

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: P551350

Luminaire Tested: **FCC-X-2-LD4-2HI-40-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: P551350
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-81-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

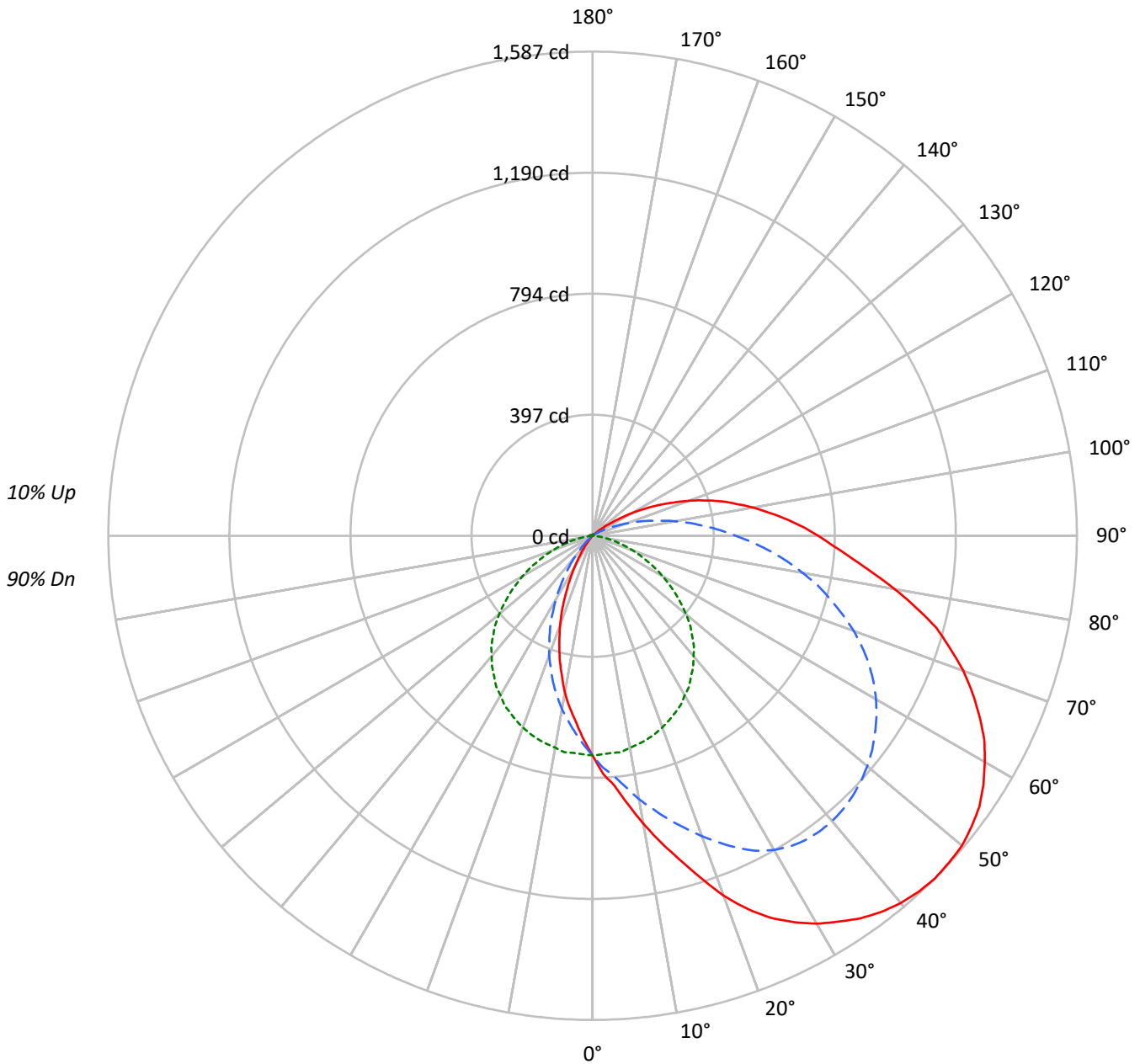
Lumens per Lamp: N/A
Luminaire Lumens: 3559.1 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551350

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-97-ED1D

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°	7749	7749	7749
5°	8506	7636	6371
10°	9626	7542	5250
15°	10787	7446	4091
20°	12167	7324	3013
25°	13310	7184	1978
30°	14161	6995	1115
35°	14897	6793	491
40°	15549	6543	118
45°	16109	6230	0
50°	16580	5814	0
55°	16938	5287	0
60°	17118	4674	0
65°	17189	3979	0
70°	17132	3245	0
75°	16914	2393	13
80°	16229	1465	74
85°	15686	702	101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	1.9
10°-20°	206.5	5.8
20°-30°	334.4	9.4
30°-40°	429.5	12.1
40°-50°	486.2	13.7
50°-60°	503.7	14.2
60°-70°	475.1	13.3
70°-80°	398.1	11.2
80°-90°	288.6	8.1
90°-100°	189.7	5.3
100°-110°	109.5	3.1
110°-120°	48.4	1.4
120°-130°	13.1	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°	609.8	17.1
0°-40°	1039.3	29.2
0°-60°	2029.2	57.0
0°-90°	3191.0	89.7
90°-120°	347.6	9.8
90°-150°	365.7	10.3
90°-180°	368.0	10.3
0°-180°	3559.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	720	720	720	720	720	
5°	822	789	714	648	615	83
15°	1098	962	691	499	416	317
25°	1382	1129	640	328	205	639
35°	1531	1217	562	160	50	960
45°	1587	1205	460	37	0	1226
55°	1547	1129	332	0	0	1382
65°	1398	1000	198	0	0	1384
75°	1166	807	84	1	1	1223
85°	853	585	14	4	6	728
90°	739	469	4	6	6	405
95°	635	366	2	6	8	498
105°	436	189	2	5	7	461
115°	238	63	3	3	5	238
125°	71	9	4	3	4	71
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°	719.9	719.9	719.9	719.9	719.9	719.9	719.9	719.9	719.9	719.9	719.9
2.5°	780.4	779.5	776.8	772.2	765.8	754.7	745.6	737.3	726.3	717.1	699.7
5°	821.7	817.1	813.4	808.9	794.2	784.1	767.6	749.2	731.8	714.4	679.5
7.5°	887.7	880.4	874.9	862.0	841.9	818.9	793.3	775.8	763.9	715.3	655.7
10°	958.3	951.9	940.9	918.0	893.2	860.2	823.5	782.3	745.6	705.2	634.6
12.5°	1028.0	1018.9	1003.3	973.9	939.1	897.8	847.4	798.8	746.5	698.8	609.9
15°	1097.7	1087.6	1071.1	1035.4	989.5	935.4	874.0	812.5	751.1	690.6	584.2
17.5°	1173.9	1160.1	1135.3	1095.0	1037.2	970.3	897.8	823.5	749.2	680.5	556.7
20°	1255.5	1236.2	1209.6	1155.5	1087.6	1008.8	921.7	834.5	748.3	668.5	525.5
22.5°	1323.3	1304.1	1274.7	1218.8	1137.2	1040.9	941.8	841.9	744.7	654.8	496.1
25°	1382.0	1366.4	1334.3	1270.1	1183.9	1074.8	961.1	847.4	739.2	640.1	465.0
27.5°	1427.9	1413.2	1377.4	1311.4	1223.4	1105.1	975.8	850.1	731.8	625.4	432.9
30°	1468.2	1453.6	1410.5	1342.6	1250.0	1128.9	990.4	851.0	722.7	603.4	398.0
32.5°	1499.4	1485.7	1441.6	1369.2	1268.3	1145.4	998.7	850.1	710.7	587.8	360.4
35°	1530.6	1516.8	1465.5	1388.4	1282.1	1152.8	1005.1	845.5	696.1	562.2	324.6
37.5°	1554.4	1538.8	1486.6	1401.3	1288.5	1154.6	1004.2	839.1	680.5	541.1	288.9
40°	1570.9	1554.4	1498.5	1408.6	1290.3	1151.8	996.9	828.1	662.1	514.5	251.3
42.5°	1581.9	1563.6	1504.0	1419.6	1286.6	1144.5	985.9	814.4	641.9	491.5	215.5
45°	1587.4	1568.2	1504.9	1410.5	1280.2	1130.7	969.3	796.9	619.9	460.4	179.7
47.5°	1584.7	1563.6	1500.3	1400.4	1268.3	1116.1	951.0	775.8	593.3	432.9	145.8
50°	1580.1	1558.1	1490.2	1387.5	1251.8	1097.7	930.8	750.2	565.8	398.9	115.6
52.5°	1565.4	1543.4	1479.2	1369.2	1232.5	1076.6	903.3	723.6	536.5	365.9	88.0
55°	1547.1	1526.9	1460.0	1352.7	1207.8	1051.0	877.6	695.1	508.1	332.0	63.3
57.5°	1518.7	1500.3	1436.1	1326.1	1183.0	1022.5	849.2	664.0	472.3	298.0	44.0
60°	1483.8	1465.5	1403.1	1295.8	1154.6	990.4	818.0	631.9	440.2	264.1	27.5
62.5°	1447.1	1429.7	1364.6	1258.2	1118.8	956.5	784.1	599.8	406.3	232.9	16.5
65°	1398.5	1382.0	1323.3	1213.3	1079.4	919.8	746.5	561.2	371.4	198.1	9.2
67.5°	1347.2	1332.5	1272.9	1172.0	1033.5	879.5	708.0	523.6	334.7	167.8	4.6
70°	1292.2	1273.8	1218.8	1116.1	986.8	833.6	665.8	485.1	299.9	138.5	0.0
72.5°	1228.0	1214.2	1161.0	1063.8	932.7	785.0	622.7	442.9	261.4	110.0	0.9
75°	1165.6	1148.2	1099.6	1007.9	879.5	733.7	575.0	403.5	223.8	84.4	0.9
77.5°	1084.9	1079.4	1033.5	944.6	829.0	684.1	522.7	355.8	188.0	60.5	0.9
80°	1004.2	998.7	962.9	881.3	770.3	625.4	474.1	310.9	153.2	40.4	0.9
82.5°	924.4	917.1	883.1	815.3	710.7	575.9	423.7	266.0	121.1	24.8	0.9
85°	852.9	843.7	807.0	744.7	649.3	520.0	371.4	221.9	89.9	13.8	1.8
87.5°	791.4	785.0	744.7	680.5	586.9	467.7	325.6	179.7	63.3	6.4	2.8
90°	739.2	725.4	689.6	621.8	528.2	409.9	277.0	144.0	42.2	3.7	3.7
92.5°	687.8	675.9	636.4	566.7	476.0	360.4	230.2	110.0	26.6	1.8	4.6
95°	634.6	621.8	583.3	519.1	422.8	310.0	188.9	80.7	14.7	1.8	4.6
97.5°	582.3	570.4	530.1	465.9	375.1	266.0	149.5	56.9	7.3	1.8	3.7
100°	533.7	520.0	483.3	419.1	327.4	221.9	115.6	36.7	4.6	1.8	3.7
102.5°	482.4	471.4	433.8	371.4	277.9	180.7	86.2	22.9	1.8	1.8	2.8
105°	436.5	422.8	386.1	321.9	236.6	142.1	60.5	13.8	1.8	1.8	2.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	284.3	273.3	241.2	187.1	120.1	55.9	16.5	2.8	2.8	2.8	2.8
115°	237.5	221.0	192.6	144.9	89.0	36.7	8.3	2.8	2.8	2.8	2.8
117.5°	189.8	176.1	155.9	110.0	58.7	23.8	4.6	2.8	2.8	2.8	2.8
120°	148.6	135.7	112.8	76.1	39.4	13.8	1.8	2.8	2.8	2.8	2.8
122.5°	106.4	96.3	76.1	49.5	23.8	6.4	2.8	2.8	3.7	3.7	2.8
125°	70.6	65.1	50.4	30.3	14.7	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	45.9	41.3	29.3	17.4	6.4	2.8	2.8	3.7	3.7	3.7	2.8
130°	25.7	22.9	17.4	10.1	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.7	13.8	9.2	1.8	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7
137.5°	0.9	0.9	1.8	1.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
140°	0.9	0.9	1.8	2.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
142.5°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
145°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	3.7	3.7	3.7
147.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
150°	0.9	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
152.5°	0.9	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
155°	1.8	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
157.5°	1.8	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
160°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.8	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.8	1.8	1.8	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.8	1.8	1.8	2.8	2.8	2.8	3.7	4.6	4.6	4.6	4.6
172.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
175°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
177.5°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	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°	719.9	719.9	719.9
2.5°	685.1	672.2	668.5
5°	648.4	627.3	615.4
7.5°	611.7	583.3	569.5
10°	577.8	537.4	522.7
12.5°	537.4	490.6	467.7
15°	498.9	438.4	416.3
17.5°	455.8	387.9	362.2
20°	415.4	337.5	310.9
22.5°	369.6	288.0	258.6
25°	328.3	238.4	205.4
27.5°	282.5	188.0	159.6
30°	239.4	144.0	115.6
32.5°	198.1	105.5	79.8
35°	159.6	71.5	50.4
37.5°	122.9	44.0	25.7
40°	89.0	22.9	11.9
42.5°	59.6	11.0	6.4
45°	36.7	5.5	0.0
47.5°	21.1	0.0	0.0
50°	11.0	0.0	0.0
52.5°	4.6	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	1.8	2.8
80°	1.8	3.7	4.6
82.5°	3.7	4.6	4.6
85°	3.7	4.6	5.5
87.5°	4.6	5.5	6.4
90°	5.5	6.4	6.4
92.5°	5.5	7.3	7.3
95°	6.4	7.3	8.3
97.5°	7.3	8.3	8.3
100°	6.4	8.3	9.2
102.5°	5.5	8.3	8.3
105°	4.6	6.4	7.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.7	4.6	4.6
115°	2.8	3.7	4.6
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	1.8
152.5°	2.8	1.8	1.8
155°	2.8	1.8	0.9
157.5°	3.7	1.8	0.9
160°	2.8	1.8	0.9
162.5°	2.8	1.8	0.9
165°	2.8	1.8	0.0
167.5°	2.8	1.8	0.9
170°	2.8	1.8	0.9
172.5°	2.8	1.8	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°	385.2	374.2	337.5	277.0	193.5	108.2	40.4	7.3	1.8	2.8	2.8
110°	335.6	326.5	288.9	230.2	155.9	80.7	26.6	4.6	2.8	2.8	2.8





107.5°	3.7	5.5	6.4
110°	3.7	4.6	5.5



(END OF REPORT)