

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: P551224

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-84-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: P551224  
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-82-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

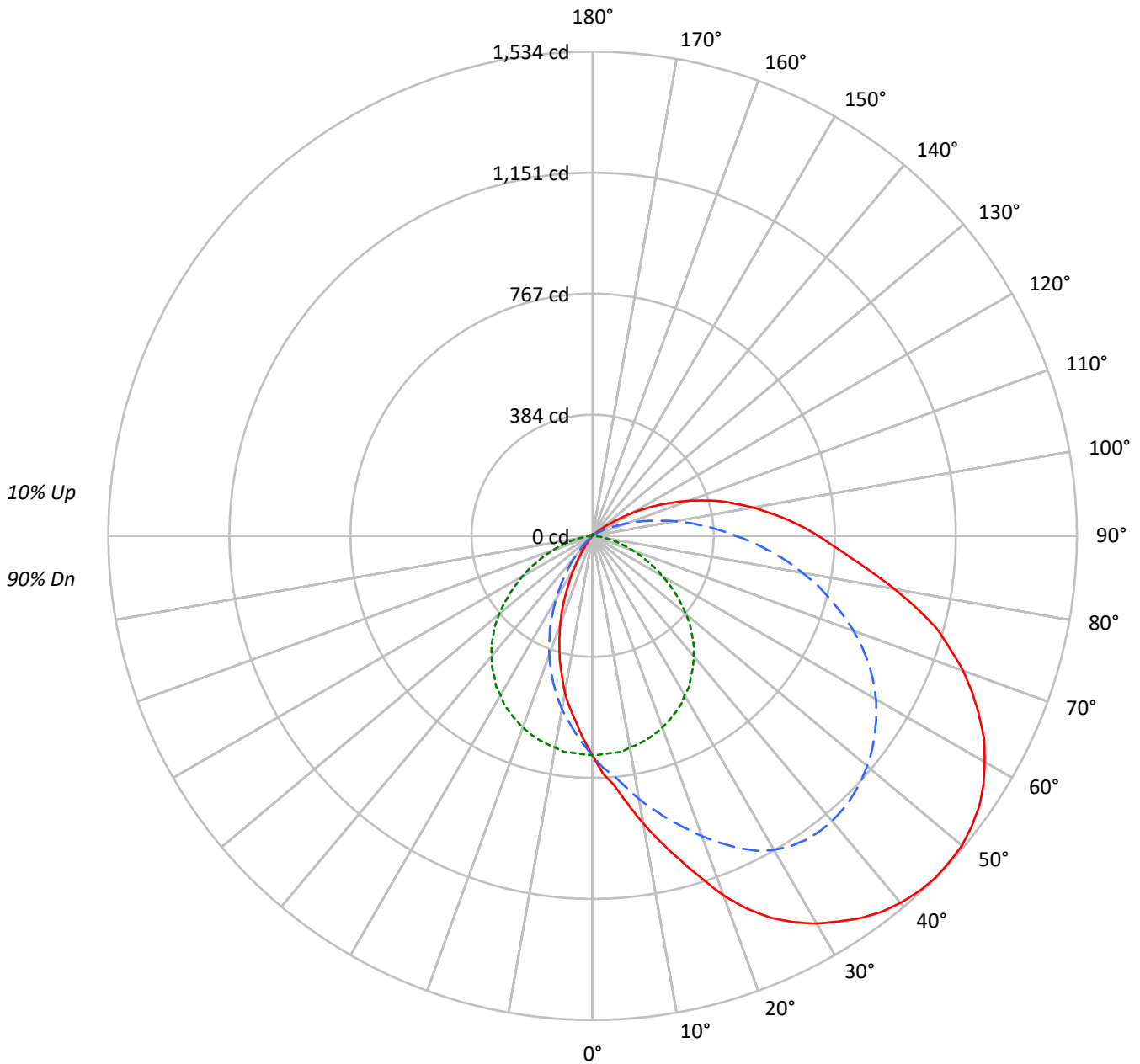
Lumens per Lamp: N/A  
Luminaire Lumens: 3439.0 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551224

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-84-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°	7487	7487	7487
5°	8220	7378	6155
10°	9301	7287	5073
15°	10424	7195	3953
20°	11756	7078	2911
25°	12861	6941	1912
30°	13683	6760	1077
35°	14395	6563	474
40°	15026	6322	114
45°	15567	6019	0
50°	16021	5618	0
55°	16367	5108	0
60°	16541	4516	0
65°	16610	3844	0
70°	16554	3134	0
75°	16344	2311	13
80°	15681	1415	71
85°	15157	676	97



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.6	1.9
10°-20°	199.5	5.8
20°-30°	323.1	9.4
30°-40°	415.0	12.1
40°-50°	469.8	13.7
50°-60°	486.7	14.2
60°-70°	459.0	13.3
70°-80°	384.7	11.2
80°-90°	278.8	8.1
90°-100°	183.3	5.3
100°-110°	105.8	3.1
110°-120°	46.7	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°	589.2	17.1
0°-40°	1004.3	29.2
0°-60°	1960.8	57.0
0°-90°	3083.4	89.7
90°-120°	335.8	9.8
90°-150°	353.3	10.3
90°-180°	356.0	10.4
0°-180°	3439.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	696	696	696	696	696	
5°	794	763	690	626	595	80
15°	1061	930	667	482	402	306
25°	1335	1091	618	317	198	617
35°	1479	1176	543	154	49	928
45°	1534	1165	445	35	0	1184
55°	1495	1091	321	0	0	1335
65°	1351	966	191	0	0	1337
75°	1126	779	82	1	1	1181
85°	824	565	13	4	5	704
90°	714	453	4	5	6	392
95°	613	354	2	6	8	481
105°	422	183	2	4	7	445
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°	695.6	695.6	695.6	695.6	695.6	695.6	695.6	695.6	695.6	695.6	695.6
2.5°	754.1	753.2	750.6	746.1	739.9	729.3	720.4	712.5	701.8	693.0	676.1
5°	794.0	789.6	786.0	781.6	767.4	757.7	741.7	724.0	707.1	690.3	656.6
7.5°	857.8	850.7	845.4	833.0	813.5	791.3	766.5	749.7	738.2	691.2	633.6
10°	926.0	919.8	909.2	887.0	863.1	831.2	795.8	755.9	720.4	681.4	613.2
12.5°	993.4	984.5	969.4	941.1	907.4	867.5	818.8	771.8	721.3	675.2	589.3
15°	1060.7	1051.0	1035.0	1000.5	956.2	903.9	844.5	785.1	725.8	667.3	564.5
17.5°	1134.3	1121.0	1097.1	1058.1	1002.2	937.5	867.5	795.8	724.0	657.5	537.9
20°	1213.1	1194.5	1168.8	1116.5	1051.0	974.8	890.6	806.4	723.1	646.0	507.8
22.5°	1278.7	1260.1	1231.7	1177.7	1098.8	1005.8	910.1	813.5	719.6	632.7	479.4
25°	1335.4	1320.4	1289.3	1227.3	1144.0	1038.6	928.7	818.8	714.2	618.5	449.3
27.5°	1379.7	1365.6	1331.0	1267.2	1182.1	1067.8	942.9	821.5	707.1	604.4	418.3
30°	1418.7	1404.5	1362.9	1297.3	1207.8	1090.8	957.0	822.3	698.3	583.1	384.6
32.5°	1448.9	1435.6	1393.0	1323.0	1225.5	1106.8	965.0	821.5	686.8	568.0	348.3
35°	1479.0	1465.7	1416.1	1341.6	1238.8	1113.9	971.2	817.0	672.6	543.2	313.7
37.5°	1502.0	1487.0	1436.4	1354.0	1245.0	1115.7	970.3	810.8	657.5	522.8	279.1
40°	1518.0	1502.0	1448.0	1361.1	1246.8	1113.0	963.2	800.2	639.8	497.1	242.8
42.5°	1528.6	1510.9	1453.3	1371.8	1243.3	1105.9	952.6	786.9	620.3	475.0	208.2
45°	1533.9	1515.3	1454.2	1362.9	1237.1	1092.6	936.7	770.1	599.0	444.8	173.7
47.5°	1531.3	1510.9	1449.7	1353.1	1225.5	1078.4	918.9	749.7	573.3	418.3	140.9
50°	1526.8	1505.6	1440.0	1340.7	1209.6	1060.7	899.4	724.9	546.8	385.5	111.7
52.5°	1512.7	1491.4	1429.4	1323.0	1191.0	1040.3	872.9	699.2	518.4	353.6	85.1
55°	1494.9	1475.4	1410.7	1307.1	1167.1	1015.5	848.0	671.7	490.9	320.8	61.1
57.5°	1467.5	1449.7	1387.7	1281.4	1143.1	988.1	820.6	641.6	456.4	288.0	42.5
60°	1433.8	1416.1	1355.8	1252.1	1115.7	957.0	790.4	610.6	425.4	255.2	26.6
62.5°	1398.3	1381.5	1318.6	1215.8	1081.1	924.3	757.7	579.5	392.6	225.1	16.0
65°	1351.4	1335.4	1278.7	1172.4	1043.0	888.8	721.3	542.3	358.9	191.4	8.9
67.5°	1301.8	1287.6	1230.0	1132.5	998.7	849.8	684.1	506.0	323.4	162.2	4.4
70°	1248.6	1230.9	1177.7	1078.4	953.5	805.5	643.3	468.8	289.8	133.8	0.0
72.5°	1186.6	1173.3	1121.9	1027.9	901.2	758.5	601.7	428.0	252.6	106.3	0.9
75°	1126.3	1109.5	1062.5	973.9	849.8	708.9	555.6	389.9	216.2	81.5	0.9
77.5°	1048.3	1043.0	998.7	912.7	801.1	661.1	505.1	343.8	181.7	58.5	0.9
80°	970.3	965.0	930.5	851.6	744.4	604.4	458.1	300.4	148.0	39.0	0.9
82.5°	893.2	886.1	853.4	787.8	686.8	556.5	409.4	257.0	117.0	23.9	0.9
85°	824.1	815.3	779.8	719.6	627.4	502.4	358.9	214.4	86.8	13.3	1.8
87.5°	764.7	758.5	719.6	657.5	567.1	451.9	314.6	173.7	61.1	6.2	2.7
90°	714.2	700.9	666.4	600.8	510.4	396.1	267.6	139.1	40.8	3.5	3.5
92.5°	664.6	653.1	615.0	547.6	459.9	348.3	222.4	106.3	25.7	1.8	4.4
95°	613.2	600.8	563.6	501.6	408.5	299.5	182.5	78.0	14.2	1.8	4.4
97.5°	562.7	551.2	512.2	450.2	362.4	257.0	144.4	54.9	7.1	1.8	3.5
100°	515.7	502.4	467.0	405.0	316.4	214.4	111.7	35.4	4.4	1.8	3.5
102.5°	466.1	455.5	419.1	358.9	268.5	174.6	83.3	22.2	1.8	1.8	2.7
105°	421.8	408.5	373.1	311.0	228.6	137.4	58.5	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°	274.7	264.1	233.1	180.8	116.1	54.1	16.0	2.7	2.7	2.7	2.7
115°	229.5	213.6	186.1	140.0	86.0	35.4	8.0	2.7	2.7	2.7	2.7
117.5°	183.4	170.1	150.6	106.3	56.7	23.0	4.4	2.7	2.7	2.7	2.7
120°	143.6	131.2	109.0	73.6	38.1	13.3	1.8	2.7	2.7	2.7	2.7
122.5°	102.8	93.0	73.6	47.9	23.0	6.2	2.7	2.7	3.5	3.5	2.7
125°	68.2	62.9	48.7	29.2	14.2	2.7	2.7	2.7	3.5	3.5	2.7
127.5°	44.3	39.9	28.4	16.8	6.2	2.7	2.7	3.5	3.5	3.5	2.7
130°	24.8	22.2	16.8	9.7	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



TEST NUMBER: P551224

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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	695.6	695.6	695.6
2.5°	662.0	649.5	646.0
5°	626.5	606.1	594.6
7.5°	591.1	563.6	550.3
10°	558.3	519.3	505.1
12.5°	519.3	474.1	451.9
15°	482.1	423.6	402.3
17.5°	440.4	374.8	350.0
20°	401.4	326.1	300.4
22.5°	357.1	278.3	249.9
25°	317.2	230.4	198.5
27.5°	272.9	181.7	154.2
30°	231.3	139.1	111.7
32.5°	191.4	101.9	77.1
35°	154.2	69.1	48.7
37.5°	118.7	42.5	24.8
40°	86.0	22.2	11.5
42.5°	57.6	10.6	6.2
45°	35.4	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





TEST NUMBER: P551224

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-84-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°	372.2	361.5	326.1	267.6	187.0	104.6	39.0	7.1	1.8	2.7	2.7
110°	324.3	315.5	279.1	222.4	150.6	78.0	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)