

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: P551512

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-80-84-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: P551512  
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-35-UNV-80-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

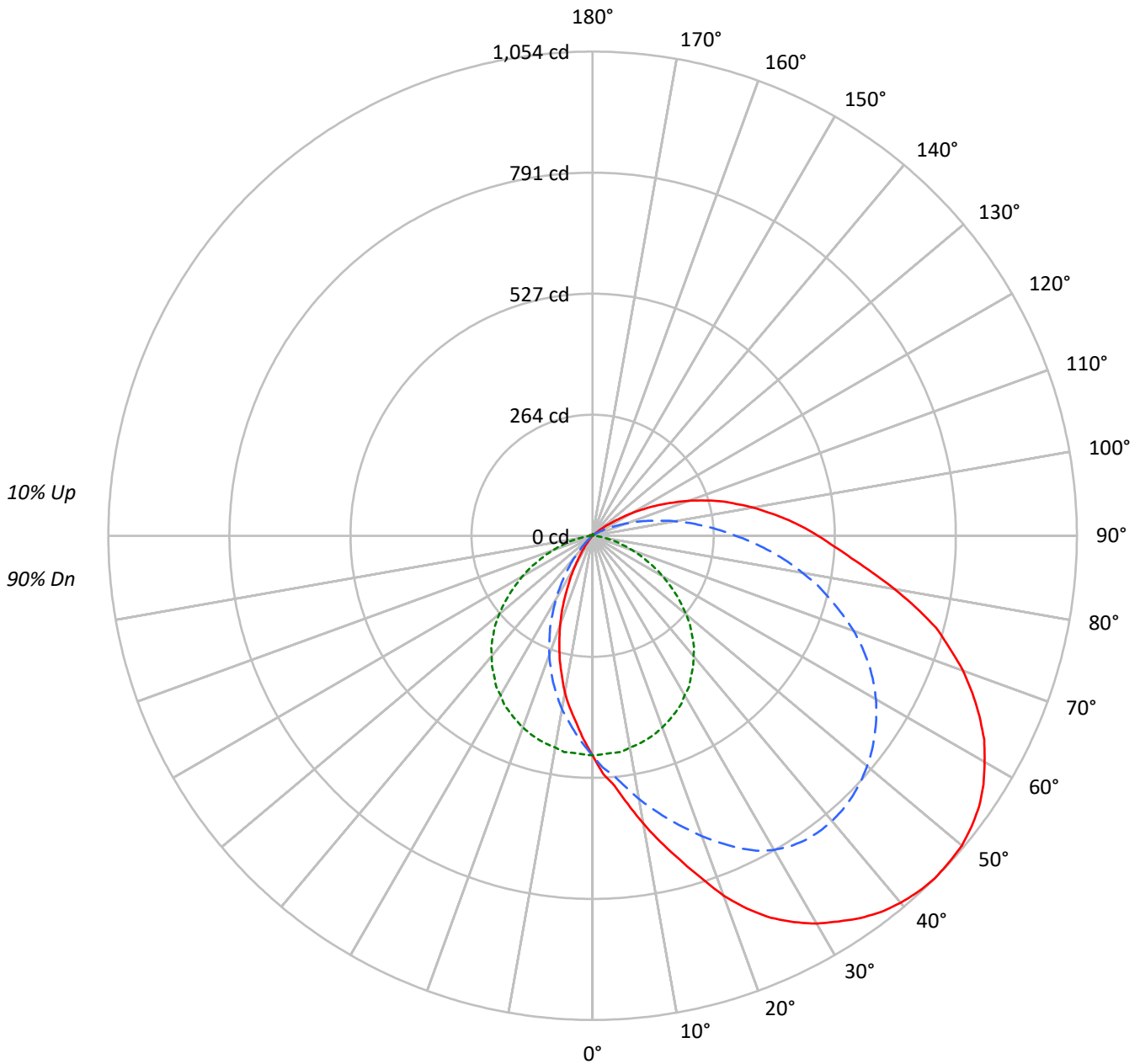
Lumens per Lamp: N/A  
Luminaire Lumens: 2362.9 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551512

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-80-84-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	5145	5145	5145
5°	5648	5069	4230
10°	6391	5007	3486
15°	7162	4944	2716
20°	8078	4863	2000
25°	8838	4770	1314
30°	9402	4644	740
35°	9890	4509	326
40°	10324	4344	78
45°	10696	4136	0
50°	11008	3861	0
55°	11246	3510	0
60°	11366	3104	0
65°	11413	2641	0
70°	11374	2153	0
75°	11230	1588	9
80°	10774	972	48
85°	10415	463	68



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.8	1.9
10°-20°	137.1	5.8
20°-30°	222.0	9.4
30°-40°	285.2	12.1
40°-50°	322.8	13.7
50°-60°	334.4	14.2
60°-70°	315.4	13.3
70°-80°	264.3	11.2
80°-90°	191.6	8.1
90°-100°	125.9	5.3
100°-110°	72.7	3.1
110°-120°	32.1	1.4
120°-130°	8.7	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	404.9	17.1
0°-40°	690.0	29.2
0°-60°	1347.3	57.0
0°-90°	2118.6	89.7
90°-120°	230.7	9.8
90°-150°	242.7	10.3
90°-180°	244.0	10.3
0°-180°	2362.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	478	478	478	478	478	
5°	546	524	474	430	409	55
15°	729	639	458	331	276	210
25°	918	750	425	218	136	424
35°	1016	808	373	106	34	637
45°	1054	800	306	24	0	814
55°	1027	750	220	0	0	917
65°	929	664	132	0	0	919
75°	774	536	56	1	1	812
85°	566	388	9	2	4	484
90°	491	311	2	4	4	269
95°	421	243	1	4	6	331
105°	290	126	1	3	5	306
115°	158	42	2	2	3	158
125°	47	6	2	2	2	47
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°	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0
2.5°	518.2	517.6	515.7	512.7	508.4	501.1	495.0	489.5	482.2	476.2	464.6
5°	545.6	542.5	540.1	537.0	527.3	520.6	509.6	497.5	485.9	474.3	451.2
7.5°	589.4	584.5	580.9	572.4	559.0	543.7	526.7	515.1	507.2	474.9	435.4
10°	636.3	632.0	624.7	609.5	593.1	571.1	546.8	519.4	495.0	468.2	421.4
12.5°	682.6	676.5	666.1	646.6	623.5	596.1	562.6	530.3	495.6	464.0	404.9
15°	728.8	722.1	711.2	687.4	657.0	621.1	580.3	539.5	498.7	458.5	387.9
17.5°	779.4	770.2	753.8	727.0	688.7	644.2	596.1	546.8	497.5	451.8	369.6
20°	833.6	820.8	803.1	767.2	722.1	669.8	611.9	554.1	496.9	443.9	348.9
22.5°	878.6	865.8	846.4	809.2	755.0	691.1	625.3	559.0	494.4	434.7	329.4
25°	917.6	907.2	885.9	843.3	786.1	713.6	638.1	562.6	490.8	425.0	308.7
27.5°	948.0	938.3	914.6	870.7	812.3	733.7	647.9	564.4	485.9	415.3	287.4
30°	974.8	965.1	936.5	891.4	829.9	749.5	657.6	565.0	479.8	400.6	264.3
32.5°	995.5	986.4	957.2	909.1	842.1	760.5	663.1	564.4	471.9	390.3	239.3
35°	1016.2	1007.1	973.0	921.9	851.2	765.4	667.3	561.4	462.1	373.2	215.5
37.5°	1032.1	1021.7	987.0	930.4	855.5	766.6	666.7	557.1	451.8	359.2	191.8
40°	1043.0	1032.1	994.9	935.3	856.7	764.8	661.9	549.8	439.6	341.6	166.8
42.5°	1050.3	1038.2	998.6	942.6	854.3	759.9	654.6	540.7	426.2	326.4	143.1
45°	1054.0	1041.2	999.2	936.5	850.0	750.8	643.6	529.1	411.6	305.7	119.3
47.5°	1052.2	1038.2	996.1	929.8	842.1	741.0	631.4	515.1	394.0	287.4	96.8
50°	1049.1	1034.5	989.4	921.2	831.1	728.8	618.0	498.1	375.7	264.9	76.7
52.5°	1039.4	1024.8	982.1	909.1	818.3	714.8	599.8	480.4	356.2	242.9	58.5
55°	1027.2	1013.8	969.4	898.1	801.9	697.8	582.7	461.5	337.3	220.4	42.0
57.5°	1008.3	996.1	953.5	880.5	785.5	678.9	563.8	440.8	313.6	197.9	29.2
60°	985.2	973.0	931.6	860.4	766.6	657.6	543.1	419.5	292.3	175.4	18.3
62.5°	960.8	949.3	906.0	835.4	742.8	635.1	520.6	398.2	269.7	154.7	11.0
65°	928.6	917.6	878.6	805.6	716.7	610.7	495.6	372.6	246.6	131.5	6.1
67.5°	894.5	884.7	845.1	778.2	686.2	583.9	470.1	347.7	222.2	111.4	3.0
70°	857.9	845.7	809.2	741.0	655.2	553.5	442.1	322.1	199.1	91.9	0.0
72.5°	815.3	806.2	770.9	706.3	619.2	521.2	413.4	294.1	173.5	73.1	0.6
75°	773.9	762.3	730.1	669.2	583.9	487.1	381.8	267.9	148.6	56.0	0.6
77.5°	720.3	716.7	686.2	627.2	550.4	454.2	347.1	236.2	124.8	40.2	0.6
80°	666.7	663.1	639.3	585.1	511.5	415.3	314.8	206.4	101.7	26.8	0.6
82.5°	613.8	608.9	586.4	541.3	471.9	382.4	281.3	176.6	80.4	16.4	0.6
85°	566.3	560.2	535.8	494.4	431.1	345.2	246.6	147.4	59.7	9.1	1.2
87.5°	525.5	521.2	494.4	451.8	389.7	310.5	216.2	119.3	42.0	4.3	1.8
90°	490.8	481.6	457.9	412.8	350.7	272.2	183.9	95.6	28.0	2.4	2.4
92.5°	456.7	448.8	422.6	376.3	316.0	239.3	152.8	73.1	17.7	1.2	3.0
95°	421.4	412.8	387.3	344.6	280.7	205.8	125.4	53.6	9.7	1.2	3.0
97.5°	386.6	378.7	351.9	309.3	249.0	176.6	99.2	37.8	4.9	1.2	2.4
100°	354.4	345.2	320.9	278.3	217.4	147.4	76.7	24.4	3.0	1.2	2.4
102.5°	320.3	313.0	288.0	246.6	184.5	120.0	57.2	15.2	1.2	1.2	1.8
105°	289.8	280.7	256.3	213.7	157.1	94.4	40.2	9.1	1.2	1.2	1.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	188.8	181.4	160.1	124.2	79.8	37.1	11.0	1.8	1.8	1.8	1.8
115°	157.7	146.7	127.9	96.2	59.1	24.4	5.5	1.8	1.8	1.8	1.8
117.5°	126.0	116.9	103.5	73.1	39.0	15.8	3.0	1.8	1.8	1.8	1.8
120°	98.6	90.1	74.9	50.5	26.2	9.1	1.2	1.8	1.8	1.8	1.8
122.5°	70.6	63.9	50.5	32.9	15.8	4.3	1.8	1.8	2.4	2.4	1.8
125°	46.9	43.2	33.5	20.1	9.7	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	30.4	27.4	19.5	11.6	4.3	1.8	1.8	2.4	2.4	2.4	1.8
130°	17.0	15.2	11.6	6.7	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.7	9.1	6.1	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	478.0	478.0	478.0
2.5°	454.8	446.3	443.9
5°	430.5	416.5	408.6
7.5°	406.1	387.3	378.1
10°	383.6	356.8	347.1
12.5°	356.8	325.8	310.5
15°	331.2	291.0	276.4
17.5°	302.6	257.6	240.5
20°	275.8	224.1	206.4
22.5°	245.4	191.2	171.7
25°	218.0	158.3	136.4
27.5°	187.5	124.8	105.9
30°	158.9	95.6	76.7
32.5°	131.5	70.0	53.0
35°	105.9	47.5	33.5
37.5°	81.6	29.2	17.0
40°	59.1	15.2	7.9
42.5°	39.6	7.3	4.3
45°	24.4	3.7	0.0
47.5°	14.0	0.0	0.0
50°	7.3	0.0	0.0
52.5°	3.0	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	1.2	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.7
87.5°	3.0	3.7	4.3
90°	3.7	4.3	4.3
92.5°	3.7	4.9	4.9
95°	4.3	4.9	5.5
97.5°	4.9	5.5	5.5
100°	4.3	5.5	6.1
102.5°	3.7	5.5	5.5
105°	3.0	4.3	4.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	255.7	248.4	224.1	183.9	128.5	71.8	26.8	4.9	1.2	1.8	1.8
110°	222.9	216.8	191.8	152.8	103.5	53.6	17.7	3.0	1.8	1.8	1.8







107.5°	2.4	3.7	4.3
110°	2.4	3.0	3.7



(END OF REPORT)