

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: P551420

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-86-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: P551420
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-82-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

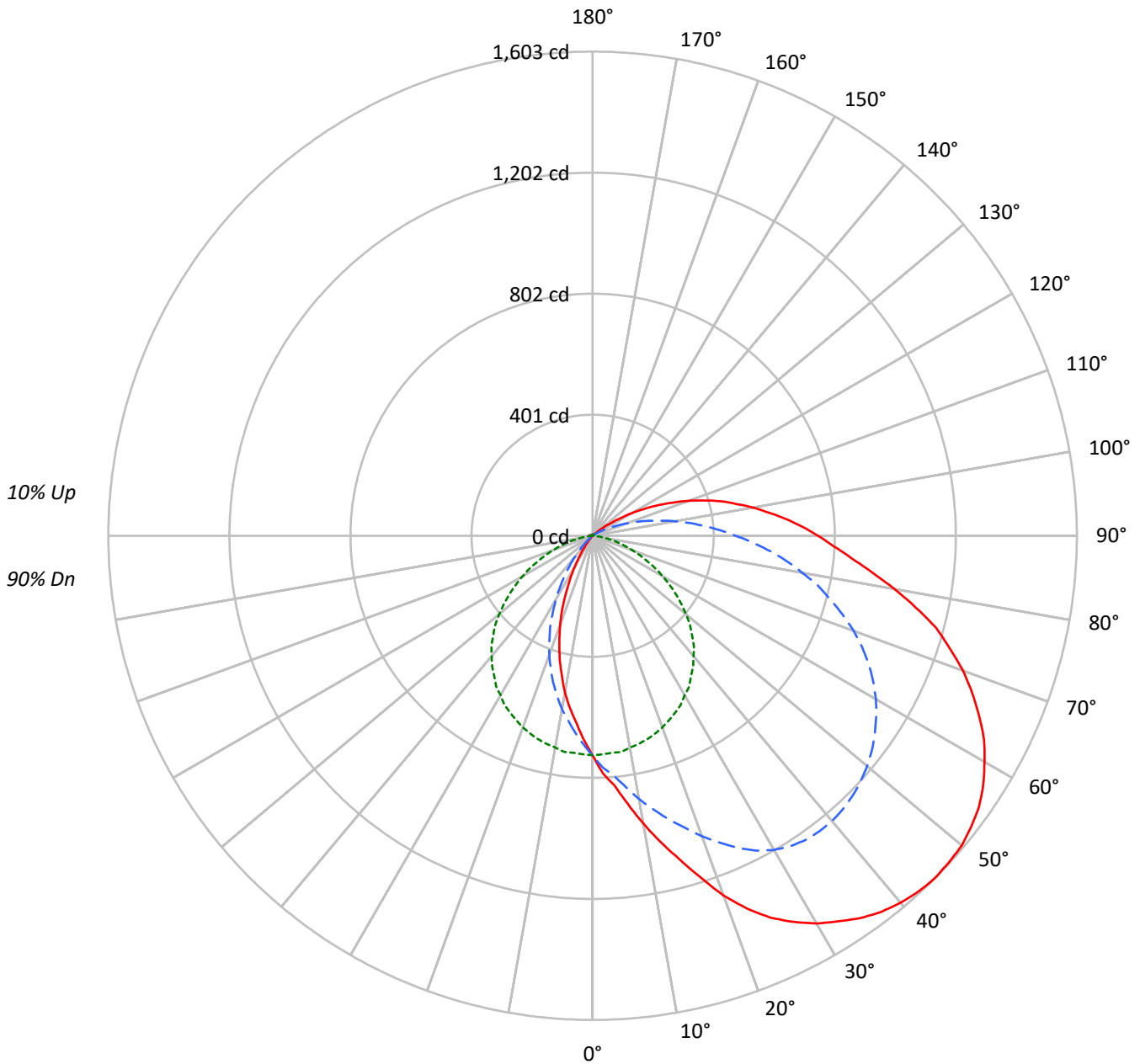
Lumens per Lamp: N/A
Luminaire Lumens: 3593.0 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	7823	7823	7823
5°	8587	7708	6431
10°	9718	7614	5300
15°	10890	7518	4130
20°	12283	7394	3042
25°	13437	7252	1997
30°	14297	7062	1126
35°	15039	6857	495
40°	15698	6605	119
45°	16264	6289	0
50°	16739	5869	0
55°	17100	5338	0
60°	17282	4718	0
65°	17353	4017	0
70°	17295	3275	0
75°	17075	2416	13
80°	16384	1476	74
85°	15835	707	103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	1.9
10°-20°	208.4	5.8
20°-30°	337.6	9.4
30°-40°	433.6	12.1
40°-50°	490.9	13.7
50°-60°	508.5	14.2
60°-70°	479.6	13.3
70°-80°	401.9	11.2
80°-90°	291.3	8.1
90°-100°	191.5	5.3
100°-110°	110.6	3.1
110°-120°	48.8	1.4
120°-130°	13.2	0.4
130°-140°	3.0	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	615.6	17.1
0°-40°	1049.2	29.2
0°-60°	2048.6	57.0
0°-90°	3221.4	89.7
90°-120°	350.9	9.8
90°-150°	369.1	10.3
90°-180°	372.0	10.4
0°-180°	3593.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	727	727	727	727	727	
5°	830	797	721	655	621	84
15°	1108	972	697	504	420	320
25°	1395	1140	646	331	207	645
35°	1545	1229	568	161	51	969
45°	1603	1217	465	37	0	1237
55°	1562	1140	335	0	0	1395
65°	1412	1009	200	0	0	1397
75°	1177	814	85	1	1	1234
85°	861	590	14	4	6	735
90°	746	474	4	6	6	409
95°	641	370	2	6	8	503
105°	441	191	2	5	7	465
115°	240	63	3	3	5	240
125°	71	9	4	3	4	71
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°	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8
2.5°	787.9	787.0	784.2	779.6	773.1	762.0	752.7	744.4	733.3	724.0	706.4
5°	829.5	824.9	821.2	816.6	801.8	791.6	774.9	756.4	738.8	721.2	686.0
7.5°	896.2	888.8	883.2	870.3	849.9	826.8	800.8	783.3	771.2	722.1	662.0
10°	967.5	961.0	949.9	926.8	901.8	868.4	831.4	789.7	752.7	712.0	640.7
12.5°	1037.9	1028.6	1012.9	983.2	948.1	906.4	855.5	806.4	753.6	705.5	615.7
15°	1108.2	1098.0	1081.4	1045.3	999.0	944.3	882.3	820.3	758.3	697.2	589.8
17.5°	1185.1	1171.2	1146.2	1105.4	1047.1	979.5	906.4	831.4	756.4	687.0	562.0
20°	1267.5	1248.0	1221.2	1166.5	1098.0	1018.4	930.5	842.5	755.5	674.9	530.5
22.5°	1336.0	1316.5	1286.9	1230.4	1148.0	1050.8	950.8	849.9	751.8	661.0	500.9
25°	1395.2	1379.5	1347.1	1282.3	1195.2	1085.1	970.3	855.5	746.2	646.2	469.4
27.5°	1441.5	1426.7	1390.6	1323.9	1235.1	1115.6	985.1	858.2	738.8	631.4	437.0
30°	1482.3	1467.4	1423.9	1355.4	1261.9	1139.7	999.9	859.2	729.6	609.2	401.8
32.5°	1513.7	1499.8	1455.4	1382.3	1280.4	1156.4	1008.2	858.2	717.5	593.5	363.9
35°	1545.2	1531.3	1479.5	1401.7	1294.3	1163.8	1014.7	853.6	702.7	567.5	327.7
37.5°	1569.3	1553.5	1500.8	1414.7	1300.8	1165.6	1013.8	847.1	687.0	546.2	291.6
40°	1585.9	1569.3	1512.8	1422.1	1302.6	1162.8	1006.4	836.0	668.5	519.4	253.7
42.5°	1597.1	1578.5	1518.4	1433.2	1298.9	1155.4	995.3	822.1	648.1	496.2	217.6
45°	1602.6	1583.2	1519.3	1423.9	1292.5	1141.6	978.6	804.5	625.9	464.8	181.5
47.5°	1599.8	1578.5	1514.7	1413.7	1280.4	1126.7	960.1	783.3	599.0	437.0	147.2
50°	1595.2	1573.0	1504.5	1400.8	1263.8	1108.2	939.7	757.3	571.2	402.7	116.7
52.5°	1580.4	1558.2	1493.4	1382.3	1244.3	1086.9	911.9	730.5	541.6	369.4	88.9
55°	1561.9	1541.5	1473.9	1365.6	1219.3	1061.0	886.0	701.8	512.9	335.2	63.9
57.5°	1533.2	1514.7	1449.9	1338.8	1194.3	1032.3	857.3	670.3	476.8	300.9	44.4
60°	1498.0	1479.5	1416.5	1308.2	1165.6	999.9	825.8	637.9	444.4	266.6	27.8
62.5°	1461.0	1443.4	1377.6	1270.2	1129.5	965.6	791.6	605.5	410.1	235.2	16.7
65°	1411.9	1395.2	1336.0	1224.9	1089.7	928.6	753.6	566.6	375.0	200.0	9.3
67.5°	1360.0	1345.2	1285.1	1183.2	1043.4	887.9	714.7	528.6	337.9	169.4	4.6
70°	1304.5	1286.0	1230.4	1126.7	996.2	841.6	672.2	489.8	302.7	139.8	0.0
72.5°	1239.7	1225.8	1172.1	1074.0	941.6	792.5	628.6	447.2	263.9	111.1	0.9
75°	1176.7	1159.1	1110.1	1017.5	887.9	740.7	580.5	407.4	225.9	85.2	0.9
77.5°	1095.3	1089.7	1043.4	953.6	837.0	690.7	527.7	359.2	189.8	61.1	0.9
80°	1013.8	1008.2	972.1	889.7	777.7	631.4	478.7	313.9	154.6	40.7	0.9
82.5°	933.2	925.8	891.6	823.1	717.5	581.4	427.7	268.5	122.2	25.0	0.9
85°	861.0	851.8	814.7	751.8	655.5	524.9	375.0	224.1	90.7	13.9	1.9
87.5°	799.0	792.5	751.8	687.0	592.5	472.2	328.7	181.5	63.9	6.5	2.8
90°	746.2	732.3	696.2	627.7	533.3	413.8	279.6	145.4	42.6	3.7	3.7
92.5°	694.4	682.3	642.5	572.2	480.5	363.9	232.4	111.1	26.8	1.9	4.6
95°	640.7	627.7	588.8	524.0	426.8	312.9	190.7	81.5	14.8	1.9	4.6
97.5°	587.9	575.9	535.1	470.3	378.7	268.5	150.9	57.4	7.4	1.9	3.7
100°	538.8	524.9	487.9	423.1	330.5	224.1	116.7	37.0	4.6	1.9	3.7
102.5°	487.0	475.9	437.9	375.0	280.5	182.4	87.0	23.1	1.9	1.9	2.8
105°	440.7	426.8	389.8	325.0	238.9	143.5	61.1	13.9	1.9	1.9	2.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	287.0	275.9	243.5	188.9	121.3	56.5	16.7	2.8	2.8	2.8	2.8
115°	239.8	223.1	194.4	146.3	89.8	37.0	8.3	2.8	2.8	2.8	2.8
117.5°	191.6	177.8	157.4	111.1	59.3	24.1	4.6	2.8	2.8	2.8	2.8
120°	150.0	137.0	113.9	76.8	39.8	13.9	1.9	2.8	2.8	2.8	2.8
122.5°	107.4	97.2	76.8	50.0	24.1	6.5	2.8	2.8	3.7	3.7	2.8
125°	71.3	65.7	50.9	30.6	14.8	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.3	41.7	29.6	17.6	6.5	2.8	2.8	3.7	3.7	3.7	2.8
130°	25.9	23.1	17.6	10.2	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.8	13.9	9.3	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.7	4.6	4.6	4.6	3.7
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
142.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
145°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	3.7	3.7	3.7
147.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
150°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
152.5°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
155°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
157.5°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
160°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	4.6	4.6	4.6	4.6
172.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
175°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
177.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	3.7
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	726.8	726.8	726.8
2.5°	691.6	678.6	674.9
5°	654.6	633.3	621.2
7.5°	617.5	588.8	574.9
10°	583.3	542.5	527.7
12.5°	542.5	495.3	472.2
15°	503.7	442.5	420.3
17.5°	460.1	391.6	365.7
20°	419.4	340.7	313.9
22.5°	373.1	290.7	261.1
25°	331.4	240.7	207.4
27.5°	285.2	189.8	161.1
30°	241.6	145.4	116.7
32.5°	200.0	106.5	80.5
35°	161.1	72.2	50.9
37.5°	124.1	44.4	25.9
40°	89.8	23.1	12.0
42.5°	60.2	11.1	6.5
45°	37.0	5.6	0.0
47.5°	21.3	0.0	0.0
50°	11.1	0.0	0.0
52.5°	4.6	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	1.9	2.8
80°	1.9	3.7	4.6
82.5°	3.7	4.6	4.6
85°	3.7	4.6	5.6
87.5°	4.6	5.6	6.5
90°	5.6	6.5	6.5
92.5°	5.6	7.4	7.4
95°	6.5	7.4	8.3
97.5°	7.4	8.3	8.3
100°	6.5	8.3	9.3
102.5°	5.6	8.3	8.3
105°	4.6	6.5	7.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.7	4.6	4.6
115°	2.8	3.7	4.6
117.5°	2.8	3.7	3.7
120°	2.8	2.8	3.7
122.5°	2.8	2.8	3.7
125°	2.8	2.8	3.7
127.5°	3.7	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.7	2.8	2.8
135°	3.7	2.8	2.8
137.5°	3.7	2.8	2.8
140°	3.7	2.8	2.8
142.5°	3.7	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.9
152.5°	2.8	1.9	1.9
155°	2.8	1.9	0.9
157.5°	3.7	1.9	0.9
160°	2.8	1.9	0.9
162.5°	2.8	1.9	0.9
165°	2.8	1.9	0.0
167.5°	2.8	1.9	0.9
170°	2.8	1.9	0.9
172.5°	2.8	1.9	0.9
175°	2.8	0.9	0.9
177.5°	2.8	0.9	0.9
180°	2.8	2.8	2.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	388.8	377.7	340.7	279.6	195.4	109.2	40.7	7.4	1.9	2.8	2.8
110°	338.9	329.6	291.6	232.4	157.4	81.5	26.8	4.6	2.8	2.8	2.8





107.5°	3.7	5.6	6.5
110°	3.7	4.6	5.6



(END OF REPORT)