

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: P551425

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-94-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: P551425  
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-82-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

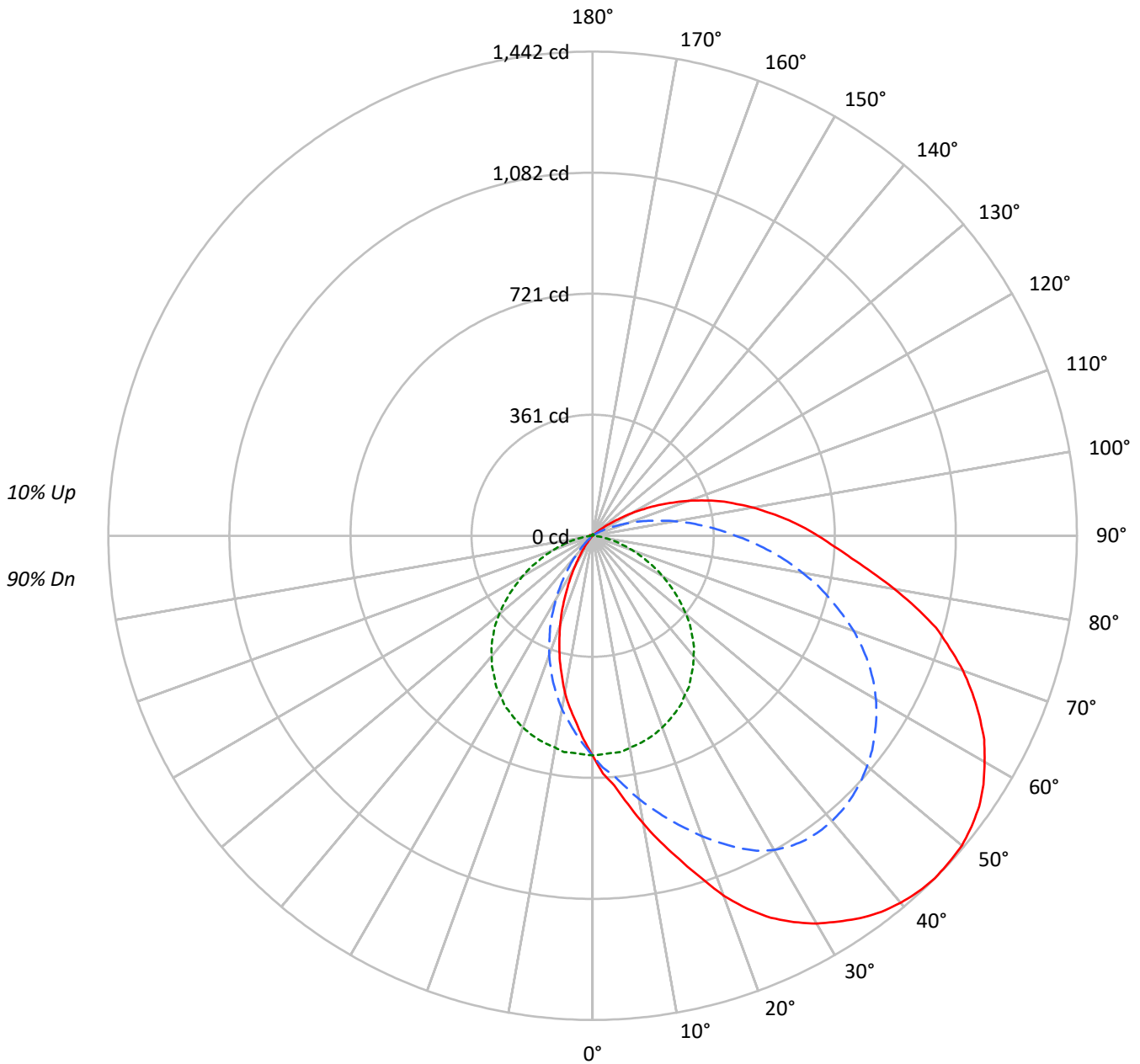
Lumens per Lamp: N/A  
Luminaire Lumens: 3233.0 lumens  
Efficiency: N/A  
Efficacy: 74.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551425

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-94-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551425

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-94-ED1D-90

**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°	7040	7040	7040
5°	7727	6937	5787
10°	8745	6851	4769
15°	9800	6764	3717
20°	11053	6654	2737
25°	12091	6526	1797
30°	12863	6355	1013
35°	13533	6171	446
40°	14125	5944	107
45°	14634	5659	0
50°	15062	5282	0
55°	15387	4803	0
60°	15550	4245	0
65°	15614	3613	0
70°	15563	2947	0
75°	15364	2172	12
80°	14742	1331	68
85°	14250	636	92



TEST NUMBER: P551425

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-94-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.6	1.9
10°-20°	187.6	5.8
20°-30°	303.7	9.4
30°-40°	390.2	12.1
40°-50°	441.7	13.7
50°-60°	457.6	14.2
60°-70°	431.5	13.3
70°-80°	361.6	11.2
80°-90°	262.1	8.1
90°-100°	172.3	5.3
100°-110°	99.5	3.1
110°-120°	43.9	1.4
120°-130°	11.9	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	553.9	17.1
0°-40°	944.1	29.2
0°-60°	1843.4	57.0
0°-90°	2898.7	89.7
90°-120°	315.7	9.8
90°-150°	332.1	10.3
90°-180°	334.0	10.3
0°-180°	3233.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	654	654	654	654	654	
5°	746	717	649	589	559	75
15°	997	874	627	453	378	288
25°	1255	1026	582	298	187	580
35°	1390	1106	511	145	46	872
45°	1442	1095	418	33	0	1113
55°	1405	1026	302	0	0	1255
65°	1270	908	180	0	0	1257
75°	1059	733	77	1	1	1111
85°	775	531	12	3	5	662
90°	672	426	3	5	6	368
95°	576	333	2	6	8	452
105°	396	172	2	4	7	418
115°	216	57	2	2	4	216
125°	64	8	3	2	3	64
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	



TEST NUMBER: P551425

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-94-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
2.5°	708.9	708.1	705.6	701.4	695.6	685.6	677.3	669.8	659.8	651.5	635.6
5°	746.4	742.3	738.9	734.8	721.4	712.3	697.3	680.6	664.8	649.0	617.3
7.5°	806.4	799.7	794.7	783.1	764.8	743.9	720.6	704.8	693.9	649.8	595.6
10°	870.6	864.7	854.7	833.9	811.4	781.4	748.1	710.6	677.3	640.6	576.5
12.5°	933.9	925.5	911.4	884.7	853.1	815.6	769.8	725.6	678.1	634.8	554.0
15°	997.2	988.0	973.0	940.5	898.9	849.7	793.9	738.1	682.3	627.3	530.7
17.5°	1066.3	1053.8	1031.3	994.7	942.2	881.4	815.6	748.1	680.6	618.1	505.7
20°	1140.5	1123.0	1098.8	1049.7	988.0	916.4	837.2	758.1	679.8	607.3	477.3
22.5°	1202.1	1184.6	1158.0	1107.1	1033.0	945.5	855.6	764.8	676.5	594.8	450.7
25°	1255.4	1241.3	1212.1	1153.8	1075.5	976.4	873.1	769.8	671.5	581.5	422.4
27.5°	1297.1	1283.8	1251.3	1191.3	1111.3	1003.8	886.4	772.3	664.8	568.2	393.2
30°	1333.7	1320.4	1281.3	1219.6	1135.5	1025.5	899.7	773.1	656.5	548.2	361.6
32.5°	1362.1	1349.6	1309.6	1243.8	1152.1	1040.5	907.2	772.3	645.6	534.0	327.4
35°	1390.4	1377.9	1331.2	1261.3	1164.6	1047.2	913.0	768.1	632.3	510.7	294.9
37.5°	1412.1	1397.9	1350.4	1272.9	1170.5	1048.8	912.2	762.3	618.1	491.5	262.4
40°	1427.0	1412.1	1361.2	1279.6	1172.1	1046.3	905.5	752.3	601.5	467.4	228.3
42.5°	1437.0	1420.4	1366.2	1289.6	1168.8	1039.7	895.5	739.8	583.1	446.5	195.8
45°	1442.0	1424.5	1367.1	1281.3	1163.0	1027.2	880.6	723.9	563.2	418.2	163.3
47.5°	1439.5	1420.4	1362.9	1272.1	1152.1	1013.8	863.9	704.8	539.0	393.2	132.5
50°	1435.4	1415.4	1353.7	1260.4	1137.1	997.2	845.6	681.4	514.0	362.4	105.0
52.5°	1422.0	1402.1	1343.7	1243.8	1119.6	978.0	820.6	657.3	487.3	332.4	80.0
55°	1405.4	1387.1	1326.2	1228.8	1097.2	954.7	797.2	631.5	461.5	301.6	57.5
57.5°	1379.6	1362.9	1304.6	1204.6	1074.7	928.9	771.4	603.1	429.0	270.7	40.0
60°	1347.9	1331.2	1274.6	1177.1	1048.8	899.7	743.1	574.0	399.9	239.9	25.0
62.5°	1314.6	1298.8	1239.6	1143.0	1016.3	868.9	712.3	544.8	369.0	211.6	15.0
65°	1270.4	1255.4	1202.1	1102.1	980.5	835.6	678.1	509.8	337.4	179.9	8.3
67.5°	1223.8	1210.4	1156.3	1064.7	938.9	798.9	643.1	475.7	304.1	152.5	4.2
70°	1173.8	1157.1	1107.1	1013.8	896.4	757.3	604.8	440.7	272.4	125.8	0.0
72.5°	1115.5	1103.0	1054.7	966.4	847.2	713.1	565.7	402.4	237.4	100.0	0.8
75°	1058.8	1043.0	998.8	915.5	798.9	666.5	522.3	366.5	203.3	76.6	0.8
77.5°	985.5	980.5	938.9	858.1	753.1	621.5	474.8	323.2	170.8	55.0	0.8
80°	912.2	907.2	874.7	800.6	699.8	568.2	430.7	282.4	139.1	36.7	0.8
82.5°	839.7	833.1	802.2	740.6	645.6	523.2	384.9	241.6	110.0	22.5	0.8
85°	774.8	766.4	733.1	676.5	589.8	472.3	337.4	201.6	81.6	12.5	1.7
87.5°	718.9	713.1	676.5	618.1	533.2	424.9	295.7	163.3	57.5	5.8	2.5
90°	671.5	659.0	626.5	564.8	479.8	372.4	251.6	130.8	38.3	3.3	3.3
92.5°	624.8	614.0	578.1	514.8	432.4	327.4	209.1	100.0	24.2	1.7	4.2
95°	576.5	564.8	529.8	471.5	384.0	281.6	171.6	73.3	13.3	1.7	4.2
97.5°	529.0	518.2	481.5	423.2	340.7	241.6	135.8	51.7	6.7	1.7	3.3
100°	484.8	472.3	439.0	380.7	297.4	201.6	105.0	33.3	4.2	1.7	3.3
102.5°	438.2	428.2	394.0	337.4	252.4	164.1	78.3	20.8	1.7	1.7	2.5
105°	396.5	384.0	350.7	292.4	214.9	129.1	55.0	12.5	1.7	1.7	2.5



TEST NUMBER: P551425

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-94-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	258.3	248.3	219.1	169.9	109.1	50.8	15.0	2.5	2.5	2.5	2.5
115°	215.8	200.8	174.9	131.6	80.8	33.3	7.5	2.5	2.5	2.5	2.5
117.5°	172.4	159.9	141.6	100.0	53.3	21.7	4.2	2.5	2.5	2.5	2.5
120°	135.0	123.3	102.5	69.1	35.8	12.5	1.7	2.5	2.5	2.5	2.5
122.5°	96.6	87.5	69.1	45.0	21.7	5.8	2.5	2.5	3.3	3.3	2.5
125°	64.1	59.1	45.8	27.5	13.3	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.7	37.5	26.7	15.8	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.3	20.8	15.8	9.2	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.3	12.5	8.3	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.3	4.2	4.2	4.2	3.3
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	3.3
142.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
145°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	3.3	3.3	3.3
147.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
150°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
152.5°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
155°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
157.5°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	3.3
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



TEST NUMBER: P551425

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-94-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	654.0	654.0	654.0
2.5°	622.3	610.6	607.3
5°	589.0	569.8	559.0
7.5°	555.7	529.8	517.3
10°	524.8	488.2	474.8
12.5°	488.2	445.7	424.9
15°	453.2	398.2	378.2
17.5°	414.0	352.4	329.1
20°	377.4	306.6	282.4
22.5°	335.7	261.6	234.9
25°	298.2	216.6	186.6
27.5°	256.6	170.8	145.0
30°	217.4	130.8	105.0
32.5°	179.9	95.8	72.5
35°	145.0	65.0	45.8
37.5°	111.6	40.0	23.3
40°	80.8	20.8	10.8
42.5°	54.1	10.0	5.8
45°	33.3	5.0	0.0
47.5°	19.2	0.0	0.0
50°	10.0	0.0	0.0
52.5°	4.2	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	1.7	2.5
80°	1.7	3.3	4.2
82.5°	3.3	4.2	4.2
85°	3.3	4.2	5.0
87.5°	4.2	5.0	5.8
90°	5.0	5.8	5.8
92.5°	5.0	6.7	6.7
95°	5.8	6.7	7.5
97.5°	6.7	7.5	7.5
100°	5.8	7.5	8.3
102.5°	5.0	7.5	7.5
105°	4.2	5.8	6.7





TEST NUMBER: P551425

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-94-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.3	4.2	4.2
115°	2.5	3.3	4.2
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.3	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	349.9	339.9	306.6	251.6	175.8	98.3	36.7	6.7	1.7	2.5	2.5
110°	304.9	296.6	262.4	209.1	141.6	73.3	24.2	4.2	2.5	2.5	2.5







107.5°	3.3	5.0	5.8
110°	3.3	4.2	5.0



(END OF REPORT)