

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: P551414

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-97-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: P551414  
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-81-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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**

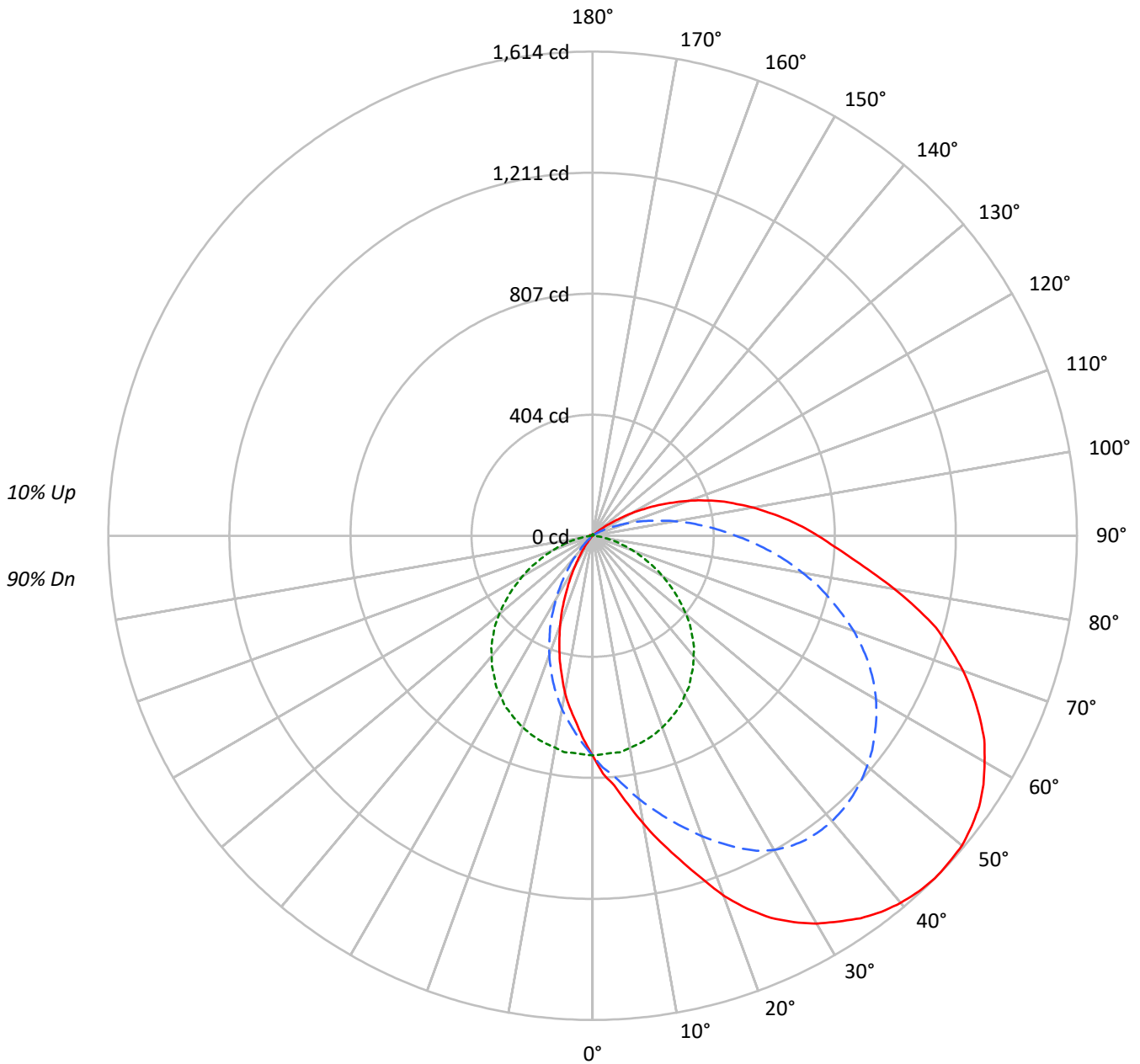
Lumens per Lamp: N/A  
Luminaire Lumens: 3619.0 lumens  
Efficiency: N/A  
Efficacy: 83.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-81-97-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°	7879	7879	7879
5°	8649	7764	6477
10°	9788	7669	5339
15°	10969	7571	4161
20°	12372	7448	3063
25°	13535	7305	2012
30°	14400	7113	1133
35°	15148	6907	499
40°	15812	6652	120
45°	16381	6334	0
50°	16860	5913	0
55°	17224	5376	0
60°	17407	4753	0
65°	17479	4045	0
70°	17420	3298	0
75°	17198	2433	13
80°	16502	1487	76
85°	15951	712	103



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.1	1.9
10°-20°	210.0	5.8
20°-30°	340.0	9.4
30°-40°	436.8	12.1
40°-50°	494.4	13.7
50°-60°	512.2	14.2
60°-70°	483.1	13.3
70°-80°	404.8	11.2
80°-90°	293.4	8.1
90°-100°	192.9	5.3
100°-110°	111.4	3.1
110°-120°	49.1	1.4
120°-130°	13.3	0.4
130°-140°	3.0	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	620.1	17.1
0°-40°	1056.8	29.2
0°-60°	2063.4	57.0
0°-90°	3244.7	89.7
90°-120°	353.4	9.8
90°-150°	371.7	10.3
90°-180°	374.0	10.3
0°-180°	3619.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	732	732	732	732	732	
5°	836	802	726	659	626	84
15°	1116	979	702	507	423	322
25°	1405	1148	651	334	209	650
35°	1556	1238	572	162	51	976
45°	1614	1226	468	37	0	1246
55°	1573	1148	338	0	0	1405
65°	1422	1016	201	0	0	1407
75°	1185	820	86	1	1	1243
85°	867	594	14	4	6	741
90°	752	477	4	6	6	412
95°	645	373	2	6	8	506
105°	444	193	2	5	8	468
115°	242	64	3	3	5	242
125°	72	9	4	3	4	72
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°	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
2.5°	793.6	792.7	789.9	785.2	778.7	767.5	758.1	749.8	738.6	729.2	711.5
5°	835.5	830.9	827.2	822.5	807.6	797.3	780.5	761.9	744.2	726.4	691.0
7.5°	902.7	895.2	889.6	876.6	856.1	832.8	806.6	788.9	776.8	727.4	666.8
10°	974.5	968.0	956.8	933.5	908.3	874.7	837.4	795.4	758.1	717.1	645.3
12.5°	1045.4	1036.0	1020.2	990.3	954.9	912.9	861.7	812.2	759.1	710.6	620.1
15°	1116.2	1106.0	1089.2	1052.8	1006.2	951.2	888.7	826.2	763.7	702.2	594.0
17.5°	1193.6	1179.7	1154.5	1113.4	1054.7	986.6	912.9	837.4	761.9	691.9	566.0
20°	1276.6	1257.1	1230.0	1175.0	1106.0	1025.8	937.2	848.6	760.9	679.8	534.3
22.5°	1345.6	1326.1	1296.2	1239.3	1156.3	1058.4	957.7	856.1	757.2	665.8	504.5
25°	1405.3	1389.5	1356.8	1291.6	1203.9	1092.9	977.3	861.7	751.6	650.9	472.8
27.5°	1452.0	1437.0	1400.7	1333.5	1244.0	1123.7	992.2	864.5	744.2	636.0	440.2
30°	1493.0	1478.1	1434.2	1365.2	1271.0	1147.9	1007.1	865.4	734.8	613.6	404.7
32.5°	1524.7	1510.7	1465.9	1392.3	1289.7	1164.7	1015.5	864.5	722.7	597.8	366.5
35°	1556.4	1542.4	1490.2	1411.9	1303.7	1172.2	1022.1	859.8	707.8	571.6	330.1
37.5°	1580.6	1564.8	1511.6	1424.9	1310.2	1174.1	1021.1	853.3	691.9	550.2	293.7
40°	1597.4	1580.6	1523.8	1432.4	1312.1	1171.3	1013.7	842.1	673.3	523.1	255.5
42.5°	1608.6	1590.0	1529.4	1443.6	1308.3	1163.8	1002.5	828.1	652.8	499.8	219.1
45°	1614.2	1594.6	1530.3	1434.2	1301.8	1149.8	985.7	810.4	630.4	468.1	182.8
47.5°	1611.4	1590.0	1525.6	1424.0	1289.7	1134.9	967.0	788.9	603.3	440.2	148.3
50°	1606.8	1584.4	1515.4	1410.9	1272.9	1116.2	946.5	762.8	575.4	405.7	117.5
52.5°	1591.8	1569.4	1504.2	1392.3	1253.3	1094.8	918.5	735.8	545.5	372.1	89.5
55°	1573.2	1552.7	1484.6	1375.5	1228.1	1068.7	892.4	706.9	516.6	337.6	64.3
57.5°	1544.3	1525.6	1460.3	1348.4	1203.0	1039.8	863.5	675.2	480.3	303.1	44.8
60°	1508.8	1490.2	1426.8	1317.7	1174.1	1007.1	831.8	642.5	447.6	268.6	28.0
62.5°	1471.5	1453.8	1387.6	1279.4	1137.7	972.6	797.3	609.9	413.1	236.9	16.8
65°	1422.1	1405.3	1345.6	1233.7	1097.6	935.3	759.1	570.7	377.7	201.4	9.3
67.5°	1369.9	1355.0	1294.4	1191.8	1051.0	894.3	719.9	532.5	340.4	170.7	4.7
70°	1313.9	1295.3	1239.3	1134.9	1003.4	847.7	677.0	493.3	304.9	140.8	0.0
72.5°	1248.7	1234.7	1180.6	1081.7	948.4	798.2	633.2	450.4	265.8	111.9	0.9
75°	1185.2	1167.5	1118.1	1024.9	894.3	746.0	584.7	410.3	227.5	85.8	0.9
77.5°	1103.2	1097.6	1051.0	960.5	843.0	695.7	531.5	361.8	191.2	61.5	0.9
80°	1021.1	1015.5	979.2	896.2	783.3	636.0	482.1	316.1	155.7	41.0	0.9
82.5°	940.0	932.5	898.0	829.0	722.7	585.6	430.8	270.4	123.1	25.2	0.9
85°	867.3	857.9	820.6	757.2	660.2	528.7	377.7	225.7	91.4	14.0	1.9
87.5°	804.8	798.2	757.2	691.9	596.8	475.6	331.0	182.8	64.3	6.5	2.8
90°	751.6	737.6	701.3	632.3	537.1	416.8	281.6	146.4	42.9	3.7	3.7
92.5°	699.4	687.3	647.2	576.3	484.0	366.5	234.1	111.9	27.0	1.9	4.7
95°	645.3	632.3	593.1	527.8	429.9	315.2	192.1	82.1	14.9	1.9	4.7
97.5°	592.2	580.0	539.0	473.7	381.4	270.4	152.0	57.8	7.5	1.9	3.7
100°	542.7	528.7	491.4	426.2	332.9	225.7	117.5	37.3	4.7	1.9	3.7
102.5°	490.5	479.3	441.1	377.7	282.6	183.7	87.7	23.3	1.9	1.9	2.8
105°	443.9	429.9	392.6	327.3	240.6	144.5	61.5	14.0	1.9	1.9	2.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	289.1	277.9	245.3	190.2	122.2	56.9	16.8	2.8	2.8	2.8	2.8
115°	241.5	224.7	195.8	147.3	90.5	37.3	8.4	2.8	2.8	2.8	2.8
117.5°	193.0	179.0	158.5	111.9	59.7	24.2	4.7	2.8	2.8	2.8	2.8
120°	151.1	138.0	114.7	77.4	40.1	14.0	1.9	2.8	2.8	2.8	2.8
122.5°	108.2	97.9	77.4	50.4	24.2	6.5	2.8	2.8	3.7	3.7	2.8
125°	71.8	66.2	51.3	30.8	14.9	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.6	42.0	29.8	17.7	6.5	2.8	2.8	3.7	3.7	3.7	2.8
130°	26.1	23.3	17.7	10.3	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.9	14.0	9.3	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.7	4.7	4.7	4.7	3.7
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.7	4.7	4.7	4.7	3.7
142.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7	3.7
145°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	3.7	3.7	3.7
147.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	3.7	3.7
150°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	3.7
152.5°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	3.7
155°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	4.7
157.5°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.7	3.7	3.7	4.7
160°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.7	4.7	4.7	3.7
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	732.0	732.0	732.0
2.5°	696.6	683.5	679.8
5°	659.3	637.9	625.7
7.5°	622.0	593.1	579.1
10°	587.5	546.5	531.5
12.5°	546.5	498.9	475.6
15°	507.3	445.7	423.4
17.5°	463.5	394.5	368.3
20°	422.4	343.2	316.1
22.5°	375.8	292.8	263.0
25°	333.8	242.5	208.9
27.5°	287.2	191.2	162.3
30°	243.4	146.4	117.5
32.5°	201.4	107.2	81.1
35°	162.3	72.7	51.3
37.5°	125.0	44.8	26.1
40°	90.5	23.3	12.1
42.5°	60.6	11.2	6.5
45°	37.3	5.6	0.0
47.5°	21.4	0.0	0.0
50°	11.2	0.0	0.0
52.5°	4.7	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°	0.9	0.9	0.9
77.5°	0.9	1.9	2.8
80°	1.9	3.7	4.7
82.5°	3.7	4.7	4.7
85°	3.7	4.7	5.6
87.5°	4.7	5.6	6.5
90°	5.6	6.5	6.5
92.5°	5.6	7.5	7.5
95°	6.5	7.5	8.4
97.5°	7.5	8.4	8.4
100°	6.5	8.4	9.3
102.5°	5.6	8.4	8.4
105°	4.7	6.5	7.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.7	4.7	4.7
115°	2.8	3.7	4.7
117.5°	2.8	3.7	3.7
120°	2.8	2.8	3.7
122.5°	2.8	2.8	3.7
125°	2.8	2.8	3.7
127.5°	3.7	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.7	2.8	2.8
135°	3.7	2.8	2.8
137.5°	3.7	2.8	2.8
140°	3.7	2.8	2.8
142.5°	3.7	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.9
152.5°	2.8	1.9	1.9
155°	2.8	1.9	0.9
157.5°	3.7	1.9	0.9
160°	2.8	1.9	0.9
162.5°	2.8	1.9	0.9
165°	2.8	1.9	0.0
167.5°	2.8	1.9	0.9
170°	2.8	1.9	0.9
172.5°	2.8	1.9	0.9
175°	2.8	0.9	0.9
177.5°	2.8	0.9	0.9
180°	2.8	2.8	2.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	391.7	380.5	343.2	281.6	196.8	110.0	41.0	7.5	1.9	2.8	2.8
110°	341.3	332.0	293.7	234.1	158.5	82.1	27.0	4.7	2.8	2.8	2.8







107.5°	3.7	5.6	6.5
110°	3.7	4.7	5.6



(END OF REPORT)