

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: P551416

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-84-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: P551416  
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-82-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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**

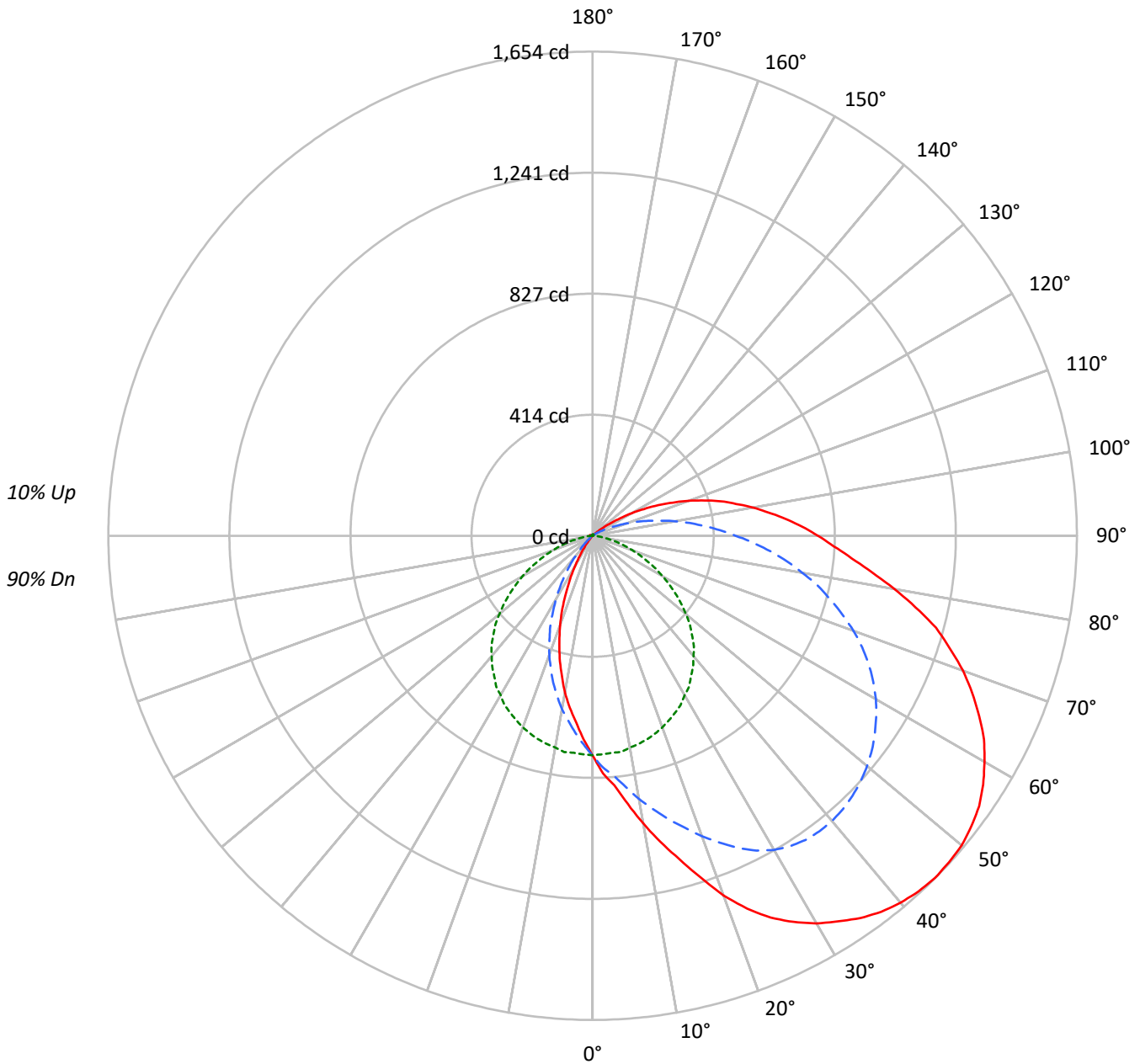
Lumens per Lamp: N/A  
Luminaire Lumens: 3707.1 lumens  
Efficiency: N/A  
Efficacy: 85.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-84-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	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°	8071	8071	8071
5°	8860	7953	6635
10°	10026	7856	5469
15°	11236	7756	4262
20°	12673	7629	3138
25°	13864	7482	2061
30°	14750	7286	1161
35°	15516	7074	511
40°	16197	6815	123
45°	16780	6488	0
50°	17270	6056	0
55°	17642	5506	0
60°	17830	4868	0
65°	17904	4144	0
70°	17844	3378	0
75°	17618	2493	15
80°	16904	1523	78
85°	16338	727	105



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.8	1.9
10°-20°	215.1	5.8
20°-30°	348.3	9.4
30°-40°	447.4	12.1
40°-50°	506.4	13.7
50°-60°	524.7	14.2
60°-70°	494.8	13.3
70°-80°	414.7	11.2
80°-90°	300.6	8.1
90°-100°	197.5	5.3
100°-110°	114.1	3.1
110°-120°	50.4	1.4
120°-130°	13.6	0.4
130°-140°	3.1	0.1
140°-150°	2.1	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	635.1	17.1
0°-40°	1082.5	29.2
0°-60°	2113.6	57.0
0°-90°	3323.7	89.7
90°-120°	362.0	9.8
90°-150°	380.8	10.3
90°-180°	383.0	10.3
0°-180°	3707.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	750	750	750	750	750	
5°	856	822	744	675	641	86
15°	1143	1002	719	520	434	330
25°	1440	1176	667	342	214	665
35°	1594	1268	586	166	52	1000
45°	1654	1256	480	38	0	1277
55°	1611	1176	346	0	0	1439
65°	1457	1041	206	0	0	1441
75°	1214	840	88	1	1	1273
85°	888	609	14	4	6	759
90°	770	489	4	6	7	422
95°	661	382	2	7	9	519
105°	455	197	2	5	8	480
115°	247	65	3	3	5	248
125°	74	9	4	3	4	74
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°	749.8	749.8	749.8	749.8	749.8	749.8	749.8	749.8	749.8	749.8	749.8
2.5°	812.9	811.9	809.1	804.3	797.6	786.1	776.6	768.0	756.5	747.0	728.8
5°	855.9	851.1	847.3	842.5	827.2	816.7	799.5	780.4	762.3	744.1	707.8
7.5°	924.6	917.0	911.3	897.9	876.9	853.0	826.3	808.1	795.7	745.1	683.0
10°	998.2	991.5	980.0	956.2	930.4	896.0	857.8	814.8	776.6	734.6	661.0
12.5°	1070.8	1061.2	1045.0	1014.4	978.1	935.1	882.6	832.0	777.5	727.9	635.2
15°	1143.4	1132.9	1115.7	1078.4	1030.7	974.3	910.3	846.3	782.3	719.3	608.5
17.5°	1222.7	1208.3	1182.5	1140.5	1080.3	1010.6	935.1	857.8	780.4	708.8	579.8
20°	1307.7	1287.6	1259.9	1203.6	1132.9	1050.7	960.0	869.2	779.4	696.3	547.3
22.5°	1378.4	1358.3	1327.7	1269.5	1184.5	1084.2	981.0	876.9	775.6	682.0	516.8
25°	1439.5	1423.3	1389.8	1323.0	1233.2	1119.5	1001.1	882.6	769.9	666.7	484.3
27.5°	1487.3	1472.0	1434.7	1365.9	1274.2	1151.0	1016.3	885.5	762.3	651.5	450.9
30°	1529.3	1514.0	1469.1	1398.4	1301.9	1175.9	1031.6	886.4	752.7	628.5	414.6
32.5°	1561.8	1547.4	1501.6	1426.1	1321.1	1193.1	1040.2	885.5	740.3	612.3	375.4
35°	1594.2	1579.9	1526.4	1446.2	1335.4	1200.7	1046.9	880.7	725.0	585.5	338.1
37.5°	1619.1	1602.8	1548.4	1459.6	1342.1	1202.6	1046.0	874.0	708.8	563.6	300.9
40°	1636.3	1619.1	1560.8	1467.2	1344.0	1199.7	1038.3	862.6	689.7	535.9	261.7
42.5°	1647.7	1628.6	1566.5	1478.7	1340.2	1192.1	1026.8	848.2	668.6	512.0	224.5
45°	1653.5	1633.4	1567.5	1469.1	1333.5	1177.8	1009.7	830.1	645.7	479.5	187.2
47.5°	1650.6	1628.6	1562.7	1458.6	1321.1	1162.5	990.5	808.1	618.0	450.9	151.9
50°	1645.8	1622.9	1552.2	1445.2	1303.9	1143.4	969.5	781.4	589.4	415.5	120.4
52.5°	1630.5	1607.6	1540.7	1426.1	1283.8	1121.4	940.9	753.7	558.8	381.1	91.7
55°	1611.4	1590.4	1520.7	1408.9	1258.0	1094.7	914.1	724.0	529.2	345.8	65.9
57.5°	1581.8	1562.7	1495.9	1381.2	1232.2	1065.1	884.5	691.6	491.9	310.4	45.8
60°	1545.5	1526.4	1461.5	1349.7	1202.6	1031.6	852.0	658.1	458.5	275.1	28.7
62.5°	1507.3	1489.2	1421.3	1310.5	1165.4	996.3	816.7	624.7	423.2	242.6	17.2
65°	1456.7	1439.5	1378.4	1263.7	1124.3	958.1	777.5	584.6	386.9	206.3	9.6
67.5°	1403.2	1387.9	1325.8	1220.8	1076.5	916.0	737.4	545.4	348.7	174.8	4.8
70°	1345.9	1326.8	1269.5	1162.5	1027.8	868.3	693.5	505.3	312.4	144.2	0.0
72.5°	1279.0	1264.7	1209.3	1108.0	971.4	817.7	648.6	461.4	272.2	114.6	1.0
75°	1214.1	1195.9	1145.3	1049.8	916.0	764.2	598.9	420.3	233.1	87.9	1.0
77.5°	1130.0	1124.3	1076.5	983.9	863.5	712.6	544.5	370.6	195.8	63.0	1.0
80°	1046.0	1040.2	1003.0	918.0	802.4	651.5	493.8	323.8	159.5	42.0	1.0
82.5°	962.8	955.2	919.9	849.2	740.3	599.9	441.3	277.0	126.1	25.8	1.0
85°	888.3	878.8	840.6	775.6	676.3	541.6	386.9	231.2	93.6	14.3	1.9
87.5°	824.3	817.7	775.6	708.8	611.3	487.2	339.1	187.2	65.9	6.7	2.9
90°	769.9	755.6	718.3	647.6	550.2	427.0	288.5	150.0	43.9	3.8	3.8
92.5°	716.4	704.0	662.9	590.3	495.8	375.4	239.8	114.6	27.7	1.9	4.8
95°	661.0	647.6	607.5	540.6	440.4	322.9	196.8	84.1	15.3	1.9	4.8
97.5°	606.6	594.1	552.1	485.2	390.7	277.0	155.7	59.2	7.6	1.9	3.8
100°	555.9	541.6	503.4	436.5	341.0	231.2	120.4	38.2	4.8	1.9	3.8
102.5°	502.4	491.0	451.8	386.9	289.4	188.2	89.8	23.9	1.9	1.9	2.9
105°	454.7	440.4	402.1	335.3	246.4	148.1	63.0	14.3	1.9	1.9	2.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	296.1	284.7	251.2	194.9	125.1	58.3	17.2	2.9	2.9	2.9	2.9
115°	247.4	230.2	200.6	150.9	92.7	38.2	8.6	2.9	2.9	2.9	2.9
117.5°	197.7	183.4	162.4	114.6	61.1	24.8	4.8	2.9	2.9	2.9	2.9
120°	154.7	141.4	117.5	79.3	41.1	14.3	1.9	2.9	2.9	2.9	2.9
122.5°	110.8	100.3	79.3	51.6	24.8	6.7	2.9	2.9	3.8	3.8	2.9
125°	73.6	67.8	52.5	31.5	15.3	2.9	2.9	2.9	3.8	3.8	2.9
127.5°	47.8	43.0	30.6	18.1	6.7	2.9	2.9	3.8	3.8	3.8	2.9
130°	26.7	23.9	18.1	10.5	2.9	2.9	2.9	3.8	3.8	3.8	2.9
132.5°	15.3	14.3	9.6	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8
137.5°	1.0	1.0	1.9	1.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
140°	1.0	1.0	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
142.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
145°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
150°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
152.5°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
157.5°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
160°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	4.8
172.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
175°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
177.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	3.8
180°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	749.8	749.8	749.8
2.5°	713.5	700.2	696.3
5°	675.3	653.4	640.9
7.5°	637.1	607.5	593.2
10°	601.8	559.8	544.5
12.5°	559.8	511.0	487.2
15°	519.6	456.6	433.7
17.5°	474.7	404.1	377.3
20°	432.7	351.5	323.8
22.5°	384.9	299.9	269.4
25°	342.0	248.4	214.0
27.5°	294.2	195.8	166.2
30°	249.3	150.0	120.4
32.5°	206.3	109.8	83.1
35°	166.2	74.5	52.5
37.5°	128.0	45.8	26.7
40°	92.7	23.9	12.4
42.5°	62.1	11.5	6.7
45°	38.2	5.7	0.0
47.5°	22.0	0.0	0.0
50°	11.5	0.0	0.0
52.5°	4.8	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	1.9	2.9
80°	1.9	3.8	4.8
82.5°	3.8	4.8	4.8
85°	3.8	4.8	5.7
87.5°	4.8	5.7	6.7
90°	5.7	6.7	6.7
92.5°	5.7	7.6	7.6
95°	6.7	7.6	8.6
97.5°	7.6	8.6	8.6
100°	6.7	8.6	9.6
102.5°	5.7	8.6	8.6
105°	4.8	6.7	7.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.8	4.8	4.8
115°	2.9	3.8	4.8
117.5°	2.9	3.8	3.8
120°	2.9	2.9	3.8
122.5°	2.9	2.9	3.8
125°	2.9	2.9	3.8
127.5°	3.8	2.9	2.9
130°	2.9	2.9	2.9
132.5°	3.8	2.9	2.9
135°	3.8	2.9	2.9
137.5°	3.8	2.9	2.9
140°	3.8	2.9	2.9
142.5°	3.8	2.9	2.9
145°	2.9	2.9	2.9
147.5°	2.9	2.9	2.9
150°	2.9	2.9	1.9
152.5°	2.9	1.9	1.9
155°	2.9	1.9	1.0
157.5°	3.8	1.9	1.0
160°	2.9	1.9	1.0
162.5°	2.9	1.9	1.0
165°	2.9	1.9	0.0
167.5°	2.9	1.9	1.0
170°	2.9	1.9	1.0
172.5°	2.9	1.9	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°	401.2	389.7	351.5	288.5	201.5	112.7	42.0	7.6	1.9	2.9	2.9
110°	349.6	340.1	300.9	239.8	162.4	84.1	27.7	4.8	2.9	2.9	2.9







107.5°	3.8	5.7	6.7
110°	3.8	4.8	5.7



(END OF REPORT)