

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: P551410

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-94-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: P551410
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-50-UNV-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

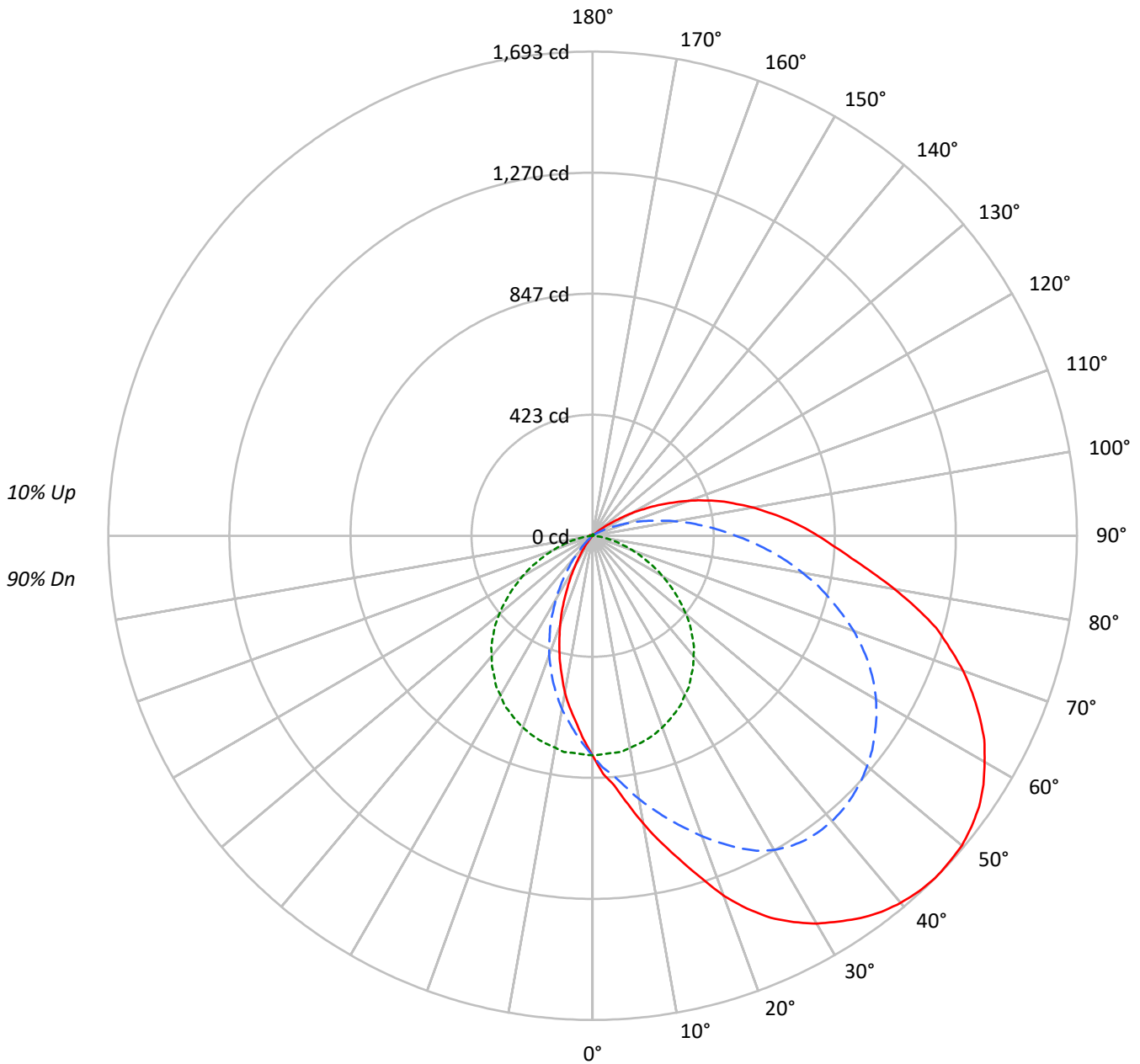
Lumens per Lamp: N/A
Luminaire Lumens: 3796.0 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551410

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-94-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°	8265	8265	8265
5°	9073	8144	6794
10°	10267	8044	5600
15°	11506	7941	4364
20°	12977	7813	3214
25°	14197	7662	2110
30°	15104	7461	1188
35°	15889	7245	524
40°	16586	6978	126
45°	17183	6644	0
50°	17684	6201	0
55°	18066	5639	0
60°	18258	4985	0
65°	18334	4244	0
70°	18272	3460	0
75°	18040	2552	15
80°	17310	1560	79
85°	16731	747	109



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	1.9
10°-20°	220.2	5.8
20°-30°	356.6	9.4
30°-40°	458.1	12.1
40°-50°	518.6	13.7
50°-60°	537.3	14.2
60°-70°	506.7	13.3
70°-80°	424.6	11.2
80°-90°	307.8	8.1
90°-100°	202.3	5.3
100°-110°	116.8	3.1
110°-120°	51.5	1.4
120°-130°	13.9	0.4
130°-140°	3.2	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	650.4	17.1
0°-40°	1108.5	29.2
0°-60°	2164.4	57.0
0°-90°	3403.5	89.7
90°-120°	370.7	9.8
90°-150°	389.9	10.3
90°-180°	393.0	10.4
0°-180°	3796.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	768	768	768	768	768	
5°	876	842	762	692	656	88
15°	1171	1027	736	532	444	338
25°	1474	1205	683	350	219	681
35°	1632	1298	600	170	54	1024
45°	1693	1286	491	39	0	1307
55°	1650	1205	354	0	0	1474
65°	1492	1066	211	0	0	1476
75°	1243	860	90	1	1	1304
85°	910	624	15	4	6	777
90°	788	500	4	6	7	432
95°	677	391	2	7	9	531
105°	466	202	2	5	8	491
115°	253	67	3	3	5	254
125°	75	9	4	3	4	75
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	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°	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8	767.8
2.5°	832.4	831.4	828.5	823.6	816.7	805.0	795.2	786.4	774.7	764.9	746.3
5°	876.4	871.5	867.6	862.7	847.1	836.3	818.7	799.1	780.6	762.0	724.8
7.5°	946.8	939.0	933.1	919.5	897.9	873.5	846.1	827.5	814.8	762.9	699.4
10°	1022.2	1015.3	1003.6	979.1	952.7	917.5	878.4	834.4	795.2	752.2	676.9
12.5°	1096.5	1086.7	1070.1	1038.8	1001.6	957.6	903.8	852.0	796.2	745.3	650.5
15°	1170.8	1160.1	1142.5	1104.3	1055.4	997.7	932.2	866.6	801.1	736.5	623.1
17.5°	1252.0	1237.3	1210.9	1167.9	1106.3	1034.9	957.6	878.4	799.1	725.8	593.7
20°	1339.1	1318.5	1290.2	1232.5	1160.1	1076.0	983.0	890.1	798.2	713.1	560.5
22.5°	1411.5	1390.9	1359.6	1299.9	1212.9	1110.2	1004.5	897.9	794.2	698.4	529.2
25°	1474.1	1457.4	1423.2	1354.7	1262.8	1146.4	1025.1	903.8	788.4	682.7	495.9
27.5°	1523.0	1507.3	1469.2	1398.7	1304.8	1178.7	1040.7	906.7	780.6	667.1	461.7
30°	1566.0	1550.4	1504.4	1432.0	1333.2	1204.1	1056.4	907.7	770.8	643.6	424.5
32.5°	1599.3	1584.6	1537.6	1460.4	1352.8	1221.7	1065.2	906.7	758.1	627.0	384.4
35°	1632.5	1617.8	1563.1	1480.9	1367.4	1229.5	1072.0	901.8	742.4	599.6	346.3
37.5°	1657.9	1641.3	1585.6	1494.6	1374.3	1231.5	1071.1	895.0	725.8	577.1	308.1
40°	1675.6	1657.9	1598.3	1502.4	1376.2	1228.5	1063.2	883.3	706.2	548.7	268.0
42.5°	1687.3	1667.7	1604.1	1514.2	1372.3	1220.7	1051.5	868.6	684.7	524.3	229.9
45°	1693.2	1672.6	1605.1	1504.4	1365.5	1206.0	1033.9	850.0	661.2	491.0	191.7
47.5°	1690.2	1667.7	1600.2	1493.6	1352.8	1190.4	1014.3	827.5	632.9	461.7	155.5
50°	1685.3	1661.9	1589.5	1479.9	1335.2	1170.8	992.8	800.1	603.5	425.5	123.2
52.5°	1669.7	1646.2	1577.7	1460.4	1314.6	1148.3	963.5	771.8	572.2	390.3	93.9
55°	1650.1	1628.6	1557.2	1442.8	1288.2	1120.9	936.1	741.4	541.9	354.1	67.5
57.5°	1619.8	1600.2	1531.8	1414.4	1261.8	1090.6	905.8	708.2	503.7	317.9	47.0
60°	1582.6	1563.1	1496.6	1382.1	1231.5	1056.4	872.5	673.9	469.5	281.7	29.3
62.5°	1543.5	1524.9	1455.5	1342.0	1193.3	1020.2	836.3	639.7	433.3	248.4	17.6
65°	1491.7	1474.1	1411.5	1294.1	1151.3	981.1	796.2	598.6	396.1	211.3	9.8
67.5°	1436.9	1421.2	1357.7	1250.1	1102.4	938.0	755.1	558.5	357.0	179.0	4.9
70°	1378.2	1358.6	1299.9	1190.4	1052.5	889.1	710.1	517.4	319.9	147.7	0.0
72.5°	1309.7	1295.1	1238.3	1134.6	994.8	837.3	664.2	472.4	278.8	117.4	1.0
75°	1243.2	1224.6	1172.8	1075.0	938.0	782.5	613.3	430.4	238.7	90.0	1.0
77.5°	1157.1	1151.3	1102.4	1007.5	884.2	729.7	557.5	379.5	200.5	64.6	1.0
80°	1071.1	1065.2	1027.0	940.0	821.6	667.1	505.7	331.6	163.3	43.0	1.0
82.5°	986.0	978.1	941.9	869.6	758.1	614.3	451.9	283.7	129.1	26.4	1.0
85°	909.7	899.9	860.8	794.2	692.5	554.6	396.1	236.7	95.9	14.7	2.0
87.5°	844.1	837.3	794.2	725.8	626.0	498.9	347.2	191.7	67.5	6.8	2.9
90°	788.4	773.7	735.6	663.2	563.4	437.2	295.4	153.6	45.0	3.9	3.9
92.5°	733.6	720.9	678.8	604.5	507.7	384.4	245.5	117.4	28.4	2.0	4.9
95°	676.9	663.2	622.1	553.6	450.9	330.6	201.5	86.1	15.7	2.0	4.9
97.5°	621.1	608.4	565.4	496.9	400.1	283.7	159.4	60.6	7.8	2.0	3.9
100°	569.3	554.6	515.5	447.0	349.2	236.7	123.2	39.1	4.9	2.0	3.9
102.5°	514.5	502.8	462.7	396.1	296.4	192.7	91.9	24.5	2.0	2.0	2.9
105°	465.6	450.9	411.8	343.3	252.4	151.6	64.6	14.7	2.0	2.0	2.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	303.2	291.5	257.3	199.5	128.1	59.7	17.6	2.9	2.9	2.9	2.9
115°	253.3	235.7	205.4	154.5	94.9	39.1	8.8	2.9	2.9	2.9	2.9
117.5°	202.5	187.8	166.3	117.4	62.6	25.4	4.9	2.9	2.9	2.9	2.9
120°	158.5	144.8	120.3	81.2	42.1	14.7	2.0	2.9	2.9	2.9	2.9
122.5°	113.5	102.7	81.2	52.8	25.4	6.8	2.9	2.9	3.9	3.9	2.9
125°	75.3	69.4	53.8	32.3	15.7	2.9	2.9	2.9	3.9	3.9	2.9
127.5°	48.9	44.0	31.3	18.6	6.8	2.9	2.9	3.9	3.9	3.9	2.9
130°	27.4	24.5	18.6	10.8	2.9	2.9	2.9	3.9	3.9	3.9	2.9
132.5°	15.7	14.7	9.8	2.0	2.9	2.9	2.9	3.9	3.9	3.9	3.9
135°	3.9	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9
137.5°	1.0	1.0	2.0	2.0	2.9	2.9	3.9	4.9	4.9	4.9	3.9
140°	1.0	1.0	2.0	2.9	2.9	2.9	3.9	4.9	4.9	4.9	3.9
142.5°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9	3.9
145°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	3.9	3.9	3.9
147.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	3.9	3.9
150°	1.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	3.9
152.5°	1.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	3.9
155°	2.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	4.9
157.5°	2.0	2.0	2.0	2.9	3.9	3.9	3.9	4.9	3.9	3.9	4.9
160°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
162.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
165°	2.0	2.0	2.0	2.0	2.9	2.9	3.9	3.9	3.9	3.9	3.9
167.5°	2.0	2.0	2.0	2.9	2.9	2.9	3.9	3.9	3.9	3.9	3.9
170°	2.0	2.0	2.0	2.9	2.9	2.9	3.9	4.9	4.9	4.9	4.9
172.5°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	4.9
175°	2.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	4.9
177.5°	1.0	2.0	2.0	2.9	2.9	3.9	3.9	4.9	4.9	4.9	3.9
180°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



TEST NUMBER: P551410

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	767.8	767.8	767.8
2.5°	730.7	717.0	713.1
5°	691.5	669.0	656.3
7.5°	652.4	622.1	607.4
10°	616.2	573.2	557.5
12.5°	573.2	523.3	498.9
15°	532.1	467.6	444.1
17.5°	486.1	413.8	386.4
20°	443.1	360.0	331.6
22.5°	394.2	307.1	275.8
25°	350.2	254.3	219.1
27.5°	301.3	200.5	170.2
30°	255.3	153.6	123.2
32.5°	211.3	112.5	85.1
35°	170.2	76.3	53.8
37.5°	131.1	47.0	27.4
40°	94.9	24.5	12.7
42.5°	63.6	11.7	6.8
45°	39.1	5.9	0.0
47.5°	22.5	0.0	0.0
50°	11.7	0.0	0.0
52.5°	4.9	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°	1.0	1.0	1.0
77.5°	1.0	2.0	2.9
80°	2.0	3.9	4.9
82.5°	3.9	4.9	4.9
85°	3.9	4.9	5.9
87.5°	4.9	5.9	6.8
90°	5.9	6.8	6.8
92.5°	5.9	7.8	7.8
95°	6.8	7.8	8.8
97.5°	7.8	8.8	8.8
100°	6.8	8.8	9.8
102.5°	5.9	8.8	8.8
105°	4.9	6.8	7.8



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.9	4.9	4.9
115°	2.9	3.9	4.9
117.5°	2.9	3.9	3.9
120°	2.9	2.9	3.9
122.5°	2.9	2.9	3.9
125°	2.9	2.9	3.9
127.5°	3.9	2.9	2.9
130°	2.9	2.9	2.9
132.5°	3.9	2.9	2.9
135°	3.9	2.9	2.9
137.5°	3.9	2.9	2.9
140°	3.9	2.9	2.9
142.5°	3.9	2.9	2.9
145°	2.9	2.9	2.9
147.5°	2.9	2.9	2.9
150°	2.9	2.9	2.0
152.5°	2.9	2.0	2.0
155°	2.9	2.0	1.0
157.5°	3.9	2.0	1.0
160°	2.9	2.0	1.0
162.5°	2.9	2.0	1.0
165°	2.9	2.0	0.0
167.5°	2.9	2.0	1.0
170°	2.9	2.0	1.0
172.5°	2.9	2.0	1.0
175°	2.9	1.0	1.0
177.5°	2.9	1.0	1.0
180°	2.9	2.9	2.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	410.8	399.1	360.0	295.4	206.4	115.4	43.0	7.8	2.0	2.9	2.9
110°	358.0	348.2	308.1	245.5	166.3	86.1	28.4	4.9	2.9	2.9	2.9





107.5°	3.9	5.9	6.8
110°	3.9	4.9	5.9



(END OF REPORT)