

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: P551679

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-88-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: P551679
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-LD4-2LO-50-UNV-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

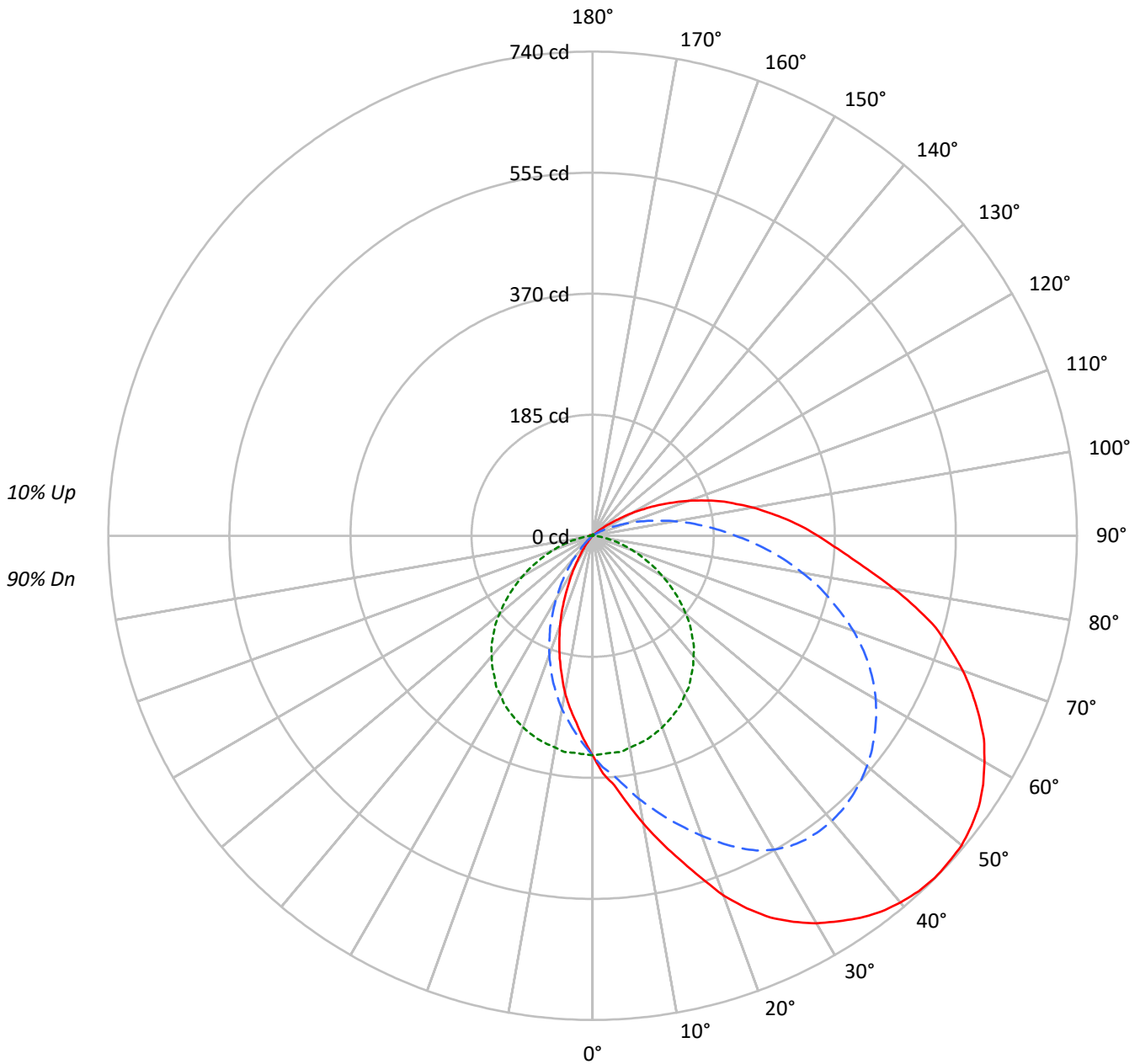
Lumens per Lamp: N/A
Luminaire Lumens: 1658.0 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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°	3610	3610	3610
5°	3963	3557	2968
10°	4485	3513	2446
15°	5026	3469	1906
20°	5668	3412	1403
25°	6201	3347	922
30°	6597	3259	519
35°	6939	3164	229
40°	7244	3048	55
45°	7505	2902	0
50°	7724	2708	0
55°	7890	2463	0
60°	7975	2177	0
65°	8007	1854	0
70°	7981	1511	0
75°	7879	1115	6
80°	7560	682	34
85°	7307	325	48



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	1.9
10°-20°	96.2	5.8
20°-30°	155.8	9.4
30°-40°	200.1	12.1
40°-50°	226.5	13.7
50°-60°	234.7	14.2
60°-70°	221.3	13.3
70°-80°	185.5	11.2
80°-90°	134.4	8.1
90°-100°	88.4	5.3
100°-110°	51.0	3.1
110°-120°	22.5	1.4
120°-130°	6.1	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	284.1	17.1
0°-40°	484.2	29.2
0°-60°	945.3	57.0
0°-90°	1486.5	89.7
90°-120°	161.9	9.8
90°-150°	170.3	10.3
90°-180°	171.0	10.3
0°-180°	1658.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	335	335	335	335	335	
5°	383	368	333	302	287	39
15°	511	448	322	232	194	147
25°	644	526	298	153	96	298
35°	713	567	262	74	24	447
45°	740	562	214	17	0	571
55°	721	526	155	0	0	644
65°	652	466	92	0	0	645
75°	543	376	39	0	0	570
85°	397	272	6	2	3	339
90°	344	219	2	3	3	189
95°	296	171	1	3	4	232
105°	203	88	1	2	3	215
115°	111	29	1	1	2	111
125°	33	4	2	1	2	33
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
2.5°	363.6	363.1	361.9	359.7	356.7	351.6	347.3	343.5	338.4	334.1	326.0
5°	382.8	380.7	379.0	376.8	370.0	365.3	357.6	349.0	340.9	332.8	316.6
7.5°	413.6	410.1	407.6	401.6	392.2	381.5	369.6	361.4	355.9	333.2	305.5
10°	446.5	443.5	438.3	427.7	416.1	400.7	383.7	364.4	347.3	328.5	295.6
12.5°	478.9	474.6	467.4	453.7	437.5	418.3	394.8	372.1	347.8	325.5	284.1
15°	511.4	506.7	499.0	482.3	461.0	435.8	407.1	378.5	349.9	321.7	272.1
17.5°	546.9	540.4	528.9	510.1	483.2	452.0	418.3	383.7	349.0	317.0	259.3
20°	584.9	575.9	563.5	538.3	506.7	470.0	429.4	388.8	348.6	311.4	244.8
22.5°	616.5	607.5	593.8	567.8	529.8	484.9	438.8	392.2	346.9	305.0	231.1
25°	643.8	636.6	621.6	591.7	551.6	500.7	447.7	394.8	344.3	298.2	216.6
27.5°	665.2	658.4	641.7	610.9	569.9	514.8	454.6	396.0	340.9	291.4	201.7
30°	684.0	677.2	657.1	625.5	582.3	525.9	461.4	396.5	336.7	281.1	185.4
32.5°	698.5	692.1	671.6	637.9	590.9	533.6	465.3	396.0	331.1	273.9	167.9
35°	713.0	706.6	682.7	646.8	597.3	537.0	468.2	393.9	324.3	261.9	151.2
37.5°	724.2	716.9	692.5	652.8	600.3	537.9	467.8	390.9	317.0	252.1	134.6
40°	731.8	724.2	698.1	656.2	601.1	536.6	464.4	385.8	308.5	239.7	117.1
42.5°	737.0	728.4	700.7	661.3	599.4	533.2	459.3	379.4	299.1	229.0	100.4
45°	739.5	730.6	701.1	657.1	596.4	526.8	451.6	371.3	288.8	214.5	83.7
47.5°	738.2	728.4	698.9	652.4	590.9	519.9	443.0	361.4	276.4	201.7	67.9
50°	736.1	725.9	694.2	646.4	583.2	511.4	433.6	349.5	263.6	185.8	53.8
52.5°	729.3	719.0	689.1	637.9	574.2	501.6	420.8	337.1	249.9	170.5	41.0
55°	720.7	711.3	680.1	630.2	562.7	489.6	408.9	323.8	236.7	154.7	29.5
57.5°	707.5	698.9	669.0	617.8	551.1	476.4	395.6	309.3	220.0	138.8	20.5
60°	691.3	682.7	653.7	603.7	537.9	461.4	381.1	294.4	205.1	123.0	12.8
62.5°	674.2	666.0	635.7	586.2	521.2	445.6	365.3	279.4	189.3	108.5	7.7
65°	651.5	643.8	616.5	565.2	502.8	428.5	347.8	261.5	173.0	92.3	4.3
67.5°	627.6	620.8	593.0	546.0	481.5	409.7	329.8	243.9	155.9	78.2	2.1
70°	602.0	593.4	567.8	519.9	459.7	388.3	310.2	226.0	139.7	64.5	0.0
72.5°	572.1	565.6	540.9	495.6	434.5	365.7	290.1	206.4	121.8	51.3	0.4
75°	543.0	534.9	512.2	469.5	409.7	341.8	267.9	188.0	104.2	39.3	0.4
77.5°	505.4	502.8	481.5	440.0	386.2	318.7	243.5	165.8	87.6	28.2	0.4
80°	467.8	465.3	448.6	410.6	358.9	291.4	220.9	144.8	71.3	18.8	0.4
82.5°	430.6	427.2	411.4	379.8	331.1	268.3	197.4	123.9	56.4	11.5	0.4
85°	397.3	393.0	376.0	346.9	302.5	242.2	173.0	103.4	41.9	6.4	0.9
87.5°	368.7	365.7	346.9	317.0	273.4	217.9	151.7	83.7	29.5	3.0	1.3
90°	344.3	337.9	321.3	289.7	246.1	191.0	129.0	67.1	19.7	1.7	1.7
92.5°	320.4	314.9	296.5	264.0	221.7	167.9	107.2	51.3	12.4	0.9	2.1
95°	295.6	289.7	271.7	241.8	197.0	144.4	88.0	37.6	6.8	0.9	2.1
97.5°	271.3	265.7	246.9	217.0	174.7	123.9	69.6	26.5	3.4	0.9	1.7
100°	248.6	242.2	225.1	195.2	152.5	103.4	53.8	17.1	2.1	0.9	1.7
102.5°	224.7	219.6	202.1	173.0	129.4	84.2	40.2	10.7	0.9	0.9	1.3
105°	203.4	197.0	179.9	150.0	110.2	66.2	28.2	6.4	0.9	0.9	1.3



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	132.4	127.3	112.4	87.2	56.0	26.1	7.7	1.3	1.3	1.3	1.3
115°	110.7	103.0	89.7	67.5	41.4	17.1	3.8	1.3	1.3	1.3	1.3
117.5°	88.4	82.0	72.6	51.3	27.3	11.1	2.1	1.3	1.3	1.3	1.3
120°	69.2	63.2	52.5	35.5	18.4	6.4	0.9	1.3	1.3	1.3	1.3
122.5°	49.6	44.9	35.5	23.1	11.1	3.0	1.3	1.3	1.7	1.7	1.3
125°	32.9	30.3	23.5	14.1	6.8	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.4	19.2	13.7	8.1	3.0	1.3	1.3	1.7	1.7	1.7	1.3
130°	12.0	10.7	8.1	4.7	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.8	6.4	4.3	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.1
172.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	335.4	335.4	335.4
2.5°	319.1	313.2	311.4
5°	302.0	292.2	286.7
7.5°	285.0	271.7	265.3
10°	269.2	250.4	243.5
12.5°	250.4	228.6	217.9
15°	232.4	204.2	194.0
17.5°	212.3	180.7	168.8
20°	193.5	157.2	144.8
22.5°	172.2	134.1	120.5
25°	152.9	111.1	95.7
27.5°	131.6	87.6	74.3
30°	111.5	67.1	53.8
32.5°	92.3	49.1	37.2
35°	74.3	33.3	23.5
37.5°	57.2	20.5	12.0
40°	41.4	10.7	5.6
42.5°	27.8	5.1	3.0
45°	17.1	2.6	0.0
47.5°	9.8	0.0	0.0
50°	5.1	0.0	0.0
52.5°	2.1	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°	0.4	0.4	0.4
77.5°	0.4	0.9	1.3
80°	0.9	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.6
87.5°	2.1	2.6	3.0
90°	2.6	3.0	3.0
92.5°	2.6	3.4	3.4
95°	3.0	3.4	3.8
97.5°	3.4	3.8	3.8
100°	3.0	3.8	4.3
102.5°	2.6	3.8	3.8
105°	2.1	3.0	3.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.3	1.7	2.1
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.7	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	179.4	174.3	157.2	129.0	90.1	50.4	18.8	3.4	0.9	1.3	1.3
110°	156.4	152.1	134.6	107.2	72.6	37.6	12.4	2.1	1.3	1.3	1.3





107.5°	1.7	2.6	3.0
110°	1.7	2.1	2.6



(END OF REPORT)