

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: P551531

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-81-86-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: P551531
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-81-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

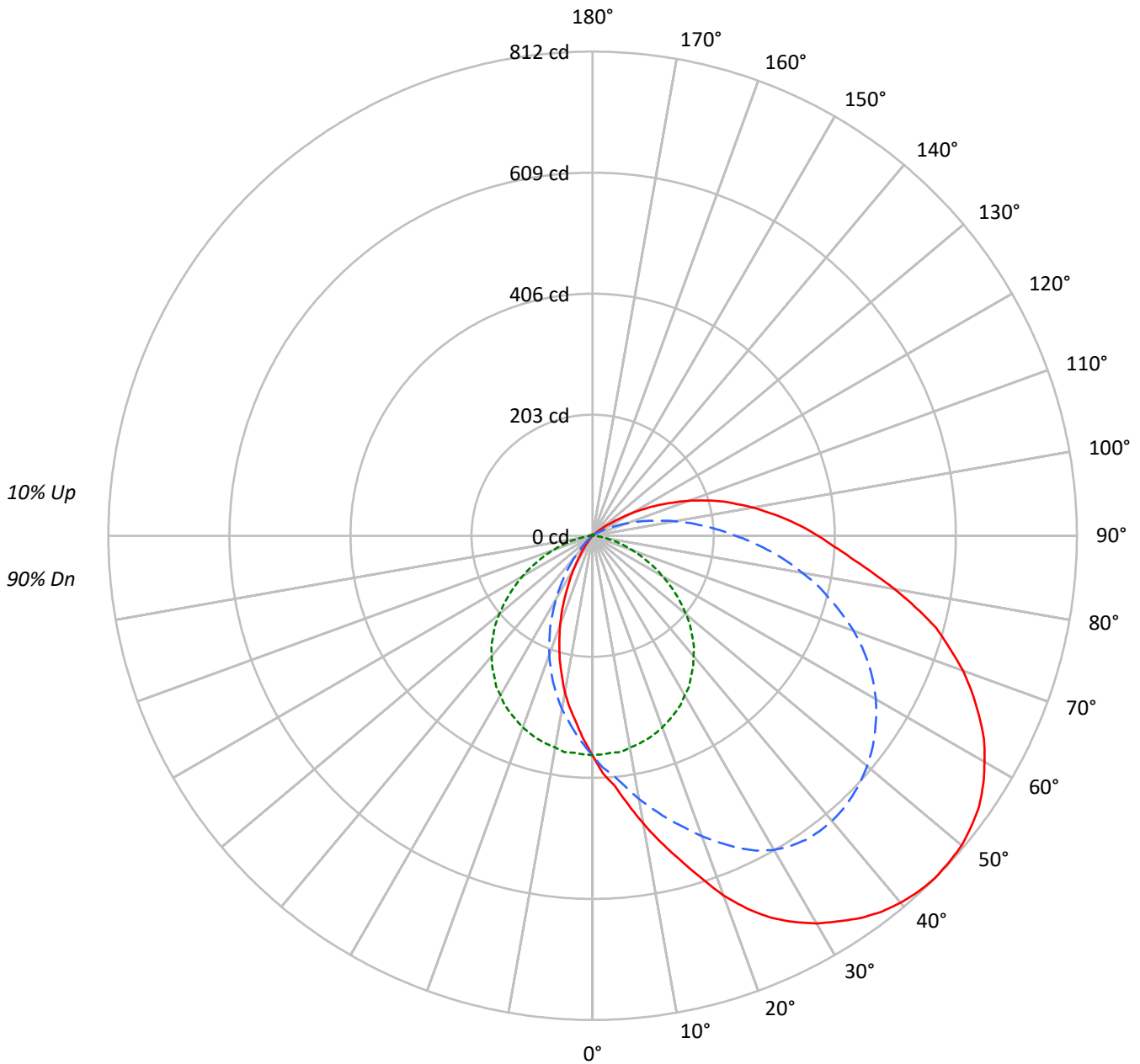
Lumens per Lamp: N/A
Luminaire Lumens: 1820.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	3962	3962	3962
5°	4350	3904	3258
10°	4923	3856	2685
15°	5517	3807	2092
20°	6222	3746	1541
25°	6806	3673	1011
30°	7241	3577	570
35°	7618	3474	251
40°	7951	3346	60
45°	8238	3185	0
50°	8478	2973	0
55°	8662	2704	0
60°	8754	2391	0
65°	8790	2035	0
70°	8761	1659	0
75°	8650	1222	7
80°	8299	747	37
85°	8021	356	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.3	1.9
10°-20°	105.6	5.8
20°-30°	171.0	9.4
30°-40°	219.6	12.1
40°-50°	248.6	13.7
50°-60°	257.6	14.2
60°-70°	242.9	13.3
70°-80°	203.6	11.2
80°-90°	147.6	8.1
90°-100°	97.0	5.3
100°-110°	56.0	3.1
110°-120°	24.7	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	311.8	17.1
0°-40°	531.5	29.2
0°-60°	1037.7	57.0
0°-90°	1631.8	89.7
90°-120°	177.7	9.8
90°-150°	186.9	10.3
90°-180°	188.0	10.3
0°-180°	1820.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	368	368	368	368	368	
5°	420	404	365	332	315	42
15°	561	492	353	255	213	162
25°	707	578	327	168	105	327
35°	783	623	288	82	26	491
45°	812	616	235	19	0	627
55°	791	578	170	0	0	706
65°	715	511	101	0	0	708
75°	596	412	43	0	0	625
85°	436	299	7	2	3	372
90°	378	240	2	3	3	207
95°	324	187	1	3	4	255
105°	223	97	1	2	4	236
115°	122	32	1	1	2	122
125°	36	4	2	1	2	36
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1	368.1
2.5°	399.1	398.6	397.2	394.9	391.6	386.0	381.3	377.1	371.4	366.7	357.8
5°	420.2	417.9	416.0	413.6	406.1	401.0	392.5	383.1	374.2	365.3	347.5
7.5°	454.0	450.2	447.4	440.8	430.5	418.8	405.7	396.7	390.7	365.8	335.3
10°	490.1	486.8	481.2	469.4	456.8	439.9	421.1	400.0	381.3	360.6	324.5
12.5°	525.7	521.0	513.1	498.0	480.2	459.1	433.3	408.5	381.7	357.4	311.9
15°	561.4	556.2	547.8	529.5	506.0	478.4	446.9	415.5	384.1	353.1	298.7
17.5°	600.3	593.2	580.6	560.0	530.4	496.2	459.1	421.1	383.1	348.0	284.7
20°	642.0	632.2	618.6	590.9	556.2	515.9	471.3	426.8	382.7	341.9	268.7
22.5°	676.7	666.9	651.9	623.3	581.5	532.3	481.6	430.5	380.8	334.8	253.7
25°	706.7	698.8	682.4	649.5	605.4	549.6	491.5	433.3	378.0	327.3	237.8
27.5°	730.2	722.7	704.4	670.6	625.6	565.1	499.0	434.7	374.2	319.8	221.4
30°	750.8	743.3	721.3	686.6	639.2	577.3	506.5	435.2	369.5	308.6	203.5
32.5°	766.8	759.7	737.2	700.2	648.6	585.7	510.7	434.7	363.5	300.6	184.3
35°	782.7	775.7	749.4	710.0	655.6	589.5	514.0	432.4	355.9	287.5	166.0
37.5°	794.9	786.9	760.2	716.6	658.9	590.4	513.5	429.1	348.0	276.7	147.7
40°	803.3	794.9	766.3	720.3	659.8	589.0	509.8	423.5	338.6	263.1	128.5
42.5°	809.0	799.6	769.1	726.0	658.0	585.3	504.1	416.4	328.3	251.4	110.2
45°	811.8	801.9	769.6	721.3	654.7	578.2	495.7	407.5	317.0	235.4	91.9
47.5°	810.4	799.6	767.2	716.1	648.6	570.7	486.3	396.7	303.4	221.4	74.6
50°	808.0	796.8	762.1	709.6	640.1	561.4	476.0	383.6	289.4	204.0	59.1
52.5°	800.5	789.3	756.5	700.2	630.3	550.6	461.9	370.0	274.3	187.1	45.0
55°	791.2	780.8	746.6	691.7	617.6	537.4	448.8	355.5	259.8	169.8	32.4
57.5°	776.6	767.2	734.4	678.1	605.0	522.9	434.3	339.5	241.5	152.4	22.5
60°	758.8	749.4	717.5	662.7	590.4	506.5	418.3	323.1	225.1	135.1	14.1
62.5°	740.0	731.1	697.8	643.4	572.1	489.1	401.0	306.7	207.8	119.1	8.4
65°	715.2	706.7	676.7	620.4	552.0	470.4	381.7	287.0	189.9	101.3	4.7
67.5°	688.9	681.4	650.9	599.3	528.5	449.7	362.0	267.8	171.2	85.8	2.3
70°	660.8	651.4	623.3	570.7	504.6	426.3	340.5	248.1	153.4	70.8	0.0
72.5°	628.0	620.9	593.7	544.0	476.9	401.4	318.4	226.5	133.7	56.3	0.5
75°	596.1	587.2	562.3	515.4	449.7	375.2	294.0	206.3	114.4	43.1	0.5
77.5°	554.8	552.0	528.5	483.0	423.9	349.9	267.3	182.0	96.1	31.0	0.5
80°	513.5	510.7	492.4	450.7	393.9	319.8	242.5	159.0	78.3	20.6	0.5
82.5°	472.7	469.0	451.6	416.9	363.5	294.5	216.7	136.0	61.9	12.7	0.5
85°	436.1	431.5	412.7	380.8	332.0	265.9	189.9	113.5	46.0	7.0	0.9
87.5°	404.7	401.4	380.8	348.0	300.1	239.2	166.5	91.9	32.4	3.3	1.4
90°	378.0	371.0	352.7	318.0	270.1	209.6	141.6	73.6	21.6	1.9	1.9
92.5°	351.7	345.6	325.5	289.8	243.4	184.3	117.7	56.3	13.6	0.9	2.3
95°	324.5	318.0	298.3	265.4	216.2	158.5	96.6	41.3	7.5	0.9	2.3
97.5°	297.8	291.7	271.1	238.2	191.8	136.0	76.4	29.1	3.8	0.9	1.9
100°	272.9	265.9	247.1	214.3	167.4	113.5	59.1	18.8	2.3	0.9	1.9
102.5°	246.7	241.1	221.8	189.9	142.1	92.4	44.1	11.7	0.9	0.9	1.4
105°	223.2	216.2	197.4	164.6	121.0	72.7	31.0	7.0	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	145.4	139.8	123.3	95.7	61.4	28.6	8.4	1.4	1.4	1.4	1.4
115°	121.5	113.0	98.5	74.1	45.5	18.8	4.2	1.4	1.4	1.4	1.4
117.5°	97.1	90.0	79.7	56.3	30.0	12.2	2.3	1.4	1.4	1.4	1.4
120°	76.0	69.4	57.7	38.9	20.2	7.0	0.9	1.4	1.4	1.4	1.4
122.5°	54.4	49.2	38.9	25.3	12.2	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.1	33.3	25.8	15.5	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.4	21.1	15.0	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.1	11.7	8.9	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.0	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	368.1	368.1	368.1
2.5°	350.3	343.8	341.9
5°	331.6	320.8	314.7
7.5°	312.8	298.3	291.2
10°	295.5	274.8	267.3
12.5°	274.8	250.9	239.2
15°	255.1	224.2	212.9
17.5°	233.1	198.4	185.2
20°	212.4	172.6	159.0
22.5°	189.0	147.3	132.2
25°	167.9	121.9	105.0
27.5°	144.4	96.1	81.6
30°	122.4	73.6	59.1
32.5°	101.3	53.9	40.8
35°	81.6	36.6	25.8
37.5°	62.8	22.5	13.1
40°	45.5	11.7	6.1
42.5°	30.5	5.6	3.3
45°	18.8	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.3	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.2
97.5°	3.8	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.3	3.3	3.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	197.0	191.3	172.6	141.6	99.0	55.3	20.6	3.8	0.9	1.4	1.4
110°	171.6	167.0	147.7	117.7	79.7	41.3	13.6	2.3	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.3	2.8



(END OF REPORT)