

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: P551436

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-86-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: P551436  
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-93-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

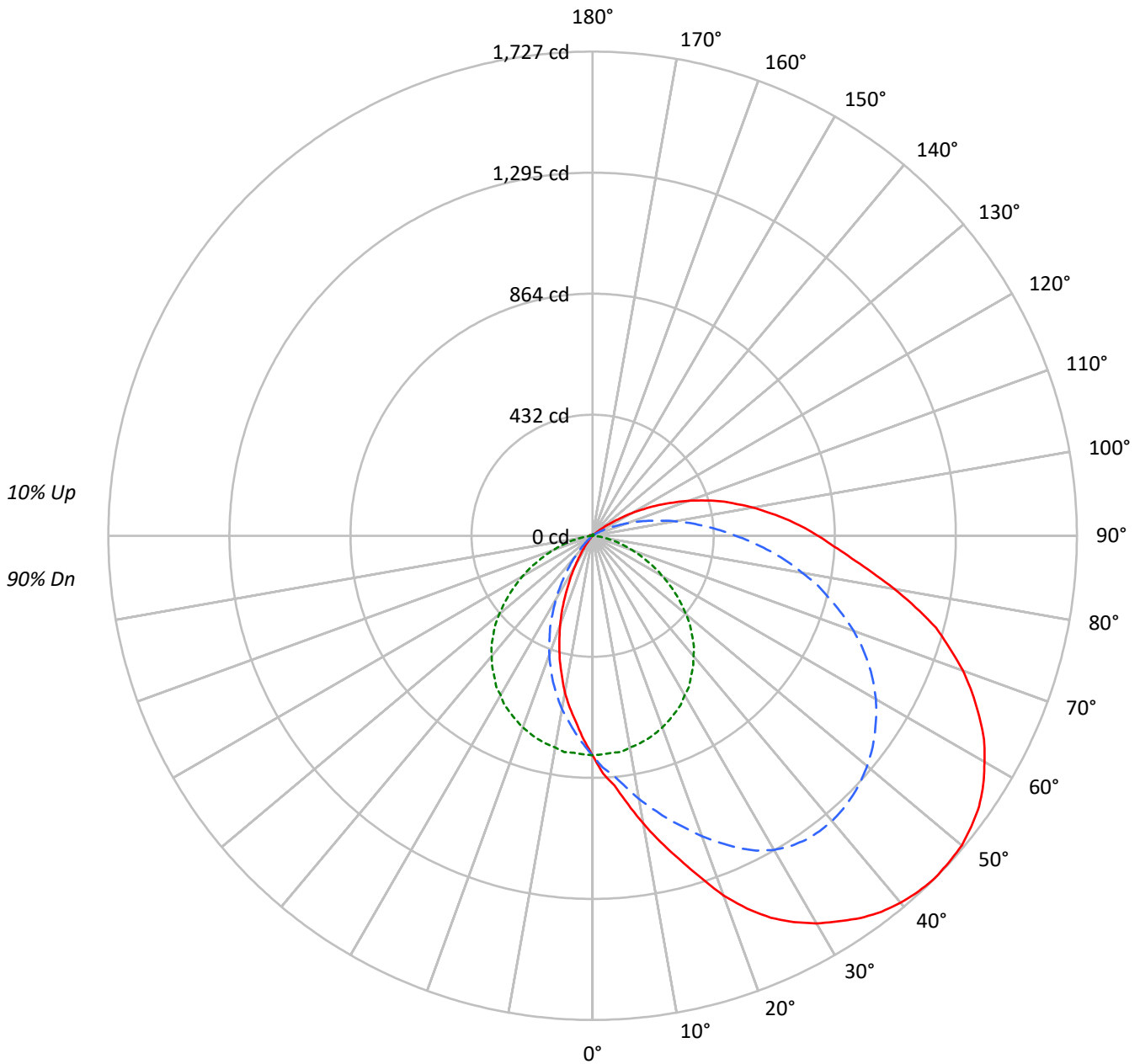
Lumens per Lamp: N/A  
Luminaire Lumens: 3871.1 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551436

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-86-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°	8428	8428	8428
5°	9252	8305	6929
10°	10470	8204	5711
15°	11733	8099	4450
20°	13233	7967	3277
25°	14478	7813	2152
30°	15402	7608	1212
35°	16203	7387	534
40°	16913	7117	129
45°	17522	6775	0
50°	18033	6324	0
55°	18423	5750	0
60°	18619	5084	0
65°	18695	4328	0
70°	18633	3528	0
75°	18397	2603	15
80°	17651	1592	81
85°	17060	763	110



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.0	1.9
10°-20°	224.6	5.8
20°-30°	363.7	9.4
30°-40°	467.2	12.1
40°-50°	528.8	13.7
50°-60°	547.9	14.2
60°-70°	516.7	13.3
70°-80°	433.0	11.2
80°-90°	313.9	8.1
90°-100°	206.3	5.3
100°-110°	119.1	3.1
110°-120°	52.6	1.4
120°-130°	14.2	0.4
130°-140°	3.3	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	663.2	17.1
0°-40°	1130.4	29.2
0°-60°	2207.1	57.0
0°-90°	3470.7	89.7
90°-120°	378.0	9.8
90°-150°	397.7	10.3
90°-180°	400.0	10.3
0°-180°	3871.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	783	783	783	783	783	
5°	894	858	777	705	669	90
15°	1194	1047	751	543	453	344
25°	1503	1228	696	357	223	695
35°	1665	1324	611	174	55	1044
45°	1727	1311	501	40	0	1333
55°	1683	1228	361	0	0	1503
65°	1521	1087	216	0	0	1505
75°	1268	877	92	1	1	1330
85°	928	636	15	4	6	792
90°	804	510	4	6	7	441
95°	690	398	2	7	9	542
105°	475	206	2	5	8	501
115°	258	68	3	3	5	259
125°	77	10	4	3	4	77
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°	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0	783.0
2.5°	848.8	847.8	844.9	839.9	832.9	820.9	810.9	802.0	790.0	780.0	761.1
5°	893.7	888.7	884.8	879.8	863.8	852.8	834.9	814.9	796.0	777.0	739.1
7.5°	965.5	957.6	951.6	937.6	915.7	890.7	862.8	843.9	830.9	778.0	713.2
10°	1042.4	1035.4	1023.4	998.5	971.5	935.6	895.7	850.8	810.9	767.1	690.2
12.5°	1118.2	1108.2	1091.2	1059.3	1021.4	976.5	921.7	868.8	811.9	760.1	663.3
15°	1194.0	1183.0	1165.0	1126.1	1076.3	1017.4	950.6	883.8	816.9	751.1	635.4
17.5°	1276.8	1261.8	1234.9	1191.0	1128.1	1055.3	976.5	895.7	814.9	740.1	605.5
20°	1365.5	1344.6	1315.7	1256.8	1183.0	1097.2	1002.5	907.7	813.9	727.2	571.5
22.5°	1439.3	1418.4	1386.5	1325.6	1236.9	1132.1	1024.4	915.7	809.9	712.2	539.6
25°	1503.2	1486.2	1451.3	1381.5	1287.7	1169.0	1045.3	921.7	804.0	696.2	505.7
27.5°	1553.1	1537.1	1498.2	1426.4	1330.6	1201.9	1061.3	924.7	796.0	680.3	470.8
30°	1596.9	1581.0	1534.1	1460.3	1359.5	1227.9	1077.3	925.6	786.0	656.3	432.9
32.5°	1630.9	1615.9	1568.0	1489.2	1379.5	1245.8	1086.2	924.7	773.0	639.4	392.0
35°	1664.8	1649.8	1593.9	1510.2	1394.5	1253.8	1093.2	919.7	757.1	611.4	353.1
37.5°	1690.7	1673.7	1616.9	1524.1	1401.4	1255.8	1092.2	912.7	740.1	588.5	314.2
40°	1708.7	1690.7	1629.9	1532.1	1403.4	1252.8	1084.2	900.7	720.2	559.6	273.3
42.5°	1720.6	1700.7	1635.8	1544.1	1399.4	1244.8	1072.3	885.7	698.2	534.6	234.4
45°	1726.6	1705.7	1636.8	1534.1	1392.5	1229.9	1054.3	866.8	674.3	500.7	195.5
47.5°	1723.6	1700.7	1631.9	1523.1	1379.5	1213.9	1034.4	843.9	645.4	470.8	158.6
50°	1718.6	1694.7	1620.9	1509.2	1361.5	1194.0	1012.4	815.9	615.4	433.9	125.7
52.5°	1702.7	1678.7	1608.9	1489.2	1340.6	1171.0	982.5	787.0	583.5	398.0	95.8
55°	1682.7	1660.8	1588.0	1471.3	1313.7	1143.1	954.6	756.1	552.6	361.1	68.8
57.5°	1651.8	1631.9	1562.0	1442.3	1286.7	1112.2	923.7	722.2	513.7	324.2	47.9
60°	1613.9	1593.9	1526.1	1409.4	1255.8	1077.3	889.7	687.3	478.8	287.3	29.9
62.5°	1574.0	1555.0	1484.2	1368.5	1216.9	1040.4	852.8	652.3	441.9	253.4	18.0
65°	1521.1	1503.2	1439.3	1319.6	1174.0	1000.5	811.9	610.4	404.0	215.5	10.0
67.5°	1465.3	1449.3	1384.5	1274.8	1124.1	956.6	770.0	569.6	364.1	182.5	5.0
70°	1405.4	1385.5	1325.6	1213.9	1073.3	906.7	724.2	527.7	326.2	150.6	0.0
72.5°	1335.6	1320.6	1262.8	1157.1	1014.4	853.8	677.3	481.8	284.3	119.7	1.0
75°	1267.8	1248.8	1196.0	1096.2	956.6	798.0	625.4	438.9	243.4	91.8	1.0
77.5°	1180.0	1174.0	1124.1	1027.4	901.7	744.1	568.6	387.0	204.5	65.8	1.0
80°	1092.2	1086.2	1047.3	958.6	837.9	680.3	515.7	338.1	166.6	43.9	1.0
82.5°	1005.4	997.5	960.6	886.7	773.0	626.4	460.8	289.3	131.7	26.9	1.0
85°	927.6	917.7	877.8	809.9	706.2	565.6	404.0	241.4	97.8	15.0	2.0
87.5°	860.8	853.8	809.9	740.1	638.4	508.7	354.1	195.5	68.8	7.0	3.0
90°	804.0	789.0	750.1	676.3	574.5	445.9	301.2	156.6	45.9	4.0	4.0
92.5°	748.1	735.1	692.2	616.4	517.7	392.0	250.4	119.7	28.9	2.0	5.0
95°	690.2	676.3	634.4	564.6	459.8	337.1	205.5	87.8	16.0	2.0	5.0
97.5°	633.4	620.4	576.5	506.7	408.0	289.3	162.6	61.8	8.0	2.0	4.0
100°	580.5	565.6	525.7	455.8	356.1	241.4	125.7	39.9	5.0	2.0	4.0
102.5°	524.7	512.7	471.8	404.0	302.2	196.5	93.8	24.9	2.0	2.0	3.0
105°	474.8	459.8	419.9	350.1	257.3	154.6	65.8	15.0	2.0	2.0	3.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	309.2	297.2	262.3	203.5	130.7	60.8	18.0	3.0	3.0	3.0	3.0
115°	258.3	240.4	209.5	157.6	96.8	39.9	9.0	3.0	3.0	3.0	3.0
117.5°	206.5	191.5	169.6	119.7	63.8	25.9	5.0	3.0	3.0	3.0	3.0
120°	161.6	147.6	122.7	82.8	42.9	15.0	2.0	3.0	3.0	3.0	3.0
122.5°	115.7	104.7	82.8	53.9	25.9	7.0	3.0	3.0	4.0	4.0	3.0
125°	76.8	70.8	54.9	32.9	16.0	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	49.9	44.9	31.9	19.0	7.0	3.0	3.0	4.0	4.0	4.0	3.0
130°	27.9	24.9	19.0	11.0	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	16.0	15.0	10.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
135°	4.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
160°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
162.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
165°	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
167.5°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
170°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	4.0
180°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	783.0	783.0	783.0
2.5°	745.1	731.1	727.2
5°	705.2	682.3	669.3
7.5°	665.3	634.4	619.4
10°	628.4	584.5	568.6
12.5°	584.5	533.6	508.7
15°	542.6	476.8	452.8
17.5°	495.7	421.9	394.0
20°	451.9	367.1	338.1
22.5°	402.0	313.2	281.3
25°	357.1	259.3	223.4
27.5°	307.2	204.5	173.6
30°	260.3	156.6	125.7
32.5°	215.5	114.7	86.8
35°	173.6	77.8	54.9
37.5°	133.7	47.9	27.9
40°	96.8	24.9	13.0
42.5°	64.8	12.0	7.0
45°	39.9	6.0	0.0
47.5°	22.9	0.0	0.0
50°	12.0	0.0	0.0
52.5°	5.0	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	3.0
80°	2.0	4.0	5.0
82.5°	4.0	5.0	5.0
85°	4.0	5.0	6.0
87.5°	5.0	6.0	7.0
90°	6.0	7.0	7.0
92.5°	6.0	8.0	8.0
95°	7.0	8.0	9.0
97.5°	8.0	9.0	9.0
100°	7.0	9.0	10.0
102.5°	6.0	9.0	9.0
105°	5.0	7.0	8.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	4.0	5.0	5.0
115°	3.0	4.0	5.0
117.5°	3.0	4.0	4.0
120°	3.0	3.0	4.0
122.5°	3.0	3.0	4.0
125°	3.0	3.0	4.0
127.5°	4.0	3.0	3.0
130°	3.0	3.0	3.0
132.5°	4.0	3.0	3.0
135°	4.0	3.0	3.0
137.5°	4.0	3.0	3.0
140°	4.0	3.0	3.0
142.5°	4.0	3.0	3.0
145°	3.0	3.0	3.0
147.5°	3.0	3.0	3.0
150°	3.0	3.0	2.0
152.5°	3.0	2.0	2.0
155°	3.0	2.0	1.0
157.5°	4.0	2.0	1.0
160°	3.0	2.0	1.0
162.5°	3.0	2.0	1.0
165°	3.0	2.0	0.0
167.5°	3.0	2.0	1.0
170°	3.0	2.0	1.0
172.5°	3.0	2.0	1.0
175°	3.0	1.0	1.0
177.5°	3.0	1.0	1.0
180°	3.0	3.0	3.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	418.9	407.0	367.1	301.2	210.5	117.7	43.9	8.0	2.0	3.0	3.0
110°	365.1	355.1	314.2	250.4	169.6	87.8	28.9	5.0	3.0	3.0	3.0







107.5°	4.0	6.0	7.0
110°	4.0	5.0	6.0



(END OF REPORT)