

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: P232048

Luminaire Tested: **FVS4M-3-LD4-30-1HI-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-25)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-3-LD4-30-1HI-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PA187 LENS
Light Source: (84) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

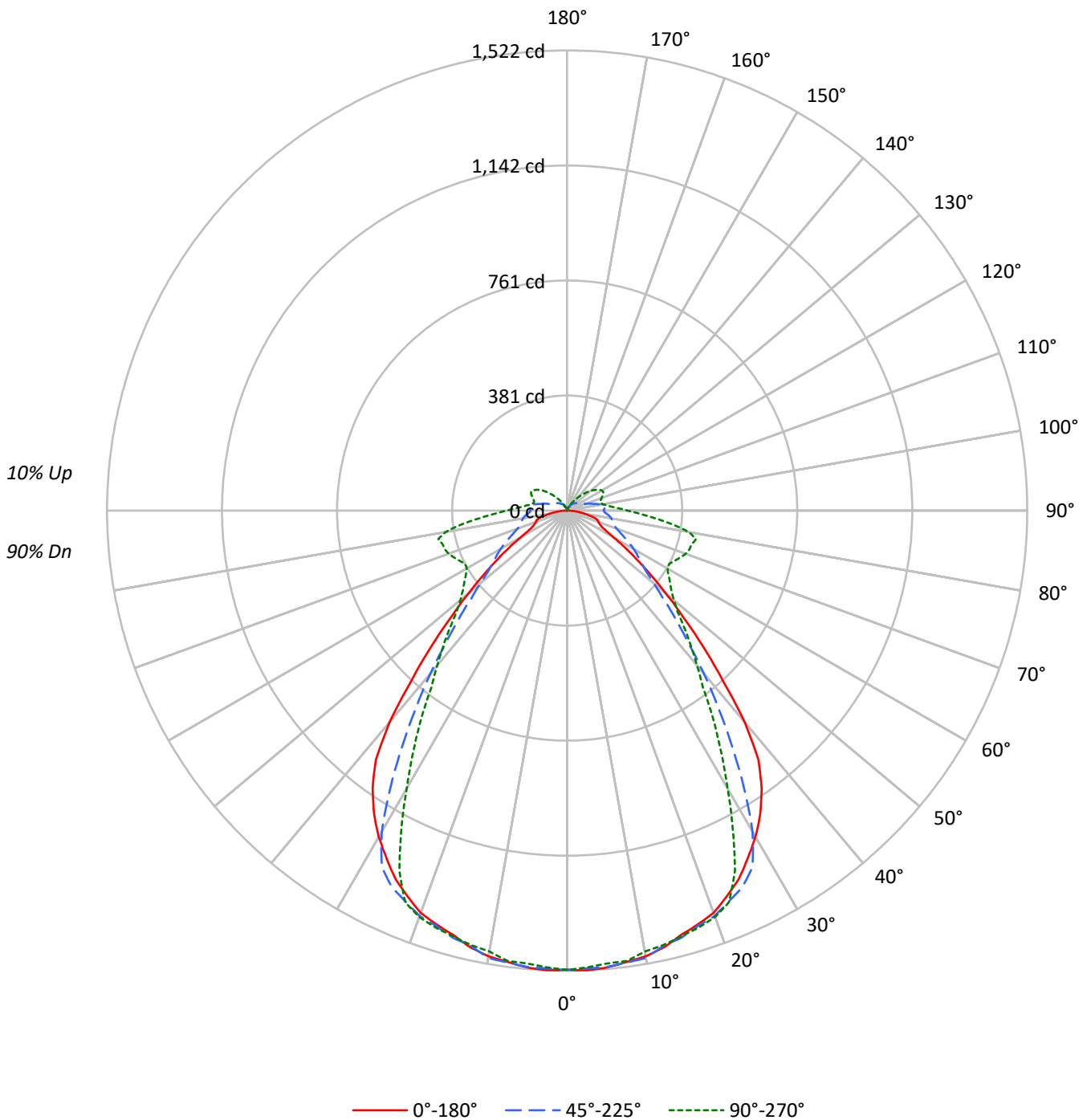
Lumens per Lamp: N/A
Luminaire Lumens: 3497.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.1 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 36.3
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

TEST NUMBER: P232048

CATALOG NUMBER: FVS4M-3-LD4-30-1HI-PA187-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P232048

CATALOG NUMBER: FVS4M-3-LD4-30-1HI-PA187-UNV-EDC1

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	97	93	102	98	94	90	92	88	86	86	84	81	81	79	77	74
2	97	89	83	77	94	86	80	75	81	76	72	77	73	69	72	69	66	63
3	89	79	72	66	86	77	70	64	73	67	62	69	64	60	65	61	57	55
4	83	71	63	57	80	70	62	56	66	59	54	62	57	52	59	55	51	48
5	77	65	56	50	74	63	55	49	60	53	48	57	51	47	54	49	45	43
6	71	59	51	45	69	58	50	44	55	48	43	52	46	42	50	45	41	39
7	67	54	46	40	64	53	45	40	50	44	39	48	42	38	46	41	37	35
8	62	50	42	36	60	49	41	36	47	40	35	45	39	34	43	38	34	32
9	59	46	38	33	57	45	38	33	43	37	32	42	36	32	40	35	31	29
10	55	43	35	30	53	42	35	30	40	34	30	39	33	29	37	32	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17939	17939	17939
5°	17884	17253	16936
10°	17749	16642	16056
15°	17471	15880	15352
20°	17390	15312	14755
25°	17002	14674	13371
30°	16380	13158	10757
35°	15475	10312	8546
40°	13368	7766	6845
45°	9963	5772	5714
50°	7256	4397	4936
55°	5278	3675	4608
60°	3783	3320	4435
65°	3072	2907	4796
70°	3219	2624	5443
75°	3470	2630	6016
80°	2781	2751	6316
85°	1882	2825	5026



TEST NUMBER: P232048

CATALOG NUMBER: FVS4M-3-LD4-30-1HI-PA187-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.8	4.1
10°-20°	412.5	11.8
20°-30°	614.4	17.6
30°-40°	604.3	17.3
40°-50°	423.5	12.1
50°-60°	295.9	8.5
60°-70°	248.7	7.1
70°-80°	227.4	6.5
80°-90°	175.4	5.0
90°-100°	106.8	3.1
100°-110°	79.3	2.3
110°-120°	67.0	1.9
120°-130°	48.7	1.4
130°-140°	28.9	0.8
140°-150°	14.4	0.4
150°-160°	5.3	0.2
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	1170.6	33.5
0°-40°	1774.9	50.8
0°-60°	2494.3	71.3
0°-90°	3145.8	90.0
90°-120°	253.1	7.2
90°-150°	345.1	9.9
90°-180°	351.0	10.0
0°-180°	3497.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1519	1519	1519	1519	1519	
5°	1517	1519	1515	1510	1504	144
15°	1454	1458	1462	1461	1458	412
25°	1344	1348	1373	1356	1313	617
35°	1122	1110	950	865	842	692
45°	635	556	508	506	547	495
55°	280	290	298	366	416	257
65°	125	178	209	352	392	131
75°	94	98	159	343	427	94
85°	24	52	133	309	292	26
90°	0	30	120	216	199	1
95°	0	29	126	155	147	0
105°	0	28	87	124	113	0
115°	0	26	54	127	132	0
125°	0	21	43	93	119	0
135°	0	17	34	57	79	0
145°	0	14	25	33	39	0
155°	0	7	12	16	15	0
165°	1	3	3	3	5	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232048

CATALOG NUMBER: FVS4M-3-LD4-30-1HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1519.0	1519.0	1519.0	1519.0	1519.0
2.5°	1521.9	1516.1	1516.1	1515.2	1512.3
5°	1517.1	1519.0	1515.2	1510.4	1503.6
7.5°	1505.6	1505.6	1507.5	1501.7	1502.7
10°	1496.9	1494.0	1502.7	1480.6	1480.6
12.5°	1479.6	1478.6	1473.8	1479.6	1471.9
15°	1453.6	1457.5	1462.3	1461.3	1457.5
17.5°	1435.3	1436.3	1440.1	1445.0	1445.9
20°	1416.1	1409.4	1426.7	1439.2	1430.5
22.5°	1380.5	1386.3	1398.8	1420.9	1400.7
25°	1343.9	1347.8	1372.8	1356.5	1313.2
27.5°	1294.9	1315.1	1328.6	1237.2	1187.1
30°	1245.8	1266.0	1226.6	1102.5	1062.1
32.5°	1189.1	1214.1	1089.0	981.3	947.6
35°	1121.7	1110.2	950.5	864.9	841.8
37.5°	1039.0	956.3	820.6	756.2	737.9
40°	913.9	795.6	702.3	665.7	667.6
42.5°	761.9	661.9	592.6	578.2	606.1
45°	634.9	556.0	507.9	506.0	547.4
47.5°	519.5	466.6	431.0	452.2	495.4
50°	425.2	394.4	373.3	407.9	460.8
52.5°	345.4	332.9	328.0	381.0	434.8
55°	279.9	289.6	298.2	365.6	415.6
57.5°	226.1	253.0	276.1	356.9	397.3
60°	178.0	223.2	254.9	352.1	382.9
62.5°	145.3	199.1	229.9	352.1	381.0
65°	125.1	178.0	208.8	352.1	392.5
67.5°	116.4	154.9	189.5	352.1	405.0
70°	109.7	133.7	174.1	346.3	417.5
72.5°	106.8	112.6	163.5	344.4	424.3
75°	94.3	98.1	158.7	343.4	427.1
77.5°	73.1	87.5	153.9	338.6	436.8
80°	55.8	77.0	148.2	343.4	408.9
82.5°	40.4	64.5	141.4	342.5	353.1
85°	24.1	51.9	132.8	308.8	291.5
87.5°	9.6	38.5	124.1	257.8	238.6
90°	0.0	29.8	120.3	216.5	199.1
92.5°	0.0	28.9	123.1	182.8	170.3
95°	0.0	28.9	126.0	154.9	147.2
97.5°	0.0	28.9	125.1	141.4	133.7
100°	0.0	28.9	115.4	128.9	119.3
102.5°	0.0	27.9	100.1	124.1	115.4
105°	0.0	27.9	86.6	124.1	112.6
107.5°	0.0	27.9	75.0	126.0	116.4
110°	0.0	26.9	65.4	127.9	121.2



TEST NUMBER: P232048

CATALOG NUMBER: FVS4M-3-LD4-30-1HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	26.0	58.7	130.8	126.0
115°	0.0	26.0	53.9	127.0	131.8
117.5°	0.0	25.0	50.0	120.3	134.7
120°	0.0	24.1	47.1	112.6	132.8
122.5°	0.0	22.1	45.2	102.9	127.0
125°	0.0	21.2	43.3	93.3	119.3
127.5°	0.0	20.2	40.4	82.7	111.6
130°	0.0	19.2	38.5	73.1	102.0
132.5°	0.0	18.3	35.6	64.5	90.4
135°	0.0	17.3	33.7	56.8	78.9
137.5°	0.0	16.4	31.7	50.0	68.3
140°	0.0	15.4	29.8	43.3	57.7
142.5°	0.0	14.4	27.9	37.5	48.1
145°	0.0	13.5	25.0	32.7	39.4
147.5°	0.0	11.5	22.1	27.9	31.7
150°	0.0	10.6	18.3	23.1	25.0
152.5°	0.0	8.7	15.4	20.2	19.2
155°	0.0	6.7	12.5	16.4	15.4
157.5°	1.0	5.8	9.6	12.5	12.5
160°	1.0	4.8	7.7	8.7	9.6
162.5°	1.0	3.8	4.8	5.8	7.7
165°	1.0	2.9	2.9	2.9	4.8
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)