

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: P551643

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-80-86-ED1D-90**

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: P551643  
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-80-86-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

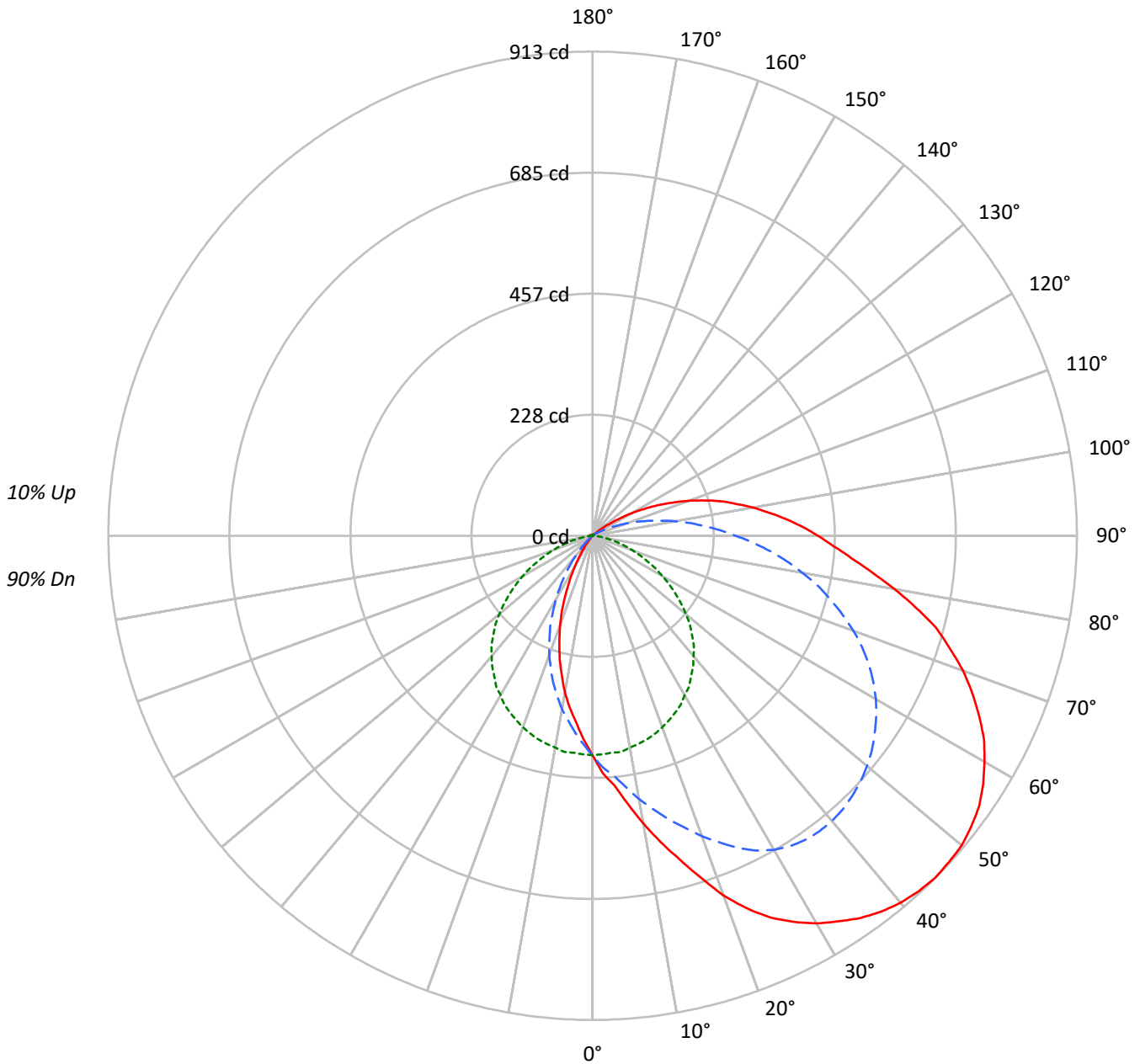
Lumens per Lamp: N/A  
Luminaire Lumens: 2046.0 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P551643

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-86-ED1D-90

### 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°	4455	4455	4455
5°	4890	4390	3663
10°	5533	4335	3018
15°	6202	4281	2353
20°	6994	4210	1732
25°	7652	4130	1137
30°	8141	4021	640
35°	8564	3905	282
40°	8939	3762	68
45°	9261	3582	0
50°	9532	3342	0
55°	9737	3038	0
60°	9841	2686	0
65°	9882	2288	0
70°	9848	1865	0
75°	9724	1375	7
80°	9330	842	42
85°	9018	402	59



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.6	1.9
10°-20°	118.7	5.8
20°-30°	192.2	9.4
30°-40°	246.9	12.1
40°-50°	279.5	13.7
50°-60°	289.6	14.2
60°-70°	273.1	13.3
70°-80°	228.9	11.2
80°-90°	165.9	8.1
90°-100°	109.0	5.3
100°-110°	63.0	3.1
110°-120°	27.8	1.4
120°-130°	7.5	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	350.6	17.1
0°-40°	597.5	29.2
0°-60°	1166.6	57.0
0°-90°	1834.4	89.7
90°-120°	199.8	9.8
90°-150°	210.2	10.3
90°-180°	212.0	10.4
0°-180°	2046.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	414	414	414	414	414	
5°	472	454	411	373	354	48
15°	631	553	397	287	239	182
25°	794	649	368	189	118	367
35°	880	700	323	92	29	552
45°	913	693	265	21	0	705
55°	889	649	191	0	0	794
65°	804	575	114	0	0	795
75°	670	464	48	0	0	703
85°	490	336	8	2	3	419
90°	425	270	2	3	4	233
95°	365	211	1	4	5	286
105°	251	109	1	3	4	265
115°	136	36	2	2	3	137
125°	41	5	2	2	2	41
135°	2	2	3	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	3	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°	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9
2.5°	448.7	448.1	446.5	443.9	440.2	433.9	428.6	423.9	417.5	412.3	402.3
5°	472.4	469.7	467.6	465.0	456.6	450.8	441.3	430.7	420.7	410.7	390.7
7.5°	510.3	506.1	503.0	495.6	484.0	470.8	456.0	446.0	439.2	411.2	377.0
10°	550.9	547.2	540.9	527.7	513.5	494.5	473.4	449.7	428.6	405.4	364.8
12.5°	591.0	585.7	576.8	559.9	539.9	516.1	487.1	459.2	429.1	401.7	350.6
15°	631.1	625.3	615.8	595.2	568.9	537.8	502.4	467.1	431.8	397.0	335.8
17.5°	674.8	666.9	652.7	629.5	596.3	557.8	516.1	473.4	430.7	391.2	320.0
20°	721.7	710.7	695.4	664.3	625.3	579.9	529.8	479.8	430.2	384.3	302.1
22.5°	760.8	749.7	732.8	700.7	653.7	598.4	541.4	484.0	428.1	376.4	285.2
25°	794.5	785.5	767.1	730.2	680.6	617.9	552.5	487.1	424.9	368.0	267.3
27.5°	820.9	812.4	791.9	753.9	703.3	635.3	560.9	488.7	420.7	359.6	248.8
30°	844.1	835.6	810.8	771.8	718.6	649.0	569.4	489.2	415.4	346.9	228.8
32.5°	862.0	854.1	828.8	787.1	729.1	658.5	574.1	488.7	408.6	337.9	207.2
35°	879.9	872.0	842.5	798.2	737.0	662.7	577.8	486.1	400.1	323.2	186.6
37.5°	893.6	884.7	854.6	805.6	740.7	663.8	577.3	482.4	391.2	311.1	166.1
40°	903.1	893.6	861.5	809.8	741.8	662.2	573.1	476.1	380.6	295.8	144.5
42.5°	909.4	898.9	864.6	816.1	739.7	658.0	566.7	468.2	369.0	282.6	123.9
45°	912.6	901.5	865.1	810.8	736.0	650.0	557.3	458.1	356.4	264.7	103.3
47.5°	911.0	898.9	862.5	805.0	729.1	641.6	546.7	446.0	341.1	248.8	83.8
50°	908.4	895.7	856.7	797.7	719.6	631.1	535.1	431.3	325.3	229.3	66.4
52.5°	899.9	887.3	850.4	787.1	708.6	618.9	519.3	416.0	308.4	210.4	50.6
55°	889.4	877.8	839.3	777.6	694.3	604.2	504.5	399.6	292.1	190.8	36.4
57.5°	873.1	862.5	825.6	762.3	680.1	587.8	488.2	381.7	271.5	171.3	25.3
60°	853.0	842.5	806.6	744.9	663.8	569.4	470.3	363.2	253.1	151.8	15.8
62.5°	831.9	821.9	784.5	723.3	643.2	549.9	450.8	344.8	233.6	133.9	9.5
65°	804.0	794.5	760.8	697.5	620.5	528.8	429.1	322.7	213.5	113.9	5.3
67.5°	774.5	766.0	731.8	673.8	594.2	505.6	407.0	301.0	192.4	96.5	2.6
70°	742.8	732.3	700.7	641.6	567.3	479.2	382.8	278.9	172.4	79.6	0.0
72.5°	705.9	698.0	667.4	611.6	536.2	451.3	358.0	254.6	150.3	63.3	0.5
75°	670.1	660.1	632.1	579.4	505.6	421.8	330.6	232.0	128.6	48.5	0.5
77.5°	623.7	620.5	594.2	543.0	476.6	393.3	300.5	204.6	108.1	34.8	0.5
80°	577.3	574.1	553.6	506.6	442.9	359.6	272.6	178.7	88.0	23.2	0.5
82.5°	531.4	527.2	507.7	468.7	408.6	331.1	243.6	152.9	69.6	14.2	0.5
85°	490.3	485.0	463.9	428.1	373.3	298.9	213.5	127.6	51.7	7.9	1.1
87.5°	455.0	451.3	428.1	391.2	337.4	268.9	187.2	103.3	36.4	3.7	1.6
90°	424.9	417.0	396.5	357.4	303.7	235.7	159.2	82.8	24.3	2.1	2.1
92.5°	395.4	388.6	365.9	325.8	273.6	207.2	132.3	63.3	15.3	1.1	2.6
95°	364.8	357.4	335.3	298.4	243.0	178.2	108.6	46.4	8.4	1.1	2.6
97.5°	334.8	327.9	304.7	267.8	215.6	152.9	85.9	32.7	4.2	1.1	2.1
100°	306.8	298.9	277.8	240.9	188.2	127.6	66.4	21.1	2.6	1.1	2.1
102.5°	277.3	271.0	249.4	213.5	159.7	103.9	49.6	13.2	1.1	1.1	1.6
105°	251.0	243.0	222.0	185.0	136.0	81.7	34.8	7.9	1.1	1.1	1.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	163.4	157.1	138.7	107.6	69.1	32.2	9.5	1.6	1.6	1.6	1.6
115°	136.5	127.1	110.7	83.3	51.1	21.1	4.7	1.6	1.6	1.6	1.6
117.5°	109.1	101.2	89.6	63.3	33.7	13.7	2.6	1.6	1.6	1.6	1.6
120°	85.4	78.0	64.8	43.8	22.7	7.9	1.1	1.6	1.6	1.6	1.6
122.5°	61.2	55.4	43.8	28.5	13.7	3.7	1.6	1.6	2.1	2.1	1.6
125°	40.6	37.4	29.0	17.4	8.4	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.4	23.7	16.9	10.0	3.7	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.8	13.2	10.0	5.8	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.4	7.9	5.3	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.6
172.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	413.9	413.9	413.9
2.5°	393.8	386.4	384.3
5°	372.7	360.6	353.8
7.5°	351.6	335.3	327.4
10°	332.1	308.9	300.5
12.5°	308.9	282.1	268.9
15°	286.8	252.0	239.4
17.5°	262.0	223.0	208.2
20°	238.8	194.0	178.7
22.5°	212.5	165.5	148.7
25°	188.7	137.1	118.1
27.5°	162.4	108.1	91.7
30°	137.6	82.8	66.4
32.5°	113.9	60.6	45.9
35°	91.7	41.1	29.0
37.5°	70.6	25.3	14.8
40°	51.1	13.2	6.9
42.5°	34.3	6.3	3.7
45°	21.1	3.2	0.0
47.5°	12.1	0.0	0.0
50°	6.3	0.0	0.0
52.5°	2.6	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	1.1	1.6
80°	1.1	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.2
87.5°	2.6	3.2	3.7
90°	3.2	3.7	3.7
92.5°	3.2	4.2	4.2
95°	3.7	4.2	4.7
97.5°	4.2	4.7	4.7
100°	3.7	4.7	5.3
102.5°	3.2	4.7	4.7
105°	2.6	3.7	4.2





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.6	2.1	2.6
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.1	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	221.4	215.1	194.0	159.2	111.2	62.2	23.2	4.2	1.1	1.6	1.6
110°	193.0	187.7	166.1	132.3	89.6	46.4	15.3	2.6	1.6	1.6	1.6







107.5°	2.1	3.2	3.7
110°	2.1	2.6	3.2



(END OF REPORT)