

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: P232076

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232076
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-LD4-30-2LO-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

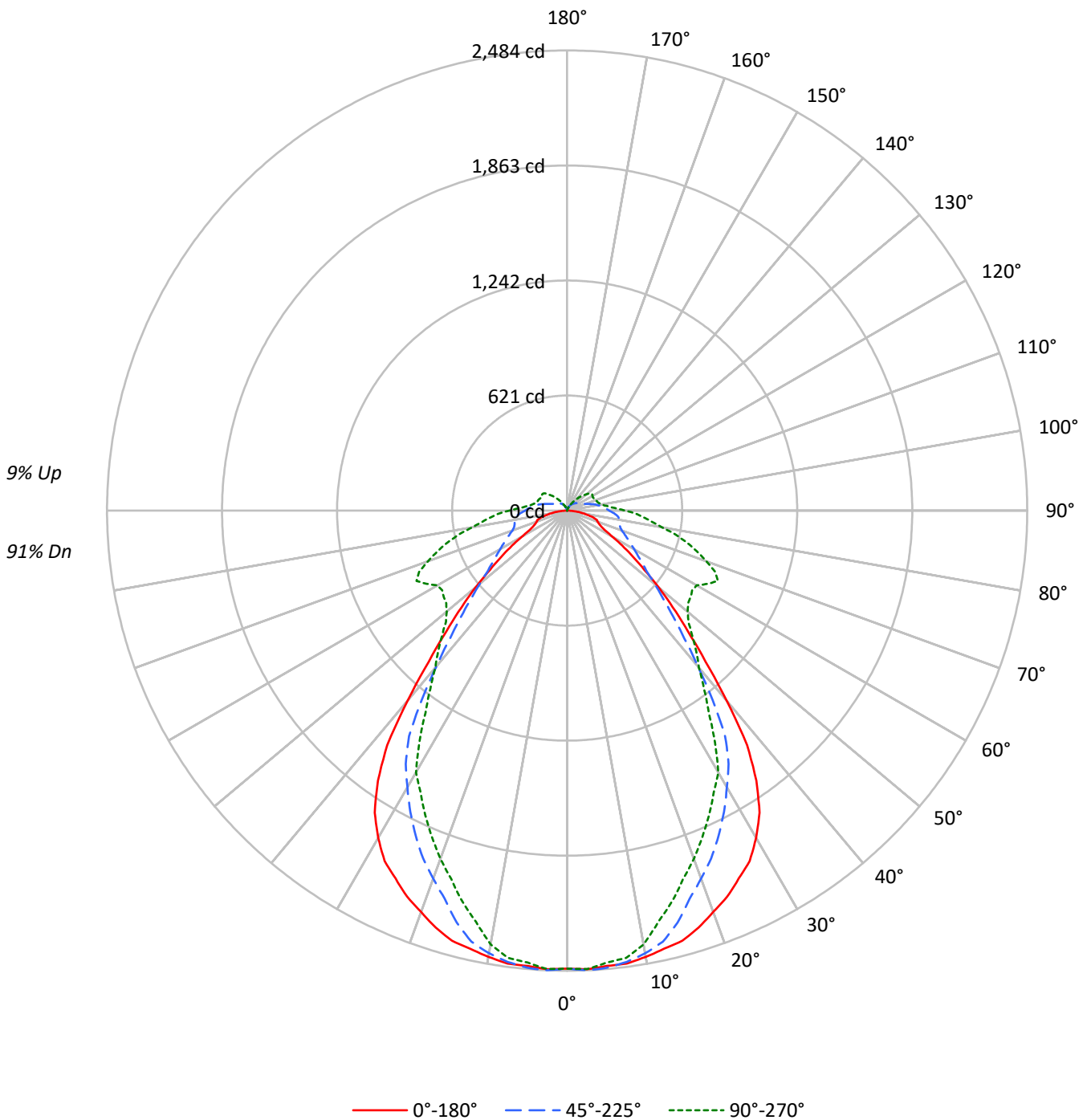
Lumens per Lamp: N/A
Luminaire Lumens: 5575.0 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Direct

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°	29198	29198	29198
5°	29089	28207	27587
10°	29004	26878	25792
15°	28893	25015	23022
20°	28317	22689	20623
25°	27731	20690	18467
30°	26822	18499	16522
35°	24559	16133	13536
40°	19574	12137	11345
45°	14450	9187	9960
50°	10983	7271	9087
55°	8156	6085	9018
60°	6010	5436	9346
65°	4948	5012	10970
70°	5118	4730	10415
75°	5395	4871	9425
80°	4446	5279	8009
85°	3171	5676	7115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.3	4.2
10°-20°	645.2	11.6
20°-30°	902.1	16.2
30°-40°	929.4	16.7
40°-50°	681.0	12.2
50°-60°	507.5	9.1
60°-70°	476.4	8.5
70°-80°	403.3	7.2
80°-90°	269.0	4.8
90°-100°	168.5	3.0
100°-110°	118.7	2.1
110°-120°	91.3	1.6
120°-130°	71.2	1.3
130°-140°	43.4	0.8
140°-150°	22.8	0.4
150°-160°	9.0	0.2
160°-170°	1.9	0.0
170°-180°	0.0	0.0
0°-30°	1781.6	32.0
0°-40°	2711.0	48.6
0°-60°	3899.5	69.9
0°-90°	5048.2	90.6
90°-120°	378.5	6.8
90°-150°	515.8	9.3
90°-180°	527.0	9.5
0°-180°	5575.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2472	2472	2472	2472	2472	
5°	2468	2481	2477	2464	2449	235
15°	2404	2383	2304	2208	2186	676
25°	2192	2066	1936	1847	1814	1010
35°	1780	1606	1487	1365	1333	1091
45°	921	862	808	863	954	727
55°	432	446	494	663	813	394
65°	202	278	360	748	898	209
75°	147	157	294	662	669	149
85°	41	88	267	404	413	44
90°	1	49	226	317	311	3
95°	0	47	198	248	230	0
105°	0	45	135	179	171	0
115°	0	42	85	158	158	0
125°	0	35	68	135	160	0
135°	1	28	55	82	112	1
145°	1	22	41	49	59	1
155°	1	13	23	26	25	0
165°	2	6	10	7	10	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°	2472.4	2472.4	2472.4	2472.4	2472.4
2.5°	2478.0	2478.8	2483.6	2482.8	2477.2
5°	2467.6	2481.2	2477.2	2464.4	2449.3
7.5°	2466.8	2459.7	2457.3	2446.1	2435.0
10°	2446.1	2445.3	2427.0	2403.1	2378.4
12.5°	2422.2	2426.2	2384.0	2306.7	2274.1
15°	2403.9	2383.2	2303.5	2208.0	2185.7
17.5°	2360.1	2326.6	2197.6	2126.7	2084.5
20°	2305.9	2251.8	2114.0	2039.9	1999.3
22.5°	2256.6	2157.8	2031.9	1951.5	1906.9
25°	2192.0	2066.2	1935.6	1847.1	1813.7
27.5°	2133.1	1959.5	1833.6	1750.8	1714.9
30°	2039.9	1850.3	1724.5	1663.1	1631.3
32.5°	1933.2	1735.6	1621.7	1550.0	1485.5
35°	1780.2	1605.8	1487.1	1365.2	1333.4
37.5°	1595.4	1452.1	1289.6	1226.6	1213.9
40°	1338.2	1239.4	1097.6	1083.3	1106.4
42.5°	1105.6	1025.9	935.9	965.4	1031.5
45°	920.8	861.8	808.5	862.6	954.2
47.5°	772.6	732.8	700.9	776.6	887.3
50°	643.6	610.1	617.3	720.9	848.3
52.5°	524.1	518.5	542.4	681.0	822.8
55°	432.5	446.1	493.8	662.7	813.3
57.5°	352.1	391.9	453.2	667.5	800.5
60°	282.8	348.1	417.4	688.2	806.9
62.5°	229.4	309.1	387.1	717.7	856.3
65°	201.5	278.0	360.0	747.9	897.7
67.5°	185.6	243.7	335.3	777.4	865.8
70°	174.4	211.9	313.8	808.5	798.9
72.5°	168.9	181.6	300.3	749.5	735.2
75°	146.6	156.9	293.9	661.9	669.1
77.5°	117.1	142.6	289.9	587.0	599.0
80°	89.2	125.9	284.4	518.5	518.5
82.5°	66.1	108.3	279.6	461.2	462.8
85°	40.6	87.6	266.8	403.8	412.6
87.5°	17.5	66.1	246.1	352.1	369.6
90°	0.8	49.4	226.2	317.0	311.4
92.5°	0.0	47.8	212.7	283.6	266.0
95°	0.0	47.0	197.5	248.5	230.2
97.5°	0.0	47.0	182.4	222.2	206.3
100°	0.0	46.2	168.9	200.7	190.4
102.5°	0.0	45.4	153.7	188.0	179.2
105°	0.0	45.4	135.4	179.2	171.3
107.5°	0.0	44.6	118.7	171.3	168.1
110°	0.0	44.6	104.3	163.3	165.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	43.0	92.4	158.5	163.3
115°	0.0	42.2	85.2	157.7	157.7
117.5°	0.0	40.6	79.7	159.3	156.1
120°	0.0	39.0	74.9	159.3	157.7
122.5°	0.0	37.4	71.7	151.3	160.9
125°	0.0	35.0	68.5	135.4	160.1
127.5°	0.0	33.5	65.3	120.3	152.9
130°	0.0	31.1	62.1	106.7	137.8
132.5°	0.8	29.5	58.1	94.0	124.3
135°	0.8	27.9	55.0	82.0	111.5
137.5°	0.8	26.3	51.8	73.3	97.2
140°	0.8	25.5	49.4	65.3	83.6
142.5°	0.8	23.9	46.2	57.3	70.1
145°	0.8	21.5	41.4	49.4	58.9
147.5°	0.8	19.9	37.4	43.0	47.8
150°	0.8	17.5	32.7	37.4	38.2
152.5°	0.8	15.1	27.9	31.9	30.3
155°	0.8	12.7	23.1	26.3	24.7
157.5°	1.6	11.2	19.1	20.7	19.9
160°	1.6	9.6	15.9	15.9	16.7
162.5°	1.6	8.0	12.7	11.2	14.3
165°	1.6	5.6	10.4	7.2	10.4
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)