

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: P551594

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-85-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: P551594  
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-40-UNV-81-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

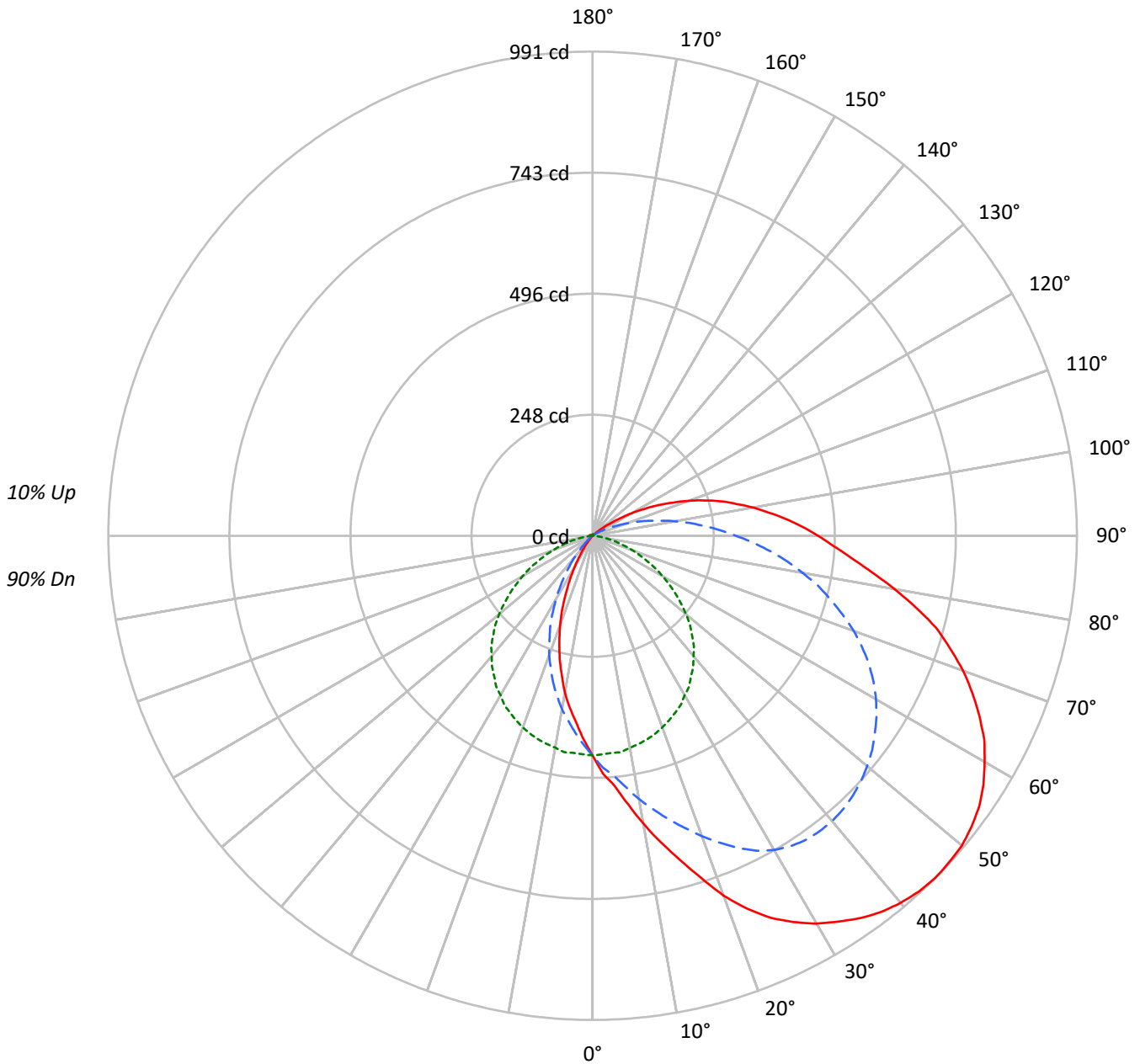
Lumens per Lamp: N/A  
Luminaire Lumens: 2222.0 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551594

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-85-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°	4838	4838	4838
5°	5311	4767	3977
10°	6010	4709	3278
15°	6735	4648	2554
20°	7596	4573	1881
25°	8310	4485	1236
30°	8841	4367	695
35°	9301	4241	307
40°	9708	4085	73
45°	10058	3889	0
50°	10351	3631	0
55°	10575	3301	0
60°	10688	2918	0
65°	10731	2485	0
70°	10695	2026	0
75°	10560	1495	9
80°	10131	914	47
85°	9794	437	63



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.1	1.9
10°-20°	128.9	5.8
20°-30°	208.8	9.4
30°-40°	268.2	12.1
40°-50°	303.6	13.7
50°-60°	314.5	14.2
60°-70°	296.6	13.3
70°-80°	248.6	11.2
80°-90°	180.2	8.1
90°-100°	118.4	5.3
100°-110°	68.4	3.1
110°-120°	30.2	1.4
120°-130°	8.2	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	380.7	17.1
0°-40°	648.9	29.2
0°-60°	1266.9	57.0
0°-90°	1992.2	89.7
90°-120°	217.0	9.8
90°-150°	228.2	10.3
90°-180°	230.0	10.4
0°-180°	2222.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	450	450	450	450	450	
5°	513	493	446	405	384	52
15°	685	601	431	312	260	198
25°	863	705	400	205	128	399
35°	956	760	351	100	32	599
45°	991	753	287	23	0	765
55°	966	705	207	0	0	863
65°	873	624	124	0	0	864
75°	728	504	53	1	1	763
85°	532	365	9	2	3	455
90°	462	293	2	3	4	253
95°	396	229	1	4	5	311
105°	272	118	1	3	5	288
115°	148	39	2	2	3	149
125°	44	5	2	2	2	44
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	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°	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5	449.5
2.5°	487.2	486.7	485.0	482.1	478.1	471.2	465.5	460.3	453.5	447.7	436.9
5°	513.0	510.1	507.9	505.0	495.8	489.5	479.2	467.8	456.9	446.0	424.3
7.5°	554.2	549.7	546.2	538.2	525.6	511.3	495.3	484.4	476.9	446.6	409.4
10°	598.3	594.3	587.4	573.1	557.7	537.1	514.2	488.4	465.5	440.3	396.2
12.5°	641.8	636.1	626.4	608.1	586.3	560.5	529.0	498.7	466.1	436.3	380.8
15°	685.4	679.1	668.7	646.4	617.8	584.0	545.6	507.3	468.9	431.1	364.7
17.5°	732.9	724.3	708.8	683.6	647.6	605.8	560.5	514.2	467.8	424.8	347.5
20°	783.8	771.8	755.2	721.4	679.1	629.8	575.4	521.0	467.2	417.4	328.1
22.5°	826.2	814.2	795.9	760.9	710.0	649.9	588.0	525.6	464.9	408.8	309.8
25°	862.8	853.1	833.1	793.0	739.2	671.0	600.0	529.0	461.5	399.6	290.3
27.5°	891.5	882.3	860.0	818.8	763.8	689.9	609.2	530.8	456.9	390.5	270.2
30°	916.7	907.5	880.6	838.2	780.4	704.8	618.4	531.3	451.2	376.7	248.5
32.5°	936.1	927.5	900.1	854.8	791.8	715.1	623.5	530.8	443.7	367.0	225.0
35°	955.6	947.0	914.9	866.9	800.4	719.7	627.5	527.9	434.6	351.0	202.7
37.5°	970.5	960.8	928.1	874.9	804.4	720.8	626.9	523.9	424.8	337.8	180.4
40°	980.8	970.5	935.6	879.4	805.6	719.1	622.4	517.0	413.4	321.2	156.9
42.5°	987.7	976.2	939.0	886.3	803.3	714.6	615.5	508.4	400.8	306.9	134.6
45°	991.1	979.1	939.6	880.6	799.3	706.0	605.2	497.6	387.0	287.4	112.2
47.5°	989.4	976.2	936.7	874.3	791.8	696.8	593.7	484.4	370.4	270.2	91.0
50°	986.5	972.8	930.4	866.3	781.5	685.4	581.1	468.4	353.3	249.1	72.1
52.5°	977.4	963.6	923.5	854.8	769.5	672.2	564.0	451.7	334.9	228.5	55.0
55°	965.9	953.3	911.5	844.5	754.1	656.2	547.9	434.0	317.2	207.3	39.5
57.5°	948.2	936.7	896.6	827.9	738.6	638.4	530.2	414.5	294.9	186.1	27.5
60°	926.4	914.9	876.0	809.0	720.8	618.4	510.7	394.5	274.8	164.9	17.2
62.5°	903.5	892.6	852.0	785.5	698.5	597.2	489.5	374.5	253.6	145.4	10.3
65°	873.1	862.8	826.2	757.5	673.9	574.3	466.1	350.4	231.9	123.7	5.7
67.5°	841.1	831.9	794.7	731.7	645.3	549.1	442.0	326.9	209.0	104.8	2.9
70°	806.7	795.3	760.9	696.8	616.1	520.5	415.7	302.9	187.2	86.5	0.0
72.5°	766.7	758.1	724.9	664.2	582.3	490.1	388.8	276.5	163.2	68.7	0.6
75°	727.7	716.8	686.5	629.2	549.1	458.0	359.0	251.9	139.7	52.7	0.6
77.5°	677.3	673.9	645.3	589.7	517.6	427.1	326.4	222.2	117.4	37.8	0.6
80°	626.9	623.5	601.2	550.2	480.9	390.5	296.0	194.1	95.6	25.2	0.6
82.5°	577.1	572.6	551.4	509.0	443.7	359.6	264.5	166.0	75.6	15.5	0.6
85°	532.5	526.8	503.9	464.9	405.4	324.6	231.9	138.6	56.1	8.6	1.1
87.5°	494.1	490.1	464.9	424.8	366.4	292.0	203.3	112.2	39.5	4.0	1.7
90°	461.5	452.9	430.6	388.2	329.8	255.9	172.9	89.9	26.3	2.3	2.3
92.5°	429.4	422.0	397.4	353.8	297.2	225.0	143.7	68.7	16.6	1.1	2.9
95°	396.2	388.2	364.1	324.1	263.9	193.5	117.9	50.4	9.2	1.1	2.9
97.5°	363.6	356.1	330.9	290.9	234.2	166.0	93.3	35.5	4.6	1.1	2.3
100°	333.2	324.6	301.7	261.7	204.4	138.6	72.1	22.9	2.9	1.1	2.3
102.5°	301.2	294.3	270.8	231.9	173.5	112.8	53.8	14.3	1.1	1.1	1.7
105°	272.5	263.9	241.0	201.0	147.7	88.7	37.8	8.6	1.1	1.1	1.7



TEST NUMBER: P551594

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	177.5	170.6	150.6	116.8	75.0	34.9	10.3	1.7	1.7	1.7	1.7
115°	148.3	138.0	120.2	90.5	55.5	22.9	5.2	1.7	1.7	1.7	1.7
117.5°	118.5	109.9	97.3	68.7	36.6	14.9	2.9	1.7	1.7	1.7	1.7
120°	92.8	84.7	70.4	47.5	24.6	8.6	1.1	1.7	1.7	1.7	1.7
122.5°	66.4	60.1	47.5	30.9	14.9	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.1	40.7	31.5	18.9	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.6	25.8	18.3	10.9	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.0	14.3	10.9	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	8.6	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	449.5	449.5	449.5
2.5°	427.7	419.7	417.4
5°	404.8	391.6	384.2
7.5°	381.9	364.1	355.6
10°	360.7	335.5	326.4
12.5°	335.5	306.3	292.0
15°	311.5	273.7	259.9
17.5°	284.6	242.2	226.2
20°	259.4	210.7	194.1
22.5°	230.7	179.8	161.5
25°	205.0	148.9	128.3
27.5°	176.3	117.4	99.6
30°	149.4	89.9	72.1
32.5°	123.7	65.8	49.8
35°	99.6	44.7	31.5
37.5°	76.7	27.5	16.0
40°	55.5	14.3	7.4
42.5°	37.2	6.9	4.0
45°	22.9	3.4	0.0
47.5°	13.2	0.0	0.0
50°	6.9	0.0	0.0
52.5°	2.9	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.4
87.5°	2.9	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.6	4.6
95°	4.0	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.0	5.2	5.7
102.5°	3.4	5.2	5.2
105°	2.9	4.0	4.6





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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	240.5	233.6	210.7	172.9	120.8	67.6	25.2	4.6	1.1	1.7	1.7
110°	209.6	203.8	180.4	143.7	97.3	50.4	16.6	2.9	1.7	1.7	1.7







107.5°	2.3	3.4	4.0
110°	2.3	2.9	3.4



(END OF REPORT)