

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: P551294

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-82-87-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: P551294
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-35-UNV-82-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

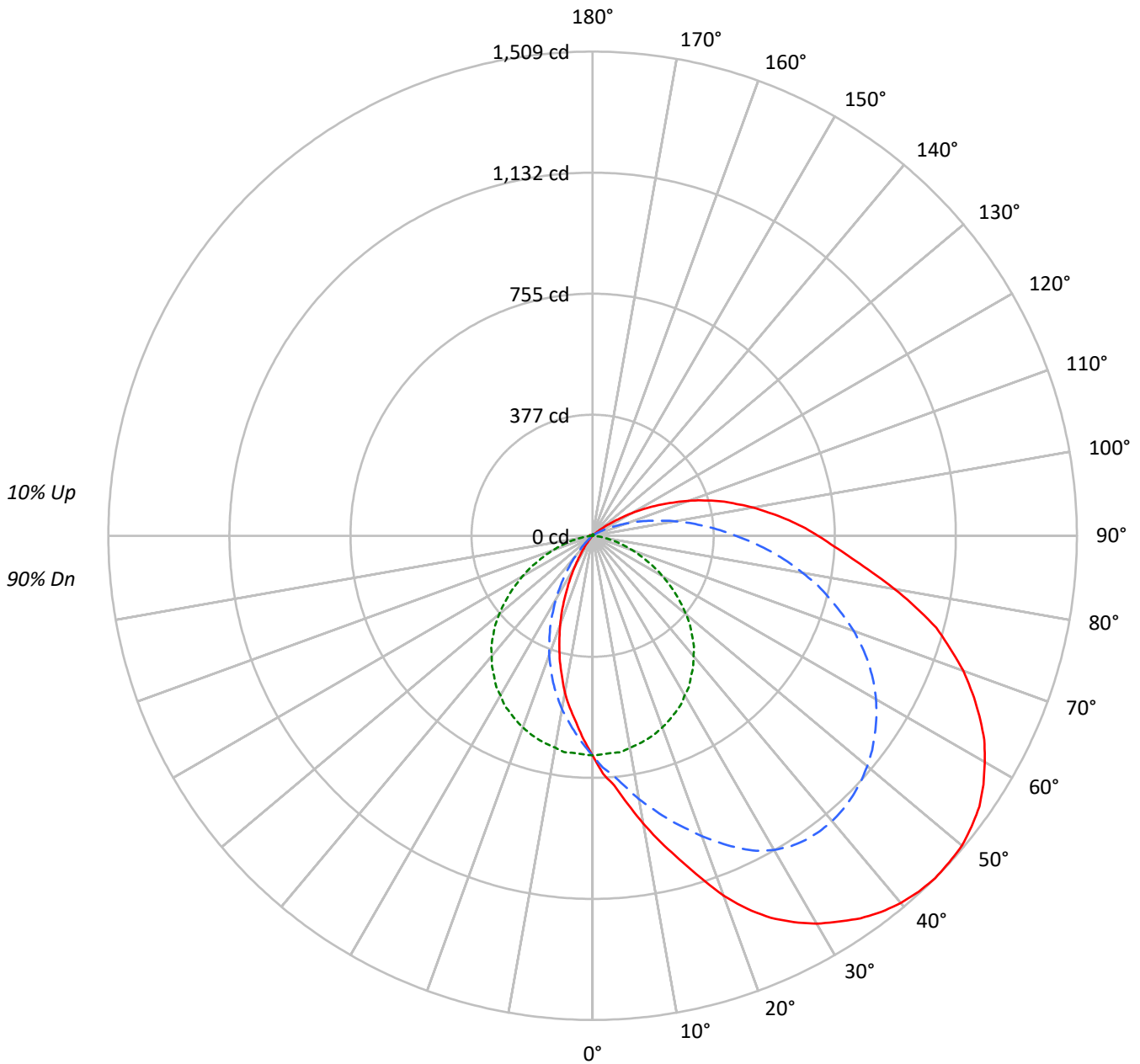
Lumens per Lamp: N/A
Luminaire Lumens: 3384.0 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{in}): 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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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°	7368	7368	7368
5°	8088	7260	6057
10°	9152	7172	4992
15°	10257	7080	3891
20°	11568	6965	2865
25°	12656	6830	1881
30°	13464	6652	1060
35°	14164	6458	467
40°	14785	6221	112
45°	15318	5923	0
50°	15765	5528	0
55°	16105	5027	0
60°	16277	4444	0
65°	16344	3782	0
70°	16289	3085	0
75°	16082	2274	13
80°	15430	1393	71
85°	14914	666	96



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	1.9
10°-20°	196.3	5.8
20°-30°	317.9	9.4
30°-40°	408.4	12.1
40°-50°	462.3	13.7
50°-60°	479.0	14.2
60°-70°	451.7	13.3
70°-80°	378.5	11.2
80°-90°	274.4	8.1
90°-100°	180.3	5.3
100°-110°	104.1	3.1
110°-120°	46.0	1.4
120°-130°	12.4	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	579.8	17.1
0°-40°	988.2	29.2
0°-60°	1929.5	57.0
0°-90°	3034.1	89.7
90°-120°	330.4	9.8
90°-150°	347.6	10.3
90°-180°	350.0	10.3
0°-180°	3384.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	684	684	684	684	684	
5°	781	750	679	616	585	79
15°	1044	915	657	474	396	301
25°	1314	1074	609	312	195	607
35°	1455	1158	534	152	48	913
45°	1509	1146	438	35	0	1165
55°	1471	1074	316	0	0	1314
65°	1330	950	188	0	0	1316
75°	1108	767	80	1	1	1162
85°	811	556	13	4	5	693
90°	703	446	4	5	6	385
95°	603	348	2	6	8	473
105°	415	180	2	4	7	438
115°	226	60	3	3	4	226
125°	67	8	4	3	4	67
135°	4	3	4	4	3	6
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	0
175°	2	3	4	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°	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5
2.5°	742.1	741.2	738.6	734.2	728.1	717.6	708.9	701.1	690.6	681.9	665.3
5°	781.3	776.9	773.4	769.1	755.1	745.5	729.8	712.4	695.8	679.3	646.1
7.5°	844.1	837.1	831.9	819.7	800.5	778.7	754.3	737.7	726.4	680.1	623.5
10°	911.2	905.1	894.6	872.8	849.3	817.9	783.0	743.8	708.9	670.6	603.4
12.5°	977.5	968.8	953.9	926.0	892.9	853.7	805.7	759.5	709.8	664.4	579.9
15°	1043.8	1034.2	1018.5	984.5	940.9	889.4	831.0	772.6	714.1	656.6	555.4
17.5°	1116.1	1103.1	1079.5	1041.1	986.2	922.6	853.7	783.0	712.4	647.0	529.3
20°	1193.7	1175.4	1150.1	1098.7	1034.2	959.2	876.3	793.5	711.5	635.7	499.6
22.5°	1258.3	1240.0	1212.0	1158.9	1081.3	989.7	895.5	800.5	708.0	622.6	471.7
25°	1314.1	1299.2	1268.7	1207.7	1125.7	1022.0	913.8	805.7	702.8	608.6	442.1
27.5°	1357.7	1343.7	1309.7	1246.9	1163.2	1050.7	927.8	808.3	695.8	594.7	411.6
30°	1396.0	1382.1	1341.1	1276.6	1188.5	1073.4	941.7	809.2	687.1	573.8	378.4
32.5°	1425.7	1412.6	1370.7	1301.9	1205.9	1089.1	949.6	808.3	675.8	558.9	342.7
35°	1455.3	1442.2	1393.4	1320.2	1219.0	1096.1	955.7	804.0	661.8	534.5	308.7
37.5°	1478.0	1463.2	1413.5	1332.4	1225.1	1097.8	954.8	797.9	647.0	514.5	274.7
40°	1493.7	1478.0	1424.8	1339.4	1226.9	1095.2	947.8	787.4	629.6	489.2	238.9
42.5°	1504.2	1486.7	1430.0	1349.8	1223.4	1088.2	937.4	774.3	610.4	467.4	204.9
45°	1509.4	1491.1	1430.9	1341.1	1217.3	1075.1	921.7	757.7	589.5	437.7	170.9
47.5°	1506.8	1486.7	1426.6	1331.5	1205.9	1061.2	904.2	737.7	564.2	411.6	138.6
50°	1502.4	1481.5	1417.0	1319.3	1190.2	1043.8	885.1	713.3	538.0	379.3	109.9
52.5°	1488.5	1467.5	1406.5	1301.9	1171.9	1023.7	858.9	688.0	510.1	347.9	83.7
55°	1471.0	1451.8	1388.2	1286.2	1148.4	999.3	834.5	661.0	483.1	315.7	60.2
57.5°	1444.0	1426.6	1365.5	1260.9	1124.9	972.3	807.5	631.3	449.1	283.4	41.9
60°	1410.9	1393.4	1334.1	1232.1	1097.8	941.7	777.8	600.8	418.5	251.1	26.2
62.5°	1376.0	1359.4	1297.5	1196.4	1063.8	909.5	745.5	570.3	386.3	221.5	15.7
65°	1329.8	1314.1	1258.3	1153.6	1026.3	874.6	709.8	533.6	353.2	188.3	8.7
67.5°	1280.9	1267.0	1210.3	1114.4	982.7	836.2	673.2	497.9	318.3	159.6	4.4
70°	1228.6	1211.2	1158.9	1061.2	938.2	792.6	633.1	461.3	285.1	131.7	0.0
72.5°	1167.6	1154.5	1103.9	1011.5	886.8	746.4	592.1	421.2	248.5	104.6	0.9
75°	1108.3	1091.7	1045.5	958.3	836.2	697.6	546.7	383.7	212.8	80.2	0.9
77.5°	1031.5	1026.3	982.7	898.1	788.3	650.5	497.0	338.3	178.8	57.6	0.9
80°	954.8	949.6	915.6	838.0	732.5	594.7	450.8	295.6	145.6	38.4	0.9
82.5°	879.0	872.0	839.7	775.2	675.8	547.6	402.9	252.9	115.1	23.5	0.9
85°	810.9	802.2	767.3	708.0	617.4	494.4	353.2	211.0	85.5	13.1	1.7
87.5°	752.5	746.4	708.0	647.0	558.1	444.7	309.6	170.9	60.2	6.1	2.6
90°	702.8	689.7	655.7	591.2	502.3	389.8	263.3	136.9	40.1	3.5	3.5
92.5°	654.0	642.6	605.2	538.9	452.6	342.7	218.9	104.6	25.3	1.7	4.4
95°	603.4	591.2	554.6	493.5	402.0	294.7	179.6	76.7	14.0	1.7	4.4
97.5°	553.7	542.4	504.0	443.0	356.6	252.9	142.1	54.1	7.0	1.7	3.5
100°	507.5	494.4	459.5	398.5	311.3	211.0	109.9	34.9	4.4	1.7	3.5
102.5°	458.7	448.2	412.4	353.2	264.2	171.8	82.0	21.8	1.7	1.7	2.6
105°	415.1	402.0	367.1	306.1	225.0	135.2	57.6	13.1	1.7	1.7	2.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	270.3	259.8	229.3	177.9	114.2	53.2	15.7	2.6	2.6	2.6	2.6
115°	225.8	210.1	183.1	137.8	84.6	34.9	7.8	2.6	2.6	2.6	2.6
117.5°	180.5	167.4	148.2	104.6	55.8	22.7	4.4	2.6	2.6	2.6	2.6
120°	141.3	129.1	107.3	72.4	37.5	13.1	1.7	2.6	2.6	2.6	2.6
122.5°	101.1	91.6	72.4	47.1	22.7	6.1	2.6	2.6	3.5	3.5	2.6
125°	67.1	61.9	48.0	28.8	14.0	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	43.6	39.2	27.9	16.6	6.1	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.4	21.8	16.6	9.6	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	14.0	13.1	8.7	1.7	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.4	4.4	3.5
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.5	4.4	4.4	4.4	3.5
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.5	4.4	4.4	4.4	3.5
142.5°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
145°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.4	3.5	3.5	3.5
147.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
150°	0.9	1.7	1.7	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
152.5°	0.9	1.7	1.7	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
155°	1.7	1.7	1.7	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
157.5°	1.7	1.7	1.7	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
160°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.5	4.4	4.4	4.4	4.4
172.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
175°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
177.5°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.4	4.4	4.4	3.5
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	684.5	684.5	684.5
2.5°	651.4	639.2	635.7
5°	616.5	596.4	585.1
7.5°	581.6	554.6	541.5
10°	549.3	511.0	497.0
12.5°	511.0	466.5	444.7
15°	474.4	416.8	395.9
17.5°	433.4	368.8	344.4
20°	395.0	320.9	295.6
22.5°	351.4	273.8	245.9
25°	312.2	226.7	195.3
27.5°	268.6	178.8	151.7
30°	227.6	136.9	109.9
32.5°	188.3	100.3	75.9
35°	151.7	68.0	48.0
37.5°	116.8	41.9	24.4
40°	84.6	21.8	11.3
42.5°	56.7	10.5	6.1
45°	34.9	5.2	0.0
47.5°	20.1	0.0	0.0
50°	10.5	0.0	0.0
52.5°	4.4	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	1.7	2.6
80°	1.7	3.5	4.4
82.5°	3.5	4.4	4.4
85°	3.5	4.4	5.2
87.5°	4.4	5.2	6.1
90°	5.2	6.1	6.1
92.5°	5.2	7.0	7.0
95°	6.1	7.0	7.8
97.5°	7.0	7.8	7.8
100°	6.1	7.8	8.7
102.5°	5.2	7.8	7.8
105°	4.4	6.1	7.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.5	4.4	4.4
115°	2.6	3.5	4.4
117.5°	2.6	3.5	3.5
120°	2.6	2.6	3.5
122.5°	2.6	2.6	3.5
125°	2.6	2.6	3.5
127.5°	3.5	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.5	2.6	2.6
135°	3.5	2.6	2.6
137.5°	3.5	2.6	2.6
140°	3.5	2.6	2.6
142.5°	3.5	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.7
152.5°	2.6	1.7	1.7
155°	2.6	1.7	0.9
157.5°	3.5	1.7	0.9
160°	2.6	1.7	0.9
162.5°	2.6	1.7	0.9
165°	2.6	1.7	0.0
167.5°	2.6	1.7	0.9
170°	2.6	1.7	0.9
172.5°	2.6	1.7	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	366.2	355.8	320.9	263.3	184.0	102.9	38.4	7.0	1.7	2.6	2.6
110°	319.1	310.4	274.7	218.9	148.2	76.7	25.3	4.4	2.6	2.6	2.6





107.5°	3.5	5.2	6.1
110°	3.5	4.4	5.2



(END OF REPORT)