

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: P551680

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-88-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P551680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCC-X-2-LD4-2LO-50-UNV-82-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

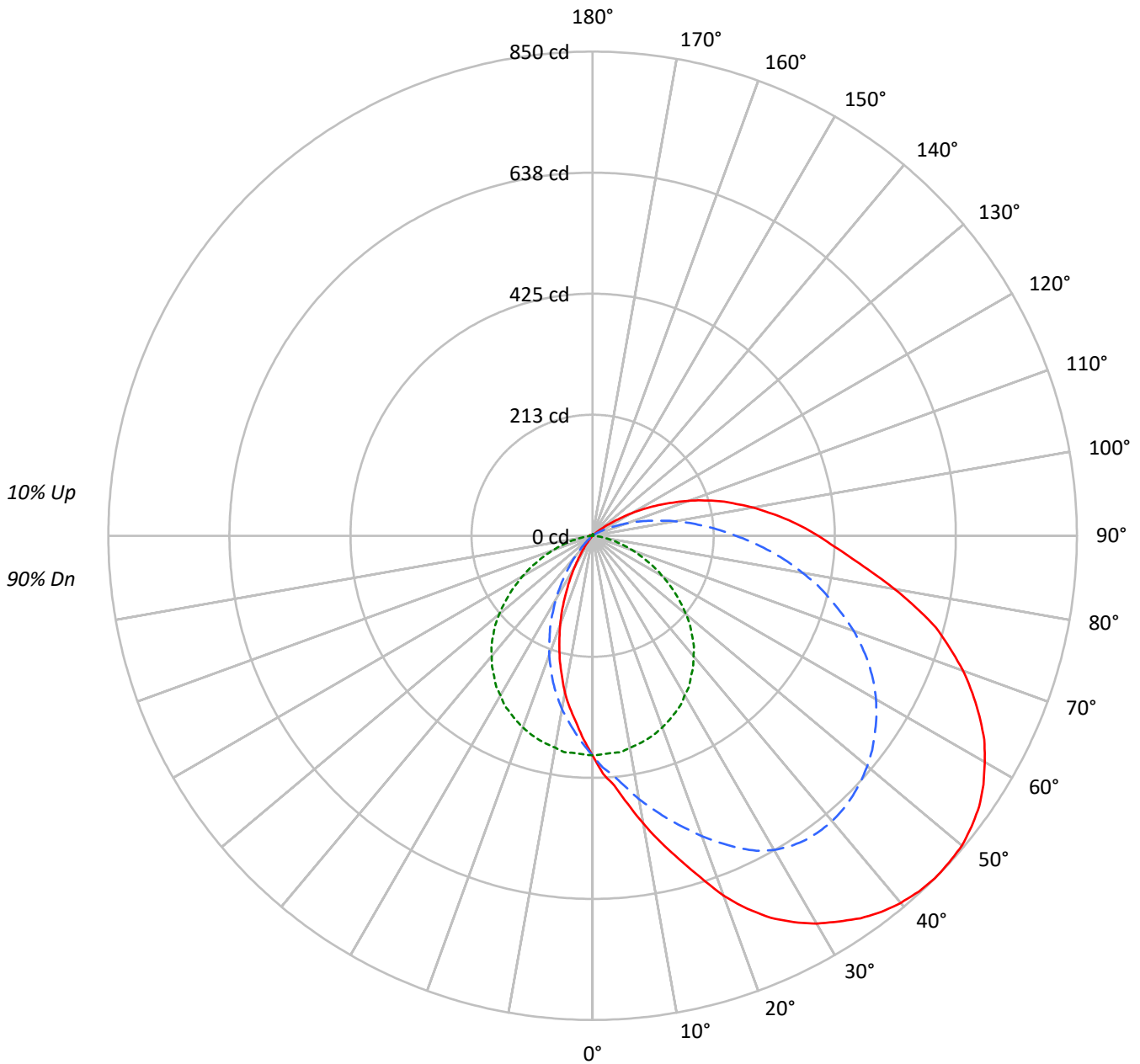
Lumens per Lamp: N/A
Luminaire Lumens: 1906.1 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
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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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-88-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	0																
RCR																																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4149	4149	4149
5°	4556	4089	3411
10°	5155	4039	2811
15°	5777	3987	2191
20°	6516	3922	1614
25°	7128	3847	1059
30°	7584	3747	597
35°	7978	3638	263
40°	8328	3504	63
45°	8627	3335	0
50°	8879	3113	0
55°	9071	2831	0
60°	9168	2502	0
65°	9206	2131	0
70°	9175	1738	0
75°	9058	1282	7
80°	8691	783	40
85°	8401	376	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	1.9
10°-20°	110.6	5.8
20°-30°	179.1	9.4
30°-40°	230.0	12.1
40°-50°	260.4	13.7
50°-60°	269.8	14.2
60°-70°	254.4	13.3
70°-80°	213.2	11.2
80°-90°	154.6	8.1
90°-100°	101.6	5.3
100°-110°	58.7	3.1
110°-120°	25.9	1.4
120°-130°	7.0	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	326.6	17.1
0°-40°	556.6	29.2
0°-60°	1086.7	57.0
0°-90°	1708.9	89.7
90°-120°	186.1	9.8
90°-150°	195.9	10.3
90°-180°	197.0	10.3
0°-180°	1906.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	386	386	386	386	386	
5°	440	423	383	347	330	44
15°	588	515	370	267	223	170
25°	740	605	343	176	110	342
35°	820	652	301	86	27	514
45°	850	646	246	20	0	656
55°	828	605	178	0	0	740
65°	749	535	106	0	0	741
75°	624	432	45	0	0	655
85°	457	313	7	2	3	390
90°	396	251	2	3	3	217
95°	340	196	1	3	4	267
105°	234	101	1	2	4	247
115°	127	34	2	2	2	127
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5	385.5
2.5°	418.0	417.5	416.0	413.5	410.1	404.2	399.3	394.9	389.0	384.1	374.7
5°	440.1	437.6	435.6	433.2	425.3	419.9	411.1	401.3	391.9	382.6	363.9
7.5°	475.4	471.5	468.5	461.7	450.9	438.6	424.8	415.5	409.1	383.1	351.2
10°	513.2	509.8	503.9	491.6	478.4	460.7	441.0	418.9	399.3	377.7	339.9
12.5°	550.6	545.6	537.3	521.6	502.9	480.8	453.8	427.8	399.8	374.2	326.6
15°	587.9	582.5	573.6	554.5	529.9	501.0	468.0	435.1	402.2	369.8	312.9
17.5°	628.6	621.3	608.0	586.4	555.5	519.6	480.8	441.0	401.3	364.4	298.1
20°	672.4	662.0	647.8	618.8	582.5	540.2	493.6	446.9	400.8	358.0	281.4
22.5°	708.7	698.4	682.7	652.7	609.0	557.4	504.4	450.9	398.8	350.7	265.7
25°	740.1	731.8	714.6	680.2	634.1	575.6	514.7	453.8	395.9	342.8	249.0
27.5°	764.7	756.8	737.7	702.3	655.2	591.8	522.6	455.3	391.9	335.0	231.8
30°	786.3	778.4	755.4	719.0	669.4	604.6	530.4	455.8	387.0	323.2	213.2
32.5°	803.0	795.6	772.1	733.3	679.2	613.4	534.8	455.3	380.6	314.8	193.0
35°	819.7	812.3	784.8	743.6	686.6	617.4	538.3	452.8	372.8	301.1	173.9
37.5°	832.5	824.1	796.1	750.4	690.0	618.3	537.8	449.4	364.4	289.8	154.7
40°	841.3	832.5	802.5	754.4	691.0	616.9	533.9	443.5	354.6	275.5	134.6
42.5°	847.2	837.4	805.5	760.3	689.1	612.9	528.0	436.1	343.8	263.2	115.4
45°	850.1	839.8	805.9	755.4	685.6	605.6	519.1	426.8	332.0	246.5	96.3
47.5°	848.7	837.4	803.5	750.0	679.2	597.7	509.3	415.5	317.8	231.8	78.1
50°	846.2	834.4	798.1	743.1	670.4	587.9	498.5	401.7	303.0	213.6	61.9
52.5°	838.4	826.6	792.2	733.3	660.1	576.6	483.8	387.5	287.3	196.0	47.1
55°	828.5	817.7	781.9	724.4	646.8	562.8	470.0	372.3	272.1	177.8	33.9
57.5°	813.3	803.5	769.1	710.2	633.6	547.6	454.8	355.6	252.9	159.6	23.6
60°	794.7	784.8	751.4	694.0	618.3	530.4	438.1	338.4	235.7	141.4	14.7
62.5°	775.0	765.7	730.8	673.8	599.2	512.2	419.9	321.2	217.6	124.7	8.8
65°	749.0	740.1	708.7	649.8	578.1	492.6	399.8	300.6	198.9	106.1	4.9
67.5°	721.5	713.6	681.7	627.7	553.5	471.0	379.2	280.4	179.3	89.9	2.5
70°	692.0	682.2	652.7	597.7	528.5	446.4	356.6	259.8	160.6	74.2	0.0
72.5°	657.6	650.3	621.8	569.7	499.5	420.4	333.5	237.2	140.0	58.9	0.5
75°	624.2	614.9	588.9	539.8	471.0	392.9	307.9	216.1	119.8	45.2	0.5
77.5°	581.0	578.1	553.5	505.9	444.0	366.4	279.9	190.6	100.7	32.4	0.5
80°	537.8	534.8	515.7	472.0	412.6	335.0	253.9	166.5	82.0	21.6	0.5
82.5°	495.1	491.1	473.0	436.6	380.6	308.4	226.9	142.4	64.8	13.3	0.5
85°	456.8	451.8	432.2	398.8	347.7	278.5	198.9	118.9	48.1	7.4	1.0
87.5°	423.8	420.4	398.8	364.4	314.3	250.5	174.4	96.3	33.9	3.4	1.5
90°	395.9	388.5	369.3	333.0	282.9	219.5	148.3	77.1	22.6	2.0	2.0
92.5°	368.3	362.0	340.8	303.5	254.9	193.0	123.3	58.9	14.2	1.0	2.5
95°	339.9	333.0	312.4	278.0	226.4	166.0	101.2	43.2	7.9	1.0	2.5
97.5°	311.9	305.5	283.9	249.5	200.9	142.4	80.1	30.5	3.9	1.0	2.0
100°	285.8	278.5	258.8	224.4	175.3	118.9	61.9	19.6	2.5	1.0	2.0
102.5°	258.3	252.4	232.3	198.9	148.8	96.8	46.2	12.3	1.0	1.0	1.5
105°	233.8	226.4	206.8	172.4	126.7	76.1	32.4	7.4	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	152.3	146.4	129.2	100.2	64.3	30.0	8.8	1.5	1.5	1.5	1.5
115°	127.2	118.4	103.1	77.6	47.6	19.6	4.4	1.5	1.5	1.5	1.5
117.5°	101.7	94.3	83.5	58.9	31.4	12.8	2.5	1.5	1.5	1.5	1.5
120°	79.6	72.7	60.4	40.8	21.1	7.4	1.0	1.5	1.5	1.5	1.5
122.5°	57.0	51.6	40.8	26.5	12.8	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.8	34.9	27.0	16.2	7.9	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.6	22.1	15.7	9.3	3.4	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.8	12.3	9.3	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.9	7.4	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	385.5	385.5	385.5
2.5°	366.9	360.0	358.0
5°	347.2	335.9	329.5
7.5°	327.6	312.4	305.0
10°	309.4	287.8	279.9
12.5°	287.8	262.8	250.5
15°	267.2	234.8	223.0
17.5°	244.1	207.7	194.0
20°	222.5	180.7	166.5
22.5°	197.9	154.2	138.5
25°	175.8	127.7	110.0
27.5°	151.3	100.7	85.5
30°	128.2	77.1	61.9
32.5°	106.1	56.5	42.7
35°	85.5	38.3	27.0
37.5°	65.8	23.6	13.8
40°	47.6	12.3	6.4
42.5°	31.9	5.9	3.4
45°	19.6	2.9	0.0
47.5°	11.3	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.5	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	2.9
87.5°	2.5	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	2.9	4.4	4.4
105°	2.5	3.4	3.9



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	206.3	200.4	180.7	148.3	103.6	58.0	21.6	3.9	1.0	1.5	1.5
110°	179.8	174.8	154.7	123.3	83.5	43.2	14.2	2.5	1.5	1.5	1.5





107.5°	2.0	2.9	3.4
110°	2.0	2.5	2.9



(END OF REPORT)