

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: P232005

Luminaire Tested: **FVS4M-4-LD4-35-2LO-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232005
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-LD4-35-2LO-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH PA187 LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

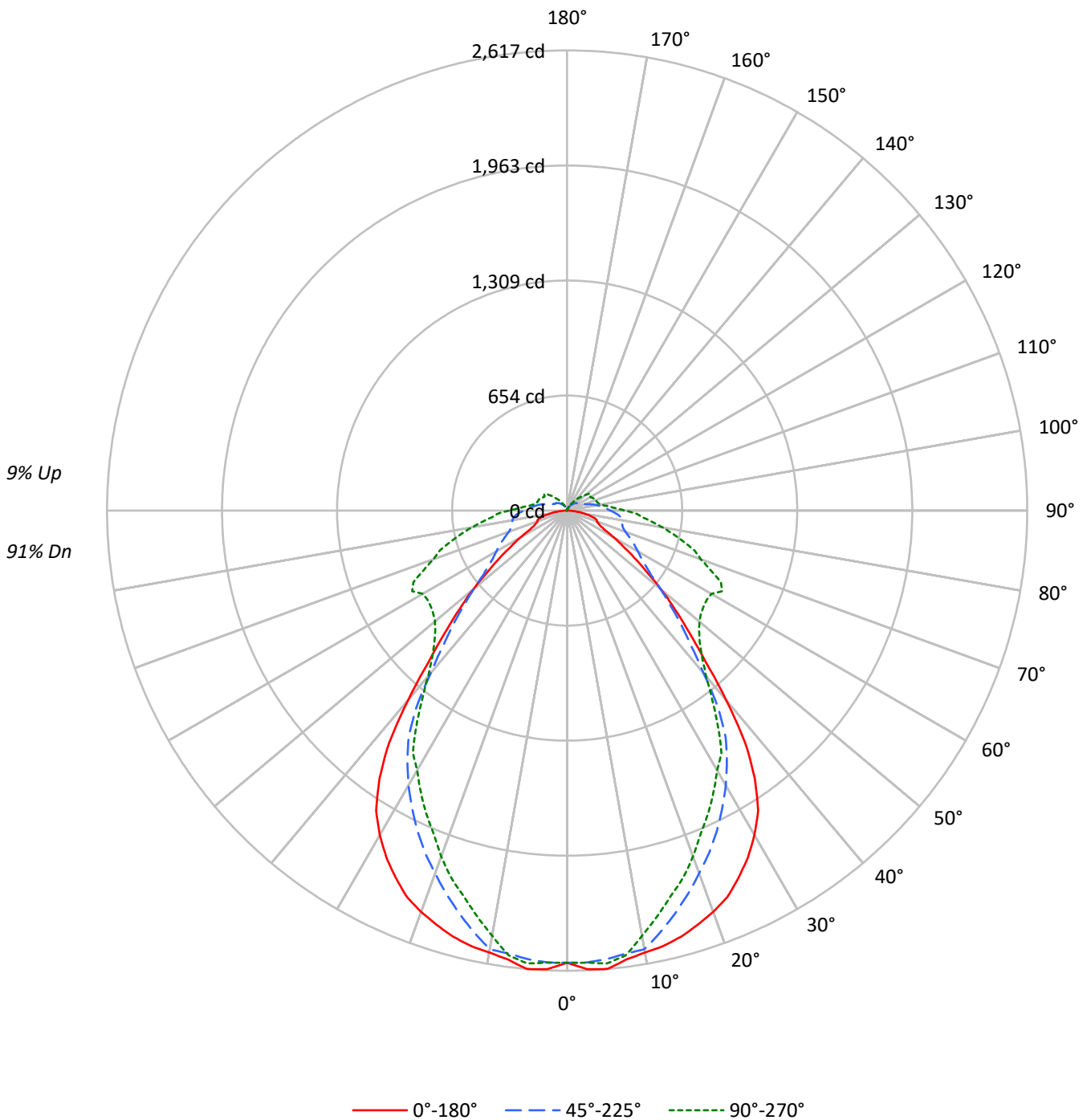
Lumens per Lamp: N/A
Luminaire Lumens: 5960.0 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.02 / 1.12
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')
CIE Type: Direct

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°	23357	23357	23357
5°	23762	22447	22399
10°	23331	21614	20486
15°	23273	19860	18401
20°	23066	18184	16611
25°	22584	16618	14868
30°	21726	14959	13284
35°	19945	13186	11675
40°	16007	10326	9694
45°	12021	8066	8567
50°	9310	6321	8080
55°	6886	5198	8081
60°	5175	4711	8435
65°	4083	4406	9065
70°	4202	4147	8103
75°	4655	4199	7444
80°	3902	4581	6540
85°	2830	4874	5688



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.6	4.1
10°-20°	672.5	11.3
20°-30°	942.1	15.8
30°-40°	993.1	16.7
40°-50°	754.2	12.7
50°-60°	569.8	9.6
60°-70°	528.0	8.9
70°-80°	425.9	7.1
80°-90°	285.9	4.8
90°-100°	176.7	3.0
100°-110°	124.2	2.1
110°-120°	93.8	1.6
120°-130°	72.0	1.2
130°-140°	44.2	0.7
140°-150°	22.6	0.4
150°-160°	8.5	0.1
160°-170°	1.7	0.0
170°-180°	0.0	0.0
0°-30°	1859.2	31.2
0°-40°	2852.3	47.9
0°-60°	4176.3	70.1
0°-90°	5416.1	90.9
90°-120°	394.7	6.6
90°-150°	533.6	9.0
90°-180°	544.0	9.1
0°-180°	5960.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2571	2571	2571	2571	2571	
5°	2617	2594	2560	2582	2585	247
15°	2507	2499	2372	2313	2271	707
25°	2305	2154	2013	1933	1898	1059
35°	1861	1696	1571	1496	1495	1140
45°	982	949	916	965	1067	772
55°	466	482	543	768	947	425
65°	210	296	407	851	964	221
75°	157	172	325	681	687	159
85°	42	96	292	422	429	47
90°	2	57	246	336	328	4
95°	1	52	204	255	246	1
105°	1	49	138	191	178	1
115°	1	44	87	158	165	1
125°	1	37	74	132	160	1
135°	2	28	57	84	112	1
145°	2	20	40	51	58	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°	2571.1	2571.1	2571.1	2571.1	2571.1
2.5°	2610.7	2599.4	2572.5	2578.9	2573.2
5°	2617.1	2594.5	2560.5	2582.4	2585.3
7.5°	2575.4	2582.4	2541.4	2557.7	2551.3
10°	2551.3	2566.2	2532.9	2499.7	2455.8
12.5°	2535.7	2533.6	2454.4	2405.6	2363.8
15°	2507.4	2498.9	2371.6	2312.9	2271.1
17.5°	2469.9	2438.8	2285.3	2213.1	2191.2
20°	2428.9	2343.3	2195.4	2120.4	2093.5
22.5°	2379.4	2254.1	2108.4	2030.6	1986.0
25°	2305.1	2153.7	2012.9	1932.9	1898.3
27.5°	2225.1	2049.0	1908.9	1832.5	1803.5
30°	2130.3	1939.3	1804.2	1744.0	1705.1
32.5°	2022.1	1825.4	1690.3	1632.2	1633.7
35°	1860.8	1695.9	1571.4	1496.4	1495.0
37.5°	1662.7	1528.2	1408.7	1358.4	1354.9
40°	1405.8	1348.5	1206.3	1227.5	1229.0
42.5°	1161.7	1128.5	1044.3	1074.7	1135.6
45°	982.0	948.8	916.2	965.1	1066.9
47.5°	832.0	784.6	793.1	882.3	1017.4
50°	697.6	665.1	692.0	823.5	980.6
52.5°	563.9	561.1	602.1	786.0	960.1
55°	465.5	481.8	543.4	767.7	947.4
57.5°	375.7	415.3	497.4	770.5	942.4
60°	309.2	365.8	465.5	796.0	946.7
62.5°	246.2	328.3	433.7	820.0	993.4
65°	210.1	295.7	406.8	851.1	964.3
67.5°	191.7	263.9	377.1	902.1	881.6
70°	179.7	229.9	353.1	861.0	808.0
72.5°	177.6	198.1	334.7	777.6	760.6
75°	157.1	171.9	324.7	681.3	687.0
77.5°	129.5	153.5	319.8	602.1	617.0
80°	95.5	135.1	315.6	534.9	550.4
82.5°	72.2	114.6	307.8	477.6	484.6
85°	42.5	96.2	292.2	421.7	428.8
87.5°	20.5	72.2	270.3	365.1	393.4
90°	2.1	56.6	245.5	336.1	328.3
92.5°	2.1	52.4	225.0	290.8	279.5
95°	1.4	51.6	204.5	255.4	245.5
97.5°	1.4	51.6	189.6	227.8	215.8
100°	1.4	50.9	174.0	209.4	196.0
102.5°	1.4	50.2	157.1	197.4	184.0
105°	1.4	48.8	138.0	191.0	178.3
107.5°	1.4	48.1	118.2	184.7	174.8
110°	1.4	46.7	104.7	174.0	172.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.4	45.3	93.4	165.6	171.9
115°	1.4	43.9	87.0	158.5	164.9
117.5°	1.4	42.5	82.8	157.1	158.5
120°	1.4	40.3	79.9	159.9	153.5
122.5°	1.4	38.2	76.4	149.3	152.1
125°	1.4	36.8	73.6	132.3	159.9
127.5°	1.4	34.0	70.0	118.2	157.1
130°	1.4	31.8	65.8	106.1	140.1
132.5°	1.4	29.7	62.3	94.1	125.9
135°	2.1	27.6	57.3	84.2	112.5
137.5°	2.1	26.2	53.1	75.0	97.6
140°	2.1	24.1	49.5	66.5	84.2
142.5°	2.1	22.6	45.3	58.7	70.8
145°	2.1	20.5	40.3	50.9	58.0
147.5°	2.1	19.1	36.1	43.2	46.0
150°	2.1	16.3	31.1	36.8	36.1
152.5°	2.1	14.2	26.2	29.0	29.7
155°	2.8	12.0	21.2	23.3	24.1
157.5°	2.1	9.9	17.7	18.4	20.5
160°	2.8	8.5	14.9	13.4	17.7
162.5°	2.8	6.4	12.7	9.2	14.2
165°	2.8	5.0	9.2	5.0	8.5
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)