

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: P551459

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-96-ED1D-90**

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: P551459  
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-30-UNV-80-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

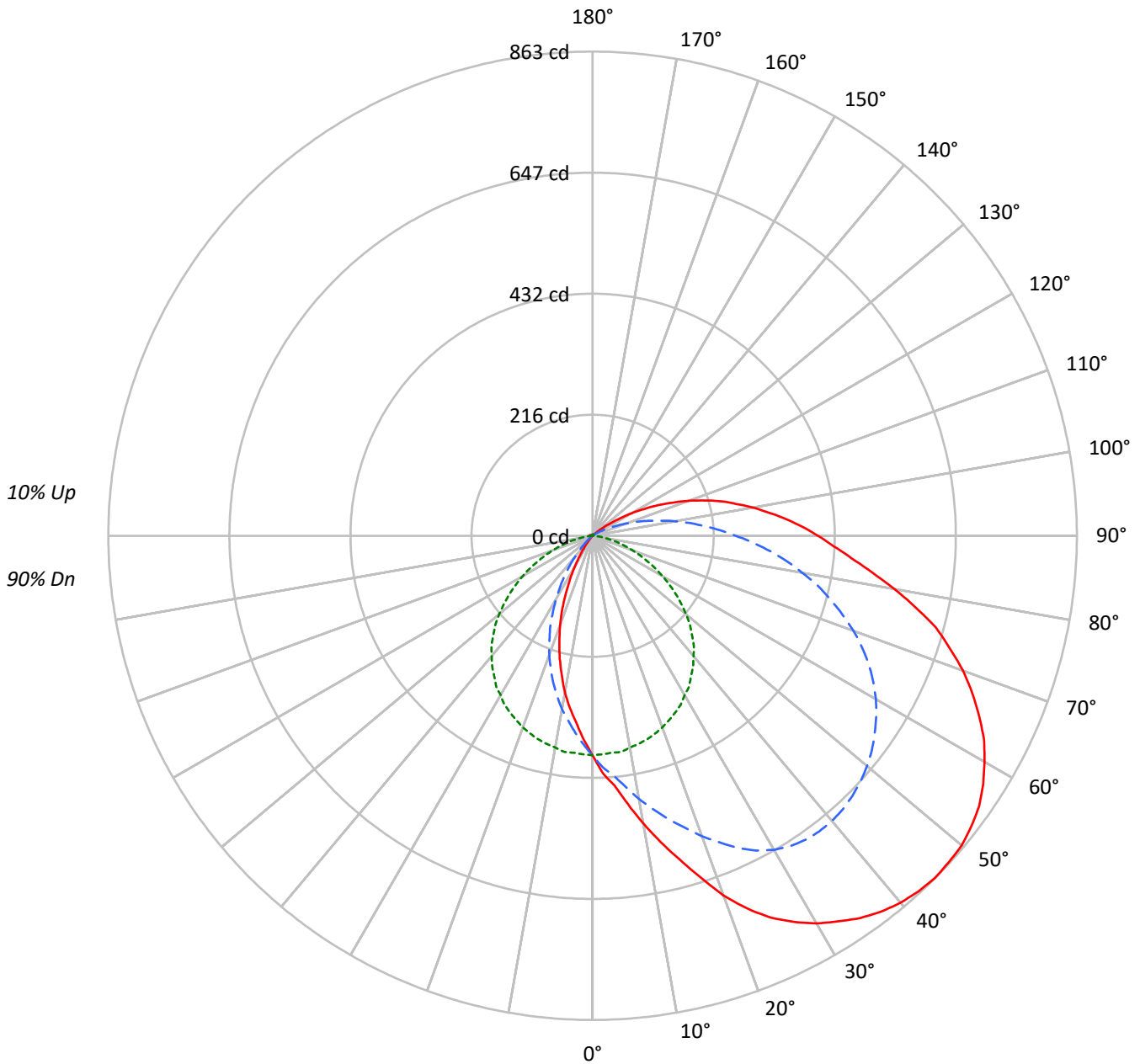
Lumens per Lamp: N/A  
Luminaire Lumens: 1934.1 lumens  
Efficiency: N/A  
Efficacy: 82.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551459

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-96-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551459

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-96-ED1D-90

**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°	4211	4211	4211
5°	4622	4149	3462
10°	5231	4098	2854
15°	5862	4047	2223
20°	6611	3980	1637
25°	7233	3903	1075
30°	7696	3801	606
35°	8095	3691	267
40°	8450	3556	64
45°	8754	3385	0
50°	9010	3160	0
55°	9204	2873	0
60°	9302	2539	0
65°	9341	2161	0
70°	9310	1764	0
75°	9191	1299	7
80°	8819	794	40
85°	8525	381	55



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.5	1.9
10°-20°	112.2	5.8
20°-30°	181.7	9.4
30°-40°	233.4	12.1
40°-50°	264.2	13.7
50°-60°	273.7	14.2
60°-70°	258.2	13.3
70°-80°	216.3	11.2
80°-90°	156.8	8.1
90°-100°	103.1	5.3
100°-110°	59.5	3.1
110°-120°	26.3	1.4
120°-130°	7.1	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	331.4	17.1
0°-40°	564.8	29.2
0°-60°	1102.7	57.0
0°-90°	1734.0	89.7
90°-120°	188.9	9.8
90°-150°	198.7	10.3
90°-180°	200.0	10.3
0°-180°	1934.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	391	391	391	391	391	
5°	446	429	388	352	334	45
15°	596	523	375	271	226	172
25°	751	614	348	178	112	347
35°	832	662	306	87	27	522
45°	863	655	250	20	0	666
55°	841	614	180	0	0	751
65°	760	543	108	0	0	752
75°	633	438	46	0	0	664
85°	464	318	8	2	3	396
90°	402	255	2	3	4	220
95°	345	199	1	4	4	271
105°	237	103	1	2	4	250
115°	129	34	2	2	2	129
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	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°	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2	391.2
2.5°	424.1	423.6	422.1	419.6	416.1	410.1	405.2	400.7	394.7	389.7	380.2
5°	446.5	444.0	442.0	439.5	431.6	426.1	417.1	407.1	397.7	388.2	369.3
7.5°	482.4	478.4	475.4	468.4	457.5	445.0	431.1	421.6	415.1	388.7	356.3
10°	520.8	517.3	511.3	498.8	485.4	467.4	447.5	425.1	405.2	383.2	344.9
12.5°	558.6	553.7	545.2	529.2	510.3	487.9	460.5	434.1	405.7	379.7	331.4
15°	596.5	591.0	582.1	562.6	537.7	508.3	474.9	441.5	408.1	375.3	317.4
17.5°	637.9	630.4	617.0	595.0	563.6	527.3	487.9	447.5	407.1	369.8	302.5
20°	682.2	671.8	657.3	627.9	591.0	548.2	500.8	453.5	406.7	363.3	285.6
22.5°	719.1	708.6	692.7	662.3	617.9	565.6	511.8	457.5	404.7	355.8	269.6
25°	751.0	742.5	725.1	690.2	643.4	584.1	522.3	460.5	401.7	347.8	252.7
27.5°	775.9	768.0	748.5	712.6	664.8	600.5	530.2	462.0	397.7	339.9	235.2
30°	797.9	789.9	766.5	729.6	679.2	613.5	538.2	462.5	392.7	327.9	216.3
32.5°	814.8	807.3	783.4	744.0	689.2	622.4	542.7	462.0	386.2	319.4	195.9
35°	831.7	824.3	796.4	754.5	696.7	626.4	546.2	459.5	378.2	305.5	176.4
37.5°	844.7	836.2	807.8	761.5	700.2	627.4	545.7	456.0	369.8	294.0	157.0
40°	853.7	844.7	814.3	765.5	701.2	625.9	541.7	450.0	359.8	279.6	136.5
42.5°	859.6	849.7	817.3	771.4	699.2	621.9	535.7	442.5	348.8	267.1	117.1
45°	862.6	852.2	817.8	766.5	695.7	614.5	526.8	433.1	336.9	250.2	97.7
47.5°	861.1	849.7	815.3	761.0	689.2	606.5	516.8	421.6	322.4	235.2	79.2
50°	858.7	846.7	809.8	754.0	680.2	596.5	505.8	407.6	307.5	216.8	62.8
52.5°	850.7	838.7	803.8	744.0	669.8	585.1	490.9	393.2	291.5	198.8	47.8
55°	840.7	829.7	793.4	735.1	656.3	571.1	476.9	377.7	276.1	180.4	34.4
57.5°	825.3	815.3	780.4	720.6	642.9	555.7	461.5	360.8	256.6	162.0	23.9
60°	806.3	796.4	762.5	704.2	627.4	538.2	444.5	343.4	239.2	143.5	15.0
62.5°	786.4	776.9	741.5	683.7	608.0	519.8	426.1	325.9	220.8	126.6	9.0
65°	760.0	751.0	719.1	659.3	586.6	499.8	405.7	305.0	201.8	107.6	5.0
67.5°	732.1	724.1	691.7	636.9	561.6	477.9	384.7	284.6	181.9	91.2	2.5
70°	702.2	692.2	662.3	606.5	536.2	453.0	361.8	263.6	163.0	75.3	0.0
72.5°	667.3	659.8	630.9	578.1	506.8	426.6	338.4	240.7	142.0	59.8	0.5
75°	633.4	623.9	597.5	547.7	477.9	398.7	312.5	219.3	121.6	45.8	0.5
77.5°	589.5	586.6	561.6	513.3	450.5	371.8	284.1	193.4	102.2	32.9	0.5
80°	545.7	542.7	523.3	478.9	418.6	339.9	257.6	168.9	83.2	21.9	0.5
82.5°	502.3	498.3	479.9	443.0	386.2	313.0	230.2	144.5	65.8	13.5	0.5
85°	463.5	458.5	438.5	404.7	352.8	282.6	201.8	120.6	48.8	7.5	1.0
87.5°	430.1	426.6	404.7	369.8	318.9	254.2	176.9	97.7	34.4	3.5	1.5
90°	401.7	394.2	374.8	337.9	287.0	222.8	150.5	78.2	22.9	2.0	2.0
92.5°	373.8	367.3	345.9	308.0	258.6	195.9	125.1	59.8	14.5	1.0	2.5
95°	344.9	337.9	316.9	282.1	229.7	168.4	102.7	43.9	8.0	1.0	2.5
97.5°	316.4	310.0	288.0	253.2	203.8	144.5	81.2	30.9	4.0	1.0	2.0
100°	290.0	282.6	262.6	227.7	177.9	120.6	62.8	19.9	2.5	1.0	2.0
102.5°	262.1	256.1	235.7	201.8	151.0	98.2	46.8	12.5	1.0	1.0	1.5
105°	237.2	229.7	209.8	174.9	128.6	77.2	32.9	7.5	1.0	1.0	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	154.5	148.5	131.1	101.7	65.3	30.4	9.0	1.5	1.5	1.5	1.5
115°	129.1	120.1	104.7	78.7	48.3	19.9	4.5	1.5	1.5	1.5	1.5
117.5°	103.2	95.7	84.7	59.8	31.9	13.0	2.5	1.5	1.5	1.5	1.5
120°	80.7	73.8	61.3	41.4	21.4	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	57.8	52.3	41.4	26.9	13.0	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.4	35.4	27.4	16.4	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.9	22.4	15.9	9.5	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.0	12.5	9.5	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.0	7.5	5.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	391.2	391.2	391.2
2.5°	372.3	365.3	363.3
5°	352.3	340.9	334.4
7.5°	332.4	316.9	309.5
10°	314.0	292.0	284.1
12.5°	292.0	266.6	254.2
15°	271.1	238.2	226.2
17.5°	247.7	210.8	196.8
20°	225.8	183.4	168.9
22.5°	200.8	156.5	140.5
25°	178.4	129.6	111.6
27.5°	153.5	102.2	86.7
30°	130.1	78.2	62.8
32.5°	107.6	57.3	43.4
35°	86.7	38.9	27.4
37.5°	66.8	23.9	14.0
40°	48.3	12.5	6.5
42.5°	32.4	6.0	3.5
45°	19.9	3.0	0.0
47.5°	11.5	0.0	0.0
50°	6.0	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.0	4.0
95°	3.5	4.0	4.5
97.5°	4.0	4.5	4.5
100°	3.5	4.5	5.0
102.5°	3.0	4.5	4.5
105°	2.5	3.5	4.0





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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-96-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	209.3	203.3	183.4	150.5	105.2	58.8	21.9	4.0	1.0	1.5	1.5
110°	182.4	177.4	157.0	125.1	84.7	43.9	14.5	2.5	1.5	1.5	1.5







107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)