	2261.8	2113.2	1975.1	1896.6	1862.6
27.5°	2183.3	2010.5	1873.0	1798.0	1769.6
30°	2090.3	1902.9	1770.3	1711.3	1673.1
32.5°	1984.1	1791.1	1658.5	1601.6	1603.0
35°	1825.8	1664.0	1541.9	1468.3	1466.9
37.5°	1631.4	1499.5	1382.2	1332.9	1329.4
40°	1379.4	1323.2	1183.6	1204.5	1205.9
42.5°	1139.9	1107.3	1024.7	1054.5	1114.2
45°	963.6	930.9	899.0	946.9	1046.9
47.5°	816.4	769.9	778.2	865.7	998.3
50°	684.5	652.6	678.9	808.1	962.2
52.5°	553.3	550.5	590.8	771.3	942.1
55°	456.8	472.8	533.2	753.2	929.6
57.5°	368.6	407.5	488.0	756.0	924.7
60°	303.4	358.9	456.8	781.0	928.9
62.5°	241.6	322.1	425.6	804.6	974.7
65°	206.2	290.2	399.2	835.1	946.2
67.5°	188.1	258.9	370.0	885.1	865.0
70°	176.3	225.6	346.4	844.9	792.8
72.5°	174.2	194.4	328.4	762.9	746.3
75°	154.1	168.7	318.6	668.5	674.1
77.5°	127.0	150.6	313.8	590.8	605.4
80°	93.7	132.6	309.6	524.8	540.1
82.5°	70.8	112.5	302.0	468.6	475.5
85°	41.7	94.4	286.7	413.8	420.7
87.5°	20.1	70.8	265.2	358.2	386.0
90°	2.1	55.5	240.9	329.8	322.1
92.5°	2.1	51.4	220.8	285.3	274.2
95°	1.4	50.7	200.6	250.6	240.9
97.5°	1.4	50.7	186.1	223.5	211.7
100°	1.4	50.0	170.8	205.5	192.3
102.5°	1.4	49.3	154.1	193.7	180.5
105°	1.4	47.9	135.4	187.4	174.9
107.5°	1.4	47.2	115.9	181.2	171.5
110°	1.4	45.8	102.7	170.8	169.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.4	44.4	91.6	162.4	168.7
115°	1.4	43.0	85.4	155.5	161.8
117.5°	1.4	41.7	81.2	154.1	155.5
120°	1.4	39.6	78.4	156.9	150.6
122.5°	1.4	37.5	75.0	146.5	149.3
125°	1.4	36.1	72.2	129.8	156.9
127.5°	1.4	33.3	68.7	115.9	154.1
130°	1.4	31.2	64.6	104.1	137.5
132.5°	1.4	29.2	61.1	92.3	123.6
135°	2.1	27.1	56.2	82.6	110.4
137.5°	2.1	25.7	52.1	73.6	95.8
140°	2.1	23.6	48.6	65.3	82.6
142.5°	2.1	22.2	44.4	57.6	69.4
145°	2.1	20.1	39.6	50.0	56.9
147.5°	2.1	18.7	35.4	42.3	45.1
150°	2.1	16.0	30.5	36.1	35.4
152.5°	2.1	13.9	25.7	28.5	29.2
155°	2.8	11.8	20.8	22.9	23.6
157.5°	2.1	9.7	17.4	18.0	20.1
160°	2.8	8.3	14.6	13.2	17.4
162.5°	2.8	6.2	12.5	9.0	13.9
165°	2.8	4.9	9.0	4.9	8.3
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)