

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: P551235

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-96-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: P551235  
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-LD4-2HI-30-UNV-82-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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**

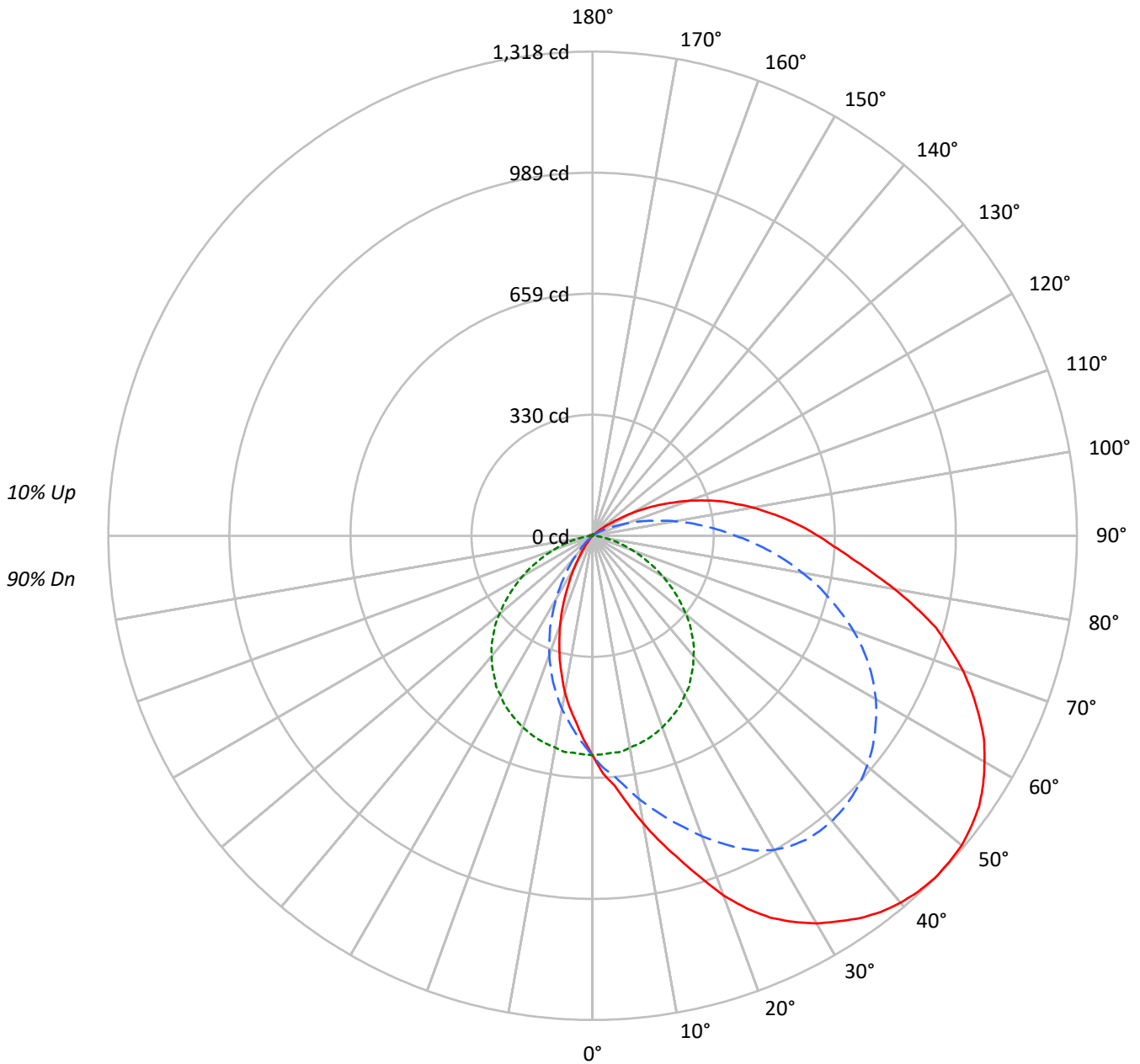
Lumens per Lamp: N/A  
Luminaire Lumens: 2954.0 lumens  
Efficiency: N/A  
Efficacy: 68.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
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: P551235

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-96-ED1D-90

### Luminous Intensity Polar Plot





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**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°	6431	6431	6431
5°	7060	6338	5287
10°	7989	6259	4358
15°	8953	6181	3396
20°	10099	6080	2500
25°	11048	5963	1642
30°	11753	5807	925
35°	12365	5638	408
40°	12907	5430	98
45°	13371	5170	0
50°	13762	4826	0
55°	14059	4387	0
60°	14209	3879	0
65°	14267	3302	0
70°	14219	2692	0
75°	14039	1985	12
80°	13470	1215	61
85°	13020	580	85



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.2	1.9
10°-20°	171.4	5.8
20°-30°	277.5	9.4
30°-40°	356.5	12.1
40°-50°	403.6	13.7
50°-60°	418.1	14.2
60°-70°	394.3	13.3
70°-80°	330.4	11.2
80°-90°	239.5	8.1
90°-100°	157.4	5.3
100°-110°	90.9	3.1
110°-120°	40.1	1.4
120°-130°	10.9	0.4
130°-140°	2.5	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	506.1	17.1
0°-40°	862.6	29.2
0°-60°	1684.3	57.0
0°-90°	2648.5	89.7
90°-120°	288.5	9.8
90°-150°	303.4	10.3
90°-180°	305.0	10.3
0°-180°	2954.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	598	598	598	598	598	
5°	682	655	593	538	511	69
15°	911	799	573	414	346	263
25°	1147	937	531	272	170	530
35°	1270	1010	467	132	42	797
45°	1318	1001	382	30	0	1017
55°	1284	937	276	0	0	1147
65°	1161	830	164	0	0	1148
75°	968	669	70	1	1	1015
85°	708	485	11	3	5	605
90°	614	389	3	5	5	336
95°	527	304	2	5	7	413
105°	362	157	2	4	6	382
115°	197	52	2	2	4	197
125°	59	7	3	2	3	59
135°	3	2	4	3	2	5
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	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°	597.5	597.5	597.5	597.5	597.5	597.5	597.5	597.5	597.5	597.5	597.5
2.5°	647.8	647.0	644.7	640.9	635.6	626.4	618.8	612.0	602.9	595.2	580.8
5°	682.0	678.2	675.2	671.4	659.2	650.8	637.1	621.9	607.4	593.0	564.0
7.5°	736.8	730.7	726.2	715.5	698.8	679.7	658.4	644.0	634.1	593.7	544.2
10°	795.4	790.1	781.0	761.9	741.4	714.0	683.5	649.3	618.8	585.3	526.7
12.5°	853.3	845.7	832.7	808.4	779.4	745.2	703.3	663.0	619.6	580.0	506.2
15°	911.1	902.8	889.1	859.4	821.3	776.4	725.4	674.4	623.4	573.2	484.9
17.5°	974.3	962.9	942.3	908.8	860.9	805.3	745.2	683.5	621.9	564.8	462.0
20°	1042.1	1026.1	1004.0	959.1	902.8	837.3	765.0	692.7	621.1	554.9	436.2
22.5°	1098.4	1082.4	1058.0	1011.6	943.9	863.9	781.7	698.8	618.1	543.5	411.8
25°	1147.1	1134.2	1107.5	1054.2	982.7	892.1	797.7	703.3	613.5	531.3	385.9
27.5°	1185.2	1173.0	1143.3	1088.5	1015.4	917.2	809.9	705.6	607.4	519.1	359.3
30°	1218.6	1206.5	1170.7	1114.4	1037.5	937.0	822.1	706.4	599.8	500.9	330.4
32.5°	1244.5	1233.1	1196.6	1136.4	1052.7	950.7	828.9	705.6	589.9	487.9	299.1
35°	1270.4	1259.0	1216.4	1152.4	1064.1	956.8	834.2	701.8	577.7	466.6	269.5
37.5°	1290.2	1277.3	1233.9	1163.1	1069.5	958.3	833.5	696.5	564.8	449.1	239.8
40°	1303.9	1290.2	1243.8	1169.2	1071.0	956.0	827.4	687.3	549.6	427.0	208.6
42.5°	1313.0	1297.8	1248.3	1178.3	1067.9	949.9	818.3	675.9	532.8	408.0	178.9
45°	1317.6	1301.6	1249.1	1170.7	1062.6	938.5	804.6	661.5	514.6	382.1	149.2
47.5°	1315.3	1297.8	1245.3	1162.3	1052.7	926.4	789.3	644.0	492.5	359.3	121.0
50°	1311.5	1293.2	1236.9	1151.7	1039.0	911.1	772.6	622.6	469.6	331.1	95.9
52.5°	1299.3	1281.1	1227.8	1136.4	1023.0	893.6	749.8	600.6	445.3	303.7	73.1
55°	1284.1	1267.4	1211.8	1122.7	1002.5	872.3	728.4	577.0	421.7	275.5	52.5
57.5°	1260.5	1245.3	1192.0	1100.7	981.9	848.7	704.8	551.1	392.0	247.4	36.5
60°	1231.6	1216.4	1164.6	1075.5	958.3	822.1	679.0	524.5	365.4	219.2	22.8
62.5°	1201.1	1186.7	1132.6	1044.3	928.6	793.9	650.8	497.8	337.2	193.3	13.7
65°	1160.8	1147.1	1098.4	1007.0	895.9	763.5	619.6	465.8	308.3	164.4	7.6
67.5°	1118.2	1106.0	1056.5	972.8	857.8	730.0	587.6	434.6	277.8	139.3	3.8
70°	1072.5	1057.3	1011.6	926.4	819.0	691.9	552.6	402.7	248.9	114.9	0.0
72.5°	1019.2	1007.8	963.6	883.0	774.1	651.6	516.8	367.6	216.9	91.3	0.8
75°	967.5	953.0	912.7	836.5	730.0	608.9	477.3	334.9	185.7	70.0	0.8
77.5°	900.5	895.9	857.8	784.0	688.1	567.8	433.9	295.3	156.0	50.2	0.8
80°	833.5	828.9	799.2	731.5	639.4	519.1	393.5	258.0	127.1	33.5	0.8
82.5°	767.3	761.2	733.0	676.7	589.9	478.0	351.7	220.7	100.5	20.6	0.8
85°	707.9	700.3	669.8	618.1	538.9	431.6	308.3	184.2	74.6	11.4	1.5
87.5°	656.9	651.6	618.1	564.8	487.2	388.2	270.2	149.2	52.5	5.3	2.3
90°	613.5	602.1	572.4	516.1	438.4	340.2	229.9	119.5	35.0	3.0	3.0
92.5°	570.9	561.0	528.3	470.4	395.1	299.1	191.1	91.3	22.1	1.5	3.8
95°	526.7	516.1	484.1	430.8	350.9	257.3	156.8	67.0	12.2	1.5	3.8
97.5°	483.3	473.5	440.0	386.7	311.3	220.7	124.1	47.2	6.1	1.5	3.0
100°	443.0	431.6	401.1	347.9	271.7	184.2	95.9	30.4	3.8	1.5	3.0
102.5°	400.4	391.2	360.0	308.3	230.6	150.0	71.6	19.0	1.5	1.5	2.3
105°	362.3	350.9	320.5	267.2	196.4	118.0	50.2	11.4	1.5	1.5	2.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	236.0	226.8	200.2	155.3	99.7	46.4	13.7	2.3	2.3	2.3	2.3
115°	197.1	183.4	159.8	120.3	73.8	30.4	6.9	2.3	2.3	2.3	2.3
117.5°	157.6	146.1	129.4	91.3	48.7	19.8	3.8	2.3	2.3	2.3	2.3
120°	123.3	112.7	93.6	63.2	32.7	11.4	1.5	2.3	2.3	2.3	2.3
122.5°	88.3	79.9	63.2	41.1	19.8	5.3	2.3	2.3	3.0	3.0	2.3
125°	58.6	54.0	41.9	25.1	12.2	2.3	2.3	2.3	3.0	3.0	2.3
127.5°	38.1	34.3	24.4	14.5	5.3	2.3	2.3	3.0	3.0	3.0	2.3
130°	21.3	19.0	14.5	8.4	2.3	2.3	2.3	3.0	3.0	3.0	2.3
132.5°	12.2	11.4	7.6	1.5	2.3	2.3	2.3	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.0	3.8	3.8	3.8	3.0
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.0	3.8	3.8	3.8	3.0
142.5°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0	3.0
145°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0	3.0
150°	0.8	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.0
152.5°	0.8	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.8
157.5°	1.5	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.8
160°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.3	2.3	2.3	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.3	2.3	2.3	3.0	3.8	3.8	3.8	3.8
172.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.8
175°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.8
177.5°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.0
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	597.5	597.5	597.5
2.5°	568.6	557.9	554.9
5°	538.2	520.6	510.7
7.5°	507.7	484.1	472.7
10°	479.5	446.0	433.9
12.5°	446.0	407.2	388.2
15°	414.1	363.8	345.6
17.5°	378.3	322.0	300.7
20°	344.8	280.1	258.0
22.5°	306.8	239.0	214.7
25°	272.5	197.9	170.5
27.5°	234.4	156.0	132.4
30°	198.7	119.5	95.9
32.5°	164.4	87.5	66.2
35°	132.4	59.4	41.9
37.5°	102.0	36.5	21.3
40°	73.8	19.0	9.9
42.5°	49.5	9.1	5.3
45°	30.4	4.6	0.0
47.5°	17.5	0.0	0.0
50°	9.1	0.0	0.0
52.5°	3.8	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°	0.8	0.8	0.8
77.5°	0.8	1.5	2.3
80°	1.5	3.0	3.8
82.5°	3.0	3.8	3.8
85°	3.0	3.8	4.6
87.5°	3.8	4.6	5.3
90°	4.6	5.3	5.3
92.5°	4.6	6.1	6.1
95°	5.3	6.1	6.9
97.5°	6.1	6.9	6.9
100°	5.3	6.9	7.6
102.5°	4.6	6.9	6.9
105°	3.8	5.3	6.1





TEST NUMBER: P551235

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-96-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.0	3.8	3.8
115°	2.3	3.0	3.8
117.5°	2.3	3.0	3.0
120°	2.3	2.3	3.0
122.5°	2.3	2.3	3.0
125°	2.3	2.3	3.0
127.5°	3.0	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.0	2.3	2.3
135°	3.0	2.3	2.3
137.5°	3.0	2.3	2.3
140°	3.0	2.3	2.3
142.5°	3.0	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.5
152.5°	2.3	1.5	1.5
155°	2.3	1.5	0.8
157.5°	3.0	1.5	0.8
160°	2.3	1.5	0.8
162.5°	2.3	1.5	0.8
165°	2.3	1.5	0.0
167.5°	2.3	1.5	0.8
170°	2.3	1.5	0.8
172.5°	2.3	1.5	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	319.7	310.6	280.1	229.9	160.6	89.8	33.5	6.1	1.5	2.3	2.3
110°	278.6	271.0	239.8	191.1	129.4	67.0	22.1	3.8	2.3	2.3	2.3







107.5°	3.0	4.6	5.3
110°	3.0	3.8	4.6



(END OF REPORT)