

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: P551345

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-94-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: P551345  
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-40-UNV-81-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

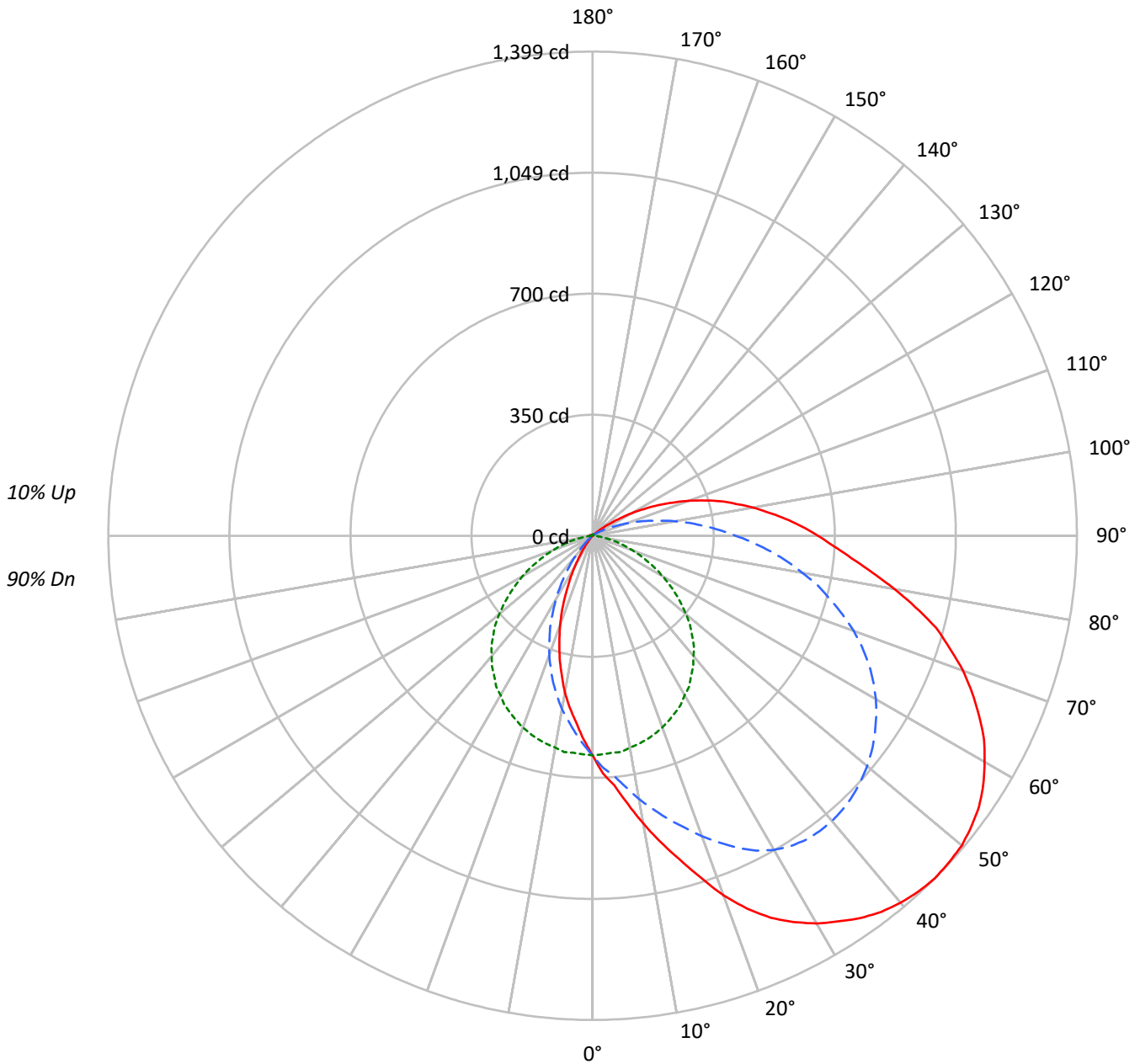
Lumens per Lamp: N/A  
Luminaire Lumens: 3135.9 lumens  
Efficiency: N/A  
Efficacy: 72.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551345

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-94-ED1D-90

### 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°	6828	6828	6828
5°	7495	6728	5613
10°	8482	6645	4626
15°	9506	6561	3606
20°	10721	6454	2654
25°	11729	6330	1743
30°	12478	6164	982
35°	13127	5985	432
40°	13701	5765	104
45°	14195	5490	0
50°	14610	5123	0
55°	14925	4658	0
60°	15084	4118	0
65°	15146	3505	0
70°	15096	2858	0
75°	14904	2107	12
80°	14299	1291	65
85°	13822	615	88



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.8	1.9
10°-20°	181.9	5.8
20°-30°	294.6	9.4
30°-40°	378.5	12.1
40°-50°	428.4	13.7
50°-60°	443.8	14.2
60°-70°	418.6	13.3
70°-80°	350.8	11.2
80°-90°	254.3	8.1
90°-100°	167.1	5.3
100°-110°	96.5	3.1
110°-120°	42.6	1.4
120°-130°	11.5	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	537.3	17.1
0°-40°	915.8	29.2
0°-60°	1788.0	57.0
0°-90°	2811.7	89.7
90°-120°	306.2	9.8
90°-150°	322.1	10.3
90°-180°	324.0	10.3
0°-180°	3135.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	634	634	634	634	634	
5°	724	695	630	571	542	73
15°	967	848	608	440	367	279
25°	1218	995	564	289	181	563
35°	1349	1073	495	141	44	846
45°	1399	1062	406	32	0	1080
55°	1363	995	292	0	0	1217
65°	1232	881	174	0	0	1219
75°	1027	711	74	1	1	1077
85°	752	515	12	3	5	642
90°	651	413	3	5	6	357
95°	559	323	2	6	7	439
105°	385	167	2	4	6	406
115°	209	55	2	2	4	210
125°	62	8	3	2	3	62
135°	3	2	4	3	2	6
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°	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3
2.5°	687.7	686.9	684.4	680.4	674.7	665.0	657.0	649.7	640.0	631.9	616.6
5°	724.0	720.0	716.8	712.7	699.8	690.9	676.4	660.2	644.8	629.5	598.8
7.5°	782.2	775.8	770.9	759.6	741.8	721.6	699.0	683.6	673.1	630.3	577.8
10°	844.4	838.8	829.1	808.9	787.1	758.0	725.6	689.3	657.0	621.4	559.2
12.5°	905.9	897.8	884.0	858.2	827.5	791.1	746.7	703.8	657.8	615.8	537.4
15°	967.3	958.4	943.8	912.3	871.9	824.2	770.1	716.0	661.8	608.5	514.7
17.5°	1034.3	1022.2	1000.4	964.8	913.9	854.9	791.1	725.6	660.2	599.6	490.5
20°	1106.3	1089.3	1065.8	1018.2	958.4	888.9	812.1	735.3	659.4	589.1	463.0
22.5°	1166.0	1149.1	1123.2	1073.9	1002.0	917.2	829.9	741.8	656.2	577.0	437.2
25°	1217.8	1204.0	1175.7	1119.2	1043.2	947.1	846.9	746.7	651.3	564.0	409.7
27.5°	1258.2	1245.2	1213.7	1155.5	1078.0	973.7	859.8	749.1	644.8	551.1	381.4
30°	1293.7	1280.8	1242.8	1183.0	1101.4	994.7	872.7	749.9	636.8	531.7	350.7
32.5°	1321.2	1309.1	1270.3	1206.5	1117.6	1009.3	880.0	749.1	626.3	518.0	317.6
35°	1348.7	1336.6	1291.3	1223.4	1129.7	1015.7	885.6	745.0	613.3	495.3	286.1
37.5°	1369.7	1355.9	1309.9	1234.7	1135.3	1017.4	884.8	739.4	599.6	476.8	254.5
40°	1384.2	1369.7	1320.4	1241.2	1137.0	1014.9	878.4	729.7	583.4	453.3	221.4
42.5°	1393.9	1377.8	1325.2	1250.9	1133.7	1008.5	868.7	717.6	565.7	433.1	189.9
45°	1398.8	1381.8	1326.0	1242.8	1128.1	996.4	854.1	702.2	546.3	405.7	158.4
47.5°	1396.4	1377.8	1322.0	1233.9	1117.6	983.4	838.0	683.6	522.8	381.4	128.5
50°	1392.3	1372.9	1313.1	1222.6	1103.0	967.3	820.2	661.0	498.6	351.5	101.8
52.5°	1379.4	1360.0	1303.4	1206.5	1086.1	948.7	796.0	637.6	472.7	322.4	77.6
55°	1363.2	1345.4	1286.5	1191.9	1064.2	926.1	773.3	612.5	447.7	292.5	55.8
57.5°	1338.2	1322.0	1265.4	1168.5	1042.4	901.0	748.3	585.0	416.2	262.6	38.8
60°	1307.5	1291.3	1236.4	1141.8	1017.4	872.7	720.8	556.8	387.9	232.7	24.2
62.5°	1275.1	1259.8	1202.4	1108.7	985.8	842.8	690.9	528.5	358.0	205.3	14.5
65°	1232.3	1217.8	1166.0	1069.1	951.1	810.5	657.8	494.5	327.3	174.5	8.1
67.5°	1187.1	1174.1	1121.6	1032.7	910.7	774.9	623.8	461.4	294.9	147.9	4.0
70°	1138.6	1122.4	1073.9	983.4	869.5	734.5	586.7	427.5	264.2	122.0	0.0
72.5°	1082.0	1069.9	1023.0	937.4	821.8	691.7	548.7	390.3	230.3	97.0	0.8
75°	1027.1	1011.7	968.9	888.1	774.9	646.5	506.7	355.6	197.2	74.3	0.8
77.5°	956.0	951.1	910.7	832.3	730.5	602.8	460.6	313.5	165.7	53.3	0.8
80°	884.8	880.0	848.5	776.6	678.8	551.1	417.8	273.9	134.9	35.6	0.8
82.5°	814.5	808.1	778.2	718.4	626.3	507.5	373.3	234.3	106.7	21.8	0.8
85°	751.5	743.4	711.1	656.2	572.1	458.2	327.3	195.6	79.2	12.1	1.6
87.5°	697.4	691.7	656.2	599.6	517.2	412.1	286.9	158.4	55.8	5.7	2.4
90°	651.3	639.2	607.7	547.9	465.5	361.2	244.0	126.9	37.2	3.2	3.2
92.5°	606.1	595.5	560.8	499.4	419.4	317.6	202.8	97.0	23.4	1.6	4.0
95°	559.2	547.9	513.9	457.4	372.5	273.1	166.5	71.1	12.9	1.6	4.0
97.5°	513.1	502.6	467.1	410.5	330.5	234.3	131.7	50.1	6.5	1.6	3.2
100°	470.3	458.2	425.9	369.3	288.5	195.6	101.8	32.3	4.0	1.6	3.2
102.5°	425.0	415.3	382.2	327.3	244.8	159.2	76.0	20.2	1.6	1.6	2.4
105°	384.6	372.5	340.2	283.6	208.5	125.3	53.3	12.1	1.6	1.6	2.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	250.5	240.8	212.5	164.8	105.9	49.3	14.5	2.4	2.4	2.4	2.4
115°	209.3	194.7	169.7	127.7	78.4	32.3	7.3	2.4	2.4	2.4	2.4
117.5°	167.3	155.2	137.4	97.0	51.7	21.0	4.0	2.4	2.4	2.4	2.4
120°	130.9	119.6	99.4	67.1	34.7	12.1	1.6	2.4	2.4	2.4	2.4
122.5°	93.7	84.8	67.1	43.6	21.0	5.7	2.4	2.4	3.2	3.2	2.4
125°	62.2	57.4	44.4	26.7	12.9	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.4	36.4	25.9	15.4	5.7	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.6	20.2	15.4	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.9	12.1	8.1	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	634.3	634.3	634.3
2.5°	603.6	592.3	589.1
5°	571.3	552.7	542.2
7.5°	539.0	513.9	501.8
10°	509.1	473.5	460.6
12.5°	473.5	432.3	412.1
15°	439.6	386.3	366.9
17.5°	401.6	341.8	319.2
20°	366.1	297.4	273.9
22.5°	325.7	253.7	227.9
25°	289.3	210.1	181.0
27.5°	248.9	165.7	140.6
30°	210.9	126.9	101.8
32.5°	174.5	92.9	70.3
35°	140.6	63.0	44.4
37.5°	108.3	38.8	22.6
40°	78.4	20.2	10.5
42.5°	52.5	9.7	5.7
45°	32.3	4.8	0.0
47.5°	18.6	0.0	0.0
50°	9.7	0.0	0.0
52.5°	4.0	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.8
87.5°	4.0	4.8	5.7
90°	4.8	5.7	5.7
92.5°	4.8	6.5	6.5
95°	5.7	6.5	7.3
97.5°	6.5	7.3	7.3
100°	5.7	7.3	8.1
102.5°	4.8	7.3	7.3
105°	4.0	5.7	6.5





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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-94-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	339.4	329.7	297.4	244.0	170.5	95.4	35.6	6.5	1.6	2.4	2.4
110°	295.8	287.7	254.5	202.8	137.4	71.1	23.4	4.0	2.4	2.4	2.4







107.5°	3.2	4.8	5.7
110°	3.2	4.0	4.8



(END OF REPORT)