

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: P550835

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-96-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: P550835
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-40-UNV-81-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

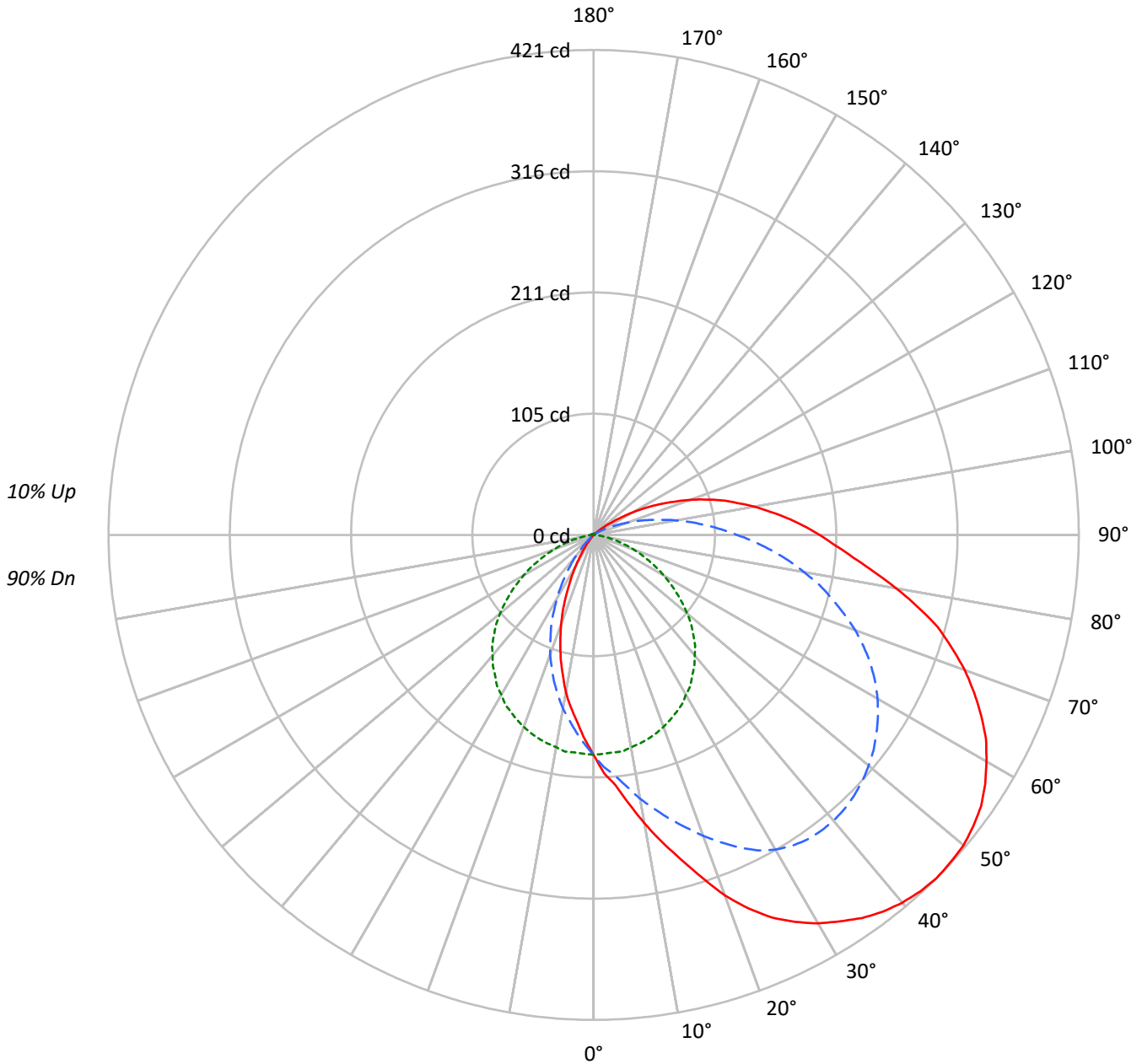
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 944.0 lumens
Efficiency: N/A
Efficacy: 80.7 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°	2055	2055	2055
5°	2256	2025	1689
10°	2553	2001	1393
15°	2862	1975	1085
20°	3227	1943	800
25°	3531	1906	525
30°	3756	1856	295
35°	3952	1802	130
40°	4125	1736	32
45°	4273	1652	0
50°	4398	1542	0
55°	4493	1403	0
60°	4541	1241	0
65°	4560	1054	0
70°	4544	860	0
75°	4487	635	3
80°	4305	388	19
85°	4160	183	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.3	1.9
10°-20°	54.8	5.8
20°-30°	88.7	9.4
30°-40°	113.9	12.1
40°-50°	129.0	13.7
50°-60°	133.6	14.2
60°-70°	126.0	13.3
70°-80°	105.6	11.2
80°-90°	76.5	8.1
90°-100°	50.3	5.3
100°-110°	29.1	3.1
110°-120°	12.8	1.4
120°-130°	3.5	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	161.7	17.1
0°-40°	275.7	29.2
0°-60°	538.2	57.0
0°-90°	846.4	89.7
90°-120°	92.2	9.8
90°-150°	96.9	10.3
90°-180°	98.0	10.4
0°-180°	944.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	191	191	191	191	191	
5°	218	209	190	172	163	22
15°	291	255	183	132	110	84
25°	367	300	170	87	54	169
35°	406	323	149	42	13	255
45°	421	320	122	10	0	325
55°	410	300	88	0	0	366
65°	371	265	52	0	0	367
75°	309	214	22	0	0	324
85°	226	155	4	1	2	193
90°	196	124	1	2	2	108
95°	168	97	0	2	2	132
105°	116	50	0	1	2	122
115°	63	17	1	1	1	63
125°	19	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°	190.9	190.9	190.9	190.9	190.9	190.9	190.9	190.9	190.9	190.9	190.9
2.5°	207.0	206.8	206.0	204.8	203.1	200.2	197.8	195.6	192.7	190.2	185.6
5°	217.9	216.7	215.8	214.5	210.7	208.0	203.6	198.7	194.1	189.5	180.2
7.5°	235.5	233.5	232.1	228.7	223.3	217.2	210.4	205.8	202.6	189.7	173.9
10°	254.2	252.5	249.6	243.5	236.9	228.2	218.4	207.5	197.8	187.1	168.3
12.5°	272.7	270.2	266.1	258.3	249.1	238.1	224.8	211.9	198.0	185.4	161.8
15°	291.2	288.5	284.1	274.6	262.5	248.1	231.8	215.5	199.2	183.2	154.9
17.5°	311.4	307.7	301.1	290.4	275.1	257.4	238.1	218.4	198.7	180.5	147.7
20°	333.0	327.9	320.8	306.5	288.5	267.6	244.5	221.4	198.5	177.3	139.4
22.5°	351.0	345.9	338.1	323.3	301.6	276.1	249.8	223.3	197.5	173.7	131.6
25°	366.6	362.4	353.9	336.9	314.0	285.1	254.9	224.8	196.1	169.8	123.3
27.5°	378.7	374.8	365.4	347.8	324.5	293.1	258.8	225.5	194.1	165.9	114.8
30°	389.4	385.5	374.1	356.1	331.5	299.4	262.7	225.7	191.7	160.1	105.6
32.5°	397.7	394.1	382.4	363.2	336.4	303.8	264.9	225.5	188.5	155.9	95.6
35°	406.0	402.3	388.7	368.3	340.1	305.8	266.6	224.3	184.6	149.1	86.1
37.5°	412.3	408.2	394.3	371.7	341.8	306.2	266.4	222.6	180.5	143.5	76.6
40°	416.7	412.3	397.5	373.6	342.2	305.5	264.4	219.7	175.6	136.5	66.6
42.5°	419.6	414.7	398.9	376.5	341.3	303.6	261.5	216.0	170.3	130.4	57.2
45°	421.1	416.0	399.2	374.1	339.6	299.9	257.1	211.4	164.4	122.1	47.7
47.5°	420.3	414.7	398.0	371.4	336.4	296.0	252.2	205.8	157.4	114.8	38.7
50°	419.1	413.3	395.3	368.0	332.0	291.2	246.9	199.0	150.1	105.8	30.6
52.5°	415.2	409.4	392.4	363.2	326.9	285.6	239.6	191.9	142.3	97.1	23.4
55°	410.4	405.0	387.2	358.8	320.4	278.8	232.8	184.4	134.8	88.1	16.8
57.5°	402.8	398.0	380.9	351.7	313.8	271.2	225.2	176.1	125.3	79.1	11.7
60°	393.6	388.7	372.2	343.7	306.2	262.7	217.0	167.6	116.8	70.1	7.3
62.5°	383.8	379.2	362.0	333.7	296.8	253.7	208.0	159.1	107.8	61.8	4.4
65°	371.0	366.6	351.0	321.8	286.3	244.0	198.0	148.9	98.5	52.5	2.4
67.5°	357.3	353.4	337.6	310.9	274.1	233.3	187.8	138.9	88.8	44.5	1.2
70°	342.7	337.9	323.3	296.0	261.7	221.1	176.6	128.7	79.5	36.7	0.0
72.5°	325.7	322.1	308.0	282.2	247.4	208.2	165.2	117.5	69.3	29.2	0.2
75°	309.2	304.5	291.7	267.3	233.3	194.6	152.5	107.0	59.4	22.4	0.2
77.5°	287.8	286.3	274.1	250.5	219.9	181.5	138.7	94.4	49.9	16.1	0.2
80°	266.4	264.9	255.4	233.8	204.3	165.9	125.8	82.5	40.6	10.7	0.2
82.5°	245.2	243.2	234.2	216.2	188.5	152.8	112.4	70.5	32.1	6.6	0.2
85°	226.2	223.8	214.1	197.5	172.2	137.9	98.5	58.9	23.8	3.6	0.5
87.5°	209.9	208.2	197.5	180.5	155.7	124.1	86.4	47.7	16.8	1.7	0.7
90°	196.1	192.4	182.9	164.9	140.1	108.7	73.5	38.2	11.2	1.0	1.0
92.5°	182.4	179.3	168.8	150.3	126.2	95.6	61.1	29.2	7.1	0.5	1.2
95°	168.3	164.9	154.7	137.7	112.1	82.2	50.1	21.4	3.9	0.5	1.2
97.5°	154.5	151.3	140.6	123.6	99.5	70.5	39.6	15.1	1.9	0.5	1.0
100°	141.6	137.9	128.2	111.2	86.8	58.9	30.6	9.7	1.2	0.5	1.0
102.5°	127.9	125.0	115.1	98.5	73.7	47.9	22.9	6.1	0.5	0.5	0.7
105°	115.8	112.1	102.4	85.4	62.8	37.7	16.1	3.6	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	75.4	72.5	64.0	49.6	31.9	14.8	4.4	0.7	0.7	0.7	0.7
115°	63.0	58.6	51.1	38.4	23.6	9.7	2.2	0.7	0.7	0.7	0.7
117.5°	50.4	46.7	41.4	29.2	15.6	6.3	1.2	0.7	0.7	0.7	0.7
120°	39.4	36.0	29.9	20.2	10.5	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	28.2	25.5	20.2	13.1	6.3	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.7	17.3	13.4	8.0	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.2	10.9	7.8	4.6	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.8	6.1	4.6	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.6	2.4	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	190.9	190.9	190.9
2.5°	181.7	178.3	177.3
5°	172.0	166.4	163.2
7.5°	162.2	154.7	151.1
10°	153.2	142.5	138.7
12.5°	142.5	130.1	124.1
15°	132.3	116.3	110.4
17.5°	120.9	102.9	96.1
20°	110.2	89.5	82.5
22.5°	98.0	76.4	68.6
25°	87.1	63.2	54.5
27.5°	74.9	49.9	42.3
30°	63.5	38.2	30.6
32.5°	52.5	28.0	21.2
35°	42.3	19.0	13.4
37.5°	32.6	11.7	6.8
40°	23.6	6.1	3.2
42.5°	15.8	2.9	1.7
45°	9.7	1.5	0.0
47.5°	5.6	0.0	0.0
50°	2.9	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	1.9	1.9
95°	1.7	1.9	2.2
97.5°	1.9	2.2	2.2
100°	1.7	2.2	2.4
102.5°	1.5	2.2	2.2
105°	1.2	1.7	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	1.0	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	102.2	99.2	89.5	73.5	51.3	28.7	10.7	1.9	0.5	0.7	0.7
110°	89.0	86.6	76.6	61.1	41.4	21.4	7.1	1.2	0.7	0.7	0.7





107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)