

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: P551303

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-93-84-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: P551303
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-35-UNV-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

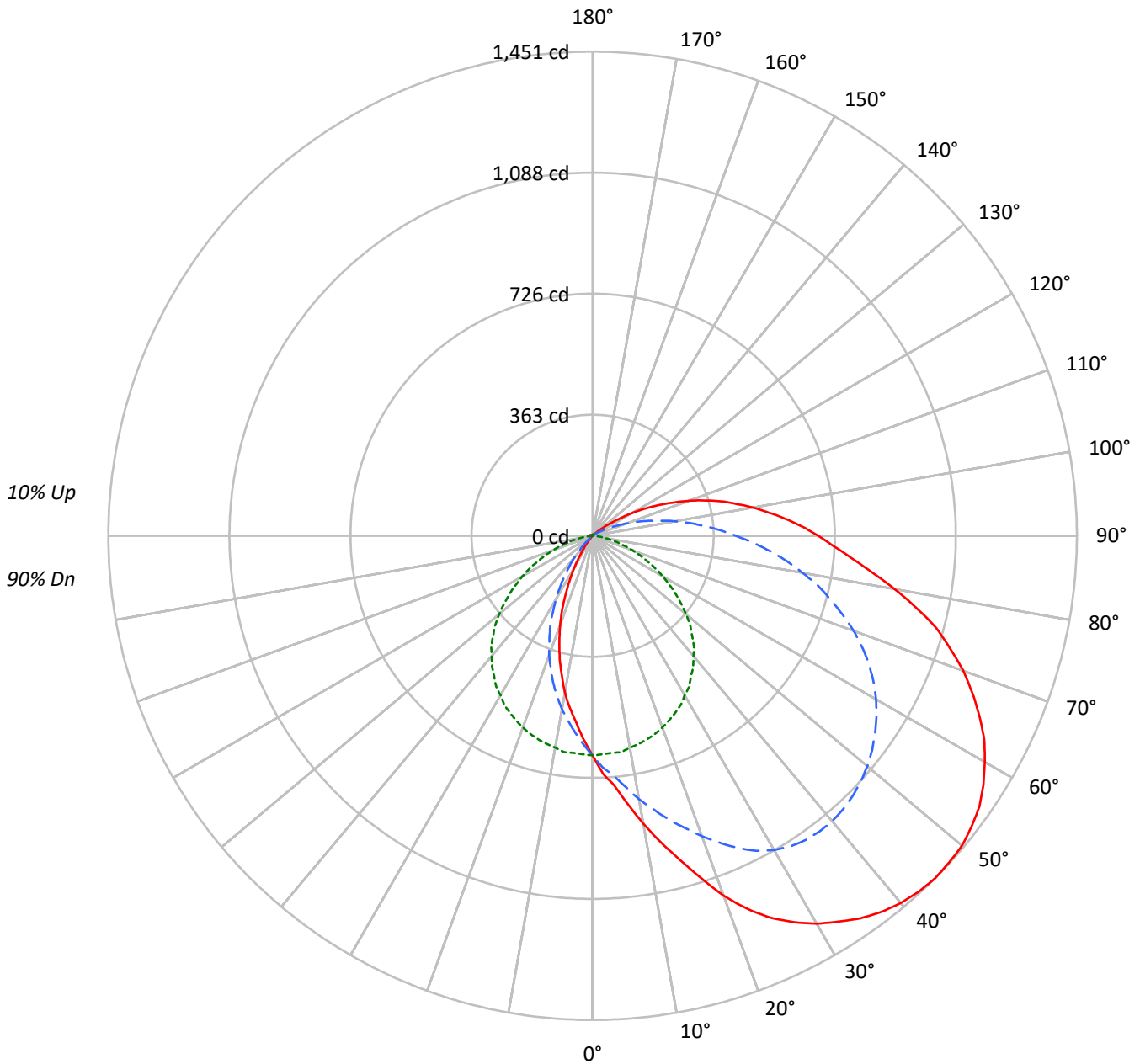
Lumens per Lamp: N/A
Luminaire Lumens: 3254.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	7085	7085	7085
5°	7778	6981	5824
10°	8801	6896	4800
15°	9863	6808	3741
20°	11124	6698	2754
25°	12170	6569	1809
30°	12947	6396	1018
35°	13620	6211	449
40°	14217	5982	108
45°	14729	5695	0
50°	15159	5315	0
55°	15486	4833	0
60°	15652	4274	0
65°	15716	3637	0
70°	15663	2966	0
75°	15464	2186	12
80°	14837	1338	68
85°	14342	641	92



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	1.9
10°-20°	188.8	5.8
20°-30°	305.7	9.4
30°-40°	392.7	12.1
40°-50°	444.5	13.7
50°-60°	460.5	14.2
60°-70°	434.3	13.3
70°-80°	364.0	11.2
80°-90°	263.8	8.1
90°-100°	173.4	5.3
100°-110°	100.1	3.1
110°-120°	44.2	1.4
120°-130°	12.0	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°	557.5	17.1
0°-40°	950.2	29.2
0°-60°	1855.3	57.0
0°-90°	2917.5	89.7
90°-120°	317.7	9.8
90°-150°	334.3	10.3
90°-180°	337.0	10.4
0°-180°	3254.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	658	658	658	658	658	
5°	751	722	653	593	563	76
15°	1004	880	631	456	381	289
25°	1264	1033	585	300	188	584
35°	1399	1113	514	146	46	878
45°	1451	1102	421	34	0	1121
55°	1414	1033	304	0	0	1263
65°	1279	914	181	0	0	1265
75°	1066	737	77	1	1	1118
85°	780	534	13	3	5	666
90°	676	429	3	5	6	371
95°	580	335	2	6	8	455
105°	399	173	2	4	7	421
115°	217	57	2	2	4	217
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°	658.2	658.2	658.2	658.2	658.2	658.2	658.2	658.2	658.2	658.2	658.2
2.5°	713.5	712.7	710.2	706.0	700.1	690.1	681.7	674.1	664.1	655.7	639.8
5°	751.3	747.1	743.7	739.5	726.1	716.9	701.8	685.0	669.1	653.2	621.3
7.5°	811.6	804.9	799.9	788.2	769.7	748.8	725.3	709.4	698.5	654.0	599.5
10°	876.2	870.3	860.3	839.3	816.7	786.5	753.0	715.2	681.7	644.8	580.2
12.5°	939.9	931.6	917.3	890.5	858.6	820.9	774.8	730.3	682.5	638.9	557.6
15°	1003.7	994.4	979.3	946.6	904.7	855.2	799.1	742.9	686.7	631.4	534.1
17.5°	1073.3	1060.7	1038.0	1001.1	948.3	887.1	820.9	753.0	685.0	622.2	509.0
20°	1147.9	1130.3	1106.0	1056.5	994.4	922.3	842.7	763.0	684.2	611.3	480.4
22.5°	1209.9	1192.3	1165.5	1114.3	1039.7	951.7	861.1	769.7	680.8	598.7	453.6
25°	1263.6	1249.3	1220.0	1161.3	1082.5	982.7	878.7	774.8	675.8	585.3	425.1
27.5°	1305.5	1292.1	1259.4	1199.0	1118.5	1010.4	892.1	777.3	669.1	571.8	395.8
30°	1342.4	1329.0	1289.6	1227.5	1142.8	1032.2	905.6	778.1	660.7	551.7	363.9
32.5°	1370.9	1358.3	1318.1	1251.8	1159.6	1047.3	913.1	777.3	649.8	537.5	329.5
35°	1399.4	1386.8	1339.9	1269.5	1172.2	1054.0	919.0	773.1	636.4	514.0	296.8
37.5°	1421.2	1407.0	1359.2	1281.2	1178.1	1055.6	918.1	767.2	622.2	494.7	264.1
40°	1436.3	1421.2	1370.1	1287.9	1179.7	1053.1	911.4	757.1	605.4	470.4	229.7
42.5°	1446.4	1429.6	1375.1	1298.0	1176.4	1046.4	901.4	744.6	586.9	449.4	197.0
45°	1451.4	1433.8	1375.9	1289.6	1170.5	1033.8	886.3	728.6	566.8	420.9	164.3
47.5°	1448.9	1429.6	1371.8	1280.4	1159.6	1020.4	869.5	709.4	542.5	395.8	133.3
50°	1444.7	1424.6	1362.5	1268.6	1144.5	1003.7	851.1	685.9	517.3	364.7	105.6
52.5°	1431.3	1411.2	1352.5	1251.8	1126.9	984.4	825.9	661.6	490.5	334.6	80.5
55°	1414.5	1396.1	1334.9	1236.8	1104.3	960.9	802.4	635.6	464.5	303.5	57.9
57.5°	1388.5	1371.8	1313.1	1212.4	1081.6	934.9	776.4	607.1	431.8	272.5	40.2
60°	1356.7	1339.9	1282.9	1184.8	1055.6	905.6	747.9	577.7	402.5	241.5	25.2
62.5°	1323.1	1307.2	1247.7	1150.4	1022.9	874.5	716.9	548.4	371.4	213.0	15.1
65°	1278.7	1263.6	1209.9	1109.3	986.9	841.0	682.5	513.1	339.6	181.1	8.4
67.5°	1231.7	1218.3	1163.8	1071.6	945.0	804.1	647.3	478.8	306.0	153.4	4.2
70°	1181.4	1164.6	1114.3	1020.4	902.2	762.2	608.7	443.6	274.2	126.6	0.0
72.5°	1122.7	1110.1	1061.5	972.6	852.7	717.7	569.3	405.0	239.0	100.6	0.8
75°	1065.7	1049.8	1005.3	921.5	804.1	670.8	525.7	368.9	204.6	77.1	0.8
77.5°	991.9	986.9	945.0	863.6	758.0	625.5	477.9	325.3	171.9	55.3	0.8
80°	918.1	913.1	880.4	805.8	704.3	571.8	433.5	284.2	140.0	36.9	0.8
82.5°	845.2	838.5	807.5	745.4	649.8	526.6	387.4	243.2	110.7	22.6	0.8
85°	779.8	771.4	737.9	680.8	593.6	475.4	339.6	202.9	82.2	12.6	1.7
87.5°	723.6	717.7	680.8	622.2	536.6	427.6	297.7	164.3	57.9	5.9	2.5
90°	675.8	663.2	630.5	568.5	483.0	374.8	253.2	131.6	38.6	3.4	3.4
92.5°	628.9	618.0	581.9	518.2	435.2	329.5	210.5	100.6	24.3	1.7	4.2
95°	580.2	568.5	533.3	474.6	386.5	283.4	172.7	73.8	13.4	1.7	4.2
97.5°	532.4	521.5	484.6	425.9	342.9	243.2	136.7	52.0	6.7	1.7	3.4
100°	488.0	475.4	441.9	383.2	299.3	202.9	105.6	33.5	4.2	1.7	3.4
102.5°	441.0	431.0	396.6	339.6	254.1	165.2	78.8	21.0	1.7	1.7	2.5
105°	399.1	386.5	353.0	294.3	216.3	130.0	55.3	12.6	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°	259.9	249.9	220.5	171.0	109.8	51.1	15.1	2.5	2.5	2.5	2.5
115°	217.2	202.1	176.1	132.5	81.3	33.5	7.5	2.5	2.5	2.5	2.5
117.5°	173.6	161.0	142.5	100.6	53.7	21.8	4.2	2.5	2.5	2.5	2.5
120°	135.8	124.1	103.1	69.6	36.1	12.6	1.7	2.5	2.5	2.5	2.5
122.5°	97.3	88.0	69.6	45.3	21.8	5.9	2.5	2.5	3.4	3.4	2.5
125°	64.6	59.5	46.1	27.7	13.4	2.5	2.5	2.5	3.4	3.4	2.5
127.5°	41.9	37.7	26.8	15.9	5.9	2.5	2.5	3.4	3.4	3.4	2.5
130°	23.5	21.0	15.9	9.2	2.5	2.5	2.5	3.4	3.4	3.4	2.5
132.5°	13.4	12.6	8.4	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°	658.2	658.2	658.2
2.5°	626.3	614.6	611.3
5°	592.8	573.5	562.6
7.5°	559.3	533.3	520.7
10°	528.2	491.3	477.9
12.5°	491.3	448.6	427.6
15°	456.1	400.8	380.7
17.5°	416.7	354.7	331.2
20°	379.8	308.6	284.2
22.5°	337.9	263.3	236.5
25°	300.2	218.0	187.8
27.5°	258.3	171.9	145.9
30°	218.8	131.6	105.6
32.5°	181.1	96.4	72.9
35°	145.9	65.4	46.1
37.5°	112.4	40.2	23.5
40°	81.3	21.0	10.9
42.5°	54.5	10.1	5.9
45°	33.5	5.0	0.0
47.5°	19.3	0.0	0.0
50°	10.1	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	5.0
87.5°	4.2	5.0	5.9
90°	5.0	5.9	5.9
92.5°	5.0	6.7	6.7
95°	5.9	6.7	7.5
97.5°	6.7	7.5	7.5
100°	5.9	7.5	8.4
102.5°	5.0	7.5	7.5
105°	4.2	5.9	6.7



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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°	352.2	342.1	308.6	253.2	176.9	98.9	36.9	6.7	1.7	2.5	2.5
110°	306.9	298.5	264.1	210.5	142.5	73.8	24.3	4.2	2.5	2.5	2.5





107.5°	3.4	5.0	5.9
110°	3.4	4.2	5.0



(END OF REPORT)