

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: P231953

Luminaire Tested: **FVS4M-4-LD4-35-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-13)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-4-LD4-35-1HI-P125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

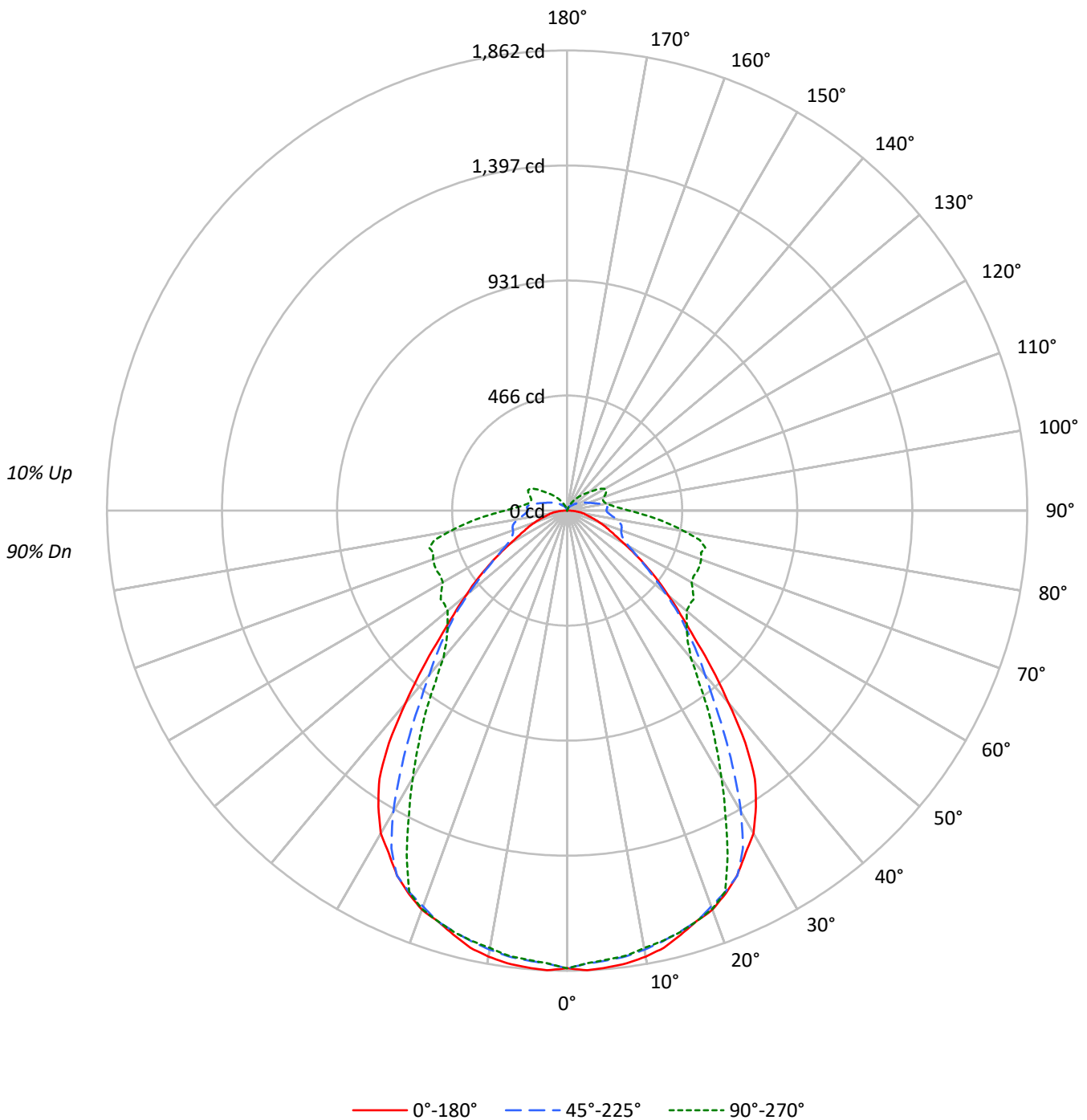
Lumens per Lamp: N/A
Luminaire Lumens: 4356.0 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.07 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 44.5
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	50	30	10	50	30	10	0		
RCR																										
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90					90			
1	106	101	96	92	102	97	93	90	91	88	85	86	83	81	80	78	76	74					74			
2	97	89	82	76	93	86	80	74	81	76	71	76	72	68	71	68	65	62					62			
3	89	79	71	65	86	76	69	63	72	66	61	68	63	59	64	60	56	54					54			
4	82	71	62	56	79	69	61	55	65	58	53	61	56	51	58	54	50	47					47			
5	76	64	55	49	73	62	54	48	59	52	47	56	50	46	53	48	44	42					42			
6	71	58	50	44	68	57	49	43	54	47	42	51	45	41	49	44	40	38					38			
7	66	53	45	39	64	52	44	39	50	43	38	47	41	37	45	40	36	34					34			
8	62	49	41	36	60	48	40	35	46	39	34	44	38	34	42	37	33	31					31			
9	58	45	38	32	56	44	37	32	42	36	31	41	35	31	39	34	30	28					28			
10	55	42	35	30	53	41	34	29	40	33	29	38	32	28	37	31	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16824	16824	16824
5°	16852	16021	15809
10°	16757	15394	14991
15°	16489	14771	14307
20°	16321	14122	13614
25°	15955	13452	12032
30°	15378	11665	9731
35°	14198	9330	7802
40°	11565	7428	6148
45°	8894	6033	5495
50°	7131	4719	5203
55°	5729	3629	5327
60°	4398	2897	5180
65°	3677	2654	5465
70°	3255	2740	5792
75°	2759	2942	6268
80°	2725	2945	5696
85°	2417	2894	4734



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.5	4.0
10°-20°	500.1	11.5
20°-30°	730.2	16.8
30°-40°	712.3	16.4
40°-50°	545.1	12.5
50°-60°	395.1	9.1
60°-70°	318.6	7.3
70°-80°	309.9	7.1
80°-90°	223.4	5.1
90°-100°	136.2	3.1
100°-110°	103.1	2.4
110°-120°	88.2	2.0
120°-130°	61.1	1.4
130°-140°	34.1	0.8
140°-150°	17.1	0.4
150°-160°	6.4	0.1
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	1404.7	32.2
0°-40°	2117.1	48.6
0°-60°	3057.2	70.2
0°-90°	3909.1	89.7
90°-120°	327.4	7.5
90°-150°	439.7	10.1
90°-180°	447.0	10.3
0°-180°	4356.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1852	1852	1852	1852	1852	
5°	1856	1842	1828	1831	1825	176
15°	1776	1782	1764	1771	1766	502
25°	1628	1631	1630	1594	1536	747
35°	1325	1288	1112	1020	999	810
45°	726	713	685	704	684	574
55°	387	355	379	505	624	350
65°	189	189	245	446	581	191
75°	93	149	228	483	578	102
85°	36	72	174	372	357	35
90°	1	41	159	261	250	3
95°	1	37	164	198	191	1
105°	1	33	115	159	151	1
115°	1	29	76	167	174	1
125°	1	28	52	116	150	1
135°	1	22	33	72	92	1
145°	1	15	22	42	54	1
155°	2	8	14	19	24	1
165°	2	3	3	2	2	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°	1852.0	1852.0	1852.0	1852.0	1852.0
2.5°	1861.8	1851.1	1834.4	1839.3	1833.4
5°	1856.0	1842.2	1827.5	1831.4	1824.6
7.5°	1848.1	1831.4	1819.7	1822.6	1816.7
10°	1832.4	1819.7	1804.0	1806.9	1797.1
12.5°	1811.8	1797.1	1785.4	1790.3	1783.4
15°	1776.5	1782.4	1763.8	1770.7	1765.8
17.5°	1742.2	1755.0	1742.2	1749.1	1742.2
20°	1718.7	1714.8	1705.0	1726.5	1715.8
22.5°	1676.5	1675.6	1670.7	1684.4	1669.7
25°	1628.5	1631.4	1629.5	1594.2	1536.3
27.5°	1562.8	1575.6	1540.3	1432.4	1386.3
30°	1507.9	1512.8	1406.9	1295.2	1249.1
32.5°	1421.6	1426.5	1255.9	1149.1	1117.7
35°	1324.6	1288.3	1111.8	1019.6	999.1
37.5°	1184.4	1123.6	977.5	917.7	875.5
40°	1015.7	958.9	867.7	827.5	779.4
42.5°	867.7	825.5	776.5	761.8	722.6
45°	726.5	712.8	685.3	704.0	684.3
47.5°	622.6	605.9	603.9	645.1	655.9
50°	534.3	507.9	516.7	589.2	631.4
52.5°	460.8	425.5	441.2	543.2	624.5
55°	387.3	354.9	379.4	504.9	624.5
57.5°	322.6	292.2	327.5	487.3	603.0
60°	262.8	245.1	286.3	465.7	581.4
62.5°	220.6	211.8	259.8	450.0	576.5
65°	189.2	189.2	245.1	446.1	581.4
67.5°	163.7	173.5	237.3	452.0	581.4
70°	139.2	164.7	233.3	462.8	577.5
72.5°	114.7	157.8	231.4	473.5	567.7
75°	93.1	149.0	227.5	483.4	578.5
77.5°	77.5	131.4	215.7	484.3	549.0
80°	66.7	110.8	202.9	482.4	479.4
82.5°	52.0	91.2	186.3	439.2	418.6
85°	36.3	71.6	173.5	371.6	356.9
87.5°	16.7	54.9	162.8	310.8	298.1
90°	1.0	41.2	158.8	260.8	250.0
92.5°	1.0	38.2	160.8	226.5	215.7
95°	1.0	37.3	163.7	198.0	191.2
97.5°	1.0	36.3	157.8	178.4	174.5
100°	1.0	35.3	145.1	165.7	161.8
102.5°	1.0	34.3	129.4	158.8	154.9
105°	1.0	33.3	114.7	158.8	151.0
107.5°	1.0	32.4	102.0	163.7	152.0
110°	1.0	31.4	92.2	169.6	157.8



TEST NUMBER: P231953

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	30.4	83.3	171.6	166.7
115°	1.0	29.4	75.5	166.7	173.5
117.5°	1.0	29.4	69.6	154.9	178.4
120°	1.0	28.4	63.7	143.1	175.5
122.5°	1.0	28.4	57.8	130.4	164.7
125°	1.0	27.5	52.0	115.7	150.0
127.5°	1.0	26.5	47.1	103.9	131.4
130°	1.0	25.5	42.2	92.2	116.7
132.5°	1.0	23.5	38.2	81.4	102.9
135°	1.0	21.6	33.3	71.6	92.2
137.5°	1.0	19.6	30.4	62.7	81.4
140°	1.0	18.6	27.5	54.9	71.6
142.5°	1.0	16.7	24.5	49.0	62.7
145°	1.0	14.7	22.5	42.2	53.9
147.5°	1.0	13.7	21.6	36.3	45.1
150°	1.0	11.8	19.6	29.4	37.3
152.5°	2.0	9.8	16.7	23.5	30.4
155°	2.0	7.8	13.7	18.6	24.5
157.5°	2.0	5.9	11.8	12.7	17.6
160°	2.0	4.9	8.8	7.8	11.8
162.5°	2.0	2.9	5.9	3.9	6.9
165°	2.0	2.9	2.9	2.0	2.0
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)