

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: P551221

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-97-ED1D-90**

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: P551221  
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-30-UNV-81-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

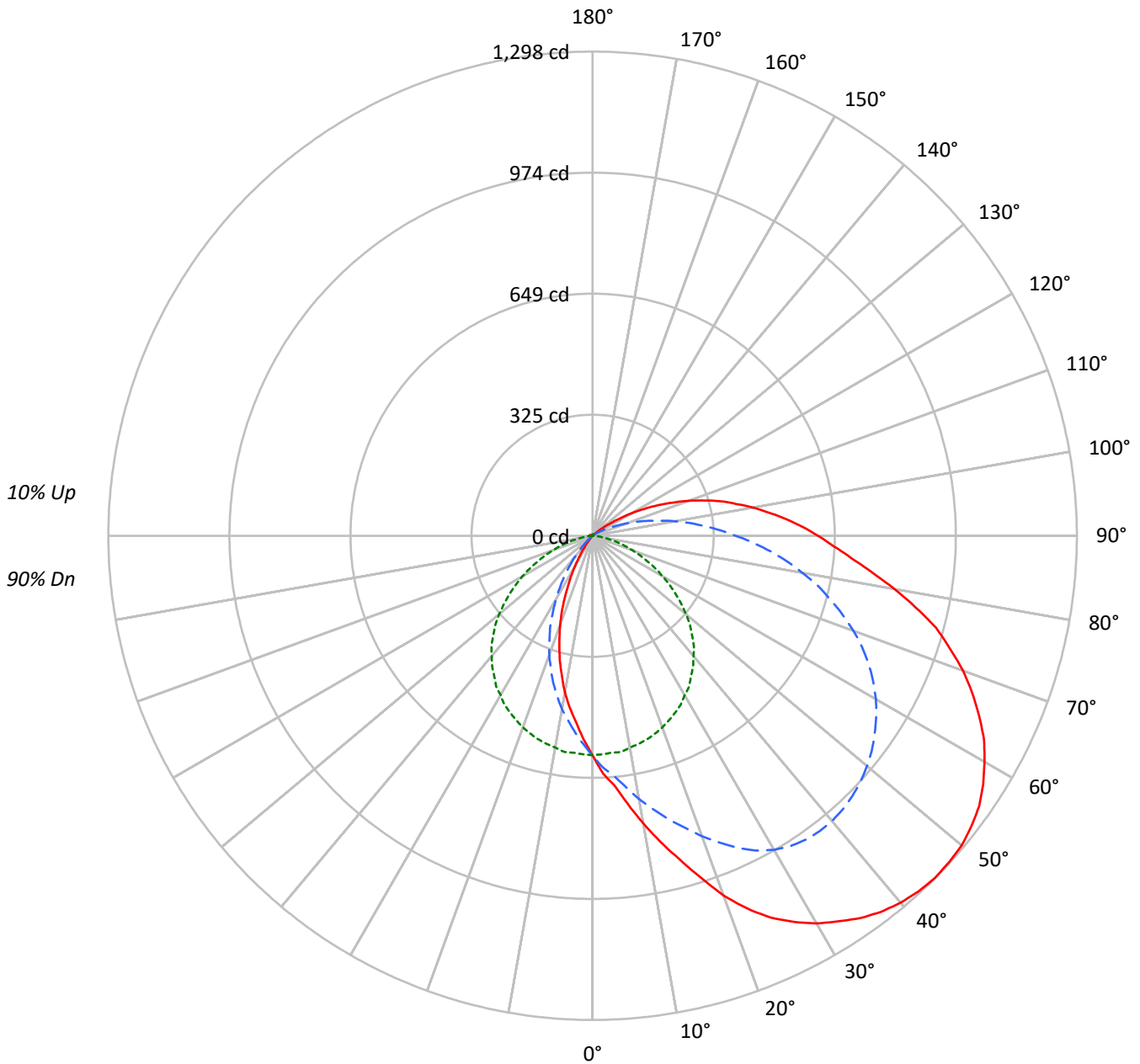
Lumens per Lamp: N/A  
Luminaire Lumens: 2908.8 lumens  
Efficiency: N/A  
Efficacy: 67.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-97-ED1D-90

### 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°	6333	6333	6333
5°	6953	6241	5207
10°	7868	6164	4292
15°	8817	6086	3344
20°	9945	5986	2463
25°	10879	5872	1617
30°	11575	5717	910
35°	12177	5552	401
40°	12710	5348	96
45°	13167	5092	0
50°	13552	4753	0
55°	13844	4320	0
60°	13992	3821	0
65°	14050	3252	0
70°	14003	2652	0
75°	13825	1957	10
80°	13265	1197	60
85°	12821	570	83



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	1.9
10°-20°	168.8	5.8
20°-30°	273.3	9.4
30°-40°	351.1	12.1
40°-50°	397.4	13.7
50°-60°	411.7	14.2
60°-70°	388.3	13.3
70°-80°	325.4	11.2
80°-90°	235.9	8.1
90°-100°	155.0	5.3
100°-110°	89.5	3.1
110°-120°	39.5	1.4
120°-130°	10.7	0.4
130°-140°	2.4	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	498.4	17.1
0°-40°	849.5	29.2
0°-60°	1658.6	57.0
0°-90°	2608.1	89.7
90°-120°	284.0	9.8
90°-150°	298.7	10.3
90°-180°	301.0	10.3
0°-180°	2908.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	588	588	588	588	588	
5°	672	645	584	530	503	68
15°	897	787	564	408	340	259
25°	1130	923	523	268	168	522
35°	1251	995	460	130	41	785
45°	1298	985	376	30	0	1002
55°	1264	923	271	0	0	1129
65°	1143	817	162	0	0	1131
75°	953	659	69	1	1	999
85°	697	478	11	3	4	595
90°	604	383	3	4	5	331
95°	519	300	2	5	7	407
105°	357	155	2	4	6	376
115°	194	51	2	2	4	194
125°	58	7	3	2	3	58
135°	3	2	4	3	2	5
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	588.4	588.4	588.4	588.4	588.4	588.4	588.4	588.4	588.4	588.4	588.4
2.5°	637.9	637.1	634.9	631.1	625.9	616.9	609.4	602.7	593.7	586.2	571.9
5°	671.6	667.9	664.9	661.1	649.1	640.9	627.4	612.4	598.2	583.9	555.4
7.5°	725.6	719.6	715.1	704.6	688.1	669.4	648.4	634.1	624.4	584.7	536.0
10°	783.3	778.1	769.1	750.3	730.1	703.1	673.1	639.4	609.4	576.4	518.7
12.5°	840.3	832.8	820.0	796.1	767.6	733.8	692.6	652.9	610.2	571.2	498.5
15°	897.2	889.0	875.5	846.3	808.8	764.6	714.4	664.1	613.9	564.4	477.5
17.5°	959.5	948.2	928.0	895.0	847.8	793.1	733.8	673.1	612.4	556.2	455.0
20°	1026.2	1010.4	988.7	944.5	889.0	824.5	753.3	682.1	611.7	546.4	429.5
22.5°	1081.6	1065.9	1041.9	996.2	929.5	850.8	769.8	688.1	608.7	535.2	405.5
25°	1129.6	1116.9	1090.6	1038.2	967.7	878.5	785.6	692.6	604.2	523.2	380.0
27.5°	1167.1	1155.1	1125.9	1071.9	999.9	903.2	797.6	694.9	598.2	511.2	353.8
30°	1200.1	1188.1	1152.9	1097.4	1021.7	922.7	809.5	695.6	590.7	493.2	325.3
32.5°	1225.6	1214.3	1178.3	1119.1	1036.7	936.2	816.3	694.9	580.9	480.5	294.6
35°	1251.1	1239.8	1197.8	1134.9	1047.9	942.2	821.5	691.1	568.9	459.5	265.4
37.5°	1270.5	1257.8	1215.1	1145.4	1053.2	943.7	820.8	685.9	556.2	442.3	236.1
40°	1284.0	1270.5	1224.8	1151.4	1054.7	941.5	814.8	676.9	541.2	420.5	205.4
42.5°	1293.0	1278.0	1229.3	1160.4	1051.7	935.5	805.8	665.6	524.7	401.8	176.2
45°	1297.5	1281.8	1230.1	1152.9	1046.4	924.2	792.3	651.4	506.7	376.3	146.9
47.5°	1295.3	1278.0	1226.3	1144.6	1036.7	912.2	777.3	634.1	485.0	353.8	119.2
50°	1291.5	1273.5	1218.1	1134.1	1023.2	897.2	760.8	613.2	462.5	326.1	94.4
52.5°	1279.5	1261.5	1209.1	1119.1	1007.4	880.0	738.3	591.4	438.5	299.1	72.0
55°	1264.5	1248.1	1193.3	1105.6	987.2	859.0	717.3	568.2	415.3	271.3	51.7
57.5°	1241.3	1226.3	1173.8	1083.9	967.0	835.8	694.1	542.7	386.0	243.6	36.0
60°	1212.8	1197.8	1146.9	1059.2	943.7	809.5	668.6	516.5	359.8	215.9	22.5
62.5°	1182.8	1168.6	1115.4	1028.4	914.5	781.8	640.9	490.2	332.1	190.4	13.5
65°	1143.1	1129.6	1081.6	991.7	882.3	751.8	610.2	458.7	303.6	161.9	7.5
67.5°	1101.1	1089.1	1040.4	958.0	844.8	718.8	578.7	428.0	273.6	137.2	3.7
70°	1056.2	1041.2	996.2	912.2	806.5	681.4	544.2	396.5	245.1	113.2	0.0
72.5°	1003.7	992.4	949.0	869.5	762.3	641.6	509.0	362.0	213.6	89.9	0.7
75°	952.7	938.5	898.7	823.8	718.8	599.7	470.0	329.8	182.9	69.0	0.7
77.5°	886.8	882.3	844.8	772.1	677.6	559.2	427.3	290.8	153.7	49.5	0.7
80°	820.8	816.3	787.1	720.3	629.6	511.2	387.5	254.1	125.2	33.0	0.7
82.5°	755.6	749.6	721.8	666.4	580.9	470.7	346.3	217.4	98.9	20.2	0.7
85°	697.1	689.6	659.6	608.7	530.7	425.0	303.6	181.4	73.5	11.2	1.5
87.5°	646.9	641.6	608.7	556.2	479.7	382.3	266.1	146.9	51.7	5.2	2.2
90°	604.2	592.9	563.7	508.2	431.8	335.1	226.4	117.7	34.5	3.0	3.0
92.5°	562.2	552.4	520.2	463.2	389.0	294.6	188.1	89.9	21.7	1.5	3.7
95°	518.7	508.2	476.7	424.3	345.6	253.4	154.4	66.0	12.0	1.5	3.7
97.5°	476.0	466.2	433.3	380.8	306.6	217.4	122.2	46.5	6.0	1.5	3.0
100°	436.3	425.0	395.0	342.6	267.6	181.4	94.4	30.0	3.7	1.5	3.0
102.5°	394.3	385.3	354.6	303.6	227.1	147.7	70.5	18.7	1.5	1.5	2.2
105°	356.8	345.6	315.6	263.1	193.4	116.2	49.5	11.2	1.5	1.5	2.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	232.4	223.4	197.1	152.9	98.2	45.7	13.5	2.2	2.2	2.2	2.2
115°	194.1	180.6	157.4	118.4	72.7	30.0	6.7	2.2	2.2	2.2	2.2
117.5°	155.2	143.9	127.4	89.9	48.0	19.5	3.7	2.2	2.2	2.2	2.2
120°	121.4	110.9	92.2	62.2	32.2	11.2	1.5	2.2	2.2	2.2	2.2
122.5°	87.0	78.7	62.2	40.5	19.5	5.2	2.2	2.2	3.0	3.0	2.2
125°	57.7	53.2	41.2	24.7	12.0	2.2	2.2	2.2	3.0	3.0	2.2
127.5°	37.5	33.7	24.0	14.2	5.2	2.2	2.2	3.0	3.0	3.0	2.2
130°	21.0	18.7	14.2	8.2	2.2	2.2	2.2	3.0	3.0	3.0	2.2
132.5°	12.0	11.2	7.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0
137.5°	0.7	0.7	1.5	1.5	2.2	2.2	3.0	3.7	3.7	3.7	3.0
140°	0.7	0.7	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.0
142.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
145°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
150°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
152.5°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
157.5°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
160°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.7
172.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
175°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
177.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.0
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	588.4	588.4	588.4
2.5°	559.9	549.4	546.4
5°	530.0	512.7	503.0
7.5°	500.0	476.7	465.5
10°	472.2	439.3	427.3
12.5°	439.3	401.0	382.3
15°	407.8	358.3	340.3
17.5°	372.5	317.1	296.1
20°	339.6	275.8	254.1
22.5°	302.1	235.4	211.4
25°	268.3	194.9	167.9
27.5°	230.9	153.7	130.4
30°	195.6	117.7	94.4
32.5°	161.9	86.2	65.2
35°	130.4	58.5	41.2
37.5°	100.4	36.0	21.0
40°	72.7	18.7	9.7
42.5°	48.7	9.0	5.2
45°	30.0	4.5	0.0
47.5°	17.2	0.0	0.0
50°	9.0	0.0	0.0
52.5°	3.7	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°	0.7	0.7	0.7
77.5°	0.7	1.5	2.2
80°	1.5	3.0	3.7
82.5°	3.0	3.7	3.7
85°	3.0	3.7	4.5
87.5°	3.7	4.5	5.2
90°	4.5	5.2	5.2
92.5°	4.5	6.0	6.0
95°	5.2	6.0	6.7
97.5°	6.0	6.7	6.7
100°	5.2	6.7	7.5
102.5°	4.5	6.7	6.7
105°	3.7	5.2	6.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.0	3.7	3.7
115°	2.2	3.0	3.7
117.5°	2.2	3.0	3.0
120°	2.2	2.2	3.0
122.5°	2.2	2.2	3.0
125°	2.2	2.2	3.0
127.5°	3.0	2.2	2.2
130°	2.2	2.2	2.2
132.5°	3.0	2.2	2.2
135°	3.0	2.2	2.2
137.5°	3.0	2.2	2.2
140°	3.0	2.2	2.2
142.5°	3.0	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.5
152.5°	2.2	1.5	1.5
155°	2.2	1.5	0.7
157.5°	3.0	1.5	0.7
160°	2.2	1.5	0.7
162.5°	2.2	1.5	0.7
165°	2.2	1.5	0.0
167.5°	2.2	1.5	0.7
170°	2.2	1.5	0.7
172.5°	2.2	1.5	0.7
175°	2.2	0.7	0.7
177.5°	2.2	0.7	0.7
180°	2.2	2.2	2.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	314.8	305.8	275.8	226.4	158.2	88.5	33.0	6.0	1.5	2.2	2.2
110°	274.3	266.9	236.1	188.1	127.4	66.0	21.7	3.7	2.2	2.2	2.2







107.5°	3.0	4.5	5.2
110°	3.0	3.7	4.5



(END OF REPORT)