

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: P551384

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-84-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: P551384  
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-80-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

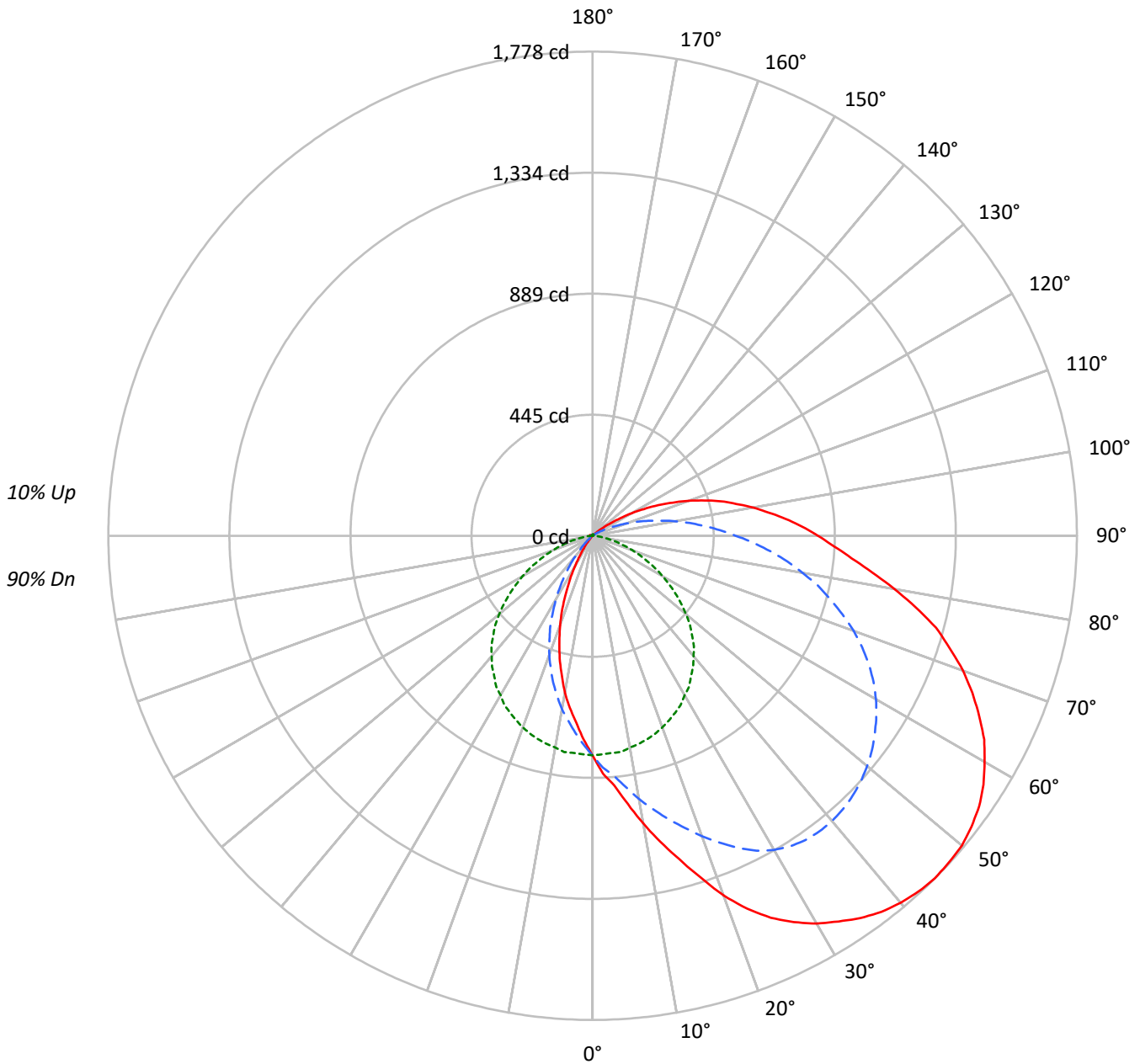
Lumens per Lamp: N/A  
Luminaire Lumens: 3986.0 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551384

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-84-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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

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

	0°	90°	180°
0°	8679	8679	8679
5°	9527	8552	7135
10°	10781	8446	5880
15°	12081	8339	4582
20°	13627	8204	3374
25°	14907	8045	2216
30°	15860	7834	1248
35°	16684	7607	550
40°	17415	7328	133
45°	18043	6977	0
50°	18570	6512	0
55°	18970	5920	0
60°	19172	5235	0
65°	19251	4457	0
70°	19187	3633	0
75°	18943	2680	15
80°	18176	1640	82
85°	17568	783	114



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.2	1.9
10°-20°	231.2	5.8
20°-30°	374.5	9.4
30°-40°	481.0	12.1
40°-50°	544.5	13.7
50°-60°	564.1	14.2
60°-70°	532.1	13.3
70°-80°	445.9	11.2
80°-90°	323.2	8.1
90°-100°	212.4	5.3
100°-110°	122.7	3.1
110°-120°	54.1	1.4
120°-130°	14.7	0.4
130°-140°	3.4	0.1
140°-150°	2.2	0.1
150°-160°	1.6	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	682.9	17.1
0°-40°	1164.0	29.2
0°-60°	2272.7	57.0
0°-90°	3573.8	89.7
90°-120°	389.2	9.8
90°-150°	409.5	10.3
90°-180°	412.0	10.3
0°-180°	3986.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	806	806	806	806	806	
5°	920	884	800	726	689	93
15°	1229	1078	773	559	466	355
25°	1548	1265	717	368	230	715
35°	1714	1364	630	179	56	1075
45°	1778	1350	516	41	0	1373
55°	1733	1265	372	0	0	1547
65°	1566	1120	222	0	0	1550
75°	1305	903	94	1	1	1369
85°	955	655	15	4	6	816
90°	828	525	4	6	7	454
95°	711	410	2	7	9	558
105°	489	212	2	5	8	516
115°	266	70	3	3	5	266
125°	79	10	4	3	4	79
135°	4	3	5	4	3	7
145°	1	4	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	4	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°	806.3	806.3	806.3	806.3	806.3	806.3	806.3	806.3	806.3	806.3	806.3
2.5°	874.1	873.0	870.0	864.8	857.6	845.3	835.0	825.8	813.5	803.2	783.7
5°	920.3	915.1	911.0	905.9	889.5	878.2	859.7	839.1	819.6	800.1	761.1
7.5°	994.2	986.0	979.9	965.5	942.9	917.2	888.4	868.9	855.6	801.1	734.4
10°	1073.3	1066.1	1053.8	1028.1	1000.4	963.4	922.3	876.1	835.0	789.8	710.8
12.5°	1151.4	1141.1	1123.6	1090.8	1051.7	1005.5	949.0	894.6	836.1	782.6	683.0
15°	1229.4	1218.1	1199.7	1159.6	1108.2	1047.6	978.8	910.0	841.2	773.4	654.3
17.5°	1314.7	1299.3	1271.5	1226.4	1161.6	1086.7	1005.5	922.3	839.1	762.1	623.4
20°	1406.1	1384.5	1354.7	1294.1	1218.1	1129.8	1032.2	934.7	838.1	748.8	588.5
22.5°	1482.1	1460.5	1427.7	1365.0	1273.6	1165.8	1054.8	942.9	834.0	733.3	555.7
25°	1547.8	1530.4	1494.4	1422.5	1326.0	1203.8	1076.4	949.0	827.8	716.9	520.7
27.5°	1599.2	1582.8	1542.7	1468.8	1370.1	1237.7	1092.8	952.1	819.6	700.5	484.8
30°	1644.4	1628.0	1579.7	1503.7	1399.9	1264.4	1109.3	953.1	809.4	675.8	445.8
32.5°	1679.3	1663.9	1614.6	1533.5	1420.5	1282.8	1118.5	952.1	796.0	658.4	403.6
35°	1714.2	1698.8	1641.3	1555.0	1435.9	1291.1	1125.7	947.0	779.6	629.6	363.6
37.5°	1740.9	1723.5	1664.9	1569.4	1443.1	1293.1	1124.7	939.8	762.1	606.0	323.5
40°	1759.4	1740.9	1678.3	1577.6	1445.1	1290.0	1116.5	927.5	741.6	576.2	281.4
42.5°	1771.7	1751.2	1684.4	1589.9	1441.0	1281.8	1104.1	912.1	719.0	550.5	241.4
45°	1777.9	1756.3	1685.5	1579.7	1433.8	1266.4	1085.6	892.5	694.3	515.6	201.3
47.5°	1774.8	1751.2	1680.3	1568.4	1420.5	1250.0	1065.1	868.9	664.5	484.8	163.3
50°	1769.7	1745.0	1669.0	1554.0	1402.0	1229.4	1042.5	840.2	633.7	446.8	129.4
52.5°	1753.3	1728.6	1656.7	1533.5	1380.4	1205.8	1011.7	810.4	600.9	409.8	98.6
55°	1732.7	1710.1	1635.1	1515.0	1352.7	1177.1	982.9	778.5	569.0	371.8	70.9
57.5°	1700.9	1680.3	1608.4	1485.2	1325.0	1145.2	951.1	743.6	529.0	333.8	49.3
60°	1661.8	1641.3	1571.5	1451.3	1293.1	1109.3	916.2	707.7	493.0	295.8	30.8
62.5°	1620.8	1601.2	1528.3	1409.2	1253.1	1071.3	878.2	671.7	455.0	260.9	18.5
65°	1566.3	1547.8	1482.1	1358.9	1208.9	1030.2	836.1	628.6	416.0	221.9	10.3
67.5°	1508.8	1492.4	1425.6	1312.6	1157.5	985.0	792.9	586.5	374.9	188.0	5.1
70°	1447.2	1426.6	1365.0	1250.0	1105.2	933.6	745.7	543.3	335.9	155.1	0.0
72.5°	1375.3	1359.9	1300.3	1191.4	1044.6	879.2	697.4	496.1	292.7	123.3	1.0
75°	1305.4	1285.9	1231.5	1128.8	985.0	821.7	644.0	451.9	250.6	94.5	1.0
77.5°	1215.1	1208.9	1157.5	1057.9	928.5	766.2	585.4	398.5	210.6	67.8	1.0
80°	1124.7	1118.5	1078.5	987.0	862.8	700.5	531.0	348.2	171.5	45.2	1.0
82.5°	1035.3	1027.1	989.1	913.1	796.0	645.0	474.5	297.9	135.6	27.7	1.0
85°	955.2	944.9	903.8	834.0	727.2	582.4	416.0	248.6	100.7	15.4	2.1
87.5°	886.4	879.2	834.0	762.1	657.3	523.8	364.6	201.3	70.9	7.2	3.1
90°	827.8	812.4	772.4	696.4	591.6	459.1	310.2	161.3	47.2	4.1	4.1
92.5°	770.3	757.0	712.8	634.7	533.1	403.6	257.8	123.3	29.8	2.1	5.1
95°	710.8	696.4	653.2	581.3	473.5	347.2	211.6	90.4	16.4	2.1	5.1
97.5°	652.2	638.9	593.7	521.8	420.1	297.9	167.4	63.7	8.2	2.1	4.1
100°	597.8	582.4	541.3	469.4	366.7	248.6	129.4	41.1	5.1	2.1	4.1
102.5°	540.3	527.9	485.8	416.0	311.2	202.3	96.5	25.7	2.1	2.1	3.1
105°	488.9	473.5	432.4	360.5	265.0	159.2	67.8	15.4	2.1	2.1	3.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	318.4	306.1	270.1	209.5	134.5	62.7	18.5	3.1	3.1	3.1	3.1
115°	266.0	247.5	215.7	162.3	99.6	41.1	9.2	3.1	3.1	3.1	3.1
117.5°	212.6	197.2	174.6	123.3	65.7	26.7	5.1	3.1	3.1	3.1	3.1
120°	166.4	152.0	126.3	85.2	44.2	15.4	2.1	3.1	3.1	3.1	3.1
122.5°	119.1	107.8	85.2	55.5	26.7	7.2	3.1	3.1	4.1	4.1	3.1
125°	79.1	72.9	56.5	33.9	16.4	3.1	3.1	3.1	4.1	4.1	3.1
127.5°	51.4	46.2	32.9	19.5	7.2	3.1	3.1	4.1	4.1	4.1	3.1
130°	28.8	25.7	19.5	11.3	3.1	3.1	3.1	4.1	4.1	4.1	3.1
132.5°	16.4	15.4	10.3	2.1	3.1	3.1	3.1	4.1	4.1	4.1	4.1
135°	4.1	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	4.1
137.5°	1.0	1.0	2.1	2.1	3.1	3.1	4.1	5.1	5.1	5.1	4.1
140°	1.0	1.0	2.1	3.1	3.1	3.1	4.1	5.1	5.1	5.1	4.1
142.5°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
145°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.1	4.1	4.1	4.1
147.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
150°	1.0	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
152.5°	1.0	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
155°	2.1	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
157.5°	2.1	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
160°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
162.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
165°	2.1	2.1	2.1	2.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1
167.5°	2.1	2.1	2.1	3.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1
170°	2.1	2.1	2.1	3.1	3.1	3.1	4.1	5.1	5.1	5.1	5.1
172.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
175°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
177.5°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	5.1	4.1
180°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	806.3	806.3	806.3
2.5°	767.2	752.9	748.8
5°	726.2	702.5	689.2
7.5°	685.1	653.2	637.8
10°	647.1	601.9	585.4
12.5°	601.9	549.5	523.8
15°	558.7	491.0	466.3
17.5°	510.5	434.5	405.7
20°	465.3	378.0	348.2
22.5°	413.9	322.5	289.6
25°	367.7	267.0	230.1
27.5°	316.3	210.6	178.7
30°	268.1	161.3	129.4
32.5°	221.9	118.1	89.4
35°	178.7	80.1	56.5
37.5°	137.6	49.3	28.8
40°	99.6	25.7	13.4
42.5°	66.8	12.3	7.2
45°	41.1	6.2	0.0
47.5°	23.6	0.0	0.0
50°	12.3	0.0	0.0
52.5°	5.1	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°	1.0	1.0	1.0
77.5°	1.0	2.1	3.1
80°	2.1	4.1	5.1
82.5°	4.1	5.1	5.1
85°	4.1	5.1	6.2
87.5°	5.1	6.2	7.2
90°	6.2	7.2	7.2
92.5°	6.2	8.2	8.2
95°	7.2	8.2	9.2
97.5°	8.2	9.2	9.2
100°	7.2	9.2	10.3
102.5°	6.2	9.2	9.2
105°	5.1	7.2	8.2





TEST NUMBER: P551384

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	4.1	5.1	5.1
115°	3.1	4.1	5.1
117.5°	3.1	4.1	4.1
120°	3.1	3.1	4.1
122.5°	3.1	3.1	4.1
125°	3.1	3.1	4.1
127.5°	4.1	3.1	3.1
130°	3.1	3.1	3.1
132.5°	4.1	3.1	3.1
135°	4.1	3.1	3.1
137.5°	4.1	3.1	3.1
140°	4.1	3.1	3.1
142.5°	4.1	3.1	3.1
145°	3.1	3.1	3.1
147.5°	3.1	3.1	3.1
150°	3.1	3.1	2.1
152.5°	3.1	2.1	2.1
155°	3.1	2.1	1.0
157.5°	4.1	2.1	1.0
160°	3.1	2.1	1.0
162.5°	3.1	2.1	1.0
165°	3.1	2.1	0.0
167.5°	3.1	2.1	1.0
170°	3.1	2.1	1.0
172.5°	3.1	2.1	1.0
175°	3.1	1.0	1.0
177.5°	3.1	1.0	1.0
180°	3.1	3.1	3.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	431.4	419.1	378.0	310.2	216.7	121.2	45.2	8.2	2.1	3.1	3.1
110°	375.9	365.6	323.5	257.8	174.6	90.4	29.8	5.1	3.1	3.1	3.1







107.5°	4.1	6.2	7.2
110°	4.1	5.1	6.2



(END OF REPORT)