

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: P551200

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-88-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: P551200  
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-30-UNV-80-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

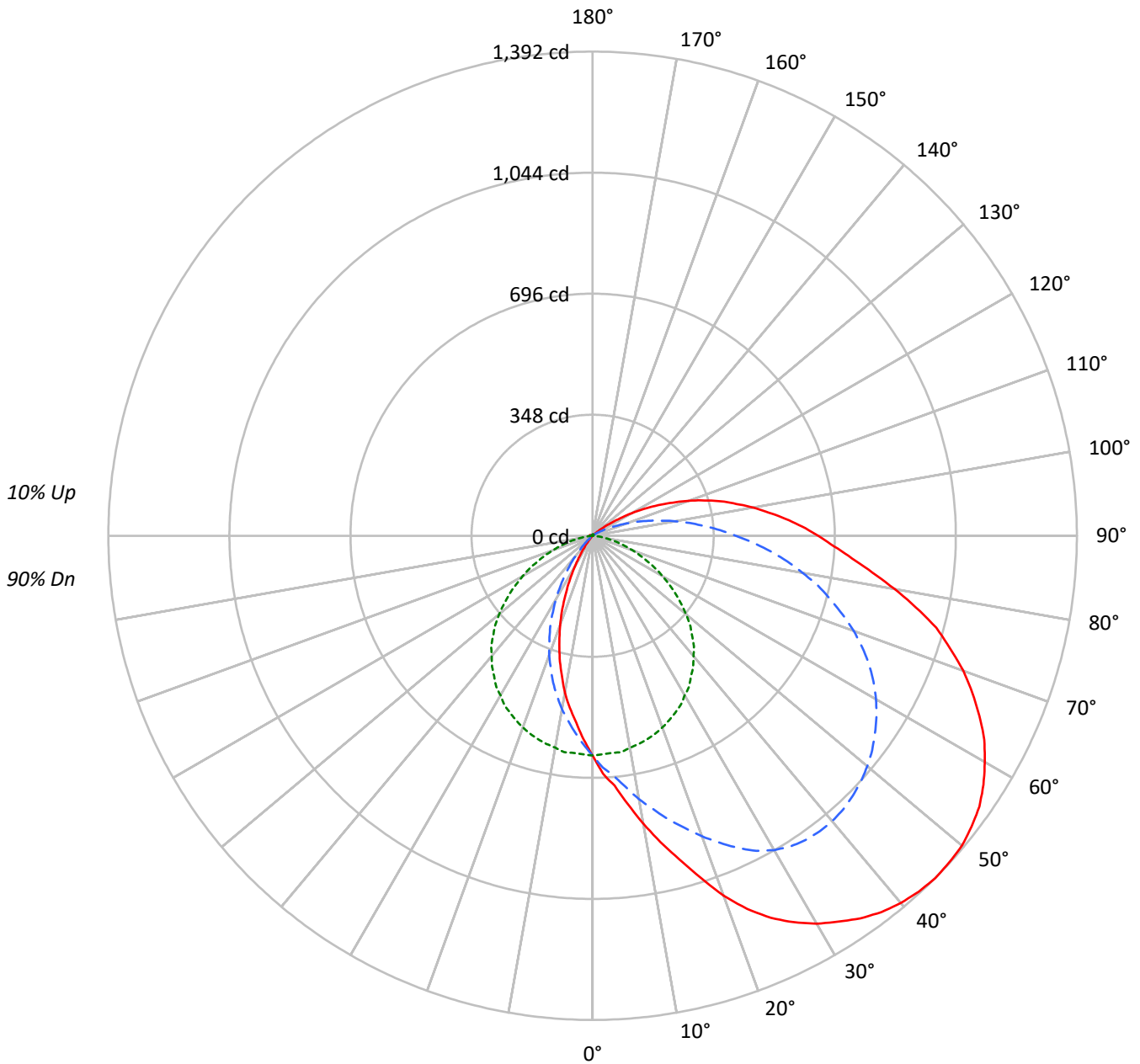
Lumens per Lamp: N/A  
Luminaire Lumens: 3121.9 lumens  
Efficiency: N/A  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-88-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	6797	6797	6797
5°	7462	6698	5588
10°	8444	6615	4605
15°	9462	6532	3589
20°	10673	6426	2643
25°	11676	6301	1736
30°	12422	6136	978
35°	13068	5958	430
40°	13640	5739	104
45°	14132	5464	0
50°	14544	5100	0
55°	14858	4637	0
60°	15016	4100	0
65°	15078	3491	0
70°	15028	2846	0
75°	14837	2099	12
80°	14236	1284	65
85°	13761	615	88



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.5	1.9
10°-20°	181.1	5.8
20°-30°	293.3	9.4
30°-40°	376.8	12.1
40°-50°	426.5	13.7
50°-60°	441.9	14.2
60°-70°	416.7	13.3
70°-80°	349.2	11.2
80°-90°	253.1	8.1
90°-100°	166.4	5.3
100°-110°	96.1	3.1
110°-120°	42.4	1.4
120°-130°	11.5	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	534.9	17.1
0°-40°	911.7	29.2
0°-60°	1780.1	57.0
0°-90°	2799.1	89.7
90°-120°	304.8	9.8
90°-150°	320.6	10.3
90°-180°	323.0	10.3
0°-180°	3121.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	632	632	632	632	632	
5°	721	692	627	569	540	73
15°	963	844	606	438	365	278
25°	1212	991	562	288	180	560
35°	1343	1068	493	140	44	842
45°	1392	1057	404	32	0	1075
55°	1357	991	291	0	0	1212
65°	1227	877	174	0	0	1214
75°	1022	708	74	1	1	1072
85°	748	513	12	3	5	639
90°	648	412	3	5	6	356
95°	557	321	2	6	7	437
105°	383	166	2	4	6	404
115°	208	55	2	2	4	209
125°	62	8	3	2	3	62
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°	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5
2.5°	684.6	683.8	681.4	677.4	671.7	662.1	654.0	646.8	637.1	629.1	613.8
5°	720.8	716.8	713.6	709.5	696.7	687.8	673.3	657.2	642.0	626.7	596.1
7.5°	778.7	772.3	767.5	756.2	738.5	718.4	695.9	680.6	670.1	627.5	575.2
10°	840.7	835.0	825.4	805.3	783.5	754.6	722.4	686.2	654.0	618.6	556.7
12.5°	901.8	893.8	880.1	854.3	823.8	787.6	743.3	700.7	654.8	613.0	535.0
15°	962.9	954.1	939.6	908.2	868.0	820.6	766.7	712.8	658.9	605.8	512.4
17.5°	1029.7	1017.6	995.9	960.5	909.9	851.1	787.6	722.4	657.2	596.9	488.3
20°	1101.3	1084.4	1061.1	1013.6	954.1	884.9	808.5	732.1	656.4	586.5	461.0
22.5°	1160.8	1144.0	1118.2	1069.1	997.5	913.1	826.2	738.5	653.2	574.4	435.2
25°	1212.3	1198.7	1170.5	1114.2	1038.6	942.8	843.1	743.3	648.4	561.5	407.9
27.5°	1252.6	1239.7	1208.3	1150.4	1073.2	969.4	856.0	745.7	642.0	548.6	379.7
30°	1287.9	1275.1	1237.3	1177.7	1096.5	990.3	868.8	746.5	633.9	529.3	349.1
32.5°	1315.3	1303.2	1264.6	1201.1	1112.6	1004.8	876.1	745.7	623.5	515.7	316.2
35°	1342.7	1330.6	1285.5	1218.0	1124.6	1011.2	881.7	741.7	610.6	493.1	284.8
37.5°	1363.6	1349.9	1304.0	1229.2	1130.3	1012.8	880.9	736.1	596.9	474.6	253.4
40°	1378.0	1363.6	1314.5	1235.7	1131.9	1010.4	874.5	726.4	580.8	451.3	220.4
42.5°	1387.7	1371.6	1319.3	1245.3	1128.7	1004.0	864.8	714.4	563.1	431.2	189.0
45°	1392.5	1375.6	1320.1	1237.3	1123.0	991.9	850.3	699.1	543.8	403.8	157.7
47.5°	1390.1	1371.6	1316.1	1228.4	1112.6	979.0	834.2	680.6	520.5	379.7	127.9
50°	1386.1	1366.8	1307.3	1217.2	1098.1	962.9	816.5	658.1	496.4	349.9	101.4
52.5°	1373.2	1353.9	1297.6	1201.1	1081.2	944.4	792.4	634.7	470.6	321.0	77.2
55°	1357.1	1339.4	1280.7	1186.6	1059.5	921.9	769.9	609.8	445.7	291.2	55.5
57.5°	1332.2	1316.1	1259.8	1163.3	1037.8	897.0	744.9	582.4	414.3	261.5	38.6
60°	1301.6	1285.5	1230.8	1136.7	1012.8	868.8	717.6	554.3	386.1	231.7	24.1
62.5°	1269.4	1254.2	1197.0	1103.7	981.4	839.1	687.8	526.1	356.4	204.3	14.5
65°	1226.8	1212.3	1160.8	1064.3	946.9	806.9	654.8	492.3	325.8	173.8	8.0
67.5°	1181.8	1168.9	1116.6	1028.1	906.6	771.5	621.0	459.3	293.6	147.2	4.0
70°	1133.5	1117.4	1069.1	979.0	865.6	731.3	584.0	425.6	263.1	121.5	0.0
72.5°	1077.2	1065.1	1018.5	933.2	818.1	688.6	546.2	388.6	229.3	96.5	0.8
75°	1022.5	1007.2	964.6	884.1	771.5	643.6	504.4	354.0	196.3	74.0	0.8
77.5°	951.7	946.9	906.6	828.6	727.2	600.1	458.5	312.1	164.9	53.1	0.8
80°	880.9	876.1	844.7	773.1	675.8	548.6	415.9	272.7	134.3	35.4	0.8
82.5°	810.9	804.5	774.7	715.2	623.5	505.2	371.7	233.3	106.2	21.7	0.8
85°	748.2	740.1	707.9	653.2	569.6	456.1	325.8	194.7	78.8	12.1	1.6
87.5°	694.3	688.6	653.2	596.9	514.9	410.3	285.6	157.7	55.5	5.6	2.4
90°	648.4	636.3	605.0	545.4	463.4	359.6	242.9	126.3	37.0	3.2	3.2
92.5°	603.3	592.9	558.3	497.2	417.5	316.2	201.9	96.5	23.3	1.6	4.0
95°	556.7	545.4	511.6	455.3	370.9	271.9	165.7	70.8	12.9	1.6	4.0
97.5°	510.8	500.4	465.0	408.7	329.0	233.3	131.1	49.9	6.4	1.6	3.2
100°	468.2	456.1	424.0	367.6	287.2	194.7	101.4	32.2	4.0	1.6	3.2
102.5°	423.1	413.5	380.5	325.8	243.8	158.5	75.6	20.1	1.6	1.6	2.4
105°	382.9	370.9	338.7	282.4	207.6	124.7	53.1	12.1	1.6	1.6	2.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	249.4	239.7	211.6	164.1	105.4	49.1	14.5	2.4	2.4	2.4	2.4
115°	208.4	193.9	168.9	127.1	78.0	32.2	7.2	2.4	2.4	2.4	2.4
117.5°	166.5	154.5	136.8	96.5	51.5	20.9	4.0	2.4	2.4	2.4	2.4
120°	130.3	119.1	98.9	66.8	34.6	12.1	1.6	2.4	2.4	2.4	2.4
122.5°	93.3	84.5	66.8	43.4	20.9	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.9	57.1	44.2	26.5	12.9	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.2	36.2	25.7	15.3	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.5	20.1	15.3	8.8	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.9	12.1	8.0	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	631.5	631.5	631.5
2.5°	600.9	589.7	586.5
5°	568.8	550.3	539.8
7.5°	536.6	511.6	499.6
10°	506.8	471.4	458.5
12.5°	471.4	430.4	410.3
15°	437.6	384.5	365.2
17.5°	399.8	340.3	317.8
20°	364.4	296.0	272.7
22.5°	324.2	252.6	226.9
25°	288.0	209.2	180.2
27.5°	247.8	164.9	140.0
30°	210.0	126.3	101.4
32.5°	173.8	92.5	70.0
35°	140.0	62.7	44.2
37.5°	107.8	38.6	22.5
40°	78.0	20.1	10.5
42.5°	52.3	9.7	5.6
45°	32.2	4.8	0.0
47.5°	18.5	0.0	0.0
50°	9.7	0.0	0.0
52.5°	4.0	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	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.8
87.5°	4.0	4.8	5.6
90°	4.8	5.6	5.6
92.5°	4.8	6.4	6.4
95°	5.6	6.4	7.2
97.5°	6.4	7.2	7.2
100°	5.6	7.2	8.0
102.5°	4.8	7.2	7.2
105°	4.0	5.6	6.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	337.9	328.2	296.0	242.9	169.7	94.9	35.4	6.4	1.6	2.4	2.4
110°	294.4	286.4	253.4	201.9	136.8	70.8	23.3	4.0	2.4	2.4	2.4







107.5°	3.2	4.8	5.6
110°	3.2	4.0	4.8



(END OF REPORT)