

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: P551399

Luminaire Tested: **FCC-X-2-LD4-2HI-50-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: P551399
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-81-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

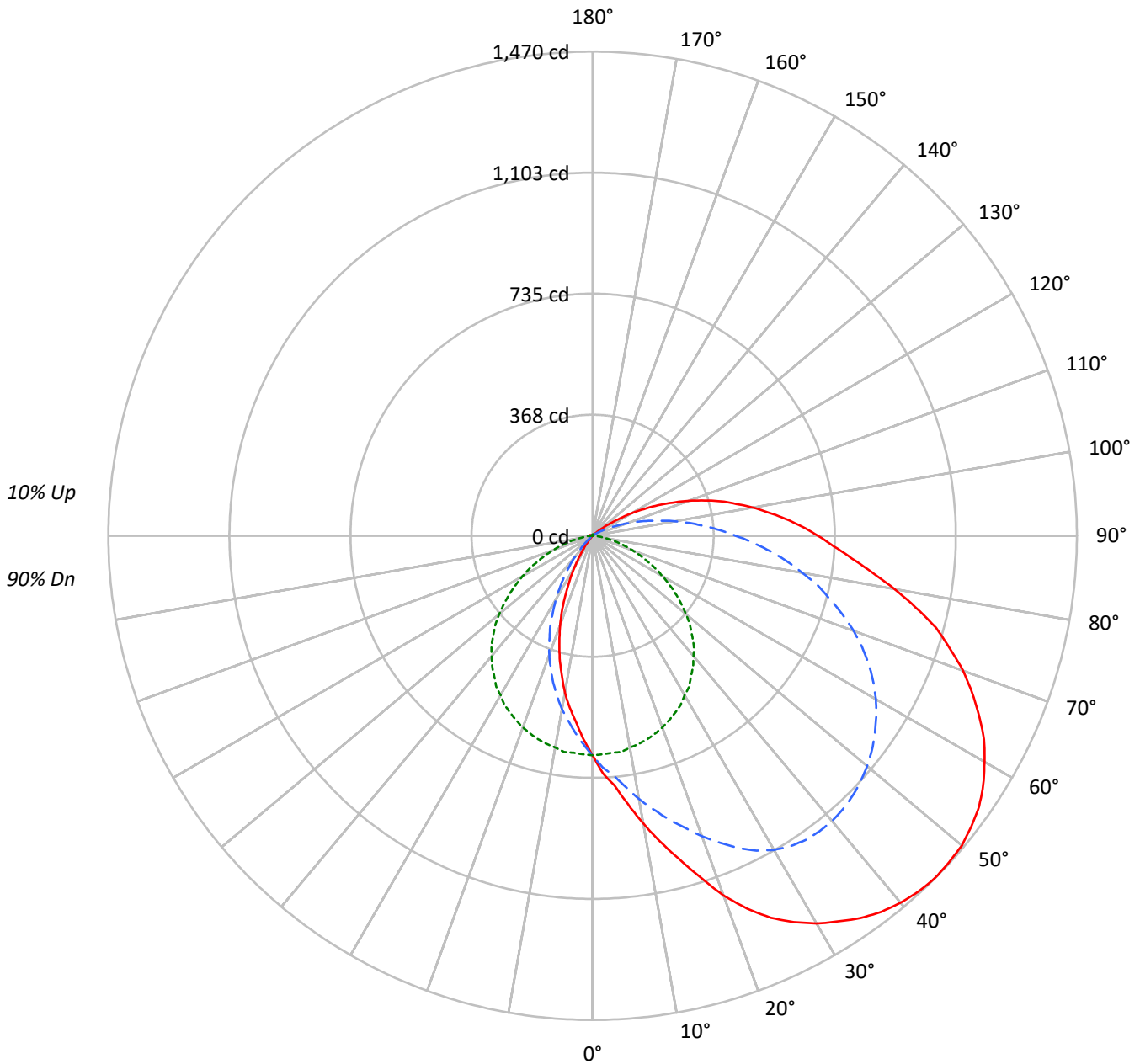
Lumens per Lamp: N/A
Luminaire Lumens: 3294.9 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-50-UNV-81-84-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°	7174	7174	7174
5°	7875	7069	5898
10°	8912	6982	4861
15°	9987	6893	3788
20°	11264	6782	2789
25°	12323	6650	1832
30°	13110	6477	1032
35°	13792	6289	455
40°	14396	6057	109
45°	14915	5767	0
50°	15350	5382	0
55°	15681	4895	0
60°	15849	4327	0
65°	15914	3684	0
70°	15861	3003	0
75°	15659	2215	12
80°	15025	1357	68
85°	14522	646	94



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	1.9
10°-20°	191.2	5.8
20°-30°	309.6	9.4
30°-40°	397.7	12.1
40°-50°	450.1	13.7
50°-60°	466.3	14.2
60°-70°	439.8	13.3
70°-80°	368.6	11.2
80°-90°	267.2	8.1
90°-100°	175.6	5.3
100°-110°	101.4	3.1
110°-120°	44.7	1.4
120°-130°	12.1	0.4
130°-140°	2.8	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	564.6	17.1
0°-40°	962.2	29.2
0°-60°	1878.7	57.0
0°-90°	2954.2	89.7
90°-120°	321.7	9.8
90°-150°	338.4	10.3
90°-180°	341.0	10.3
0°-180°	3294.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	666	666	666	666	666	
5°	761	731	661	600	570	77
15°	1016	891	639	462	386	293
25°	1280	1046	593	304	190	591
35°	1417	1127	520	148	47	889
45°	1470	1116	426	34	0	1135
55°	1432	1046	307	0	0	1279
65°	1295	925	183	0	0	1281
75°	1079	747	78	1	1	1132
85°	790	541	13	3	5	674
90°	684	434	3	5	6	375
95°	588	339	2	6	8	461
105°	404	175	2	4	7	426
115°	220	58	2	2	4	220
125°	65	8	3	2	3	65
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°	666.5	666.5	666.5	666.5	666.5	666.5	666.5	666.5	666.5	666.5	666.5
2.5°	722.5	721.7	719.1	714.9	709.0	698.8	690.3	682.6	672.4	664.0	647.8
5°	760.7	756.5	753.1	748.9	735.3	725.9	710.6	693.7	677.5	661.4	629.1
7.5°	821.9	815.1	810.0	798.1	779.4	758.2	734.4	718.3	707.3	662.3	607.1
10°	887.3	881.3	871.1	849.9	827.0	796.4	762.4	724.2	690.3	652.9	587.5
12.5°	951.8	943.3	928.9	901.7	869.4	831.2	784.5	739.5	691.1	647.0	564.6
15°	1016.3	1007.0	991.7	958.6	916.1	866.0	809.1	752.3	695.4	639.3	540.8
17.5°	1086.8	1074.0	1051.1	1013.8	960.3	898.3	831.2	762.4	693.7	630.0	515.4
20°	1162.3	1144.5	1119.9	1069.8	1007.0	933.9	853.3	772.6	692.8	619.0	486.5
22.5°	1225.2	1207.3	1180.2	1128.4	1052.8	963.7	872.0	779.4	689.4	606.2	459.3
25°	1279.5	1265.1	1235.4	1175.9	1096.1	995.1	889.8	784.5	684.3	592.6	430.5
27.5°	1322.0	1308.4	1275.3	1214.1	1132.6	1023.1	903.4	787.1	677.5	579.0	400.7
30°	1359.3	1345.7	1305.8	1243.0	1157.2	1045.2	917.0	787.9	669.0	558.7	368.5
32.5°	1388.2	1375.5	1334.7	1267.6	1174.2	1060.5	924.6	787.1	658.0	544.2	333.7
35°	1417.1	1404.3	1356.8	1285.5	1187.0	1067.2	930.6	782.8	644.4	520.5	300.6
37.5°	1439.1	1424.7	1376.3	1297.3	1192.9	1068.9	929.7	776.9	630.0	500.9	267.4
40°	1454.4	1439.1	1387.3	1304.1	1194.6	1066.4	922.9	766.7	613.0	476.3	232.6
42.5°	1464.6	1447.6	1392.4	1314.3	1191.2	1059.6	912.7	754.0	594.3	455.1	199.5
45°	1469.7	1451.9	1393.3	1305.8	1185.3	1046.9	897.4	737.8	574.0	426.2	166.4
47.5°	1467.1	1447.6	1389.0	1296.5	1174.2	1033.3	880.5	718.3	549.3	400.7	135.0
50°	1462.9	1442.5	1379.7	1284.6	1158.9	1016.3	861.8	694.5	523.9	369.3	107.0
52.5°	1449.3	1428.9	1369.5	1267.6	1141.1	996.8	836.3	669.9	496.7	338.8	81.5
55°	1432.3	1413.7	1351.7	1252.3	1118.2	973.0	812.5	643.6	470.4	307.4	58.6
57.5°	1406.0	1389.0	1329.6	1227.7	1095.3	946.7	786.2	614.7	437.3	275.9	40.8
60°	1373.8	1356.8	1299.0	1199.7	1068.9	917.0	757.3	585.0	407.5	244.5	25.5
62.5°	1339.8	1323.7	1263.4	1164.9	1035.8	885.6	725.9	555.3	376.1	215.7	15.3
65°	1294.8	1279.5	1225.2	1123.3	999.3	851.6	691.1	519.6	343.9	183.4	8.5
67.5°	1247.2	1233.7	1178.5	1085.1	956.9	814.2	655.5	484.8	309.9	155.4	4.2
70°	1196.3	1179.3	1128.4	1033.3	913.6	771.8	616.4	449.1	277.6	128.2	0.0
72.5°	1136.9	1124.1	1074.9	984.9	863.5	726.8	576.5	410.1	242.0	101.9	0.8
75°	1079.1	1063.0	1018.0	933.1	814.2	679.2	532.4	373.6	207.2	78.1	0.8
77.5°	1004.4	999.3	956.9	874.5	767.5	633.4	484.0	329.4	174.1	56.0	0.8
80°	929.7	924.6	891.5	815.9	713.2	579.0	439.0	287.8	141.8	37.4	0.8
82.5°	855.8	849.0	817.6	754.8	658.0	533.2	392.3	246.2	112.1	22.9	0.8
85°	789.6	781.1	747.2	689.4	601.1	481.4	343.9	205.5	83.2	12.7	1.7
87.5°	732.7	726.8	689.4	630.0	543.4	433.0	301.4	166.4	58.6	5.9	2.5
90°	684.3	671.6	638.5	575.7	489.0	379.5	256.4	133.3	39.1	3.4	3.4
92.5°	636.8	625.7	589.2	524.7	440.7	333.7	213.1	101.9	24.6	1.7	4.2
95°	587.5	575.7	540.0	480.6	391.4	287.0	174.9	74.7	13.6	1.7	4.2
97.5°	539.1	528.1	490.7	431.3	347.3	246.2	138.4	52.6	6.8	1.7	3.4
100°	494.1	481.4	447.4	388.0	303.1	205.5	107.0	34.0	4.2	1.7	3.4
102.5°	446.6	436.4	401.6	343.9	257.3	167.3	79.8	21.2	1.7	1.7	2.5
105°	404.1	391.4	357.4	298.0	219.1	131.6	56.0	12.7	1.7	1.7	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	263.2	253.0	223.3	173.2	111.2	51.8	15.3	2.5	2.5	2.5	2.5
115°	219.9	204.6	178.3	134.1	82.4	34.0	7.6	2.5	2.5	2.5	2.5
117.5°	175.8	163.0	144.3	101.9	54.3	22.1	4.2	2.5	2.5	2.5	2.5
120°	137.5	125.7	104.4	70.5	36.5	12.7	1.7	2.5	2.5	2.5	2.5
122.5°	98.5	89.1	70.5	45.8	22.1	5.9	2.5	2.5	3.4	3.4	2.5
125°	65.4	60.3	46.7	28.0	13.6	2.5	2.5	2.5	3.4	3.4	2.5
127.5°	42.5	38.2	27.2	16.1	5.9	2.5	2.5	3.4	3.4	3.4	2.5
130°	23.8	21.2	16.1	9.3	2.5	2.5	2.5	3.4	3.4	3.4	2.5
132.5°	13.6	12.7	8.5	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.4	4.2	4.2	4.2	3.4
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	3.4
142.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
145°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
150°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
152.5°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
157.5°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	3.4
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	666.5	666.5	666.5
2.5°	634.2	622.3	619.0
5°	600.3	580.7	569.7
7.5°	566.3	540.0	527.3
10°	534.9	497.5	484.0
12.5°	497.5	454.2	433.0
15°	461.9	405.8	385.5
17.5°	422.0	359.1	335.4
20°	384.6	312.4	287.8
22.5°	342.2	266.6	239.4
25°	304.0	220.8	190.2
27.5°	261.5	174.1	147.7
30°	221.6	133.3	107.0
32.5°	183.4	97.6	73.9
35°	147.7	66.2	46.7
37.5°	113.8	40.8	23.8
40°	82.4	21.2	11.0
42.5°	55.2	10.2	5.9
45°	34.0	5.1	0.0
47.5°	19.5	0.0	0.0
50°	10.2	0.0	0.0
52.5°	4.2	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	1.7	2.5
80°	1.7	3.4	4.2
82.5°	3.4	4.2	4.2
85°	3.4	4.2	5.1
87.5°	4.2	5.1	5.9
90°	5.1	5.9	5.9
92.5°	5.1	6.8	6.8
95°	5.9	6.8	7.6
97.5°	6.8	7.6	7.6
100°	5.9	7.6	8.5
102.5°	5.1	7.6	7.6
105°	4.2	5.9	6.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.2	4.2
115°	2.5	3.4	4.2
117.5°	2.5	3.4	3.4
120°	2.5	2.5	3.4
122.5°	2.5	2.5	3.4
125°	2.5	2.5	3.4
127.5°	3.4	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.4	2.5	2.5
135°	3.4	2.5	2.5
137.5°	3.4	2.5	2.5
140°	3.4	2.5	2.5
142.5°	3.4	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.4	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	356.6	346.4	312.4	256.4	179.1	100.2	37.4	6.8	1.7	2.5	2.5
110°	310.8	302.3	267.4	213.1	144.3	74.7	24.6	4.2	2.5	2.5	2.5





107.5°	3.4	5.1	5.9
110°	3.4	4.2	5.1



(END OF REPORT)