

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: P231910

Luminaire Tested: **FVS4M-2-LD4-40-2LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231910
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-8)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-2-LD4-40-2LO-P125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

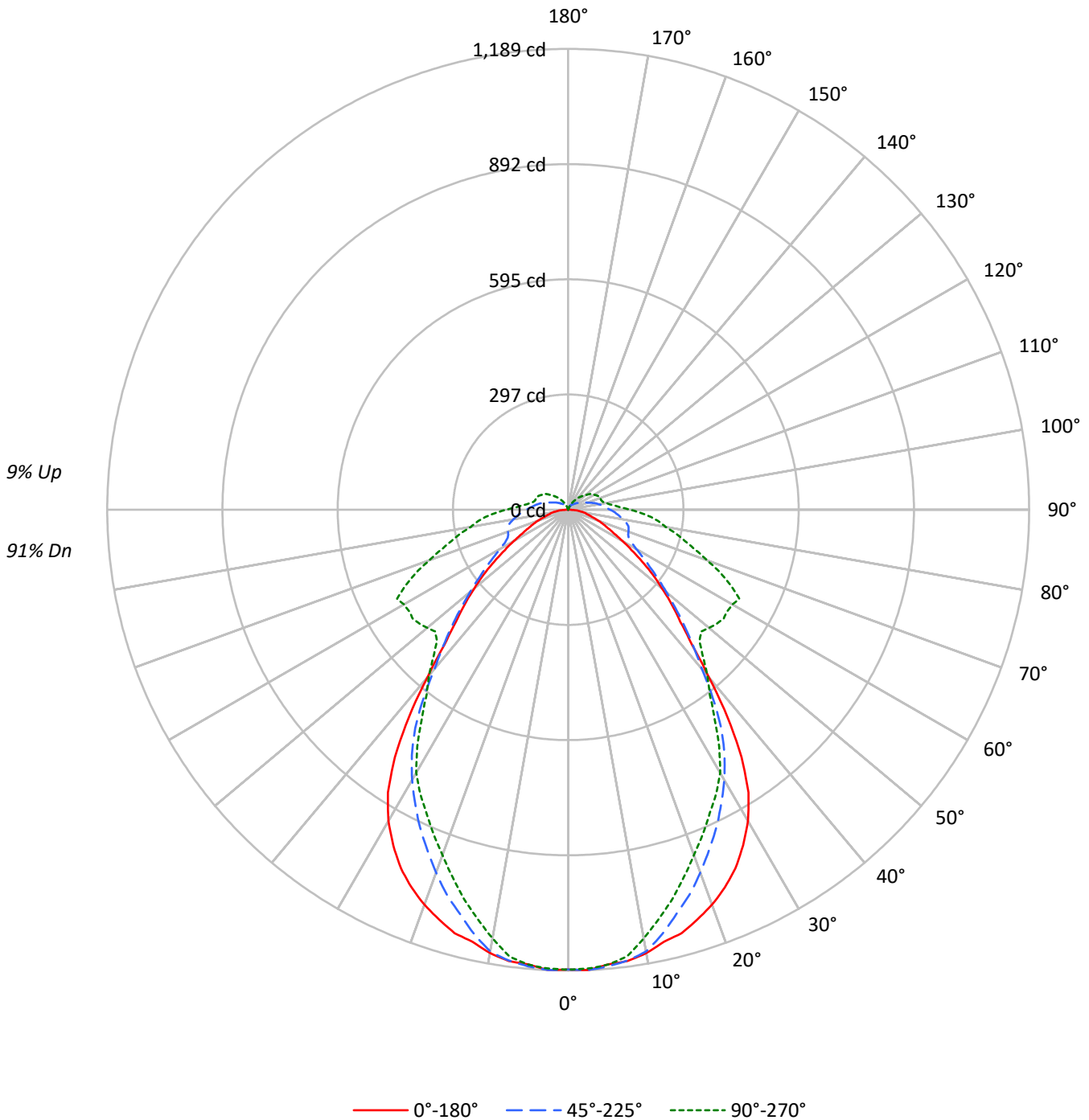
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2717.0 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')
CIE Type: Direct

Input Watts (W): 24.1
Input Voltage (V): 120
Input Current (A_{in}): 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	91
1	106	101	96	92	102	97	93	90	91	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	60	68	63	58	64	60	56	54
4	82	70	62	55	79	68	60	54	64	58	52	61	55	51	58	53	49	47
5	76	63	55	48	73	62	54	48	58	51	46	55	50	45	53	48	44	41
6	70	57	49	43	68	56	48	42	53	46	41	51	45	40	48	43	39	37
7	65	53	44	38	63	51	43	38	49	42	37	47	41	36	45	39	35	33
8	61	48	40	35	59	47	40	34	45	38	33	43	37	33	41	36	32	30
9	57	45	37	31	56	44	36	31	42	35	31	40	34	30	39	33	29	27
10	54	41	34	29	52	41	33	29	39	32	28	37	32	27	36	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21319	21319	21319
5°	21065	20451	20196
10°	20841	19432	18535
15°	20508	17742	16656
20°	20029	16154	14879
25°	19360	14579	13387
30°	18210	13004	12079
35°	16003	11220	10167
40°	12236	8896	8710
45°	9475	7216	7602
50°	7917	5804	7732
55°	6383	4718	8261
60°	4973	3919	8619
65°	4007	3558	8602
70°	3450	3689	7561
75°	2838	3922	6673
80°	2649	3907	5992
85°	2210	3919	5628



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	4.1
10°-20°	304.6	11.2
20°-30°	422.8	15.6
30°-40°	434.4	16.0
40°-50°	344.6	12.7
50°-60°	271.6	10.0
60°-70°	238.5	8.8
70°-80°	198.0	7.3
80°-90°	134.8	5.0
90°-100°	83.7	3.1
100°-110°	60.6	2.2
110°-120°	45.8	1.7
120°-130°	32.5	1.2
130°-140°	19.1	0.7
140°-150°	10.1	0.4
150°-160°	3.7	0.1
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	839.2	30.9
0°-40°	1273.6	46.9
0°-60°	1889.8	69.6
0°-90°	2461.1	90.6
90°-120°	190.1	7.0
90°-150°	251.9	9.3
90°-180°	256.0	9.4
0°-180°	2717.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1178	1180	1183	1179	1178	112
15°	1131	1127	1080	1045	1039	318
25°	1021	960	904	874	864	468
35°	779	734	688	661	658	477
45°	409	418	424	485	479	324
55°	232	204	257	380	490	209
65°	114	114	172	389	463	116
75°	56	90	160	318	311	61
85°	23	45	126	202	214	21
90°	0	28	108	162	159	1
95°	0	24	93	124	121	0
105°	0	22	67	94	89	0
115°	0	19	44	78	85	0
125°	0	16	31	62	71	0
135°	0	13	21	39	49	0
145°	0	9	16	24	29	0
155°	1	4	9	11	13	0
165°	1	1	1	0	0	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°	1186.3	1186.3	1186.3	1186.3	1186.3
2.5°	1188.8	1188.1	1188.8	1185.7	1185.1
5°	1177.7	1179.6	1182.6	1179.0	1178.3
7.5°	1174.7	1175.3	1173.4	1166.7	1162.4
10°	1161.8	1163.0	1157.5	1133.6	1123.2
12.5°	1141.6	1143.4	1121.4	1094.4	1080.9
15°	1131.2	1126.9	1079.7	1045.4	1039.2
17.5°	1108.5	1093.8	1041.1	1002.5	993.3
20°	1084.6	1053.9	996.4	962.0	947.9
22.5°	1055.2	1004.3	949.8	921.6	906.9
25°	1020.9	960.2	904.4	874.4	864.0
27.5°	976.7	910.6	854.8	829.7	826.6
30°	927.1	859.1	805.2	784.3	783.7
32.5°	865.2	798.4	750.6	734.1	724.3
35°	779.4	734.1	688.1	660.6	658.1
37.5°	675.9	655.0	612.8	601.1	599.3
40°	564.4	572.3	536.2	555.2	558.2
42.5°	471.8	489.0	476.7	520.8	514.1
45°	409.3	418.5	424.0	484.7	478.6
47.5°	362.8	350.5	373.8	443.0	465.1
50°	316.2	297.2	329.7	414.2	474.3
52.5°	275.1	245.7	291.1	395.2	482.9
55°	232.2	204.0	256.7	380.5	489.6
57.5°	193.6	170.3	227.9	369.5	486.5
60°	161.8	145.2	202.2	365.8	489.0
62.5°	133.6	126.2	183.8	370.1	497.6
65°	114.0	114.0	172.2	389.1	462.6
67.5°	97.4	106.0	167.3	397.1	424.0
70°	83.3	101.1	165.4	378.1	381.1
72.5°	67.4	97.4	163.6	343.8	343.8
75°	55.8	90.1	160.5	318.0	311.3
77.5°	47.8	79.0	152.6	291.1	284.3
80°	39.8	68.0	143.4	259.8	254.9
82.5°	30.6	56.4	134.2	230.4	235.9
85°	22.7	45.3	126.2	202.2	214.5
87.5°	9.2	35.5	117.7	182.0	186.3
90°	0.0	27.6	107.8	162.4	159.3
92.5°	0.0	25.1	99.3	140.9	135.4
95°	0.0	24.5	93.1	124.4	120.7
97.5°	0.0	23.9	87.0	110.3	107.8
100°	0.0	23.3	80.3	101.7	99.9
102.5°	0.0	22.7	74.8	97.4	92.5
105°	0.0	22.1	66.8	94.4	88.9
107.5°	0.0	21.4	59.4	91.9	88.2
110°	0.0	20.8	53.3	87.0	88.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	19.6	48.4	82.1	87.0
115°	0.0	19.0	43.5	77.8	84.6
117.5°	0.0	18.4	39.8	76.6	80.9
120°	0.0	17.8	36.8	74.8	77.2
122.5°	0.0	17.2	33.7	69.2	74.1
125°	0.0	16.5	30.6	62.5	71.1
127.5°	0.0	15.9	27.6	56.4	65.0
130°	0.0	15.3	25.1	49.6	58.2
132.5°	0.0	14.1	22.7	44.1	53.3
135°	0.0	12.9	20.8	39.2	49.0
137.5°	0.0	12.3	19.6	34.3	44.1
140°	0.0	11.0	17.8	30.6	39.2
142.5°	0.0	9.8	17.2	27.0	34.3
145°	0.0	9.2	15.9	23.9	29.4
147.5°	0.6	8.0	14.7	20.8	25.1
150°	0.6	6.7	12.9	17.2	20.8
152.5°	0.6	5.5	11.0	14.1	17.2
155°	0.6	3.7	9.2	11.0	12.9
157.5°	0.6	2.5	6.7	8.0	8.6
160°	0.6	1.2	4.9	4.9	4.9
162.5°	0.6	0.6	3.1	2.5	2.5
165°	0.6	0.6	1.2	0.0	0.0
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)