

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: P231989

Luminaire Tested: **FVS4M-4-LD4-35-2HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231989
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-4-LD4-35-2HI-P125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
4FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

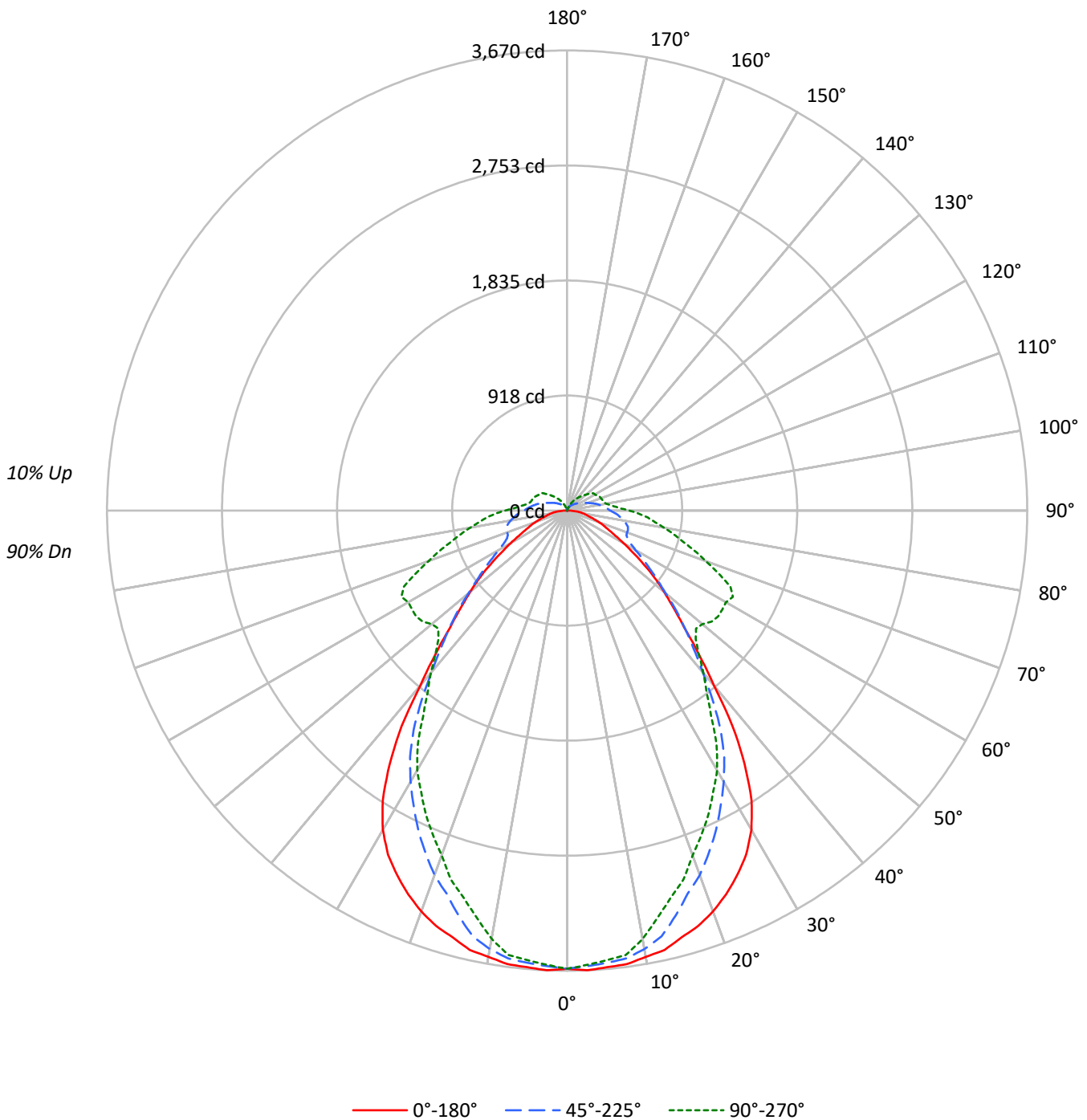
Lumens per Lamp: N/A
Luminaire Lumens: 8494.0 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.01 / 1.1
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')
CIE Type: Direct

Input Watts (W): 89.3
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	96	92	102	97	93	90	91	88	85	86	83	81	81	78	76	74
2	96	88	81	76	93	85	79	74	80	75	71	76	71	68	71	68	65	62
3	89	78	70	64	85	76	69	63	72	65	60	67	62	58	64	59	56	53
4	82	70	62	55	79	68	60	54	64	58	52	61	55	51	58	53	49	46
5	75	63	55	48	73	61	53	47	58	51	46	55	49	45	53	47	43	41
6	70	57	49	43	68	56	48	42	53	46	41	51	45	40	48	43	39	37
7	65	52	44	38	63	51	43	38	49	42	37	47	40	36	44	39	35	33
8	61	48	40	35	59	47	39	34	45	38	33	43	37	33	41	36	32	30
9	57	45	37	31	55	44	36	31	42	35	30	40	34	30	38	33	29	27
10	54	41	34	29	52	40	33	28	39	32	28	37	31	27	36	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33193	33193	33193
5°	33185	31741	31191
10°	33046	30302	28935
15°	32704	27996	25879
20°	32307	25612	23212
25°	31428	23205	20901
30°	29975	20704	18629
35°	26449	17910	15649
40°	20741	14384	13347
45°	16202	11695	11643
50°	13464	9358	11601
55°	11022	7680	12543
60°	8679	6369	13024
65°	7144	5744	13501
70°	6304	5975	11779
75°	5405	6492	10325
80°	5328	6644	9307
85°	5028	6770	8570



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.2	4.1
10°-20°	945.2	11.1
20°-30°	1317.1	15.5
30°-40°	1357.4	16.0
40°-50°	1079.9	12.7
50°-60°	840.3	9.9
60°-70°	734.6	8.6
70°-80°	619.4	7.3
80°-90°	419.8	4.9
90°-100°	265.7	3.1
100°-110°	197.1	2.3
110°-120°	151.3	1.8
120°-130°	109.2	1.3
130°-140°	64.1	0.8
140°-150°	33.7	0.4
150°-160°	13.1	0.2
160°-170°	2.0	0.0
170°-180°	0.0	0.0
0°-30°	2606.5	30.7
0°-40°	3963.9	46.7
0°-60°	5884.1	69.3
0°-90°	7657.8	90.2
90°-120°	614.0	7.2
90°-150°	821.0	9.7
90°-180°	836.0	9.8
0°-180°	8494.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3654	3654	3654	3654	3654	
5°	3655	3647	3621	3617	3600	348
15°	3524	3503	3343	3233	3194	996
25°	3208	3018	2811	2712	2669	1473
35°	2468	2328	2134	2038	2004	1518
45°	1324	1357	1328	1470	1450	1045
55°	745	666	803	1149	1471	670
65°	368	361	530	1166	1436	374
75°	182	289	502	992	953	199
85°	76	147	406	622	646	71
90°	3	88	344	489	494	6
95°	3	79	301	388	378	2
105°	3	72	219	303	296	3
115°	3	61	145	261	274	3
125°	3	55	102	209	243	3
135°	4	43	70	131	165	3
145°	4	30	48	80	101	2
155°	4	17	30	36	48	2
165°	5	6	11	4	7	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°	3653.9	3653.9	3653.9	3653.9	3653.9
2.5°	3669.6	3660.8	3636.3	3640.2	3626.5
5°	3654.9	3647.1	3620.6	3616.7	3600.0
7.5°	3648.0	3631.4	3602.0	3589.2	3575.5
10°	3613.7	3595.1	3551.0	3498.0	3468.6
12.5°	3589.2	3562.7	3478.4	3370.6	3326.5
15°	3523.5	3502.9	3343.1	3233.3	3194.1
17.5°	3473.5	3412.7	3202.0	3122.5	3084.3
20°	3402.0	3300.0	3092.2	2988.2	2925.5
22.5°	3312.7	3152.0	2953.9	2852.9	2799.0
25°	3207.8	3017.6	2810.8	2711.8	2668.6
27.5°	3093.1	2856.9	2652.9	2564.7	2524.5
30°	2939.2	2706.9	2497.1	2418.6	2391.2
32.5°	2737.3	2522.5	2330.4	2253.9	2217.6
35°	2467.6	2328.4	2134.3	2038.2	2003.9
37.5°	2167.6	2110.8	1906.9	1863.7	1824.5
40°	1821.6	1849.0	1680.4	1696.1	1692.2
42.5°	1553.9	1592.2	1490.2	1591.2	1552.9
45°	1323.5	1356.9	1328.4	1469.6	1450.0
47.5°	1151.0	1152.9	1179.4	1356.9	1393.1
50°	1008.8	965.7	1024.5	1257.8	1407.8
52.5°	880.4	799.0	902.0	1195.1	1452.9
55°	745.1	665.7	802.9	1149.0	1470.6
57.5°	617.6	550.0	706.9	1121.6	1467.6
60°	518.6	463.7	629.4	1111.8	1461.8
62.5°	433.3	407.8	569.6	1134.3	1490.2
65°	367.6	360.8	530.4	1165.7	1436.3
67.5°	316.7	332.4	511.8	1205.9	1302.9
70°	269.6	316.7	508.8	1177.5	1174.5
72.5°	220.6	305.9	508.8	1088.2	1066.7
75°	182.4	289.2	502.0	992.2	952.9
77.5°	152.9	257.8	481.4	900.0	868.6
80°	130.4	219.6	457.8	803.9	783.3
82.5°	102.0	182.4	430.4	706.9	706.9
85°	75.5	147.1	405.9	622.5	646.1
87.5°	37.3	115.7	374.5	550.0	571.6
90°	2.9	88.2	344.1	489.2	494.1
92.5°	2.0	81.4	322.5	435.3	422.5
95°	2.9	79.4	301.0	388.2	377.5
97.5°	2.9	77.5	281.4	353.9	343.1
100°	2.0	75.5	260.8	331.4	315.7
102.5°	2.9	73.5	242.2	316.7	302.0
105°	2.9	71.6	218.6	302.9	296.1
107.5°	2.9	68.6	196.1	292.2	291.2
110°	2.9	65.7	177.5	278.4	287.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	63.7	158.8	265.7	283.3
115°	2.9	60.8	145.1	260.8	273.5
117.5°	2.9	58.8	134.3	259.8	264.7
120°	2.9	57.8	122.5	249.0	255.9
122.5°	2.9	56.9	111.8	231.4	252.9
125°	2.9	54.9	102.0	208.8	243.1
127.5°	2.9	52.9	93.1	188.2	219.6
130°	2.9	49.0	84.3	167.6	198.0
132.5°	2.9	46.1	76.5	146.1	180.4
135°	3.9	43.1	69.6	131.4	164.7
137.5°	3.9	40.2	61.8	116.7	149.0
140°	3.9	36.3	56.9	103.9	131.4
142.5°	3.9	33.3	52.0	92.2	117.6
145°	3.9	30.4	48.0	80.4	101.0
147.5°	3.9	27.5	45.1	70.6	86.3
150°	3.9	23.5	40.2	58.8	72.5
152.5°	3.9	19.6	36.3	47.1	58.8
155°	3.9	16.7	30.4	36.3	48.0
157.5°	3.9	13.7	25.5	26.5	35.3
160°	3.9	9.8	20.6	17.6	24.5
162.5°	4.9	7.8	15.7	9.8	14.7
165°	4.9	5.9	10.8	3.9	6.9
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)