

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: P551403

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-86-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: P551403
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-81-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

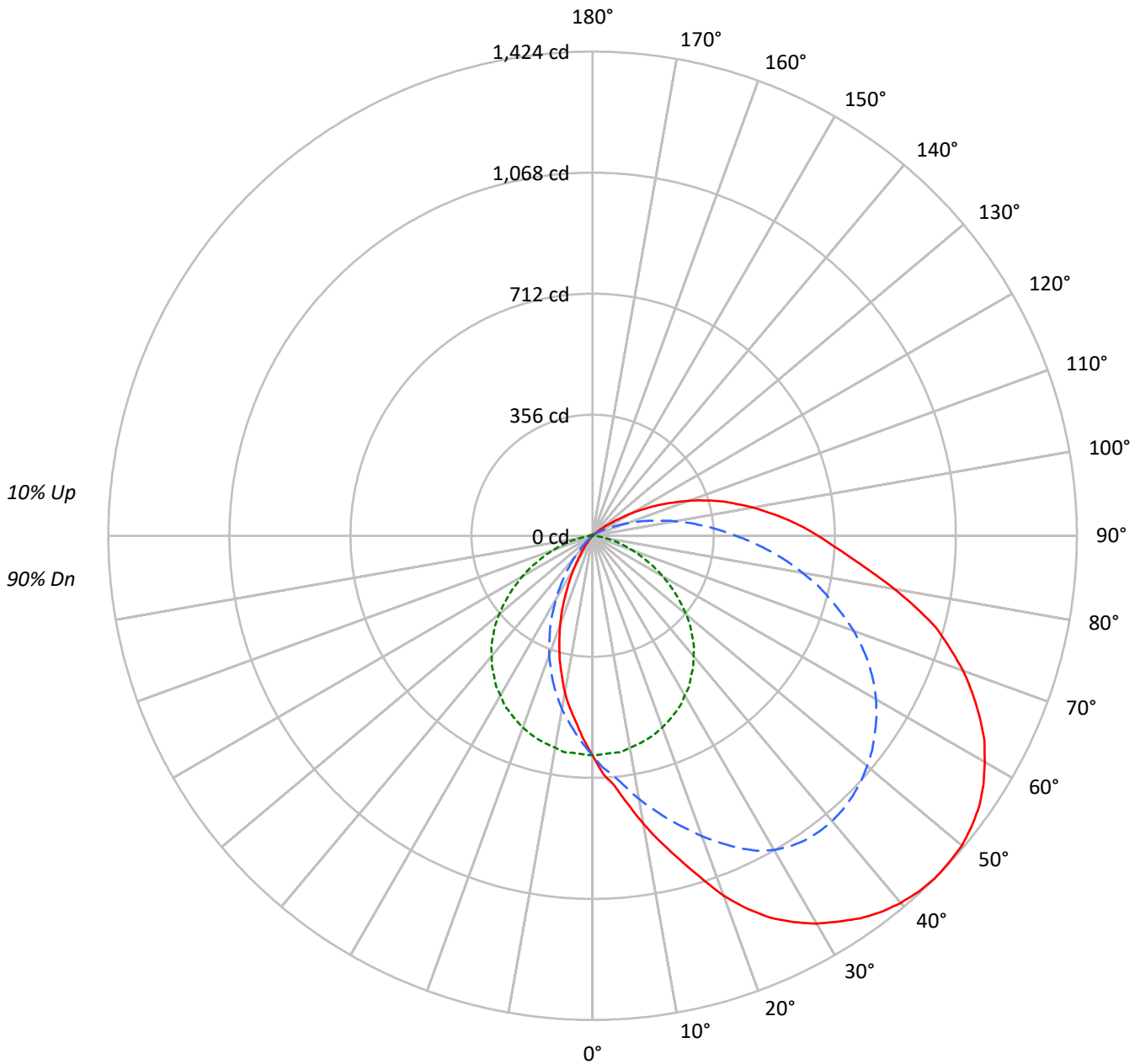
Lumens per Lamp: N/A
Luminaire Lumens: 3193.0 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551403

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-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				90															
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67				67															
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53				53															
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43				43															
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36				36															
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30				30															
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26				26															
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23				23															
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20				20															
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18				18															
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16				16															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6952	6952	6952
5°	7632	6850	5715
10°	8636	6766	4711
15°	9678	6680	3670
20°	10916	6572	2703
25°	11942	6445	1775
30°	12704	6276	1000
35°	13365	6095	441
40°	13951	5870	106
45°	14453	5588	0
50°	14875	5216	0
55°	15196	4742	0
60°	15358	4194	0
65°	15421	3569	0
70°	15370	2910	0
75°	15174	2147	12
80°	14559	1313	66
85°	14073	625	90



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.9	1.9
10°-20°	185.2	5.8
20°-30°	300.0	9.4
30°-40°	385.3	12.1
40°-50°	436.2	13.7
50°-60°	451.9	14.2
60°-70°	426.2	13.3
70°-80°	357.2	11.2
80°-90°	258.9	8.1
90°-100°	170.2	5.3
100°-110°	98.3	3.1
110°-120°	43.4	1.4
120°-130°	11.8	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	547.1	17.1
0°-40°	932.4	29.2
0°-60°	1820.5	57.0
0°-90°	2862.8	89.7
90°-120°	311.8	9.8
90°-150°	328.0	10.3
90°-180°	330.0	10.3
0°-180°	3193.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	646	646	646	646	646	
5°	737	708	641	582	552	74
15°	985	864	620	448	374	284
25°	1240	1013	574	294	184	573
35°	1373	1092	504	143	45	861
45°	1424	1082	413	33	0	1100
55°	1388	1013	298	0	0	1239
65°	1255	897	178	0	0	1241
75°	1046	724	76	1	1	1097
85°	765	524	12	3	5	653
90°	663	421	3	5	6	364
95°	569	329	2	6	7	447
105°	392	170	2	4	7	413
115°	213	56	2	2	4	213
125°	63	8	3	2	3	63
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°	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9
2.5°	700.2	699.3	696.9	692.8	687.0	677.1	668.9	661.5	651.6	643.4	627.8
5°	737.2	733.1	729.8	725.7	712.5	703.5	688.7	672.2	656.6	640.9	609.7
7.5°	796.4	789.9	784.9	773.4	755.3	734.7	711.7	696.1	685.4	641.8	588.3
10°	859.8	854.0	844.2	823.6	801.4	771.7	738.8	701.8	668.9	632.7	569.4
12.5°	922.3	914.1	900.1	873.8	842.5	805.5	760.2	716.6	669.7	626.9	547.1
15°	984.8	975.8	961.0	928.9	887.8	839.2	784.1	729.0	673.8	619.5	524.1
17.5°	1053.1	1040.8	1018.6	982.4	930.5	870.5	805.5	738.8	672.2	610.5	499.4
20°	1126.4	1109.1	1085.2	1036.7	975.8	905.0	826.9	748.7	671.4	599.8	471.4
22.5°	1187.2	1170.0	1143.6	1093.4	1020.2	933.8	845.0	755.3	668.1	587.5	445.1
25°	1239.9	1225.9	1197.1	1139.5	1062.2	964.3	862.3	760.2	663.1	574.3	417.1
27.5°	1281.0	1267.9	1235.8	1176.5	1097.6	991.4	875.4	762.7	656.6	561.1	388.3
30°	1317.2	1304.1	1265.4	1204.5	1121.4	1012.8	888.6	763.5	648.3	541.4	357.1
32.5°	1345.2	1332.9	1293.4	1228.4	1137.9	1027.6	896.0	762.7	637.6	527.4	323.3
35°	1373.2	1360.8	1314.8	1245.7	1150.2	1034.2	901.7	758.6	624.5	504.4	291.3
37.5°	1394.6	1380.6	1333.7	1257.2	1156.0	1035.9	900.9	752.8	610.5	485.4	259.2
40°	1409.4	1394.6	1344.4	1263.8	1157.6	1033.4	894.3	743.0	594.0	461.6	225.4
42.5°	1419.3	1402.8	1349.3	1273.6	1154.3	1026.8	884.5	730.6	575.9	441.0	193.3
45°	1424.2	1406.9	1350.2	1265.4	1148.6	1014.5	869.7	715.0	556.2	413.0	161.3
47.5°	1421.7	1402.8	1346.0	1256.4	1137.9	1001.3	853.2	696.1	532.3	388.3	130.8
50°	1417.6	1397.9	1337.0	1244.8	1123.1	984.8	835.1	673.0	507.6	357.9	103.7
52.5°	1404.5	1384.7	1327.1	1228.4	1105.8	965.9	810.4	649.2	481.3	328.3	79.0
55°	1388.0	1369.9	1309.8	1213.6	1083.6	942.9	787.4	623.7	455.8	297.8	56.8
57.5°	1362.5	1346.0	1288.4	1189.7	1061.4	917.4	761.9	595.7	423.7	267.4	39.5
60°	1331.2	1314.8	1258.8	1162.6	1035.9	888.6	733.9	566.9	394.9	237.0	24.7
62.5°	1298.3	1282.7	1224.3	1128.8	1003.8	858.1	703.5	538.1	364.5	209.0	14.8
65°	1254.7	1239.9	1187.2	1088.5	968.4	825.2	669.7	503.5	333.2	177.7	8.2
67.5°	1208.6	1195.5	1142.0	1051.5	927.3	789.0	635.2	469.8	300.3	150.6	4.1
70°	1159.3	1142.8	1093.4	1001.3	885.3	747.9	597.3	435.2	269.0	124.2	0.0
72.5°	1101.7	1089.3	1041.6	954.4	836.7	704.3	558.7	397.4	234.5	98.7	0.8
75°	1045.7	1030.1	986.5	904.2	789.0	658.2	515.9	362.0	200.8	75.7	0.8
77.5°	973.3	968.4	927.3	847.4	743.8	613.8	469.0	319.2	168.7	54.3	0.8
80°	900.9	896.0	863.9	790.7	691.1	561.1	425.4	278.9	137.4	36.2	0.8
82.5°	829.3	822.8	792.3	731.4	637.6	516.7	380.1	238.6	108.6	22.2	0.8
85°	765.2	756.9	724.0	668.1	582.5	466.5	333.2	199.1	80.6	12.3	1.6
87.5°	710.0	704.3	668.1	610.5	526.6	419.6	292.1	161.3	56.8	5.8	2.5
90°	663.1	650.8	618.7	557.8	473.9	367.8	248.5	129.2	37.8	3.3	3.3
92.5°	617.1	606.4	571.0	508.5	427.0	323.3	206.5	98.7	23.9	1.6	4.1
95°	569.4	557.8	523.3	465.7	379.3	278.1	169.5	72.4	13.2	1.6	4.1
97.5°	522.5	511.8	475.6	418.0	336.5	238.6	134.1	51.0	6.6	1.6	3.3
100°	478.8	466.5	433.6	376.0	293.7	199.1	103.7	32.9	4.1	1.6	3.3
102.5°	432.8	422.9	389.2	333.2	249.3	162.1	77.3	20.6	1.6	1.6	2.5
105°	391.6	379.3	346.4	288.8	212.3	127.5	54.3	12.3	1.6	1.6	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	255.1	245.2	216.4	167.8	107.8	50.2	14.8	2.5	2.5	2.5	2.5
115°	213.1	198.3	172.8	130.0	79.8	32.9	7.4	2.5	2.5	2.5	2.5
117.5°	170.3	158.0	139.9	98.7	52.7	21.4	4.1	2.5	2.5	2.5	2.5
120°	133.3	121.8	101.2	68.3	35.4	12.3	1.6	2.5	2.5	2.5	2.5
122.5°	95.4	86.4	68.3	44.4	21.4	5.8	2.5	2.5	3.3	3.3	2.5
125°	63.4	58.4	45.3	27.2	13.2	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.1	37.0	26.3	15.6	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.0	20.6	15.6	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.2	12.3	8.2	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3
137.5°	0.8	0.8	1.6	1.6	2.5	2.5	3.3	4.1	4.1	4.1	3.3
140°	0.8	0.8	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	3.3
142.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
145°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	3.3	3.3	3.3
147.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
150°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
152.5°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
155°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
157.5°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
160°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.6	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	3.3
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	645.9	645.9	645.9
2.5°	614.6	603.1	599.8
5°	581.7	562.8	552.1
7.5°	548.8	523.3	510.9
10°	518.3	482.1	469.0
12.5°	482.1	440.2	419.6
15°	447.6	393.3	373.5
17.5°	408.9	348.0	325.0
20°	372.7	302.8	278.9
22.5°	331.6	258.3	232.0
25°	294.5	213.9	184.3
27.5°	253.4	168.7	143.2
30°	214.7	129.2	103.7
32.5°	177.7	94.6	71.6
35°	143.2	64.2	45.3
37.5°	110.2	39.5	23.0
40°	79.8	20.6	10.7
42.5°	53.5	9.9	5.8
45°	32.9	4.9	0.0
47.5°	18.9	0.0	0.0
50°	9.9	0.0	0.0
52.5°	4.1	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	2.5
80°	1.6	3.3	4.1
82.5°	3.3	4.1	4.1
85°	3.3	4.1	4.9
87.5°	4.1	4.9	5.8
90°	4.9	5.8	5.8
92.5°	4.9	6.6	6.6
95°	5.8	6.6	7.4
97.5°	6.6	7.4	7.4
100°	5.8	7.4	8.2
102.5°	4.9	7.4	7.4
105°	4.1	5.8	6.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.3	4.1	4.1
115°	2.5	3.3	4.1
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.6
152.5°	2.5	1.6	1.6
155°	2.5	1.6	0.8
157.5°	3.3	1.6	0.8
160°	2.5	1.6	0.8
162.5°	2.5	1.6	0.8
165°	2.5	1.6	0.0
167.5°	2.5	1.6	0.8
170°	2.5	1.6	0.8
172.5°	2.5	1.6	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	345.6	335.7	302.8	248.5	173.6	97.1	36.2	6.6	1.6	2.5	2.5
110°	301.1	292.9	259.2	206.5	139.9	72.4	23.9	4.1	2.5	2.5	2.5





107.5°	3.3	4.9	5.8
110°	3.3	4.1	4.9



(END OF REPORT)