

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: P551429

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-97-ED1D-90**

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: P551429  
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-50-UNV-82-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

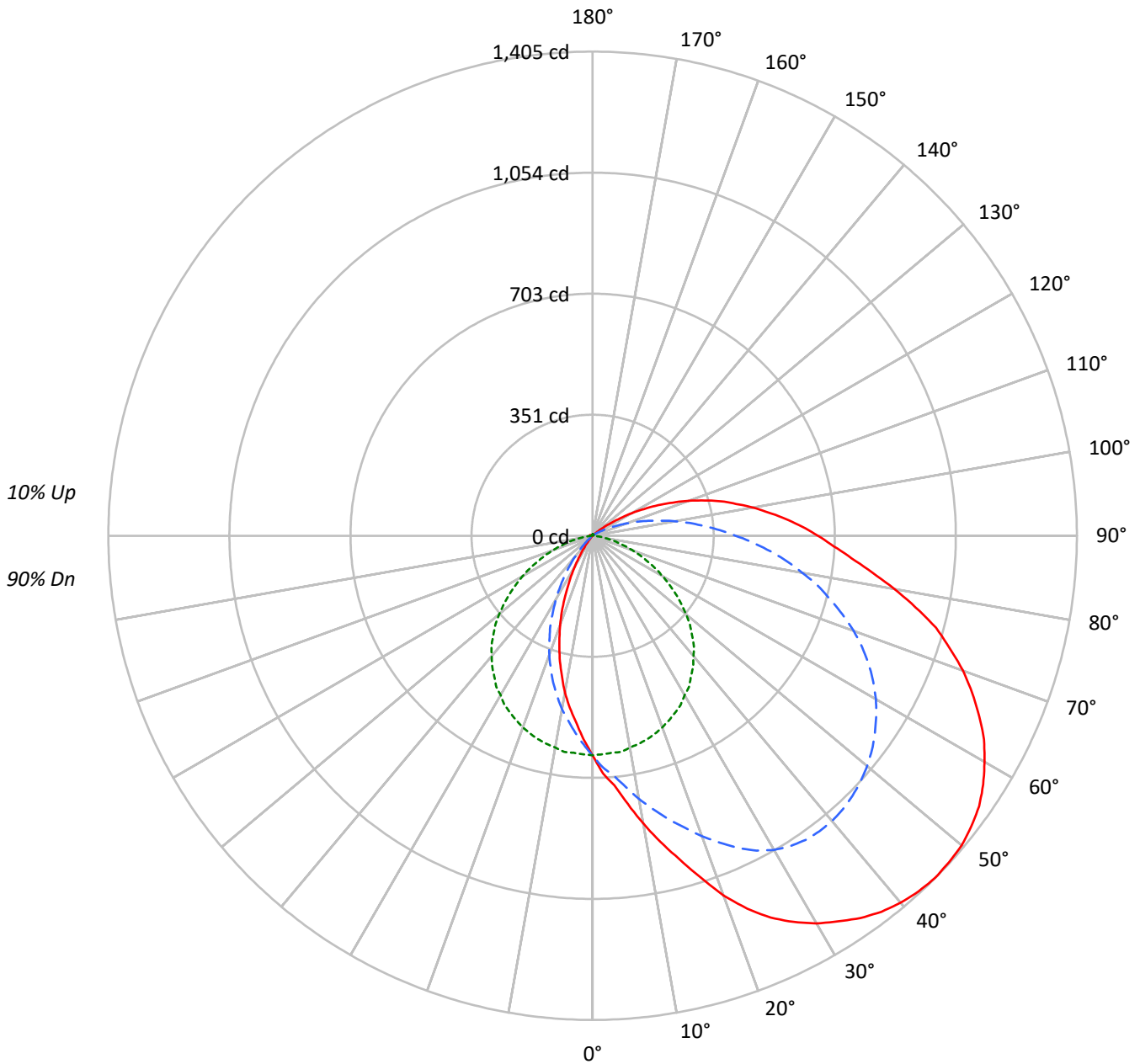
Lumens per Lamp: N/A  
Luminaire Lumens: 3148.9 lumens  
Efficiency: N/A  
Efficacy: 72.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551429

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-97-ED1D-90

### 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	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°	6857	6857	6857
5°	7526	6756	5637
10°	8517	6673	4646
15°	9545	6588	3620
20°	10765	6481	2666
25°	11777	6356	1751
30°	12530	6189	986
35°	13181	6010	434
40°	13759	5789	104
45°	14254	5511	0
50°	14670	5145	0
55°	14987	4677	0
60°	15147	4136	0
65°	15209	3521	0
70°	15158	2870	0
75°	14965	2118	12
80°	14359	1295	66
85°	13879	620	90



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.0	1.9
10°-20°	182.7	5.8
20°-30°	295.8	9.4
30°-40°	380.0	12.1
40°-50°	430.2	13.7
50°-60°	445.7	14.2
60°-70°	420.3	13.3
70°-80°	352.2	11.2
80°-90°	255.3	8.1
90°-100°	167.8	5.3
100°-110°	96.9	3.1
110°-120°	42.8	1.4
120°-130°	11.6	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	539.5	17.1
0°-40°	919.6	29.2
0°-60°	1795.4	57.0
0°-90°	2823.4	89.7
90°-120°	307.5	9.8
90°-150°	323.4	10.3
90°-180°	326.0	10.4
0°-180°	3148.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	637	637	637	637	637	
5°	727	698	632	574	544	73
15°	971	852	611	441	368	280
25°	1223	999	566	290	182	565
35°	1354	1077	497	141	45	849
45°	1405	1067	407	32	0	1084
55°	1369	999	294	0	0	1222
65°	1237	884	175	0	0	1224
75°	1031	714	75	1	1	1082
85°	755	517	12	3	5	644
90°	654	415	3	5	6	359
95°	562	324	2	6	7	441
105°	386	168	2	4	6	408
115°	210	56	2	2	4	210
125°	62	8	3	2	3	62
135°	3	2	4	3	2	6
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
2.5°	690.5	689.7	687.3	683.2	677.5	667.8	659.7	652.4	642.6	634.5	619.1
5°	727.0	723.0	719.7	715.7	702.7	693.8	679.2	662.9	647.5	632.1	601.3
7.5°	785.5	779.0	774.1	762.7	744.9	724.6	701.9	686.5	675.9	632.9	580.2
10°	847.9	842.3	832.5	812.2	790.3	761.1	728.7	692.1	659.7	624.0	561.5
12.5°	909.6	901.5	887.7	861.7	830.9	794.4	749.8	706.7	660.5	618.3	539.6
15°	971.3	962.3	947.7	916.1	875.5	827.7	773.3	718.9	664.6	611.0	516.9
17.5°	1038.6	1026.5	1004.5	968.8	917.7	858.5	794.4	728.7	662.9	602.1	492.5
20°	1110.8	1093.8	1070.3	1022.4	962.3	892.6	815.5	738.4	662.1	591.5	464.9
22.5°	1170.9	1153.8	1127.9	1078.4	1006.2	921.0	833.3	744.9	658.9	579.4	439.0
25°	1222.8	1209.0	1180.6	1123.8	1047.5	951.0	850.4	749.8	654.0	566.4	411.4
27.5°	1263.4	1250.4	1218.8	1160.3	1082.4	977.8	863.4	752.2	647.5	553.4	383.0
30°	1299.1	1286.1	1248.0	1187.9	1106.0	998.9	876.3	753.0	639.4	533.9	352.2
32.5°	1326.7	1314.5	1275.6	1211.5	1122.2	1013.5	883.6	752.2	628.9	520.1	318.9
35°	1354.3	1342.1	1296.7	1228.5	1134.4	1020.0	889.3	748.1	615.9	497.4	287.2
37.5°	1375.4	1361.6	1315.3	1239.9	1140.0	1021.6	888.5	742.5	602.1	478.7	255.6
40°	1390.0	1375.4	1325.9	1246.3	1141.7	1019.1	882.0	732.7	585.8	455.2	222.3
42.5°	1399.7	1383.5	1330.7	1256.1	1138.4	1012.7	872.3	720.5	568.0	434.9	190.7
45°	1404.6	1387.5	1331.5	1248.0	1132.7	1000.5	857.7	705.1	548.5	407.3	159.0
47.5°	1402.1	1383.5	1327.5	1239.0	1122.2	987.5	841.4	686.5	525.0	383.0	129.0
50°	1398.1	1378.6	1318.6	1227.7	1107.6	971.3	823.6	663.7	500.6	353.0	102.2
52.5°	1385.1	1365.6	1308.8	1211.5	1090.6	952.6	799.3	640.2	474.7	323.8	77.9
55°	1368.9	1351.0	1291.8	1196.8	1068.6	929.9	776.5	615.1	449.5	293.7	56.0
57.5°	1343.7	1327.5	1270.7	1173.3	1046.7	904.7	751.4	587.5	417.9	263.7	38.9
60°	1312.9	1296.7	1241.5	1146.5	1021.6	876.3	723.8	559.1	389.5	233.7	24.3
62.5°	1280.4	1265.0	1207.4	1113.3	989.9	846.3	693.8	530.7	359.5	206.1	14.6
65°	1237.4	1222.8	1170.9	1073.5	955.0	813.9	660.5	496.6	328.6	175.3	8.1
67.5°	1192.0	1179.0	1126.3	1037.0	914.5	778.2	626.4	463.3	296.2	148.5	4.1
70°	1143.3	1127.1	1078.4	987.5	873.1	737.6	589.1	429.2	265.3	122.5	0.0
72.5°	1086.5	1074.3	1027.3	941.3	825.2	694.6	551.0	391.9	231.3	97.4	0.8
75°	1031.3	1015.9	972.9	891.8	778.2	649.1	508.8	357.0	198.0	74.7	0.8
77.5°	959.9	955.0	914.5	835.8	733.5	605.3	462.5	314.8	166.3	53.6	0.8
80°	888.5	883.6	852.0	779.8	681.6	553.4	419.5	275.1	135.5	35.7	0.8
82.5°	817.9	811.4	781.4	721.4	628.9	509.6	374.9	235.3	107.1	21.9	0.8
85°	754.6	746.5	714.1	658.9	574.5	460.1	328.6	196.4	79.5	12.2	1.6
87.5°	700.3	694.6	658.9	602.1	519.3	413.8	288.1	159.0	56.0	5.7	2.4
90°	654.0	641.8	610.2	550.1	467.4	362.7	245.0	127.4	37.3	3.2	3.2
92.5°	608.6	598.0	563.1	501.5	421.1	318.9	203.7	97.4	23.5	1.6	4.1
95°	561.5	550.1	516.1	459.3	374.1	274.3	167.2	71.4	13.0	1.6	4.1
97.5°	515.3	504.7	469.0	412.2	331.9	235.3	132.3	50.3	6.5	1.6	3.2
100°	472.2	460.1	427.6	370.8	289.7	196.4	102.2	32.5	4.1	1.6	3.2
102.5°	426.8	417.1	383.8	328.6	245.9	159.9	76.3	20.3	1.6	1.6	2.4
105°	386.2	374.1	341.6	284.8	209.3	125.8	53.6	12.2	1.6	1.6	2.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	251.5	241.8	213.4	165.5	106.3	49.5	14.6	2.4	2.4	2.4	2.4
115°	210.2	195.6	170.4	128.2	78.7	32.5	7.3	2.4	2.4	2.4	2.4
117.5°	168.0	155.8	137.9	97.4	51.9	21.1	4.1	2.4	2.4	2.4	2.4
120°	131.5	120.1	99.8	67.3	34.9	12.2	1.6	2.4	2.4	2.4	2.4
122.5°	94.1	85.2	67.3	43.8	21.1	5.7	2.4	2.4	3.2	3.2	2.4
125°	62.5	57.6	44.6	26.8	13.0	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.6	36.5	26.0	15.4	5.7	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.7	20.3	15.4	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	13.0	12.2	8.1	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.1	4.1	4.1	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.1	4.1	4.1	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	4.1
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	4.1
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	637.0	637.0	637.0
2.5°	606.1	594.8	591.5
5°	573.7	555.0	544.5
7.5°	541.2	516.1	503.9
10°	511.2	475.5	462.5
12.5°	475.5	434.1	413.8
15°	441.4	387.9	368.4
17.5°	403.3	343.2	320.5
20°	367.6	298.6	275.1
22.5°	327.0	254.8	228.8
25°	290.5	211.0	181.8
27.5°	249.9	166.3	141.2
30°	211.8	127.4	102.2
32.5°	175.3	93.3	70.6
35°	141.2	63.3	44.6
37.5°	108.7	38.9	22.7
40°	78.7	20.3	10.5
42.5°	52.7	9.7	5.7
45°	32.5	4.9	0.0
47.5°	18.7	0.0	0.0
50°	9.7	0.0	0.0
52.5°	4.1	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.2	4.1
82.5°	3.2	4.1	4.1
85°	3.2	4.1	4.9
87.5°	4.1	4.9	5.7
90°	4.9	5.7	5.7
92.5°	4.9	6.5	6.5
95°	5.7	6.5	7.3
97.5°	6.5	7.3	7.3
100°	5.7	7.3	8.1
102.5°	4.9	7.3	7.3
105°	4.1	5.7	6.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.2	4.1	4.1
115°	2.4	3.2	4.1
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	340.8	331.1	298.6	245.0	171.2	95.7	35.7	6.5	1.6	2.4	2.4
110°	297.0	288.9	255.6	203.7	137.9	71.4	23.5	4.1	2.4	2.4	2.4







107.5°	3.2	4.9	5.7
110°	3.2	4.1	4.9



(END OF REPORT)