

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: P550913

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-82-94-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: P550913
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-LD4-1LO-50-UNV-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

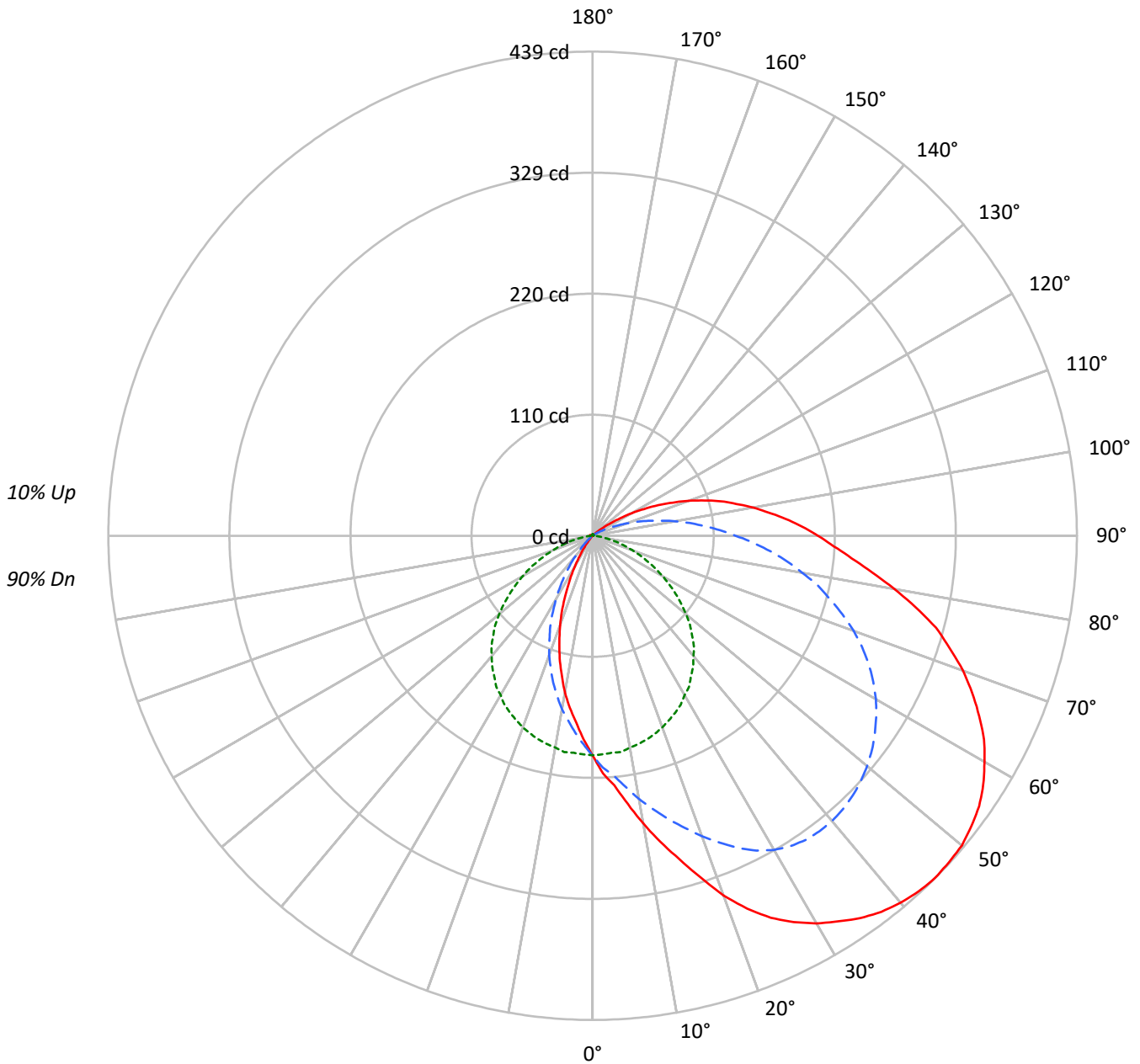
Lumens per Lamp: N/A
Luminaire Lumens: 984.1 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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°	2142	2142	2142
5°	2352	2111	1761
10°	2662	2085	1451
15°	2983	2058	1131
20°	3364	2025	833
25°	3680	1986	547
30°	3915	1934	308
35°	4119	1878	135
40°	4299	1808	33
45°	4454	1723	0
50°	4584	1608	0
55°	4683	1462	0
60°	4732	1292	0
65°	4753	1101	0
70°	4737	897	0
75°	4677	661	4
80°	4486	406	21
85°	4337	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.1	1.9
10°-20°	57.1	5.8
20°-30°	92.4	9.4
30°-40°	118.8	12.1
40°-50°	134.4	13.7
50°-60°	139.3	14.2
60°-70°	131.3	13.3
70°-80°	110.1	11.2
80°-90°	79.8	8.1
90°-100°	52.4	5.3
100°-110°	30.3	3.1
110°-120°	13.4	1.4
120°-130°	3.6	0.4
130°-140°	0.8	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	168.6	17.1
0°-40°	287.4	29.2
0°-60°	561.0	57.0
0°-90°	882.3	89.7
90°-120°	96.1	9.8
90°-150°	101.1	10.3
90°-180°	102.0	10.4
0°-180°	984.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	199	199	199	199	199	
5°	227	218	198	179	170	23
15°	304	266	191	138	115	88
25°	382	312	177	91	57	177
35°	423	337	155	44	14	265
45°	439	333	127	10	0	339
55°	428	312	92	0	0	382
65°	387	276	55	0	0	383
75°	322	223	23	0	0	338
85°	236	162	4	1	2	201
90°	204	130	1	2	2	112
95°	176	101	0	2	2	138
105°	121	52	0	1	2	127
115°	66	17	1	1	1	66
125°	20	2	1	1	1	20
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	199.0	199.0	199.0	199.0	199.0	199.0	199.0	199.0	199.0	199.0	199.0
2.5°	215.8	215.5	214.8	213.5	211.7	208.7	206.1	203.9	200.8	198.3	193.5
5°	227.2	225.9	224.9	223.6	219.6	216.8	212.2	207.2	202.3	197.5	187.9
7.5°	245.4	243.4	241.9	238.3	232.8	226.4	219.3	214.5	211.2	197.8	181.3
10°	265.0	263.2	260.1	253.8	247.0	237.8	227.7	216.3	206.1	195.0	175.5
12.5°	284.2	281.7	277.4	269.3	259.6	248.2	234.3	220.8	206.4	193.2	168.6
15°	303.5	300.7	296.2	286.3	273.6	258.6	241.6	224.6	207.7	190.9	161.5
17.5°	324.5	320.7	313.9	302.7	286.8	268.3	248.2	227.7	207.2	188.1	153.9
20°	347.1	341.8	334.4	319.5	300.7	278.9	254.8	230.7	206.9	184.8	145.3
22.5°	365.9	360.6	352.4	337.0	314.4	287.8	260.4	232.8	205.9	181.0	137.2
25°	382.1	377.8	368.9	351.2	327.3	297.2	265.7	234.3	204.4	177.0	128.6
27.5°	394.8	390.7	380.8	362.6	338.2	305.5	269.8	235.0	202.3	172.9	119.7
30°	405.9	401.9	390.0	371.2	345.6	312.1	273.8	235.3	199.8	166.8	110.0
32.5°	414.6	410.8	398.6	378.6	350.7	316.7	276.1	235.0	196.5	162.5	99.6
35°	423.2	419.4	405.2	383.9	354.5	318.7	277.9	233.8	192.4	155.4	89.8
37.5°	429.8	425.5	411.0	387.4	356.2	319.2	277.6	232.0	188.1	149.6	79.9
40°	434.3	429.8	414.3	389.5	356.7	318.5	275.6	229.0	183.1	142.2	69.5
42.5°	437.4	432.3	415.8	392.5	355.7	316.4	272.6	225.2	177.5	135.9	59.6
45°	438.9	433.6	416.1	390.0	354.0	312.6	268.0	220.3	171.4	127.3	49.7
47.5°	438.1	432.3	414.8	387.2	350.7	308.6	262.9	214.5	164.0	119.7	40.3
50°	436.9	430.8	412.0	383.6	346.1	303.5	257.4	207.4	156.4	110.3	31.9
52.5°	432.8	426.7	409.0	378.6	340.8	297.7	249.8	200.1	148.3	101.2	24.3
55°	427.7	422.2	403.7	374.0	333.9	290.6	242.7	192.2	140.5	91.8	17.5
57.5°	419.9	414.8	397.1	366.6	327.1	282.7	234.8	183.6	130.6	82.4	12.2
60°	410.2	405.2	387.9	358.3	319.2	273.8	226.2	174.7	121.7	73.0	7.6
62.5°	400.1	395.3	377.3	347.9	309.3	264.5	216.8	165.8	112.3	64.4	4.6
65°	386.7	382.1	365.9	335.5	298.4	254.3	206.4	155.2	102.7	54.8	2.5
67.5°	372.5	368.4	351.9	324.0	285.8	243.2	195.7	144.8	92.5	46.4	1.3
70°	357.3	352.2	337.0	308.6	272.8	230.5	184.1	134.1	82.9	38.3	0.0
72.5°	339.5	335.7	321.0	294.1	257.9	217.0	172.2	122.5	72.3	30.4	0.3
75°	322.3	317.4	304.0	278.7	243.2	202.8	159.0	111.6	61.9	23.3	0.3
77.5°	300.0	298.4	285.8	261.2	229.2	189.2	144.5	98.4	52.0	16.7	0.3
80°	277.6	276.1	266.2	243.7	213.0	172.9	131.1	86.0	42.3	11.2	0.3
82.5°	255.6	253.6	244.2	225.4	196.5	159.2	117.1	73.5	33.5	6.8	0.3
85°	235.8	233.3	223.1	205.9	179.5	143.8	102.7	61.4	24.8	3.8	0.5
87.5°	218.8	217.0	205.9	188.1	162.3	129.3	90.0	49.7	17.5	1.8	0.8
90°	204.4	200.6	190.7	171.9	146.0	113.3	76.6	39.8	11.7	1.0	1.0
92.5°	190.2	186.9	176.0	156.7	131.6	99.6	63.6	30.4	7.4	0.5	1.3
95°	175.5	171.9	161.3	143.5	116.9	85.7	52.2	22.3	4.1	0.5	1.3
97.5°	161.0	157.7	146.6	128.8	103.7	73.5	41.3	15.7	2.0	0.5	1.0
100°	147.6	143.8	133.6	115.9	90.5	61.4	31.9	10.1	1.3	0.5	1.0
102.5°	133.4	130.3	119.9	102.7	76.8	50.0	23.8	6.3	0.5	0.5	0.8
105°	120.7	116.9	106.7	89.0	65.4	39.3	16.7	3.8	0.5	0.5	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	78.6	75.6	66.7	51.7	33.2	15.5	4.6	0.8	0.8	0.8	0.8
115°	65.7	61.1	53.2	40.1	24.6	10.1	2.3	0.8	0.8	0.8	0.8
117.5°	52.5	48.7	43.1	30.4	16.2	6.6	1.3	0.8	0.8	0.8	0.8
120°	41.1	37.5	31.2	21.0	10.9	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.4	26.6	21.0	13.7	6.6	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.5	18.0	13.9	8.4	4.1	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.7	11.4	8.1	4.8	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.1	6.3	4.8	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.1	3.8	2.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	199.0	199.0	199.0
2.5°	189.4	185.9	184.8
5°	179.3	173.4	170.1
7.5°	169.1	161.3	157.5
10°	159.7	148.6	144.5
12.5°	148.6	135.7	129.3
15°	137.9	121.2	115.1
17.5°	126.0	107.3	100.2
20°	114.9	93.3	86.0
22.5°	102.2	79.6	71.5
25°	90.8	65.9	56.8
27.5°	78.1	52.0	44.1
30°	66.2	39.8	31.9
32.5°	54.8	29.2	22.1
35°	44.1	19.8	13.9
37.5°	34.0	12.2	7.1
40°	24.6	6.3	3.3
42.5°	16.5	3.0	1.8
45°	10.1	1.5	0.0
47.5°	5.8	0.0	0.0
50°	3.0	0.0	0.0
52.5°	1.3	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°	0.3	0.3	0.3
77.5°	0.3	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.0	2.0
95°	1.8	2.0	2.3
97.5°	2.0	2.3	2.3
100°	1.8	2.3	2.5
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	106.5	103.4	93.3	76.6	53.5	29.9	11.2	2.0	0.5	0.8	0.8
110°	92.8	90.3	79.9	63.6	43.1	22.3	7.4	1.3	0.8	0.8	0.8





107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)