

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: P551443

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-96-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: P551443
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-93-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

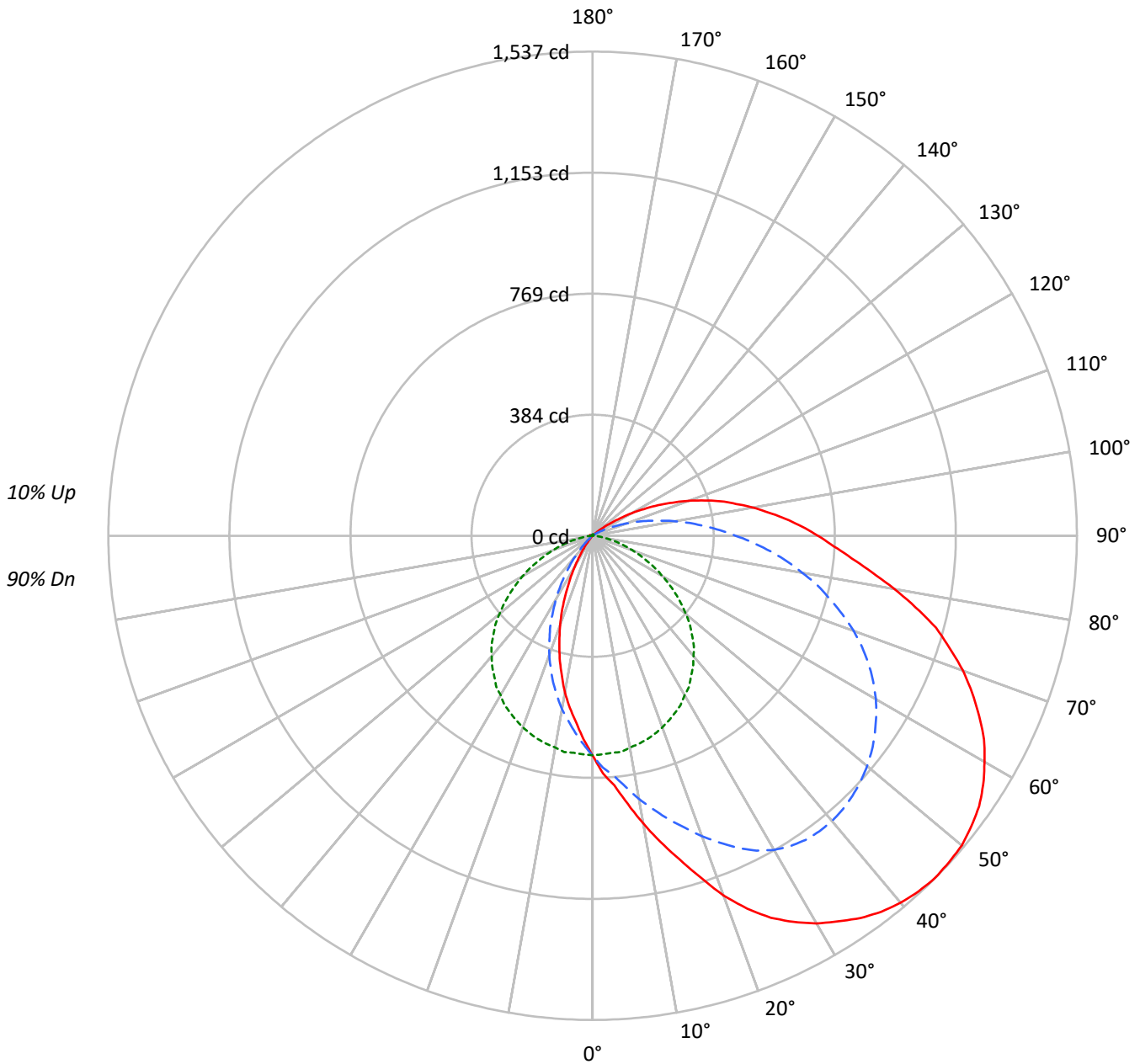
Lumens per Lamp: N/A
Luminaire Lumens: 3445.1 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551443

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-96-ED1D-90

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7500	7500	7500
5°	8234	7391	6166
10°	9317	7300	5082
15°	10442	7207	3960
20°	11778	7090	2916
25°	12885	6953	1915
30°	13707	6771	1078
35°	14420	6575	475
40°	15052	6333	114
45°	15594	6029	0
50°	16049	5627	0
55°	16395	5116	0
60°	16570	4525	0
65°	16638	3850	0
70°	16583	3139	0
75°	16373	2317	13
80°	15708	1418	71
85°	15184	676	97



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	1.9
10°-20°	199.9	5.8
20°-30°	323.6	9.4
30°-40°	415.8	12.1
40°-50°	470.6	13.7
50°-60°	487.6	14.2
60°-70°	459.8	13.3
70°-80°	385.4	11.2
80°-90°	279.3	8.1
90°-100°	183.6	5.3
100°-110°	106.0	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°	590.3	17.1
0°-40°	1006.0	29.2
0°-60°	1964.2	57.0
0°-90°	3088.7	89.7
90°-120°	336.4	9.8
90°-150°	354.0	10.3
90°-180°	356.0	10.3
0°-180°	3445.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	697	697	697	697	697	
5°	795	764	692	628	596	80
15°	1063	932	668	483	403	306
25°	1338	1093	620	318	199	618
35°	1482	1178	544	154	49	929
45°	1537	1167	446	36	0	1186
55°	1498	1093	321	0	0	1337
65°	1354	968	192	0	0	1339
75°	1128	781	82	1	1	1183
85°	826	566	13	4	5	705
90°	716	454	4	5	6	392
95°	614	355	2	6	8	482
105°	422	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°	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8
2.5°	755.4	754.5	751.9	747.4	741.2	730.6	721.7	713.7	703.1	694.2	677.3
5°	795.4	790.9	787.4	782.9	768.7	759.0	743.0	725.2	708.4	691.5	657.8
7.5°	859.3	852.2	846.9	834.4	814.9	792.7	767.9	751.0	739.5	692.4	634.7
10°	927.6	921.4	910.8	888.6	864.6	832.7	797.2	757.2	721.7	682.6	614.3
12.5°	995.1	986.2	971.1	942.7	909.0	869.1	820.2	773.2	722.6	676.4	590.3
15°	1062.6	1052.8	1036.8	1002.2	957.8	905.4	846.0	786.5	727.0	668.4	565.5
17.5°	1136.2	1122.9	1099.0	1059.9	1004.0	939.2	869.1	797.2	725.2	658.7	538.8
20°	1215.3	1196.6	1170.9	1118.5	1052.8	976.5	892.1	807.8	724.4	647.1	508.6
22.5°	1280.9	1262.3	1233.9	1179.7	1100.7	1007.5	911.7	814.9	720.8	633.8	480.2
25°	1337.8	1322.7	1291.6	1229.5	1146.0	1040.4	930.3	820.2	715.5	619.6	450.1
27.5°	1382.1	1367.9	1333.3	1269.4	1184.2	1069.7	944.5	822.9	708.4	605.4	419.0
30°	1421.2	1407.0	1365.3	1299.6	1209.9	1092.8	958.7	823.8	699.5	584.1	385.3
32.5°	1451.4	1438.1	1395.5	1325.3	1227.7	1108.7	966.7	822.9	688.0	569.0	348.9
35°	1481.6	1468.2	1418.5	1344.0	1241.0	1115.8	972.9	818.5	673.8	544.2	314.2
37.5°	1504.6	1489.6	1439.0	1356.4	1247.2	1117.6	972.0	812.2	658.7	523.7	279.6
40°	1520.6	1504.6	1450.5	1363.5	1249.0	1114.9	964.9	801.6	640.9	498.0	243.2
42.5°	1531.3	1513.5	1455.8	1374.2	1245.4	1107.8	954.3	788.3	621.4	475.8	208.6
45°	1536.6	1518.0	1456.7	1365.3	1239.2	1094.5	938.3	771.4	600.1	445.6	174.0
47.5°	1533.9	1513.5	1452.3	1355.5	1227.7	1080.3	920.5	751.0	574.3	419.0	141.1
50°	1529.5	1508.2	1442.5	1343.1	1211.7	1062.6	901.0	726.1	547.7	386.1	111.8
52.5°	1515.3	1494.0	1431.9	1325.3	1193.1	1042.2	874.4	700.4	519.3	354.2	85.2
55°	1497.5	1478.0	1413.2	1309.4	1169.1	1017.3	849.5	672.9	491.8	321.3	61.3
57.5°	1470.0	1452.3	1390.1	1283.6	1145.1	989.8	822.0	642.7	457.2	288.5	42.6
60°	1436.3	1418.5	1358.2	1254.3	1117.6	958.7	791.8	611.6	426.1	255.7	26.6
62.5°	1400.8	1383.9	1320.9	1217.9	1083.0	925.9	759.0	580.6	393.2	225.5	16.0
65°	1353.7	1337.8	1280.9	1174.4	1044.8	890.4	722.6	543.3	359.5	191.7	8.9
67.5°	1304.0	1289.8	1232.1	1134.5	1000.4	851.3	685.3	506.9	324.0	162.4	4.4
70°	1250.8	1233.0	1179.7	1080.3	955.2	806.9	644.5	469.6	290.3	134.0	0.0
72.5°	1188.6	1175.3	1123.8	1029.7	902.8	759.9	602.7	428.8	253.0	106.5	0.9
75°	1128.3	1111.4	1064.3	975.6	851.3	710.2	556.6	390.6	216.6	81.7	0.9
77.5°	1050.1	1044.8	1000.4	914.3	802.5	662.2	506.0	344.4	182.0	58.6	0.9
80°	972.0	966.7	932.1	853.1	745.7	605.4	458.9	300.9	148.2	39.1	0.9
82.5°	894.8	887.7	854.9	789.2	688.0	557.5	410.1	257.4	117.2	24.0	0.9
85°	825.6	816.7	781.2	720.8	628.5	503.3	359.5	214.8	87.0	13.3	1.8
87.5°	766.1	759.9	720.8	658.7	568.1	452.7	315.1	174.0	61.3	6.2	2.7
90°	715.5	702.2	667.5	601.9	511.3	396.8	268.1	139.4	40.8	3.6	3.6
92.5°	665.8	654.2	616.1	548.6	460.7	348.9	222.8	106.5	25.7	1.8	4.4
95°	614.3	601.9	564.6	502.4	409.2	300.0	182.9	78.1	14.2	1.8	4.4
97.5°	563.7	552.1	513.1	450.9	363.1	257.4	144.7	55.0	7.1	1.8	3.6
100°	516.6	503.3	467.8	405.7	316.9	214.8	111.8	35.5	4.4	1.8	3.6
102.5°	466.9	456.3	419.9	359.5	269.0	174.9	83.4	22.2	1.8	1.8	2.7
105°	422.5	409.2	373.7	311.6	229.0	137.6	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°	275.2	264.5	233.5	181.1	116.3	54.1	16.0	2.7	2.7	2.7	2.7
115°	229.9	213.9	186.4	140.3	86.1	35.5	8.0	2.7	2.7	2.7	2.7
117.5°	183.8	170.4	150.9	106.5	56.8	23.1	4.4	2.7	2.7	2.7	2.7
120°	143.8	131.4	109.2	73.7	38.2	13.3	1.8	2.7	2.7	2.7	2.7
122.5°	103.0	93.2	73.7	47.9	23.1	6.2	2.7	2.7	3.6	3.6	2.7
125°	68.4	63.0	48.8	29.3	14.2	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	44.4	39.9	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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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	696.8	696.8	696.8
2.5°	663.1	650.7	647.1
5°	627.6	607.2	595.6
7.5°	592.1	564.6	551.3
10°	559.2	520.2	506.0
12.5°	520.2	474.9	452.7
15°	482.9	424.3	403.0
17.5°	441.2	375.5	350.6
20°	402.1	326.7	300.9
22.5°	357.7	278.7	250.3
25°	317.8	230.8	198.8
27.5°	273.4	182.0	154.5
30°	231.7	139.4	111.8
32.5°	191.7	102.1	77.2
35°	154.5	69.2	48.8
37.5°	119.0	42.6	24.9
40°	86.1	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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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-96-ED1D-90

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°	372.8	362.2	326.7	268.1	187.3	104.7	39.1	7.1	1.8	2.7	2.7
110°	324.9	316.0	279.6	222.8	150.9	78.1	25.7	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)