

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: P551210

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-85-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: P551210  
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-81-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

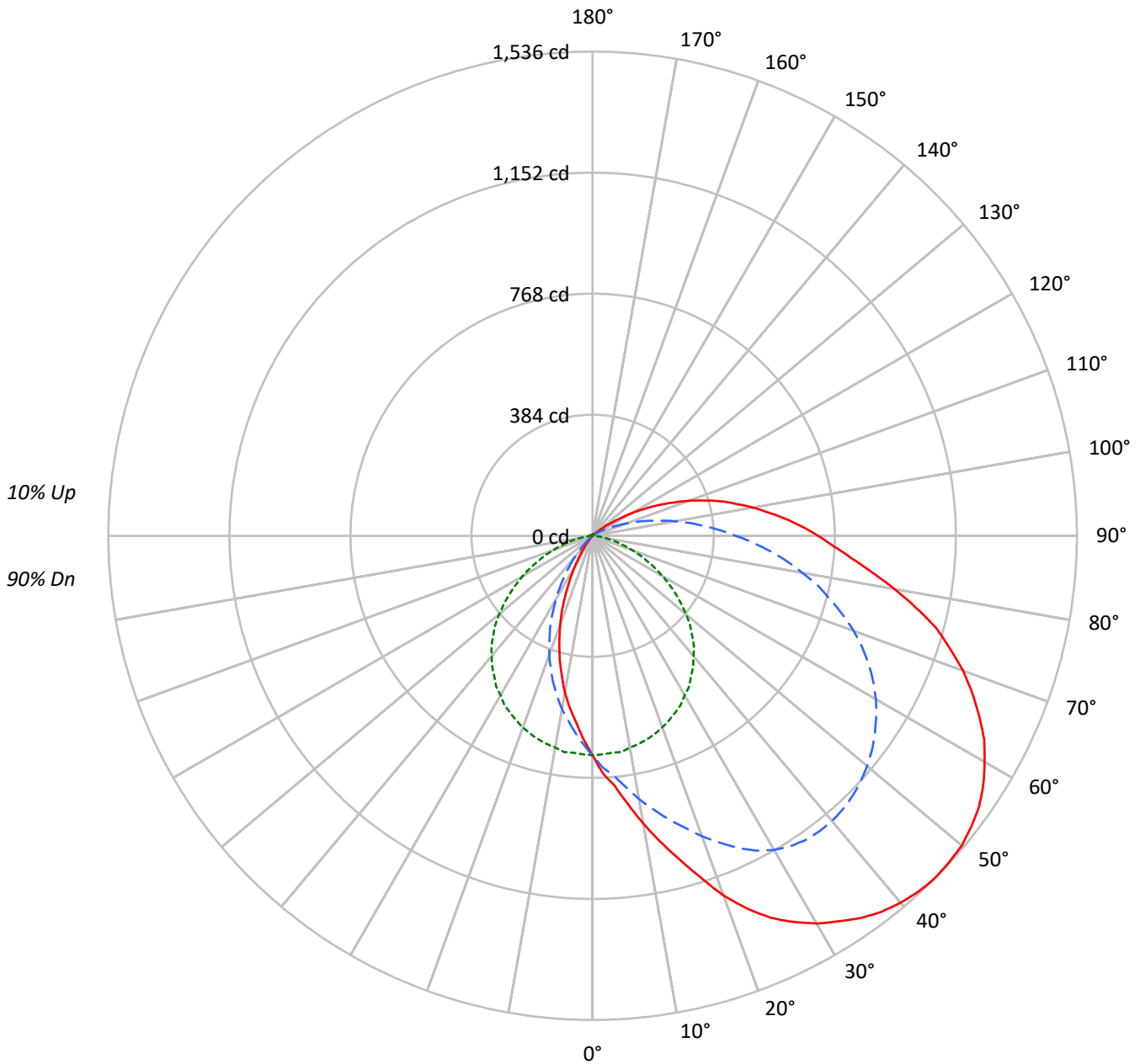
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3443.0 lumens  
Efficiency: N/A  
Efficacy: 79.5 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: P551210  
CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-85-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551210

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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°	7496	7496	7496
5°	8229	7387	6163
10°	9312	7296	5079
15°	10436	7203	3958
20°	11770	7087	2915
25°	12877	6950	1914
30°	13700	6768	1078
35°	14411	6571	475
40°	15043	6329	114
45°	15585	6027	0
50°	16040	5624	0
55°	16386	5115	0
60°	16561	4521	0
65°	16628	3848	0
70°	16573	3139	0
75°	16362	2314	13
80°	15700	1415	71
85°	15175	676	97



TEST NUMBER: P551210

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.7	1.9
10°-20°	199.7	5.8
20°-30°	323.5	9.4
30°-40°	415.5	12.1
40°-50°	470.4	13.7
50°-60°	487.3	14.2
60°-70°	459.6	13.3
70°-80°	385.1	11.2
80°-90°	279.2	8.1
90°-100°	183.5	5.3
100°-110°	106.0	3.1
110°-120°	46.8	1.4
120°-130°	12.7	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	589.9	17.1
0°-40°	1005.4	29.2
0°-60°	1963.1	57.0
0°-90°	3087.0	89.7
90°-120°	336.2	9.8
90°-150°	353.7	10.3
90°-180°	356.0	10.3
0°-180°	3443.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	696	696	696	696	696	
5°	795	763	691	627	595	80
15°	1062	931	668	483	403	306
25°	1337	1093	619	318	199	618
35°	1481	1178	544	154	49	929
45°	1536	1166	445	36	0	1186
55°	1497	1093	321	0	0	1337
65°	1353	967	192	0	0	1339
75°	1128	780	82	1	1	1183
85°	825	566	13	4	5	705
90°	715	454	4	5	6	392
95°	614	354	2	6	8	482
105°	422	183	2	4	7	446
115°	230	61	3	3	4	230
125°	68	8	4	3	4	68
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°	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4	696.4
2.5°	755.0	754.1	751.4	747.0	740.8	730.1	721.3	713.3	702.6	693.8	676.9
5°	794.9	790.5	786.9	782.5	768.3	758.5	742.6	724.8	708.0	691.1	657.4
7.5°	858.8	851.7	846.4	833.9	814.4	792.3	767.4	750.6	739.0	692.0	634.3
10°	927.1	920.9	910.2	888.1	864.1	832.2	796.7	756.8	721.3	682.2	613.9
12.5°	994.5	985.7	970.6	942.2	908.5	868.5	819.8	772.7	722.2	676.0	590.0
15°	1062.0	1052.2	1036.2	1001.6	957.3	904.9	845.5	786.0	726.6	668.0	565.1
17.5°	1135.6	1122.3	1098.3	1059.3	1003.4	938.6	868.5	796.7	724.8	658.3	538.5
20°	1214.5	1195.9	1170.2	1117.8	1052.2	975.9	891.6	807.3	723.9	646.8	508.4
22.5°	1280.2	1261.6	1233.2	1179.1	1100.1	1006.9	911.1	814.4	720.4	633.4	480.0
25°	1337.0	1321.9	1290.8	1228.7	1145.3	1039.8	929.8	819.8	715.1	619.3	449.8
27.5°	1381.3	1367.1	1332.5	1268.7	1183.5	1069.1	944.0	822.4	708.0	605.1	418.7
30°	1420.4	1406.2	1364.5	1298.8	1209.2	1092.1	958.2	823.3	699.1	583.8	385.0
32.5°	1450.5	1437.2	1394.6	1324.6	1227.0	1108.1	966.1	822.4	687.6	568.7	348.7
35°	1480.7	1467.4	1417.7	1343.2	1240.3	1115.2	972.3	818.0	673.4	543.8	314.1
37.5°	1503.8	1488.7	1438.1	1355.6	1246.5	1117.0	971.5	811.8	658.3	523.4	279.5
40°	1519.7	1503.8	1449.7	1362.7	1248.3	1114.3	964.4	801.1	640.5	497.7	243.1
42.5°	1530.4	1512.6	1455.0	1373.4	1244.7	1107.2	953.7	787.8	621.0	475.5	208.5
45°	1535.7	1517.1	1455.9	1364.5	1238.5	1093.9	937.7	771.0	599.7	445.4	173.9
47.5°	1533.0	1512.6	1451.4	1354.7	1227.0	1079.7	920.0	750.6	574.0	418.7	141.1
50°	1528.6	1507.3	1441.7	1342.3	1211.0	1062.0	900.5	725.7	547.4	385.9	111.8
52.5°	1514.4	1493.1	1431.0	1324.6	1192.4	1041.5	873.9	700.0	519.0	354.0	85.2
55°	1496.7	1477.2	1412.4	1308.6	1168.4	1016.7	849.0	672.5	491.5	321.2	61.2
57.5°	1469.2	1451.4	1389.3	1282.9	1144.5	989.2	821.5	642.3	456.9	288.3	42.6
60°	1435.5	1417.7	1357.4	1253.6	1117.0	958.2	791.4	611.3	425.8	255.5	26.6
62.5°	1400.0	1383.1	1320.1	1217.2	1082.4	925.3	758.5	580.2	393.0	225.3	16.0
65°	1352.9	1337.0	1280.2	1173.7	1044.2	889.8	722.2	543.0	359.3	191.6	8.9
67.5°	1303.3	1289.1	1231.4	1133.8	999.9	850.8	684.9	506.6	323.8	162.4	4.4
70°	1250.0	1232.3	1179.1	1079.7	954.6	806.4	644.1	469.3	290.1	134.0	0.0
72.5°	1187.9	1174.6	1123.2	1029.1	902.3	759.4	602.4	428.5	252.8	106.5	0.9
75°	1127.6	1110.7	1063.7	975.0	850.8	709.7	556.3	390.4	216.5	81.6	0.9
77.5°	1049.5	1044.2	999.9	913.8	802.0	661.8	505.7	344.2	181.9	58.6	0.9
80°	971.5	966.1	931.5	852.6	745.2	605.1	458.7	300.8	148.2	39.0	0.9
82.5°	894.3	887.2	854.4	788.7	687.6	557.1	409.9	257.3	117.1	24.0	0.9
85°	825.1	816.2	780.7	720.4	628.1	503.0	359.3	214.7	86.9	13.3	1.8
87.5°	765.6	759.4	720.4	658.3	567.8	452.5	314.9	173.9	61.2	6.2	2.7
90°	715.1	701.8	667.2	601.5	511.0	396.6	267.9	139.3	40.8	3.5	3.5
92.5°	665.4	653.9	615.7	548.3	460.4	348.7	222.7	106.5	25.7	1.8	4.4
95°	613.9	601.5	564.2	502.1	409.0	299.9	182.8	78.1	14.2	1.8	4.4
97.5°	563.4	551.8	512.8	450.7	362.9	257.3	144.6	55.0	7.1	1.8	3.5
100°	516.3	503.0	467.5	405.4	316.7	214.7	111.8	35.5	4.4	1.8	3.5
102.5°	466.7	456.0	419.6	359.3	268.8	174.8	83.4	22.2	1.8	1.8	2.7
105°	422.3	409.0	373.5	311.4	228.9	137.5	58.6	13.3	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°	275.0	264.4	233.3	181.0	116.2	54.1	16.0	2.7	2.7	2.7	2.7
115°	229.8	213.8	186.3	140.2	86.1	35.5	8.0	2.7	2.7	2.7	2.7
117.5°	183.6	170.3	150.8	106.5	56.8	23.1	4.4	2.7	2.7	2.7	2.7
120°	143.7	131.3	109.1	73.6	38.1	13.3	1.8	2.7	2.7	2.7	2.7
122.5°	102.9	93.2	73.6	47.9	23.1	6.2	2.7	2.7	3.5	3.5	2.7
125°	68.3	63.0	48.8	29.3	14.2	2.7	2.7	2.7	3.5	3.5	2.7
127.5°	44.4	39.9	28.4	16.9	6.2	2.7	2.7	3.5	3.5	3.5	2.7
130°	24.8	22.2	16.9	9.8	2.7	2.7	2.7	3.5	3.5	3.5	2.7
132.5°	14.2	13.3	8.9	1.8	2.7	2.7	2.7	3.5	3.5	3.5	3.5
135°	3.5	1.8	1.8	1.8	2.7	2.7	3.5	3.5	4.4	4.4	3.5
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.5	4.4	4.4	4.4	3.5
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.5	4.4	4.4	4.4	3.5
142.5°	0.9	1.8	1.8	2.7	2.7	3.5	3.5	4.4	4.4	3.5	3.5
145°	0.9	1.8	1.8	2.7	2.7	3.5	3.5	4.4	3.5	3.5	3.5
147.5°	1.8	1.8	1.8	2.7	2.7	3.5	3.5	4.4	4.4	3.5	3.5
150°	0.9	1.8	1.8	2.7	3.5	3.5	3.5	4.4	3.5	3.5	3.5
152.5°	0.9	1.8	1.8	2.7	3.5	3.5	3.5	4.4	3.5	3.5	3.5
155°	1.8	1.8	1.8	2.7	3.5	3.5	3.5	4.4	3.5	3.5	4.4
157.5°	1.8	1.8	1.8	2.7	3.5	3.5	3.5	4.4	3.5	3.5	4.4
160°	1.8	1.8	1.8	2.7	2.7	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.8	1.8	1.8	2.7	2.7	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.5	3.5	3.5	3.5	3.5
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.5	3.5	3.5	3.5	3.5
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.5	4.4	4.4	4.4	4.4
172.5°	1.8	1.8	1.8	2.7	2.7	3.5	3.5	4.4	4.4	4.4	4.4
175°	1.8	1.8	1.8	2.7	2.7	3.5	3.5	4.4	4.4	4.4	4.4
177.5°	0.9	1.8	1.8	2.7	2.7	3.5	3.5	4.4	4.4	4.4	3.5
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°	696.4	696.4	696.4
2.5°	662.7	650.3	646.8
5°	627.2	606.8	595.3
7.5°	591.7	564.2	550.9
10°	558.9	519.9	505.7
12.5°	519.9	474.6	452.5
15°	482.6	424.1	402.8
17.5°	440.9	375.3	350.4
20°	401.9	326.5	300.8
22.5°	357.5	278.6	250.2
25°	317.6	230.7	198.7
27.5°	273.3	181.9	154.4
30°	231.6	139.3	111.8
32.5°	191.6	102.0	77.2
35°	154.4	69.2	48.8
37.5°	118.9	42.6	24.8
40°	86.1	22.2	11.5
42.5°	57.7	10.6	6.2
45°	35.5	5.3	0.0
47.5°	20.4	0.0	0.0
50°	10.6	0.0	0.0
52.5°	4.4	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	3.5	4.4
82.5°	3.5	4.4	4.4
85°	3.5	4.4	5.3
87.5°	4.4	5.3	6.2
90°	5.3	6.2	6.2
92.5°	5.3	7.1	7.1
95°	6.2	7.1	8.0
97.5°	7.1	8.0	8.0
100°	6.2	8.0	8.9
102.5°	5.3	8.0	8.0
105°	4.4	6.2	7.1





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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.5	4.4	4.4
115°	2.7	3.5	4.4
117.5°	2.7	3.5	3.5
120°	2.7	2.7	3.5
122.5°	2.7	2.7	3.5
125°	2.7	2.7	3.5
127.5°	3.5	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.5	2.7	2.7
135°	3.5	2.7	2.7
137.5°	3.5	2.7	2.7
140°	3.5	2.7	2.7
142.5°	3.5	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°	3.5	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°	372.6	362.0	326.5	267.9	187.2	104.7	39.0	7.1	1.8	2.7	2.7
110°	324.7	315.8	279.5	222.7	150.8	78.1	25.7	4.4	2.7	2.7	2.7







107.5°	3.5	5.3	6.2
110°	3.5	4.4	5.3



(END OF REPORT)