

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: P551222

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-97-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: P551222  
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-81-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

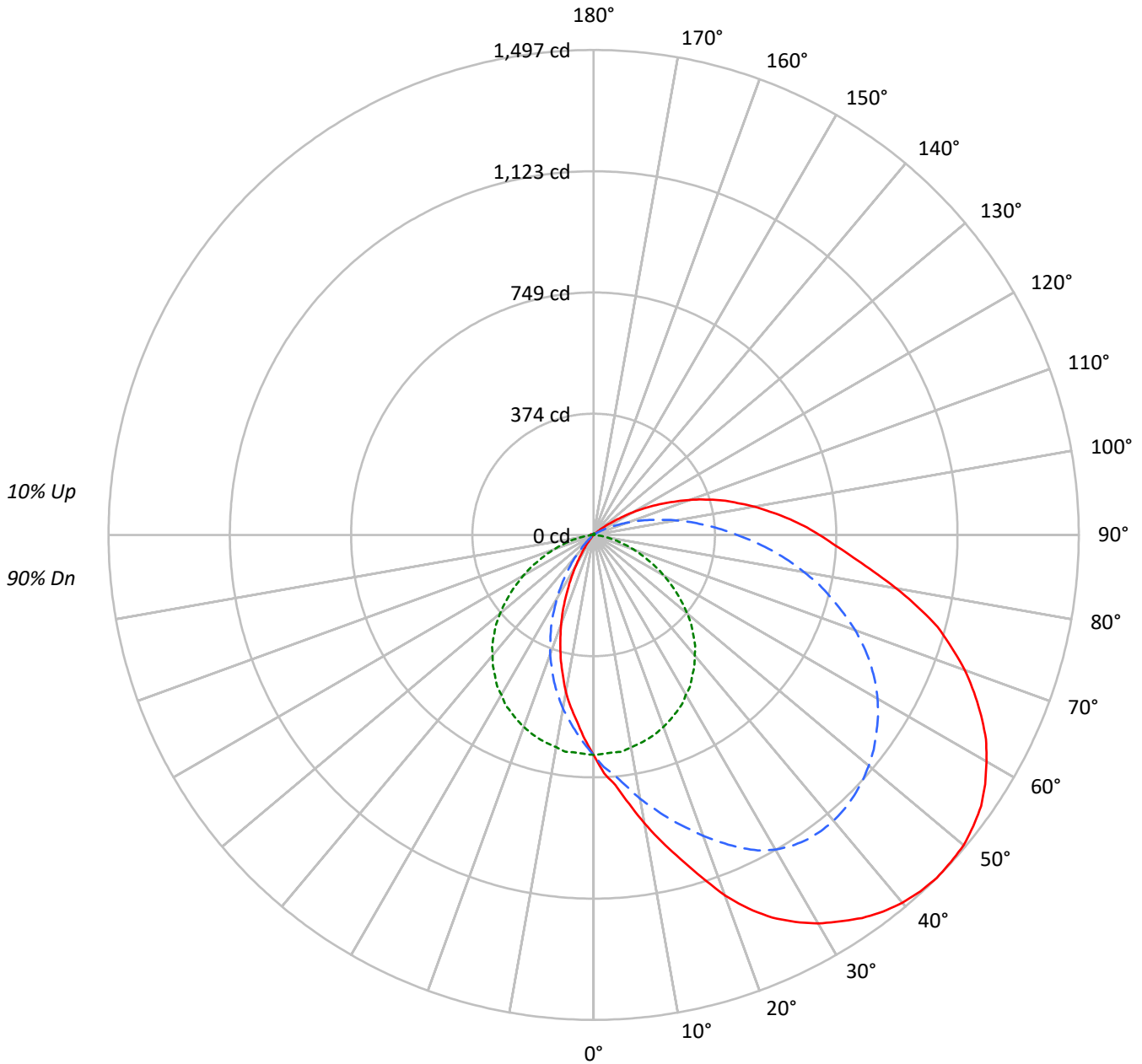
Lumens per Lamp: N/A  
Luminaire Lumens: 3357.1 lumens  
Efficiency: N/A  
Efficacy: 77.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551222

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-97-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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	7309	7309	7309
5°	8024	7203	6008
10°	9079	7114	4953
15°	10175	7024	3859
20°	11476	6909	2841
25°	12555	6776	1867
30°	13357	6598	1051
35°	14051	6407	463
40°	14667	6172	111
45°	15195	5875	0
50°	15639	5484	0
55°	15977	4986	0
60°	16147	4408	0
65°	16214	3752	0
70°	16159	3059	0
75°	15953	2257	13
80°	15307	1382	69
85°	14796	661	96



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	1.9
10°-20°	194.8	5.8
20°-30°	315.4	9.4
30°-40°	405.1	12.1
40°-50°	458.6	13.7
50°-60°	475.1	14.2
60°-70°	448.1	13.3
70°-80°	375.5	11.2
80°-90°	272.2	8.1
90°-100°	178.9	5.3
100°-110°	103.3	3.1
110°-120°	45.6	1.4
120°-130°	12.4	0.4
130°-140°	2.8	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	575.2	17.1
0°-40°	980.3	29.2
0°-60°	1914.0	57.0
0°-90°	3009.9	89.7
90°-120°	327.8	9.8
90°-150°	344.9	10.3
90°-180°	347.0	10.3
0°-180°	3357.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	679	679	679	679	679	
5°	775	744	674	612	580	78
15°	1035	908	651	471	393	299
25°	1304	1065	604	310	194	602
35°	1444	1148	530	150	48	905
45°	1497	1137	434	35	0	1156
55°	1459	1065	313	0	0	1303
65°	1319	943	187	0	0	1305
75°	1099	761	80	1	1	1153
85°	804	551	13	4	5	687
90°	697	442	4	5	6	382
95°	599	346	2	6	8	470
105°	412	179	2	4	7	434
115°	224	59	3	3	4	224
125°	67	8	4	3	4	67
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	0
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°	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
2.5°	736.1	735.3	732.7	728.3	722.3	711.9	703.3	695.5	685.1	676.4	660.0
5°	775.1	770.7	767.3	762.9	749.1	739.6	724.0	706.7	690.3	673.9	641.0
7.5°	837.3	830.4	825.2	813.1	794.1	772.5	748.2	731.8	720.6	674.7	618.5
10°	903.9	897.9	887.5	865.9	842.5	811.4	776.8	737.9	703.3	665.2	598.6
12.5°	969.7	961.0	946.3	918.7	885.8	846.9	799.3	753.4	704.1	659.1	575.2
15°	1035.4	1025.9	1010.3	976.6	933.4	882.3	824.4	766.4	708.5	651.4	551.0
17.5°	1107.2	1094.2	1070.9	1032.8	978.3	915.2	846.9	776.8	706.7	641.8	525.1
20°	1184.2	1166.0	1141.0	1089.9	1025.9	951.5	869.3	787.2	705.9	630.6	495.7
22.5°	1248.2	1230.1	1202.4	1149.6	1072.6	981.8	888.4	794.1	702.4	617.6	468.0
25°	1303.6	1288.9	1258.6	1198.1	1116.7	1013.8	906.5	799.3	697.2	603.8	438.6
27.5°	1346.8	1333.0	1299.3	1237.0	1153.9	1042.3	920.4	801.9	690.3	589.9	408.3
30°	1384.9	1371.1	1330.4	1266.4	1179.0	1064.8	934.2	802.7	681.6	569.2	375.4
32.5°	1414.3	1401.3	1359.8	1291.5	1196.3	1080.4	942.0	801.9	670.4	554.5	340.0
35°	1443.7	1430.7	1382.3	1309.6	1209.3	1087.3	948.1	797.5	656.5	530.3	306.2
37.5°	1466.2	1451.5	1402.2	1321.8	1215.4	1089.1	947.2	791.5	641.8	510.4	272.5
40°	1481.8	1466.2	1413.4	1328.7	1217.1	1086.5	940.3	781.1	624.5	485.3	237.0
42.5°	1492.2	1474.9	1418.6	1339.1	1213.6	1079.5	929.9	768.1	605.5	463.7	203.3
45°	1497.3	1479.2	1419.5	1330.4	1207.6	1066.6	914.3	751.7	584.8	434.2	169.5
47.5°	1494.8	1474.9	1415.2	1320.9	1196.3	1052.7	897.0	731.8	559.7	408.3	137.5
50°	1490.4	1469.7	1405.7	1308.8	1180.8	1035.4	878.0	707.6	533.7	376.3	109.0
52.5°	1476.6	1455.8	1395.3	1291.5	1162.6	1015.5	852.0	682.5	506.0	345.1	83.0
55°	1459.3	1440.3	1377.1	1275.9	1139.2	991.3	827.8	655.7	479.2	313.1	59.7
57.5°	1432.5	1415.2	1354.6	1250.8	1115.9	964.5	801.0	626.3	445.5	281.1	41.5
60°	1399.6	1382.3	1323.5	1222.3	1089.1	934.2	771.6	596.0	415.2	249.1	26.0
62.5°	1365.0	1348.6	1287.1	1186.8	1055.3	902.2	739.6	565.7	383.2	219.7	15.6
65°	1319.2	1303.6	1248.2	1144.4	1018.1	867.6	704.1	529.4	350.3	186.8	8.7
67.5°	1270.7	1256.9	1200.6	1105.5	974.9	829.6	667.8	493.9	315.7	158.3	4.3
70°	1218.8	1201.5	1149.6	1052.7	930.8	786.3	628.0	457.6	282.9	130.6	0.0
72.5°	1158.3	1145.3	1095.1	1003.4	879.7	740.5	587.3	417.8	246.5	103.8	0.9
75°	1099.4	1083.0	1037.2	950.7	829.6	692.0	542.4	380.6	211.1	79.6	0.9
77.5°	1023.3	1018.1	974.9	891.0	782.0	645.3	493.1	335.6	177.3	57.1	0.9
80°	947.2	942.0	908.3	831.3	726.6	589.9	447.2	293.2	144.5	38.1	0.9
82.5°	871.9	865.0	833.0	769.0	670.4	543.2	399.6	250.9	114.2	23.4	0.9
85°	804.5	795.8	761.2	702.4	612.4	490.5	350.3	209.3	84.8	13.0	1.7
87.5°	746.5	740.5	702.4	641.8	553.6	441.2	307.1	169.5	59.7	6.1	2.6
90°	697.2	684.2	650.5	586.5	498.3	386.7	261.2	135.8	39.8	3.5	3.5
92.5°	648.8	637.5	600.3	534.6	448.9	340.0	217.1	103.8	25.1	1.7	4.3
95°	598.6	586.5	550.2	489.6	398.8	292.4	178.2	76.1	13.8	1.7	4.3
97.5°	549.3	538.0	500.0	439.4	353.8	250.9	141.0	53.6	6.9	1.7	3.5
100°	503.4	490.5	455.9	395.3	308.8	209.3	109.0	34.6	4.3	1.7	3.5
102.5°	455.0	444.6	409.2	350.3	262.1	170.4	81.3	21.6	1.7	1.7	2.6
105°	411.7	398.8	364.2	303.6	223.2	134.1	57.1	13.0	1.7	1.7	2.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	268.2	257.8	227.5	176.5	113.3	52.8	15.6	2.6	2.6	2.6	2.6
115°	224.0	208.5	181.7	136.7	83.9	34.6	7.8	2.6	2.6	2.6	2.6
117.5°	179.1	166.1	147.1	103.8	55.4	22.5	4.3	2.6	2.6	2.6	2.6
120°	140.1	128.0	106.4	71.8	37.2	13.0	1.7	2.6	2.6	2.6	2.6
122.5°	100.3	90.8	71.8	46.7	22.5	6.1	2.6	2.6	3.5	3.5	2.6
125°	66.6	61.4	47.6	28.5	13.8	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	43.3	38.9	27.7	16.4	6.1	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.2	21.6	16.4	9.5	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	13.8	13.0	8.7	1.7	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	3.5
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.5	4.3	4.3	4.3	3.5
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.5	4.3	4.3	4.3	3.5
142.5°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	3.5	3.5
145°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.3	3.5	3.5	3.5
147.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	3.5	3.5
150°	0.9	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	3.5
152.5°	0.9	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	3.5
155°	1.7	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	4.3
157.5°	1.7	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	4.3
160°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.5	4.3	4.3	4.3	4.3
172.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	4.3	4.3
175°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	4.3	4.3
177.5°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	4.3	3.5
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	679.0	679.0	679.0
2.5°	646.2	634.1	630.6
5°	611.6	591.7	580.4
7.5°	577.0	550.2	537.2
10°	545.0	506.9	493.1
12.5°	506.9	462.8	441.2
15°	470.6	413.5	392.7
17.5°	429.9	365.9	341.7
20°	391.9	318.3	293.2
22.5°	348.6	271.6	243.9
25°	309.7	224.9	193.8
27.5°	266.4	177.3	150.5
30°	225.8	135.8	109.0
32.5°	186.8	99.5	75.3
35°	150.5	67.5	47.6
37.5°	115.9	41.5	24.2
40°	83.9	21.6	11.2
42.5°	56.2	10.4	6.1
45°	34.6	5.2	0.0
47.5°	19.9	0.0	0.0
50°	10.4	0.0	0.0
52.5°	4.3	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	1.7	2.6
80°	1.7	3.5	4.3
82.5°	3.5	4.3	4.3
85°	3.5	4.3	5.2
87.5°	4.3	5.2	6.1
90°	5.2	6.1	6.1
92.5°	5.2	6.9	6.9
95°	6.1	6.9	7.8
97.5°	6.9	7.8	7.8
100°	6.1	7.8	8.7
102.5°	5.2	7.8	7.8
105°	4.3	6.1	6.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.5	4.3	4.3
115°	2.6	3.5	4.3
117.5°	2.6	3.5	3.5
120°	2.6	2.6	3.5
122.5°	2.6	2.6	3.5
125°	2.6	2.6	3.5
127.5°	3.5	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.5	2.6	2.6
135°	3.5	2.6	2.6
137.5°	3.5	2.6	2.6
140°	3.5	2.6	2.6
142.5°	3.5	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.7
152.5°	2.6	1.7	1.7
155°	2.6	1.7	0.9
157.5°	3.5	1.7	0.9
160°	2.6	1.7	0.9
162.5°	2.6	1.7	0.9
165°	2.6	1.7	0.0
167.5°	2.6	1.7	0.9
170°	2.6	1.7	0.9
172.5°	2.6	1.7	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	363.3	352.9	318.3	261.2	182.5	102.1	38.1	6.9	1.7	2.6	2.6
110°	316.6	307.9	272.5	217.1	147.1	76.1	25.1	4.3	2.6	2.6	2.6







107.5°	3.5	5.2	6.1
110°	3.5	4.3	5.2



(END OF REPORT)