

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: P551604

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-96-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: P551604  
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-81-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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**

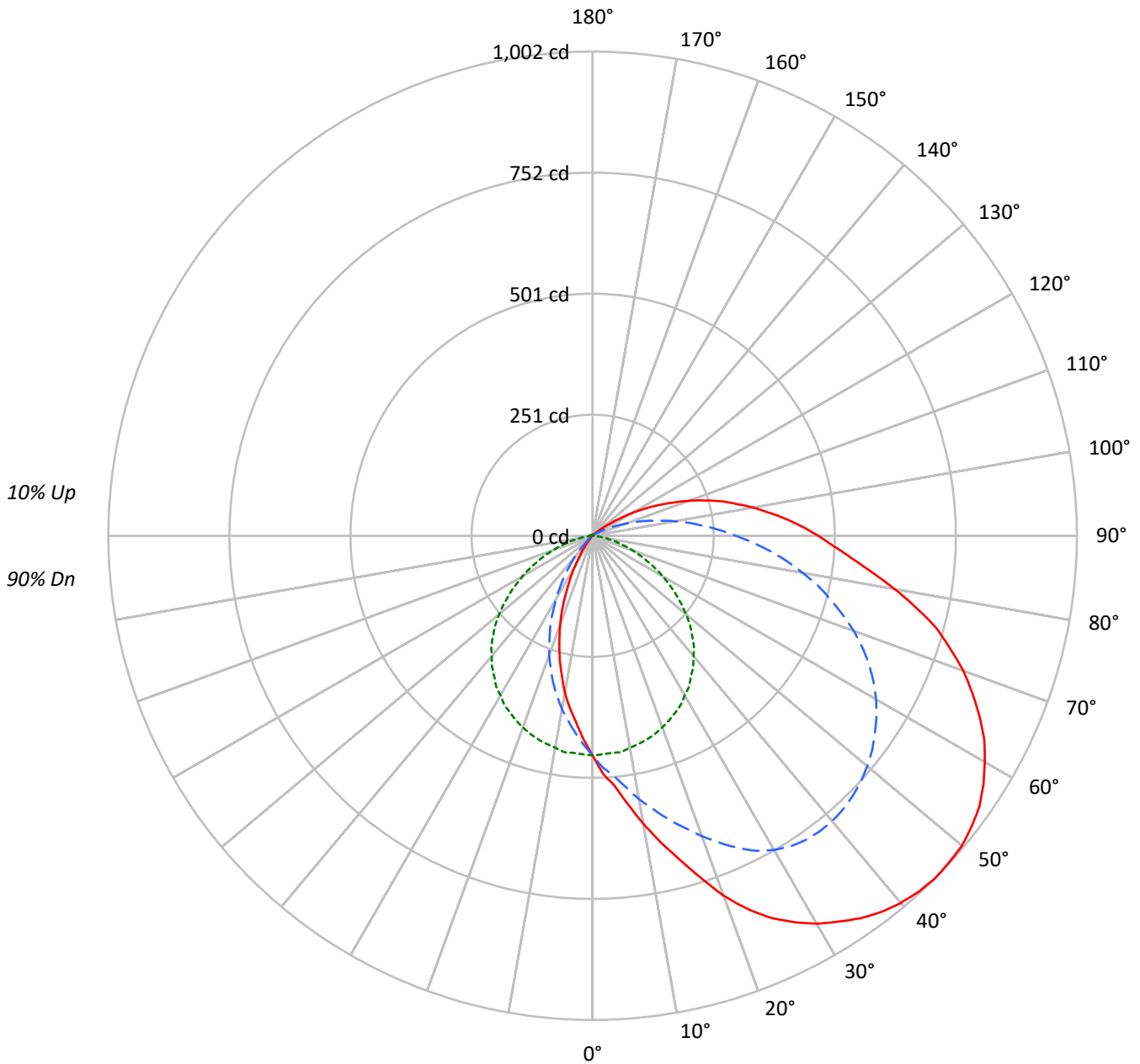
Lumens per Lamp: N/A  
Luminaire Lumens: 2247.0 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551604

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-96-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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

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

	0°	90°	180°
0°	4892	4892	4892
5°	5371	4820	4022
10°	6078	4762	3315
15°	6811	4701	2584
20°	7681	4625	1902
25°	8404	4535	1249
30°	8941	4417	704
35°	9405	4288	310
40°	9817	4131	74
45°	10171	3933	0
50°	10468	3671	0
55°	10694	3338	0
60°	10808	2952	0
65°	10853	2513	0
70°	10816	2047	0
75°	10679	1512	9
80°	10246	925	47
85°	9904	442	64



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.5	1.9
10°-20°	130.4	5.8
20°-30°	211.1	9.4
30°-40°	271.2	12.1
40°-50°	307.0	13.7
50°-60°	318.0	14.2
60°-70°	299.9	13.3
70°-80°	251.4	11.2
80°-90°	182.2	8.1
90°-100°	119.7	5.3
100°-110°	69.2	3.1
110°-120°	30.5	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°	385.0	17.1
0°-40°	656.2	29.2
0°-60°	1281.2	57.0
0°-90°	2014.6	89.7
90°-120°	219.4	9.8
90°-150°	230.8	10.3
90°-180°	232.0	10.3
0°-180°	2247.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	454	454	454	454	454	
5°	519	498	451	409	388	52
15°	693	608	436	315	263	200
25°	873	713	404	207	130	403
35°	966	769	355	101	32	606
45°	1002	761	291	23	0	774
55°	977	713	210	0	0	872
65°	883	631	125	0	0	874
75°	736	509	53	1	1	772
85°	538	369	9	2	4	460
90°	467	296	2	4	4	256
95°	401	231	1	4	5	314
105°	276	120	1	3	5	291
115°	150	40	2	2	3	150
125°	45	6	2	2	2	45
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°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	492.7	492.1	490.4	487.5	483.5	476.5	470.7	465.5	458.6	452.8	441.8
5°	518.8	515.9	513.6	510.7	501.4	495.0	484.6	473.0	462.0	451.0	429.0
7.5°	560.5	555.8	552.4	544.3	531.5	517.0	500.8	489.8	482.3	451.6	414.0
10°	605.1	601.0	594.1	579.6	563.9	543.1	519.9	493.9	470.7	445.3	400.7
12.5°	649.1	643.3	633.4	614.9	592.9	566.8	535.0	504.3	471.3	441.2	385.0
15°	693.1	686.7	676.3	653.7	624.7	590.6	551.8	513.0	474.2	436.0	368.8
17.5°	741.1	732.4	716.8	691.3	654.8	612.6	566.8	519.9	473.0	429.6	351.5
20°	792.6	780.5	763.7	729.5	686.7	636.9	581.9	526.9	472.5	422.1	331.8
22.5°	835.5	823.3	804.8	769.5	718.0	657.2	594.6	531.5	470.1	413.4	313.2
25°	872.6	862.7	842.4	801.9	747.5	678.6	606.8	535.0	466.7	404.1	293.6
27.5°	901.5	892.2	869.7	828.0	772.4	697.7	616.1	536.7	462.0	394.9	273.3
30°	927.0	917.7	890.5	847.7	789.2	712.7	625.3	537.3	456.3	381.0	251.3
32.5°	946.7	938.0	910.2	864.4	800.8	723.2	630.5	536.7	448.7	371.1	227.5
35°	966.3	957.7	925.2	876.6	809.4	727.8	634.6	533.8	439.5	354.9	205.0
37.5°	981.4	971.6	938.6	884.7	813.5	729.0	634.0	529.8	429.6	341.6	182.4
40°	991.8	981.4	946.1	889.3	814.7	727.2	629.4	522.8	418.0	324.8	158.6
42.5°	998.8	987.2	949.6	896.3	812.3	722.6	622.4	514.2	405.3	310.3	136.1
45°	1002.2	990.1	950.1	890.5	808.3	713.9	612.0	503.2	391.4	290.7	113.5
47.5°	1000.5	987.2	947.2	884.1	800.8	704.6	600.4	489.8	374.6	273.3	92.1
50°	997.6	983.7	940.9	876.0	790.3	693.1	587.7	473.6	357.2	251.9	73.0
52.5°	988.4	974.5	933.9	864.4	778.2	679.7	570.3	456.8	338.7	231.0	55.6
55°	976.8	964.0	921.8	854.0	762.5	663.5	554.1	438.9	320.8	209.6	40.0
57.5°	958.8	947.2	906.7	837.2	746.9	645.6	536.2	419.2	298.2	188.2	27.8
60°	936.8	925.2	885.9	818.1	729.0	625.3	516.5	398.9	277.9	166.8	17.4
62.5°	913.7	902.7	861.6	794.4	706.4	603.9	495.0	378.7	256.5	147.1	10.4
65°	883.0	872.6	835.5	766.0	681.5	580.7	471.3	354.3	234.5	125.1	5.8
67.5°	850.5	841.3	803.7	740.0	652.5	555.3	447.0	330.6	211.3	106.0	2.9
70°	815.8	804.2	769.5	704.6	623.0	526.3	420.4	306.3	189.3	87.4	0.0
72.5°	775.3	766.6	733.0	671.6	588.8	495.6	393.1	279.7	165.0	69.5	0.6
75°	735.9	724.9	694.2	636.3	555.3	463.2	363.0	254.8	141.3	53.3	0.6
77.5°	685.0	681.5	652.5	596.4	523.4	431.9	330.0	224.7	118.7	38.2	0.6
80°	634.0	630.5	607.9	556.4	486.4	394.9	299.3	196.3	96.7	25.5	0.6
82.5°	583.6	579.0	557.6	514.7	448.7	363.6	267.5	167.9	76.4	15.6	0.6
85°	538.5	532.7	509.5	470.1	409.9	328.3	234.5	140.1	56.7	8.7	1.2
87.5°	499.7	495.6	470.1	429.6	370.6	295.3	205.5	113.5	40.0	4.1	1.7
90°	466.7	458.0	435.4	392.6	333.5	258.8	174.9	90.9	26.6	2.3	2.3
92.5°	434.2	426.7	401.8	357.8	300.5	227.5	145.3	69.5	16.8	1.2	2.9
95°	400.7	392.6	368.2	327.7	266.9	195.7	119.3	51.0	9.3	1.2	2.9
97.5°	367.7	360.1	334.7	294.1	236.8	167.9	94.4	35.9	4.6	1.2	2.3
100°	337.0	328.3	305.1	264.6	206.7	140.1	73.0	23.2	2.9	1.2	2.3
102.5°	304.6	297.6	273.9	234.5	175.4	114.1	54.4	14.5	1.2	1.2	1.7
105°	275.6	266.9	243.8	203.2	149.4	89.7	38.2	8.7	1.2	1.2	1.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	179.5	172.5	152.3	118.1	75.8	35.3	10.4	1.7	1.7	1.7	1.7
115°	150.0	139.5	121.6	91.5	56.2	23.2	5.2	1.7	1.7	1.7	1.7
117.5°	119.9	111.2	98.4	69.5	37.1	15.1	2.9	1.7	1.7	1.7	1.7
120°	93.8	85.7	71.2	48.1	24.9	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.2	60.8	48.1	31.3	15.1	4.1	1.7	1.7	2.3	2.3	1.7
125°	44.6	41.1	31.8	19.1	9.3	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.9	26.1	18.5	11.0	4.1	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.2	14.5	11.0	6.4	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.3	8.7	5.8	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	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°	454.5	454.5	454.5
2.5°	432.5	424.4	422.1
5°	409.4	396.0	388.5
7.5°	386.2	368.2	359.6
10°	364.8	339.3	330.0
12.5°	339.3	309.8	295.3
15°	315.0	276.8	262.9
17.5°	287.8	244.9	228.7
20°	262.3	213.1	196.3
22.5°	233.3	181.8	163.3
25°	207.3	150.5	129.7
27.5°	178.3	118.7	100.7
30°	151.1	90.9	73.0
32.5°	125.1	66.6	50.4
35°	100.7	45.2	31.8
37.5°	77.6	27.8	16.2
40°	56.2	14.5	7.5
42.5°	37.6	6.9	4.1
45°	23.2	3.5	0.0
47.5°	13.3	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	1.2	1.7
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.6	4.6
95°	4.1	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.1	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.1	4.6





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**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	1.2
152.5°	1.7	1.2	1.2
155°	1.7	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.7	1.2	0.6
162.5°	1.7	1.2	0.6
165°	1.7	1.2	0.0
167.5°	1.7	1.2	0.6
170°	1.7	1.2	0.6
172.5°	1.7	1.2	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°	243.2	236.2	213.1	174.9	122.2	68.3	25.5	4.6	1.2	1.7	1.7
110°	211.9	206.1	182.4	145.3	98.4	51.0	16.8	2.9	1.7	1.7	1.7







107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)