

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: P551232

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-88-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: P551232  
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-82-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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**

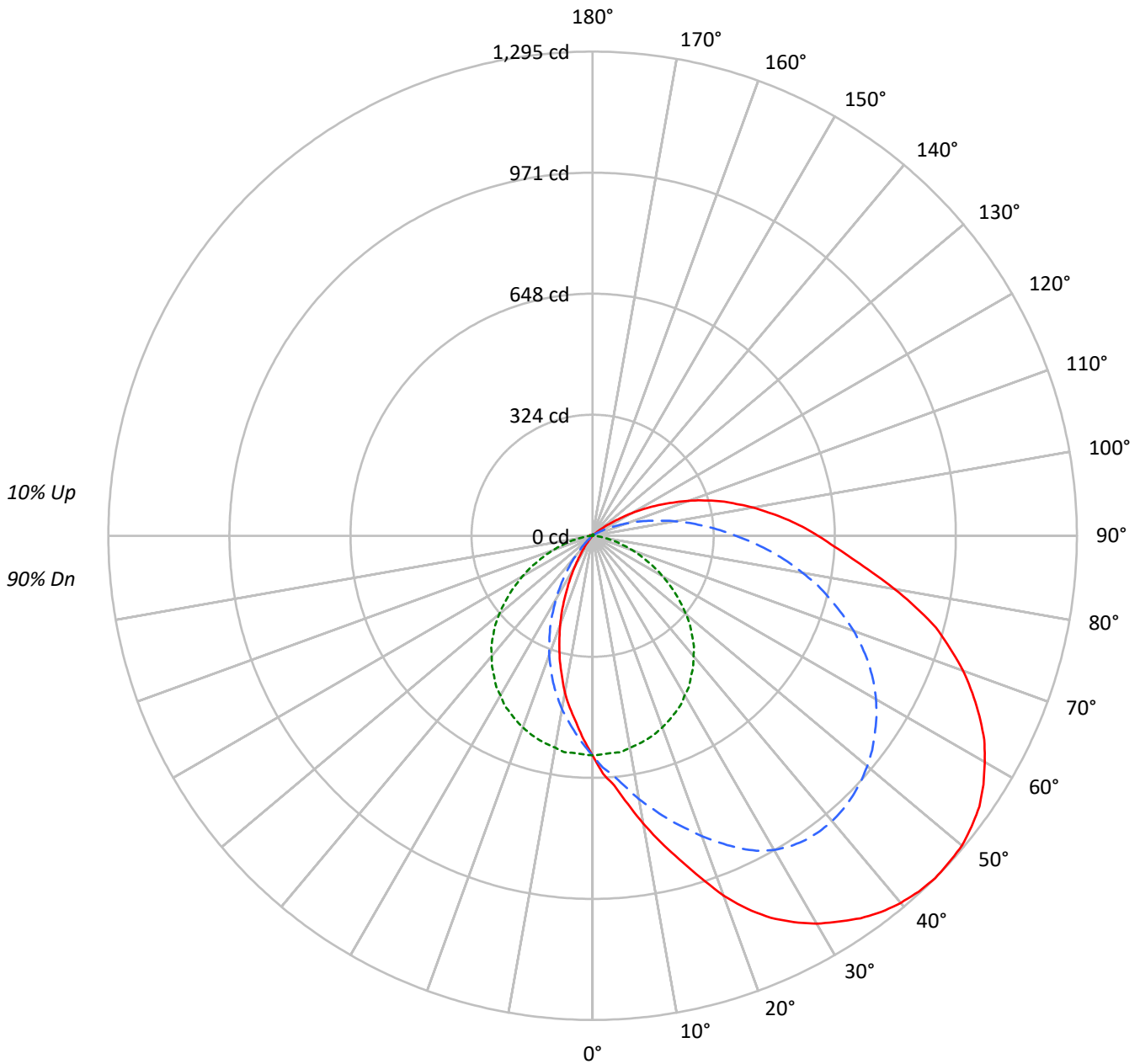
Lumens per Lamp: N/A  
Luminaire Lumens: 2903.9 lumens  
Efficiency: N/A  
Efficacy: 67.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551232

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-88-ED1D

### 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°	6323	6323	6323
5°	6941	6230	5198
10°	7855	6153	4284
15°	8802	6076	3338
20°	9928	5977	2459
25°	10861	5862	1614
30°	11555	5708	910
35°	12155	5542	401
40°	12688	5339	96
45°	13145	5082	0
50°	13529	4744	0
55°	13821	4314	0
60°	13968	3814	0
65°	14025	3246	0
70°	13978	2647	0
75°	13801	1951	10
80°	13242	1193	60
85°	12799	570	83



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.3	1.9
10°-20°	168.5	5.8
20°-30°	272.8	9.4
30°-40°	350.5	12.1
40°-50°	396.7	13.7
50°-60°	411.0	14.2
60°-70°	387.6	13.3
70°-80°	324.8	11.2
80°-90°	235.4	8.1
90°-100°	154.7	5.3
100°-110°	89.4	3.1
110°-120°	39.4	1.4
120°-130°	10.7	0.4
130°-140°	2.4	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	497.6	17.1
0°-40°	848.0	29.2
0°-60°	1655.8	57.0
0°-90°	2603.7	89.7
90°-120°	283.5	9.8
90°-150°	298.2	10.3
90°-180°	300.0	10.3
0°-180°	2903.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	587	587	587	587	587	
5°	670	644	583	529	502	68
15°	896	785	564	407	340	258
25°	1128	922	522	268	168	521
35°	1249	993	459	130	41	783
45°	1295	984	376	30	0	1000
55°	1262	922	271	0	0	1127
65°	1141	816	162	0	0	1129
75°	951	658	69	1	1	998
85°	696	477	11	3	4	594
90°	603	383	3	4	5	331
95°	518	299	2	5	7	406
105°	356	155	2	4	6	376
115°	194	51	2	2	4	194
125°	58	7	3	2	3	58
135°	3	2	4	3	2	5
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°	587.4	587.4	587.4	587.4	587.4	587.4	587.4	587.4	587.4	587.4	587.4
2.5°	636.8	636.0	633.8	630.1	624.8	615.8	608.4	601.6	592.6	585.2	570.9
5°	670.5	666.7	663.7	660.0	648.0	639.8	626.3	611.4	597.1	582.9	554.5
7.5°	724.3	718.4	713.9	703.4	686.9	668.2	647.3	633.1	623.3	583.7	535.0
10°	782.0	776.7	767.7	749.0	728.8	701.9	672.0	638.3	608.4	575.4	517.8
12.5°	838.8	831.4	818.6	794.7	766.3	732.6	691.4	651.8	609.1	570.2	497.6
15°	895.7	887.5	874.0	844.8	807.4	763.3	713.1	663.0	612.9	563.5	476.7
17.5°	957.8	946.6	926.4	893.5	846.3	791.7	732.6	672.0	611.4	555.2	454.2
20°	1024.4	1008.7	987.0	942.8	887.5	823.1	752.0	680.9	610.6	545.5	428.8
22.5°	1079.8	1064.1	1040.1	994.5	927.9	849.3	768.5	686.9	607.6	534.3	404.8
25°	1127.7	1115.0	1088.8	1036.4	966.0	877.0	784.2	691.4	603.1	522.3	379.4
27.5°	1165.1	1153.1	1123.9	1070.1	998.2	901.7	796.2	693.7	597.1	510.3	353.2
30°	1198.0	1186.0	1150.9	1095.5	1019.9	921.1	808.2	694.4	589.7	492.4	324.8
32.5°	1223.5	1212.2	1176.3	1117.2	1034.9	934.6	814.9	693.7	579.9	479.7	294.1
35°	1248.9	1237.7	1195.8	1132.9	1046.1	940.6	820.1	689.9	568.0	458.7	264.9
37.5°	1268.4	1255.6	1213.0	1143.4	1051.4	942.1	819.4	684.7	555.2	441.5	235.7
40°	1281.8	1268.4	1222.7	1149.4	1052.8	939.9	813.4	675.7	540.3	419.8	205.0
42.5°	1290.8	1275.8	1227.2	1158.4	1049.9	933.9	804.4	664.5	523.8	401.1	175.8
45°	1295.3	1279.6	1227.9	1150.9	1044.6	922.6	790.9	650.3	505.8	375.6	146.7
47.5°	1293.0	1275.8	1224.2	1142.6	1034.9	910.7	776.0	633.1	484.1	353.2	119.0
50°	1289.3	1271.3	1216.0	1132.2	1021.4	895.7	759.5	612.1	461.7	325.5	94.3
52.5°	1277.3	1259.4	1207.0	1117.2	1005.7	878.5	737.1	590.4	437.8	298.6	71.8
55°	1262.4	1245.9	1191.3	1103.7	985.5	857.5	716.1	567.2	414.6	270.9	51.6
57.5°	1239.2	1224.2	1171.8	1082.0	965.3	834.3	692.9	541.8	385.4	243.2	35.9
60°	1210.7	1195.8	1144.9	1057.3	942.1	808.2	667.5	515.6	359.2	215.5	22.4
62.5°	1180.8	1166.6	1113.5	1026.7	912.9	780.5	639.8	489.4	331.5	190.1	13.5
65°	1141.1	1127.7	1079.8	990.0	880.7	750.5	609.1	458.0	303.1	161.6	7.5
67.5°	1099.2	1087.3	1038.6	956.3	843.3	717.6	577.7	427.3	273.1	136.9	3.7
70°	1054.3	1039.4	994.5	910.7	805.2	680.2	543.3	395.8	244.7	113.0	0.0
72.5°	1002.0	990.7	947.3	868.0	761.0	640.5	508.1	361.4	213.3	89.8	0.7
75°	951.1	936.9	897.2	822.4	717.6	598.6	469.2	329.2	182.6	68.8	0.7
77.5°	885.2	880.7	843.3	770.7	676.5	558.2	426.5	290.3	153.4	49.4	0.7
80°	819.4	814.9	785.7	719.1	628.6	510.3	386.9	253.7	125.0	32.9	0.7
82.5°	754.3	748.3	720.6	665.2	579.9	469.9	345.7	217.0	98.8	20.2	0.7
85°	695.9	688.4	658.5	607.6	529.8	424.3	303.1	181.1	73.3	11.2	1.5
87.5°	645.8	640.5	607.6	555.2	478.9	381.6	265.6	146.7	51.6	5.2	2.2
90°	603.1	591.9	562.7	507.3	431.0	334.5	226.0	117.5	34.4	3.0	3.0
92.5°	561.2	551.5	519.3	462.4	388.4	294.1	187.8	89.8	21.7	1.5	3.7
95°	517.8	507.3	475.9	423.5	345.0	252.9	154.1	65.8	12.0	1.5	3.7
97.5°	475.2	465.4	432.5	380.1	306.1	217.0	122.0	46.4	6.0	1.5	3.0
100°	435.5	424.3	394.4	342.0	267.1	181.1	94.3	29.9	3.7	1.5	3.0
102.5°	393.6	384.6	353.9	303.1	226.7	147.4	70.3	18.7	1.5	1.5	2.2
105°	356.2	345.0	315.0	262.7	193.1	116.0	49.4	11.2	1.5	1.5	2.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	232.0	223.0	196.8	152.7	98.0	45.6	13.5	2.2	2.2	2.2	2.2
115°	193.8	180.3	157.1	118.2	72.6	29.9	6.7	2.2	2.2	2.2	2.2
117.5°	154.9	143.7	127.2	89.8	47.9	19.5	3.7	2.2	2.2	2.2	2.2
120°	121.2	110.7	92.0	62.1	32.2	11.2	1.5	2.2	2.2	2.2	2.2
122.5°	86.8	78.6	62.1	40.4	19.5	5.2	2.2	2.2	3.0	3.0	2.2
125°	57.6	53.1	41.2	24.7	12.0	2.2	2.2	2.2	3.0	3.0	2.2
127.5°	37.4	33.7	23.9	14.2	5.2	2.2	2.2	3.0	3.0	3.0	2.2
130°	21.0	18.7	14.2	8.2	2.2	2.2	2.2	3.0	3.0	3.0	2.2
132.5°	12.0	11.2	7.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0
137.5°	0.7	0.7	1.5	1.5	2.2	2.2	3.0	3.7	3.7	3.7	3.0
140°	0.7	0.7	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.0
142.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
145°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
150°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
152.5°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
157.5°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
160°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.7
172.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
175°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
177.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.0
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	587.4	587.4	587.4
2.5°	559.0	548.5	545.5
5°	529.0	511.8	502.1
7.5°	499.1	475.9	464.7
10°	471.4	438.5	426.5
12.5°	438.5	400.3	381.6
15°	407.1	357.7	339.7
17.5°	371.9	316.5	295.6
20°	339.0	275.4	253.7
22.5°	301.6	235.0	211.0
25°	267.9	194.6	167.6
27.5°	230.5	153.4	130.2
30°	195.3	117.5	94.3
32.5°	161.6	86.1	65.1
35°	130.2	58.4	41.2
37.5°	100.3	35.9	21.0
40°	72.6	18.7	9.7
42.5°	48.6	9.0	5.2
45°	29.9	4.5	0.0
47.5°	17.2	0.0	0.0
50°	9.0	0.0	0.0
52.5°	3.7	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°	0.7	0.7	0.7
77.5°	0.7	1.5	2.2
80°	1.5	3.0	3.7
82.5°	3.0	3.7	3.7
85°	3.0	3.7	4.5
87.5°	3.7	4.5	5.2
90°	4.5	5.2	5.2
92.5°	4.5	6.0	6.0
95°	5.2	6.0	6.7
97.5°	6.0	6.7	6.7
100°	5.2	6.7	7.5
102.5°	4.5	6.7	6.7
105°	3.7	5.2	6.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.0	3.7	3.7
115°	2.2	3.0	3.7
117.5°	2.2	3.0	3.0
120°	2.2	2.2	3.0
122.5°	2.2	2.2	3.0
125°	2.2	2.2	3.0
127.5°	3.0	2.2	2.2
130°	2.2	2.2	2.2
132.5°	3.0	2.2	2.2
135°	3.0	2.2	2.2
137.5°	3.0	2.2	2.2
140°	3.0	2.2	2.2
142.5°	3.0	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.5
152.5°	2.2	1.5	1.5
155°	2.2	1.5	0.7
157.5°	3.0	1.5	0.7
160°	2.2	1.5	0.7
162.5°	2.2	1.5	0.7
165°	2.2	1.5	0.0
167.5°	2.2	1.5	0.7
170°	2.2	1.5	0.7
172.5°	2.2	1.5	0.7
175°	2.2	0.7	0.7
177.5°	2.2	0.7	0.7
180°	2.2	2.2	2.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	314.3	305.3	275.4	226.0	157.9	88.3	32.9	6.0	1.5	2.2	2.2
110°	273.9	266.4	235.7	187.8	127.2	65.8	21.7	3.7	2.2	2.2	2.2







107.5°	3.0	4.5	5.2
110°	3.0	3.7	4.5



(END OF REPORT)