

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: P550964

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-81-96-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: P550964
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-LD4-1STD-30-UNV-81-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

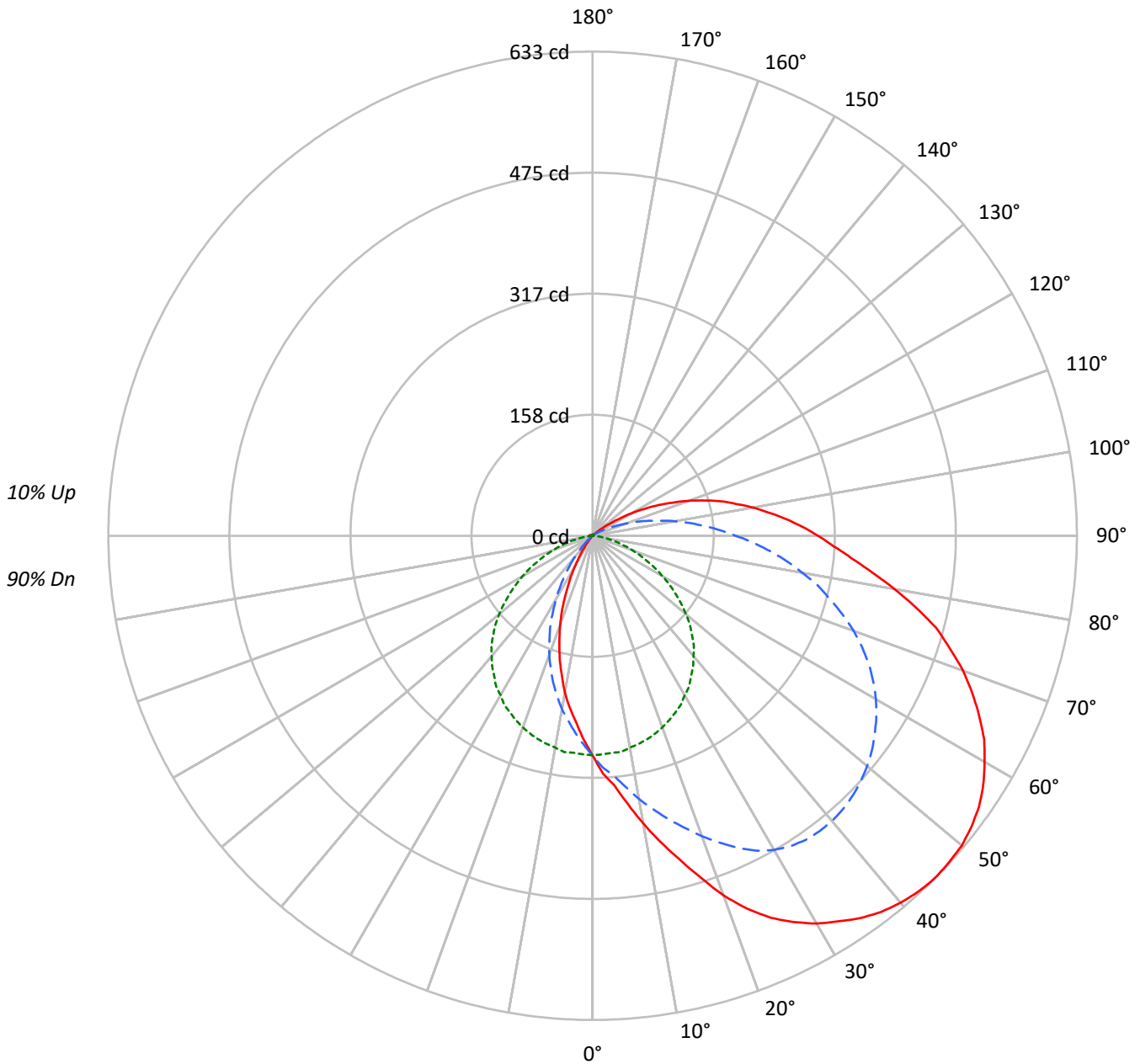
Lumens per Lamp: N/A
Luminaire Lumens: 1419.1 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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: P550964

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-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°	3089	3089	3089
5°	3391	3044	2539
10°	3838	3007	2093
15°	4301	2968	1631
20°	4851	2921	1202
25°	5307	2864	789
30°	5646	2789	445
35°	5940	2708	196
40°	6199	2608	48
45°	6423	2484	0
50°	6611	2319	0
55°	6753	2108	0
60°	6825	1863	0
65°	6853	1587	0
70°	6831	1293	0
75°	6743	953	6
80°	6471	584	29
85°	6253	280	40



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	1.9
10°-20°	82.3	5.8
20°-30°	133.3	9.4
30°-40°	171.2	12.1
40°-50°	193.9	13.7
50°-60°	200.8	14.2
60°-70°	189.4	13.3
70°-80°	158.7	11.2
80°-90°	115.1	8.1
90°-100°	75.6	5.3
100°-110°	43.7	3.1
110°-120°	19.3	1.4
120°-130°	5.2	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	243.1	17.1
0°-40°	414.4	29.2
0°-60°	809.1	57.0
0°-90°	1272.3	89.7
90°-120°	138.6	9.8
90°-150°	145.8	10.3
90°-180°	147.0	10.4
0°-180°	1419.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	287	287	287	287	287	
5°	328	315	285	258	245	33
15°	438	384	275	199	166	126
25°	551	450	255	131	82	255
35°	610	485	224	64	20	383
45°	633	481	184	15	0	489
55°	617	450	132	0	0	551
65°	558	399	79	0	0	552
75°	465	322	34	0	0	487
85°	340	233	6	2	2	290
90°	295	187	2	2	3	162
95°	253	146	1	3	3	199
105°	174	76	1	2	3	184
115°	95	25	1	1	2	95
125°	28	4	2	1	2	28
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550964

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0	287.0
2.5°	311.2	310.8	309.7	307.9	305.3	300.9	297.3	294.0	289.6	285.9	279.0
5°	327.6	325.8	324.3	322.5	316.6	312.6	306.0	298.7	291.8	284.8	270.9
7.5°	353.9	351.0	348.8	343.7	335.7	326.5	316.3	309.3	304.6	285.2	261.4
10°	382.1	379.5	375.1	366.0	356.1	343.0	328.3	311.9	297.3	281.2	253.0
12.5°	409.9	406.2	400.0	388.3	374.4	358.0	337.9	318.5	297.6	278.6	243.2
15°	437.7	433.7	427.1	412.8	394.5	373.0	348.5	324.0	299.5	275.3	232.9
17.5°	468.0	462.5	452.7	436.6	413.5	386.9	358.0	328.3	298.7	271.3	221.9
20°	500.6	492.9	482.3	460.7	433.7	402.2	367.5	332.7	298.4	266.6	209.5
22.5°	527.6	519.9	508.2	485.9	453.4	415.0	375.5	335.7	296.9	261.1	197.8
25°	551.0	544.8	532.0	506.4	472.0	428.5	383.2	337.9	294.7	255.2	185.4
27.5°	569.3	563.5	549.2	522.9	487.8	440.6	389.0	339.0	291.8	249.4	172.6
30°	585.4	579.5	562.4	535.3	498.4	450.1	394.9	339.3	288.1	240.6	158.7
32.5°	597.8	592.3	574.8	545.9	505.7	456.7	398.2	339.0	283.4	234.4	143.7
35°	610.3	604.8	584.3	553.6	511.2	459.6	400.7	337.1	277.5	224.1	129.4
37.5°	619.8	613.5	592.7	558.7	513.7	460.3	400.4	334.6	271.3	215.7	115.2
40°	626.3	619.8	597.5	561.6	514.5	459.2	397.5	330.2	264.0	205.1	100.2
42.5°	630.7	623.4	599.7	566.0	513.0	456.3	393.1	324.7	255.9	196.0	85.9
45°	632.9	625.2	600.0	562.4	510.4	450.8	386.5	317.7	247.2	183.6	71.7
47.5°	631.8	623.4	598.2	558.3	505.7	445.0	379.2	309.3	236.6	172.6	58.1
50°	630.0	621.2	594.2	553.2	499.1	437.7	371.1	299.1	225.6	159.1	46.1
52.5°	624.2	615.4	589.8	545.9	491.4	429.3	360.2	288.5	213.9	145.9	35.1
55°	616.8	608.8	582.1	539.3	481.6	419.0	349.9	277.2	202.6	132.4	25.2
57.5°	605.5	598.2	572.6	528.7	471.7	407.7	338.6	264.7	188.3	118.8	17.6
60°	591.6	584.3	559.4	516.7	460.3	394.9	326.2	251.9	175.5	105.3	11.0
62.5°	577.0	570.0	544.1	501.7	446.1	381.4	312.6	239.1	162.0	92.9	6.6
65°	557.6	551.0	527.6	483.7	430.4	366.7	297.6	223.8	148.1	79.0	3.7
67.5°	537.1	531.3	507.5	467.3	412.1	350.7	282.3	208.8	133.5	66.9	1.8
70°	515.2	507.9	485.9	445.0	393.4	332.4	265.5	193.4	119.6	55.2	0.0
72.5°	489.6	484.1	462.9	424.1	371.9	313.0	248.3	176.6	104.2	43.9	0.4
75°	464.7	457.8	438.4	401.8	350.7	292.5	229.3	160.9	89.2	33.6	0.4
77.5°	432.6	430.4	412.1	376.6	330.5	272.8	208.4	141.9	75.0	24.1	0.4
80°	400.4	398.2	383.9	351.4	307.1	249.4	189.0	124.0	61.1	16.1	0.4
82.5°	368.6	365.6	352.1	325.1	283.4	229.6	168.9	106.0	48.3	9.9	0.4
85°	340.0	336.4	321.8	296.9	258.9	207.3	148.1	88.5	35.8	5.5	0.7
87.5°	315.5	313.0	296.9	271.3	234.0	186.5	129.8	71.7	25.2	2.6	1.1
90°	294.7	289.2	275.0	247.9	210.6	163.4	110.4	57.4	16.8	1.5	1.5
92.5°	274.2	269.5	253.8	226.0	189.8	143.7	91.8	43.9	10.6	0.7	1.8
95°	253.0	247.9	232.5	207.0	168.6	123.6	75.3	32.2	5.9	0.7	1.8
97.5°	232.2	227.4	211.3	185.7	149.5	106.0	59.6	22.7	2.9	0.7	1.5
100°	212.8	207.3	192.7	167.1	130.5	88.5	46.1	14.6	1.8	0.7	1.5
102.5°	192.3	187.9	172.9	148.1	110.8	72.0	34.4	9.1	0.7	0.7	1.1
105°	174.0	168.6	153.9	128.3	94.3	56.7	24.1	5.5	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	113.3	109.0	96.2	74.6	47.9	22.3	6.6	1.1	1.1	1.1	1.1
115°	94.7	88.1	76.8	57.8	35.5	14.6	3.3	1.1	1.1	1.1	1.1
117.5°	75.7	70.2	62.2	43.9	23.4	9.5	1.8	1.1	1.1	1.1	1.1
120°	59.2	54.1	45.0	30.3	15.7	5.5	0.7	1.1	1.1	1.1	1.1
122.5°	42.4	38.4	30.3	19.7	9.5	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.2	26.0	20.1	12.1	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.3	16.5	11.7	6.9	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.2	9.1	6.9	4.0	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.5	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	287.0	287.0	287.0
2.5°	273.1	268.0	266.6
5°	258.5	250.1	245.3
7.5°	243.9	232.5	227.1
10°	230.4	214.3	208.4
12.5°	214.3	195.6	186.5
15°	198.9	174.8	166.0
17.5°	181.7	154.7	144.4
20°	165.6	134.6	124.0
22.5°	147.4	114.8	103.1
25°	130.9	95.1	81.9
27.5°	112.6	75.0	63.6
30°	95.4	57.4	46.1
32.5°	79.0	42.0	31.8
35°	63.6	28.5	20.1
37.5°	49.0	17.6	10.2
40°	35.5	9.1	4.8
42.5°	23.8	4.4	2.6
45°	14.6	2.2	0.0
47.5°	8.4	0.0	0.0
50°	4.4	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	2.9	2.9
95°	2.6	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.8	2.6	2.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	153.6	149.2	134.6	110.4	77.2	43.1	16.1	2.9	0.7	1.1	1.1
110°	133.8	130.2	115.2	91.8	62.2	32.2	10.6	1.8	1.1	1.1	1.1





107.5°	1.5	2.2	2.6
110°	1.5	1.8	2.2



(END OF REPORT)