

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: P551347

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-96-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: P551347
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-81-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

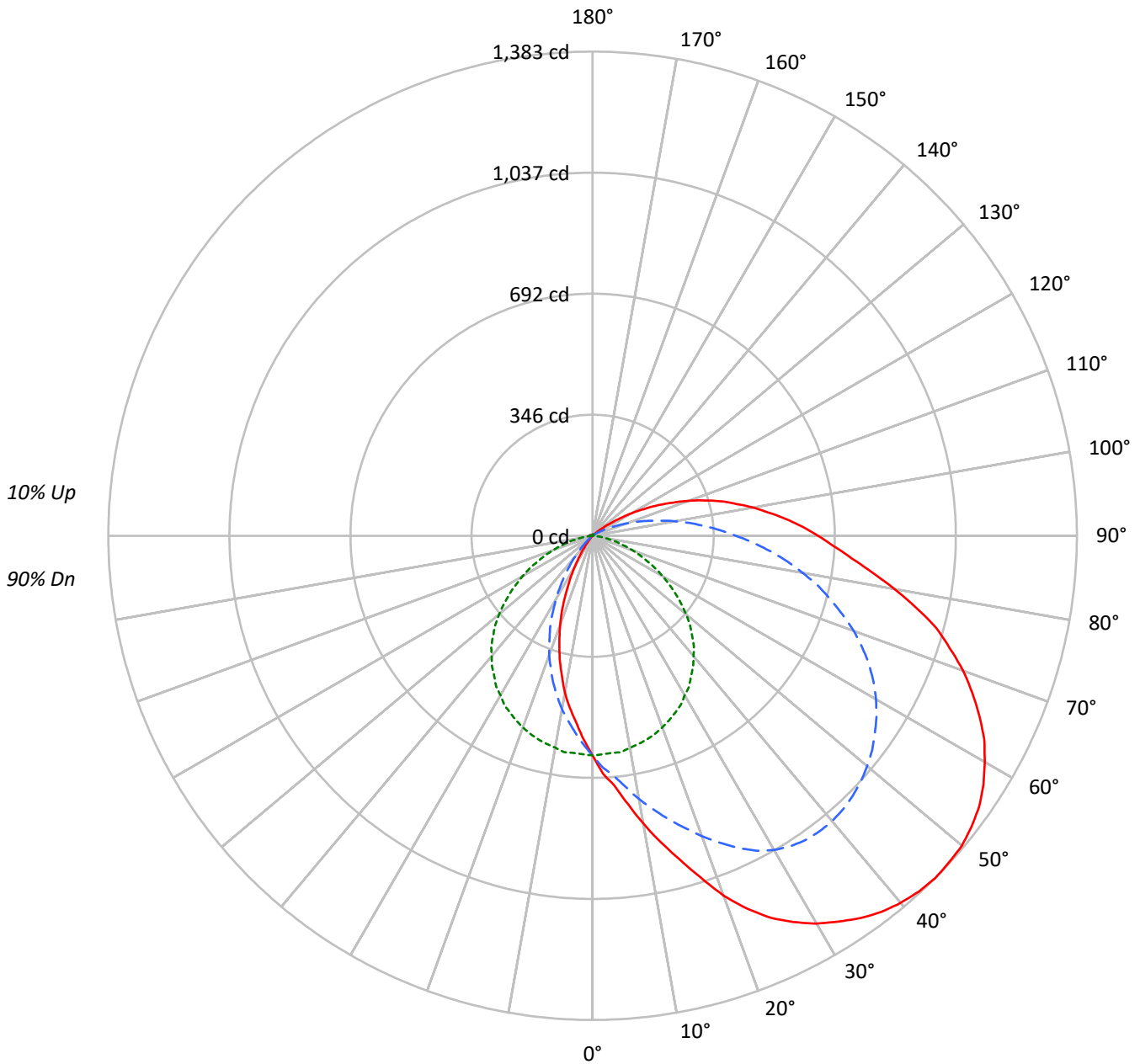
Lumens per Lamp: N/A
Luminaire Lumens: 3101.0 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{in}): 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: P551347

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-96-ED1D-90

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°	6752	6752	6752
5°	7412	6653	5551
10°	8387	6572	4575
15°	9400	6488	3565
20°	10601	6382	2625
25°	11598	6259	1724
30°	12339	6095	971
35°	12980	5918	427
40°	13549	5701	103
45°	14037	5427	0
50°	14447	5066	0
55°	14758	4607	0
60°	14916	4072	0
65°	14978	3467	0
70°	14927	2828	0
75°	14737	2084	12
80°	14141	1277	65
85°	13667	610	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	1.9
10°-20°	179.9	5.8
20°-30°	291.3	9.4
30°-40°	374.2	12.1
40°-50°	423.6	13.7
50°-60°	438.9	14.2
60°-70°	413.9	13.3
70°-80°	346.9	11.2
80°-90°	251.4	8.1
90°-100°	165.3	5.3
100°-110°	95.4	3.1
110°-120°	42.1	1.4
120°-130°	11.4	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°	531.3	17.1
0°-40°	905.6	29.2
0°-60°	1768.1	57.0
0°-90°	2780.3	89.7
90°-120°	302.8	9.8
90°-150°	318.6	10.3
90°-180°	321.0	10.4
0°-180°	3101.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	627	627	627	627	627	
5°	716	688	622	565	536	72
15°	956	839	602	435	363	276
25°	1204	984	558	286	179	557
35°	1334	1061	490	139	44	836
45°	1383	1050	401	32	0	1068
55°	1348	984	289	0	0	1204
65°	1219	871	173	0	0	1206
75°	1016	703	74	1	1	1065
85°	743	509	12	3	5	635
90°	644	409	3	5	6	353
95°	553	319	2	6	7	434
105°	380	165	2	4	6	401
115°	207	55	2	2	4	207
125°	62	8	3	2	3	61
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°	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.3
2.5°	680.0	679.2	676.8	672.8	667.2	657.6	649.6	642.4	632.9	624.9	609.7
5°	716.0	712.0	708.8	704.8	692.0	683.2	668.8	652.8	637.6	622.5	592.1
7.5°	773.5	767.1	762.3	751.1	733.5	713.6	691.2	676.0	665.6	623.3	571.3
10°	835.0	829.4	819.8	799.9	778.3	749.5	717.6	681.6	649.6	614.5	552.9
12.5°	895.7	887.7	874.2	848.6	818.2	782.3	738.3	696.0	650.4	608.9	531.4
15°	956.5	947.7	933.3	902.1	862.2	815.0	761.5	708.0	654.4	601.7	509.0
17.5°	1022.8	1010.8	989.2	954.1	903.7	845.4	782.3	717.6	652.8	592.9	485.0
20°	1093.9	1077.1	1054.0	1006.8	947.7	879.0	803.0	727.1	652.0	582.5	457.9
22.5°	1153.0	1136.3	1110.7	1061.9	990.8	906.9	820.6	733.5	648.8	570.5	432.3
25°	1204.2	1190.6	1162.6	1106.7	1031.6	936.5	837.4	738.3	644.0	557.7	405.1
27.5°	1244.1	1231.3	1200.2	1142.6	1065.9	962.9	850.2	740.7	637.6	545.0	377.2
30°	1279.3	1266.5	1228.9	1169.8	1089.1	983.6	863.0	741.5	629.7	525.8	346.8
32.5°	1306.5	1294.5	1256.1	1193.0	1105.1	998.0	870.2	740.7	619.3	512.2	314.0
35°	1333.6	1321.6	1276.9	1209.8	1117.1	1004.4	875.8	736.7	606.5	489.8	282.9
37.5°	1354.4	1340.8	1295.3	1221.0	1122.7	1006.0	875.0	731.1	592.9	471.4	251.7
40°	1368.8	1354.4	1305.7	1227.3	1124.3	1003.6	868.6	721.5	576.9	448.3	218.9
42.5°	1378.4	1362.4	1310.4	1236.9	1121.1	997.2	859.0	709.6	559.3	428.3	187.8
45°	1383.2	1366.4	1311.2	1228.9	1115.5	985.2	844.6	694.4	540.2	401.1	156.6
47.5°	1380.8	1362.4	1307.3	1220.2	1105.1	972.4	828.6	676.0	517.0	377.2	127.0
50°	1376.8	1357.6	1298.5	1209.0	1090.7	956.5	811.0	653.6	493.0	347.6	100.7
52.5°	1364.0	1344.8	1288.9	1193.0	1073.9	938.1	787.1	630.5	467.4	318.8	76.7
55°	1348.0	1330.4	1272.1	1178.6	1052.4	915.7	764.7	605.7	442.7	289.3	55.1
57.5°	1323.2	1307.3	1251.3	1155.4	1030.8	890.9	739.9	578.5	411.5	259.7	38.4
60°	1292.9	1276.9	1222.6	1129.1	1006.0	863.0	712.8	550.5	383.5	230.1	24.0
62.5°	1260.9	1245.7	1189.0	1096.3	974.8	833.4	683.2	522.6	354.0	203.0	14.4
65°	1218.6	1204.2	1153.0	1057.1	940.5	801.5	650.4	489.0	323.6	172.6	8.0
67.5°	1173.8	1161.0	1109.1	1021.2	900.5	766.3	616.9	456.3	291.7	146.2	4.0
70°	1125.9	1109.9	1061.9	972.4	859.8	726.3	580.1	422.7	261.3	120.7	0.0
72.5°	1069.9	1057.9	1011.6	926.9	812.6	684.0	542.6	385.9	227.7	95.9	0.8
75°	1015.6	1000.4	958.1	878.2	766.3	639.2	501.0	351.6	195.0	73.5	0.8
77.5°	945.3	940.5	900.5	823.0	722.3	596.1	455.5	310.0	163.8	52.7	0.8
80°	875.0	870.2	839.0	767.9	671.2	545.0	413.1	270.9	133.4	35.2	0.8
82.5°	805.4	799.1	769.5	710.4	619.3	501.8	369.2	231.7	105.5	21.6	0.8
85°	743.1	735.1	703.2	648.8	565.7	453.1	323.6	193.4	78.3	12.0	1.6
87.5°	689.6	684.0	648.8	592.9	511.4	407.5	283.7	156.6	55.1	5.6	2.4
90°	644.0	632.1	600.9	541.8	460.3	357.2	241.3	125.5	36.8	3.2	3.2
92.5°	599.3	588.9	554.5	493.8	414.7	314.0	200.6	95.9	23.2	1.6	4.0
95°	552.9	541.8	508.2	452.3	368.4	270.1	164.6	70.3	12.8	1.6	4.0
97.5°	507.4	497.0	461.9	405.9	326.8	231.7	130.2	49.5	6.4	1.6	3.2
100°	465.0	453.1	421.1	365.2	285.3	193.4	100.7	32.0	4.0	1.6	3.2
102.5°	420.3	410.7	378.0	323.6	242.1	157.4	75.1	20.0	1.6	1.6	2.4
105°	380.3	368.4	336.4	280.5	206.2	123.9	52.7	12.0	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°	247.7	238.1	210.2	163.0	104.7	48.7	14.4	2.4	2.4	2.4	2.4
115°	207.0	192.6	167.8	126.3	77.5	32.0	7.2	2.4	2.4	2.4	2.4
117.5°	165.4	153.4	135.8	95.9	51.1	20.8	4.0	2.4	2.4	2.4	2.4
120°	129.4	118.3	98.3	66.3	34.4	12.0	1.6	2.4	2.4	2.4	2.4
122.5°	92.7	83.9	66.3	43.1	20.8	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.5	56.7	43.9	26.4	12.8	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.0	36.0	25.6	15.2	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.4	20.0	15.2	8.8	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.8	12.0	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°	627.3	627.3	627.3
2.5°	596.9	585.7	582.5
5°	564.9	546.6	536.2
7.5°	533.0	508.2	496.2
10°	503.4	468.2	455.5
12.5°	468.2	427.5	407.5
15°	434.7	381.9	362.8
17.5°	397.1	338.0	315.6
20°	362.0	294.1	270.9
22.5°	322.0	250.9	225.3
25°	286.1	207.8	179.0
27.5°	246.1	163.8	139.0
30°	208.6	125.5	100.7
32.5°	172.6	91.9	69.5
35°	139.0	62.3	43.9
37.5°	107.1	38.4	22.4
40°	77.5	20.0	10.4
42.5°	51.9	9.6	5.6
45°	32.0	4.8	0.0
47.5°	18.4	0.0	0.0
50°	9.6	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°	335.6	326.0	294.1	241.3	168.6	94.3	35.2	6.4	1.6	2.4	2.4
110°	292.5	284.5	251.7	200.6	135.8	70.3	23.2	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)