

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: P550889

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-81-85-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: P550889
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-81-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

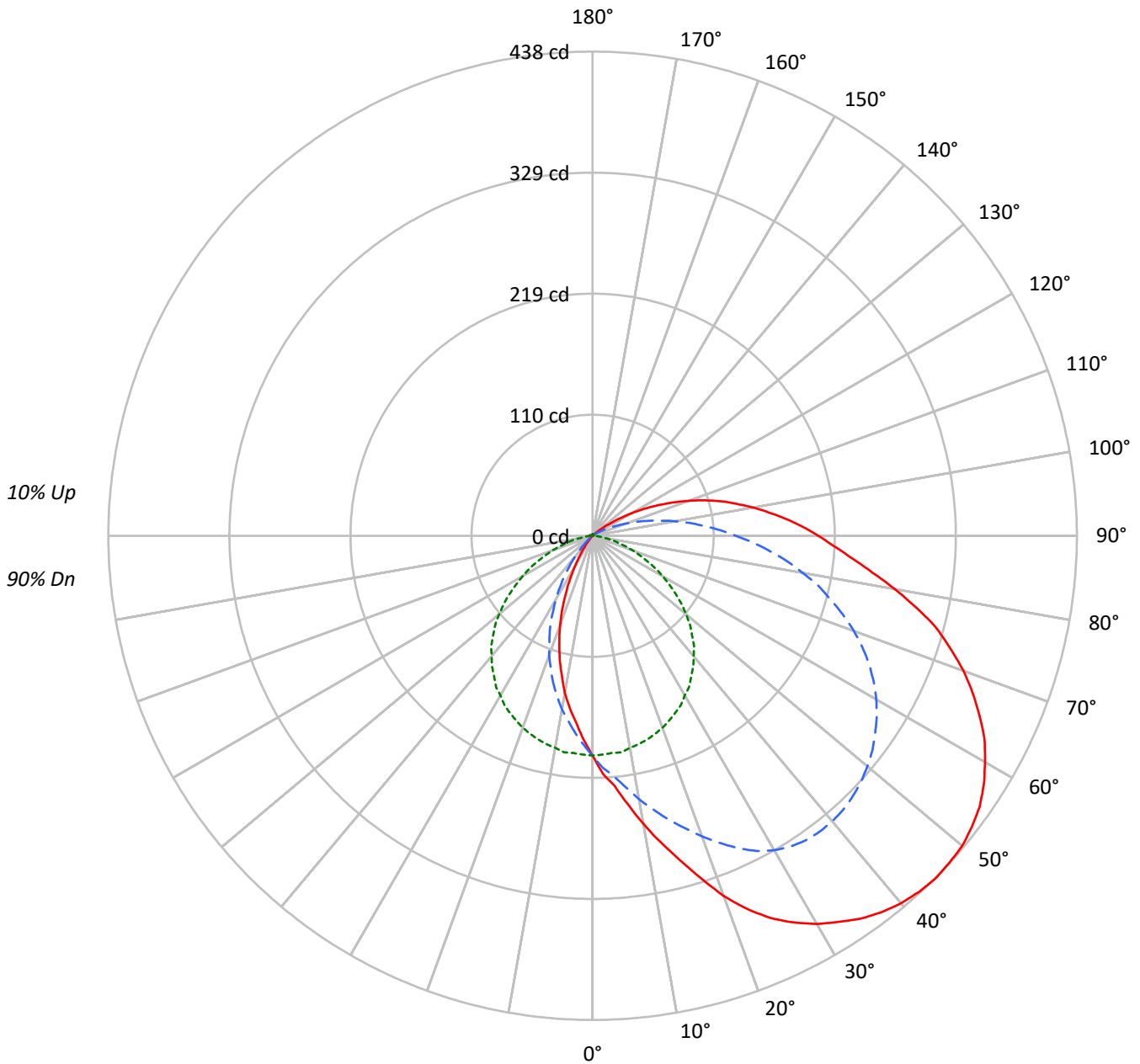
Lumens per Lamp: N/A
Luminaire Lumens: 983.1 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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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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°	2140	2140	2140
5°	2350	2109	1760
10°	2659	2083	1450
15°	2980	2056	1130
20°	3361	2024	832
25°	3676	1984	546
30°	3911	1932	308
35°	4115	1876	135
40°	4295	1807	33
45°	4450	1721	0
50°	4579	1606	0
55°	4678	1460	0
60°	4728	1290	0
65°	4748	1099	0
70°	4732	895	0
75°	4671	661	4
80°	4483	403	21
85°	4333	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.0	1.9
10°-20°	57.0	5.8
20°-30°	92.3	9.4
30°-40°	118.6	12.1
40°-50°	134.3	13.7
50°-60°	139.1	14.2
60°-70°	131.2	13.3
70°-80°	110.0	11.2
80°-90°	79.7	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°	168.4	17.1
0°-40°	287.1	29.2
0°-60°	560.5	57.0
0°-90°	881.4	89.7
90°-120°	96.0	9.8
90°-150°	101.0	10.3
90°-180°	102.0	10.4
0°-180°	983.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	199	199	199	199	199	
5°	227	218	197	179	170	23
15°	303	266	191	138	115	87
25°	382	312	177	91	57	176
35°	423	336	155	44	14	265
45°	438	333	127	10	0	339
55°	427	312	92	0	0	382
65°	386	276	55	0	0	382
75°	322	223	23	0	0	338
85°	236	161	4	1	2	201
90°	204	130	1	2	2	112
95°	175	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	19
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°	198.8	198.8	198.8	198.8	198.8	198.8	198.8	198.8	198.8	198.8	198.8
2.5°	215.6	215.3	214.5	213.3	211.5	208.5	205.9	203.6	200.6	198.1	193.3
5°	227.0	225.7	224.7	223.4	219.4	216.6	212.0	206.9	202.1	197.3	187.7
7.5°	245.2	243.2	241.6	238.1	232.5	226.2	219.1	214.3	211.0	197.6	181.1
10°	264.7	262.9	259.9	253.5	246.7	237.6	227.5	216.1	205.9	194.8	175.3
12.5°	283.9	281.4	277.1	269.0	259.4	248.0	234.0	220.6	206.2	193.0	168.4
15°	303.2	300.4	295.8	286.0	273.3	258.4	241.4	224.4	207.4	190.7	161.3
17.5°	324.2	320.4	313.6	302.4	286.5	268.0	248.0	227.5	206.9	187.9	153.8
20°	346.8	341.4	334.1	319.2	300.4	278.6	254.6	230.5	206.7	184.7	145.1
22.5°	365.5	360.2	352.1	336.6	314.1	287.5	260.1	232.5	205.7	180.9	137.0
25°	381.7	377.4	368.5	350.8	327.0	296.9	265.5	234.0	204.2	176.8	128.4
27.5°	394.4	390.3	380.5	362.2	337.9	305.2	269.5	234.8	202.1	172.7	119.6
30°	405.5	401.5	389.6	370.8	345.2	311.8	273.6	235.1	199.6	166.7	109.9
32.5°	414.1	410.3	398.2	378.2	350.3	316.4	275.8	234.8	196.3	162.4	99.5
35°	422.8	419.0	404.8	383.5	354.1	318.4	277.6	233.5	192.3	155.3	89.7
37.5°	429.3	425.0	410.6	387.0	355.9	318.9	277.4	231.8	187.9	149.4	79.8
40°	433.9	429.3	413.9	389.1	356.4	318.1	275.3	228.7	182.9	142.1	69.4
42.5°	436.9	431.9	415.4	392.1	355.4	316.1	272.3	224.9	177.3	135.8	59.5
45°	438.5	433.1	415.7	389.6	353.6	312.3	267.7	220.1	171.2	127.2	49.6
47.5°	437.7	431.9	414.4	386.8	350.3	308.3	262.7	214.3	163.9	119.6	40.3
50°	436.4	430.3	411.6	383.2	345.7	303.2	257.1	207.2	156.3	110.2	31.9
52.5°	432.4	426.3	408.6	378.2	340.4	297.4	249.5	199.9	148.2	101.1	24.3
55°	427.3	421.7	403.2	373.6	333.6	290.3	242.4	192.0	140.3	91.7	17.5
57.5°	419.5	414.4	396.7	366.3	326.8	282.4	234.6	183.4	130.4	82.3	12.2
60°	409.8	404.8	387.5	357.9	318.9	273.6	225.9	174.5	121.6	72.9	7.6
62.5°	399.7	394.9	376.9	347.5	309.0	264.2	216.6	165.7	112.2	64.3	4.6
65°	386.3	381.7	365.5	335.1	298.1	254.1	206.2	155.0	102.6	54.7	2.5
67.5°	372.1	368.0	351.6	323.7	285.5	242.9	195.5	144.6	92.5	46.4	1.3
70°	356.9	351.8	336.6	308.3	272.5	230.2	183.9	134.0	82.8	38.2	0.0
72.5°	339.2	335.4	320.7	293.8	257.6	216.8	172.0	122.3	72.2	30.4	0.3
75°	321.9	317.1	303.7	278.4	242.9	202.6	158.8	111.5	61.8	23.3	0.3
77.5°	299.6	298.1	285.5	260.9	229.0	189.0	144.4	98.3	51.9	16.7	0.3
80°	277.4	275.8	266.0	243.4	212.8	172.7	131.0	85.9	42.3	11.1	0.3
82.5°	255.3	253.3	243.9	225.2	196.3	159.1	117.0	73.5	33.4	6.8	0.3
85°	235.6	233.0	222.9	205.7	179.3	143.6	102.6	61.3	24.8	3.8	0.5
87.5°	218.6	216.8	205.7	187.9	162.1	129.2	89.9	49.6	17.5	1.8	0.8
90°	204.2	200.4	190.5	171.7	145.9	113.2	76.5	39.8	11.7	1.0	1.0
92.5°	190.0	186.7	175.8	156.5	131.5	99.5	63.6	30.4	7.3	0.5	1.3
95°	175.3	171.7	161.1	143.4	116.8	85.6	52.2	22.3	4.1	0.5	1.3
97.5°	160.8	157.6	146.4	128.7	103.6	73.5	41.3	15.7	2.0	0.5	1.0
100°	147.4	143.6	133.5	115.8	90.4	61.3	31.9	10.1	1.3	0.5	1.0
102.5°	133.2	130.2	119.8	102.6	76.7	49.9	23.8	6.3	0.5	0.5	0.8
105°	120.6	116.8	106.6	88.9	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°	78.5	75.5	66.6	51.7	33.2	15.5	4.6	0.8	0.8	0.8	0.8
115°	65.6	61.0	53.2	40.0	24.6	10.1	2.3	0.8	0.8	0.8	0.8
117.5°	52.4	48.6	43.1	30.4	16.2	6.6	1.3	0.8	0.8	0.8	0.8
120°	41.0	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°	198.8	198.8	198.8
2.5°	189.2	185.7	184.7
5°	179.1	173.3	170.0
7.5°	168.9	161.1	157.3
10°	159.6	148.4	144.4
12.5°	148.4	135.5	129.2
15°	137.8	121.1	115.0
17.5°	125.9	107.1	100.1
20°	114.7	93.2	85.9
22.5°	102.1	79.5	71.4
25°	90.7	65.9	56.7
27.5°	78.0	51.9	44.1
30°	66.1	39.8	31.9
32.5°	54.7	29.1	22.0
35°	44.1	19.8	13.9
37.5°	33.9	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°	106.4	103.3	93.2	76.5	53.4	29.9	11.1	2.0	0.5	0.8	0.8
110°	92.7	90.2	79.8	63.6	43.1	22.3	7.3	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)