

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: P232077

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232077
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-LD4-35-2LO-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

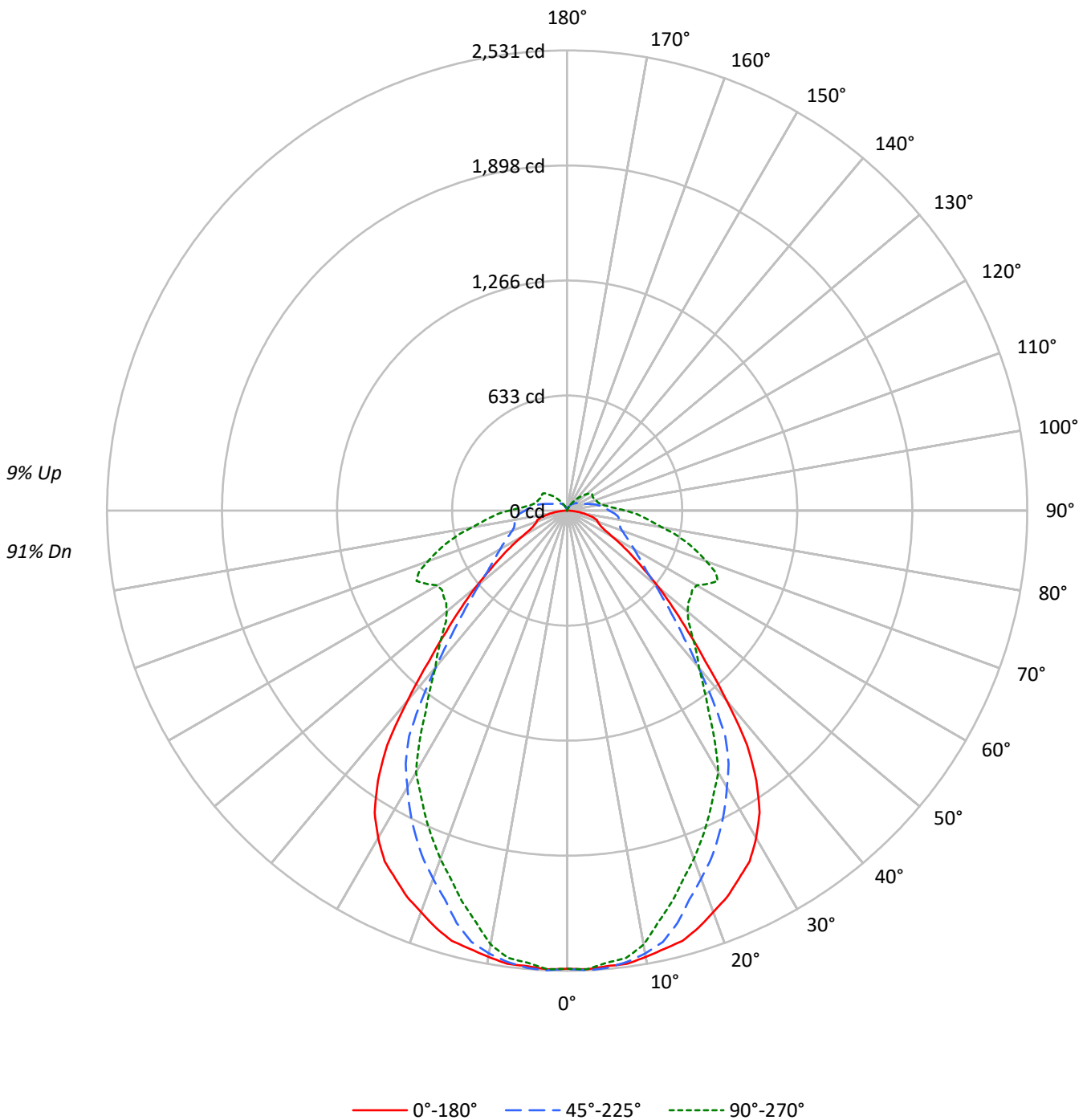
Lumens per Lamp: N/A
Luminaire Lumens: 5682.0 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Direct

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°	29759	29759	29759
5°	29648	28748	28117
10°	29561	27394	26288
15°	29447	25496	23463
20°	28861	23124	21018
25°	28264	21086	18821
30°	27337	18854	16839
35°	25031	16443	13796
40°	19949	12370	11562
45°	14727	9364	10152
50°	11193	7411	9262
55°	8313	6202	9191
60°	6125	5540	9525
65°	5044	5108	11180
70°	5218	4822	10615
75°	5498	4966	9605
80°	4530	5379	8164
85°	3234	5787	7251



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.8	4.2
10°-20°	657.6	11.6
20°-30°	919.4	16.2
30°-40°	947.2	16.7
40°-50°	694.1	12.2
50°-60°	517.2	9.1
60°-70°	485.6	8.5
70°-80°	411.0	7.2
80°-90°	274.2	4.8
90°-100°	171.7	3.0
100°-110°	121.0	2.1
110°-120°	93.1	1.6
120°-130°	72.5	1.3
130°-140°	44.2	0.8
140°-150°	23.2	0.4
150°-160°	9.2	0.2
160°-170°	1.9	0.0
170°-180°	0.0	0.0
0°-30°	1815.8	32.0
0°-40°	2763.1	48.6
0°-60°	3974.3	69.9
0°-90°	5145.1	90.6
90°-120°	385.8	6.8
90°-150°	525.8	9.3
90°-180°	537.0	9.5
0°-180°	5682.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2520	2520	2520	2520	2520	
5°	2515	2529	2525	2512	2496	240
15°	2450	2429	2348	2250	2228	689
25°	2234	2106	1973	1883	1848	1029
35°	1814	1637	1516	1391	1359	1112
45°	938	878	824	879	973	740
55°	441	455	503	675	829	402
65°	205	283	367	762	915	213
75°	149	160	300	675	682	152
85°	41	89	272	412	420	44
90°	1	50	231	323	317	3
95°	0	48	201	253	235	0
105°	0	46	138	183	174	0
115°	0	43	87	161	161	0
125°	0	36	70	138	163	0
135°	1	28	56	84	114	1
145°	1	22	42	50	60	1
155°	1	13	24	27	25	0
165°	2	6	11	7	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°	2519.9	2519.9	2519.9	2519.9	2519.9
2.5°	2525.5	2526.4	2531.2	2530.4	2524.7
5°	2515.0	2528.8	2524.7	2511.7	2496.3
7.5°	2514.2	2506.9	2504.4	2493.1	2481.7
10°	2493.1	2492.3	2473.6	2449.2	2424.1
12.5°	2468.7	2472.8	2429.8	2351.0	2317.7
15°	2450.0	2428.9	2347.8	2250.3	2227.6
17.5°	2405.4	2371.3	2239.8	2167.5	2124.5
20°	2350.2	2295.0	2154.6	2079.1	2037.6
22.5°	2299.9	2199.2	2070.9	1988.9	1943.5
25°	2234.1	2105.8	1972.7	1882.6	1848.5
27.5°	2174.0	1997.1	1868.8	1784.4	1747.8
30°	2079.1	1885.8	1757.6	1695.1	1662.6
32.5°	1970.3	1768.9	1652.9	1579.8	1514.0
35°	1814.4	1636.6	1515.7	1391.4	1359.0
37.5°	1626.1	1479.9	1314.3	1250.2	1237.2
40°	1363.8	1263.2	1118.7	1104.1	1127.6
42.5°	1126.8	1045.6	953.9	983.9	1051.3
45°	938.5	878.4	824.0	879.2	972.6
47.5°	787.5	746.9	714.4	791.5	904.4
50°	655.9	621.8	629.2	734.7	864.6
52.5°	534.2	528.5	552.8	694.1	838.6
55°	440.8	454.6	503.3	675.4	828.9
57.5°	358.8	399.4	461.9	680.3	815.9
60°	288.2	354.8	425.4	701.4	822.4
62.5°	233.8	315.0	394.5	731.4	872.7
65°	205.4	283.3	366.9	762.3	914.9
67.5°	189.2	248.4	341.8	792.3	882.4
70°	177.8	215.9	319.9	824.0	814.2
72.5°	172.1	185.1	306.1	763.9	749.3
75°	149.4	159.9	299.6	674.6	681.9
77.5°	119.3	145.3	295.5	598.3	610.5
80°	90.9	128.3	289.8	528.5	528.5
82.5°	67.4	110.4	284.9	470.0	471.7
85°	41.4	89.3	272.0	411.6	420.5
87.5°	17.9	67.4	250.9	358.8	376.7
90°	0.8	50.3	230.6	323.1	317.4
92.5°	0.0	48.7	216.8	289.0	271.1
95°	0.0	47.9	201.3	253.3	234.6
97.5°	0.0	47.9	185.9	226.5	210.3
100°	0.0	47.1	172.1	204.6	194.0
102.5°	0.0	46.3	156.7	191.6	182.7
105°	0.0	46.3	138.0	182.7	174.5
107.5°	0.0	45.5	121.0	174.5	171.3
110°	0.0	45.5	106.3	166.4	168.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	43.8	94.2	161.6	166.4
115°	0.0	43.0	86.9	160.7	160.7
117.5°	0.0	41.4	81.2	162.4	159.1
120°	0.0	39.8	76.3	162.4	160.7
122.5°	0.0	38.2	73.1	154.2	164.0
125°	0.0	35.7	69.8	138.0	163.2
127.5°	0.0	34.1	66.6	122.6	155.9
130°	0.0	31.7	63.3	108.8	140.4
132.5°	0.8	30.0	59.3	95.8	126.6
135°	0.8	28.4	56.0	83.6	113.7
137.5°	0.8	26.8	52.8	74.7	99.0
140°	0.8	26.0	50.3	66.6	85.2
142.5°	0.8	24.4	47.1	58.5	71.4
145°	0.8	21.9	42.2	50.3	60.1
147.5°	0.8	20.3	38.2	43.8	48.7
150°	0.8	17.9	33.3	38.2	39.0
152.5°	0.8	15.4	28.4	32.5	30.8
155°	0.8	13.0	23.5	26.8	25.2
157.5°	1.6	11.4	19.5	21.1	20.3
160°	1.6	9.7	16.2	16.2	17.0
162.5°	1.6	8.1	13.0	11.4	14.6
165°	1.6	5.7	10.6	7.3	10.6
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)