

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: P551335

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-84-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: P551335
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-81-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

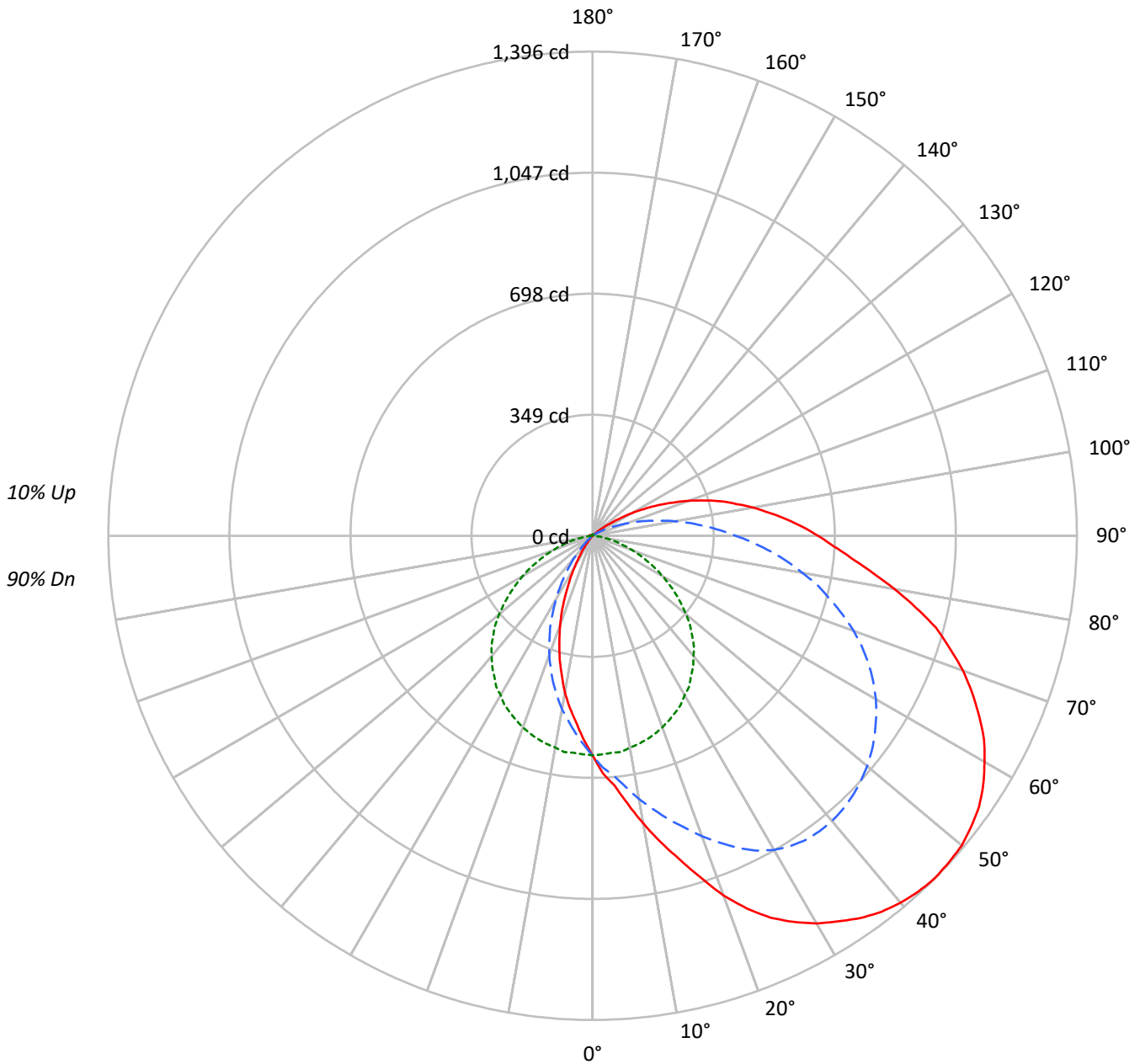
Lumens per Lamp: N/A
Luminaire Lumens: 3128.9 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-84-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°	6812	6812	6812
5°	7478	6713	5601
10°	8463	6630	4616
15°	9484	6546	3597
20°	10697	6440	2649
25°	11702	6316	1739
30°	12450	6150	980
35°	13097	5971	431
40°	13671	5752	104
45°	14164	5476	0
50°	14577	5111	0
55°	14892	4648	0
60°	15050	4109	0
65°	15113	3499	0
70°	15061	2851	0
75°	14871	2104	12
80°	14268	1288	65
85°	13790	615	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	1.9
10°-20°	181.5	5.8
20°-30°	294.0	9.4
30°-40°	377.6	12.1
40°-50°	427.5	13.7
50°-60°	442.9	14.2
60°-70°	417.7	13.3
70°-80°	350.0	11.2
80°-90°	253.7	8.1
90°-100°	166.8	5.3
100°-110°	96.3	3.1
110°-120°	42.5	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°	536.1	17.1
0°-40°	913.7	29.2
0°-60°	1784.1	57.0
0°-90°	2805.4	89.7
90°-120°	305.5	9.8
90°-150°	321.4	10.3
90°-180°	324.0	10.4
0°-180°	3128.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	633	633	633	633	633	
5°	722	694	628	570	541	73
15°	965	846	607	439	366	278
25°	1215	993	563	289	181	562
35°	1346	1070	494	140	44	844
45°	1396	1060	405	32	0	1077
55°	1360	993	292	0	0	1215
65°	1230	879	174	0	0	1217
75°	1025	709	74	1	1	1075
85°	750	514	12	3	5	640
90°	650	412	3	5	6	356
95°	558	322	2	6	7	438
105°	384	166	2	4	6	405
115°	209	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°	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9
2.5°	686.1	685.3	682.9	678.9	673.2	663.6	655.5	648.2	638.6	630.5	615.2
5°	722.4	718.4	715.2	711.1	698.2	689.4	674.8	658.7	643.4	628.1	597.4
7.5°	780.5	774.0	769.2	757.9	740.2	720.0	697.4	682.1	671.6	628.9	576.5
10°	842.6	836.9	827.2	807.1	785.3	756.3	724.0	687.7	655.5	620.0	557.9
12.5°	903.8	895.8	882.1	856.3	825.6	789.3	745.0	702.3	656.3	614.4	536.2
15°	965.1	956.2	941.7	910.3	870.0	822.4	768.4	714.4	660.3	607.1	513.6
17.5°	1032.0	1019.9	998.2	962.7	911.9	853.0	789.3	724.0	658.7	598.3	489.4
20°	1103.8	1086.9	1063.5	1015.9	956.2	886.9	810.3	733.7	657.9	587.8	462.0
22.5°	1163.4	1146.5	1120.7	1071.5	999.8	915.1	828.0	740.2	654.7	575.7	436.2
25°	1215.0	1201.3	1173.1	1116.7	1040.9	944.9	845.0	745.0	649.9	562.8	408.8
27.5°	1255.4	1242.5	1211.0	1153.0	1075.6	971.6	857.9	747.4	643.4	549.9	380.6
30°	1290.8	1277.9	1240.0	1180.4	1098.9	992.5	870.8	748.2	635.3	530.5	349.9
32.5°	1318.3	1306.2	1267.5	1203.8	1115.1	1007.0	878.0	747.4	624.9	516.8	316.9
35°	1345.7	1333.6	1288.4	1220.7	1127.2	1013.5	883.7	743.4	612.0	494.2	285.4
37.5°	1366.6	1352.9	1307.0	1232.0	1132.8	1015.1	882.9	737.7	598.3	475.7	254.0
40°	1381.1	1366.6	1317.4	1238.4	1134.4	1012.7	876.4	728.1	582.1	452.3	220.9
42.5°	1390.8	1374.7	1322.3	1248.1	1131.2	1006.2	866.7	716.0	564.4	432.2	189.5
45°	1395.7	1378.7	1323.1	1240.0	1125.6	994.1	852.2	700.6	545.0	404.7	158.0
47.5°	1393.2	1374.7	1319.1	1231.2	1115.1	981.2	836.1	682.1	521.7	380.6	128.2
50°	1389.2	1369.9	1310.2	1219.9	1100.6	965.1	818.4	659.5	497.5	350.7	101.6
52.5°	1376.3	1357.0	1300.5	1203.8	1083.6	946.6	794.2	636.1	471.7	321.7	77.4
55°	1360.2	1342.4	1283.6	1189.2	1061.9	924.0	771.6	611.2	446.7	291.9	55.6
57.5°	1335.2	1319.1	1262.6	1165.9	1040.1	899.0	746.6	583.7	415.2	262.0	38.7
60°	1304.5	1288.4	1233.6	1139.3	1015.1	870.8	719.2	555.5	387.0	232.2	24.2
62.5°	1272.3	1257.0	1199.7	1106.2	983.6	840.9	689.4	527.3	357.2	204.8	14.5
65°	1229.6	1215.0	1163.4	1066.7	949.0	808.7	656.3	493.4	326.5	174.2	8.1
67.5°	1184.4	1171.5	1119.1	1030.4	908.7	773.2	622.4	460.4	294.3	147.5	4.0
70°	1136.0	1119.9	1071.5	981.2	867.5	732.9	585.4	426.5	263.7	121.7	0.0
72.5°	1079.6	1067.5	1020.7	935.3	820.0	690.2	547.5	389.4	229.8	96.8	0.8
75°	1024.8	1009.4	966.7	886.1	773.2	645.0	505.5	354.8	196.7	74.2	0.8
77.5°	953.8	949.0	908.7	830.5	728.9	601.5	459.6	312.8	165.3	53.2	0.8
80°	882.9	878.0	846.6	774.8	677.3	549.9	416.8	273.3	134.6	35.5	0.8
82.5°	812.7	806.3	776.4	716.8	624.9	506.3	372.5	233.8	106.4	21.8	0.8
85°	749.8	741.8	709.5	654.7	570.8	457.2	326.5	195.1	79.0	12.1	1.6
87.5°	695.8	690.2	654.7	598.3	516.0	411.2	286.2	158.0	55.6	5.6	2.4
90°	649.9	637.8	606.3	546.7	464.4	360.4	243.5	126.6	37.1	3.2	3.2
92.5°	604.7	594.2	559.6	498.3	418.5	316.9	202.4	96.8	23.4	1.6	4.0
95°	557.9	546.7	512.8	456.3	371.7	272.5	166.1	71.0	12.9	1.6	4.0
97.5°	512.0	501.5	466.0	409.6	329.8	233.8	131.4	50.0	6.5	1.6	3.2
100°	469.2	457.2	424.9	368.5	287.8	195.1	101.6	32.3	4.0	1.6	3.2
102.5°	424.1	414.4	381.4	326.5	244.3	158.8	75.8	20.2	1.6	1.6	2.4
105°	383.8	371.7	339.4	283.0	208.0	125.0	53.2	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°	249.9	240.3	212.0	164.5	105.6	49.2	14.5	2.4	2.4	2.4	2.4
115°	208.8	194.3	169.3	127.4	78.2	32.3	7.3	2.4	2.4	2.4	2.4
117.5°	166.9	154.8	137.1	96.8	51.6	21.0	4.0	2.4	2.4	2.4	2.4
120°	130.6	119.3	99.2	66.9	34.7	12.1	1.6	2.4	2.4	2.4	2.4
122.5°	93.5	84.7	66.9	43.5	21.0	5.6	2.4	2.4	3.2	3.2	2.4
125°	62.1	57.2	44.3	26.6	12.9	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.3	36.3	25.8	15.3	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.6	20.2	15.3	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.9	12.1	8.1	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



TEST NUMBER: P551335

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	632.9	632.9	632.9
2.5°	602.3	591.0	587.8
5°	570.0	551.5	541.0
7.5°	537.8	512.8	500.7
10°	507.9	472.5	459.6
12.5°	472.5	431.4	411.2
15°	438.6	385.4	366.0
17.5°	400.7	341.1	318.5
20°	365.2	296.7	273.3
22.5°	324.9	253.2	227.4
25°	288.6	209.6	180.6
27.5°	248.3	165.3	140.3
30°	210.4	126.6	101.6
32.5°	174.2	92.7	70.1
35°	140.3	62.9	44.3
37.5°	108.0	38.7	22.6
40°	78.2	20.2	10.5
42.5°	52.4	9.7	5.6
45°	32.3	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	6.5	6.5
95°	5.6	6.5	7.3
97.5°	6.5	7.3	7.3
100°	5.6	7.3	8.1
102.5°	4.8	7.3	7.3
105°	4.0	5.6	6.5



TEST NUMBER: P551335

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-84-ED1D-90

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°	338.6	329.0	296.7	243.5	170.1	95.1	35.5	6.5	1.6	2.4	2.4
110°	295.1	287.0	254.0	202.4	137.1	71.0	23.4	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)