

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: P551418

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-85-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: P551418  
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-82-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

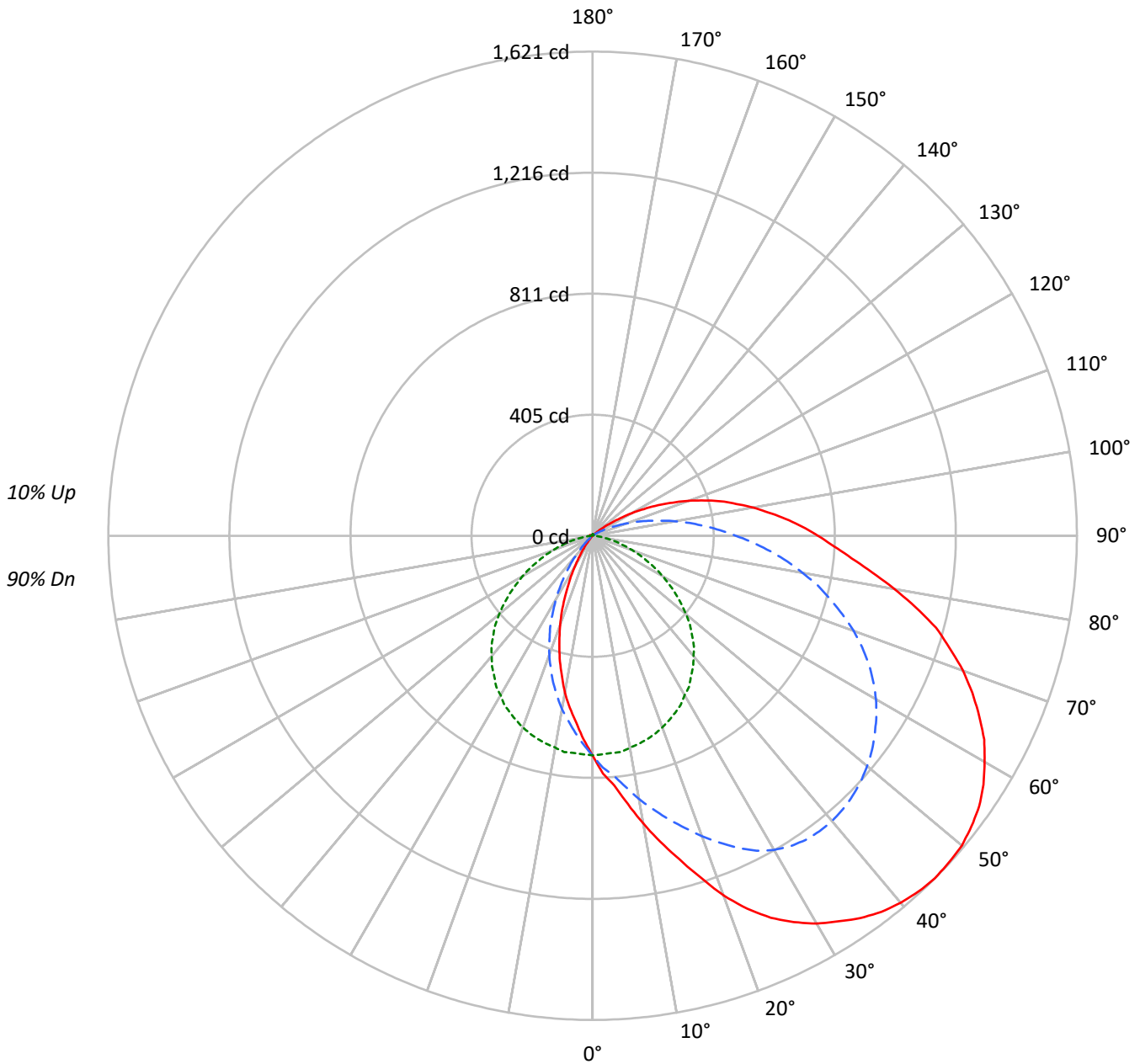
Lumens per Lamp: N/A  
Luminaire Lumens: 3633.9 lumens  
Efficiency: N/A  
Efficacy: 83.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551418

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-85-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	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

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

	0°	90°	180°
0°	7913	7913	7913
5°	8685	7797	6504
10°	9828	7701	5361
15°	11015	7603	4177
20°	12423	7479	3076
25°	13590	7335	2021
30°	14460	7142	1138
35°	15210	6936	501
40°	15877	6680	121
45°	16449	6361	0
50°	16930	5936	0
55°	17295	5398	0
60°	17479	4773	0
65°	17551	4063	0
70°	17493	3312	0
75°	17271	2442	13
80°	16571	1494	76
85°	16016	712	103



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.4	1.9
10°-20°	210.8	5.8
20°-30°	341.4	9.4
30°-40°	438.6	12.1
40°-50°	496.5	13.7
50°-60°	514.3	14.2
60°-70°	485.1	13.3
70°-80°	406.5	11.2
80°-90°	294.7	8.1
90°-100°	193.7	5.3
100°-110°	111.8	3.1
110°-120°	49.3	1.4
120°-130°	13.4	0.4
130°-140°	3.0	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	622.6	17.1
0°-40°	1061.2	29.2
0°-60°	2072.0	57.0
0°-90°	3258.2	89.7
90°-120°	354.9	9.8
90°-150°	373.3	10.3
90°-180°	376.0	10.3
0°-180°	3633.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	735	735	735	735	735	
5°	839	806	730	662	628	85
15°	1121	983	705	509	425	323
25°	1411	1153	654	335	210	652
35°	1563	1243	574	163	52	980
45°	1621	1231	470	38	0	1251
55°	1580	1153	339	0	0	1411
65°	1428	1021	202	0	0	1413
75°	1190	824	86	1	1	1248
85°	871	597	14	4	6	744
90°	755	479	4	6	7	414
95°	648	374	2	7	8	508
105°	446	193	2	5	8	470
115°	242	64	3	3	5	243
125°	72	9	4	3	4	72
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	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°	735.1	735.1	735.1	735.1	735.1	735.1	735.1	735.1	735.1	735.1	735.1
2.5°	796.9	795.9	793.1	788.4	781.9	770.7	761.3	752.9	741.6	732.3	714.5
5°	839.0	834.3	830.6	825.9	810.9	800.6	783.8	765.0	747.2	729.5	693.9
7.5°	906.4	898.9	893.3	880.2	859.6	836.2	810.0	792.2	780.0	730.4	669.5
10°	978.5	972.0	960.7	937.3	912.0	878.3	840.9	798.7	761.3	720.1	648.0
12.5°	1049.7	1040.3	1024.4	994.5	958.9	916.7	865.2	815.6	762.2	713.5	622.7
15°	1120.9	1110.6	1093.7	1057.2	1010.4	955.1	892.4	829.6	766.9	705.1	596.5
17.5°	1198.6	1184.5	1159.3	1118.1	1059.1	990.7	916.7	840.9	765.0	694.8	568.4
20°	1281.9	1262.3	1235.1	1179.9	1110.6	1030.0	941.1	852.1	764.1	682.6	536.6
22.5°	1351.2	1331.6	1301.6	1244.5	1161.1	1062.8	961.7	859.6	760.4	668.6	506.6
25°	1411.1	1395.2	1362.5	1296.9	1208.9	1097.5	981.3	865.2	754.7	653.6	474.8
27.5°	1458.0	1443.0	1406.5	1339.0	1249.2	1128.4	996.3	868.0	747.2	638.6	442.0
30°	1499.2	1484.2	1440.2	1370.9	1276.3	1152.7	1011.3	869.0	737.9	616.1	406.4
32.5°	1531.0	1517.0	1472.0	1398.0	1295.0	1169.6	1019.7	868.0	725.7	600.2	368.0
35°	1562.8	1548.8	1496.4	1417.7	1309.1	1177.0	1026.3	863.4	710.7	574.0	331.5
37.5°	1587.2	1571.3	1517.9	1430.8	1315.6	1178.9	1025.4	856.8	694.8	552.5	295.0
40°	1604.0	1587.2	1530.1	1438.3	1317.5	1176.1	1017.9	845.6	676.1	525.3	256.6
42.5°	1615.3	1596.6	1535.7	1449.5	1313.8	1168.6	1006.6	831.5	655.5	501.9	220.1
45°	1620.9	1601.2	1536.6	1440.2	1307.2	1154.6	989.8	813.7	633.0	470.1	183.5
47.5°	1618.1	1596.6	1531.9	1429.9	1295.0	1139.6	971.0	792.2	605.8	442.0	148.9
50°	1613.4	1590.9	1521.6	1416.8	1278.2	1120.9	950.4	766.0	577.8	407.3	118.0
52.5°	1598.4	1576.0	1510.4	1398.0	1258.5	1099.3	922.4	738.8	547.8	373.6	89.9
55°	1579.7	1559.1	1490.7	1381.2	1233.2	1073.1	896.1	709.8	518.8	339.0	64.6
57.5°	1550.7	1531.9	1466.4	1354.0	1208.0	1044.1	867.1	678.0	482.2	304.3	44.9
60°	1515.1	1496.4	1432.7	1323.1	1178.9	1011.3	835.3	645.2	449.5	269.7	28.1
62.5°	1477.6	1459.8	1393.4	1284.7	1142.4	976.7	800.6	612.4	414.8	237.8	16.9
65°	1428.0	1411.1	1351.2	1238.9	1102.1	939.2	762.2	573.1	379.2	202.3	9.4
67.5°	1375.6	1360.6	1299.7	1196.7	1055.3	898.0	722.9	534.7	341.8	171.4	4.7
70°	1319.4	1300.7	1244.5	1139.6	1007.6	851.2	679.8	495.4	306.2	141.4	0.0
72.5°	1253.8	1239.8	1185.5	1086.2	952.3	801.6	635.8	452.3	266.9	112.4	0.9
75°	1190.2	1172.4	1122.7	1029.1	898.0	749.1	587.1	412.0	228.5	86.1	0.9
77.5°	1107.8	1102.1	1055.3	964.5	846.5	698.6	533.7	363.3	192.0	61.8	0.9
80°	1025.4	1019.7	983.2	899.9	786.6	638.6	484.1	317.4	156.4	41.2	0.9
82.5°	943.9	936.4	901.7	832.5	725.7	588.1	432.6	271.6	123.6	25.3	0.9
85°	870.8	861.5	824.0	760.4	663.0	530.9	379.2	226.6	91.8	14.0	1.9
87.5°	808.1	801.6	760.4	694.8	599.3	477.6	332.4	183.5	64.6	6.6	2.8
90°	754.7	740.7	704.2	634.9	539.4	418.6	282.8	147.0	43.1	3.7	3.7
92.5°	702.3	690.1	649.9	578.7	486.0	368.0	235.0	112.4	27.2	1.9	4.7
95°	648.0	634.9	595.5	530.0	431.7	316.5	192.9	82.4	15.0	1.9	4.7
97.5°	594.6	582.4	541.2	475.7	383.0	271.6	152.6	58.1	7.5	1.9	3.7
100°	545.0	530.9	493.5	427.9	334.3	226.6	118.0	37.5	4.7	1.9	3.7
102.5°	492.5	481.3	442.9	379.2	283.7	184.5	88.0	23.4	1.9	1.9	2.8
105°	445.7	431.7	394.2	328.7	241.6	145.1	61.8	14.0	1.9	1.9	2.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	290.3	279.0	246.3	191.0	122.7	57.1	16.9	2.8	2.8	2.8	2.8
115°	242.5	225.7	196.6	148.0	90.8	37.5	8.4	2.8	2.8	2.8	2.8
117.5°	193.8	179.8	159.2	112.4	59.9	24.3	4.7	2.8	2.8	2.8	2.8
120°	151.7	138.6	115.2	77.7	40.3	14.0	1.9	2.8	2.8	2.8	2.8
122.5°	108.6	98.3	77.7	50.6	24.3	6.6	2.8	2.8	3.7	3.7	2.8
125°	72.1	66.5	51.5	30.9	15.0	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.8	42.1	30.0	17.8	6.6	2.8	2.8	3.7	3.7	3.7	2.8
130°	26.2	23.4	17.8	10.3	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	15.0	14.0	9.4	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.7	4.7	4.7	4.7	3.7
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.7	4.7	4.7	4.7	3.7
142.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7	3.7
145°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	3.7	3.7	3.7
147.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7	3.7
150°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	3.7
152.5°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	3.7
155°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	4.7
157.5°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	4.7
160°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	3.7
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	735.1	735.1	735.1
2.5°	699.5	686.4	682.6
5°	662.0	640.5	628.3
7.5°	624.6	595.5	581.5
10°	589.9	548.7	533.7
12.5°	548.7	501.0	477.6
15°	509.4	447.6	425.1
17.5°	465.4	396.1	369.9
20°	424.2	344.6	317.4
22.5°	377.4	294.0	264.1
25°	335.2	243.5	209.8
27.5°	288.4	192.0	162.9
30°	244.4	147.0	118.0
32.5°	202.3	107.7	81.5
35°	162.9	73.0	51.5
37.5°	125.5	44.9	26.2
40°	90.8	23.4	12.2
42.5°	60.9	11.2	6.6
45°	37.5	5.6	0.0
47.5°	21.5	0.0	0.0
50°	11.2	0.0	0.0
52.5°	4.7	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	1.9	2.8
80°	1.9	3.7	4.7
82.5°	3.7	4.7	4.7
85°	3.7	4.7	5.6
87.5°	4.7	5.6	6.6
90°	5.6	6.6	6.6
92.5°	5.6	7.5	7.5
95°	6.6	7.5	8.4
97.5°	7.5	8.4	8.4
100°	6.6	8.4	9.4
102.5°	5.6	8.4	8.4
105°	4.7	6.6	7.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.7	4.7	4.7
115°	2.8	3.7	4.7
117.5°	2.8	3.7	3.7
120°	2.8	2.8	3.7
122.5°	2.8	2.8	3.7
125°	2.8	2.8	3.7
127.5°	3.7	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.7	2.8	2.8
135°	3.7	2.8	2.8
137.5°	3.7	2.8	2.8
140°	3.7	2.8	2.8
142.5°	3.7	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.9
152.5°	2.8	1.9	1.9
155°	2.8	1.9	0.9
157.5°	3.7	1.9	0.9
160°	2.8	1.9	0.9
162.5°	2.8	1.9	0.9
165°	2.8	1.9	0.0
167.5°	2.8	1.9	0.9
170°	2.8	1.9	0.9
172.5°	2.8	1.9	0.9
175°	2.8	0.9	0.9
177.5°	2.8	0.9	0.9
180°	2.8	2.8	2.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	393.3	382.0	344.6	282.8	197.6	110.5	41.2	7.5	1.9	2.8	2.8
110°	342.7	333.4	295.0	235.0	159.2	82.4	27.2	4.7	2.8	2.8	2.8







107.5°	3.7	5.6	6.6
110°	3.7	4.7	5.6



(END OF REPORT)