

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: P551321

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-85-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: P551321  
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-80-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

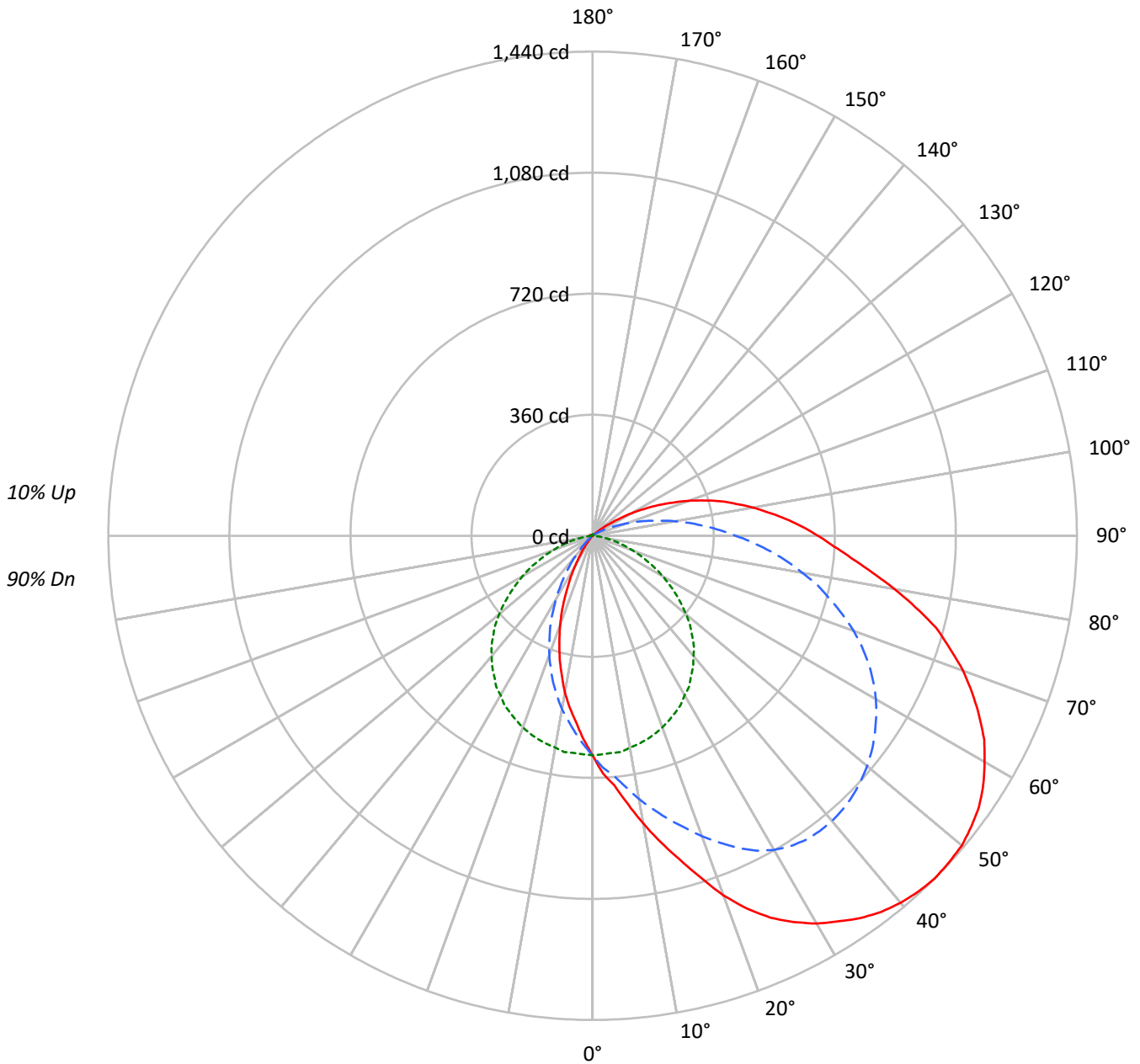
Lumens per Lamp: N/A  
Luminaire Lumens: 3228.0 lumens  
Efficiency: N/A  
Efficacy: 74.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (Ain): 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: P551321

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551321

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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°	7028	7028	7028
5°	7715	6926	5778
10°	8731	6840	4762
15°	9784	6753	3711
20°	11035	6644	2733
25°	12073	6516	1794
30°	12844	6345	1011
35°	13511	6161	445
40°	14103	5934	107
45°	14612	5651	0
50°	15039	5273	0
55°	15363	4795	0
60°	15526	4240	0
65°	15591	3609	0
70°	15539	2942	0
75°	15341	2169	12
80°	14719	1328	68
85°	14228	636	92



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	1.9
10°-20°	187.3	5.8
20°-30°	303.3	9.4
30°-40°	389.6	12.1
40°-50°	441.0	13.7
50°-60°	456.9	14.2
60°-70°	430.9	13.3
70°-80°	361.1	11.2
80°-90°	261.7	8.1
90°-100°	172.0	5.3
100°-110°	99.4	3.1
110°-120°	43.8	1.4
120°-130°	11.9	0.4
130°-140°	2.7	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°	553.1	17.1
0°-40°	942.6	29.2
0°-60°	1840.5	57.0
0°-90°	2894.2	89.7
90°-120°	315.2	9.8
90°-150°	331.6	10.3
90°-180°	334.0	10.3
0°-180°	3228.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	653	653	653	653	653	
5°	745	716	648	588	558	75
15°	996	873	626	452	378	287
25°	1254	1024	581	298	186	579
35°	1388	1104	510	145	46	871
45°	1440	1093	418	33	0	1112
55°	1403	1024	301	0	0	1253
65°	1268	907	180	0	0	1255
75°	1057	732	76	1	1	1109
85°	774	530	12	3	5	661
90°	670	425	3	5	6	368
95°	576	332	2	6	8	452
105°	396	172	2	4	7	418
115°	215	57	2	2	4	216
125°	64	8	3	2	3	64
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°	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.9
2.5°	707.8	707.0	704.5	700.4	694.5	684.6	676.2	668.8	658.8	650.5	634.6
5°	745.3	741.1	737.8	733.6	720.3	711.2	696.2	679.6	663.8	648.0	616.3
7.5°	805.2	798.5	793.5	781.9	763.6	742.8	719.5	703.7	692.9	648.8	594.7
10°	869.2	863.4	853.4	832.6	810.2	780.2	746.9	709.5	676.2	639.6	575.6
12.5°	932.4	924.1	910.0	883.3	851.7	814.3	768.6	724.5	677.1	633.8	553.1
15°	995.6	986.5	971.5	939.1	897.5	848.4	792.7	737.0	681.2	626.3	529.8
17.5°	1064.7	1052.2	1029.7	993.1	940.7	880.0	814.3	746.9	679.6	617.2	504.9
20°	1138.7	1121.2	1097.1	1048.0	986.5	915.0	835.9	756.9	678.7	606.4	476.6
22.5°	1200.3	1182.8	1156.2	1105.4	1031.4	944.1	854.2	763.6	675.4	593.9	450.0
25°	1253.5	1239.4	1210.2	1152.0	1073.8	974.8	871.7	768.6	670.4	580.6	421.7
27.5°	1295.1	1281.8	1249.3	1189.4	1109.6	1002.3	885.0	771.1	663.8	567.3	392.6
30°	1331.7	1318.4	1279.3	1217.7	1133.7	1023.9	898.3	771.9	655.4	547.3	361.0
32.5°	1360.0	1347.5	1307.6	1241.8	1150.4	1038.9	905.8	771.1	644.6	533.2	326.9
35°	1388.2	1375.8	1329.2	1259.3	1162.8	1045.5	911.6	766.9	631.3	509.9	294.4
37.5°	1409.9	1395.7	1348.3	1271.0	1168.7	1047.2	910.8	761.1	617.2	490.7	262.0
40°	1424.8	1409.9	1359.1	1277.6	1170.3	1044.7	904.1	751.1	600.5	466.6	227.9
42.5°	1434.8	1418.2	1364.1	1287.6	1167.0	1038.1	894.2	738.6	582.2	445.8	195.5
45°	1439.8	1422.3	1365.0	1279.3	1161.2	1025.6	879.2	722.8	562.3	417.6	163.0
47.5°	1437.3	1418.2	1360.8	1270.1	1150.4	1012.3	862.6	703.7	538.2	392.6	132.3
50°	1433.2	1413.2	1351.6	1258.5	1135.4	995.6	844.3	680.4	513.2	361.8	104.8
52.5°	1419.8	1399.9	1341.7	1241.8	1117.9	976.5	819.3	656.3	486.6	331.9	79.9
55°	1403.2	1384.9	1324.2	1226.9	1095.5	953.2	796.0	630.5	460.8	301.1	57.4
57.5°	1377.4	1360.8	1302.6	1202.8	1073.0	927.4	770.2	602.2	428.4	270.3	39.9
60°	1345.8	1329.2	1272.6	1175.3	1047.2	898.3	741.9	573.1	399.3	239.6	25.0
62.5°	1312.5	1296.7	1237.7	1141.2	1014.8	867.5	711.2	544.0	368.5	211.3	15.0
65°	1268.5	1253.5	1200.3	1100.4	979.0	834.3	677.1	509.0	336.9	179.7	8.3
67.5°	1221.9	1208.6	1154.5	1063.0	937.4	797.7	642.1	474.9	303.6	152.2	4.2
70°	1172.0	1155.3	1105.4	1012.3	895.0	756.1	603.9	440.0	272.0	125.6	0.0
72.5°	1113.8	1101.3	1053.0	964.9	845.9	712.0	564.8	401.7	237.1	99.8	0.8
75°	1057.2	1041.4	997.3	914.1	797.7	665.4	521.5	366.0	203.0	76.5	0.8
77.5°	984.0	979.0	937.4	856.7	751.9	620.5	474.1	322.7	170.5	54.9	0.8
80°	910.8	905.8	873.4	799.3	698.7	567.3	430.0	282.0	138.9	36.6	0.8
82.5°	838.4	831.8	801.0	739.5	644.6	522.4	384.3	241.2	109.8	22.5	0.8
85°	773.6	765.2	732.0	675.4	588.9	471.6	336.9	201.3	81.5	12.5	1.7
87.5°	717.8	712.0	675.4	617.2	532.3	424.2	295.3	163.0	57.4	5.8	2.5
90°	670.4	657.9	625.5	563.9	479.1	371.8	251.2	130.6	38.3	3.3	3.3
92.5°	623.8	613.0	577.3	514.0	431.7	326.9	208.8	99.8	24.1	1.7	4.2
95°	575.6	563.9	529.0	470.8	383.5	281.1	171.3	73.2	13.3	1.7	4.2
97.5°	528.2	517.4	480.8	422.5	340.2	241.2	135.6	51.6	6.7	1.7	3.3
100°	484.1	471.6	438.3	380.1	296.9	201.3	104.8	33.3	4.2	1.7	3.3
102.5°	437.5	427.5	393.4	336.9	252.0	163.9	78.2	20.8	1.7	1.7	2.5
105°	395.9	383.5	350.2	292.0	214.6	128.9	54.9	12.5	1.7	1.7	2.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	257.9	247.9	218.8	169.7	109.0	50.7	15.0	2.5	2.5	2.5	2.5
115°	215.4	200.5	174.7	131.4	80.7	33.3	7.5	2.5	2.5	2.5	2.5
117.5°	172.2	159.7	141.4	99.8	53.2	21.6	4.2	2.5	2.5	2.5	2.5
120°	134.7	123.1	102.3	69.0	35.8	12.5	1.7	2.5	2.5	2.5	2.5
122.5°	96.5	87.3	69.0	44.9	21.6	5.8	2.5	2.5	3.3	3.3	2.5
125°	64.0	59.1	45.7	27.4	13.3	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.6	37.4	26.6	15.8	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.3	20.8	15.8	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.3	12.5	8.3	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.3	4.2	4.2	4.2	3.3
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	3.3
142.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
145°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	3.3	3.3	3.3
147.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
150°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
152.5°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
155°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
157.5°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	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°	652.9	652.9	652.9
2.5°	621.3	609.7	606.4
5°	588.1	568.9	558.1
7.5°	554.8	529.0	516.5
10°	524.0	487.4	474.1
12.5°	487.4	445.0	424.2
15°	452.5	397.6	377.6
17.5°	413.4	351.8	328.6
20°	376.8	306.1	282.0
22.5°	335.2	261.2	234.6
25°	297.8	216.3	186.3
27.5°	256.2	170.5	144.7
30°	217.1	130.6	104.8
32.5°	179.7	95.7	72.4
35°	144.7	64.9	45.7
37.5°	111.5	39.9	23.3
40°	80.7	20.8	10.8
42.5°	54.1	10.0	5.8
45°	33.3	5.0	0.0
47.5°	19.1	0.0	0.0
50°	10.0	0.0	0.0
52.5°	4.2	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	1.7	2.5
80°	1.7	3.3	4.2
82.5°	3.3	4.2	4.2
85°	3.3	4.2	5.0
87.5°	4.2	5.0	5.8
90°	5.0	5.8	5.8
92.5°	5.0	6.7	6.7
95°	5.8	6.7	7.5
97.5°	6.7	7.5	7.5
100°	5.8	7.5	8.3
102.5°	5.0	7.5	7.5
105°	4.2	5.8	6.7





TEST NUMBER: P551321

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-85-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.3	4.2	4.2
115°	2.5	3.3	4.2
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	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.3	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	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°	349.3	339.4	306.1	251.2	175.5	98.1	36.6	6.7	1.7	2.5	2.5
110°	304.4	296.1	262.0	208.8	141.4	73.2	24.1	4.2	2.5	2.5	2.5







107.5°	3.3	5.0	5.8
110°	3.3	4.2	5.0



(END OF REPORT)