

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: P551397

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-97-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: P551397
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-80-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

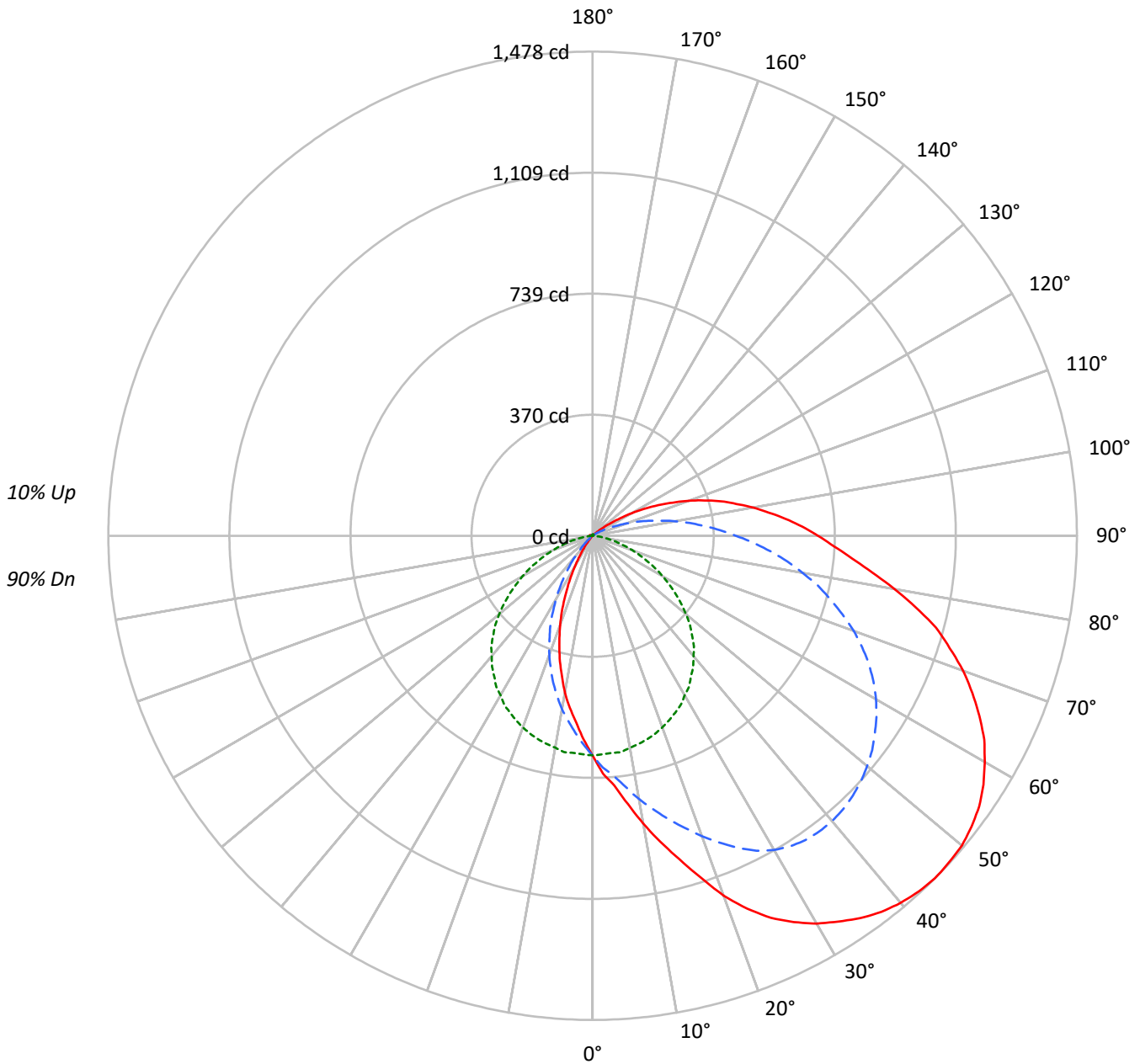
Lumens per Lamp: N/A
Luminaire Lumens: 3314.1 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	7215	7215	7215
5°	7920	7110	5932
10°	8964	7023	4889
15°	10045	6933	3810
20°	11329	6820	2806
25°	12394	6689	1842
30°	13186	6514	1038
35°	13871	6325	457
40°	14479	6093	110
45°	15001	5801	0
50°	15438	5414	0
55°	15772	4922	0
60°	15940	4352	0
65°	16006	3706	0
70°	15952	3020	0
75°	15750	2229	13
80°	15112	1364	69
85°	14607	651	94



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	1.9
10°-20°	192.3	5.8
20°-30°	311.3	9.4
30°-40°	399.9	12.1
40°-50°	452.7	13.7
50°-60°	469.0	14.2
60°-70°	442.4	13.3
70°-80°	370.7	11.2
80°-90°	268.7	8.1
90°-100°	176.6	5.3
100°-110°	102.0	3.1
110°-120°	45.0	1.4
120°-130°	12.2	0.4
130°-140°	2.8	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	567.8	17.1
0°-40°	967.8	29.2
0°-60°	1889.5	57.0
0°-90°	2971.3	89.7
90°-120°	323.6	9.8
90°-150°	340.5	10.3
90°-180°	343.0	10.3
0°-180°	3314.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	670	670	670	670	670	
5°	765	735	665	604	573	77
15°	1022	896	643	464	388	295
25°	1287	1052	596	306	191	595
35°	1425	1134	524	149	47	894
45°	1478	1122	429	34	0	1141
55°	1441	1052	309	0	0	1286
65°	1302	931	184	0	0	1288
75°	1085	751	79	1	1	1138
85°	794	544	13	3	5	678
90°	688	437	3	5	6	377
95°	591	341	2	6	8	464
105°	406	176	2	4	7	429
115°	221	58	3	3	4	221
125°	66	8	3	3	3	66
135°	3	3	4	3	3	6
145°	1	3	3	3	3	1
155°	2	3	3	3	1	1
165°	2	3	3	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°	670.3	670.3	670.3	670.3	670.3	670.3	670.3	670.3	670.3	670.3	670.3
2.5°	726.7	725.8	723.3	719.0	713.0	702.8	694.3	686.6	676.3	667.8	651.6
5°	765.1	760.9	757.4	753.2	739.5	730.1	714.7	697.7	681.4	665.2	632.8
7.5°	826.6	819.8	814.7	802.7	783.9	762.6	738.7	722.4	711.3	666.1	610.6
10°	892.4	886.4	876.1	854.8	831.7	801.0	766.8	728.4	694.3	656.7	590.9
12.5°	957.3	948.7	934.2	906.9	874.4	836.0	789.0	743.8	695.1	650.7	567.9
15°	1022.2	1012.8	997.4	964.1	921.4	871.0	813.8	756.6	699.4	643.0	544.0
17.5°	1093.0	1080.2	1057.2	1019.6	965.8	903.5	836.0	766.8	697.7	633.6	518.3
20°	1169.0	1151.1	1126.3	1076.0	1012.8	939.3	858.2	777.1	696.8	622.5	489.3
22.5°	1232.2	1214.3	1187.0	1134.9	1058.9	969.2	877.0	783.9	693.4	609.7	462.0
25°	1286.9	1272.4	1242.5	1182.7	1102.4	1000.8	894.9	789.0	688.3	596.0	432.9
27.5°	1329.6	1315.9	1282.6	1221.1	1139.2	1029.0	908.6	791.6	681.4	582.4	403.1
30°	1367.2	1353.5	1313.4	1250.2	1163.9	1051.2	922.3	792.5	672.9	561.9	370.6
32.5°	1396.2	1383.4	1342.4	1274.9	1181.0	1066.6	929.9	791.6	661.8	547.4	335.6
35°	1425.2	1412.4	1364.6	1292.9	1193.8	1073.4	935.9	787.3	648.1	523.5	302.3
37.5°	1447.4	1432.9	1384.2	1304.8	1199.8	1075.1	935.1	781.4	633.6	503.8	269.0
40°	1462.8	1447.4	1395.3	1311.7	1201.5	1072.5	928.2	771.1	616.5	479.1	234.0
42.5°	1473.0	1456.0	1400.5	1321.9	1198.1	1065.7	918.0	758.3	597.8	457.7	200.7
45°	1478.2	1460.2	1401.3	1313.4	1192.1	1052.9	902.6	742.1	577.3	428.7	167.4
47.5°	1475.6	1456.0	1397.0	1304.0	1181.0	1039.2	885.5	722.4	552.5	403.1	135.8
50°	1471.3	1450.8	1387.7	1292.0	1165.6	1022.2	866.7	698.5	526.9	371.5	107.6
52.5°	1457.7	1437.2	1377.4	1274.9	1147.7	1002.5	841.1	673.8	499.6	340.7	82.0
55°	1440.6	1421.8	1359.5	1259.6	1124.6	978.6	817.2	647.3	473.1	309.1	58.9
57.5°	1414.1	1397.0	1337.3	1234.8	1101.6	952.1	790.7	618.3	439.8	277.5	41.0
60°	1381.7	1364.6	1306.5	1206.6	1075.1	922.3	761.7	588.4	409.9	245.9	25.6
62.5°	1347.5	1331.3	1270.7	1171.6	1041.8	890.7	730.1	558.5	378.3	216.9	15.4
65°	1302.3	1286.9	1232.2	1129.8	1005.1	856.5	695.1	522.6	345.8	184.5	8.5
67.5°	1254.4	1240.8	1185.3	1091.3	962.4	818.9	659.2	487.6	311.7	156.3	4.3
70°	1203.2	1186.1	1134.9	1039.2	918.8	776.2	620.0	451.7	279.2	128.9	0.0
72.5°	1143.4	1130.6	1081.1	990.6	868.5	731.0	579.8	412.5	243.4	102.5	0.9
75°	1085.4	1069.1	1023.9	938.5	818.9	683.2	535.4	375.7	208.4	78.6	0.9
77.5°	1010.2	1005.1	962.4	879.6	772.0	637.0	486.7	331.3	175.1	56.4	0.9
80°	935.1	929.9	896.6	820.6	717.3	582.4	441.5	289.5	142.6	37.6	0.9
82.5°	860.8	853.9	822.3	759.2	661.8	536.3	394.5	247.6	112.7	23.1	0.9
85°	794.2	785.6	751.5	693.4	604.6	484.2	345.8	206.7	83.7	12.8	1.7
87.5°	736.9	731.0	693.4	633.6	546.5	435.5	303.1	167.4	58.9	6.0	2.6
90°	688.3	675.5	642.2	579.0	491.9	381.7	257.9	134.1	39.3	3.4	3.4
92.5°	640.5	629.4	592.6	527.7	443.2	335.6	214.3	102.5	24.8	1.7	4.3
95°	590.9	579.0	543.1	483.3	393.7	288.6	175.9	75.1	13.7	1.7	4.3
97.5°	542.3	531.2	493.6	433.8	349.3	247.6	139.2	52.9	6.8	1.7	3.4
100°	497.0	484.2	450.0	390.3	304.9	206.7	107.6	34.2	4.3	1.7	3.4
102.5°	449.2	438.9	403.9	345.8	258.7	168.2	80.3	21.3	1.7	1.7	2.6
105°	406.5	393.7	359.5	299.7	220.3	132.4	56.4	12.8	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°	264.7	254.5	224.6	174.2	111.9	52.1	15.4	2.6	2.6	2.6	2.6
115°	221.2	205.8	179.3	134.9	82.8	34.2	7.7	2.6	2.6	2.6	2.6
117.5°	176.8	164.0	145.2	102.5	54.7	22.2	4.3	2.6	2.6	2.6	2.6
120°	138.3	126.4	105.0	70.9	36.7	12.8	1.7	2.6	2.6	2.6	2.6
122.5°	99.1	89.7	70.9	46.1	22.2	6.0	2.6	2.6	3.4	3.4	2.6
125°	65.8	60.6	47.0	28.2	13.7	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.7	38.4	27.3	16.2	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	23.9	21.3	16.2	9.4	2.6	2.6	2.6	3.4	3.4	3.4	2.6
132.5°	13.7	12.8	8.5	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3	4.3	3.4
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	3.4
142.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
145°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
150°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
152.5°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
157.5°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
160°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	4.3
172.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
175°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
177.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	3.4
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°	670.3	670.3	670.3
2.5°	637.9	625.9	622.5
5°	603.7	584.1	573.0
7.5°	569.6	543.1	530.3
10°	538.0	500.4	486.7
12.5°	500.4	456.9	435.5
15°	464.5	408.2	387.7
17.5°	424.4	361.2	337.3
20°	386.8	314.2	289.5
22.5°	344.1	268.1	240.8
25°	305.7	222.0	191.3
27.5°	263.0	175.1	148.6
30°	222.9	134.1	107.6
32.5°	184.5	98.2	74.3
35°	148.6	66.6	47.0
37.5°	114.4	41.0	23.9
40°	82.8	21.3	11.1
42.5°	55.5	10.2	6.0
45°	34.2	5.1	0.0
47.5°	19.6	0.0	0.0
50°	10.2	0.0	0.0
52.5°	4.3	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	3.4	4.3
82.5°	3.4	4.3	4.3
85°	3.4	4.3	5.1
87.5°	4.3	5.1	6.0
90°	5.1	6.0	6.0
92.5°	5.1	6.8	6.8
95°	6.0	6.8	7.7
97.5°	6.8	7.7	7.7
100°	6.0	7.7	8.5
102.5°	5.1	7.7	7.7
105°	4.3	6.0	6.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.3	4.3
115°	2.6	3.4	4.3
117.5°	2.6	3.4	3.4
120°	2.6	2.6	3.4
122.5°	2.6	2.6	3.4
125°	2.6	2.6	3.4
127.5°	3.4	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.4	2.6	2.6
135°	3.4	2.6	2.6
137.5°	3.4	2.6	2.6
140°	3.4	2.6	2.6
142.5°	3.4	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°	3.4	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°	358.7	348.4	314.2	257.9	180.2	100.8	37.6	6.8	1.7	2.6	2.6
110°	312.5	304.0	269.0	214.3	145.2	75.1	24.8	4.3	2.6	2.6	2.6





107.5°	3.4	5.1	6.0
110°	3.4	4.3	5.1



(END OF REPORT)