

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: P551661

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-81-87-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: P551661
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-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

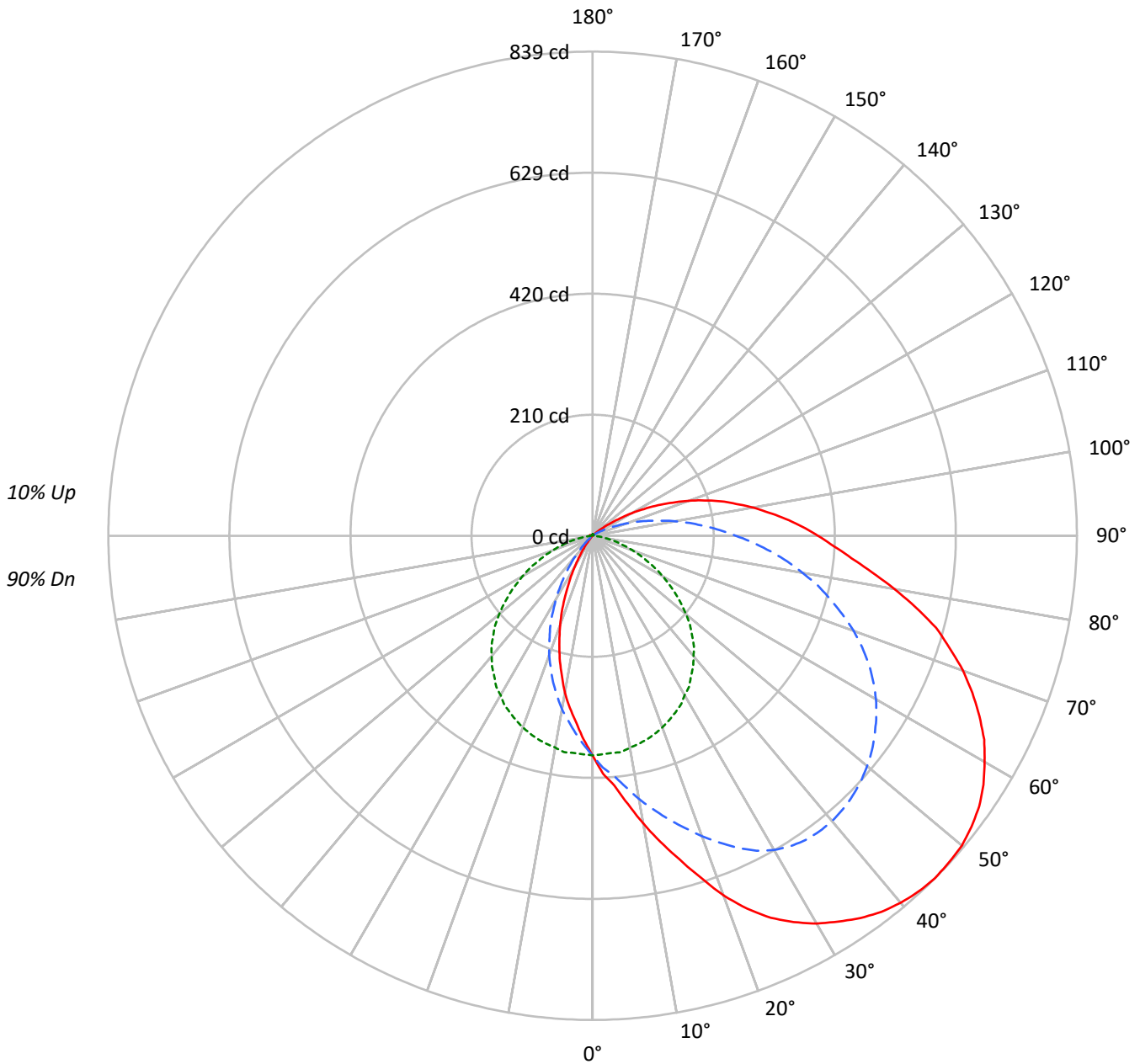
Lumens per Lamp: N/A
Luminaire Lumens: 1881.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P551661

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-87-ED1D-90

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°	4096	4096	4096
5°	4496	4036	3367
10°	5087	3986	2775
15°	5702	3936	2162
20°	6430	3871	1592
25°	7035	3797	1046
30°	7484	3697	589
35°	7873	3590	260
40°	8219	3458	62
45°	8514	3292	0
50°	8763	3072	0
55°	8952	2795	0
60°	9047	2470	0
65°	9085	2103	0
70°	9054	1715	0
75°	8939	1265	7
80°	8577	773	39
85°	8291	371	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	1.9
10°-20°	109.1	5.8
20°-30°	176.7	9.4
30°-40°	227.0	12.1
40°-50°	257.0	13.7
50°-60°	266.2	14.2
60°-70°	251.1	13.3
70°-80°	210.4	11.2
80°-90°	152.5	8.1
90°-100°	100.2	5.3
100°-110°	57.9	3.1
110°-120°	25.6	1.4
120°-130°	6.9	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	322.3	17.1
0°-40°	549.3	29.2
0°-60°	1072.5	57.0
0°-90°	1686.5	89.7
90°-120°	183.7	9.8
90°-150°	193.3	10.3
90°-180°	195.0	10.4
0°-180°	1881.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	380	380	380	380	380	
5°	434	417	378	343	325	44
15°	580	509	365	264	220	167
25°	730	597	338	174	109	338
35°	809	643	297	84	27	507
45°	839	637	243	19	0	648
55°	818	597	176	0	0	730
65°	739	528	105	0	0	731
75°	616	426	45	0	0	646
85°	451	309	7	2	3	385
90°	391	248	2	3	3	214
95°	335	194	1	3	4	263
105°	231	100	1	2	4	243
115°	126	33	2	2	2	126
125°	37	5	2	2	2	37
135°	2	2	2	2	2	3
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	380.5	380.5	380.5	380.5	380.5	380.5	380.5	380.5	380.5	380.5	380.5
2.5°	412.5	412.0	410.5	408.1	404.7	398.9	394.1	389.7	383.9	379.0	369.8
5°	434.3	431.9	429.9	427.5	419.7	414.4	405.7	396.0	386.8	377.6	359.2
7.5°	469.2	465.3	462.4	455.6	444.9	432.8	419.3	410.0	403.7	378.1	346.6
10°	506.5	503.1	497.3	485.2	472.1	454.6	435.3	413.4	394.1	372.7	335.4
12.5°	543.3	538.5	530.3	514.7	496.3	474.5	447.9	422.2	394.5	369.3	322.3
15°	580.2	574.8	566.1	547.2	523.0	494.4	461.9	429.4	397.0	365.0	308.7
17.5°	620.4	613.1	600.0	578.7	548.2	512.8	474.5	435.3	396.0	359.6	294.2
20°	663.5	653.4	639.3	610.7	574.8	533.2	487.1	441.1	395.5	353.3	277.7
22.5°	699.4	689.2	673.7	644.2	601.0	550.1	497.8	444.9	393.6	346.1	262.2
25°	730.4	722.2	705.2	671.3	625.7	568.1	508.0	447.9	390.7	338.3	245.7
27.5°	754.7	746.9	728.0	693.1	646.6	584.1	515.7	449.3	386.8	330.6	228.8
30°	776.0	768.2	745.5	709.6	660.6	596.7	523.5	449.8	381.9	318.9	210.4
32.5°	792.5	785.2	761.9	723.6	670.3	605.4	527.8	449.3	375.6	310.7	190.5
35°	808.9	801.7	774.5	733.8	677.6	609.3	531.2	446.9	367.9	297.1	171.6
37.5°	821.5	813.3	785.7	740.6	681.0	610.2	530.7	443.5	359.6	286.0	152.7
40°	830.3	821.5	792.0	744.5	682.0	608.8	526.9	437.7	349.9	271.9	132.8
42.5°	836.1	826.4	794.9	750.3	680.0	604.9	521.0	430.4	339.3	259.8	113.9
45°	839.0	828.8	795.4	745.5	676.6	597.6	512.3	421.2	327.6	243.3	95.0
47.5°	837.5	826.4	793.0	740.1	670.3	589.9	502.6	410.0	313.6	228.8	77.1
50°	835.1	823.5	787.6	733.3	661.6	580.2	492.0	396.5	299.1	210.8	61.1
52.5°	827.4	815.7	781.8	723.6	651.4	569.0	477.4	382.4	283.5	193.4	46.5
55°	817.7	807.0	771.6	714.9	638.3	555.5	463.8	367.4	268.5	175.5	33.4
57.5°	802.6	793.0	759.0	700.9	625.2	540.4	448.8	350.9	249.6	157.5	23.3
60°	784.2	774.5	741.6	684.9	610.2	523.5	432.3	334.0	232.7	139.6	14.5
62.5°	764.8	755.6	721.2	665.0	591.3	505.5	414.4	317.0	214.7	123.1	8.7
65°	739.2	730.4	699.4	641.2	570.5	486.1	394.5	296.6	196.3	104.7	4.8
67.5°	712.0	704.3	672.7	619.4	546.2	464.8	374.2	276.8	176.9	88.7	2.4
70°	682.9	673.2	644.2	589.9	521.5	440.6	351.9	256.4	158.5	73.2	0.0
72.5°	649.0	641.7	613.6	562.2	492.9	414.9	329.1	234.1	138.1	58.2	0.5
75°	616.0	606.8	581.1	532.7	464.8	387.8	303.9	213.3	118.3	44.6	0.5
77.5°	573.4	570.5	546.2	499.2	438.2	361.6	276.3	188.1	99.4	32.0	0.5
80°	530.7	527.8	508.9	465.8	407.1	330.6	250.6	164.3	80.9	21.3	0.5
82.5°	488.6	484.7	466.8	430.9	375.6	304.4	223.9	140.6	64.0	13.1	0.5
85°	450.8	445.9	426.5	393.6	343.2	274.8	196.3	117.3	47.5	7.3	1.0
87.5°	418.3	414.9	393.6	359.6	310.2	247.2	172.1	95.0	33.4	3.4	1.5
90°	390.7	383.4	364.5	328.6	279.2	216.7	146.4	76.1	22.3	1.9	1.9
92.5°	363.5	357.2	336.4	299.5	251.6	190.5	121.7	58.2	14.1	1.0	2.4
95°	335.4	328.6	308.3	274.3	223.4	163.8	99.8	42.7	7.8	1.0	2.4
97.5°	307.8	301.5	280.2	246.2	198.2	140.6	79.0	30.1	3.9	1.0	1.9
100°	282.1	274.8	255.4	221.5	173.0	117.3	61.1	19.4	2.4	1.0	1.9
102.5°	254.9	249.1	229.3	196.3	146.9	95.5	45.6	12.1	1.0	1.0	1.5
105°	230.7	223.4	204.1	170.1	125.0	75.1	32.0	7.3	1.0	1.0	1.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	150.3	144.4	127.5	98.9	63.5	29.6	8.7	1.5	1.5	1.5	1.5
115°	125.5	116.8	101.8	76.6	47.0	19.4	4.4	1.5	1.5	1.5	1.5
117.5°	100.3	93.1	82.4	58.2	31.0	12.6	2.4	1.5	1.5	1.5	1.5
120°	78.5	71.7	59.6	40.2	20.8	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.2	50.9	40.2	26.2	12.6	3.4	1.5	1.5	1.9	1.9	1.5
125°	37.3	34.4	26.7	16.0	7.8	1.5	1.5	1.5	1.9	1.9	1.5
127.5°	24.2	21.8	15.5	9.2	3.4	1.5	1.5	1.9	1.9	1.9	1.5
130°	13.6	12.1	9.2	5.3	1.5	1.5	1.5	1.9	1.9	1.9	1.5
132.5°	7.8	7.3	4.8	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	380.5	380.5	380.5
2.5°	362.1	355.3	353.3
5°	342.7	331.5	325.2
7.5°	323.3	308.3	301.0
10°	305.4	284.0	276.3
12.5°	284.0	259.3	247.2
15°	263.7	231.7	220.0
17.5°	240.9	205.0	191.5
20°	219.6	178.4	164.3
22.5°	195.3	152.2	136.7
25°	173.5	126.0	108.6
27.5°	149.3	99.4	84.3
30°	126.5	76.1	61.1
32.5°	104.7	55.7	42.2
35°	84.3	37.8	26.7
37.5°	64.9	23.3	13.6
40°	47.0	12.1	6.3
42.5°	31.5	5.8	3.4
45°	19.4	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.8
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.5	1.9	2.4
117.5°	1.5	1.9	1.9
120°	1.5	1.5	1.9
122.5°	1.5	1.5	1.9
125°	1.5	1.5	1.9
127.5°	1.9	1.5	1.5
130°	1.5	1.5	1.5
132.5°	1.9	1.5	1.5
135°	1.9	1.5	1.5
137.5°	1.9	1.5	1.5
140°	1.9	1.5	1.5
142.5°	1.9	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	203.6	197.8	178.4	146.4	102.3	57.2	21.3	3.9	1.0	1.5	1.5
110°	177.4	172.5	152.7	121.7	82.4	42.7	14.1	2.4	1.5	1.5	1.5





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)