

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: P551326

Luminaire Tested: **FCC-X-2-LD4-2HI-40-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: P551326  
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-40-UNV-80-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

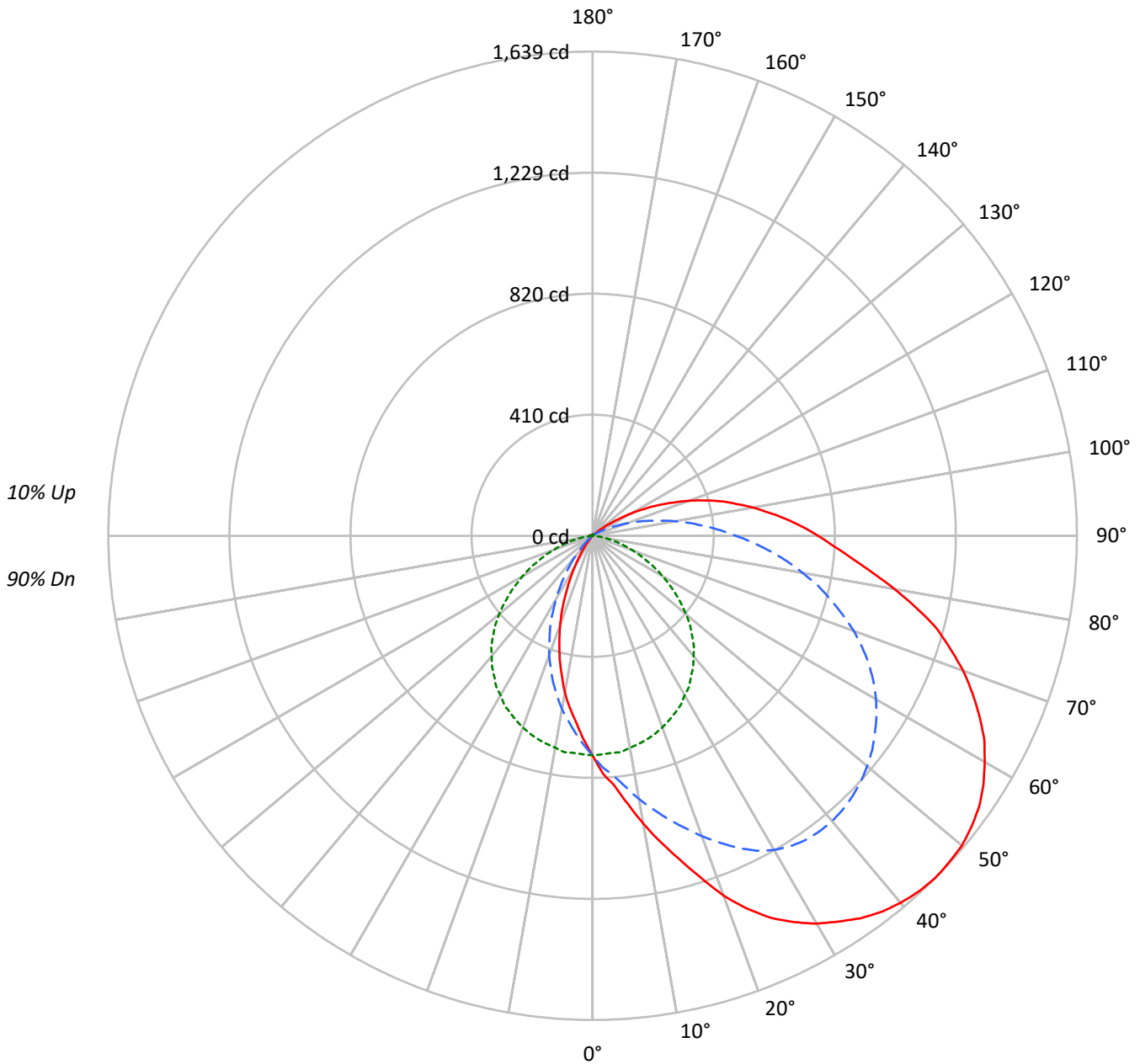
Lumens per Lamp: N/A  
Luminaire Lumens: 3674.9 lumens  
Efficiency: N/A  
Efficacy: 84.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (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: P551326

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-87-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°	8002	8002	8002
5°	8784	7885	6578
10°	9940	7788	5422
15°	11139	7689	4225
20°	12564	7563	3111
25°	13745	7418	2043
30°	14623	7223	1151
35°	15383	7014	507
40°	16056	6755	122
45°	16635	6433	0
50°	17121	6003	0
55°	17490	5459	0
60°	17677	4826	0
65°	17749	4107	0
70°	17690	3350	0
75°	17465	2470	13
80°	16757	1513	76
85°	16198	722	105



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.2	1.9
10°-20°	213.2	5.8
20°-30°	345.3	9.4
30°-40°	443.5	12.1
40°-50°	502.1	13.7
50°-60°	520.1	14.2
60°-70°	490.5	13.3
70°-80°	411.1	11.2
80°-90°	298.0	8.1
90°-100°	195.8	5.3
100°-110°	113.1	3.1
110°-120°	49.9	1.4
120°-130°	13.5	0.4
130°-140°	3.1	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°	629.7	17.1
0°-40°	1073.2	29.2
0°-60°	2095.4	57.0
0°-90°	3294.9	89.7
90°-120°	358.8	9.8
90°-150°	377.4	10.3
90°-180°	380.0	10.3
0°-180°	3674.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	743	743	743	743	743	
5°	848	815	738	670	635	86
15°	1134	994	713	515	430	327
25°	1427	1166	661	339	212	660
35°	1580	1257	580	165	52	991
45°	1639	1245	475	38	0	1266
55°	1598	1166	343	0	0	1427
65°	1444	1032	204	0	0	1429
75°	1204	833	87	1	1	1262
85°	881	604	14	4	6	752
90°	763	484	4	6	7	419
95°	655	378	2	7	8	514
105°	451	196	2	5	8	476
115°	245	65	3	3	5	246
125°	73	9	4	3	4	73
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°	743.4	743.4	743.4	743.4	743.4	743.4	743.4	743.4	743.4	743.4	743.4
2.5°	805.9	804.9	802.1	797.3	790.7	779.3	769.9	761.4	750.0	740.5	722.5
5°	848.5	843.7	840.0	835.2	820.1	809.7	792.6	773.7	755.7	737.7	701.7
7.5°	916.7	909.1	903.4	890.1	869.3	845.6	819.1	801.1	788.8	738.6	677.1
10°	989.6	982.9	971.6	947.9	922.3	888.2	850.4	807.8	769.9	728.2	655.3
12.5°	1061.5	1052.1	1036.0	1005.7	969.7	927.1	875.0	824.8	770.8	721.6	629.7
15°	1133.5	1123.1	1106.1	1069.1	1021.8	965.9	902.5	839.0	775.6	713.1	603.2
17.5°	1212.1	1197.9	1172.3	1130.7	1071.0	1001.9	927.1	850.4	773.7	702.6	574.8
20°	1296.4	1276.5	1249.0	1193.2	1123.1	1041.7	951.7	861.7	772.7	690.3	542.6
22.5°	1366.5	1346.6	1316.3	1258.5	1174.2	1074.8	972.5	869.3	768.9	676.1	512.3
25°	1427.1	1411.0	1377.8	1311.5	1222.5	1109.8	992.4	875.0	763.3	661.0	480.1
27.5°	1474.4	1459.3	1422.3	1354.2	1263.2	1141.1	1007.6	877.8	755.7	645.8	447.0
30°	1516.1	1500.9	1456.4	1386.4	1290.7	1165.7	1022.7	878.8	746.2	623.1	411.0
32.5°	1548.3	1534.1	1488.6	1413.8	1309.6	1182.8	1031.2	877.8	733.9	607.0	372.2
35°	1580.5	1566.3	1513.2	1433.7	1323.9	1190.3	1037.9	873.1	718.7	580.5	335.2
37.5°	1605.1	1589.0	1535.0	1447.0	1330.5	1192.2	1036.9	866.5	702.6	558.7	298.3
40°	1622.1	1605.1	1547.3	1454.5	1332.4	1189.4	1029.3	855.1	683.7	531.2	259.5
42.5°	1633.5	1614.6	1553.0	1465.9	1328.6	1181.8	1018.0	840.9	662.9	507.6	222.5
45°	1639.2	1619.3	1554.0	1456.4	1322.0	1167.6	1000.9	822.9	640.1	475.4	185.6
47.5°	1636.3	1614.6	1549.2	1446.0	1309.6	1152.5	982.0	801.1	612.7	447.0	150.6
50°	1631.6	1608.9	1538.8	1432.8	1292.6	1133.5	961.2	774.6	584.3	411.9	119.3
52.5°	1616.5	1593.7	1527.4	1413.8	1272.7	1111.7	932.8	747.2	554.0	377.8	90.9
55°	1597.5	1576.7	1507.6	1396.8	1247.1	1085.2	906.2	717.8	524.6	342.8	65.3
57.5°	1568.2	1549.2	1482.9	1369.3	1221.6	1055.9	876.9	685.6	487.7	307.8	45.5
60°	1532.2	1513.2	1448.9	1338.1	1192.2	1022.7	844.7	652.5	454.5	272.7	28.4
62.5°	1494.3	1476.3	1409.1	1299.2	1155.3	987.7	809.7	619.3	419.5	240.5	17.0
65°	1444.1	1427.1	1366.5	1252.8	1114.6	949.8	770.8	579.5	383.5	204.5	9.5
67.5°	1391.1	1375.9	1314.4	1210.2	1067.2	908.1	731.1	540.7	345.6	173.3	4.7
70°	1334.3	1315.3	1258.5	1152.5	1018.9	860.8	687.5	500.9	309.7	143.0	0.0
72.5°	1268.0	1253.8	1198.9	1098.5	963.1	810.6	643.0	457.4	269.9	113.6	0.9
75°	1203.6	1185.6	1135.4	1040.7	908.1	757.6	593.7	416.7	231.1	87.1	0.9
77.5°	1120.3	1114.6	1067.2	975.4	856.1	706.4	539.8	367.4	194.1	62.5	0.9
80°	1036.9	1031.2	994.3	910.0	795.4	645.8	489.6	321.0	158.1	41.7	0.9
82.5°	954.5	947.0	911.9	841.8	733.9	594.7	437.5	274.6	125.0	25.6	0.9
85°	880.7	871.2	833.3	768.9	670.4	536.9	383.5	229.2	92.8	14.2	1.9
87.5°	817.2	810.6	768.9	702.6	606.1	483.0	336.2	185.6	65.3	6.6	2.8
90°	763.3	749.0	712.1	642.0	545.4	423.3	286.0	148.7	43.6	3.8	3.8
92.5°	710.2	697.9	657.2	585.2	491.5	372.2	237.7	113.6	27.5	1.9	4.7
95°	655.3	642.0	602.3	536.0	436.5	320.1	195.1	83.3	15.2	1.9	4.7
97.5°	601.3	589.0	547.3	481.1	387.3	274.6	154.4	58.7	7.6	1.9	3.8
100°	551.1	536.9	499.0	432.8	338.1	229.2	119.3	37.9	4.7	1.9	3.8
102.5°	498.1	486.7	447.9	383.5	286.9	186.6	89.0	23.7	1.9	1.9	2.8
105°	450.8	436.5	398.7	332.4	244.3	146.8	62.5	14.2	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°	293.6	282.2	249.1	193.2	124.1	57.8	17.0	2.8	2.8	2.8	2.8
115°	245.3	228.2	198.9	149.6	91.9	37.9	8.5	2.8	2.8	2.8	2.8
117.5°	196.0	181.8	161.0	113.6	60.6	24.6	4.7	2.8	2.8	2.8	2.8
120°	153.4	140.2	116.5	78.6	40.7	14.2	1.9	2.8	2.8	2.8	2.8
122.5°	109.8	99.4	78.6	51.1	24.6	6.6	2.8	2.8	3.8	3.8	2.8
125°	72.9	67.2	52.1	31.2	15.2	2.8	2.8	2.8	3.8	3.8	2.8
127.5°	47.3	42.6	30.3	18.0	6.6	2.8	2.8	3.8	3.8	3.8	2.8
130°	26.5	23.7	18.0	10.4	2.8	2.8	2.8	3.8	3.8	3.8	2.8
132.5°	15.2	14.2	9.5	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.8	4.7	4.7	4.7	3.8
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	3.8
142.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
145°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
150°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
152.5°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
157.5°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
160°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	3.8
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°	743.4	743.4	743.4
2.5°	707.4	694.1	690.3
5°	669.5	647.7	635.4
7.5°	631.6	602.3	588.1
10°	596.6	554.9	539.8
12.5°	554.9	506.6	483.0
15°	515.1	452.6	429.9
17.5°	470.6	400.6	374.0
20°	429.0	348.5	321.0
22.5°	381.6	297.3	267.0
25°	339.0	246.2	212.1
27.5°	291.7	194.1	164.8
30°	247.2	148.7	119.3
32.5°	204.5	108.9	82.4
35°	164.8	73.9	52.1
37.5°	126.9	45.5	26.5
40°	91.9	23.7	12.3
42.5°	61.6	11.4	6.6
45°	37.9	5.7	0.0
47.5°	21.8	0.0	0.0
50°	11.4	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	3.8	4.7
82.5°	3.8	4.7	4.7
85°	3.8	4.7	5.7
87.5°	4.7	5.7	6.6
90°	5.7	6.6	6.6
92.5°	5.7	7.6	7.6
95°	6.6	7.6	8.5
97.5°	7.6	8.5	8.5
100°	6.6	8.5	9.5
102.5°	5.7	8.5	8.5
105°	4.7	6.6	7.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.8	4.7	4.7
115°	2.8	3.8	4.7
117.5°	2.8	3.8	3.8
120°	2.8	2.8	3.8
122.5°	2.8	2.8	3.8
125°	2.8	2.8	3.8
127.5°	3.8	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.8	2.8	2.8
135°	3.8	2.8	2.8
137.5°	3.8	2.8	2.8
140°	3.8	2.8	2.8
142.5°	3.8	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°	3.8	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°	397.7	386.4	348.5	286.0	199.8	111.7	41.7	7.6	1.9	2.8	2.8
110°	346.6	337.1	298.3	237.7	161.0	83.3	27.5	4.7	2.8	2.8	2.8







107.5°	3.8	5.7	6.6
110°	3.8	4.7	5.7



(END OF REPORT)