

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: P551228

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-86-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: P551228  
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-82-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

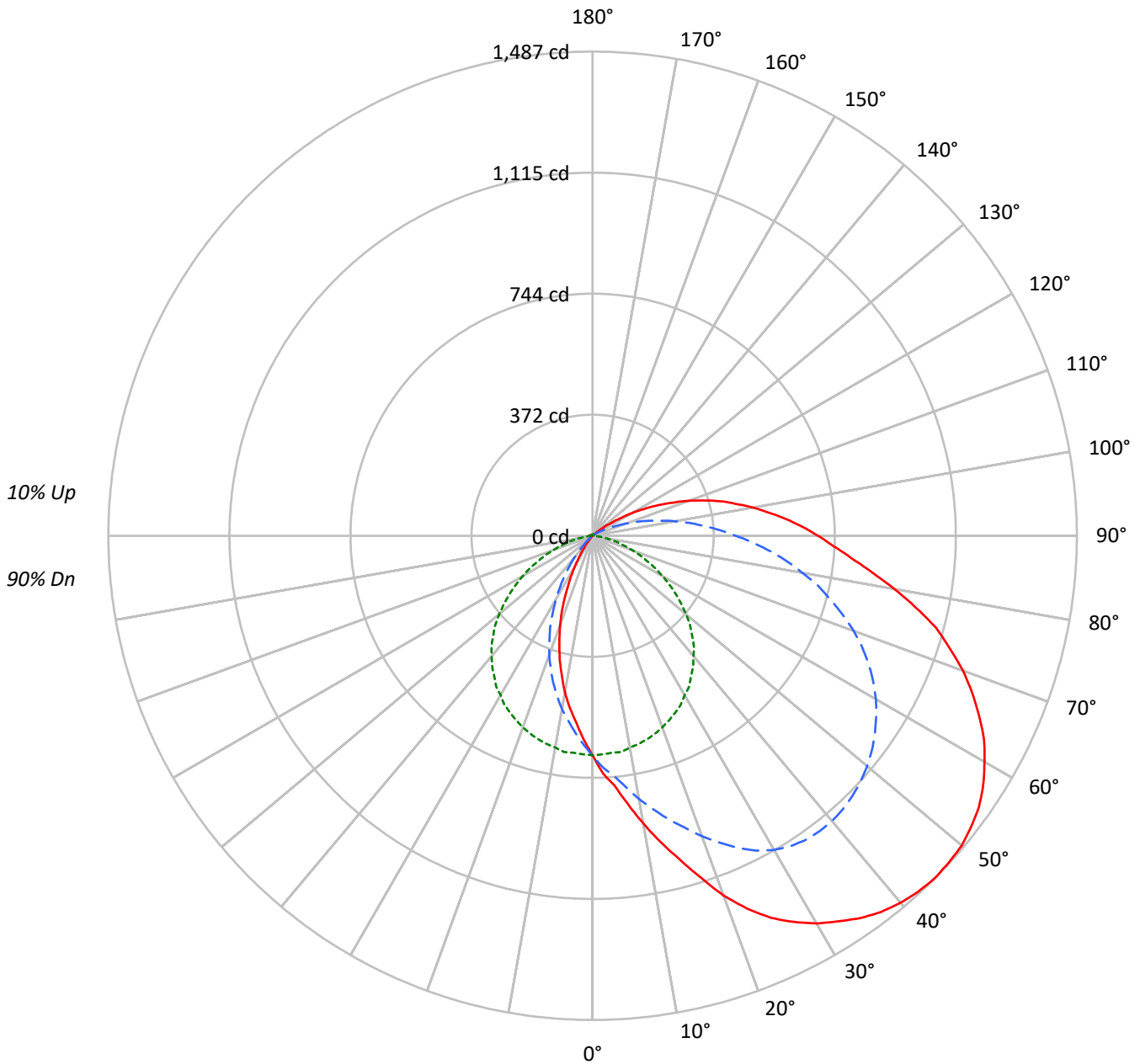
Lumens per Lamp: N/A  
Luminaire Lumens: 3333.0 lumens  
Efficiency: N/A  
Efficacy: 77.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-82-86-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°	7257	7257	7257
5°	7966	7150	5966
10°	9015	7062	4917
15°	10102	6973	3832
20°	11394	6860	2821
25°	12466	6728	1853
30°	13262	6551	1044
35°	13951	6362	459
40°	14563	6127	111
45°	15086	5833	0
50°	15528	5445	0
55°	15863	4951	0
60°	16031	4376	0
65°	16097	3726	0
70°	16044	3038	0
75°	15840	2240	13
80°	15198	1371	69
85°	14690	656	96



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.6	1.9
10°-20°	193.4	5.8
20°-30°	313.1	9.4
30°-40°	402.2	12.1
40°-50°	455.3	13.7
50°-60°	471.7	14.2
60°-70°	444.9	13.3
70°-80°	372.8	11.2
80°-90°	270.3	8.1
90°-100°	177.6	5.3
100°-110°	102.6	3.1
110°-120°	45.3	1.4
120°-130°	12.3	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°	571.1	17.1
0°-40°	973.3	29.2
0°-60°	1900.4	57.0
0°-90°	2988.3	89.7
90°-120°	325.5	9.8
90°-150°	342.4	10.3
90°-180°	345.0	10.4
0°-180°	3333.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	674	674	674	674	674	
5°	770	739	669	607	576	78
15°	1028	901	647	467	390	296
25°	1294	1058	600	308	192	598
35°	1433	1140	526	149	47	899
45°	1487	1129	431	34	0	1148
55°	1449	1058	311	0	0	1294
65°	1310	936	186	0	0	1296
75°	1092	755	79	1	1	1145
85°	799	548	13	3	5	682
90°	692	439	3	5	6	380
95°	594	343	2	6	8	466
105°	409	177	2	4	7	431
115°	222	59	3	3	4	223
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°	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2
2.5°	730.9	730.0	727.4	723.1	717.1	706.8	698.2	690.5	680.2	671.6	655.3
5°	769.5	765.2	761.8	757.5	743.8	734.3	718.8	701.7	685.4	669.0	636.4
7.5°	831.4	824.5	819.3	807.3	788.4	766.9	742.9	726.6	715.4	669.9	614.1
10°	897.5	891.5	881.2	859.7	836.5	805.6	771.2	732.6	698.2	660.4	594.3
12.5°	962.8	954.2	939.6	912.1	879.4	840.8	793.6	748.0	699.1	654.4	571.1
15°	1028.0	1018.6	1003.1	969.6	926.7	876.0	818.5	760.9	703.4	646.7	547.1
17.5°	1099.3	1086.4	1063.2	1025.4	971.3	908.6	840.8	771.2	701.7	637.3	521.3
20°	1175.7	1157.7	1132.8	1082.1	1018.6	944.7	863.1	781.5	700.8	626.1	492.1
22.5°	1239.3	1221.3	1193.8	1141.4	1065.0	974.8	882.0	788.4	697.4	613.2	464.6
25°	1294.3	1279.7	1249.6	1189.5	1108.8	1006.6	900.1	793.6	692.2	599.5	435.4
27.5°	1337.2	1323.5	1290.0	1228.1	1145.7	1034.9	913.8	796.1	685.4	585.7	405.4
30°	1375.0	1361.3	1320.9	1257.3	1170.6	1057.2	927.5	797.0	676.8	565.1	372.7
32.5°	1404.2	1391.3	1350.1	1282.2	1187.8	1072.7	935.3	796.1	665.6	550.5	337.5
35°	1433.4	1420.5	1372.4	1300.3	1200.7	1079.6	941.3	791.8	651.9	526.5	304.0
37.5°	1455.7	1441.1	1392.2	1312.3	1206.7	1081.3	940.4	785.8	637.3	506.7	270.5
40°	1471.2	1455.7	1403.3	1319.2	1208.4	1078.7	933.6	775.5	620.1	481.8	235.3
42.5°	1481.5	1464.3	1408.5	1329.5	1204.9	1071.8	923.2	762.6	601.2	460.3	201.8
45°	1486.6	1468.6	1409.3	1320.9	1198.9	1058.9	907.8	746.3	580.6	431.1	168.3
47.5°	1484.1	1464.3	1405.1	1311.4	1187.8	1045.2	890.6	726.6	555.7	405.4	136.6
50°	1479.8	1459.2	1395.6	1299.4	1172.3	1028.0	871.7	702.5	529.9	373.6	108.2
52.5°	1466.0	1445.4	1385.3	1282.2	1154.3	1008.3	846.0	677.6	502.4	342.7	82.4
55°	1448.9	1430.0	1367.3	1266.8	1131.1	984.2	821.9	651.0	475.8	310.9	59.3
57.5°	1422.2	1405.1	1344.9	1241.9	1107.9	957.6	795.3	621.8	442.3	279.1	41.2
60°	1389.6	1372.4	1314.0	1213.5	1081.3	927.5	766.1	591.7	412.2	247.3	25.8
62.5°	1355.2	1338.9	1277.9	1178.3	1047.8	895.8	734.3	561.7	380.5	218.1	15.5
65°	1309.7	1294.3	1239.3	1136.2	1010.8	861.4	699.1	525.6	347.8	185.5	8.6
67.5°	1261.6	1247.9	1192.1	1097.6	967.9	823.6	663.0	490.4	313.5	157.2	4.3
70°	1210.1	1192.9	1141.4	1045.2	924.1	780.7	623.5	454.3	280.8	129.7	0.0
72.5°	1150.0	1137.1	1087.3	996.2	873.4	735.2	583.1	414.8	244.8	103.1	0.9
75°	1091.6	1075.3	1029.7	943.9	823.6	687.1	538.5	377.9	209.6	79.0	0.9
77.5°	1016.0	1010.8	967.9	884.6	776.4	640.7	489.5	333.2	176.1	56.7	0.9
80°	940.4	935.3	901.8	825.3	721.4	585.7	444.0	291.1	143.4	37.8	0.9
82.5°	865.7	858.8	827.1	763.5	665.6	539.3	396.8	249.1	113.4	23.2	0.9
85°	798.7	790.1	755.8	697.4	608.1	487.0	347.8	207.8	84.2	12.9	1.7
87.5°	741.2	735.2	697.4	637.3	549.7	438.0	304.9	168.3	59.3	6.0	2.6
90°	692.2	679.3	645.8	582.3	494.7	383.9	259.4	134.8	39.5	3.4	3.4
92.5°	644.1	633.0	596.0	530.8	445.7	337.5	215.6	103.1	24.9	1.7	4.3
95°	594.3	582.3	546.2	486.1	395.9	290.3	176.9	75.6	13.7	1.7	4.3
97.5°	545.4	534.2	496.4	436.3	351.3	249.1	140.0	53.2	6.9	1.7	3.4
100°	499.8	487.0	452.6	392.5	306.6	207.8	108.2	34.4	4.3	1.7	3.4
102.5°	451.7	441.4	406.2	347.8	260.2	169.2	80.7	21.5	1.7	1.7	2.6
105°	408.8	395.9	361.6	301.5	221.6	133.1	56.7	12.9	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°	266.2	255.9	225.9	175.2	112.5	52.4	15.5	2.6	2.6	2.6	2.6
115°	222.4	207.0	180.4	135.7	83.3	34.4	7.7	2.6	2.6	2.6	2.6
117.5°	177.8	164.9	146.0	103.1	55.0	22.3	4.3	2.6	2.6	2.6	2.6
120°	139.1	127.1	105.6	71.3	36.9	12.9	1.7	2.6	2.6	2.6	2.6
122.5°	99.6	90.2	71.3	46.4	22.3	6.0	2.6	2.6	3.4	3.4	2.6
125°	66.1	61.0	47.2	28.3	13.7	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.9	38.6	27.5	16.3	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	24.0	21.5	16.3	9.4	2.6	2.6	2.6	3.4	3.4	3.4	2.6
132.5°	13.7	12.9	8.6	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°	674.2	674.2	674.2
2.5°	641.6	629.5	626.1
5°	607.2	587.4	576.3
7.5°	572.8	546.2	533.3
10°	541.1	503.3	489.5
12.5°	503.3	459.5	438.0
15°	467.2	410.5	389.9
17.5°	426.8	363.3	339.2
20°	389.1	316.1	291.1
22.5°	346.1	269.7	242.2
25°	307.5	223.3	192.4
27.5°	264.5	176.1	149.4
30°	224.2	134.8	108.2
32.5°	185.5	98.8	74.7
35°	149.4	67.0	47.2
37.5°	115.1	41.2	24.0
40°	83.3	21.5	11.2
42.5°	55.8	10.3	6.0
45°	34.4	5.2	0.0
47.5°	19.8	0.0	0.0
50°	10.3	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	5.2
87.5°	4.3	5.2	6.0
90°	5.2	6.0	6.0
92.5°	5.2	6.9	6.9
95°	6.0	6.9	7.7
97.5°	6.9	7.7	7.7
100°	6.0	7.7	8.6
102.5°	5.2	7.7	7.7
105°	4.3	6.0	6.9





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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°	360.7	350.4	316.1	259.4	181.2	101.3	37.8	6.9	1.7	2.6	2.6
110°	314.3	305.7	270.5	215.6	146.0	75.6	24.9	4.3	2.6	2.6	2.6







107.5°	3.4	5.2	6.0
110°	3.4	4.3	5.2



(END OF REPORT)