

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: P550823

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-84-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: P550823
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-81-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

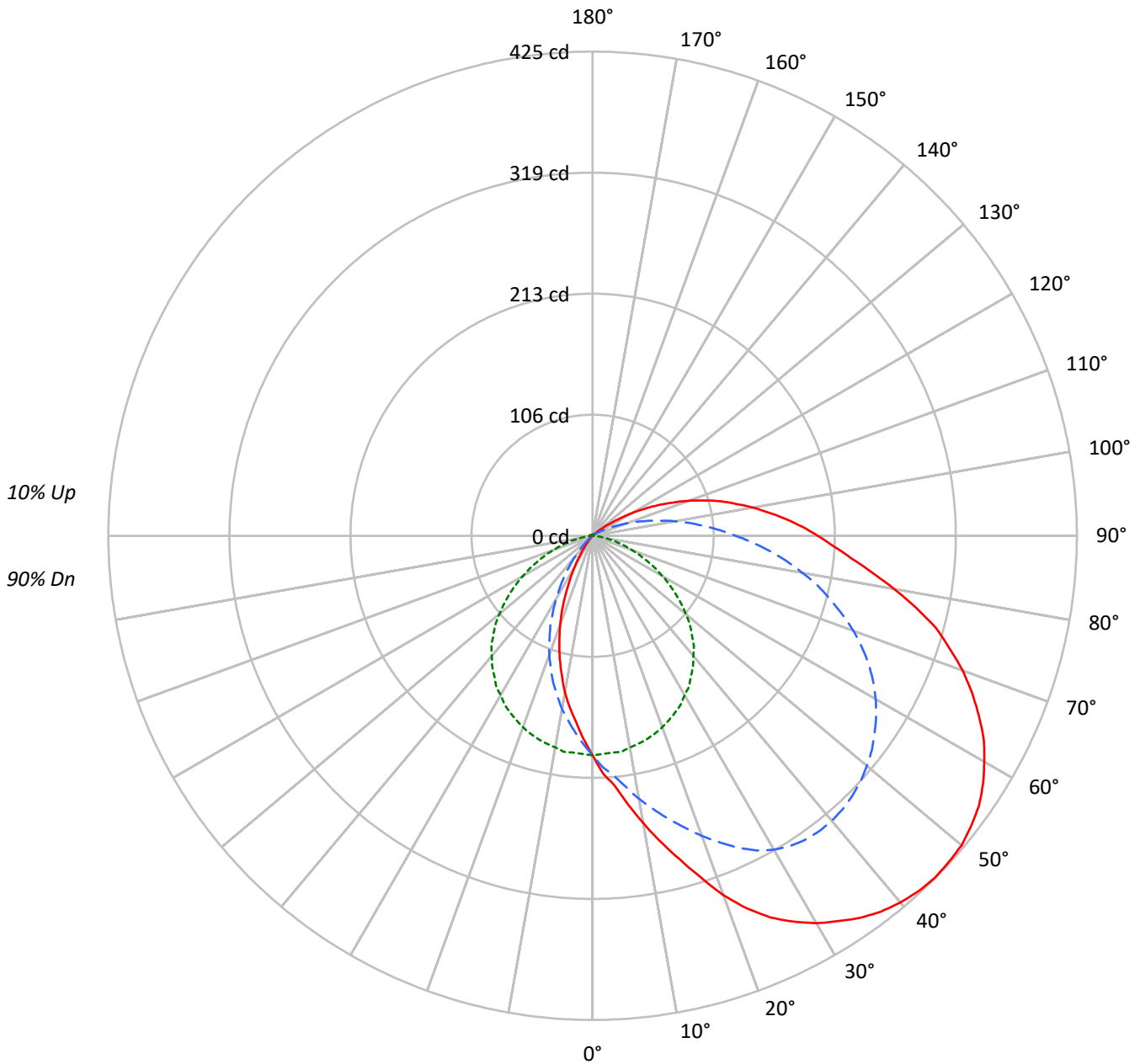
Lumens per Lamp: N/A
Luminaire Lumens: 951.9 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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°	2073	2073	2073
5°	2275	2043	1704
10°	2574	2017	1404
15°	2885	1992	1095
20°	3254	1959	806
25°	3561	1921	529
30°	3788	1871	298
35°	3985	1817	131
40°	4159	1750	32
45°	4309	1666	0
50°	4435	1555	0
55°	4530	1414	0
60°	4579	1249	0
65°	4598	1065	0
70°	4582	867	0
75°	4524	641	3
80°	4341	392	19
85°	4195	188	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.4	1.9
10°-20°	55.2	5.8
20°-30°	89.4	9.4
30°-40°	114.9	12.1
40°-50°	130.1	13.7
50°-60°	134.7	14.2
60°-70°	127.1	13.3
70°-80°	106.5	11.2
80°-90°	77.2	8.1
90°-100°	50.7	5.3
100°-110°	29.3	3.1
110°-120°	12.9	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°	163.1	17.1
0°-40°	278.0	29.2
0°-60°	542.8	57.0
0°-90°	853.5	89.7
90°-120°	92.9	9.8
90°-150°	97.8	10.3
90°-180°	98.0	10.3
0°-180°	951.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	193	193	193	193	193	
5°	220	211	191	173	165	22
15°	294	257	185	133	111	85
25°	370	302	171	88	55	171
35°	409	326	150	43	14	257
45°	425	322	123	10	0	328
55°	414	302	89	0	0	370
65°	374	267	53	0	0	370
75°	312	216	23	0	0	327
85°	228	156	4	1	2	195
90°	198	126	1	2	2	108
95°	170	98	0	2	2	133
105°	117	51	0	1	2	123
115°	64	17	1	1	1	64
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°	192.6	192.6	192.6	192.6	192.6	192.6	192.6	192.6	192.6	192.6	192.6
2.5°	208.8	208.5	207.8	206.5	204.8	201.9	199.4	197.2	194.3	191.8	187.2
5°	219.8	218.6	217.6	216.4	212.4	209.7	205.3	200.4	195.8	191.1	181.8
7.5°	237.5	235.5	234.0	230.6	225.2	219.1	212.2	207.5	204.3	191.3	175.4
10°	256.3	254.6	251.7	245.6	238.9	230.1	220.3	209.2	199.4	188.6	169.8
12.5°	275.0	272.5	268.4	260.5	251.2	240.2	226.7	213.7	199.7	186.9	163.1
15°	293.6	290.9	286.5	277.0	264.7	250.2	233.8	217.3	200.9	184.7	156.3
17.5°	314.0	310.3	303.7	292.9	277.4	259.5	240.2	220.3	200.4	182.0	148.9
20°	335.8	330.7	323.6	309.1	290.9	269.8	246.5	223.2	200.2	178.8	140.6
22.5°	354.0	348.8	341.0	326.0	304.2	278.4	251.9	225.2	199.2	175.1	132.7
25°	369.7	365.5	356.9	339.8	316.7	287.5	257.1	226.7	197.7	171.2	124.4
27.5°	381.9	378.0	368.5	350.8	327.2	295.6	261.0	227.4	195.8	167.3	115.8
30°	392.7	388.8	377.3	359.1	334.4	302.0	264.9	227.6	193.3	161.4	106.5
32.5°	401.1	397.4	385.6	366.2	339.3	306.4	267.1	227.4	190.1	157.2	96.4
35°	409.4	405.7	392.0	371.4	342.9	308.4	268.9	226.2	186.2	150.4	86.8
37.5°	415.8	411.6	397.6	374.8	344.7	308.8	268.6	224.5	182.0	144.7	77.3
40°	420.2	415.8	400.8	376.8	345.1	308.1	266.6	221.5	177.1	137.6	67.2
42.5°	423.2	418.3	402.3	379.7	344.2	306.1	263.7	217.8	171.7	131.5	57.6
45°	424.6	419.5	402.6	377.3	342.4	302.5	259.3	213.2	165.8	123.1	48.1
47.5°	423.9	418.3	401.3	374.6	339.3	298.5	254.4	207.5	158.7	115.8	39.0
50°	422.7	416.8	398.6	371.2	334.8	293.6	249.0	200.7	151.4	106.7	30.9
52.5°	418.7	412.9	395.7	366.2	329.7	288.0	241.6	193.5	143.5	97.9	23.5
55°	413.8	408.4	390.5	361.8	323.1	281.1	234.8	185.9	135.9	88.8	16.9
57.5°	406.2	401.3	384.2	354.7	316.4	273.5	227.2	177.6	126.3	79.7	11.8
60°	396.9	392.0	375.3	346.6	308.8	264.9	218.8	169.0	117.7	70.6	7.4
62.5°	387.1	382.4	365.0	336.6	299.3	255.9	209.7	160.4	108.7	62.3	4.4
65°	374.1	369.7	354.0	324.5	288.7	246.0	199.7	150.1	99.3	53.0	2.5
67.5°	360.4	356.4	340.5	313.5	276.5	235.3	189.4	140.1	89.5	44.9	1.2
70°	345.6	340.7	326.0	298.5	264.0	223.0	178.1	129.8	80.2	37.0	0.0
72.5°	328.5	324.8	310.6	284.6	249.5	210.0	166.6	118.5	69.9	29.4	0.2
75°	311.8	307.1	294.1	269.6	235.3	196.2	153.8	107.9	59.9	22.6	0.2
77.5°	290.2	288.7	276.5	252.7	221.8	183.0	139.8	95.2	50.3	16.2	0.2
80°	268.6	267.1	257.6	235.7	206.1	167.3	126.8	83.2	41.0	10.8	0.2
82.5°	247.3	245.3	236.2	218.1	190.1	154.1	113.3	71.1	32.4	6.6	0.2
85°	228.1	225.7	215.9	199.2	173.7	139.1	99.3	59.4	24.0	3.7	0.5
87.5°	211.7	210.0	199.2	182.0	157.0	125.1	87.1	48.1	16.9	1.7	0.7
90°	197.7	194.0	184.5	166.3	141.3	109.7	74.1	38.5	11.3	1.0	1.0
92.5°	184.0	180.8	170.2	151.6	127.3	96.4	61.6	29.4	7.1	0.5	1.2
95°	169.8	166.3	156.0	138.8	113.1	82.9	50.5	21.6	3.9	0.5	1.2
97.5°	155.8	152.6	141.8	124.6	100.3	71.1	40.0	15.2	2.0	0.5	1.0
100°	142.8	139.1	129.3	112.1	87.6	59.4	30.9	9.8	1.2	0.5	1.0
102.5°	129.0	126.1	116.0	99.3	74.3	48.3	23.1	6.1	0.5	0.5	0.7
105°	116.8	113.1	103.3	86.1	63.3	38.0	16.2	3.7	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°	76.0	73.1	64.5	50.0	32.1	15.0	4.4	0.7	0.7	0.7	0.7
115°	63.5	59.1	51.5	38.8	23.8	9.8	2.2	0.7	0.7	0.7	0.7
117.5°	50.8	47.1	41.7	29.4	15.7	6.4	1.2	0.7	0.7	0.7	0.7
120°	39.7	36.3	30.2	20.4	10.5	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.5	25.8	20.4	13.2	6.4	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.9	17.4	13.5	8.1	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.3	11.0	7.8	4.7	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.9	6.1	4.7	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.7	2.5	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°	192.6	192.6	192.6
2.5°	183.2	179.8	178.8
5°	173.4	167.8	164.6
7.5°	163.6	156.0	152.3
10°	154.5	143.8	139.8
12.5°	143.8	131.2	125.1
15°	133.4	117.3	111.4
17.5°	121.9	103.8	96.9
20°	111.1	90.3	83.2
22.5°	98.9	77.0	69.2
25°	87.8	63.8	54.9
27.5°	75.6	50.3	42.7
30°	64.0	38.5	30.9
32.5°	53.0	28.2	21.3
35°	42.7	19.1	13.5
37.5°	32.9	11.8	6.9
40°	23.8	6.1	3.2
42.5°	15.9	2.9	1.7
45°	9.8	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	2.0	2.0
95°	1.7	2.0	2.2
97.5°	2.0	2.2	2.2
100°	1.7	2.2	2.5
102.5°	1.5	2.2	2.2
105°	1.2	1.7	2.0



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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°	103.0	100.1	90.3	74.1	51.8	28.9	10.8	2.0	0.5	0.7	0.7
110°	89.8	87.3	77.3	61.6	41.7	21.6	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)