

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: P551223

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-84-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: P551223
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-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

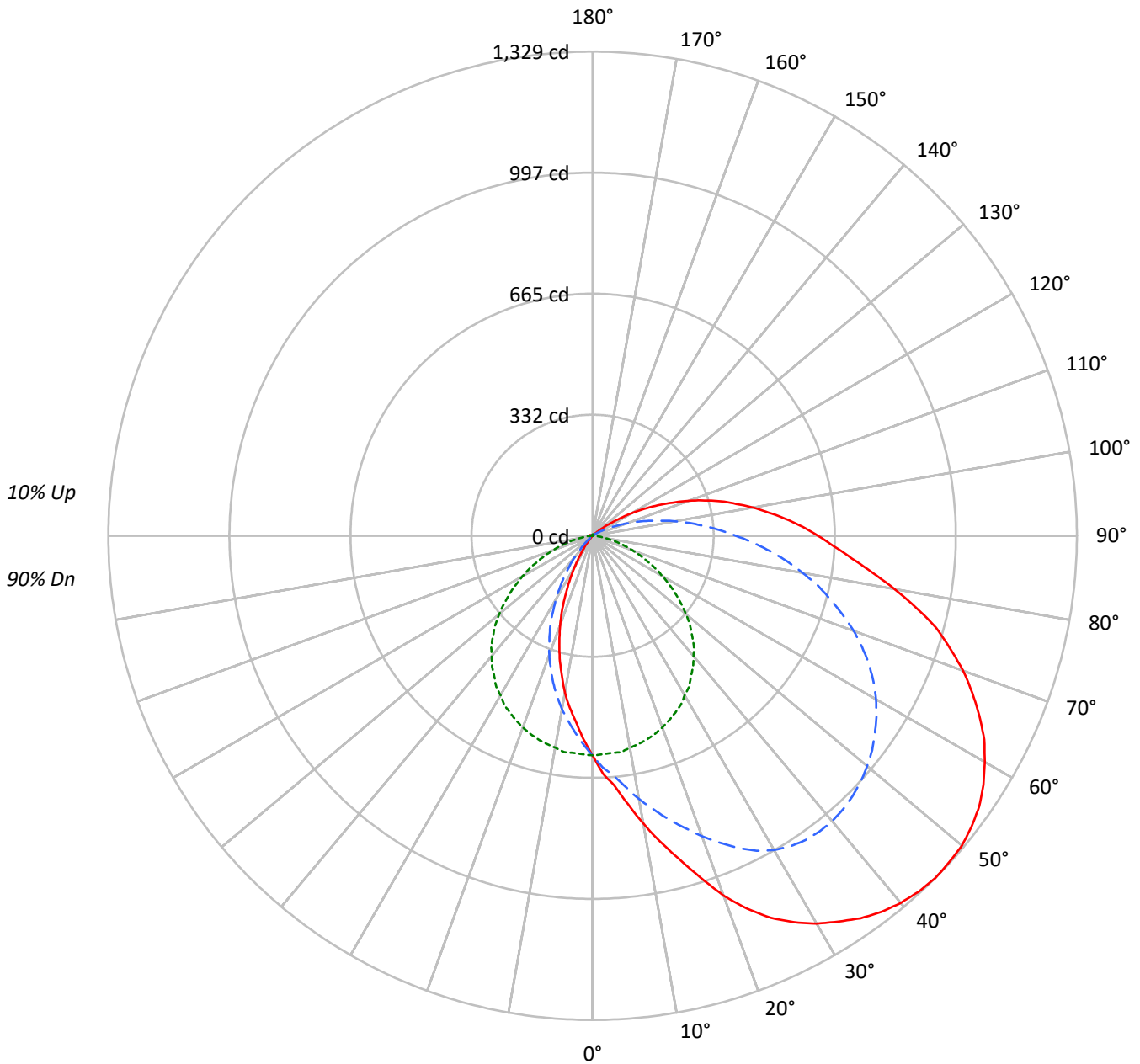
Lumens per Lamp: N/A
Luminaire Lumens: 2980.0 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-84-ED1D-90

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°	6488	6488	6488
5°	7122	6394	5333
10°	8060	6315	4396
15°	9032	6234	3426
20°	10187	6133	2523
25°	11145	6015	1657
30°	11857	5858	934
35°	12474	5687	411
40°	13020	5479	99
45°	13489	5216	0
50°	13882	4868	0
55°	14183	4427	0
60°	14333	3913	0
65°	14392	3332	0
70°	14344	2715	0
75°	14163	2002	12
80°	13588	1226	61
85°	13134	585	85



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.7	1.9
10°-20°	172.9	5.8
20°-30°	280.0	9.4
30°-40°	359.6	12.1
40°-50°	407.1	13.7
50°-60°	421.8	14.2
60°-70°	397.8	13.3
70°-80°	333.3	11.2
80°-90°	241.6	8.1
90°-100°	158.8	5.3
100°-110°	91.7	3.1
110°-120°	40.5	1.4
120°-130°	11.0	0.4
130°-140°	2.5	0.1
140°-150°	1.6	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	510.6	17.1
0°-40°	870.2	29.2
0°-60°	1699.1	57.0
0°-90°	2671.8	89.7
90°-120°	291.0	9.8
90°-150°	306.1	10.3
90°-180°	308.0	10.3
0°-180°	2980.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	603	603	603	603	603	
5°	688	661	598	543	515	69
15°	919	806	578	418	349	265
25°	1157	946	536	275	172	535
35°	1282	1019	471	134	42	804
45°	1329	1009	386	31	0	1026
55°	1295	946	278	0	0	1157
65°	1171	837	166	0	0	1159
75°	976	675	71	1	1	1024
85°	714	490	12	3	5	610
90°	619	393	3	5	5	339
95°	531	307	2	5	7	417
105°	366	159	2	4	6	386
115°	199	53	2	2	4	199
125°	59	7	3	2	3	59
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°	602.8	602.8	602.8	602.8	602.8	602.8	602.8	602.8	602.8	602.8	602.8
2.5°	653.5	652.7	650.4	646.6	641.2	632.0	624.3	617.4	608.2	600.5	585.9
5°	688.0	684.2	681.1	677.3	665.0	656.5	642.7	627.4	612.8	598.2	569.0
7.5°	743.3	737.2	732.6	721.8	704.9	685.7	664.2	649.6	639.6	598.9	549.0
10°	802.4	797.1	787.8	768.6	747.9	720.3	689.6	655.0	624.3	590.5	531.4
12.5°	860.8	853.1	840.1	815.5	786.3	751.8	709.5	668.8	625.1	585.1	510.6
15°	919.1	910.7	896.9	866.9	828.5	783.2	731.8	680.3	628.9	578.2	489.1
17.5°	982.9	971.4	950.6	916.8	868.5	812.4	751.8	689.6	627.4	569.8	466.1
20°	1051.2	1035.1	1012.8	967.5	910.7	844.7	771.7	698.8	626.6	559.8	440.0
22.5°	1108.0	1091.9	1067.3	1020.5	952.2	871.5	788.6	704.9	623.5	548.3	415.4
25°	1157.2	1144.1	1117.3	1063.5	991.3	900.0	804.7	709.5	618.9	536.0	389.3
27.5°	1195.6	1183.3	1153.3	1098.1	1024.3	925.3	817.0	711.8	612.8	523.7	362.4
30°	1229.4	1217.1	1181.0	1124.2	1046.6	945.3	829.3	712.6	605.1	505.3	333.3
32.5°	1255.5	1244.0	1207.1	1146.4	1062.0	959.1	836.2	711.8	595.1	492.2	301.8
35°	1281.6	1270.1	1227.1	1162.6	1073.5	965.2	841.6	708.0	582.8	470.7	271.8
37.5°	1301.5	1288.5	1244.7	1173.3	1078.9	966.8	840.8	702.6	569.8	453.0	241.9
40°	1315.4	1301.5	1254.7	1179.5	1080.4	964.5	834.7	693.4	554.4	430.8	210.4
42.5°	1324.6	1309.2	1259.3	1188.7	1077.3	958.3	825.5	681.9	537.5	411.6	180.5
45°	1329.2	1313.1	1260.1	1181.0	1072.0	946.8	811.6	667.3	519.1	385.5	150.5
47.5°	1326.9	1309.2	1256.2	1172.5	1062.0	934.5	796.3	649.6	496.8	362.4	122.1
50°	1323.0	1304.6	1247.8	1161.8	1048.2	919.1	779.4	628.1	473.8	334.0	96.8
52.5°	1310.8	1292.3	1238.6	1146.4	1032.0	901.5	756.4	605.9	449.2	306.4	73.7
55°	1295.4	1278.5	1222.5	1132.6	1011.3	880.0	734.9	582.0	425.4	278.0	53.0
57.5°	1271.6	1256.2	1202.5	1110.3	990.6	856.2	711.1	555.9	395.5	249.6	36.9
60°	1242.4	1227.1	1174.8	1085.0	966.8	829.3	684.9	529.1	368.6	221.1	23.0
62.5°	1211.7	1197.1	1142.6	1053.5	936.8	800.9	656.5	502.2	340.2	195.0	13.8
65°	1171.0	1157.2	1108.0	1015.9	903.8	770.2	625.1	469.9	311.0	165.9	7.7
67.5°	1128.0	1115.7	1065.8	981.3	865.4	736.4	592.8	438.5	280.3	140.5	3.8
70°	1081.9	1066.6	1020.5	934.5	826.2	698.0	557.5	406.2	251.1	115.9	0.0
72.5°	1028.2	1016.7	972.1	890.7	780.9	657.3	521.4	370.9	218.8	92.1	0.8
75°	976.0	961.4	920.7	843.9	736.4	614.3	481.5	337.9	187.4	70.6	0.8
77.5°	908.4	903.8	865.4	790.9	694.2	572.8	437.7	297.9	157.4	50.7	0.8
80°	840.8	836.2	806.3	737.9	645.0	523.7	397.0	260.3	128.2	33.8	0.8
82.5°	774.0	767.9	739.5	682.6	595.1	482.2	354.8	222.7	101.4	20.7	0.8
85°	714.1	706.4	675.7	623.5	543.7	435.4	311.0	185.8	75.3	11.5	1.5
87.5°	662.7	657.3	623.5	569.8	491.4	391.6	272.6	150.5	53.0	5.4	2.3
90°	618.9	607.4	577.4	520.6	442.3	343.2	231.9	120.6	35.3	3.1	3.1
92.5°	575.9	565.9	532.9	474.5	398.5	301.8	192.7	92.1	22.3	1.5	3.8
95°	531.4	520.6	488.4	434.6	354.0	259.5	158.2	67.6	12.3	1.5	3.8
97.5°	487.6	477.6	443.8	390.1	314.1	222.7	125.2	47.6	6.1	1.5	3.1
100°	446.9	435.4	404.7	350.9	274.1	185.8	96.8	30.7	3.8	1.5	3.1
102.5°	403.9	394.7	363.2	311.0	232.7	151.3	72.2	19.2	1.5	1.5	2.3
105°	365.5	354.0	323.3	269.5	198.1	119.0	50.7	11.5	1.5	1.5	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	238.0	228.8	202.0	156.6	100.6	46.8	13.8	2.3	2.3	2.3	2.3
115°	198.9	185.1	161.3	121.3	74.5	30.7	6.9	2.3	2.3	2.3	2.3
117.5°	159.0	147.4	130.5	92.1	49.1	20.0	3.8	2.3	2.3	2.3	2.3
120°	124.4	113.6	94.4	63.7	33.0	11.5	1.5	2.3	2.3	2.3	2.3
122.5°	89.1	80.6	63.7	41.5	20.0	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.1	54.5	42.2	25.3	12.3	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.4	34.6	24.6	14.6	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.5	19.2	14.6	8.4	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.3	11.5	7.7	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.1	3.8	3.8	3.8	3.1
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.1	3.8	3.8	3.8	3.1
142.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
145°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.1	3.1	3.1
147.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.1	3.1
150°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
152.5°	0.8	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.1
155°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
157.5°	1.5	1.5	1.5	2.3	3.1	3.1	3.1	3.8	3.1	3.1	3.8
160°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.5	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.5	1.5	1.5	2.3	2.3	2.3	3.1	3.8	3.8	3.8	3.8
172.5°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
175°	1.5	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.8
177.5°	0.8	1.5	1.5	2.3	2.3	3.1	3.1	3.8	3.8	3.8	3.1
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	602.8	602.8	602.8
2.5°	573.6	562.9	559.8
5°	542.9	525.2	515.2
7.5°	512.2	488.4	476.9
10°	483.8	450.0	437.7
12.5°	450.0	410.8	391.6
15°	417.7	367.0	348.6
17.5°	381.6	324.8	303.3
20°	347.8	282.6	260.3
22.5°	309.5	241.1	216.5
25°	274.9	199.6	172.0
27.5°	236.5	157.4	133.6
30°	200.4	120.6	96.8
32.5°	165.9	88.3	66.8
35°	133.6	59.9	42.2
37.5°	102.9	36.9	21.5
40°	74.5	19.2	10.0
42.5°	49.9	9.2	5.4
45°	30.7	4.6	0.0
47.5°	17.7	0.0	0.0
50°	9.2	0.0	0.0
52.5°	3.8	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	1.5	2.3
80°	1.5	3.1	3.8
82.5°	3.1	3.8	3.8
85°	3.1	3.8	4.6
87.5°	3.8	4.6	5.4
90°	4.6	5.4	5.4
92.5°	4.6	6.1	6.1
95°	5.4	6.1	6.9
97.5°	6.1	6.9	6.9
100°	5.4	6.9	7.7
102.5°	4.6	6.9	6.9
105°	3.8	5.4	6.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.1	3.8	3.8
115°	2.3	3.1	3.8
117.5°	2.3	3.1	3.1
120°	2.3	2.3	3.1
122.5°	2.3	2.3	3.1
125°	2.3	2.3	3.1
127.5°	3.1	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.1	2.3	2.3
135°	3.1	2.3	2.3
137.5°	3.1	2.3	2.3
140°	3.1	2.3	2.3
142.5°	3.1	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.5
152.5°	2.3	1.5	1.5
155°	2.3	1.5	0.8
157.5°	3.1	1.5	0.8
160°	2.3	1.5	0.8
162.5°	2.3	1.5	0.8
165°	2.3	1.5	0.0
167.5°	2.3	1.5	0.8
170°	2.3	1.5	0.8
172.5°	2.3	1.5	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	322.5	313.3	282.6	231.9	162.0	90.6	33.8	6.1	1.5	2.3	2.3
110°	281.0	273.4	241.9	192.7	130.5	67.6	22.3	3.8	2.3	2.3	2.3





107.5°	3.1	4.6	5.4
110°	3.1	3.8	4.6



(END OF REPORT)