

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: P551171

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-96-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: P551171
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-50-UNV-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

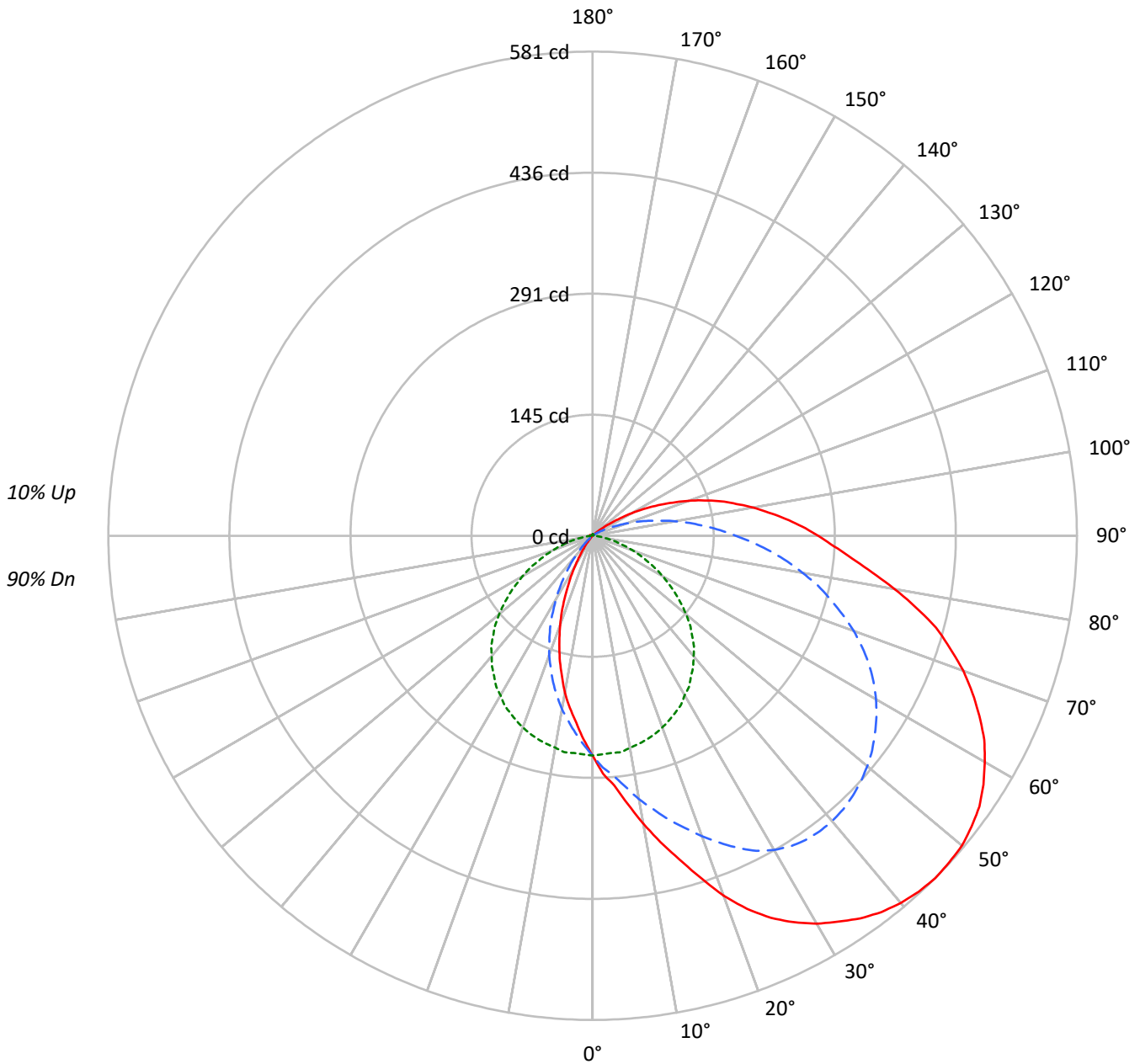
Lumens per Lamp: N/A
Luminaire Lumens: 1303.0 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-96-ED1D-90

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°	2837	2837	2837
5°	3114	2796	2332
10°	3525	2761	1923
15°	3949	2726	1498
20°	4454	2682	1103
25°	4873	2631	724
30°	5184	2561	408
35°	5454	2487	180
40°	5693	2396	44
45°	5898	2280	0
50°	6070	2129	0
55°	6201	1935	0
60°	6267	1711	0
65°	6293	1456	0
70°	6272	1188	0
75°	6192	876	4
80°	5941	537	27
85°	5742	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.2	1.9
10°-20°	75.6	5.8
20°-30°	122.4	9.4
30°-40°	157.2	12.1
40°-50°	178.0	13.7
50°-60°	184.4	14.2
60°-70°	173.9	13.3
70°-80°	145.8	11.2
80°-90°	105.7	8.1
90°-100°	69.4	5.3
100°-110°	40.1	3.1
110°-120°	17.7	1.4
120°-130°	4.8	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	223.2	17.1
0°-40°	380.5	29.2
0°-60°	742.9	57.0
0°-90°	1168.2	89.7
90°-120°	127.2	9.8
90°-150°	133.8	10.3
90°-180°	135.0	10.4
0°-180°	1303.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	264	264	264	264	264	
5°	301	289	262	237	225	30
15°	402	352	253	183	152	116
25°	506	414	234	120	75	234
35°	560	446	206	58	18	351
45°	581	441	168	13	0	449
55°	566	414	122	0	0	506
65°	512	366	72	0	0	507
75°	427	295	31	0	0	448
85°	312	214	5	1	2	267
90°	271	172	1	2	2	148
95°	232	134	1	2	3	182
105°	160	69	1	2	3	169
115°	87	23	1	1	2	87
125°	26	3	1	1	1	26
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	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°	263.6	263.6	263.6	263.6	263.6	263.6	263.6	263.6	263.6	263.6	263.6
2.5°	285.7	285.4	284.4	282.7	280.4	276.3	273.0	269.9	265.9	262.6	256.2
5°	300.8	299.2	297.8	296.1	290.8	287.1	281.0	274.3	267.9	261.6	248.8
7.5°	325.0	322.3	320.3	315.6	308.2	299.8	290.4	284.0	279.7	261.9	240.1
10°	350.9	348.5	344.5	336.1	327.0	314.9	301.5	286.4	273.0	258.2	232.3
12.5°	376.4	373.0	367.3	356.6	343.8	328.7	310.2	292.4	273.3	255.8	223.3
15°	401.9	398.2	392.2	379.1	362.3	342.5	320.0	297.5	275.0	252.8	213.9
17.5°	429.8	424.7	415.7	400.9	379.7	355.2	328.7	301.5	274.3	249.1	203.8
20°	459.6	452.6	442.9	423.0	398.2	369.3	337.4	305.5	274.0	244.8	192.4
22.5°	484.5	477.4	466.7	446.2	416.3	381.1	344.8	308.2	272.6	239.7	181.6
25°	506.0	500.3	488.5	465.0	433.5	393.5	351.9	310.2	270.6	234.4	170.2
27.5°	522.8	517.4	504.3	480.1	447.9	404.6	357.2	311.2	267.9	229.0	158.5
30°	537.5	532.2	516.4	491.5	457.6	413.3	362.6	311.6	264.6	220.9	145.7
32.5°	549.0	543.9	527.8	501.3	464.3	419.4	365.6	311.2	260.2	215.2	132.0
35°	560.4	555.3	536.5	508.3	469.4	422.0	368.0	309.6	254.8	205.8	118.9
37.5°	569.1	563.4	544.3	513.0	471.7	422.7	367.6	307.2	249.1	198.1	105.8
40°	575.1	569.1	548.6	515.7	472.4	421.7	365.0	303.2	242.4	188.4	92.0
42.5°	579.2	572.5	550.6	519.7	471.1	419.0	360.9	298.1	235.0	180.0	78.9
45°	581.2	574.1	551.0	516.4	468.7	414.0	354.9	291.8	227.0	168.5	65.8
47.5°	580.2	572.5	549.3	512.7	464.3	408.6	348.2	284.0	217.2	158.5	53.4
50°	578.5	570.4	545.6	508.0	458.3	401.9	340.8	274.6	207.2	146.1	42.3
52.5°	573.1	565.1	541.6	501.3	451.3	394.2	330.7	264.9	196.4	134.0	32.2
55°	566.4	559.0	534.5	495.2	442.2	384.8	321.3	254.5	186.0	121.5	23.2
57.5°	556.0	549.3	525.8	485.5	433.1	374.4	310.9	243.1	172.9	109.1	16.1
60°	543.2	536.5	513.7	474.4	422.7	362.6	299.5	231.3	161.2	96.7	10.1
62.5°	529.8	523.4	499.6	460.7	409.6	350.2	287.1	219.6	148.7	85.3	6.0
65°	512.0	506.0	484.5	444.2	395.2	336.8	273.3	205.5	136.0	72.5	3.4
67.5°	493.2	487.8	466.0	429.1	378.4	322.0	259.2	191.7	122.5	61.4	1.7
70°	473.1	466.4	446.2	408.6	361.3	305.2	243.8	177.6	109.8	50.7	0.0
72.5°	449.6	444.5	425.1	389.5	341.5	287.4	228.0	162.2	95.7	40.3	0.3
75°	426.7	420.4	402.6	369.0	322.0	268.6	210.5	147.7	81.9	30.9	0.3
77.5°	397.2	395.2	378.4	345.8	303.5	250.5	191.4	130.3	68.8	22.2	0.3
80°	367.6	365.6	352.5	322.7	282.0	229.0	173.6	113.8	56.1	14.8	0.3
82.5°	338.4	335.8	323.3	298.5	260.2	210.9	155.1	97.4	44.3	9.1	0.3
85°	312.2	308.9	295.5	272.6	237.7	190.4	136.0	81.3	32.9	5.0	0.7
87.5°	289.8	287.4	272.6	249.1	214.9	171.2	119.2	65.8	23.2	2.4	1.0
90°	270.6	265.6	252.5	227.6	193.4	150.1	101.4	52.7	15.4	1.3	1.3
92.5°	251.8	247.4	233.0	207.5	174.3	132.0	84.3	40.3	9.7	0.7	1.7
95°	232.3	227.6	213.5	190.0	154.8	113.5	69.2	29.5	5.4	0.7	1.7
97.5°	213.2	208.8	194.1	170.6	137.3	97.4	54.7	20.8	2.7	0.7	1.3
100°	195.4	190.4	176.9	153.4	119.9	81.3	42.3	13.4	1.7	0.7	1.3
102.5°	176.6	172.6	158.8	136.0	101.7	66.1	31.6	8.4	0.7	0.7	1.0
105°	159.8	154.8	141.4	117.8	86.6	52.0	22.2	5.0	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	104.1	100.1	88.3	68.5	44.0	20.5	6.0	1.0	1.0	1.0	1.0
115°	87.0	80.9	70.5	53.0	32.6	13.4	3.0	1.0	1.0	1.0	1.0
117.5°	69.5	64.5	57.1	40.3	21.5	8.7	1.7	1.0	1.0	1.0	1.0
120°	54.4	49.7	41.3	27.9	14.4	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.9	35.3	27.9	18.1	8.7	2.4	1.0	1.0	1.3	1.3	1.0
125°	25.9	23.8	18.5	11.1	5.4	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.8	15.1	10.7	6.4	2.4	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.4	8.4	6.4	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.4	5.0	3.4	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	263.6	263.6	263.6
2.5°	250.8	246.1	244.8
5°	237.4	229.7	225.3
7.5°	223.9	213.5	208.5
10°	211.5	196.8	191.4
12.5°	196.8	179.6	171.2
15°	182.6	160.5	152.4
17.5°	166.9	142.0	132.6
20°	152.1	123.6	113.8
22.5°	135.3	105.4	94.7
25°	120.2	87.3	75.2
27.5°	103.4	68.8	58.4
30°	87.6	52.7	42.3
32.5°	72.5	38.6	29.2
35°	58.4	26.2	18.5
37.5°	45.0	16.1	9.4
40°	32.6	8.4	4.4
42.5°	21.8	4.0	2.4
45°	13.4	2.0	0.0
47.5°	7.7	0.0	0.0
50°	4.0	0.0	0.0
52.5°	1.7	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.4
90°	2.0	2.4	2.4
92.5°	2.0	2.7	2.7
95°	2.4	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.4	3.0	3.4
102.5°	2.0	3.0	3.0
105°	1.7	2.4	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	141.0	137.0	123.6	101.4	70.8	39.6	14.8	2.7	0.7	1.0	1.0
110°	122.9	119.5	105.8	84.3	57.1	29.5	9.7	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.4
110°	1.3	1.7	2.0



(END OF REPORT)