

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: P551538

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-81-94-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: P551538
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-LD4-2LO-35-UNV-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

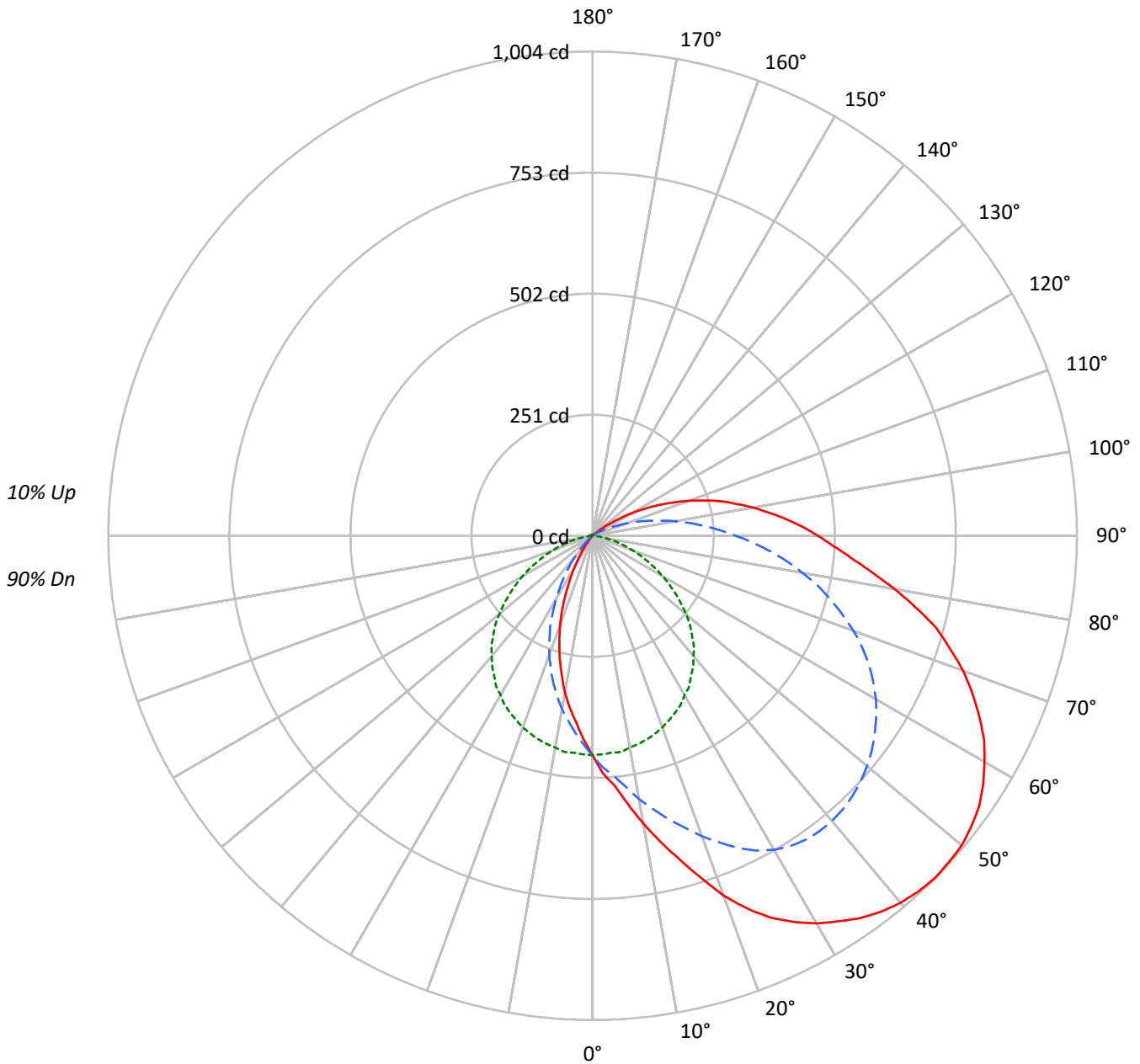
Lumens per Lamp: N/A
Luminaire Lumens: 2249.9 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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: P551538

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-94-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°	4899	4899	4899
5°	5378	4827	4027
10°	6086	4767	3320
15°	6820	4708	2586
20°	7692	4631	1904
25°	8415	4542	1251
30°	8952	4423	705
35°	9417	4294	310
40°	9830	4137	74
45°	10185	3938	0
50°	10482	3676	0
55°	10709	3342	0
60°	10823	2955	0
65°	10867	2515	0
70°	10831	2050	0
75°	10693	1512	9
80°	10260	925	47
85°	9917	442	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.6	1.9
10°-20°	130.5	5.8
20°-30°	211.4	9.4
30°-40°	271.5	12.1
40°-50°	307.4	13.7
50°-60°	318.5	14.2
60°-70°	300.3	13.3
70°-80°	251.7	11.2
80°-90°	182.4	8.1
90°-100°	119.9	5.3
100°-110°	69.2	3.1
110°-120°	30.5	1.4
120°-130°	8.3	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	385.5	17.1
0°-40°	657.0	29.2
0°-60°	1282.9	57.0
0°-90°	2017.3	89.7
90°-120°	219.7	9.8
90°-150°	231.1	10.3
90°-180°	233.0	10.4
0°-180°	2249.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	455	455	455	455	455	
5°	520	499	452	410	389	52
15°	694	608	437	315	263	200
25°	874	714	405	208	130	404
35°	968	770	355	101	32	607
45°	1004	762	291	23	0	775
55°	978	714	210	0	0	873
65°	884	632	125	0	0	875
75°	737	510	53	1	1	773
85°	539	370	9	2	4	460
90°	467	297	2	4	4	256
95°	401	232	1	4	5	315
105°	276	120	1	3	5	291
115°	150	40	2	2	3	150
125°	45	6	2	2	2	45
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	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°	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1
2.5°	493.4	492.8	491.1	488.2	484.1	477.2	471.4	466.1	459.2	453.4	442.4
5°	519.5	516.6	514.3	511.4	502.1	495.7	485.3	473.7	462.7	451.6	429.6
7.5°	561.2	556.6	553.1	545.0	532.2	517.7	501.5	490.5	483.0	452.2	414.5
10°	605.9	601.8	594.8	580.4	564.7	543.8	520.6	494.5	471.4	445.8	401.2
12.5°	649.9	644.1	634.3	615.7	593.7	567.6	535.7	505.0	471.9	441.8	385.5
15°	694.0	687.6	677.2	654.6	625.6	591.4	552.5	513.7	474.8	436.6	369.3
17.5°	742.1	733.4	717.8	692.2	655.7	613.4	567.6	520.6	473.7	430.2	351.9
20°	793.7	781.5	764.7	730.5	687.6	637.7	582.7	527.6	473.1	422.7	332.2
22.5°	836.6	824.4	805.9	770.5	718.9	658.0	595.4	532.2	470.8	414.0	313.7
25°	873.7	863.9	843.6	803.0	748.5	679.5	607.6	535.7	467.3	404.7	293.9
27.5°	902.7	893.4	870.8	829.1	773.4	698.6	616.9	537.4	462.7	395.4	273.7
30°	928.2	918.9	891.7	848.8	790.2	713.7	626.2	538.0	456.9	381.5	251.6
32.5°	947.9	939.2	911.4	865.6	801.8	724.1	631.4	537.4	449.3	371.6	227.9
35°	967.6	958.9	926.5	877.8	810.5	728.8	635.4	534.5	440.0	355.4	205.2
37.5°	982.7	972.9	939.8	885.9	814.6	729.9	634.9	530.5	430.2	342.1	182.6
40°	993.1	982.7	947.3	890.5	815.7	728.2	630.2	523.5	418.6	325.3	158.9
42.5°	1000.1	988.5	950.8	897.5	813.4	723.6	623.3	514.8	405.8	310.8	136.2
45°	1003.6	991.4	951.4	891.7	809.4	714.9	612.8	503.8	391.9	291.0	113.6
47.5°	1001.8	988.5	948.5	885.3	801.8	705.6	601.2	490.5	375.1	273.7	92.2
50°	998.9	985.0	942.1	877.2	791.4	694.0	588.5	474.3	357.7	252.2	73.1
52.5°	989.7	975.8	935.2	865.6	779.2	680.7	571.1	457.4	339.2	231.3	55.7
55°	978.1	965.3	923.0	855.2	763.6	664.4	554.8	439.5	321.2	209.9	40.0
57.5°	960.1	948.5	907.9	838.4	747.9	646.4	536.9	419.8	298.6	188.4	27.8
60°	938.1	926.5	887.1	819.2	729.9	626.2	517.2	399.5	278.3	167.0	17.4
62.5°	914.9	903.9	862.7	795.4	707.3	604.7	495.7	379.2	256.8	147.3	10.4
65°	884.2	873.7	836.6	767.0	682.4	581.5	471.9	354.8	234.8	125.2	5.8
67.5°	851.7	842.4	804.7	740.9	653.4	556.0	447.6	331.0	211.6	106.1	2.9
70°	816.9	805.3	770.5	705.6	623.8	527.0	420.9	306.7	189.6	87.5	0.0
72.5°	776.3	767.6	734.0	672.5	589.6	496.3	393.7	280.0	165.2	69.6	0.6
75°	736.9	725.9	695.1	637.2	556.0	463.8	363.5	255.1	141.5	53.3	0.6
77.5°	685.9	682.4	653.4	597.2	524.1	432.5	330.5	225.0	118.9	38.3	0.6
80°	634.9	631.4	608.8	557.2	487.0	395.4	299.7	196.5	96.8	25.5	0.6
82.5°	584.4	579.8	558.3	515.4	449.3	364.1	267.9	168.1	76.5	15.7	0.6
85°	539.2	533.4	510.2	470.8	410.5	328.7	234.8	140.3	56.8	8.7	1.2
87.5°	500.3	496.3	470.8	430.2	371.1	295.7	205.8	113.6	40.0	4.1	1.7
90°	467.3	458.6	436.0	393.1	333.9	259.2	175.1	91.0	26.7	2.3	2.3
92.5°	434.8	427.3	402.4	358.3	300.9	227.9	145.5	69.6	16.8	1.2	2.9
95°	401.2	393.1	368.7	328.2	267.3	196.0	119.4	51.0	9.3	1.2	2.9
97.5°	368.2	360.6	335.1	294.5	237.1	168.1	94.5	35.9	4.6	1.2	2.3
100°	337.4	328.7	305.5	265.0	207.0	140.3	73.1	23.2	2.9	1.2	2.3
102.5°	305.0	298.0	274.2	234.8	175.7	114.2	54.5	14.5	1.2	1.2	1.7
105°	276.0	267.3	244.1	203.5	149.6	89.9	38.3	8.7	1.2	1.2	1.7



TEST NUMBER: P551538

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	179.7	172.8	152.5	118.3	76.0	35.4	10.4	1.7	1.7	1.7	1.7
115°	150.2	139.7	121.8	91.6	56.2	23.2	5.2	1.7	1.7	1.7	1.7
117.5°	120.0	111.3	98.6	69.6	37.1	15.1	2.9	1.7	1.7	1.7	1.7
120°	93.9	85.8	71.3	48.1	24.9	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.3	60.9	48.1	31.3	15.1	4.1	1.7	1.7	2.3	2.3	1.7
125°	44.6	41.2	31.9	19.1	9.3	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	29.0	26.1	18.6	11.0	4.1	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.2	14.5	11.0	6.4	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.3	8.7	5.8	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	455.1	455.1	455.1
2.5°	433.1	425.0	422.7
5°	409.9	396.6	389.0
7.5°	386.7	368.7	360.0
10°	365.3	339.7	330.5
12.5°	339.7	310.2	295.7
15°	315.4	277.1	263.2
17.5°	288.1	245.2	229.0
20°	262.6	213.4	196.5
22.5°	233.6	182.0	163.5
25°	207.6	150.7	129.9
27.5°	178.6	118.9	100.9
30°	151.3	91.0	73.1
32.5°	125.2	66.7	50.4
35°	100.9	45.2	31.9
37.5°	77.7	27.8	16.2
40°	56.2	14.5	7.5
42.5°	37.7	7.0	4.1
45°	23.2	3.5	0.0
47.5°	13.3	0.0	0.0
50°	7.0	0.0	0.0
52.5°	2.9	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.7
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.6	4.6
95°	4.1	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.1	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.1	4.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.2
152.5°	1.7	1.2	1.2
155°	1.7	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.7	1.2	0.6
162.5°	1.7	1.2	0.6
165°	1.7	1.2	0.0
167.5°	1.7	1.2	0.6
170°	1.7	1.2	0.6
172.5°	1.7	1.2	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	243.5	236.5	213.4	175.1	122.3	68.4	25.5	4.6	1.2	1.7	1.7
110°	212.2	206.4	182.6	145.5	98.6	51.0	16.8	2.9	1.7	1.7	1.7





107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)