

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: P231941

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-10)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-2-LD4-35-2HI-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH PA187 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

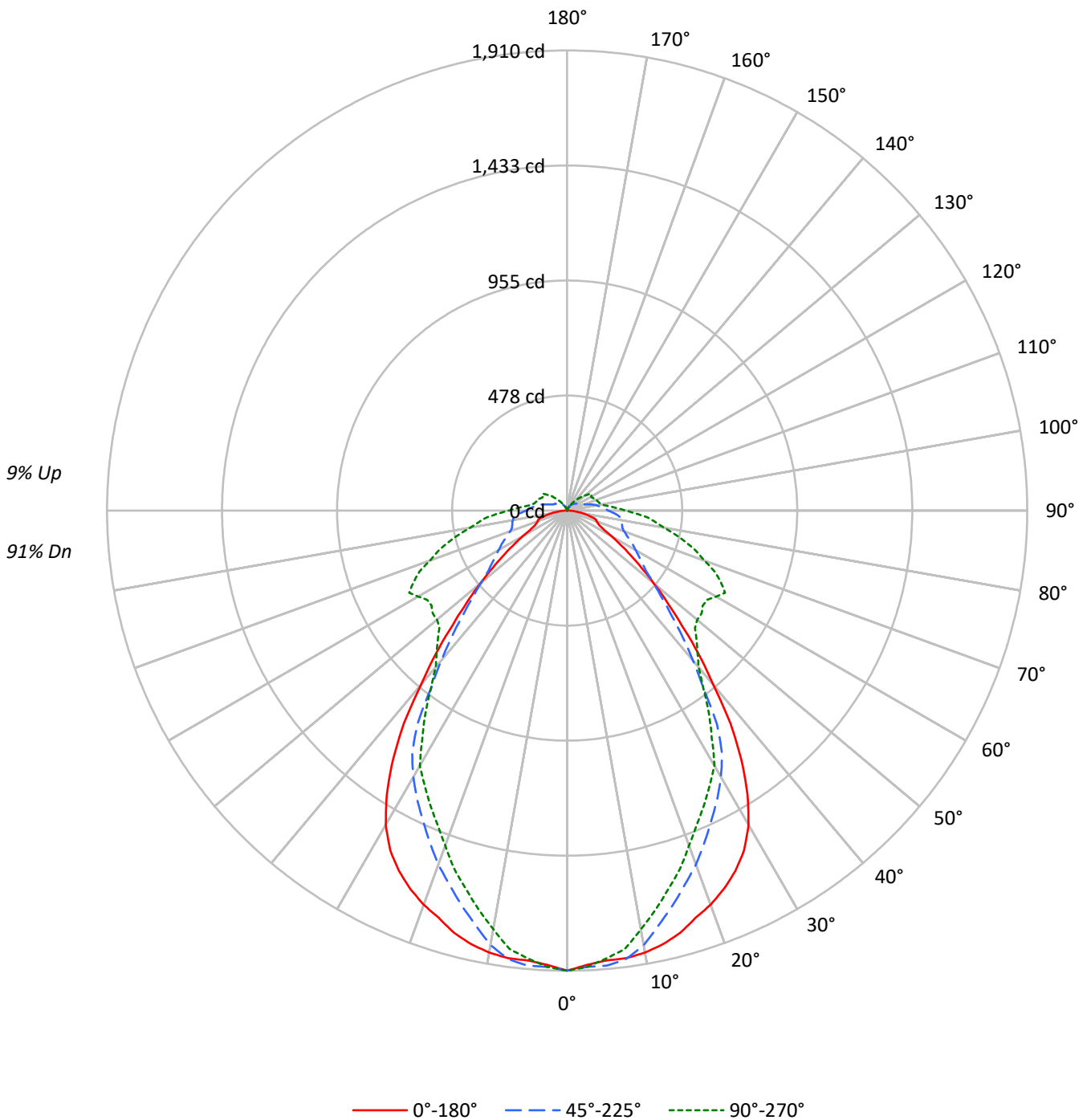
Lumens per Lamp: N/A
Luminaire Lumens: 4223.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.98 / 1.07
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')
CIE Type: Direct

Input Watts (W): 44.8
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

TEST NUMBER: P231941

CATALOG NUMBER: FVS4M-2-LD4-35-2HI-PA187-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P231941

CATALOG NUMBER: FVS4M-2-LD4-35-2HI-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	91
1	106	101	96	92	102	98	93	90	92	88	85	86	83	81	81	79	77	74
2	97	88	81	76	93	86	79	74	81	75	71	76	72	68	72	68	65	62
3	89	78	70	64	85	76	69	63	72	66	61	68	63	58	64	60	56	54
4	82	70	62	55	79	68	60	54	65	58	53	61	56	51	58	53	49	47
5	76	63	55	48	73	62	54	48	59	52	46	56	50	45	53	48	44	41
6	70	58	49	43	68	56	48	42	53	47	41	51	45	40	49	43	39	37
7	66	53	44	39	63	51	44	38	49	42	37	47	41	36	45	40	35	33
8	61	49	40	35	59	47	40	34	45	39	34	43	37	33	42	36	32	30
9	58	45	37	32	56	44	36	31	42	35	31	40	34	30	39	33	30	28
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	36	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34318	34318	34318
5°	33525	32786	31975
10°	33411	30742	29118
15°	32896	27851	26051
20°	32151	25334	23218
25°	31305	22850	20853
30°	29575	20613	18840
35°	25864	17678	15841
40°	20444	13466	13230
45°	15569	10393	12067
50°	11781	8197	11489
55°	8759	6990	11595
60°	6568	6364	12577
65°	5237	5913	13088
70°	5359	5599	12019
75°	5585	5772	10969
80°	4307	6223	9586
85°	2862	6484	8874



TEST NUMBER: P231941

CATALOG NUMBER: FVS4M-2-LD4-35-2HI-PA187-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.9	4.2
10°-20°	480.1	11.4
20°-30°	666.7	15.8
30°-40°	683.5	16.2
40°-50°	513.8	12.2
50°-60°	402.8	9.5
60°-70°	384.8	9.1
70°-80°	310.1	7.3
80°-90°	210.0	5.0
90°-100°	129.6	3.1
100°-110°	90.9	2.2
110°-120°	68.3	1.6
120°-130°	51.4	1.2
130°-140°	30.7	0.7
140°-150°	15.8	0.4
150°-160°	5.9	0.1
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	1324.7	31.4
0°-40°	2008.1	47.6
0°-60°	2924.7	69.3
0°-90°	3829.6	90.7
90°-120°	288.8	6.8
90°-150°	386.6	9.2
90°-180°	393.0	9.3
0°-180°	4223.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1910	1910	1910	1910	1910	
5°	1874	1888	1896	1875	1866	179
15°	1814	1780	1695	1637	1625	511
25°	1651	1518	1418	1366	1346	756
35°	1260	1174	1084	1024	1025	777
45°	672	629	611	668	760	527
55°	319	326	380	554	687	291
65°	149	208	286	642	704	156
75°	110	122	236	500	512	110
85°	29	68	209	312	338	31
90°	0	39	171	254	242	2
95°	0	37	147	190	183	0
105°	0	35	98	141	135	0
115°	0	30	62	117	121	0
125°	0	26	51	94	122	0
135°	1	21	40	57	77	0
145°	1	15	30	34	38	1
155°	1	8	15	18	16	0
165°	1	2	4	2	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231941

CATALOG NUMBER: FVS4M-2-LD4-35-2HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1909.6	1909.6	1909.6	1909.6	1909.6
2.5°	1887.0	1891.0	1895.9	1898.8	1895.9
5°	1874.3	1888.0	1895.9	1875.3	1865.5
7.5°	1874.3	1876.3	1877.2	1847.8	1835.1
10°	1862.5	1856.7	1831.2	1775.3	1764.5
12.5°	1842.9	1830.2	1760.6	1706.7	1695.9
15°	1814.5	1780.2	1694.9	1637.1	1625.3
17.5°	1772.3	1720.4	1627.3	1570.4	1558.6
20°	1741.0	1659.6	1562.6	1506.7	1479.2
22.5°	1699.8	1590.0	1490.0	1435.1	1408.7
25°	1650.8	1517.5	1417.5	1366.5	1345.9
27.5°	1590.0	1437.1	1348.9	1295.0	1282.2
30°	1505.7	1364.6	1276.3	1231.2	1222.4
32.5°	1393.0	1275.3	1196.9	1128.3	1117.5
35°	1259.7	1174.4	1084.2	1024.4	1025.4
37.5°	1112.6	1062.6	928.3	927.3	927.3
40°	943.0	894.0	811.7	822.5	847.9
42.5°	806.8	748.0	705.8	737.2	801.9
45°	672.5	629.3	610.7	667.6	759.7
47.5°	562.7	529.4	530.3	616.6	719.5
50°	470.5	449.0	465.6	580.3	704.8
52.5°	388.2	378.4	413.7	561.7	702.9
55°	318.6	326.4	380.3	553.9	687.2
57.5°	258.8	286.2	351.9	567.6	689.1
60°	213.7	254.9	328.4	585.2	713.6
62.5°	172.5	228.4	308.8	608.8	739.1
65°	149.0	207.8	286.2	642.1	703.8
67.5°	138.2	183.3	266.6	671.5	663.7
70°	129.4	159.8	251.0	631.3	605.8
72.5°	126.5	139.2	240.2	560.7	562.7
75°	109.8	121.6	236.2	499.9	511.7
77.5°	85.3	109.8	233.3	444.1	459.8
80°	64.7	96.1	228.4	396.0	407.8
82.5°	47.1	81.4	223.5	351.9	369.6
85°	29.4	67.6	208.8	311.7	338.2
87.5°	12.7	51.0	189.2	284.3	285.3
90°	0.0	39.2	170.6	253.9	242.1
92.5°	0.0	38.2	159.8	218.6	209.8
95°	0.0	37.3	147.0	190.2	183.3
97.5°	0.0	37.3	135.3	171.5	159.8
100°	0.0	36.3	125.5	156.8	147.0
102.5°	0.0	35.3	113.7	146.1	139.2
105°	0.0	35.3	98.0	141.2	135.3
107.5°	0.0	34.3	85.3	135.3	131.4
110°	0.0	33.3	74.5	126.5	129.4



TEST NUMBER: P231941

CATALOG NUMBER: FVS4M-2-LD4-35-2HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	32.3	67.6	120.6	127.4
115°	0.0	30.4	61.8	116.7	120.6
117.5°	0.0	29.4	58.8	119.6	116.7
120°	0.0	28.4	55.9	118.6	114.7
122.5°	0.0	27.4	53.9	105.9	119.6
125°	0.0	25.5	51.0	94.1	121.6
127.5°	0.0	24.5	48.0	83.3	108.8
130°	0.0	22.5	45.1	73.5	98.0
132.5°	0.0	21.6	42.2	64.7	89.2
135°	1.0	20.6	40.2	56.9	77.4
137.5°	1.0	19.6	38.2	51.0	66.7
140°	1.0	18.6	35.3	45.1	55.9
142.5°	1.0	16.7	33.3	39.2	47.1
145°	1.0	14.7	30.4	34.3	38.2
147.5°	1.0	13.7	26.5	29.4	30.4
150°	1.0	11.8	22.5	25.5	23.5
152.5°	1.0	9.8	18.6	21.6	18.6
155°	1.0	7.8	14.7	17.6	15.7
157.5°	1.0	5.9	11.8	14.7	12.7
160°	1.0	3.9	9.8	9.8	10.8
162.5°	1.0	2.9	6.9	5.9	7.8
165°	1.0	2.0	3.9	2.0	3.9
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)