

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: P551218

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-94-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: P551218  
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-81-94-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

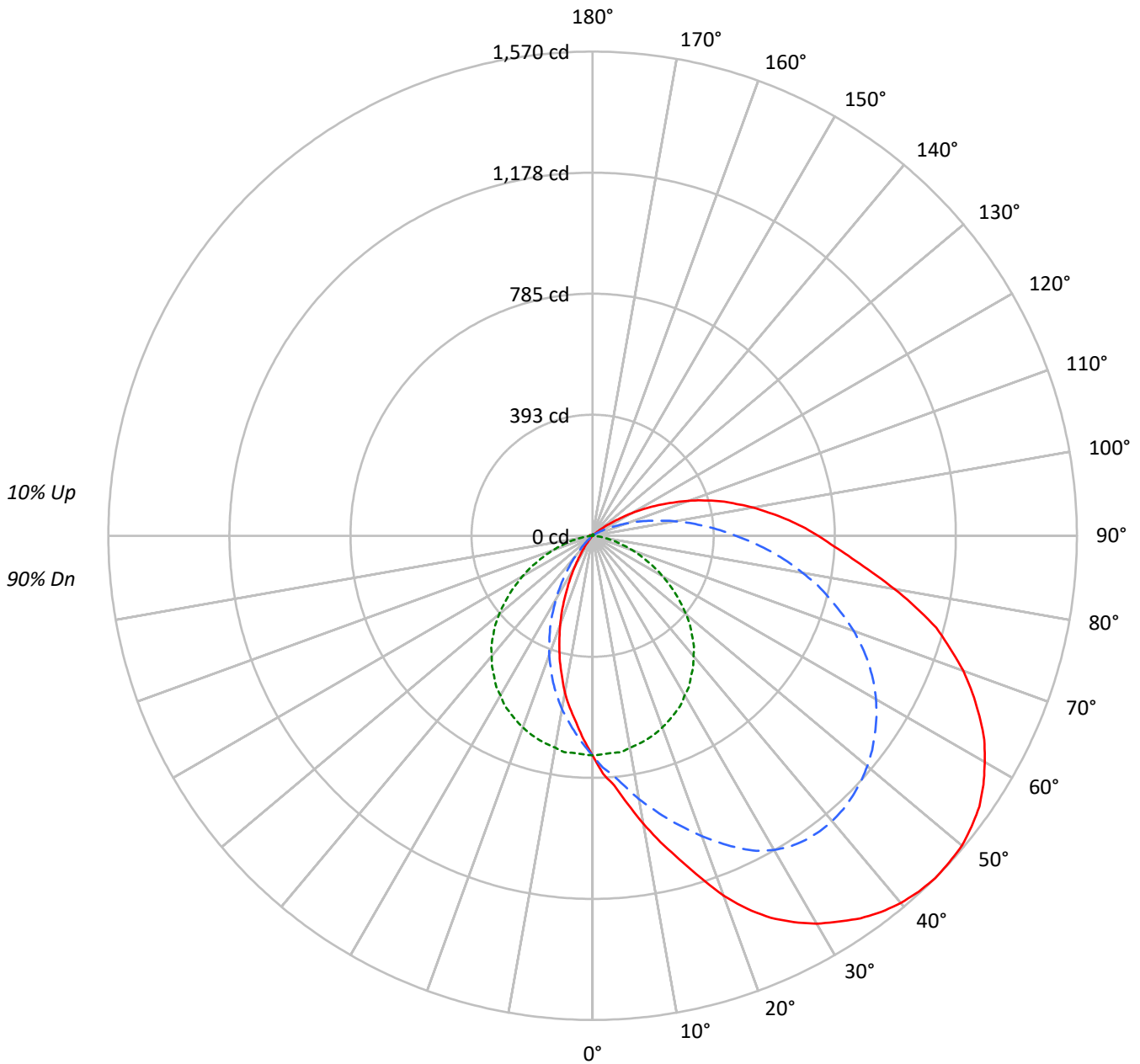
Lumens per Lamp: N/A  
Luminaire Lumens: 3520.9 lumens  
Efficiency: N/A  
Efficacy: 81.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-94-ED1D

### 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°	7666	7666	7666
5°	8415	7554	6302
10°	9523	7461	5194
15°	10672	7367	4048
20°	12037	7246	2981
25°	13169	7107	1957
30°	14010	6921	1102
35°	14737	6720	486
40°	15384	6473	117
45°	15938	6163	0
50°	16403	5753	0
55°	16758	5229	0
60°	16936	4624	0
65°	17006	3937	0
70°	16949	3209	0
75°	16734	2368	13
80°	16056	1447	73
85°	15519	692	99



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.2	1.9
10°-20°	204.3	5.8
20°-30°	330.8	9.4
30°-40°	424.9	12.1
40°-50°	481.0	13.7
50°-60°	498.3	14.2
60°-70°	470.0	13.3
70°-80°	393.9	11.2
80°-90°	285.5	8.1
90°-100°	187.6	5.3
100°-110°	108.4	3.1
110°-120°	47.8	1.4
120°-130°	12.9	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	603.3	17.1
0°-40°	1028.2	29.2
0°-60°	2007.6	57.0
0°-90°	3156.9	89.7
90°-120°	343.8	9.8
90°-150°	361.6	10.3
90°-180°	364.0	10.3
0°-180°	3520.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	712	712	712	712	712	
5°	813	781	707	641	609	82
15°	1086	952	683	494	412	313
25°	1367	1117	633	325	203	632
35°	1514	1204	556	158	50	950
45°	1570	1193	456	36	0	1212
55°	1531	1117	328	0	0	1367
65°	1384	989	196	0	0	1369
75°	1153	798	84	1	1	1209
85°	844	578	14	4	5	721
90°	731	464	4	5	6	401
95°	628	362	2	6	8	493
105°	432	187	2	4	7	456
115°	235	62	3	3	4	235
125°	70	9	4	3	4	70
135°	4	3	4	4	3	6
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	4	3	1	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	712.2	712.2	712.2	712.2	712.2	712.2	712.2	712.2	712.2	712.2	712.2
2.5°	772.1	771.2	768.5	763.9	757.6	746.7	737.6	729.5	718.6	709.5	692.3
5°	812.9	808.4	804.8	800.2	785.7	775.7	759.4	741.2	724.0	706.8	672.3
7.5°	878.2	871.0	865.5	852.8	832.9	810.2	784.8	767.6	755.8	707.7	648.7
10°	948.1	941.8	930.9	908.2	883.7	851.0	814.7	773.9	737.6	697.7	627.8
12.5°	1017.1	1008.0	992.6	963.5	929.1	888.2	838.3	790.2	738.5	691.3	603.3
15°	1086.0	1076.0	1059.7	1024.3	979.0	925.4	864.6	803.8	743.1	683.2	577.9
17.5°	1161.3	1147.7	1123.2	1083.3	1026.1	959.9	888.2	814.7	741.2	673.2	550.7
20°	1242.1	1223.0	1196.7	1143.2	1076.0	998.0	911.8	825.6	740.3	661.4	519.9
22.5°	1309.2	1290.2	1261.1	1205.8	1125.0	1029.8	931.8	832.9	736.7	647.8	490.8
25°	1367.3	1351.8	1320.1	1256.6	1171.3	1063.3	950.8	838.3	731.3	633.3	460.0
27.5°	1412.6	1398.1	1362.7	1297.4	1210.3	1093.3	965.3	841.0	724.0	618.8	428.2
30°	1452.6	1438.0	1395.4	1328.3	1236.6	1116.9	979.9	842.0	714.9	597.0	393.8
32.5°	1483.4	1469.8	1426.2	1354.6	1254.8	1133.2	988.0	841.0	703.1	581.6	356.6
35°	1514.2	1500.6	1449.8	1373.6	1268.4	1140.4	994.4	836.5	688.6	556.2	321.2
37.5°	1537.8	1522.4	1470.7	1386.3	1274.7	1142.3	993.5	830.2	673.2	535.3	285.8
40°	1554.2	1537.8	1482.5	1393.6	1276.5	1139.5	986.2	819.3	655.1	509.0	248.6
42.5°	1565.1	1546.9	1487.9	1404.5	1272.9	1132.3	975.3	805.7	635.1	486.3	213.2
45°	1570.5	1551.4	1488.8	1395.4	1266.6	1118.7	959.0	788.4	613.3	455.5	177.8
47.5°	1567.8	1546.9	1484.3	1385.4	1254.8	1104.2	940.8	767.6	587.0	428.2	144.3
50°	1563.2	1541.5	1474.3	1372.7	1238.4	1086.0	920.9	742.2	559.8	394.7	114.3
52.5°	1548.7	1526.9	1463.4	1354.6	1219.4	1065.1	893.7	715.8	530.8	362.0	87.1
55°	1530.6	1510.6	1444.4	1338.2	1194.9	1039.7	868.3	687.7	502.6	328.4	62.6
57.5°	1502.5	1484.3	1420.8	1311.9	1170.4	1011.6	840.1	656.9	467.2	294.9	43.5
60°	1468.0	1449.8	1388.1	1282.0	1142.3	979.9	809.3	625.1	435.5	261.3	27.2
62.5°	1431.7	1414.4	1350.0	1244.8	1106.9	946.3	775.7	593.4	401.9	230.4	16.3
65°	1383.6	1367.3	1309.2	1200.3	1067.9	910.0	738.5	555.3	367.4	196.0	9.1
67.5°	1332.8	1318.3	1259.3	1159.5	1022.5	870.1	700.4	518.1	331.2	166.0	4.5
70°	1278.4	1260.2	1205.8	1104.2	976.2	824.7	658.7	480.0	296.7	137.0	0.0
72.5°	1214.8	1201.2	1148.6	1052.4	922.7	776.6	616.0	438.2	258.6	108.9	0.9
75°	1153.2	1135.9	1087.8	997.1	870.1	725.8	568.9	399.2	221.4	83.5	0.9
77.5°	1073.3	1067.9	1022.5	934.5	820.2	676.8	517.1	352.0	186.0	59.9	0.9
80°	993.5	988.0	952.6	871.9	762.1	618.8	469.1	307.6	151.5	39.9	0.9
82.5°	914.5	907.3	873.7	806.6	703.1	569.8	419.2	263.1	119.8	24.5	0.9
85°	843.8	834.7	798.4	736.7	642.4	514.4	367.4	219.6	88.9	13.6	1.8
87.5°	783.0	776.6	736.7	673.2	580.7	462.7	322.1	177.8	62.6	6.4	2.7
90°	731.3	717.7	682.3	615.1	522.6	405.6	274.0	142.4	41.7	3.6	3.6
92.5°	680.5	668.7	629.7	560.7	470.9	356.6	227.7	108.9	26.3	1.8	4.5
95°	627.8	615.1	577.0	513.5	418.3	306.7	186.9	79.8	14.5	1.8	4.5
97.5°	576.1	564.3	524.4	460.9	371.1	263.1	147.9	56.3	7.3	1.8	3.6
100°	528.0	514.4	478.1	414.6	323.9	219.6	114.3	36.3	4.5	1.8	3.6
102.5°	477.2	466.3	429.1	367.4	274.9	178.7	85.3	22.7	1.8	1.8	2.7
105°	431.9	418.3	382.0	318.5	234.1	140.6	59.9	13.6	1.8	1.8	2.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	281.3	270.4	238.6	185.1	118.9	55.3	16.3	2.7	2.7	2.7	2.7
115°	235.0	218.7	190.5	143.4	88.0	36.3	8.2	2.7	2.7	2.7	2.7
117.5°	187.8	174.2	154.2	108.9	58.1	23.6	4.5	2.7	2.7	2.7	2.7
120°	147.0	134.3	111.6	75.3	39.0	13.6	1.8	2.7	2.7	2.7	2.7
122.5°	105.2	95.3	75.3	49.0	23.6	6.4	2.7	2.7	3.6	3.6	2.7
125°	69.9	64.4	49.9	29.9	14.5	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	45.4	40.8	29.0	17.2	6.4	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.4	22.7	17.2	10.0	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.5	13.6	9.1	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6
135°	3.6	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.5	4.5	4.5	3.6
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	3.6
142.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
145°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	3.6	3.6	3.6
147.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
150°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
152.5°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
155°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
157.5°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
160°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
162.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6	3.6
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	4.5
172.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
175°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
177.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	3.6
180°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	712.2	712.2	712.2
2.5°	677.7	665.0	661.4
5°	641.4	620.6	608.8
7.5°	605.2	577.0	563.4
10°	571.6	531.7	517.1
12.5°	531.7	485.4	462.7
15°	493.6	433.7	411.9
17.5°	450.9	383.8	358.4
20°	411.0	333.9	307.6
22.5°	365.6	284.9	255.9
25°	324.8	235.9	203.2
27.5°	279.4	186.0	157.9
30°	236.8	142.4	114.3
32.5°	196.0	104.3	78.9
35°	157.9	70.8	49.9
37.5°	121.6	43.5	25.4
40°	88.0	22.7	11.8
42.5°	59.0	10.9	6.4
45°	36.3	5.4	0.0
47.5°	20.9	0.0	0.0
50°	10.9	0.0	0.0
52.5°	4.5	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°	0.9	0.9	0.9
77.5°	0.9	1.8	2.7
80°	1.8	3.6	4.5
82.5°	3.6	4.5	4.5
85°	3.6	4.5	5.4
87.5°	4.5	5.4	6.4
90°	5.4	6.4	6.4
92.5°	5.4	7.3	7.3
95°	6.4	7.3	8.2
97.5°	7.3	8.2	8.2
100°	6.4	8.2	9.1
102.5°	5.4	8.2	8.2
105°	4.5	6.4	7.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.6	4.5	4.5
115°	2.7	3.6	4.5
117.5°	2.7	3.6	3.6
120°	2.7	2.7	3.6
122.5°	2.7	2.7	3.6
125°	2.7	2.7	3.6
127.5°	3.6	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.6	2.7	2.7
135°	3.6	2.7	2.7
137.5°	3.6	2.7	2.7
140°	3.6	2.7	2.7
142.5°	3.6	2.7	2.7
145°	2.7	2.7	2.7
147.5°	2.7	2.7	2.7
150°	2.7	2.7	1.8
152.5°	2.7	1.8	1.8
155°	2.7	1.8	0.9
157.5°	3.6	1.8	0.9
160°	2.7	1.8	0.9
162.5°	2.7	1.8	0.9
165°	2.7	1.8	0.0
167.5°	2.7	1.8	0.9
170°	2.7	1.8	0.9
172.5°	2.7	1.8	0.9
175°	2.7	0.9	0.9
177.5°	2.7	0.9	0.9
180°	2.7	2.7	2.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	381.1	370.2	333.9	274.0	191.4	107.1	39.9	7.3	1.8	2.7	2.7
110°	332.1	323.0	285.8	227.7	154.2	79.8	26.3	4.5	2.7	2.7	2.7







107.5°	3.6	5.4	6.4
110°	3.6	4.5	5.4



(END OF REPORT)