

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: P551588

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-96-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: P551588  
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-80-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

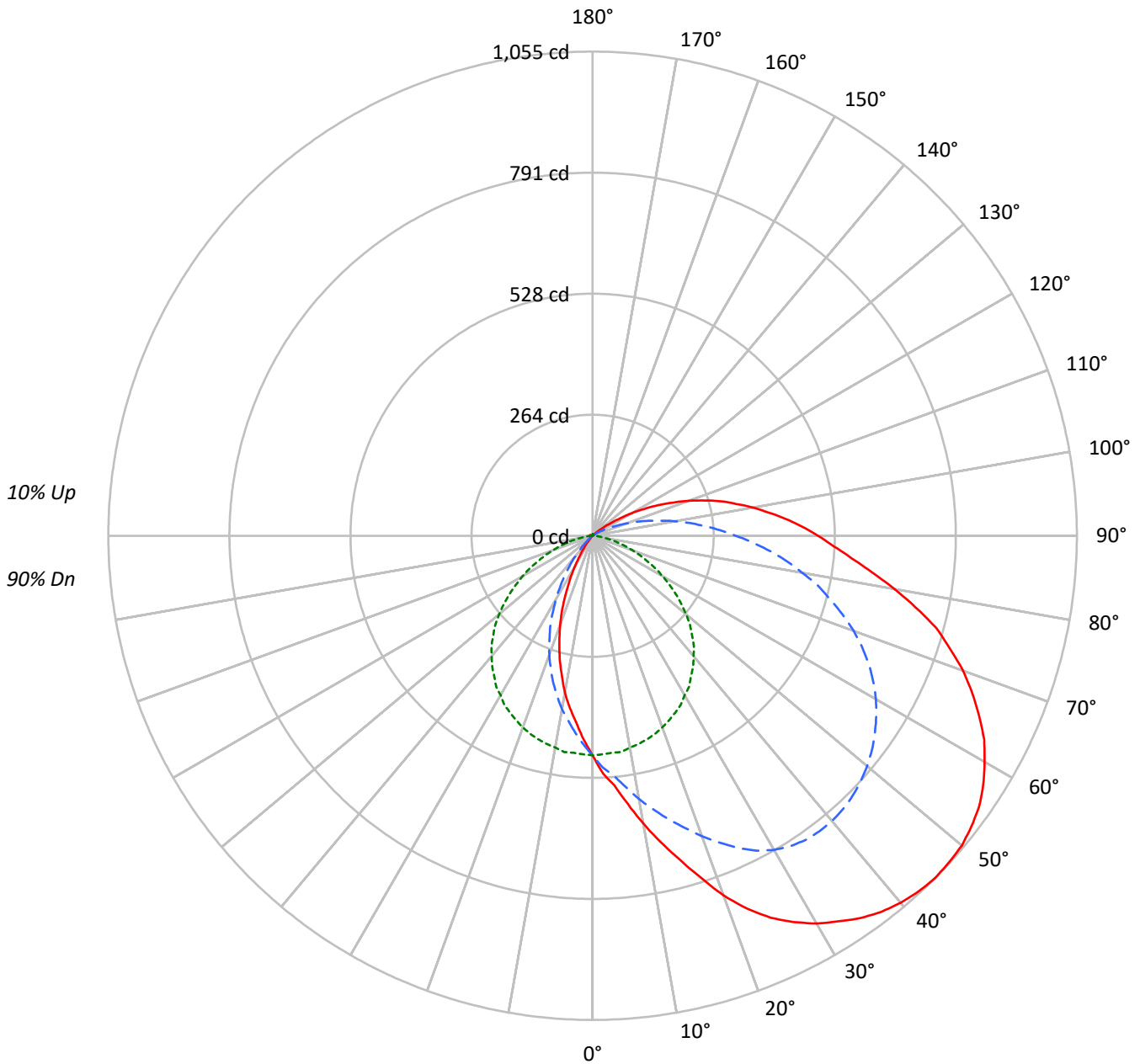
Lumens per Lamp: N/A  
Luminaire Lumens: 2364.9 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (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: P551588

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-96-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°	5149	5149	5149
5°	5652	5074	4233
10°	6396	5011	3489
15°	7169	4948	2719
20°	8085	4868	2002
25°	8845	4774	1315
30°	9410	4649	741
35°	9899	4514	326
40°	10333	4348	78
45°	10705	4139	0
50°	11018	3864	0
55°	11256	3513	0
60°	11375	3106	0
65°	11422	2643	0
70°	11385	2155	0
75°	11240	1591	9
80°	10784	972	48
85°	10423	463	68



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.8	1.9
10°-20°	137.2	5.8
20°-30°	222.2	9.4
30°-40°	285.4	12.1
40°-50°	323.1	13.7
50°-60°	334.7	14.2
60°-70°	315.7	13.3
70°-80°	264.5	11.2
80°-90°	191.7	8.1
90°-100°	126.0	5.3
100°-110°	72.8	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°	405.2	17.1
0°-40°	690.6	29.2
0°-60°	1348.4	57.0
0°-90°	2120.4	89.7
90°-120°	230.9	9.8
90°-150°	242.8	10.3
90°-180°	244.0	10.3
0°-180°	2364.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	478	478	478	478	478	
5°	546	524	475	431	409	55
15°	730	640	459	332	277	210
25°	918	750	425	218	136	424
35°	1017	809	374	106	34	638
45°	1055	801	306	24	0	814
55°	1028	750	221	0	0	918
65°	929	664	132	0	0	919
75°	775	536	56	1	1	812
85°	567	388	9	2	4	484
90°	491	312	2	4	4	269
95°	422	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°	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4	478.4
2.5°	518.6	518.0	516.2	513.1	508.9	501.5	495.4	490.0	482.6	476.6	465.0
5°	546.0	543.0	540.5	537.5	527.7	521.0	510.1	497.9	486.3	474.7	451.6
7.5°	589.9	585.0	581.4	572.8	559.4	544.2	527.1	515.6	507.6	475.3	435.7
10°	636.8	632.6	625.2	610.0	593.6	571.6	547.2	519.8	495.4	468.6	421.7
12.5°	683.1	677.0	666.7	647.2	624.0	596.6	563.1	530.8	496.1	464.4	405.3
15°	729.5	722.8	711.8	688.0	657.5	621.6	580.8	539.9	499.1	458.9	388.2
17.5°	780.0	770.9	754.4	727.6	689.2	644.8	596.6	547.2	497.9	452.2	369.9
20°	834.3	821.5	803.8	767.8	722.8	670.3	612.5	554.6	497.3	444.3	349.2
22.5°	879.4	866.6	847.1	809.9	755.7	691.7	625.9	559.4	494.8	435.1	329.7
25°	918.4	908.0	886.7	844.0	786.7	714.2	638.7	563.1	491.2	425.4	309.0
27.5°	948.8	939.1	915.3	871.4	812.9	734.3	648.4	564.9	486.3	415.6	287.6
30°	975.7	965.9	937.3	892.2	830.6	750.2	658.2	565.5	480.2	401.0	264.5
32.5°	996.4	987.2	958.0	909.8	842.8	761.1	663.6	564.9	472.3	390.6	239.5
35°	1017.1	1008.0	973.8	922.6	851.9	766.0	667.9	561.9	462.5	373.6	215.7
37.5°	1032.9	1022.6	987.8	931.2	856.2	767.2	667.3	557.6	452.2	359.5	192.0
40°	1043.9	1032.9	995.8	936.0	857.4	765.4	662.4	550.3	440.0	341.9	167.0
42.5°	1051.2	1039.0	999.4	943.4	855.0	760.5	655.1	541.2	426.6	326.6	143.2
45°	1054.9	1042.1	1000.0	937.3	850.7	751.4	644.1	529.6	412.0	305.9	119.4
47.5°	1053.1	1039.0	997.0	930.6	842.8	741.6	632.0	515.6	394.3	287.6	96.9
50°	1050.0	1035.4	990.3	922.0	831.8	729.5	618.5	498.5	376.0	265.1	76.8
52.5°	1040.3	1025.6	983.0	909.8	819.0	715.4	600.3	480.8	356.5	243.2	58.5
55°	1028.1	1014.7	970.2	898.9	802.6	698.4	583.2	461.9	337.6	220.6	42.0
57.5°	1009.2	997.0	954.3	881.2	786.1	679.5	564.3	441.2	313.8	198.1	29.3
60°	986.0	973.8	932.4	861.1	767.2	658.2	543.6	419.9	292.5	175.5	18.3
62.5°	961.6	950.1	906.8	836.1	743.5	635.6	521.0	398.6	270.0	154.8	11.0
65°	929.3	918.4	879.4	806.2	717.3	611.2	496.1	373.0	246.8	131.6	6.1
67.5°	895.2	885.5	845.9	778.8	686.8	584.4	470.5	348.0	222.4	111.5	3.0
70°	858.7	846.5	809.9	741.6	655.7	553.9	442.4	322.4	199.3	92.0	0.0
72.5°	816.0	806.9	771.5	706.9	619.8	521.7	413.8	294.3	173.7	73.1	0.6
75°	774.6	763.0	730.7	669.7	584.4	487.5	382.1	268.1	148.7	56.1	0.6
77.5°	720.9	717.3	686.8	627.7	550.9	454.6	347.4	236.4	124.9	40.2	0.6
80°	667.3	663.6	639.9	585.6	511.9	415.6	315.1	206.6	101.8	26.8	0.6
82.5°	614.3	609.4	586.9	541.8	472.3	382.7	281.5	176.7	80.4	16.5	0.6
85°	566.7	560.7	536.3	494.8	431.5	345.5	246.8	147.5	59.7	9.1	1.2
87.5°	525.9	521.7	494.8	452.2	390.0	310.8	216.3	119.4	42.0	4.3	1.8
90°	491.2	482.0	458.3	413.2	351.0	272.4	184.0	95.7	28.0	2.4	2.4
92.5°	457.1	449.1	422.9	376.6	316.3	239.5	153.0	73.1	17.7	1.2	3.0
95°	421.7	413.2	387.6	344.9	280.9	206.0	125.5	53.6	9.8	1.2	3.0
97.5°	387.0	379.0	352.2	309.6	249.2	176.7	99.3	37.8	4.9	1.2	2.4
100°	354.7	345.5	321.2	278.5	217.6	147.5	76.8	24.4	3.0	1.2	2.4
102.5°	320.5	313.2	288.2	246.8	184.6	120.1	57.3	15.2	1.2	1.2	1.8
105°	290.1	280.9	256.6	213.9	157.2	94.5	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°	188.9	181.6	160.3	124.3	79.8	37.2	11.0	1.8	1.8	1.8	1.8
115°	157.8	146.9	128.0	96.3	59.1	24.4	5.5	1.8	1.8	1.8	1.8
117.5°	126.1	117.0	103.6	73.1	39.0	15.8	3.0	1.8	1.8	1.8	1.8
120°	98.7	90.2	75.0	50.6	26.2	9.1	1.2	1.8	1.8	1.8	1.8
122.5°	70.7	64.0	50.6	32.9	15.8	4.3	1.8	1.8	2.4	2.4	1.8
125°	46.9	43.3	33.5	20.1	9.8	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	30.5	27.4	19.5	11.6	4.3	1.8	1.8	2.4	2.4	2.4	1.8
130°	17.1	15.2	11.6	6.7	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.8	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°	478.4	478.4	478.4
2.5°	455.2	446.7	444.3
5°	430.8	416.8	408.9
7.5°	406.5	387.6	378.4
10°	383.9	357.1	347.4
12.5°	357.1	326.0	310.8
15°	331.5	291.3	276.7
17.5°	302.9	257.8	240.7
20°	276.1	224.3	206.6
22.5°	245.6	191.4	171.9
25°	218.2	158.4	136.5
27.5°	187.7	124.9	106.0
30°	159.1	95.7	76.8
32.5°	131.6	70.1	53.0
35°	106.0	47.5	33.5
37.5°	81.7	29.3	17.1
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°	255.9	248.6	224.3	184.0	128.6	71.9	26.8	4.9	1.2	1.8	1.8
110°	223.0	216.9	192.0	153.0	103.6	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)