

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: P551302

Luminaire Tested: **FCC-X-2-LD4-2HI-35-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: P551302  
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-35-UNV-82-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

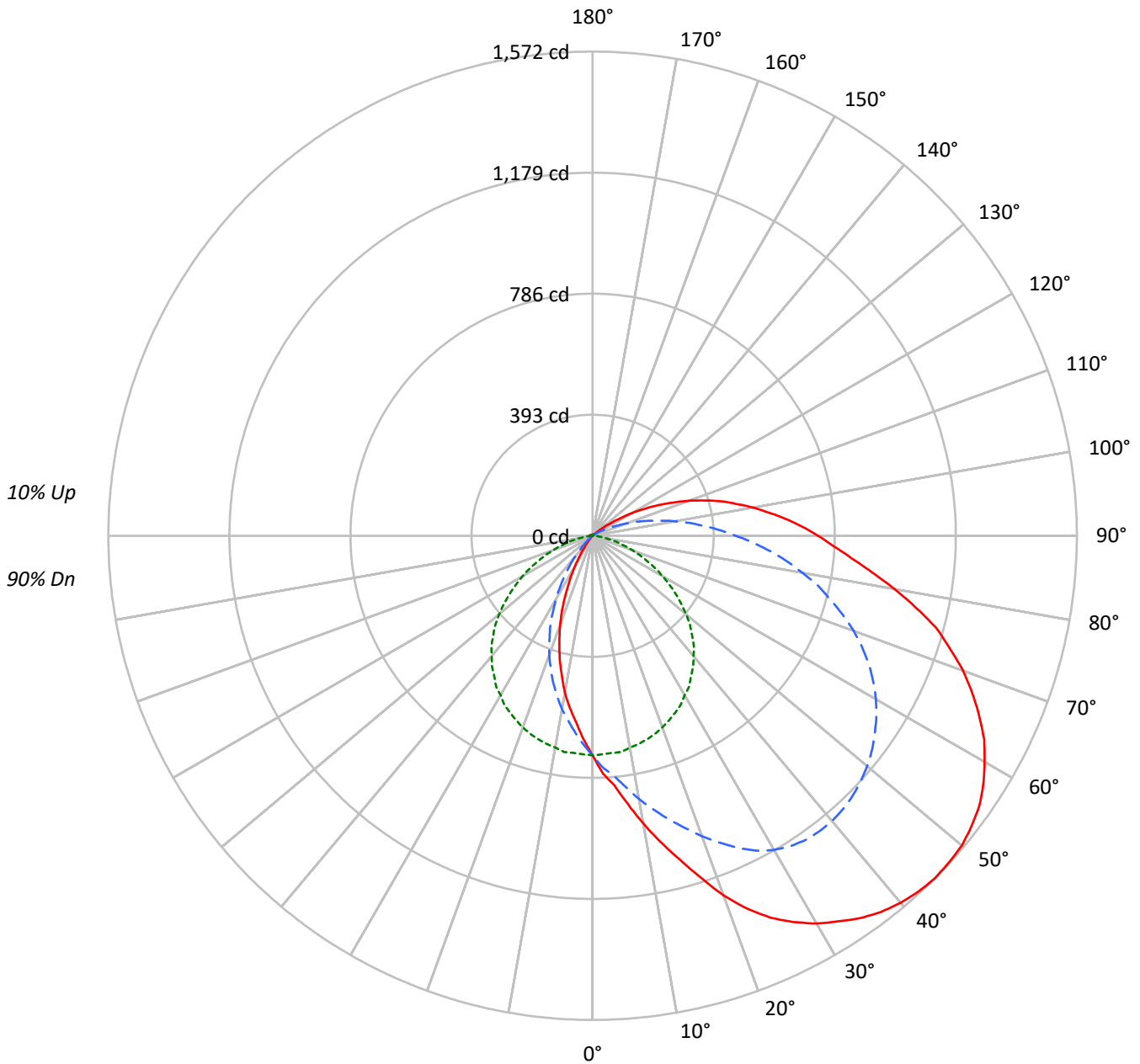
Lumens per Lamp: N/A  
Luminaire Lumens: 3523.9 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-35-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°	7673	7673	7673
5°	8423	7561	6308
10°	9531	7468	5199
15°	10681	7373	4052
20°	12047	7253	2983
25°	13179	7113	1959
30°	14022	6927	1103
35°	14750	6725	486
40°	15397	6478	117
45°	15951	6167	0
50°	16417	5757	0
55°	16772	5234	0
60°	16950	4628	0
65°	17020	3939	0
70°	16963	3212	0
75°	16747	2368	13
80°	16069	1451	73
85°	15532	692	99



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.3	1.9
10°-20°	204.4	5.8
20°-30°	331.1	9.4
30°-40°	425.3	12.1
40°-50°	481.4	13.7
50°-60°	498.8	14.2
60°-70°	470.4	13.3
70°-80°	394.2	11.2
80°-90°	285.7	8.1
90°-100°	187.8	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°	603.8	17.1
0°-40°	1029.1	29.2
0°-60°	2009.3	57.0
0°-90°	3159.6	89.7
90°-120°	344.1	9.8
90°-150°	361.9	10.3
90°-180°	364.0	10.3
0°-180°	3523.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	713	713	713	713	713	
5°	814	781	707	642	609	82
15°	1087	953	684	494	412	313
25°	1368	1118	634	325	203	632
35°	1516	1205	557	158	50	950
45°	1572	1194	456	36	0	1214
55°	1532	1118	329	0	0	1368
65°	1385	990	196	0	0	1370
75°	1154	799	84	1	1	1210
85°	844	579	14	4	5	721
90°	732	464	4	5	6	401
95°	628	363	2	6	8	493
105°	432	188	2	4	7	456
115°	235	62	3	3	4	236
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°	712.8	712.8	712.8	712.8	712.8	712.8	712.8	712.8	712.8	712.8	712.8
2.5°	772.8	771.8	769.1	764.6	758.2	747.3	738.2	730.1	719.2	710.1	692.8
5°	813.6	809.1	805.4	800.9	786.4	776.4	760.0	741.9	724.6	707.4	672.9
7.5°	879.0	871.7	866.3	853.6	833.6	810.9	785.5	768.2	756.4	708.3	649.3
10°	948.9	942.6	931.7	909.0	884.4	851.8	815.4	774.6	738.2	698.3	628.4
12.5°	1017.9	1008.8	993.4	964.4	929.8	889.0	839.0	790.9	739.2	691.9	603.9
15°	1086.9	1076.9	1060.6	1025.2	979.8	926.2	865.4	804.5	743.7	683.8	578.4
17.5°	1162.3	1148.7	1124.2	1084.2	1027.0	960.7	889.0	815.4	741.9	673.8	551.2
20°	1243.1	1224.1	1197.7	1144.1	1076.9	998.9	912.6	826.3	741.0	662.0	520.3
22.5°	1310.3	1291.2	1262.2	1206.8	1126.0	1030.6	932.6	833.6	737.3	648.3	491.3
25°	1368.4	1353.0	1321.2	1257.7	1172.3	1064.2	951.6	839.0	731.9	633.8	460.4
27.5°	1413.8	1399.3	1363.9	1298.5	1211.3	1094.2	966.2	841.8	724.6	619.3	428.6
30°	1453.8	1439.3	1396.6	1329.4	1237.7	1117.8	980.7	842.7	715.5	597.5	394.1
32.5°	1484.7	1471.0	1427.5	1355.7	1255.8	1134.2	988.9	841.8	703.7	582.1	356.9
35°	1515.5	1501.9	1451.1	1374.8	1269.5	1141.4	995.2	837.2	689.2	556.6	321.5
37.5°	1539.1	1523.7	1472.0	1387.5	1275.8	1143.2	994.3	830.9	673.8	535.8	286.0
40°	1555.5	1539.1	1483.8	1394.8	1277.6	1140.5	987.1	820.0	655.6	509.4	248.8
42.5°	1566.4	1548.2	1489.2	1405.7	1274.0	1133.2	976.2	806.3	635.6	486.7	213.4
45°	1571.8	1552.8	1490.1	1396.6	1267.6	1119.6	959.8	789.1	613.8	455.8	178.0
47.5°	1569.1	1548.2	1485.6	1386.6	1255.8	1105.1	941.6	768.2	587.5	428.6	144.4
50°	1564.6	1542.8	1475.6	1373.9	1239.5	1086.9	921.7	742.8	560.3	395.0	114.4
52.5°	1550.0	1528.3	1464.7	1355.7	1220.4	1066.1	894.4	716.5	531.2	362.3	87.2
55°	1531.9	1511.9	1445.6	1339.4	1195.9	1040.6	869.0	688.3	503.1	328.7	62.7
57.5°	1503.7	1485.6	1422.0	1313.0	1171.4	1012.5	840.9	657.4	467.6	295.1	43.6
60°	1469.2	1451.1	1389.3	1283.1	1143.2	980.7	810.0	625.6	435.9	261.5	27.2
62.5°	1432.9	1415.7	1351.2	1245.8	1107.8	947.1	776.4	593.9	402.3	230.6	16.3
65°	1384.8	1368.4	1310.3	1201.4	1068.8	910.8	739.2	555.7	367.8	196.1	9.1
67.5°	1333.9	1319.4	1260.4	1160.5	1023.4	870.8	701.0	518.5	331.4	166.2	4.5
70°	1279.4	1261.3	1206.8	1105.1	977.1	825.4	659.2	480.4	296.9	137.1	0.0
72.5°	1215.9	1202.3	1149.6	1053.3	923.5	777.3	616.6	438.6	258.8	109.0	0.9
75°	1154.1	1136.9	1088.8	997.9	870.8	726.4	569.3	399.5	221.6	83.5	0.9
77.5°	1074.2	1068.8	1023.4	935.3	820.9	677.4	517.6	352.3	186.2	59.9	0.9
80°	994.3	988.9	953.5	872.6	762.8	619.3	469.5	307.8	151.6	40.0	0.9
82.5°	915.3	908.1	874.5	807.3	703.7	570.3	419.5	263.3	119.9	24.5	0.9
85°	844.5	835.4	799.1	737.3	642.9	514.9	367.8	219.7	89.0	13.6	1.8
87.5°	783.6	777.3	737.3	673.8	581.2	463.1	322.4	178.0	62.7	6.4	2.7
90°	731.9	718.3	682.9	615.7	523.0	405.9	274.2	142.6	41.8	3.6	3.6
92.5°	681.0	669.2	630.2	561.2	471.3	356.9	227.9	109.0	26.3	1.8	4.5
95°	628.4	615.7	577.5	514.0	418.6	306.9	187.1	79.9	14.5	1.8	4.5
97.5°	576.6	564.8	524.9	461.3	371.4	263.3	148.0	56.3	7.3	1.8	3.6
100°	528.5	514.9	478.5	415.0	324.2	219.7	114.4	36.3	4.5	1.8	3.6
102.5°	477.6	466.7	429.5	367.8	275.1	178.9	85.4	22.7	1.8	1.8	2.7
105°	432.2	418.6	382.3	318.7	234.3	140.7	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°	281.5	270.6	238.8	185.2	119.0	55.4	16.3	2.7	2.7	2.7	2.7
115°	235.2	218.8	190.7	143.5	88.1	36.3	8.2	2.7	2.7	2.7	2.7
117.5°	188.0	174.3	154.4	109.0	58.1	23.6	4.5	2.7	2.7	2.7	2.7
120°	147.1	134.4	111.7	75.4	39.0	13.6	1.8	2.7	2.7	2.7	2.7
122.5°	105.3	95.3	75.4	49.0	23.6	6.4	2.7	2.7	3.6	3.6	2.7
125°	69.9	64.5	49.9	30.0	14.5	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	45.4	40.9	29.1	17.3	6.4	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.4	22.7	17.3	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°	712.8	712.8	712.8
2.5°	678.3	665.6	662.0
5°	642.0	621.1	609.3
7.5°	605.7	577.5	563.9
10°	572.1	532.1	517.6
12.5°	532.1	485.8	463.1
15°	494.0	434.0	412.3
17.5°	451.3	384.1	358.7
20°	411.3	334.2	307.8
22.5°	365.9	285.1	256.1
25°	325.1	236.1	203.4
27.5°	279.7	186.2	158.0
30°	237.0	142.6	114.4
32.5°	196.1	104.4	79.0
35°	158.0	70.8	49.9
37.5°	121.7	43.6	25.4
40°	88.1	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°	381.4	370.5	334.2	274.2	191.6	107.2	40.0	7.3	1.8	2.7	2.7
110°	332.3	323.3	286.0	227.9	154.4	79.9	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)