

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: P551402

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-85-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: P551402
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-81-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

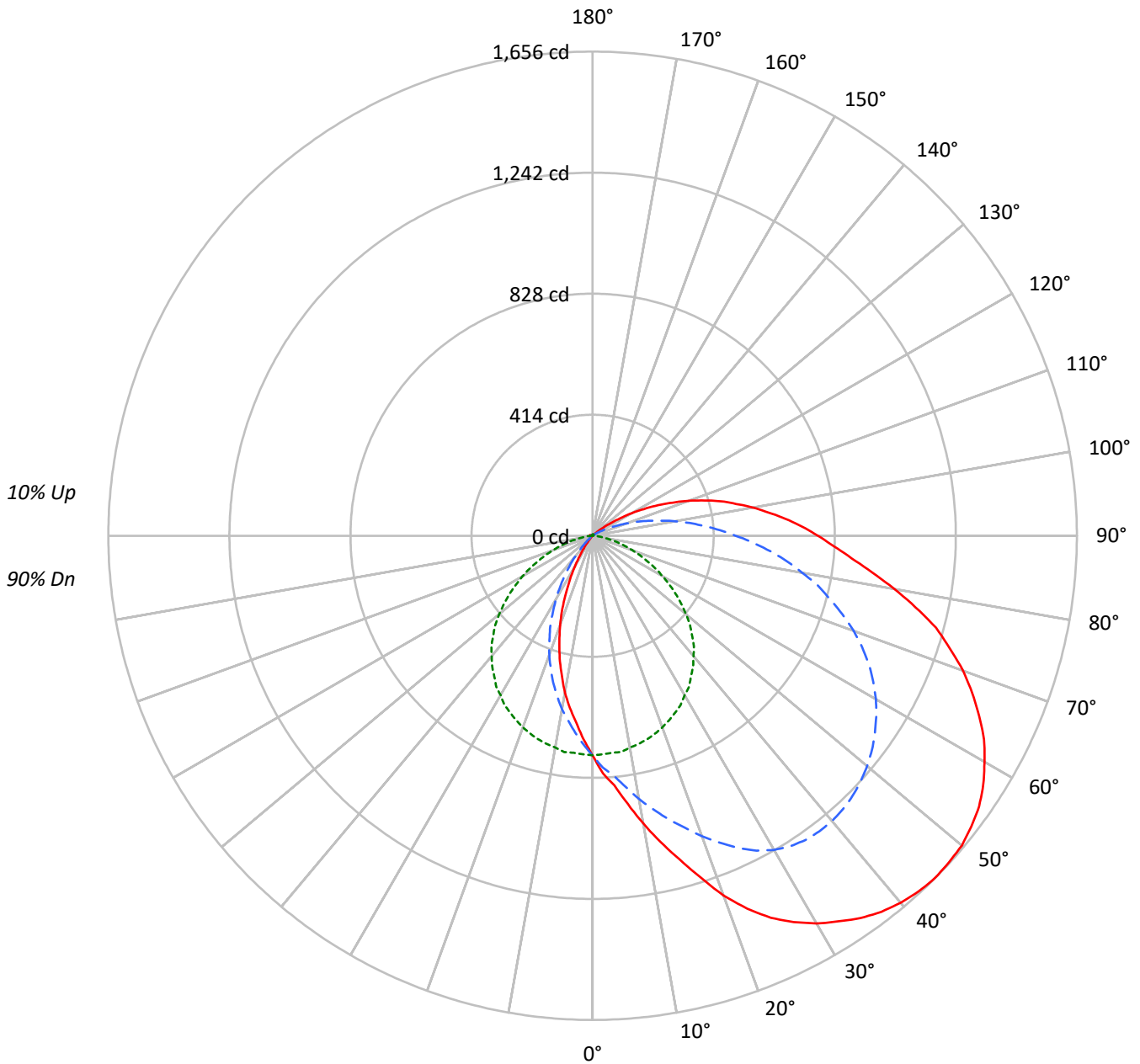
Lumens per Lamp: N/A
Luminaire Lumens: 3712.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	8082	8082	8082
5°	8872	7964	6644
10°	10039	7866	5476
15°	11251	7766	4267
20°	12690	7640	3143
25°	13882	7492	2064
30°	14769	7296	1162
35°	15537	7084	512
40°	16219	6824	123
45°	16803	6498	0
50°	17293	6064	0
55°	17666	5514	0
60°	17854	4875	0
65°	17929	4150	0
70°	17868	3383	0
75°	17641	2496	15
80°	16927	1527	78
85°	16360	727	105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	1.9
10°-20°	215.4	5.8
20°-30°	348.7	9.4
30°-40°	448.0	12.1
40°-50°	507.1	13.7
50°-60°	525.4	14.2
60°-70°	495.5	13.3
70°-80°	415.2	11.2
80°-90°	301.0	8.1
90°-100°	197.8	5.3
100°-110°	114.2	3.1
110°-120°	50.4	1.4
120°-130°	13.7	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°	636.0	17.1
0°-40°	1084.0	29.2
0°-60°	2116.5	57.0
0°-90°	3328.1	89.7
90°-120°	362.5	9.8
90°-150°	381.3	10.3
90°-180°	384.0	10.3
0°-180°	3712.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	751	751	751	751	751	
5°	857	823	745	676	642	86
15°	1145	1004	720	520	434	330
25°	1441	1178	668	342	214	666
35°	1596	1270	586	166	53	1001
45°	1656	1257	480	38	0	1278
55°	1614	1178	346	0	0	1441
65°	1459	1043	207	0	0	1443
75°	1216	841	88	1	1	1275
85°	890	610	14	4	6	760
90°	771	489	4	6	7	423
95°	662	382	2	7	9	519
105°	455	198	2	5	8	480
115°	248	66	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°	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8
2.5°	814.0	813.0	810.2	805.4	798.7	787.2	777.6	769.0	757.5	748.0	729.8
5°	857.0	852.2	848.4	843.6	828.3	817.8	800.6	781.5	763.3	745.1	708.8
7.5°	925.9	918.2	912.5	899.1	878.1	854.1	827.4	809.2	796.8	746.1	683.9
10°	999.5	992.8	981.4	957.5	931.6	897.2	858.9	815.9	777.6	735.5	661.9
12.5°	1072.2	1062.7	1046.4	1015.8	979.5	936.4	883.8	833.1	778.6	728.8	636.1
15°	1144.9	1134.4	1117.2	1079.9	1032.1	975.6	911.5	847.5	783.4	720.2	609.3
17.5°	1224.3	1210.0	1184.1	1142.1	1081.8	1012.0	936.4	858.9	781.5	709.7	580.6
20°	1309.4	1289.4	1261.6	1205.2	1134.4	1052.1	961.3	870.4	780.5	697.3	548.1
22.5°	1380.2	1360.1	1329.5	1271.2	1186.1	1085.6	982.3	878.1	776.7	682.9	517.5
25°	1441.4	1425.2	1391.7	1324.7	1234.8	1121.0	1002.4	883.8	770.9	667.6	484.9
27.5°	1489.3	1474.0	1436.7	1367.8	1276.0	1152.6	1017.7	886.7	763.3	652.3	451.5
30°	1531.3	1516.0	1471.1	1400.3	1303.7	1177.4	1033.0	887.6	753.7	629.4	415.1
32.5°	1563.9	1549.5	1503.6	1428.0	1322.8	1194.7	1041.6	886.7	741.3	613.1	375.9
35°	1596.4	1582.0	1528.5	1448.1	1337.2	1202.3	1048.3	881.9	726.0	586.3	338.6
37.5°	1621.3	1605.0	1550.5	1461.5	1343.9	1204.2	1047.4	875.2	709.7	564.3	301.3
40°	1638.5	1621.3	1562.9	1469.2	1345.8	1201.4	1039.7	863.7	690.6	536.6	262.1
42.5°	1650.0	1630.8	1568.7	1480.7	1342.0	1193.7	1028.2	849.4	669.5	512.7	224.8
45°	1655.7	1635.6	1569.6	1471.1	1335.3	1179.4	1011.0	831.2	646.6	480.2	187.5
47.5°	1652.8	1630.8	1564.8	1460.6	1322.8	1164.1	991.9	809.2	618.9	451.5	152.1
50°	1648.0	1625.1	1554.3	1447.2	1305.6	1144.9	970.8	782.4	590.2	416.1	120.5
52.5°	1632.7	1609.8	1542.8	1428.0	1285.5	1122.9	942.1	754.7	559.5	381.6	91.8
55°	1613.6	1592.6	1522.7	1410.8	1259.7	1096.1	915.4	725.0	529.9	346.3	66.0
57.5°	1584.0	1564.8	1497.9	1383.1	1233.9	1066.5	885.7	692.5	492.6	310.9	45.9
60°	1547.6	1528.5	1463.4	1351.5	1204.2	1033.0	853.2	659.0	459.1	275.5	28.7
62.5°	1509.3	1491.2	1423.3	1312.3	1166.9	997.6	817.8	625.5	423.7	242.9	17.2
65°	1458.7	1441.4	1380.2	1265.4	1125.8	959.4	778.6	585.4	387.4	206.6	9.6
67.5°	1405.1	1389.8	1327.6	1222.4	1078.0	917.3	738.4	546.2	349.1	175.0	4.8
70°	1347.7	1328.6	1271.2	1164.1	1029.2	869.5	694.4	506.0	312.8	144.4	0.0
72.5°	1280.7	1266.4	1210.9	1109.5	972.8	818.8	649.5	462.0	272.6	114.8	1.0
75°	1215.7	1197.5	1146.8	1051.2	917.3	765.2	599.7	420.9	233.4	88.0	1.0
77.5°	1131.5	1125.8	1078.0	985.2	864.7	713.5	545.2	371.1	196.1	63.1	1.0
80°	1047.4	1041.6	1004.3	919.2	803.5	652.3	494.5	324.3	159.7	42.1	1.0
82.5°	964.1	956.5	921.1	850.3	741.3	600.7	441.9	277.4	126.3	25.8	1.0
85°	889.5	880.0	841.7	776.7	677.2	542.3	387.4	231.5	93.7	14.3	1.9
87.5°	825.5	818.8	776.7	709.7	612.2	487.8	339.6	187.5	66.0	6.7	2.9
90°	770.9	756.6	719.3	648.5	550.9	427.6	288.9	150.2	44.0	3.8	3.8
92.5°	717.4	704.9	663.8	591.1	496.4	375.9	240.1	114.8	27.7	1.9	4.8
95°	661.9	648.5	608.3	541.4	440.9	323.3	197.0	84.2	15.3	1.9	4.8
97.5°	607.4	594.9	552.9	485.9	391.2	277.4	155.9	59.3	7.7	1.9	3.8
100°	556.7	542.3	504.1	437.1	341.5	231.5	120.5	38.3	4.8	1.9	3.8
102.5°	503.1	491.6	452.4	387.4	289.8	188.4	89.9	23.9	1.9	1.9	2.9
105°	455.3	440.9	402.7	335.7	246.8	148.3	63.1	14.3	1.9	1.9	2.9



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	296.5	285.0	251.6	195.1	125.3	58.3	17.2	2.9	2.9	2.9	2.9
115°	247.7	230.5	200.9	151.1	92.8	38.3	8.6	2.9	2.9	2.9	2.9
117.5°	198.0	183.6	162.6	114.8	61.2	24.9	4.8	2.9	2.9	2.9	2.9
120°	155.0	141.6	117.6	79.4	41.1	14.3	1.9	2.9	2.9	2.9	2.9
122.5°	111.0	100.4	79.4	51.7	24.9	6.7	2.9	2.9	3.8	3.8	2.9
125°	73.7	67.9	52.6	31.6	15.3	2.9	2.9	2.9	3.8	3.8	2.9
127.5°	47.8	43.0	30.6	18.2	6.7	2.9	2.9	3.8	3.8	3.8	2.9
130°	26.8	23.9	18.2	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°	750.8	750.8	750.8
2.5°	714.5	701.1	697.3
5°	676.2	654.2	641.8
7.5°	638.0	608.3	594.0
10°	602.6	560.5	545.2
12.5°	560.5	511.7	487.8
15°	520.3	457.2	434.2
17.5°	475.4	404.6	377.8
20°	433.3	352.0	324.3
22.5°	385.5	300.3	269.7
25°	342.4	248.7	214.3
27.5°	294.6	196.1	166.4
30°	249.6	150.2	120.5
32.5°	206.6	110.0	83.2
35°	166.4	74.6	52.6
37.5°	128.2	45.9	26.8
40°	92.8	23.9	12.4
42.5°	62.2	11.5	6.7
45°	38.3	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	7.7	7.7
95°	6.7	7.7	8.6
97.5°	7.7	8.6	8.6
100°	6.7	8.6	9.6
102.5°	5.7	8.6	8.6
105°	4.8	6.7	7.7



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-85-ED1D

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°	401.7	390.2	352.0	288.9	201.8	112.9	42.1	7.7	1.9	2.9	2.9
110°	350.1	340.5	301.3	240.1	162.6	84.2	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)