

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: P232042

Luminaire Tested: **FVS4M-3-LD4-40-1LO-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232042
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-LD4-40-1LO-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PA187 LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

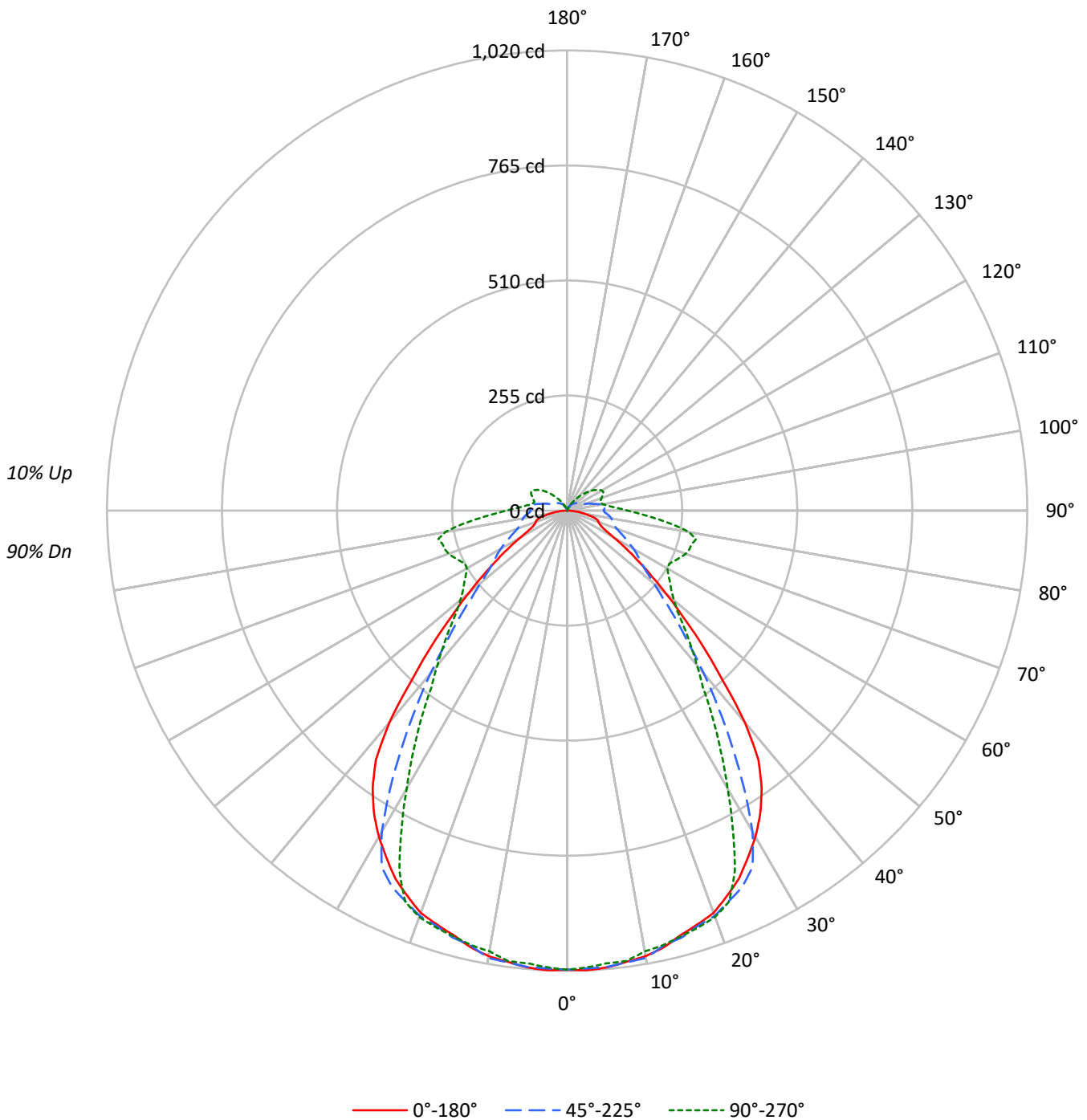
Lumens per Lamp: N/A
Luminaire Lumens: 2343.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.1 / 1.11
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 21.3
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	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°	12020	12020	12020
5°	11983	11560	11347
10°	11892	11150	10758
15°	11705	10639	10285
20°	11651	10259	9887
25°	11391	9832	8958
30°	10975	8816	7207
35°	10369	6908	5726
40°	8956	5203	4587
45°	6676	3867	3829
50°	4862	2946	3307
55°	3538	2462	3087
60°	2533	2224	2971
65°	2058	1948	3214
70°	2157	1759	3647
75°	2326	1763	4031
80°	1864	1843	4231
85°	1258	1891	3368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.3	4.1
10°-20°	276.4	11.8
20°-30°	411.6	17.6
30°-40°	404.9	17.3
40°-50°	283.7	12.1
50°-60°	198.2	8.5
60°-70°	166.6	7.1
70°-80°	152.4	6.5
80°-90°	117.5	5.0
90°-100°	71.5	3.1
100°-110°	53.1	2.3
110°-120°	44.9	1.9
120°-130°	32.6	1.4
130°-140°	19.3	0.8
140°-150°	9.7	0.4
150°-160°	3.5	0.2
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	784.3	33.5
0°-40°	1189.2	50.8
0°-60°	1671.1	71.3
0°-90°	2107.7	90.0
90°-120°	169.5	7.2
90°-150°	231.2	9.9
90°-180°	235.0	10.0
0°-180°	2343.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1016	1018	1015	1012	1007	97
15°	974	976	980	979	976	276
25°	900	903	920	909	880	413
35°	752	744	637	580	564	463
45°	425	373	340	339	367	332
55°	188	194	200	245	278	172
65°	84	119	140	236	263	88
75°	63	66	106	230	286	63
85°	16	35	89	207	195	18
90°	0	20	81	145	133	1
95°	0	19	84	104	99	0
105°	0	19	58	83	75	0
115°	0	17	36	85	88	0
125°	0	14	29	62	80	0
135°	0	12	23	38	53	0
145°	0	9	17	22	26	0
155°	0	4	8	11	10	0
165°	1	2	2	2	3	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°	1017.8	1017.8	1017.8	1017.8	1017.8
2.5°	1019.7	1015.8	1015.8	1015.2	1013.2
5°	1016.5	1017.8	1015.2	1012.0	1007.4
7.5°	1008.7	1008.7	1010.0	1006.2	1006.8
10°	1002.9	1001.0	1006.8	992.0	992.0
12.5°	991.3	990.7	987.5	991.3	986.2
15°	973.9	976.5	979.7	979.1	976.5
17.5°	961.7	962.3	964.9	968.1	968.8
20°	948.8	944.3	955.9	964.3	958.5
22.5°	924.9	928.8	937.2	952.0	938.5
25°	900.4	903.0	919.8	908.8	879.8
27.5°	867.6	881.1	890.1	828.9	795.4
30°	834.7	848.2	821.8	738.7	711.6
32.5°	796.7	813.4	729.6	657.4	634.9
35°	751.6	743.8	636.8	579.5	564.0
37.5°	696.1	640.7	549.8	506.6	494.4
40°	612.3	533.0	470.5	446.0	447.3
42.5°	510.5	443.5	397.0	387.4	406.1
45°	425.4	372.6	340.3	339.0	366.8
47.5°	348.1	312.6	288.8	302.9	331.9
50°	284.9	264.3	250.1	273.3	308.7
52.5°	231.4	223.0	219.8	255.2	291.3
55°	187.6	194.0	199.8	244.9	278.4
57.5°	151.5	169.5	185.0	239.1	266.2
60°	119.2	149.5	170.8	235.9	256.5
62.5°	97.3	133.4	154.0	235.9	255.2
65°	83.8	119.2	139.9	235.9	263.0
67.5°	78.0	103.8	127.0	235.9	271.4
70°	73.5	89.6	116.7	232.0	279.7
72.5°	71.5	75.4	109.6	230.8	284.3
75°	63.2	65.7	106.4	230.1	286.2
77.5°	49.0	58.7	103.1	226.9	292.6
80°	37.4	51.6	99.3	230.1	273.9
82.5°	27.1	43.2	94.8	229.5	236.6
85°	16.1	34.8	88.9	206.9	195.3
87.5°	6.4	25.8	83.1	172.7	159.9
90°	0.0	20.0	80.6	145.0	133.4
92.5°	0.0	19.3	82.5	122.5	114.1
95°	0.0	19.3	84.4	103.8	98.6
97.5°	0.0	19.3	83.8	94.8	89.6
100°	0.0	19.3	77.3	86.4	79.9
102.5°	0.0	18.7	67.0	83.1	77.3
105°	0.0	18.7	58.0	83.1	75.4
107.5°	0.0	18.7	50.3	84.4	78.0
110°	0.0	18.0	43.8	85.7	81.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	17.4	39.3	87.7	84.4
115°	0.0	17.4	36.1	85.1	88.3
117.5°	0.0	16.8	33.5	80.6	90.2
120°	0.0	16.1	31.6	75.4	88.9
122.5°	0.0	14.8	30.3	69.0	85.1
125°	0.0	14.2	29.0	62.5	79.9
127.5°	0.0	13.5	27.1	55.4	74.8
130°	0.0	12.9	25.8	49.0	68.3
132.5°	0.0	12.2	23.8	43.2	60.6
135°	0.0	11.6	22.6	38.0	52.9
137.5°	0.0	11.0	21.3	33.5	45.8
140°	0.0	10.3	20.0	29.0	38.7
142.5°	0.0	9.7	18.7	25.1	32.2
145°	0.0	9.0	16.8	21.9	26.4
147.5°	0.0	7.7	14.8	18.7	21.3
150°	0.0	7.1	12.2	15.5	16.8
152.5°	0.0	5.8	10.3	13.5	12.9
155°	0.0	4.5	8.4	11.0	10.3
157.5°	0.6	3.9	6.4	8.4	8.4
160°	0.6	3.2	5.2	5.8	6.4
162.5°	0.6	2.6	3.2	3.9	5.2
165°	0.6	1.9	1.9	1.9	3.2
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)