

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: P551446

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-97-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: P551446  
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-93-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,  
AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

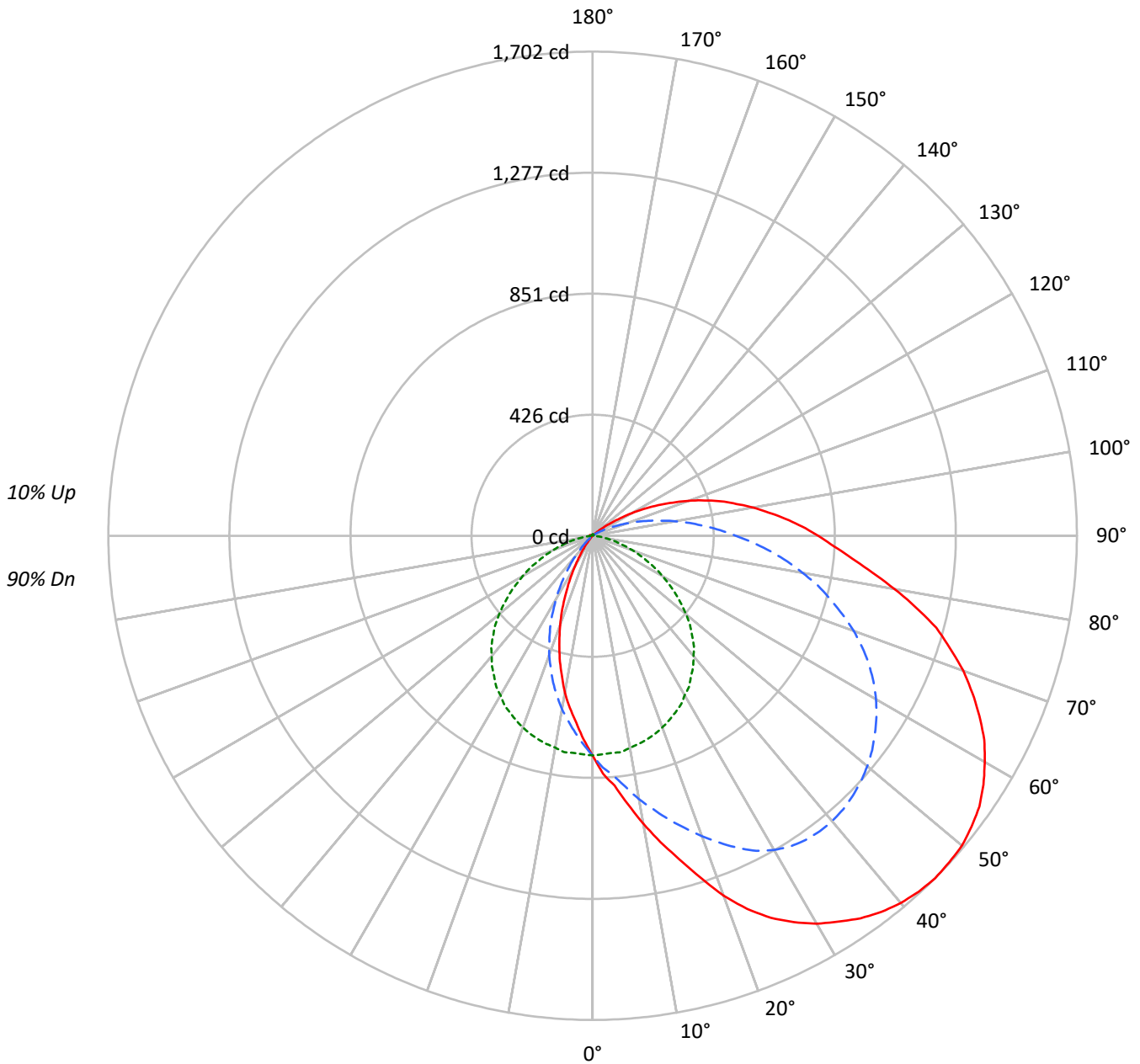
Lumens per Lamp: N/A  
Luminaire Lumens: 3817.0 lumens  
Efficiency: N/A  
Efficacy: 88.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551446

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-97-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°	8311	8311	8311
5°	9123	8189	6832
10°	10324	8089	5631
15°	11569	7986	4388
20°	13049	7856	3231
25°	14275	7704	2122
30°	15188	7503	1195
35°	15976	7285	527
40°	16677	7017	127
45°	17278	6680	0
50°	17783	6235	0
55°	18167	5669	0
60°	18360	5013	0
65°	18435	4266	0
70°	18373	3479	0
75°	18140	2566	15
80°	17405	1571	79
85°	16823	753	109



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.0	1.9
10°-20°	221.4	5.8
20°-30°	358.6	9.4
30°-40°	460.6	12.1
40°-50°	521.4	13.7
50°-60°	540.2	14.2
60°-70°	509.5	13.3
70°-80°	427.0	11.2
80°-90°	309.5	8.1
90°-100°	203.4	5.3
100°-110°	117.5	3.1
110°-120°	51.9	1.4
120°-130°	14.1	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°	654.0	17.1
0°-40°	1114.6	29.2
0°-60°	2176.3	57.0
0°-90°	3422.3	89.7
90°-120°	372.8	9.8
90°-150°	392.1	10.3
90°-180°	395.0	10.3
0°-180°	3817.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	772	772	772	772	772	
5°	881	846	766	695	660	89
15°	1177	1032	741	535	446	339
25°	1482	1211	686	352	220	685
35°	1642	1306	603	171	54	1030
45°	1702	1293	494	39	0	1314
55°	1659	1211	356	0	0	1482
65°	1500	1072	212	0	0	1484
75°	1250	865	90	1	1	1311
85°	915	627	15	4	6	781
90°	793	503	4	6	7	435
95°	681	393	2	7	9	534
105°	468	203	2	5	8	494
115°	255	67	3	3	5	255
125°	76	9	4	3	4	76
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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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-97-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1	772.1
2.5°	837.0	836.0	833.1	828.1	821.3	809.5	799.6	790.8	779.0	769.1	750.4
5°	881.3	876.3	872.4	867.5	851.8	840.9	823.2	803.6	784.9	766.2	728.8
7.5°	952.1	944.2	938.3	924.5	902.9	878.3	850.8	832.1	819.3	767.2	703.2
10°	1027.8	1020.9	1009.1	984.5	958.0	922.6	883.2	839.0	799.6	756.4	680.6
12.5°	1102.6	1092.7	1076.0	1044.5	1007.2	962.9	908.8	856.7	800.6	749.5	654.1
15°	1177.3	1166.5	1148.8	1110.4	1061.3	1003.2	937.3	871.4	805.5	740.6	626.5
17.5°	1258.9	1244.2	1217.6	1174.4	1112.4	1040.6	962.9	883.2	803.6	729.8	597.0
20°	1346.5	1325.8	1297.3	1239.3	1166.5	1081.9	988.5	895.0	802.6	717.0	563.6
22.5°	1419.3	1398.6	1367.1	1307.1	1219.6	1116.3	1010.1	902.9	798.6	702.3	532.1
25°	1482.2	1465.5	1431.1	1362.2	1269.8	1152.7	1030.8	908.8	792.7	686.5	498.7
27.5°	1531.4	1515.7	1477.3	1406.5	1312.1	1185.2	1046.5	911.8	784.9	670.8	464.2
30°	1574.7	1558.9	1512.7	1439.9	1340.6	1210.8	1062.2	912.7	775.0	647.2	426.9
32.5°	1608.1	1593.4	1546.1	1468.4	1360.3	1228.5	1071.1	911.8	762.3	630.5	386.5
35°	1641.5	1626.8	1571.7	1489.1	1375.0	1236.3	1078.0	906.8	746.5	602.9	348.2
37.5°	1667.1	1650.4	1594.3	1502.9	1381.9	1238.3	1077.0	899.9	729.8	580.3	309.8
40°	1684.8	1667.1	1607.1	1510.7	1383.9	1235.3	1069.1	888.1	710.1	551.8	269.5
42.5°	1696.6	1677.0	1613.0	1522.5	1379.9	1227.5	1057.3	873.4	688.5	527.2	231.1
45°	1702.5	1681.9	1614.0	1512.7	1373.0	1212.7	1039.6	854.7	664.9	493.7	192.8
47.5°	1699.6	1677.0	1609.1	1501.9	1360.3	1197.0	1019.9	832.1	636.4	464.2	156.4
50°	1694.7	1671.1	1598.3	1488.1	1342.5	1177.3	998.3	804.5	606.9	427.8	123.9
52.5°	1678.9	1655.3	1586.5	1468.4	1321.9	1154.7	968.8	776.0	575.4	392.4	94.4
55°	1659.3	1637.6	1565.8	1450.7	1295.3	1127.1	941.3	745.5	544.9	356.0	67.9
57.5°	1628.8	1609.1	1540.2	1422.2	1268.8	1096.7	910.8	712.1	506.5	319.7	47.2
60°	1591.4	1571.7	1504.8	1389.8	1238.3	1062.2	877.3	677.7	472.1	283.3	29.5
62.5°	1552.0	1533.4	1463.5	1349.4	1199.9	1025.8	840.9	643.2	435.7	249.8	17.7
65°	1499.9	1482.2	1419.3	1301.2	1157.6	986.5	800.6	601.9	398.3	212.4	9.8
67.5°	1444.8	1429.1	1365.2	1257.0	1108.5	943.2	759.3	561.6	359.0	180.0	4.9
70°	1385.8	1366.2	1307.1	1197.0	1058.3	894.0	714.1	520.3	321.6	148.5	0.0
72.5°	1317.0	1302.2	1245.2	1140.9	1000.3	841.9	667.8	475.1	280.3	118.0	1.0
75°	1250.1	1231.4	1179.3	1080.9	943.2	786.8	616.7	432.8	240.0	90.5	1.0
77.5°	1163.5	1157.6	1108.5	1013.1	889.1	733.7	560.6	381.6	201.6	64.9	1.0
80°	1077.0	1071.1	1032.7	945.2	826.2	670.8	508.5	333.4	164.3	43.3	1.0
82.5°	991.4	983.6	947.2	874.4	762.3	617.7	454.4	285.2	129.8	26.6	1.0
85°	914.7	904.9	865.5	798.6	696.4	557.7	398.3	238.0	96.4	14.8	2.0
87.5°	848.8	841.9	798.6	729.8	629.5	501.6	349.2	192.8	67.9	6.9	3.0
90°	792.7	778.0	739.6	666.8	566.5	439.6	297.0	154.4	45.2	3.9	3.9
92.5°	737.7	724.9	682.6	607.8	510.5	386.5	246.9	118.0	28.5	2.0	4.9
95°	680.6	666.8	625.5	556.7	453.4	332.4	202.6	86.6	15.7	2.0	4.9
97.5°	624.6	611.8	568.5	499.6	402.3	285.2	160.3	61.0	7.9	2.0	3.9
100°	572.4	557.7	518.3	449.5	351.1	238.0	123.9	39.3	4.9	2.0	3.9
102.5°	517.3	505.5	465.2	398.3	298.0	193.8	92.5	24.6	2.0	2.0	3.0
105°	468.2	453.4	414.1	345.2	253.8	152.5	64.9	14.8	2.0	2.0	3.0



TEST NUMBER: P551446

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	304.9	293.1	258.7	200.6	128.8	60.0	17.7	3.0	3.0	3.0	3.0
115°	254.7	237.0	206.5	155.4	95.4	39.3	8.9	3.0	3.0	3.0	3.0
117.5°	203.6	188.8	167.2	118.0	62.9	25.6	4.9	3.0	3.0	3.0	3.0
120°	159.3	145.6	121.0	81.6	42.3	14.8	2.0	3.0	3.0	3.0	3.0
122.5°	114.1	103.3	81.6	53.1	25.6	6.9	3.0	3.0	3.9	3.9	3.0
125°	75.7	69.8	54.1	32.5	15.7	3.0	3.0	3.0	3.9	3.9	3.0
127.5°	49.2	44.3	31.5	18.7	6.9	3.0	3.0	3.9	3.9	3.9	3.0
130°	27.5	24.6	18.7	10.8	3.0	3.0	3.0	3.9	3.9	3.9	3.0
132.5°	15.7	14.8	9.8	2.0	3.0	3.0	3.0	3.9	3.9	3.9	3.9
135°	3.9	2.0	2.0	2.0	3.0	3.0	3.9	3.9	4.9	4.9	3.9
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	3.9	4.9	4.9	4.9	3.9
140°	1.0	1.0	2.0	3.0	3.0	3.0	3.9	4.9	4.9	4.9	3.9
142.5°	1.0	2.0	2.0	3.0	3.0	3.9	3.9	4.9	4.9	3.9	3.9
145°	1.0	2.0	2.0	3.0	3.0	3.9	3.9	4.9	3.9	3.9	3.9
147.5°	2.0	2.0	2.0	3.0	3.0	3.9	3.9	4.9	4.9	3.9	3.9
150°	1.0	2.0	2.0	3.0	3.9	3.9	3.9	4.9	3.9	3.9	3.9
152.5°	1.0	2.0	2.0	3.0	3.9	3.9	3.9	4.9	3.9	3.9	3.9
155°	2.0	2.0	2.0	3.0	3.9	3.9	3.9	4.9	3.9	3.9	4.9
157.5°	2.0	2.0	2.0	3.0	3.9	3.9	3.9	4.9	3.9	3.9	4.9
160°	2.0	2.0	2.0	3.0	3.0	3.9	3.9	3.9	3.9	3.9	3.9
162.5°	2.0	2.0	2.0	3.0	3.0	3.9	3.9	3.9	3.9	3.9	3.9
165°	2.0	2.0	2.0	2.0	3.0	3.0	3.9	3.9	3.9	3.9	3.9
167.5°	2.0	2.0	2.0	3.0	3.0	3.0	3.9	3.9	3.9	3.9	3.9
170°	2.0	2.0	2.0	3.0	3.0	3.0	3.9	4.9	4.9	4.9	4.9
172.5°	2.0	2.0	2.0	3.0	3.0	3.9	3.9	4.9	4.9	4.9	4.9
175°	2.0	2.0	2.0	3.0	3.0	3.9	3.9	4.9	4.9	4.9	4.9
177.5°	1.0	2.0	2.0	3.0	3.0	3.9	3.9	4.9	4.9	4.9	3.9
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°	772.1	772.1	772.1
2.5°	734.7	720.9	717.0
5°	695.4	672.7	660.0
7.5°	656.0	625.5	610.8
10°	619.6	576.4	560.6
12.5°	576.4	526.2	501.6
15°	535.1	470.1	446.5
17.5°	488.8	416.0	388.5
20°	445.5	361.9	333.4
22.5°	396.4	308.8	277.4
25°	352.1	255.7	220.3
27.5°	302.9	201.6	171.1
30°	256.7	154.4	123.9
32.5°	212.4	113.1	85.6
35°	171.1	76.7	54.1
37.5°	131.8	47.2	27.5
40°	95.4	24.6	12.8
42.5°	63.9	11.8	6.9
45°	39.3	5.9	0.0
47.5°	22.6	0.0	0.0
50°	11.8	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	3.0
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	6.9
90°	5.9	6.9	6.9
92.5°	5.9	7.9	7.9
95°	6.9	7.9	8.9
97.5°	7.9	8.9	8.9
100°	6.9	8.9	9.8
102.5°	5.9	8.9	8.9
105°	4.9	6.9	7.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.9	4.9	4.9
115°	3.0	3.9	4.9
117.5°	3.0	3.9	3.9
120°	3.0	3.0	3.9
122.5°	3.0	3.0	3.9
125°	3.0	3.0	3.9
127.5°	3.9	3.0	3.0
130°	3.0	3.0	3.0
132.5°	3.9	3.0	3.0
135°	3.9	3.0	3.0
137.5°	3.9	3.0	3.0
140°	3.9	3.0	3.0
142.5°	3.9	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°	3.9	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°	413.1	401.3	361.9	297.0	207.5	116.1	43.3	7.9	2.0	3.0	3.0
110°	360.0	350.1	309.8	246.9	167.2	86.6	28.5	4.9	3.0	3.0	3.0







107.5°	3.9	5.9	6.9
110°	3.9	4.9	5.9



(END OF REPORT)