

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: P551342

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-87-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: P551342
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-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

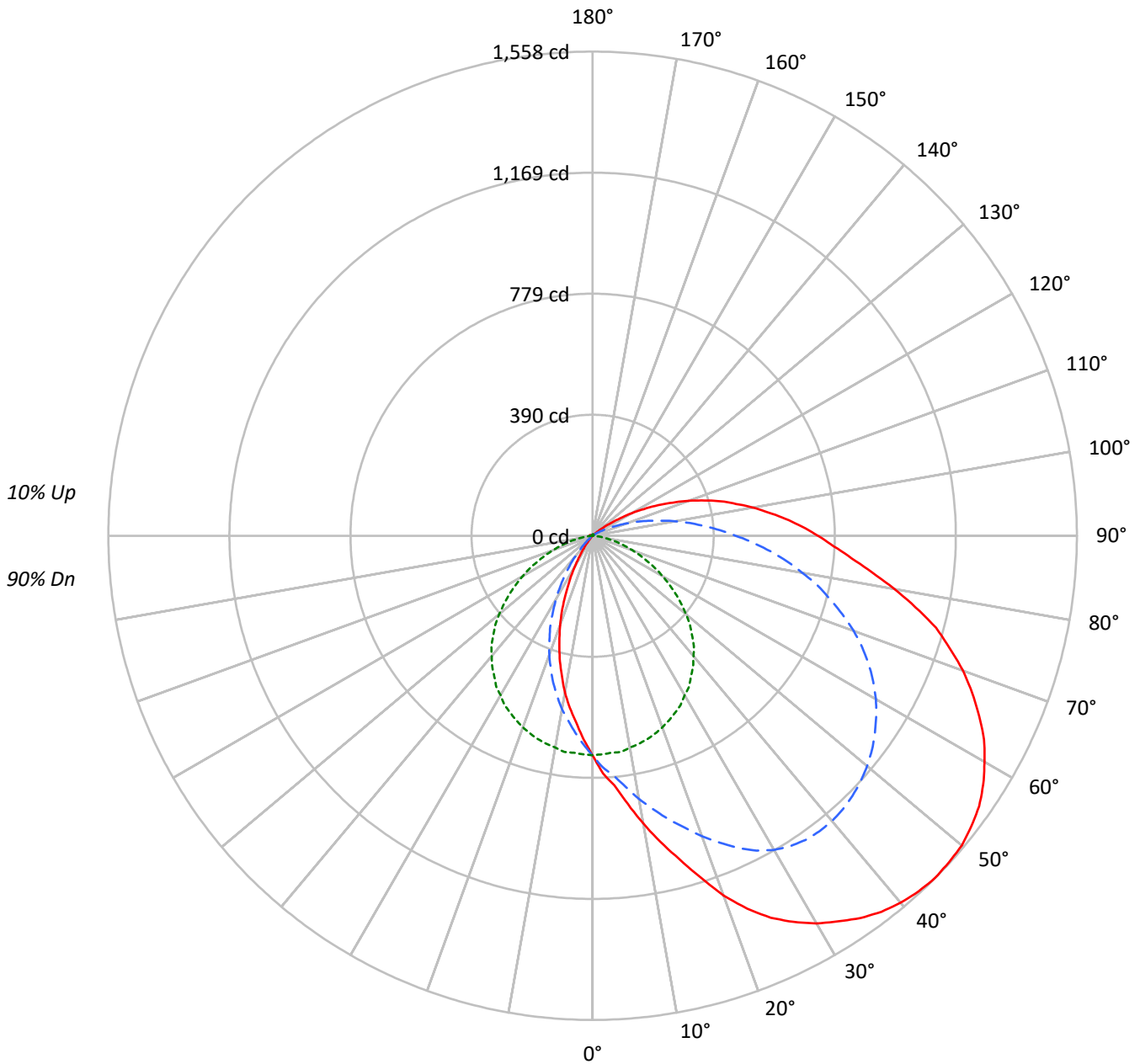
Lumens per Lamp: N/A
Luminaire Lumens: 3492.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P551342

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-87-ED1D

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°	7603	7603	7603
5°	8346	7491	6251
10°	9445	7400	5152
15°	10585	7306	4014
20°	11937	7187	2956
25°	13060	7049	1942
30°	13894	6864	1094
35°	14617	6665	482
40°	15257	6420	116
45°	15807	6112	0
50°	16268	5704	0
55°	16620	5186	0
60°	16796	4585	0
65°	16865	3905	0
70°	16809	3184	0
75°	16596	2348	13
80°	15923	1436	73
85°	15390	686	99



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.7	1.9
10°-20°	202.6	5.8
20°-30°	328.1	9.4
30°-40°	421.4	12.1
40°-50°	477.1	13.7
50°-60°	494.2	14.2
60°-70°	466.1	13.3
70°-80°	390.6	11.2
80°-90°	283.1	8.1
90°-100°	186.1	5.3
100°-110°	107.5	3.1
110°-120°	47.4	1.4
120°-130°	12.8	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	598.3	17.1
0°-40°	1019.7	29.2
0°-60°	1991.0	57.0
0°-90°	3130.9	89.7
90°-120°	341.0	9.8
90°-150°	358.7	10.3
90°-180°	361.0	10.3
0°-180°	3492.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	706	706	706	706	706	
5°	806	774	701	636	604	81
15°	1077	944	678	490	408	311
25°	1356	1108	628	322	202	627
35°	1502	1194	552	157	50	942
45°	1558	1183	452	36	0	1203
55°	1518	1108	326	0	0	1356
65°	1372	981	194	0	0	1358
75°	1144	791	83	1	1	1200
85°	837	574	14	4	5	715
90°	725	460	4	5	6	398
95°	623	359	2	6	8	489
105°	428	186	2	4	7	452
115°	233	62	3	3	4	233
125°	69	9	4	3	4	69
135°	4	3	4	4	3	6
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
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°	706.3	706.3	706.3	706.3	706.3	706.3	706.3	706.3	706.3	706.3	706.3
2.5°	765.7	764.8	762.1	757.6	751.3	740.5	731.5	723.4	712.6	703.6	686.6
5°	806.2	801.7	798.1	793.6	779.2	769.3	753.1	735.1	718.0	700.9	666.8
7.5°	871.0	863.8	858.4	845.8	826.0	803.5	778.3	761.2	749.5	701.8	643.4
10°	940.3	934.0	923.2	900.7	876.4	844.0	808.0	767.5	731.5	692.0	622.7
12.5°	1008.7	999.7	984.4	955.6	921.4	880.9	831.4	783.7	732.4	685.7	598.4
15°	1077.1	1067.2	1051.0	1015.9	970.9	917.8	857.5	797.2	736.9	677.6	573.2
17.5°	1151.8	1138.3	1114.0	1074.4	1017.7	952.0	880.9	808.0	735.1	667.7	546.2
20°	1231.8	1212.9	1186.8	1133.8	1067.2	989.8	904.3	818.8	734.2	656.0	515.6
22.5°	1298.4	1279.5	1250.7	1195.8	1115.8	1021.3	924.1	826.0	730.6	642.5	486.8
25°	1356.0	1340.7	1309.2	1246.2	1161.6	1054.6	943.0	831.4	725.2	628.1	456.2
27.5°	1401.0	1386.6	1351.5	1286.7	1200.3	1084.3	957.4	834.1	718.0	613.7	424.7
30°	1440.6	1426.2	1383.9	1317.3	1226.4	1107.7	971.8	835.0	709.0	592.1	390.5
32.5°	1471.2	1457.7	1414.5	1343.4	1244.4	1123.9	979.9	834.1	697.3	576.8	353.6
35°	1501.8	1488.3	1437.9	1362.3	1257.9	1131.1	986.2	829.6	683.0	551.6	318.5
37.5°	1525.2	1509.9	1458.6	1374.9	1264.2	1132.9	985.3	823.3	667.7	530.9	283.4
40°	1541.4	1525.2	1470.3	1382.1	1266.0	1130.2	978.1	812.5	649.7	504.8	246.5
42.5°	1552.2	1534.2	1475.7	1392.9	1262.4	1123.0	967.3	799.0	629.9	482.3	211.5
45°	1557.6	1538.7	1476.6	1383.9	1256.1	1109.5	951.1	781.9	608.3	451.7	176.4
47.5°	1554.9	1534.2	1472.1	1374.0	1244.4	1095.1	933.1	761.2	582.2	424.7	143.1
50°	1550.4	1528.8	1462.2	1361.4	1228.2	1077.1	913.3	736.0	555.2	391.4	113.4
52.5°	1536.0	1514.4	1451.4	1343.4	1209.3	1056.4	886.3	709.9	526.4	359.0	86.4
55°	1518.0	1498.2	1432.5	1327.2	1185.0	1031.2	861.1	682.1	498.5	325.7	62.1
57.5°	1490.1	1472.1	1409.1	1301.1	1160.7	1003.3	833.2	651.5	463.4	292.4	43.2
60°	1455.9	1437.9	1376.7	1271.4	1132.9	971.8	802.6	620.0	431.9	259.1	27.0
62.5°	1419.9	1402.8	1338.9	1234.5	1097.8	938.5	769.3	588.5	398.6	228.6	16.2
65°	1372.2	1356.0	1298.4	1190.4	1059.1	902.5	732.4	550.7	364.4	194.4	9.0
67.5°	1321.8	1307.4	1248.9	1150.0	1014.1	862.9	694.7	513.8	328.4	164.7	4.5
70°	1267.8	1249.8	1195.8	1095.1	968.2	817.9	653.3	476.0	294.2	135.9	0.0
72.5°	1204.8	1191.3	1139.2	1043.8	915.1	770.2	611.0	434.6	256.4	108.0	0.9
75°	1143.7	1126.6	1078.9	988.9	862.9	719.8	564.2	395.9	219.6	82.8	0.9
77.5°	1064.5	1059.1	1014.1	926.8	813.4	671.3	512.9	349.1	184.5	59.4	0.9
80°	985.3	979.9	944.8	864.7	755.8	613.7	465.2	305.0	150.3	39.6	0.9
82.5°	907.0	899.8	866.5	799.9	697.3	565.1	415.7	260.9	118.8	24.3	0.9
85°	836.8	827.8	791.8	730.6	637.1	510.2	364.4	217.8	88.2	13.5	1.8
87.5°	776.5	770.2	730.6	667.7	575.9	458.9	319.4	176.4	62.1	6.3	2.7
90°	725.2	711.7	676.7	610.1	518.3	402.2	271.7	141.3	41.4	3.6	3.6
92.5°	674.9	663.2	624.5	556.1	467.0	353.6	225.9	108.0	26.1	1.8	4.5
95°	622.7	610.1	572.3	509.3	414.8	304.1	185.4	79.2	14.4	1.8	4.5
97.5°	571.4	559.7	520.1	457.1	368.0	260.9	146.7	55.8	7.2	1.8	3.6
100°	523.7	510.2	474.2	411.2	321.2	217.8	113.4	36.0	4.5	1.8	3.6
102.5°	473.3	462.5	425.6	364.4	272.6	177.3	84.6	22.5	1.8	1.8	2.7
105°	428.3	414.8	378.8	315.8	232.1	139.5	59.4	13.5	1.8	1.8	2.7



TEST NUMBER: P551342

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	278.9	268.1	236.6	183.6	117.9	54.9	16.2	2.7	2.7	2.7	2.7
115°	233.0	216.9	189.0	142.2	87.3	36.0	8.1	2.7	2.7	2.7	2.7
117.5°	186.3	172.8	153.0	108.0	57.6	23.4	4.5	2.7	2.7	2.7	2.7
120°	145.8	133.2	110.7	74.7	38.7	13.5	1.8	2.7	2.7	2.7	2.7
122.5°	104.4	94.5	74.7	48.6	23.4	6.3	2.7	2.7	3.6	3.6	2.7
125°	69.3	63.9	49.5	29.7	14.4	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	45.0	40.5	28.8	17.1	6.3	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.2	22.5	17.1	9.9	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.4	13.5	9.0	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6
135°	3.6	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.5	4.5	4.5	3.6
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	3.6
142.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
145°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	3.6	3.6	3.6
147.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
150°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
152.5°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
155°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
157.5°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
160°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
162.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6	3.6
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	4.5
172.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
175°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
177.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	3.6
180°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



TEST NUMBER: P551342

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	706.3	706.3	706.3
2.5°	672.2	659.6	656.0
5°	636.2	615.5	603.8
7.5°	600.2	572.3	558.8
10°	566.9	527.3	512.9
12.5°	527.3	481.4	458.9
15°	489.5	430.1	408.5
17.5°	447.2	380.6	355.4
20°	407.6	331.1	305.0
22.5°	362.6	282.5	253.7
25°	322.1	233.9	201.6
27.5°	277.1	184.5	156.6
30°	234.8	141.3	113.4
32.5°	194.4	103.5	78.3
35°	156.6	70.2	49.5
37.5°	120.6	43.2	25.2
40°	87.3	22.5	11.7
42.5°	58.5	10.8	6.3
45°	36.0	5.4	0.0
47.5°	20.7	0.0	0.0
50°	10.8	0.0	0.0
52.5°	4.5	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	1.8	2.7
80°	1.8	3.6	4.5
82.5°	3.6	4.5	4.5
85°	3.6	4.5	5.4
87.5°	4.5	5.4	6.3
90°	5.4	6.3	6.3
92.5°	5.4	7.2	7.2
95°	6.3	7.2	8.1
97.5°	7.2	8.1	8.1
100°	6.3	8.1	9.0
102.5°	5.4	8.1	8.1
105°	4.5	6.3	7.2



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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.6	4.5	4.5
115°	2.7	3.6	4.5
117.5°	2.7	3.6	3.6
120°	2.7	2.7	3.6
122.5°	2.7	2.7	3.6
125°	2.7	2.7	3.6
127.5°	3.6	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.6	2.7	2.7
135°	3.6	2.7	2.7
137.5°	3.6	2.7	2.7
140°	3.6	2.7	2.7
142.5°	3.6	2.7	2.7
145°	2.7	2.7	2.7
147.5°	2.7	2.7	2.7
150°	2.7	2.7	1.8
152.5°	2.7	1.8	1.8
155°	2.7	1.8	0.9
157.5°	3.6	1.8	0.9
160°	2.7	1.8	0.9
162.5°	2.7	1.8	0.9
165°	2.7	1.8	0.0
167.5°	2.7	1.8	0.9
170°	2.7	1.8	0.9
172.5°	2.7	1.8	0.9
175°	2.7	0.9	0.9
177.5°	2.7	0.9	0.9
180°	2.7	2.7	2.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	377.9	367.1	331.1	271.7	189.9	106.2	39.6	7.2	1.8	2.7	2.7
110°	329.3	320.3	283.4	225.9	153.0	79.2	26.1	4.5	2.7	2.7	2.7





107.5°	3.6	5.4	6.3
110°	3.6	4.5	5.4



(END OF REPORT)