

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: P551234

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-94-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: P551234
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-30-UNV-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

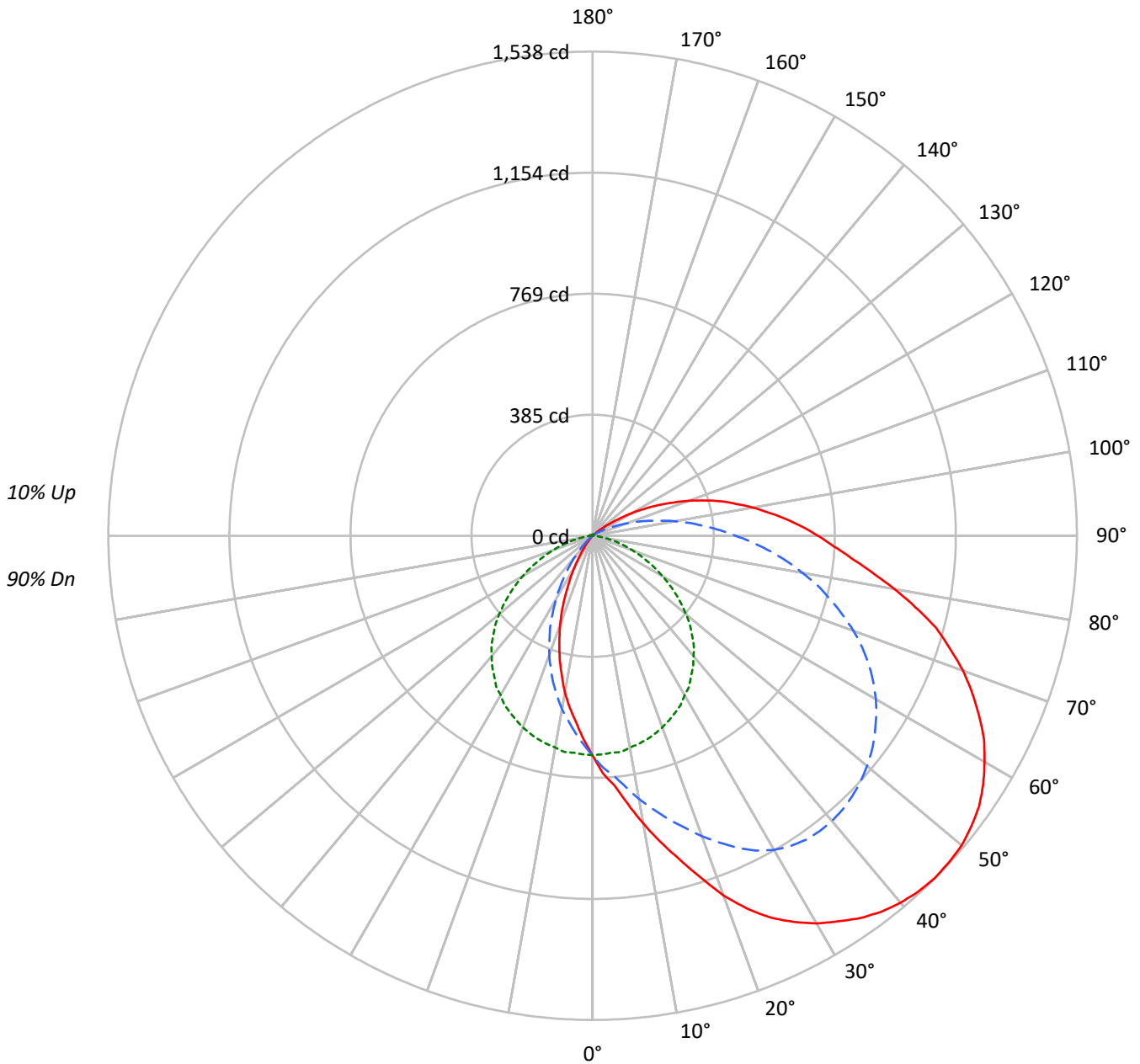
Lumens per Lamp: N/A
Luminaire Lumens: 3447.1 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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°	7505	7505	7505
5°	8238	7395	6170
10°	9323	7304	5085
15°	10448	7211	3962
20°	11784	7094	2918
25°	12891	6958	1917
30°	13715	6775	1079
35°	14428	6579	476
40°	15060	6337	114
45°	15603	6034	0
50°	16059	5632	0
55°	16405	5119	0
60°	16579	4527	0
65°	16648	3854	0
70°	16593	3141	0
75°	16381	2317	13
80°	15718	1418	71
85°	15192	676	97



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	1.9
10°-20°	200.0	5.8
20°-30°	323.8	9.4
30°-40°	416.0	12.1
40°-50°	470.9	13.7
50°-60°	487.9	14.2
60°-70°	460.1	13.3
70°-80°	385.6	11.2
80°-90°	279.5	8.1
90°-100°	183.7	5.3
100°-110°	106.1	3.1
110°-120°	46.8	1.4
120°-130°	12.7	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°	590.6	17.1
0°-40°	1006.6	29.2
0°-60°	1965.4	57.0
0°-90°	3090.5	89.7
90°-120°	336.6	9.8
90°-150°	354.2	10.3
90°-180°	357.0	10.4
0°-180°	3447.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	697	697	697	697	697	
5°	796	764	692	628	596	80
15°	1063	932	669	483	403	307
25°	1338	1094	620	318	199	619
35°	1482	1179	544	154	49	930
45°	1538	1168	446	36	0	1187
55°	1498	1094	322	0	0	1338
65°	1354	968	192	0	0	1340
75°	1129	781	82	1	1	1184
85°	826	566	13	4	5	705
90°	716	454	4	5	6	393
95°	615	355	2	6	8	482
105°	423	183	2	4	7	446
115°	230	61	3	3	4	230
125°	68	8	4	3	4	68
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°	697.2	697.2	697.2	697.2	697.2	697.2	697.2	697.2	697.2	697.2	697.2
2.5°	755.9	755.0	752.3	747.9	741.7	731.0	722.1	714.1	703.5	694.6	677.7
5°	795.8	791.4	787.8	783.4	769.2	759.4	743.4	725.7	708.8	691.9	658.2
7.5°	859.8	852.7	847.4	834.9	815.4	793.2	768.3	751.4	739.9	692.8	635.1
10°	928.2	922.0	911.3	889.1	865.1	833.1	797.6	757.6	722.1	683.0	614.6
12.5°	995.7	986.8	971.7	943.3	909.5	869.6	820.7	773.6	723.0	676.8	590.7
15°	1063.2	1053.4	1037.4	1002.8	958.4	906.0	846.5	787.0	727.4	668.8	565.8
17.5°	1136.9	1123.6	1099.6	1060.5	1004.6	939.7	869.6	797.6	725.7	659.1	539.1
20°	1216.0	1197.3	1171.5	1119.1	1053.4	977.0	892.7	808.3	724.8	647.5	508.9
22.5°	1281.7	1263.0	1234.6	1180.4	1101.4	1008.1	912.2	815.4	721.2	634.2	480.5
25°	1338.5	1323.4	1292.3	1230.2	1146.7	1041.0	930.8	820.7	715.9	620.0	450.3
27.5°	1382.9	1368.7	1334.1	1270.1	1184.9	1070.3	945.1	823.4	708.8	605.8	419.2
30°	1422.0	1407.8	1366.1	1300.3	1210.6	1093.4	959.3	824.3	699.9	584.4	385.5
32.5°	1452.2	1438.9	1396.3	1326.1	1228.4	1109.4	967.3	823.4	688.4	569.3	349.1
35°	1482.4	1469.1	1419.4	1344.8	1241.7	1116.5	973.5	818.9	674.2	544.5	314.4
37.5°	1505.5	1490.4	1439.8	1357.2	1247.9	1118.3	972.6	812.7	659.1	524.0	279.8
40°	1521.5	1505.5	1451.3	1364.3	1249.7	1115.6	965.5	802.1	641.3	498.3	243.4
42.5°	1532.2	1514.4	1456.7	1375.0	1246.2	1108.5	954.8	788.7	621.7	476.1	208.7
45°	1537.5	1518.8	1457.6	1366.1	1239.9	1095.2	938.8	771.9	600.4	445.9	174.1
47.5°	1534.8	1514.4	1453.1	1356.3	1228.4	1081.0	921.1	751.4	574.7	419.2	141.2
50°	1530.4	1509.1	1443.3	1343.9	1212.4	1063.2	901.5	726.6	548.0	386.4	111.9
52.5°	1516.2	1494.9	1432.7	1326.1	1193.8	1042.8	874.9	700.8	519.6	354.4	85.3
55°	1498.4	1478.9	1414.0	1310.1	1169.8	1017.9	850.0	673.3	492.1	321.5	61.3
57.5°	1470.9	1453.1	1390.9	1284.4	1145.8	990.4	822.5	643.1	457.4	288.7	42.6
60°	1437.1	1419.4	1359.0	1255.0	1118.3	959.3	792.3	612.0	426.3	255.8	26.6
62.5°	1401.6	1384.7	1321.7	1218.6	1083.6	926.4	759.4	580.9	393.5	225.6	16.0
65°	1354.5	1338.5	1281.7	1175.1	1045.4	890.9	723.0	543.6	359.7	191.9	8.9
67.5°	1304.8	1290.6	1232.8	1135.1	1001.0	851.8	685.7	507.2	324.2	162.5	4.4
70°	1251.5	1233.7	1180.4	1081.0	955.7	807.4	644.8	469.9	290.4	134.1	0.0
72.5°	1189.3	1176.0	1124.5	1030.3	903.3	760.3	603.1	429.0	253.1	106.6	0.9
75°	1128.9	1112.0	1065.0	976.1	851.8	710.6	556.9	390.8	216.7	81.7	0.9
77.5°	1050.8	1045.4	1001.0	914.9	802.9	662.6	506.3	344.6	182.1	58.6	0.9
80°	972.6	967.3	932.6	853.6	746.1	605.8	459.2	301.1	148.3	39.1	0.9
82.5°	895.3	888.2	855.3	789.6	688.4	557.8	410.4	257.6	117.2	24.0	0.9
85°	826.0	817.2	781.6	721.2	628.9	503.6	359.7	214.9	87.0	13.3	1.8
87.5°	766.5	760.3	721.2	659.1	568.5	453.0	315.3	174.1	61.3	6.2	2.7
90°	715.9	702.6	667.9	602.2	511.6	397.0	268.2	139.4	40.9	3.6	3.6
92.5°	666.2	654.6	616.4	548.9	461.0	349.1	222.9	106.6	25.8	1.8	4.4
95°	614.6	602.2	564.9	502.7	409.5	300.2	183.0	78.2	14.2	1.8	4.4
97.5°	564.0	552.5	513.4	451.2	363.3	257.6	144.8	55.1	7.1	1.8	3.6
100°	516.9	503.6	468.1	405.9	317.1	214.9	111.9	35.5	4.4	1.8	3.6
102.5°	467.2	456.5	420.1	359.7	269.1	175.0	83.5	22.2	1.8	1.8	2.7
105°	422.8	409.5	373.9	311.8	229.2	137.7	58.6	13.3	1.8	1.8	2.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	275.3	264.7	233.6	181.2	116.4	54.2	16.0	2.7	2.7	2.7	2.7
115°	230.0	214.1	186.5	140.3	86.2	35.5	8.0	2.7	2.7	2.7	2.7
117.5°	183.9	170.5	151.0	106.6	56.8	23.1	4.4	2.7	2.7	2.7	2.7
120°	143.9	131.5	109.2	73.7	38.2	13.3	1.8	2.7	2.7	2.7	2.7
122.5°	103.0	93.3	73.7	48.0	23.1	6.2	2.7	2.7	3.6	3.6	2.7
125°	68.4	63.1	48.9	29.3	14.2	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	44.4	40.0	28.4	16.9	6.2	2.7	2.7	3.6	3.6	3.6	2.7
130°	24.9	22.2	16.9	9.8	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.2	13.3	8.9	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	4.4	4.4	3.6
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.4	4.4	4.4	3.6
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.6	4.4	4.4	4.4	3.6
142.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.4	4.4	3.6	3.6
145°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.4	3.6	3.6	3.6
147.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.4	4.4	3.6	3.6
150°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.4	3.6	3.6	3.6
152.5°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.4	3.6	3.6	3.6
155°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.4	3.6	3.6	4.4
157.5°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.4	3.6	3.6	4.4
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	4.4	4.4	4.4	4.4
172.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.4	4.4	4.4	4.4
175°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.4	4.4	4.4	4.4
177.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.4	4.4	4.4	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



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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	697.2	697.2	697.2
2.5°	663.5	651.1	647.5
5°	628.0	607.5	596.0
7.5°	592.4	564.9	551.6
10°	559.6	520.5	506.3
12.5°	520.5	475.2	453.0
15°	483.2	424.6	403.2
17.5°	441.4	375.7	350.8
20°	402.4	326.9	301.1
22.5°	357.9	278.9	250.5
25°	318.0	230.9	199.0
27.5°	273.6	182.1	154.5
30°	231.8	139.4	111.9
32.5°	191.9	102.1	77.3
35°	154.5	69.3	48.9
37.5°	119.0	42.6	24.9
40°	86.2	22.2	11.5
42.5°	57.7	10.7	6.2
45°	35.5	5.3	0.0
47.5°	20.4	0.0	0.0
50°	10.7	0.0	0.0
52.5°	4.4	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	4.4
82.5°	3.6	4.4	4.4
85°	3.6	4.4	5.3
87.5°	4.4	5.3	6.2
90°	5.3	6.2	6.2
92.5°	5.3	7.1	7.1
95°	6.2	7.1	8.0
97.5°	7.1	8.0	8.0
100°	6.2	8.0	8.9
102.5°	5.3	8.0	8.0
105°	4.4	6.2	7.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.6	4.4	4.4
115°	2.7	3.6	4.4
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°	373.0	362.4	326.9	268.2	187.4	104.8	39.1	7.1	1.8	2.7	2.7
110°	325.1	316.2	279.8	222.9	151.0	78.2	25.8	4.4	2.7	2.7	2.7





107.5°	3.6	5.3	6.2
110°	3.6	4.4	5.3



(END OF REPORT)