

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: P551329

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-94-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: P551329  
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-80-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

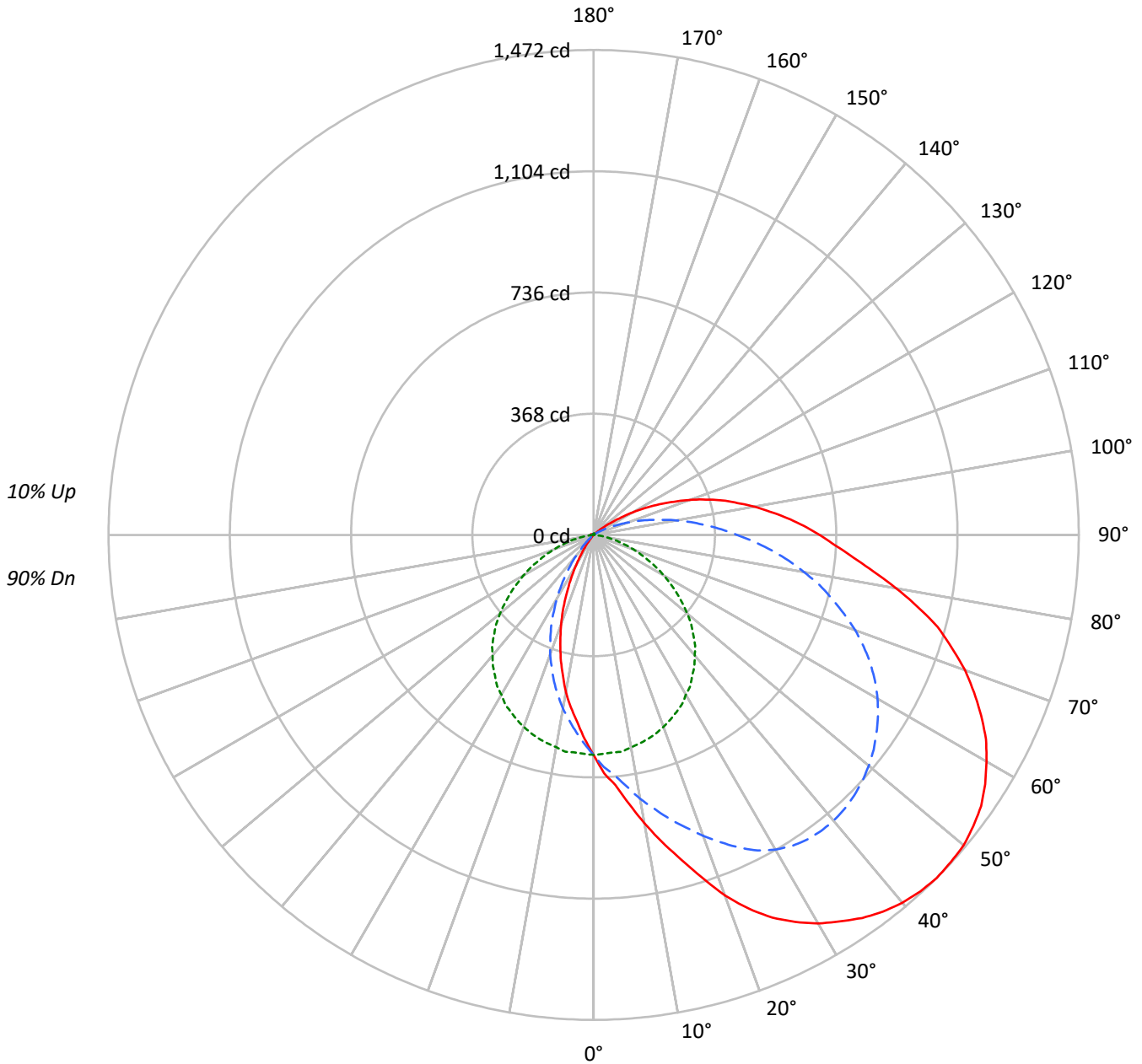
Lumens per Lamp: N/A  
Luminaire Lumens: 3301.1 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P551329

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-94-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																			
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°	7187	7187	7187
5°	7889	7082	5908
10°	8928	6995	4870
15°	10006	6906	3795
20°	11285	6794	2794
25°	12345	6663	1835
30°	13134	6488	1034
35°	13817	6300	455
40°	14423	6069	110
45°	14942	5778	0
50°	15379	5393	0
55°	15710	4903	0
60°	15878	4336	0
65°	15942	3690	0
70°	15890	3008	0
75°	15688	2221	13
80°	15052	1357	69
85°	14548	651	94



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	1.9
10°-20°	191.5	5.8
20°-30°	310.1	9.4
30°-40°	398.4	12.1
40°-50°	451.0	13.7
50°-60°	467.2	14.2
60°-70°	440.6	13.3
70°-80°	369.3	11.2
80°-90°	267.7	8.1
90°-100°	175.9	5.3
100°-110°	101.6	3.1
110°-120°	44.9	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°	565.6	17.1
0°-40°	964.0	29.2
0°-60°	1882.1	57.0
0°-90°	2959.7	89.7
90°-120°	322.4	9.8
90°-150°	339.2	10.3
90°-180°	341.0	10.3
0°-180°	3301.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	668	668	668	668	668	
5°	762	732	663	601	571	77
15°	1018	893	640	463	386	294
25°	1282	1048	594	304	190	592
35°	1420	1129	521	148	47	890
45°	1472	1118	427	34	0	1137
55°	1435	1048	308	0	0	1281
65°	1297	927	184	0	0	1283
75°	1081	748	78	1	1	1134
85°	791	542	13	3	5	676
90°	686	435	3	5	6	376
95°	589	340	2	6	8	462
105°	405	176	2	4	7	427
115°	220	58	3	3	4	221
125°	66	8	3	3	3	65
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°	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7
2.5°	723.9	723.0	720.4	716.2	710.2	700.0	691.5	683.9	673.7	665.2	649.0
5°	762.1	757.9	754.5	750.2	736.6	727.3	711.9	694.9	678.8	662.6	630.3
7.5°	823.4	816.6	811.5	799.6	780.8	759.6	735.8	719.6	708.5	663.5	608.2
10°	888.9	882.9	872.7	851.4	828.5	797.9	763.8	725.6	691.5	654.1	588.6
12.5°	953.5	945.0	930.5	903.3	871.0	832.7	785.9	740.9	692.4	648.1	565.6
15°	1018.2	1008.8	993.5	960.3	917.8	867.6	810.6	753.6	696.6	640.5	541.8
17.5°	1088.8	1076.0	1053.0	1015.6	962.0	899.9	832.7	763.8	694.9	631.1	516.3
20°	1164.5	1146.6	1121.9	1071.7	1008.8	935.6	854.8	774.0	694.1	620.1	487.4
22.5°	1227.4	1209.5	1182.3	1130.4	1054.7	965.4	873.6	780.8	690.7	607.3	460.2
25°	1281.8	1267.4	1237.6	1178.1	1098.1	996.9	891.4	785.9	685.6	593.7	431.2
27.5°	1324.4	1310.8	1277.6	1216.3	1134.7	1025.0	905.0	788.5	678.8	580.1	401.5
30°	1361.8	1348.2	1308.2	1245.3	1159.4	1047.1	918.6	789.3	670.3	559.7	369.2
32.5°	1390.7	1378.0	1337.1	1269.9	1176.4	1062.4	926.3	788.5	659.2	545.2	334.3
35°	1419.6	1406.9	1359.2	1287.8	1189.1	1069.2	932.2	784.2	645.6	521.4	301.1
37.5°	1441.7	1427.3	1378.8	1299.7	1195.1	1070.9	931.4	778.3	631.1	501.8	267.9
40°	1457.1	1441.7	1389.9	1306.5	1196.8	1068.3	924.6	768.1	614.1	477.2	233.1
42.5°	1467.3	1450.3	1395.0	1316.7	1193.4	1061.5	914.4	755.3	595.4	455.9	199.9
45°	1472.4	1454.5	1395.8	1308.2	1187.4	1048.8	899.1	739.2	575.0	427.0	166.7
47.5°	1469.8	1450.3	1391.6	1298.9	1176.4	1035.2	882.1	719.6	550.3	401.5	135.2
50°	1465.6	1445.2	1382.2	1286.9	1161.1	1018.2	863.3	695.8	524.8	370.0	107.2
52.5°	1452.0	1431.5	1372.0	1269.9	1143.2	998.6	837.8	671.1	497.6	339.4	81.7
55°	1434.9	1416.2	1354.1	1254.6	1120.2	974.8	814.0	644.7	471.2	307.9	58.7
57.5°	1408.6	1391.6	1332.0	1230.0	1097.3	948.4	787.6	615.8	438.1	276.4	40.8
60°	1376.3	1359.2	1301.4	1201.9	1070.9	918.6	758.7	586.1	408.3	245.0	25.5
62.5°	1342.2	1326.1	1265.7	1167.0	1037.7	887.2	727.3	556.3	376.8	216.0	15.3
65°	1297.1	1281.8	1227.4	1125.3	1001.1	853.1	692.4	520.6	344.5	183.7	8.5
67.5°	1249.5	1235.9	1180.6	1087.1	958.6	815.7	656.7	485.7	310.5	155.7	4.3
70°	1198.5	1181.5	1130.4	1035.2	915.2	773.2	617.5	450.0	278.1	128.4	0.0
72.5°	1138.9	1126.2	1076.8	986.7	865.0	728.1	577.6	410.8	242.4	102.1	0.9
75°	1081.1	1064.9	1019.9	934.8	815.7	680.5	533.3	374.3	207.5	78.3	0.9
77.5°	1006.2	1001.1	958.6	876.1	768.9	634.5	484.8	330.0	174.4	56.1	0.9
80°	931.4	926.3	893.1	817.4	714.5	580.1	439.8	288.3	142.0	37.4	0.9
82.5°	857.4	850.6	819.1	756.2	659.2	534.2	393.0	246.7	112.3	23.0	0.9
85°	791.0	782.5	748.5	690.7	602.2	482.3	344.5	205.8	83.4	12.8	1.7
87.5°	734.1	728.1	690.7	631.1	544.4	433.8	302.0	166.7	58.7	6.0	2.6
90°	685.6	672.8	639.6	576.7	489.9	380.2	256.9	133.5	39.1	3.4	3.4
92.5°	637.9	626.9	590.3	525.7	441.5	334.3	213.5	102.1	24.7	1.7	4.3
95°	588.6	576.7	541.0	481.4	392.1	287.5	175.2	74.9	13.6	1.7	4.3
97.5°	540.1	529.1	491.6	432.1	347.9	246.7	138.6	52.7	6.8	1.7	3.4
100°	495.0	482.3	448.3	388.7	303.7	205.8	107.2	34.0	4.3	1.7	3.4
102.5°	447.4	437.2	402.3	344.5	257.7	167.6	80.0	21.3	1.7	1.7	2.6
105°	404.9	392.1	358.1	298.6	219.5	131.8	56.1	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°	263.7	253.5	223.7	173.5	111.4	51.9	15.3	2.6	2.6	2.6	2.6
115°	220.3	205.0	178.6	134.4	82.5	34.0	7.7	2.6	2.6	2.6	2.6
117.5°	176.1	163.3	144.6	102.1	54.4	22.1	4.3	2.6	2.6	2.6	2.6
120°	137.8	125.9	104.6	70.6	36.6	12.8	1.7	2.6	2.6	2.6	2.6
122.5°	98.7	89.3	70.6	45.9	22.1	6.0	2.6	2.6	3.4	3.4	2.6
125°	65.5	60.4	46.8	28.1	13.6	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.5	38.3	27.2	16.2	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	23.8	21.3	16.2	9.4	2.6	2.6	2.6	3.4	3.4	3.4	2.6
132.5°	13.6	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°	667.7	667.7	667.7
2.5°	635.4	623.5	620.1
5°	601.4	581.8	570.7
7.5°	567.3	541.0	528.2
10°	535.9	498.4	484.8
12.5°	498.4	455.1	433.8
15°	462.7	406.6	386.2
17.5°	422.7	359.8	336.0
20°	385.3	313.0	288.3
22.5°	342.8	267.1	239.9
25°	304.5	221.2	190.5
27.5°	262.0	174.4	148.0
30°	222.0	133.5	107.2
32.5°	183.7	97.8	74.0
35°	148.0	66.3	46.8
37.5°	114.0	40.8	23.8
40°	82.5	21.3	11.1
42.5°	55.3	10.2	6.0
45°	34.0	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°	357.2	347.0	313.0	256.9	179.5	100.4	37.4	6.8	1.7	2.6	2.6
110°	311.3	302.8	267.9	213.5	144.6	74.9	24.7	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)