

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: P551390

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-87-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: P551390  
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-80-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

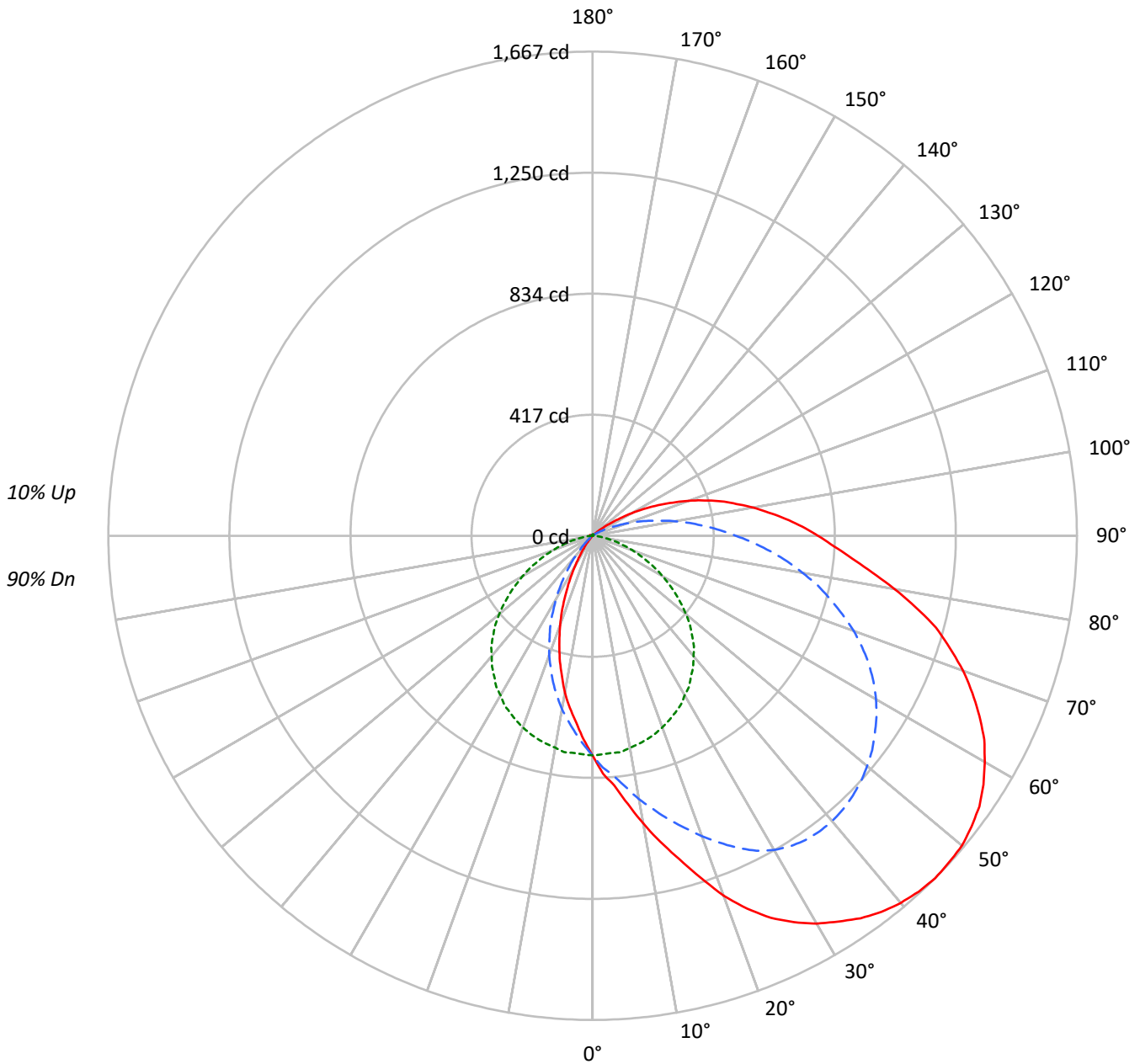
Lumens per Lamp: N/A  
Luminaire Lumens: 3738.1 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551390

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-87-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°	8139	8139	8139
5°	8934	8019	6691
10°	10110	7921	5514
15°	11330	7821	4297
20°	12779	7693	3164
25°	13980	7545	2078
30°	14873	7347	1171
35°	15646	7134	516
40°	16332	6872	124
45°	16920	6542	0
50°	17414	6107	0
55°	17790	5553	0
60°	17979	4909	0
65°	18054	4180	0
70°	17993	3406	0
75°	17764	2513	15
80°	17045	1538	78
85°	16475	732	107



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	1.9
10°-20°	216.9	5.8
20°-30°	351.2	9.4
30°-40°	451.1	12.1
40°-50°	510.7	13.7
50°-60°	529.0	14.2
60°-70°	498.9	13.3
70°-80°	418.1	11.2
80°-90°	303.1	8.1
90°-100°	199.2	5.3
100°-110°	115.0	3.1
110°-120°	50.8	1.4
120°-130°	13.8	0.4
130°-140°	3.2	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	640.5	17.1
0°-40°	1091.6	29.2
0°-60°	2131.3	57.0
0°-90°	3351.5	89.7
90°-120°	365.0	9.8
90°-150°	384.0	10.3
90°-180°	387.0	10.4
0°-180°	3738.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	756	756	756	756	756	
5°	863	829	750	681	646	87
15°	1153	1011	725	524	437	332
25°	1452	1186	672	345	216	671
35°	1608	1279	590	168	53	1008
45°	1667	1266	484	38	0	1287
55°	1625	1186	349	0	0	1451
65°	1469	1050	208	0	0	1453
75°	1224	847	89	1	1	1284
85°	896	614	14	4	6	765
90°	776	493	4	6	7	426
95°	666	385	2	7	9	523
105°	458	199	2	5	8	484
115°	250	66	3	3	5	250
125°	74	9	4	3	4	74
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°	756.1	756.1	756.1	756.1	756.1	756.1	756.1	756.1	756.1	756.1	756.1
2.5°	819.7	818.7	815.8	811.0	804.3	792.7	783.1	774.4	762.9	753.2	734.9
5°	863.0	858.2	854.4	849.5	834.1	823.5	806.2	786.9	768.6	750.3	713.7
7.5°	932.4	924.7	918.9	905.4	884.2	860.1	833.2	814.9	802.3	751.3	688.7
10°	1006.5	999.8	988.2	964.2	938.2	903.5	864.9	821.6	783.1	740.7	666.5
12.5°	1079.7	1070.1	1053.7	1022.9	986.3	943.0	890.0	838.9	784.0	734.0	640.5
15°	1152.9	1142.3	1125.0	1087.4	1039.3	982.5	917.9	853.4	788.9	725.3	613.6
17.5°	1232.9	1218.4	1192.4	1150.1	1089.4	1019.1	943.0	864.9	786.9	714.7	584.7
20°	1318.6	1298.4	1270.5	1213.6	1142.3	1059.5	968.0	876.5	786.0	702.2	551.9
22.5°	1389.9	1369.7	1338.8	1280.1	1194.4	1093.2	989.2	884.2	782.1	687.7	521.1
25°	1451.5	1435.2	1401.4	1334.0	1243.5	1128.9	1009.4	890.0	776.3	672.3	488.3
27.5°	1499.7	1484.3	1446.7	1377.4	1284.9	1160.6	1024.8	892.9	768.6	656.9	454.6
30°	1542.1	1526.7	1481.4	1410.1	1312.8	1185.7	1040.3	893.8	759.0	633.8	418.0
32.5°	1574.8	1560.4	1514.1	1438.0	1332.1	1203.0	1048.9	892.9	746.5	617.4	378.5
35°	1607.6	1593.1	1539.2	1458.3	1346.5	1210.7	1055.7	888.1	731.1	590.4	341.0
37.5°	1632.6	1616.2	1561.3	1471.8	1353.3	1212.7	1054.7	881.3	714.7	568.3	303.4
40°	1650.0	1632.6	1573.9	1479.5	1355.2	1209.8	1047.0	869.8	695.4	540.4	263.9
42.5°	1661.5	1642.2	1579.6	1491.0	1351.4	1202.1	1035.4	855.3	674.2	516.3	226.4
45°	1667.3	1647.1	1580.6	1481.4	1344.6	1187.6	1018.1	837.0	651.1	483.5	188.8
47.5°	1664.4	1642.2	1575.8	1470.8	1332.1	1172.2	998.8	814.9	623.2	454.6	153.1
50°	1659.6	1636.5	1565.2	1457.3	1314.8	1152.9	977.6	787.9	594.3	419.0	121.4
52.5°	1644.2	1621.1	1553.6	1438.0	1294.5	1130.8	948.7	760.0	563.5	384.3	92.5
55°	1624.9	1603.7	1533.4	1420.7	1268.5	1103.8	921.8	730.1	533.6	348.7	66.5
57.5°	1595.1	1575.8	1508.4	1392.8	1242.5	1074.0	891.9	697.4	496.0	313.0	46.2
60°	1558.4	1539.2	1473.7	1361.0	1212.7	1040.3	859.2	663.6	462.3	277.4	28.9
62.5°	1519.9	1501.6	1433.2	1321.5	1175.1	1004.6	823.5	629.9	426.7	244.7	17.3
65°	1468.9	1451.5	1389.9	1274.3	1133.7	966.1	784.0	589.5	390.1	208.1	9.6
67.5°	1414.9	1399.5	1336.9	1231.0	1085.5	923.7	743.6	550.0	351.6	176.3	4.8
70°	1357.1	1337.9	1280.1	1172.2	1036.4	875.5	699.3	509.5	315.0	145.4	0.0
72.5°	1289.7	1275.3	1219.4	1117.3	979.6	824.5	654.0	465.2	274.5	115.6	1.0
75°	1224.2	1205.9	1154.9	1058.6	923.7	770.6	603.9	423.8	235.0	88.6	1.0
77.5°	1139.5	1133.7	1085.5	992.1	870.7	718.5	549.0	373.7	197.5	63.6	1.0
80°	1054.7	1048.9	1011.4	925.6	809.1	656.9	498.0	326.5	160.9	42.4	1.0
82.5°	970.9	963.2	927.6	856.3	746.5	604.9	445.0	279.3	127.1	26.0	1.0
85°	895.8	886.1	847.6	782.1	681.9	546.1	390.1	233.1	94.4	14.4	1.9
87.5°	831.2	824.5	782.1	714.7	616.4	491.2	341.9	188.8	66.5	6.7	2.9
90°	776.3	761.9	724.3	653.0	554.8	430.5	290.9	151.2	44.3	3.9	3.9
92.5°	722.4	709.9	668.5	595.3	499.9	378.5	241.8	115.6	27.9	1.9	4.8
95°	666.5	653.0	612.6	545.2	444.0	325.6	198.4	84.8	15.4	1.9	4.8
97.5°	611.6	599.1	556.7	489.3	393.9	279.3	157.0	59.7	7.7	1.9	3.9
100°	560.6	546.1	507.6	440.2	343.9	233.1	121.4	38.5	4.8	1.9	3.9
102.5°	506.6	495.1	455.6	390.1	291.8	189.7	90.5	24.1	1.9	1.9	2.9
105°	458.5	444.0	405.5	338.1	248.5	149.3	63.6	14.4	1.9	1.9	2.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	298.6	287.0	253.3	196.5	126.2	58.8	17.3	2.9	2.9	2.9	2.9
115°	249.5	232.1	202.3	152.2	93.4	38.5	8.7	2.9	2.9	2.9	2.9
117.5°	199.4	184.9	163.7	115.6	61.6	25.0	4.8	2.9	2.9	2.9	2.9
120°	156.0	142.6	118.5	79.9	41.4	14.4	1.9	2.9	2.9	2.9	2.9
122.5°	111.7	101.1	79.9	52.0	25.0	6.7	2.9	2.9	3.9	3.9	2.9
125°	74.2	68.4	53.0	31.8	15.4	2.9	2.9	2.9	3.9	3.9	2.9
127.5°	48.2	43.3	30.8	18.3	6.7	2.9	2.9	3.9	3.9	3.9	2.9
130°	27.0	24.1	18.3	10.6	2.9	2.9	2.9	3.9	3.9	3.9	2.9
132.5°	15.4	14.4	9.6	1.9	2.9	2.9	2.9	3.9	3.9	3.9	3.9
135°	3.9	1.9	1.9	1.9	2.9	2.9	3.9	3.9	4.8	4.8	3.9
137.5°	1.0	1.0	1.9	1.9	2.9	2.9	3.9	4.8	4.8	4.8	3.9
140°	1.0	1.0	1.9	2.9	2.9	2.9	3.9	4.8	4.8	4.8	3.9
142.5°	1.0	1.9	1.9	2.9	2.9	3.9	3.9	4.8	4.8	3.9	3.9
145°	1.0	1.9	1.9	2.9	2.9	3.9	3.9	4.8	3.9	3.9	3.9
147.5°	1.9	1.9	1.9	2.9	2.9	3.9	3.9	4.8	4.8	3.9	3.9
150°	1.0	1.9	1.9	2.9	3.9	3.9	3.9	4.8	3.9	3.9	3.9
152.5°	1.0	1.9	1.9	2.9	3.9	3.9	3.9	4.8	3.9	3.9	3.9
155°	1.9	1.9	1.9	2.9	3.9	3.9	3.9	4.8	3.9	3.9	4.8
157.5°	1.9	1.9	1.9	2.9	3.9	3.9	3.9	4.8	3.9	3.9	4.8
160°	1.9	1.9	1.9	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
162.5°	1.9	1.9	1.9	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
165°	1.9	1.9	1.9	1.9	2.9	2.9	3.9	3.9	3.9	3.9	3.9
167.5°	1.9	1.9	1.9	2.9	2.9	2.9	3.9	3.9	3.9	3.9	3.9
170°	1.9	1.9	1.9	2.9	2.9	2.9	3.9	4.8	4.8	4.8	4.8
172.5°	1.9	1.9	1.9	2.9	2.9	3.9	3.9	4.8	4.8	4.8	4.8
175°	1.9	1.9	1.9	2.9	2.9	3.9	3.9	4.8	4.8	4.8	4.8
177.5°	1.0	1.9	1.9	2.9	2.9	3.9	3.9	4.8	4.8	4.8	3.9
180°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	756.1	756.1	756.1
2.5°	719.5	706.0	702.2
5°	681.0	658.8	646.3
7.5°	642.5	612.6	598.1
10°	606.8	564.4	549.0
12.5°	564.4	515.3	491.2
15°	524.0	460.4	437.3
17.5°	478.7	407.4	380.5
20°	436.3	354.5	326.5
22.5°	388.2	302.4	271.6
25°	344.8	250.4	215.8
27.5°	296.7	197.5	167.6
30°	251.4	151.2	121.4
32.5°	208.1	110.8	83.8
35°	167.6	75.1	53.0
37.5°	129.1	46.2	27.0
40°	93.4	24.1	12.5
42.5°	62.6	11.6	6.7
45°	38.5	5.8	0.0
47.5°	22.2	0.0	0.0
50°	11.6	0.0	0.0
52.5°	4.8	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°	1.0	1.0	1.0
77.5°	1.0	1.9	2.9
80°	1.9	3.9	4.8
82.5°	3.9	4.8	4.8
85°	3.9	4.8	5.8
87.5°	4.8	5.8	6.7
90°	5.8	6.7	6.7
92.5°	5.8	7.7	7.7
95°	6.7	7.7	8.7
97.5°	7.7	8.7	8.7
100°	6.7	8.7	9.6
102.5°	5.8	8.7	8.7
105°	4.8	6.7	7.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.9	4.8	4.8
115°	2.9	3.9	4.8
117.5°	2.9	3.9	3.9
120°	2.9	2.9	3.9
122.5°	2.9	2.9	3.9
125°	2.9	2.9	3.9
127.5°	3.9	2.9	2.9
130°	2.9	2.9	2.9
132.5°	3.9	2.9	2.9
135°	3.9	2.9	2.9
137.5°	3.9	2.9	2.9
140°	3.9	2.9	2.9
142.5°	3.9	2.9	2.9
145°	2.9	2.9	2.9
147.5°	2.9	2.9	2.9
150°	2.9	2.9	1.9
152.5°	2.9	1.9	1.9
155°	2.9	1.9	1.0
157.5°	3.9	1.9	1.0
160°	2.9	1.9	1.0
162.5°	2.9	1.9	1.0
165°	2.9	1.9	0.0
167.5°	2.9	1.9	1.0
170°	2.9	1.9	1.0
172.5°	2.9	1.9	1.0
175°	2.9	1.0	1.0
177.5°	2.9	1.0	1.0
180°	2.9	2.9	2.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	404.5	393.0	354.5	290.9	203.2	113.7	42.4	7.7	1.9	2.9	2.9
110°	352.5	342.9	303.4	241.8	163.7	84.8	27.9	4.8	2.9	2.9	2.9







107.5°	3.9	5.8	6.7
110°	3.9	4.8	5.8



(END OF REPORT)