

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: P551622

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-97-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: P551622  
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-82-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

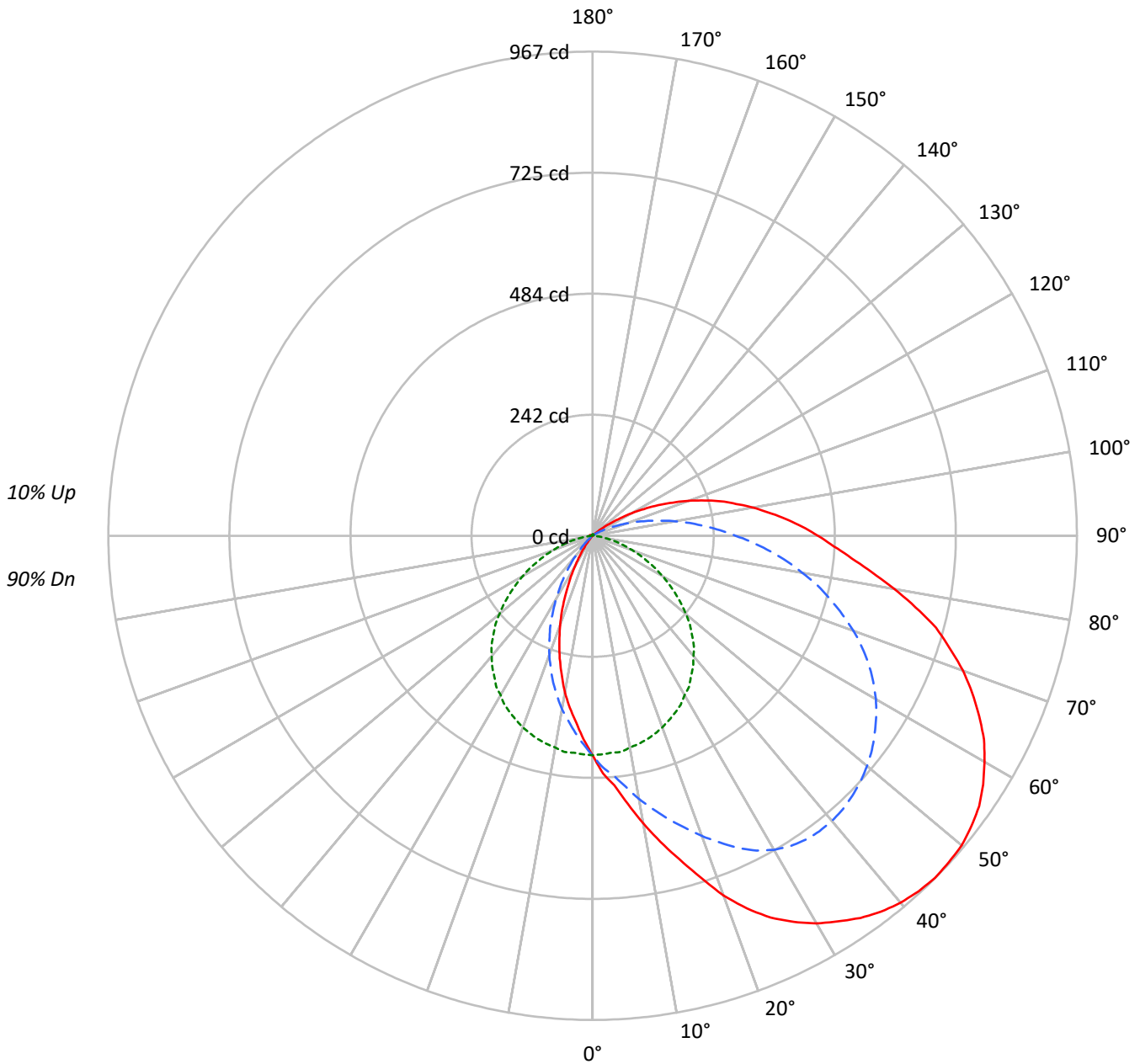
Lumens per Lamp: N/A  
Luminaire Lumens: 2167.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551622

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-97-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°	4718	4718	4718
5°	5179	4649	3879
10°	5861	4592	3197
15°	6568	4534	2491
20°	7408	4460	1835
25°	8105	4375	1205
30°	8623	4259	679
35°	9070	4136	299
40°	9468	3984	72
45°	9809	3793	0
50°	10095	3540	0
55°	10313	3218	0
60°	10423	2846	0
65°	10466	2422	0
70°	10432	1975	0
75°	10298	1458	9
80°	9881	892	45
85°	9551	427	63



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.0	1.9
10°-20°	125.7	5.8
20°-30°	203.6	9.4
30°-40°	261.5	12.1
40°-50°	296.0	13.7
50°-60°	306.7	14.2
60°-70°	289.2	13.3
70°-80°	242.4	11.2
80°-90°	175.7	8.1
90°-100°	115.5	5.3
100°-110°	66.7	3.1
110°-120°	29.4	1.4
120°-130°	8.0	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	371.3	17.1
0°-40°	632.8	29.2
0°-60°	1235.6	57.0
0°-90°	1942.9	89.7
90°-120°	211.6	9.8
90°-150°	222.6	10.3
90°-180°	224.0	10.3
0°-180°	2167.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	438	438	438	438	438	
5°	500	480	435	395	375	50
15°	668	586	420	304	254	193
25°	842	688	390	200	125	389
35°	932	741	342	97	31	584
45°	967	734	280	22	0	746
55°	942	688	202	0	0	841
65°	852	609	121	0	0	842
75°	710	491	51	1	1	744
85°	519	356	8	2	3	443
90°	450	286	2	3	4	247
95°	386	223	1	4	5	303
105°	266	115	1	3	4	280
115°	145	38	2	2	3	145
125°	43	5	2	2	2	43
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°	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3
2.5°	475.2	474.6	473.0	470.2	466.3	459.6	454.0	448.9	442.2	436.7	426.0
5°	500.3	497.5	495.3	492.5	483.6	477.4	467.4	456.2	445.6	435.0	413.8
7.5°	540.5	536.0	532.7	524.9	512.6	498.6	483.0	472.4	465.1	435.5	399.2
10°	583.5	579.6	572.9	558.9	543.9	523.8	501.4	476.3	454.0	429.4	386.4
12.5°	625.9	620.4	610.9	593.0	571.8	546.7	515.9	486.4	454.5	425.5	371.3
15°	668.4	662.2	652.2	630.4	602.5	569.6	532.1	494.7	457.3	420.5	355.7
17.5°	714.7	706.4	691.3	666.7	631.5	590.8	546.7	501.4	456.2	414.3	338.9
20°	764.4	752.7	736.5	703.6	662.2	614.2	561.2	508.1	455.6	407.1	320.0
22.5°	805.7	794.0	776.2	742.1	692.4	633.8	573.5	512.6	453.4	398.7	302.1
25°	841.5	832.0	812.4	773.4	720.9	654.4	585.2	515.9	450.1	389.8	283.1
27.5°	869.4	860.5	838.7	798.5	744.9	672.9	594.1	517.6	445.6	380.8	263.6
30°	894.0	885.0	858.8	817.5	761.1	687.4	603.1	518.2	440.0	367.4	242.3
32.5°	913.0	904.6	877.8	833.7	772.2	697.4	608.1	517.6	432.7	357.9	219.4
35°	931.9	923.6	892.3	845.4	780.6	701.9	612.0	514.8	423.8	342.3	197.7
37.5°	946.5	937.0	905.1	853.2	784.5	703.0	611.4	510.9	414.3	329.4	175.9
40°	956.5	946.5	912.4	857.7	785.6	701.3	607.0	504.2	403.2	313.3	153.0
42.5°	963.2	952.0	915.8	864.4	783.4	696.9	600.3	495.8	390.9	299.3	131.2
45°	966.6	954.8	916.3	858.8	779.5	688.5	590.2	485.2	377.5	280.3	109.4
47.5°	964.9	952.0	913.5	852.7	772.2	679.6	579.0	472.4	361.3	263.6	88.8
50°	962.1	948.7	907.4	844.8	762.2	668.4	566.8	456.8	344.5	242.9	70.4
52.5°	953.2	939.8	900.7	833.7	750.5	655.5	550.0	440.6	326.7	222.8	53.6
55°	942.0	929.7	888.9	823.6	735.4	639.9	534.4	423.3	309.3	202.1	38.5
57.5°	924.7	913.5	874.4	807.4	720.3	622.6	517.1	404.3	287.6	181.5	26.8
60°	903.5	892.3	854.3	789.0	703.0	603.1	498.1	384.7	268.0	160.8	16.8
62.5°	881.1	870.5	830.9	766.1	681.2	582.4	477.4	365.2	247.4	141.8	10.1
65°	851.5	841.5	805.7	738.7	657.2	560.1	454.5	341.7	226.1	120.6	5.6
67.5°	820.3	811.3	775.0	713.6	629.3	535.5	431.1	318.8	203.8	102.2	2.8
70°	786.8	775.6	742.1	679.6	600.8	507.6	405.4	295.4	182.6	84.3	0.0
72.5°	747.7	739.3	706.9	647.7	567.9	478.0	379.1	269.7	159.1	67.0	0.6
75°	709.7	699.1	669.5	613.7	535.5	446.7	350.1	245.7	136.2	51.4	0.6
77.5°	660.6	657.2	629.3	575.1	504.8	416.6	318.3	216.7	114.5	36.9	0.6
80°	611.4	608.1	586.3	536.6	469.0	380.8	288.7	189.3	93.3	24.6	0.6
82.5°	562.9	558.4	537.7	496.4	432.7	350.7	258.0	161.9	73.7	15.1	0.6
85°	519.3	513.7	491.4	453.4	395.3	316.6	226.1	135.1	54.7	8.4	1.1
87.5°	481.9	478.0	453.4	414.3	357.4	284.8	198.2	109.4	38.5	3.9	1.7
90°	450.1	441.7	419.9	378.6	321.6	249.6	168.6	87.7	25.7	2.2	2.2
92.5°	418.8	411.5	387.5	345.1	289.8	219.4	140.2	67.0	16.2	1.1	2.8
95°	386.4	378.6	355.1	316.0	257.4	188.7	115.0	49.1	8.9	1.1	2.8
97.5°	354.6	347.3	322.7	283.7	228.4	161.9	91.0	34.6	4.5	1.1	2.2
100°	325.0	316.6	294.3	255.2	199.3	135.1	70.4	22.3	2.8	1.1	2.2
102.5°	293.7	287.0	264.1	226.1	169.2	110.0	52.5	14.0	1.1	1.1	1.7
105°	265.8	257.4	235.1	196.0	144.1	86.5	36.9	8.4	1.1	1.1	1.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	173.1	166.4	146.9	113.9	73.1	34.1	10.1	1.7	1.7	1.7	1.7
115°	144.6	134.6	117.3	88.2	54.2	22.3	5.0	1.7	1.7	1.7	1.7
117.5°	115.6	107.2	94.9	67.0	35.7	14.5	2.8	1.7	1.7	1.7	1.7
120°	90.5	82.6	68.7	46.3	24.0	8.4	1.1	1.7	1.7	1.7	1.7
122.5°	64.8	58.6	46.3	30.2	14.5	3.9	1.7	1.7	2.2	2.2	1.7
125°	43.0	39.6	30.7	18.4	8.9	1.7	1.7	1.7	2.2	2.2	1.7
127.5°	27.9	25.1	17.9	10.6	3.9	1.7	1.7	2.2	2.2	2.2	1.7
130°	15.6	14.0	10.6	6.1	1.7	1.7	1.7	2.2	2.2	2.2	1.7
132.5°	8.9	8.4	5.6	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.2	2.8	2.8	2.8	2.2
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.2
142.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
145°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
150°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
152.5°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
157.5°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.2
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°	438.3	438.3	438.3
2.5°	417.1	409.3	407.1
5°	394.8	381.9	374.7
7.5°	372.4	355.1	346.8
10°	351.8	327.2	318.3
12.5°	327.2	298.7	284.8
15°	303.8	266.9	253.5
17.5°	277.5	236.2	220.6
20°	252.9	205.5	189.3
22.5°	225.0	175.3	157.5
25°	199.9	145.2	125.1
27.5°	172.0	114.5	97.2
30°	145.7	87.7	70.4
32.5°	120.6	64.2	48.6
35°	97.2	43.6	30.7
37.5°	74.8	26.8	15.6
40°	54.2	14.0	7.3
42.5°	36.3	6.7	3.9
45°	22.3	3.4	0.0
47.5°	12.8	0.0	0.0
50°	6.7	0.0	0.0
52.5°	2.8	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	2.2	2.8
82.5°	2.2	2.8	2.8
85°	2.2	2.8	3.4
87.5°	2.8	3.4	3.9
90°	3.4	3.9	3.9
92.5°	3.4	4.5	4.5
95°	3.9	4.5	5.0
97.5°	4.5	5.0	5.0
100°	3.9	5.0	5.6
102.5°	3.4	5.0	5.0
105°	2.8	3.9	4.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.2	2.8	2.8
115°	1.7	2.2	2.8
117.5°	1.7	2.2	2.2
120°	1.7	1.7	2.2
122.5°	1.7	1.7	2.2
125°	1.7	1.7	2.2
127.5°	2.2	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.2	1.7	1.7
135°	2.2	1.7	1.7
137.5°	2.2	1.7	1.7
140°	2.2	1.7	1.7
142.5°	2.2	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°	2.2	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°	234.5	227.8	205.5	168.6	117.8	65.9	24.6	4.5	1.1	1.7	1.7
110°	204.4	198.8	175.9	140.2	94.9	49.1	16.2	2.8	1.7	1.7	1.7







107.5°	2.2	3.4	3.9
110°	2.2	2.8	3.4



(END OF REPORT)