

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: P232008

Luminaire Tested: **FVS4M-4-LD4-30-2STD-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232008
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-4-LD4-30-2STD-PA187-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH PA187 LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

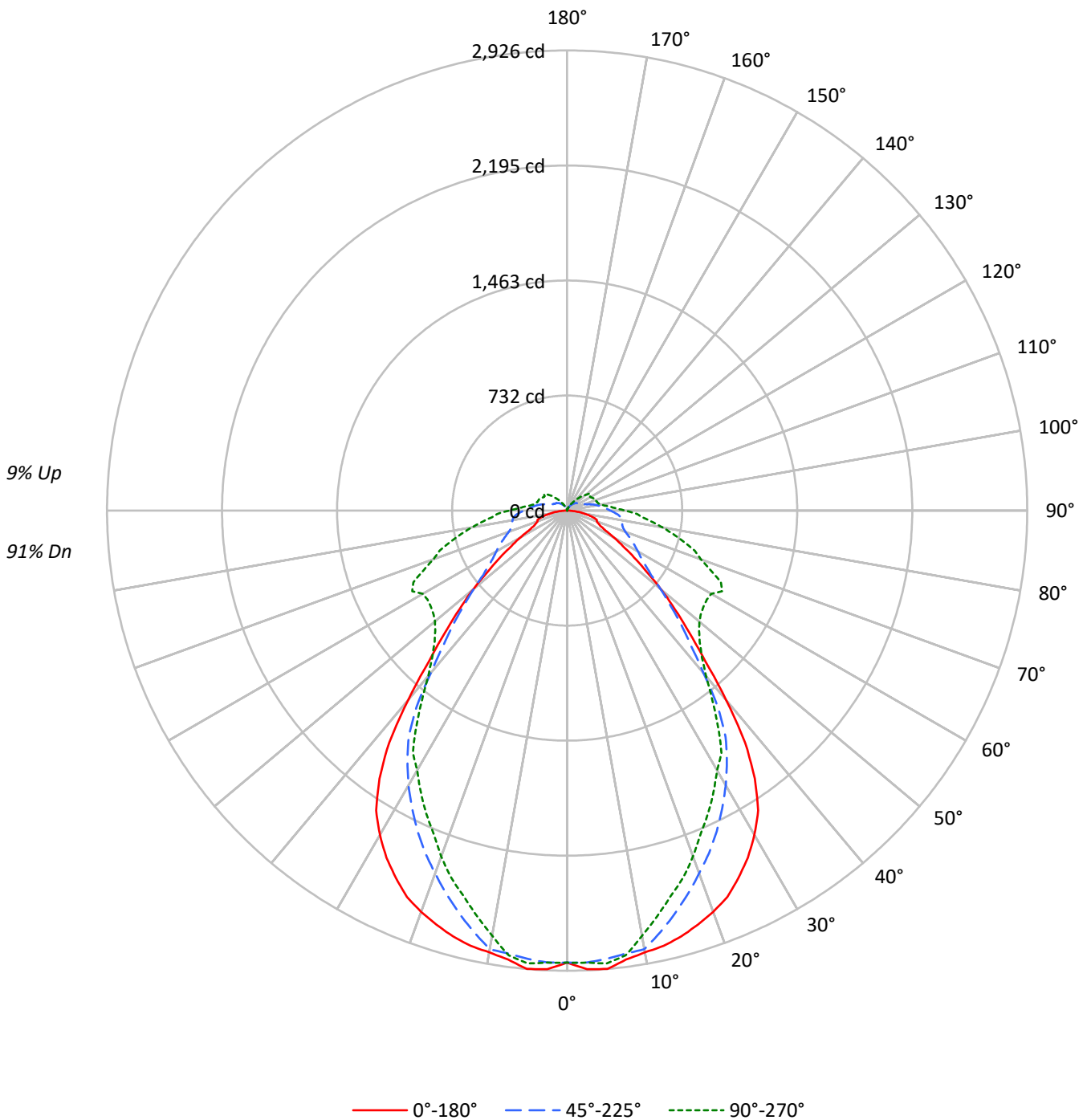
Lumens per Lamp: N/A
Luminaire Lumens: 6663.0 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.02 / 1.12
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')
CIE Type: Direct

Input Watts (W): 67.5
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	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	91
1	106	101	96	92	102	98	94	90	92	89	85	86	84	81	81	79	77	75
2	97	89	82	76	93	86	80	74	81	76	71	76	72	68	72	69	66	63
3	89	79	71	64	86	76	69	63	72	66	61	68	63	59	64	60	57	54
4	82	70	62	55	79	68	61	55	65	58	53	61	56	51	58	54	50	47
5	76	64	55	49	73	62	54	48	59	52	47	56	50	45	53	48	44	42
6	70	58	49	43	68	56	48	43	54	47	42	51	45	40	49	44	39	37
7	66	53	44	39	63	52	44	38	49	42	37	47	41	36	45	40	36	34
8	61	49	40	35	59	48	40	35	45	39	34	44	38	33	42	36	32	30
9	58	45	37	32	56	44	37	31	42	36	31	40	35	30	39	34	30	28
10	54	42	34	29	53	41	34	29	39	33	28	38	32	28	36	31	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26112	26112	26112
5°	26565	25095	25041
10°	26082	24164	22903
15°	26019	22203	20571
20°	25786	20329	18571
25°	25248	18577	16621
30°	24289	16724	14851
35°	22297	14741	13051
40°	17896	11544	10837
45°	13440	9018	9578
50°	10409	7066	9034
55°	7700	5811	9033
60°	5785	5267	9429
65°	4565	4925	10134
70°	4698	4635	9059
75°	5203	4696	8322
80°	4363	5120	7312
85°	3163	5449	6358



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.5	4.1
10°-20°	751.8	11.3
20°-30°	1053.2	15.8
30°-40°	1110.2	16.7
40°-50°	843.2	12.7
50°-60°	637.0	9.6
60°-70°	590.3	8.9
70°-80°	476.2	7.1
80°-90°	319.6	4.8
90°-100°	197.5	3.0
100°-110°	138.9	2.1
110°-120°	104.9	1.6
120°-130°	80.5	1.2
130°-140°	49.5	0.7
140°-150°	25.3	0.4
150°-160°	9.5	0.1
160°-170°	1.9	0.0
170°-180°	0.0	0.0
0°-30°	2078.5	31.2
0°-40°	3188.7	47.9
0°-60°	4668.9	70.1
0°-90°	6055.0	90.9
90°-120°	441.3	6.6
90°-150°	596.6	9.0
90°-180°	608.0	9.1
0°-180°	6663.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2874	2874	2874	2874	2874	
5°	2926	2900	2862	2887	2890	276
15°	2803	2794	2651	2586	2539	790
25°	2577	2408	2250	2161	2122	1184
35°	2080	1896	1757	1673	1671	1274
45°	1098	1061	1024	1079	1193	864
55°	520	539	608	858	1059	475
65°	235	331	455	952	1078	247
75°	176	192	363	762	768	178
85°	48	108	327	471	479	52
90°	2	63	274	376	367	4
95°	2	58	229	286	274	1
105°	2	55	154	214	199	2
115°	2	49	97	177	184	2
125°	2	41	82	148	179	1
135°	2	31	64	94	126	2
145°	2	23	45	57	65	2
155°	3	13	24	26	27	1
165°	3	6	10	6	10	1
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°	2874.4	2874.4	2874.4	2874.4	2874.4
2.5°	2918.7	2906.0	2876.0	2883.1	2876.8
5°	2925.8	2900.5	2862.5	2887.0	2890.2
7.5°	2879.1	2887.0	2841.2	2859.4	2852.2
10°	2852.2	2868.8	2831.7	2794.5	2745.5
12.5°	2834.8	2832.5	2743.9	2689.3	2642.6
15°	2803.2	2793.7	2651.3	2585.7	2539.0
17.5°	2761.3	2726.5	2554.8	2474.2	2449.6
20°	2715.4	2619.7	2454.4	2370.5	2340.5
22.5°	2660.0	2520.0	2357.1	2270.1	2220.3
25°	2577.0	2407.7	2250.3	2160.9	2122.2
27.5°	2487.6	2290.6	2134.0	2048.6	2016.2
30°	2381.6	2168.0	2017.0	1949.7	1906.2
32.5°	2260.6	2040.7	1889.6	1824.8	1826.3
35°	2080.2	1896.0	1756.7	1672.9	1671.3
37.5°	1858.8	1708.5	1574.8	1518.7	1514.7
40°	1571.7	1507.6	1348.6	1372.3	1373.9
42.5°	1298.8	1261.6	1167.5	1201.5	1269.5
45°	1097.9	1060.7	1024.3	1078.9	1192.8
47.5°	930.2	877.2	886.7	986.3	1137.4
50°	779.9	743.5	773.6	920.7	1096.3
52.5°	630.4	627.2	673.1	878.8	1073.3
55°	520.5	538.6	607.5	858.2	1059.1
57.5°	420.0	464.3	556.1	861.4	1053.6
60°	345.7	408.9	520.5	889.8	1058.3
62.5°	275.3	367.0	484.9	916.7	1110.5
65°	234.9	330.6	454.8	951.5	1078.1
67.5°	214.4	295.0	421.6	1008.5	985.5
70°	200.9	257.1	394.7	962.6	903.3
72.5°	198.5	221.5	374.1	869.3	850.3
75°	175.6	192.2	363.1	761.7	768.0
77.5°	144.7	171.6	357.5	673.1	689.7
80°	106.8	151.1	352.8	598.0	615.4
82.5°	80.7	128.1	344.1	533.9	541.8
85°	47.5	107.6	326.7	471.4	479.3
87.5°	22.9	80.7	302.2	408.1	439.8
90°	2.4	63.3	274.5	375.7	367.0
92.5°	2.4	58.5	251.5	325.1	312.4
95°	1.6	57.7	228.6	285.5	274.5
97.5°	1.6	57.7	212.0	254.7	241.2
100°	1.6	56.9	194.6	234.1	219.1
102.5°	1.6	56.2	175.6	220.7	205.7
105°	1.6	54.6	154.2	213.6	199.3
107.5°	1.6	53.8	132.1	206.4	195.4
110°	1.6	52.2	117.1	194.6	193.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	50.6	104.4	185.1	192.2
115°	1.6	49.0	97.3	177.2	184.3
117.5°	1.6	47.5	92.5	175.6	177.2
120°	1.6	45.1	89.4	178.8	171.6
122.5°	1.6	42.7	85.4	166.9	170.1
125°	1.6	41.1	82.3	147.9	178.8
127.5°	1.6	38.0	78.3	132.1	175.6
130°	1.6	35.6	73.6	118.6	156.6
132.5°	1.6	33.2	69.6	105.2	140.8
135°	2.4	30.8	64.1	94.1	125.8
137.5°	2.4	29.3	59.3	83.8	109.2
140°	2.4	26.9	55.4	74.4	94.1
142.5°	2.4	25.3	50.6	65.7	79.1
145°	2.4	22.9	45.1	56.9	64.9
147.5°	2.4	21.4	40.3	48.2	51.4
150°	2.4	18.2	34.8	41.1	40.3
152.5°	2.4	15.8	29.3	32.4	33.2
155°	3.2	13.4	23.7	26.1	26.9
157.5°	2.4	11.1	19.8	20.6	22.9
160°	3.2	9.5	16.6	15.0	19.8
162.5°	3.2	7.1	14.2	10.3	15.8
165°	3.2	5.5	10.3	5.5	9.5
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)