

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: P551400

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-84-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: P551400  
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-81-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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**

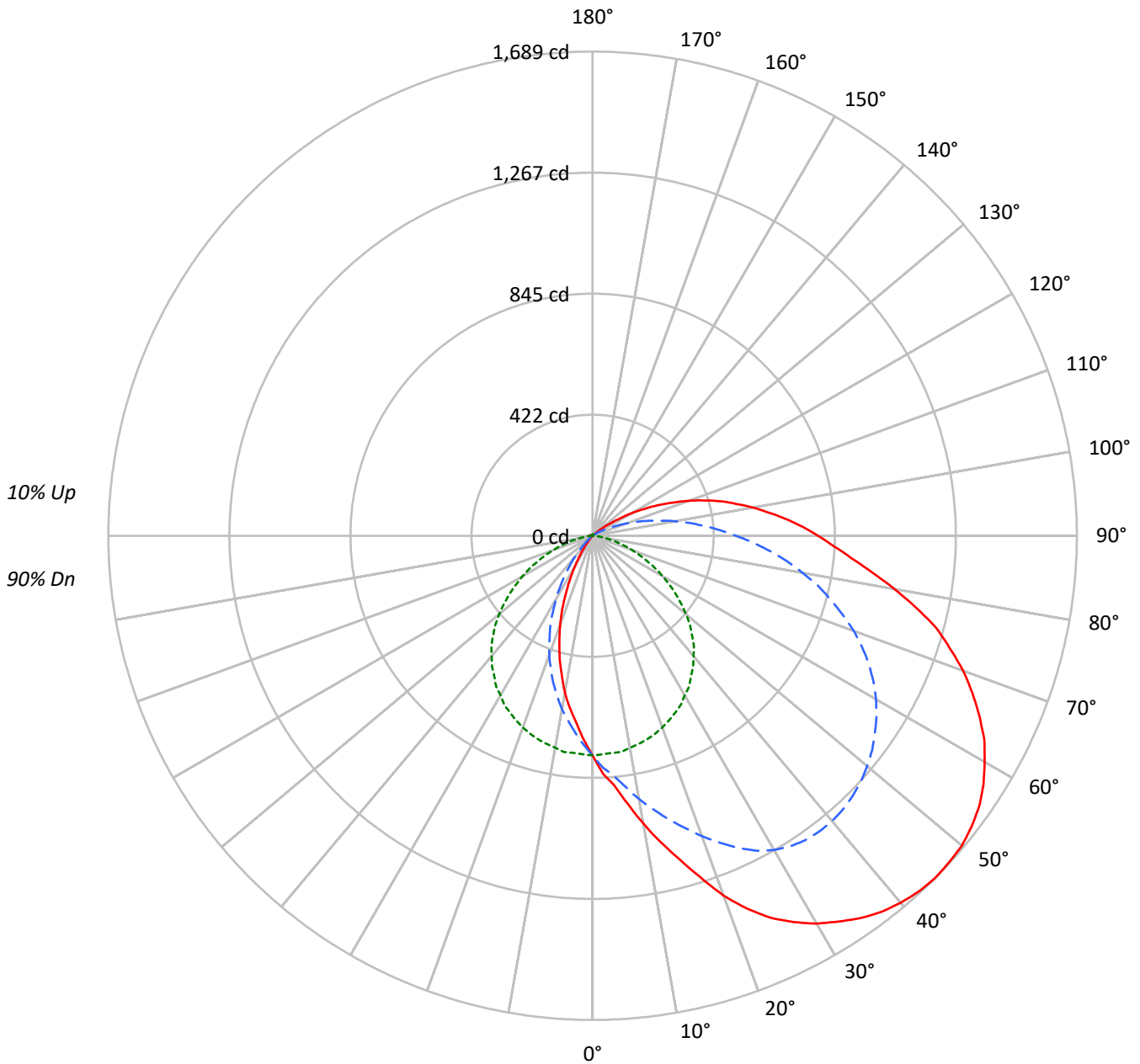
Lumens per Lamp: N/A  
Luminaire Lumens: 3787.0 lumens  
Efficiency: N/A  
Efficacy: 87.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551400

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-84-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551400

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-84-ED1D

**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°	8245	8245	8245
5°	9051	8125	6779
10°	10242	8025	5587
15°	11479	7923	4353
20°	12946	7794	3206
25°	14164	7644	2105
30°	15068	7444	1186
35°	15851	7228	523
40°	16546	6962	126
45°	17142	6629	0
50°	17642	6187	0
55°	18023	5624	0
60°	18215	4973	0
65°	18290	4234	0
70°	18229	3451	0
75°	17998	2547	15
80°	17268	1556	79
85°	16691	742	109



TEST NUMBER: P551400

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-84-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.4	1.9
10°-20°	219.7	5.8
20°-30°	355.8	9.4
30°-40°	457.0	12.1
40°-50°	517.4	13.7
50°-60°	536.0	14.2
60°-70°	505.5	13.3
70°-80°	423.6	11.2
80°-90°	307.1	8.1
90°-100°	201.8	5.3
100°-110°	116.6	3.1
110°-120°	51.4	1.4
120°-130°	13.9	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°	648.9	17.1
0°-40°	1105.9	29.2
0°-60°	2159.2	57.0
0°-90°	3395.4	89.7
90°-120°	369.8	9.8
90°-150°	389.0	10.3
90°-180°	392.0	10.4
0°-180°	3787.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	766	766	766	766	766	
5°	874	840	760	690	655	88
15°	1168	1024	735	531	443	337
25°	1471	1202	681	349	219	680
35°	1629	1295	598	170	54	1021
45°	1689	1283	490	39	0	1304
55°	1646	1202	353	0	0	1470
65°	1488	1064	211	0	0	1472
75°	1240	858	90	1	1	1301
85°	908	622	15	4	6	775
90°	786	499	4	6	7	431
95°	675	390	2	7	9	530
105°	464	202	2	5	8	490
115°	253	67	3	3	5	253
125°	75	9	4	3	4	75
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	



TEST NUMBER: P551400

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	766.0	766.0	766.0	766.0	766.0	766.0	766.0	766.0	766.0	766.0	766.0
2.5°	830.4	829.4	826.5	821.6	814.8	803.1	793.3	784.6	772.8	763.1	744.6
5°	874.3	869.5	865.6	860.7	845.1	834.3	816.8	797.2	778.7	760.2	723.1
7.5°	944.6	936.8	930.9	917.3	895.8	871.4	844.1	825.5	812.9	761.1	697.7
10°	1019.7	1012.9	1001.2	976.8	950.4	915.3	876.3	832.4	793.3	750.4	675.3
12.5°	1093.9	1084.1	1067.5	1036.3	999.2	955.3	901.7	849.9	794.3	743.6	648.9
15°	1168.1	1157.3	1139.8	1101.7	1052.9	995.3	930.0	864.6	799.2	734.8	621.6
17.5°	1249.1	1234.4	1208.1	1165.1	1103.7	1032.4	955.3	876.3	797.2	724.1	592.3
20°	1335.9	1315.4	1287.1	1229.5	1157.3	1073.4	980.7	888.0	796.3	711.4	559.1
22.5°	1408.1	1387.6	1356.4	1296.9	1210.0	1107.6	1002.2	895.8	792.4	696.7	527.9
25°	1470.6	1454.0	1419.8	1351.5	1259.8	1143.7	1022.7	901.7	786.5	681.1	494.7
27.5°	1519.4	1503.7	1465.7	1395.4	1301.7	1175.9	1038.3	904.6	778.7	665.5	460.6
30°	1562.3	1546.7	1500.8	1428.6	1330.0	1201.2	1053.9	905.6	768.9	642.1	423.5
32.5°	1595.5	1580.8	1534.0	1456.9	1349.6	1218.8	1062.7	904.6	756.3	625.5	383.5
35°	1628.6	1614.0	1559.4	1477.4	1364.2	1226.6	1069.5	899.7	740.6	598.2	345.4
37.5°	1654.0	1637.4	1581.8	1491.1	1371.0	1228.6	1068.5	892.9	724.1	575.7	307.4
40°	1671.6	1654.0	1594.5	1498.9	1373.0	1225.6	1060.7	881.2	704.5	547.4	267.4
42.5°	1683.3	1663.8	1600.3	1510.6	1369.1	1217.8	1049.0	866.5	683.1	523.0	229.3
45°	1689.1	1668.7	1601.3	1500.8	1362.2	1203.2	1031.4	848.0	659.7	489.9	191.3
47.5°	1686.2	1663.8	1596.4	1490.1	1349.6	1187.6	1011.9	825.5	631.4	460.6	155.2
50°	1681.3	1657.9	1585.7	1476.4	1332.0	1168.1	990.5	798.2	602.1	424.5	123.0
52.5°	1665.7	1642.3	1574.0	1456.9	1311.5	1145.6	961.2	769.9	570.9	389.4	93.7
55°	1646.2	1624.7	1553.5	1439.3	1285.2	1118.3	933.9	739.7	540.6	353.2	67.3
57.5°	1616.0	1596.4	1528.1	1411.0	1258.8	1088.0	903.6	706.5	502.5	317.1	46.8
60°	1578.9	1559.4	1493.0	1378.8	1228.6	1053.9	870.4	672.3	468.4	281.0	29.3
62.5°	1539.8	1521.3	1452.0	1338.8	1190.5	1017.8	834.3	638.2	432.3	247.9	17.6
65°	1488.1	1470.6	1408.1	1291.0	1148.5	978.7	794.3	597.2	395.2	210.8	9.8
67.5°	1433.5	1417.9	1354.4	1247.1	1099.7	935.8	753.3	557.2	356.2	178.6	4.9
70°	1374.9	1355.4	1296.9	1187.6	1050.0	887.0	708.4	516.2	319.1	147.3	0.0
72.5°	1306.6	1292.0	1235.4	1132.0	992.4	835.3	662.6	471.3	278.1	117.1	1.0
75°	1240.3	1221.7	1170.0	1072.4	935.8	780.7	611.8	429.4	238.1	89.8	1.0
77.5°	1154.4	1148.5	1099.7	1005.1	882.1	728.0	556.2	378.6	200.0	64.4	1.0
80°	1068.5	1062.7	1024.6	937.8	819.7	665.5	504.5	330.8	163.0	42.9	1.0
82.5°	983.6	975.8	939.7	867.5	756.3	612.8	450.8	283.0	128.8	26.3	1.0
85°	907.5	897.8	858.7	792.4	690.9	553.3	395.2	236.1	95.6	14.6	2.0
87.5°	842.1	835.3	792.4	724.1	624.5	497.7	346.4	191.3	67.3	6.8	2.9
90°	786.5	771.9	733.8	661.6	562.1	436.2	294.7	153.2	44.9	3.9	3.9
92.5°	731.9	719.2	677.2	603.1	506.5	383.5	244.9	117.1	28.3	2.0	4.9
95°	675.3	661.6	620.6	552.3	449.9	329.8	201.0	85.9	15.6	2.0	4.9
97.5°	619.6	607.0	564.0	495.7	399.1	283.0	159.1	60.5	7.8	2.0	3.9
100°	567.9	553.3	514.3	446.0	348.4	236.1	123.0	39.0	4.9	2.0	3.9
102.5°	513.3	501.6	461.6	395.2	295.7	192.2	91.7	24.4	2.0	2.0	2.9
105°	464.5	449.9	410.8	342.5	251.8	151.3	64.4	14.6	2.0	2.0	2.9



TEST NUMBER: P551400

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	302.5	290.8	256.6	199.1	127.8	59.5	17.6	2.9	2.9	2.9	2.9
115°	252.7	235.2	204.9	154.2	94.7	39.0	8.8	2.9	2.9	2.9	2.9
117.5°	202.0	187.4	165.9	117.1	62.5	25.4	4.9	2.9	2.9	2.9	2.9
120°	158.1	144.4	120.0	81.0	42.0	14.6	2.0	2.9	2.9	2.9	2.9
122.5°	113.2	102.5	81.0	52.7	25.4	6.8	2.9	2.9	3.9	3.9	2.9
125°	75.1	69.3	53.7	32.2	15.6	2.9	2.9	2.9	3.9	3.9	2.9
127.5°	48.8	43.9	31.2	18.5	6.8	2.9	2.9	3.9	3.9	3.9	2.9
130°	27.3	24.4	18.5	10.7	2.9	2.9	2.9	3.9	3.9	3.9	2.9
132.5°	15.6	14.6	9.8	2.0	2.9	2.9	2.9	3.9	3.9	3.9	3.9
135°	3.9	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9
137.5°	1.0	1.0	2.0	2.0	2.9	2.9	3.9	4.9	4.9	4.9	3.9
140°	1.0	1.0	2.0	2.9	2.9	2.9	3.9	4.9	4.9	4.9	3.9
142.5°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9	3.9
145°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	3.9	3.9	3.9
147.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9	3.9
150°	1.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	3.9
152.5°	1.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	3.9
155°	2.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	4.9
157.5°	2.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	4.9
160°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
162.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
165°	2.0	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9
167.5°	2.0	2.0	2.0	2.9	2.9	2.9	3.9	3.9	3.9	3.9	3.9
170°	2.0	2.0	2.0	2.9	2.9	2.9	3.9	4.9	4.9	4.9	4.9
172.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	4.9
175°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	4.9
177.5°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	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



TEST NUMBER: P551400

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	766.0	766.0	766.0
2.5°	728.9	715.3	711.4
5°	689.9	667.5	654.8
7.5°	650.9	620.6	606.0
10°	614.8	571.8	556.2
12.5°	571.8	522.1	497.7
15°	530.8	466.4	443.0
17.5°	485.0	412.8	385.4
20°	442.0	359.1	330.8
22.5°	393.3	306.4	275.2
25°	349.3	253.7	218.6
27.5°	300.6	200.0	169.8
30°	254.7	153.2	123.0
32.5°	210.8	112.2	84.9
35°	169.8	76.1	53.7
37.5°	130.8	46.8	27.3
40°	94.7	24.4	12.7
42.5°	63.4	11.7	6.8
45°	39.0	5.9	0.0
47.5°	22.4	0.0	0.0
50°	11.7	0.0	0.0
52.5°	4.9	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	2.0	2.9
80°	2.0	3.9	4.9
82.5°	3.9	4.9	4.9
85°	3.9	4.9	5.9
87.5°	4.9	5.9	6.8
90°	5.9	6.8	6.8
92.5°	5.9	7.8	7.8
95°	6.8	7.8	8.8
97.5°	7.8	8.8	8.8
100°	6.8	8.8	9.8
102.5°	5.9	8.8	8.8
105°	4.9	6.8	7.8





TEST NUMBER: P551400

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.9	4.9	4.9
115°	2.9	3.9	4.9
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	2.0
152.5°	2.9	2.0	2.0
155°	2.9	2.0	1.0
157.5°	3.9	2.0	1.0
160°	2.9	2.0	1.0
162.5°	2.9	2.0	1.0
165°	2.9	2.0	0.0
167.5°	2.9	2.0	1.0
170°	2.9	2.0	1.0
172.5°	2.9	2.0	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°	409.8	398.1	359.1	294.7	205.9	115.1	42.9	7.8	2.0	2.9	2.9
110°	357.2	347.4	307.4	244.9	165.9	85.9	28.3	4.9	2.9	2.9	2.9







107.5°	3.9	5.9	6.8
110°	3.9	4.9	5.9



(END OF REPORT)