

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: P551344

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-88-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: P551344
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-40-UNV-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

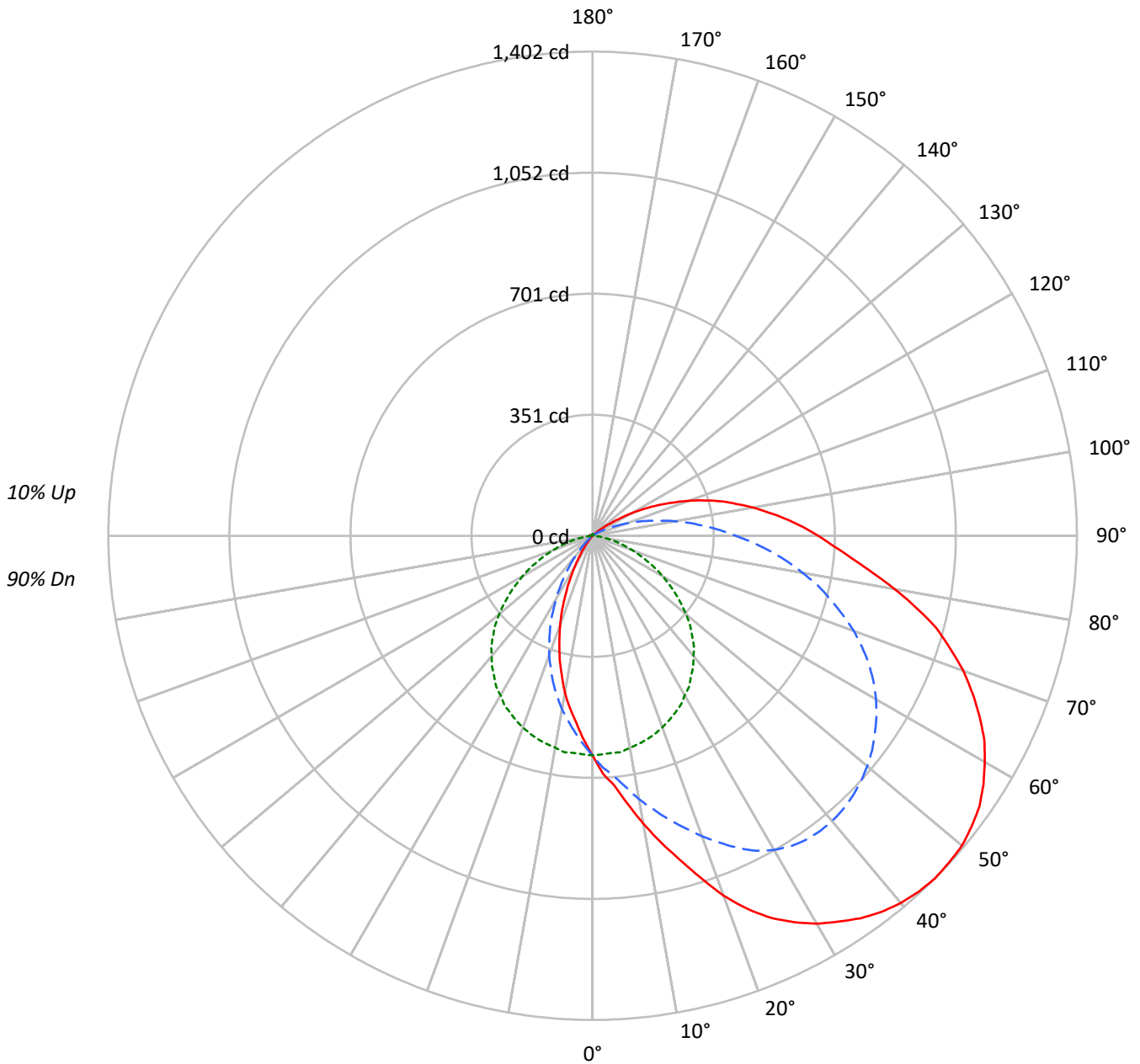
Lumens per Lamp: N/A
Luminaire Lumens: 3143.9 lumens
Efficiency: N/A
Efficacy: 72.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-88-ED1D

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°	6846	6846	6846
5°	7515	6745	5627
10°	8504	6663	4639
15°	9529	6577	3614
20°	10748	6471	2661
25°	11759	6346	1748
30°	12509	6180	985
35°	13160	6000	434
40°	13737	5780	104
45°	14231	5503	0
50°	14647	5136	0
55°	14963	4670	0
60°	15122	4129	0
65°	15185	3515	0
70°	15134	2865	0
75°	14942	2113	12
80°	14336	1291	66
85°	13856	620	90



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	1.9
10°-20°	182.4	5.8
20°-30°	295.4	9.4
30°-40°	379.4	12.1
40°-50°	429.5	13.7
50°-60°	445.0	14.2
60°-70°	419.7	13.3
70°-80°	351.7	11.2
80°-90°	254.9	8.1
90°-100°	167.6	5.3
100°-110°	96.8	3.1
110°-120°	42.7	1.4
120°-130°	11.5	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	538.7	17.1
0°-40°	918.1	29.2
0°-60°	1792.6	57.0
0°-90°	2818.9	89.7
90°-120°	307.0	9.8
90°-150°	322.9	10.3
90°-180°	325.0	10.3
0°-180°	3143.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	636	636	636	636	636	
5°	726	697	631	573	544	73
15°	970	850	610	441	368	280
25°	1221	998	566	290	182	564
35°	1352	1075	497	141	45	848
45°	1402	1065	407	32	0	1083
55°	1367	998	293	0	0	1220
65°	1236	883	175	0	0	1222
75°	1030	712	74	1	1	1080
85°	753	516	12	3	5	643
90°	653	414	3	5	6	358
95°	561	324	2	6	7	440
105°	386	167	2	4	6	407
115°	210	56	2	2	4	210
125°	62	8	3	2	3	62
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°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	689.4	688.6	686.2	682.1	676.5	666.7	658.6	651.3	641.6	633.5	618.1
5°	725.9	721.8	718.6	714.5	701.6	692.7	678.1	661.9	646.5	631.1	600.3
7.5°	784.2	777.7	772.9	761.5	743.7	723.5	700.8	685.4	674.8	631.9	579.2
10°	846.6	840.9	831.2	810.9	789.1	759.9	727.5	691.0	658.6	623.0	560.6
12.5°	908.2	900.1	886.3	860.4	829.6	793.1	748.6	705.6	659.4	617.3	538.7
15°	969.7	960.8	946.2	914.6	874.1	826.3	772.1	717.8	663.5	610.0	516.1
17.5°	1037.0	1024.8	1002.9	967.3	916.3	857.1	793.1	727.5	661.9	601.1	491.8
20°	1109.1	1092.1	1068.6	1020.8	960.8	891.1	814.2	737.2	661.1	590.6	464.2
22.5°	1169.0	1152.0	1126.1	1076.7	1004.6	919.5	832.0	743.7	657.8	578.4	438.3
25°	1220.9	1207.1	1178.7	1122.0	1045.9	949.5	849.0	748.6	653.0	565.5	410.7
27.5°	1261.4	1248.4	1216.8	1158.5	1080.7	976.2	862.0	751.0	646.5	552.5	382.4
30°	1297.0	1284.1	1246.0	1186.0	1104.2	997.3	874.9	751.8	638.4	533.1	351.6
32.5°	1324.6	1312.4	1273.5	1209.5	1120.4	1011.9	882.2	751.0	627.9	519.3	318.4
35°	1352.1	1340.0	1294.6	1226.5	1132.6	1018.3	887.9	746.9	614.9	496.6	286.8
37.5°	1373.2	1359.4	1313.2	1237.9	1138.2	1020.0	887.1	741.3	601.1	478.0	255.2
40°	1387.8	1373.2	1323.8	1244.4	1139.9	1017.5	880.6	731.6	584.9	454.5	222.0
42.5°	1397.5	1381.3	1328.6	1254.1	1136.6	1011.0	870.9	719.4	567.1	434.2	190.4
45°	1402.3	1385.3	1329.4	1246.0	1130.9	998.9	856.3	704.0	547.7	406.7	158.8
47.5°	1399.9	1381.3	1325.4	1237.1	1120.4	985.9	840.1	685.4	524.2	382.4	128.8
50°	1395.9	1376.4	1316.5	1225.7	1105.8	969.7	822.3	662.7	499.9	352.4	102.1
52.5°	1382.9	1363.5	1306.7	1209.5	1088.8	951.1	798.0	639.2	473.9	323.2	77.8
55°	1366.7	1348.9	1289.7	1194.9	1066.9	928.4	775.3	614.1	448.8	293.3	55.9
57.5°	1341.6	1325.4	1268.7	1171.5	1045.1	903.3	750.2	586.5	417.2	263.3	38.9
60°	1310.8	1294.6	1239.5	1144.7	1020.0	874.9	722.6	558.2	388.9	233.3	24.3
62.5°	1278.4	1263.0	1205.5	1111.5	988.4	845.0	692.7	529.8	358.9	205.8	14.6
65°	1235.5	1220.9	1169.0	1071.8	953.5	812.6	659.4	495.8	328.1	175.0	8.1
67.5°	1190.1	1177.1	1124.5	1035.4	913.0	776.9	625.4	462.6	295.7	148.3	4.1
70°	1141.5	1125.3	1076.7	985.9	871.7	736.4	588.2	428.6	264.9	122.3	0.0
72.5°	1084.8	1072.6	1025.6	939.8	823.9	693.5	550.1	391.3	230.9	97.2	0.8
75°	1029.7	1014.3	971.4	890.3	776.9	648.1	508.0	356.5	197.7	74.5	0.8
77.5°	958.4	953.5	913.0	834.4	732.4	604.4	461.8	314.3	166.1	53.5	0.8
80°	887.1	882.2	850.6	778.5	680.5	552.5	418.8	274.6	135.3	35.6	0.8
82.5°	816.6	810.1	780.2	720.2	627.9	508.8	374.3	234.9	106.9	21.9	0.8
85°	753.4	745.3	712.9	657.8	573.6	459.3	328.1	196.1	79.4	12.2	1.6
87.5°	699.1	693.5	657.8	601.1	518.5	413.2	287.6	158.8	55.9	5.7	2.4
90°	653.0	640.8	609.2	549.3	466.6	362.1	244.7	127.2	37.3	3.2	3.2
92.5°	607.6	597.1	562.2	500.7	420.5	318.4	203.3	97.2	23.5	1.6	4.1
95°	560.6	549.3	515.2	458.5	373.5	273.8	166.9	71.3	13.0	1.6	4.1
97.5°	514.4	503.9	468.3	411.5	331.3	234.9	132.1	50.2	6.5	1.6	3.2
100°	471.5	459.3	426.9	370.2	289.2	196.1	102.1	32.4	4.1	1.6	3.2
102.5°	426.1	416.4	383.2	328.1	245.5	159.6	76.2	20.3	1.6	1.6	2.4
105°	385.6	373.5	341.1	284.4	209.0	125.6	53.5	12.2	1.6	1.6	2.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	251.1	241.4	213.1	165.3	106.1	49.4	14.6	2.4	2.4	2.4	2.4
115°	209.8	195.2	170.1	128.0	78.6	32.4	7.3	2.4	2.4	2.4	2.4
117.5°	167.7	155.5	137.7	97.2	51.8	21.1	4.1	2.4	2.4	2.4	2.4
120°	131.2	119.9	99.6	67.2	34.8	12.2	1.6	2.4	2.4	2.4	2.4
122.5°	94.0	85.1	67.2	43.7	21.1	5.7	2.4	2.4	3.2	3.2	2.4
125°	62.4	57.5	44.6	26.7	13.0	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.5	36.5	25.9	15.4	5.7	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.7	20.3	15.4	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	13.0	12.2	8.1	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.1	4.1	4.1	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.1	4.1	4.1	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	4.1
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	4.1
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	636.0	636.0	636.0
2.5°	605.2	593.8	590.6
5°	572.8	554.1	543.6
7.5°	540.4	515.2	503.1
10°	510.4	474.7	461.8
12.5°	474.7	433.4	413.2
15°	440.7	387.2	367.8
17.5°	402.6	342.7	320.0
20°	367.0	298.1	274.6
22.5°	326.5	254.4	228.5
25°	290.0	210.6	181.5
27.5°	249.5	166.1	141.0
30°	211.4	127.2	102.1
32.5°	175.0	93.2	70.5
35°	141.0	63.2	44.6
37.5°	108.6	38.9	22.7
40°	78.6	20.3	10.5
42.5°	52.7	9.7	5.7
45°	32.4	4.9	0.0
47.5°	18.6	0.0	0.0
50°	9.7	0.0	0.0
52.5°	4.1	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	1.6	2.4
80°	1.6	3.2	4.1
82.5°	3.2	4.1	4.1
85°	3.2	4.1	4.9
87.5°	4.1	4.9	5.7
90°	4.9	5.7	5.7
92.5°	4.9	6.5	6.5
95°	5.7	6.5	7.3
97.5°	6.5	7.3	7.3
100°	5.7	7.3	8.1
102.5°	4.9	7.3	7.3
105°	4.1	5.7	6.5



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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.2	4.1	4.1
115°	2.4	3.2	4.1
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	340.3	330.5	298.1	244.7	170.9	95.6	35.6	6.5	1.6	2.4	2.4
110°	296.5	288.4	255.2	203.3	137.7	71.3	23.5	4.1	2.4	2.4	2.4





107.5°	3.2	4.9	5.7
110°	3.2	4.1	4.9



(END OF REPORT)