

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: P231991

Luminaire Tested: **FVS4M-4-LD4-50-2HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231991
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-4-LD4-50-2HI-P125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

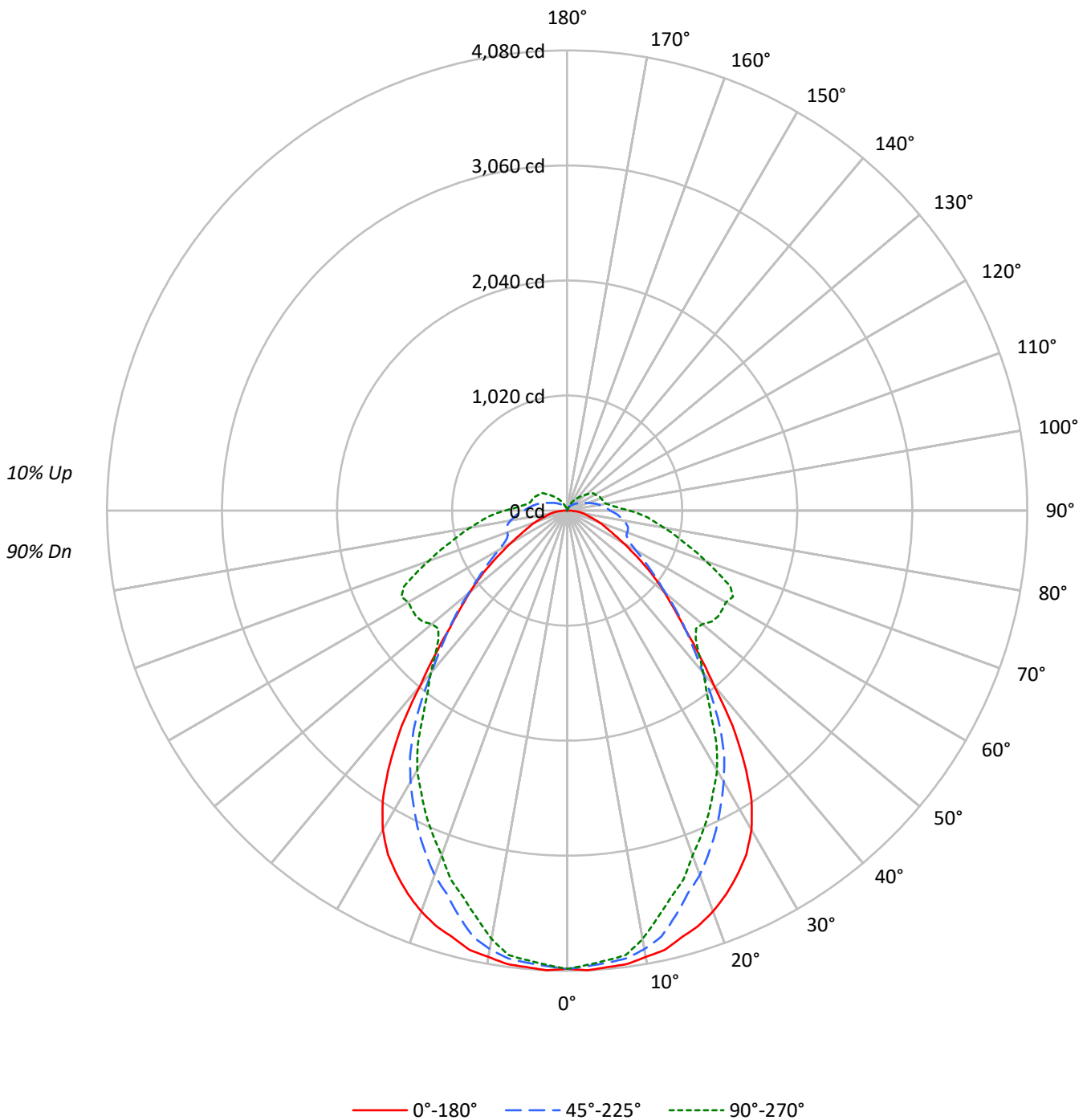
Lumens per Lamp: N/A
Luminaire Lumens: 9444.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')
CIE Type: Direct

Input Watts (W): 89.3
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	90
1	106	101	96	92	102	97	93	90	91	88	85	86	83	81	81	78	76	74
2	96	88	81	76	93	85	79	74	80	75	71	76	71	68	71	68	65	62
3	89	78	70	64	85	76	69	63	72	65	60	67	62	58	64	59	56	53
4	82	70	62	55	79	68	60	54	64	58	52	61	55	51	58	53	49	46
5	75	63	55	48	73	61	53	47	58	51	46	55	49	45	53	47	43	41
6	70	57	49	43	68	56	48	42	53	46	41	51	45	40	48	43	39	37
7	65	52	44	38	63	51	43	38	49	42	37	47	40	36	44	39	35	33
8	61	48	40	35	59	47	39	34	45	38	33	43	37	33	41	36	32	30
9	57	45	37	31	55	44	36	31	42	35	30	40	34	30	38	33	29	27
10	54	41	34	29	52	40	33	28	39	32	28	37	31	27	36	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36906	36906	36906
5°	36897	35291	34679
10°	36742	33691	32171
15°	36362	31127	28774
20°	35919	28476	25809
25°	34944	25800	23239
30°	33327	23019	20713
35°	29408	19913	17399
40°	23060	15993	14840
45°	18015	13004	12945
50°	14970	10404	12899
55°	12255	8539	13946
60°	9649	7082	14481
65°	7945	6386	15011
70°	7010	6643	13096
75°	6006	7218	11480
80°	5924	7388	10348
85°	5587	7527	9528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.7	4.1
10°-20°	1050.9	11.1
20°-30°	1464.4	15.5
30°-40°	1509.2	16.0
40°-50°	1200.7	12.7
50°-60°	934.3	9.9
60°-70°	816.7	8.6
70°-80°	688.7	7.3
80°-90°	466.7	4.9
90°-100°	295.4	3.1
100°-110°	219.1	2.3
110°-120°	168.2	1.8
120°-130°	121.5	1.3
130°-140°	71.3	0.8
140°-150°	37.5	0.4
150°-160°	14.5	0.2
160°-170°	2.3	0.0
170°-180°	0.0	0.0
0°-30°	2898.0	30.7
0°-40°	4407.2	46.7
0°-60°	6542.2	69.3
0°-90°	8514.3	90.2
90°-120°	682.7	7.2
90°-150°	912.9	9.7
90°-180°	930.0	9.8
0°-180°	9444.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4063	4063	4063	4063	4063	
5°	4064	4055	4026	4021	4003	387
15°	3918	3895	3717	3595	3551	1107
25°	3567	3355	3125	3015	2967	1638
35°	2744	2589	2373	2266	2228	1688
45°	1472	1509	1477	1634	1612	1162
55°	828	740	893	1278	1635	745
65°	409	401	590	1296	1597	415
75°	203	322	558	1103	1060	222
85°	84	164	451	692	718	79
90°	3	98	383	544	549	7
95°	3	88	335	432	420	2
105°	3	80	243	337	329	3
115°	3	68	161	290	304	3
125°	3	61	113	232	270	3
135°	4	48	77	146	183	3
145°	4	34	53	89	112	3
155°	4	18	34	40	53	2
165°	6	6	12	4	8	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231991

CATALOG NUMBER: FVS4M-4-LD4-50-2HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4062.6	4062.6	4062.6	4062.6	4062.6
2.5°	4080.0	4070.2	4043.0	4047.3	4032.1
5°	4063.7	4055.0	4025.5	4021.2	4002.6
7.5°	4056.0	4037.5	4004.8	3990.6	3975.4
10°	4017.9	3997.2	3948.1	3889.3	3856.6
12.5°	3990.6	3961.2	3867.5	3747.6	3698.5
15°	3917.6	3894.7	3717.0	3595.0	3551.4
17.5°	3862.0	3794.4	3560.1	3471.8	3429.3
20°	3782.4	3669.1	3438.0	3322.4	3252.7
22.5°	3683.3	3504.5	3284.3	3172.0	3112.1
25°	3566.6	3355.1	3125.2	3015.1	2967.1
27.5°	3439.1	3176.4	2949.7	2851.5	2806.9
30°	3267.9	3009.6	2776.3	2689.1	2658.6
32.5°	3043.4	2804.7	2591.0	2506.0	2465.7
35°	2743.6	2588.8	2373.0	2266.2	2228.0
37.5°	2410.1	2346.9	2120.1	2072.2	2028.6
40°	2025.3	2055.8	1868.3	1885.8	1881.4
42.5°	1727.7	1770.2	1656.9	1769.1	1726.6
45°	1471.6	1508.6	1477.0	1634.0	1612.2
47.5°	1279.7	1281.9	1311.3	1508.6	1548.9
50°	1121.7	1073.7	1139.1	1398.5	1565.3
52.5°	978.9	888.4	1002.8	1328.8	1615.4
55°	828.4	740.1	892.7	1277.5	1635.1
57.5°	686.7	611.5	785.9	1247.0	1631.8
60°	576.6	515.6	699.8	1236.1	1625.3
62.5°	481.8	453.5	633.3	1261.2	1656.9
65°	408.8	401.1	589.7	1296.1	1596.9
67.5°	352.1	369.5	569.0	1340.8	1448.7
70°	299.8	352.1	565.7	1309.1	1305.9
72.5°	245.3	340.1	565.7	1209.9	1186.0
75°	202.7	321.6	558.1	1103.1	1059.5
77.5°	170.0	286.7	535.2	1000.7	965.8
80°	145.0	244.2	509.0	893.8	870.9
82.5°	113.4	202.7	478.5	785.9	785.9
85°	83.9	163.5	451.3	692.2	718.3
87.5°	41.4	128.6	416.4	611.5	635.5
90°	3.3	98.1	382.6	543.9	549.4
92.5°	2.2	90.5	358.6	484.0	469.8
95°	3.3	88.3	334.6	431.7	419.7
97.5°	3.3	86.1	312.8	393.5	381.5
100°	2.2	83.9	290.0	368.4	351.0
102.5°	3.3	81.8	269.2	352.1	335.7
105°	3.3	79.6	243.1	336.8	329.2
107.5°	3.3	76.3	218.0	324.8	323.7
110°	3.3	73.0	197.3	309.6	319.4



TEST NUMBER: P231991

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.3	70.9	176.6	295.4	315.0
115°	3.3	67.6	161.3	290.0	304.1
117.5°	3.3	65.4	149.3	288.9	294.3
120°	3.3	64.3	136.3	276.9	284.5
122.5°	3.3	63.2	124.3	257.2	281.2
125°	3.3	61.0	113.4	232.2	270.3
127.5°	3.3	58.9	103.6	209.3	244.2
130°	3.3	54.5	93.7	186.4	220.2
132.5°	3.3	51.2	85.0	162.4	200.6
135°	4.4	48.0	77.4	146.1	183.1
137.5°	4.4	44.7	68.7	129.7	165.7
140°	4.4	40.3	63.2	115.5	146.1
142.5°	4.4	37.1	57.8	102.5	130.8
145°	4.4	33.8	53.4	89.4	112.3
147.5°	4.4	30.5	50.1	78.5	95.9
150°	4.4	26.2	44.7	65.4	80.7
152.5°	4.4	21.8	40.3	52.3	65.4
155°	4.4	18.5	33.8	40.3	53.4
157.5°	4.4	15.3	28.3	29.4	39.2
160°	4.4	10.9	22.9	19.6	27.3
162.5°	5.5	8.7	17.4	10.9	16.4
165°	5.5	6.5	12.0	4.4	7.6
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)