

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: P551535

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-81-88-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: P551535
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-35-UNV-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

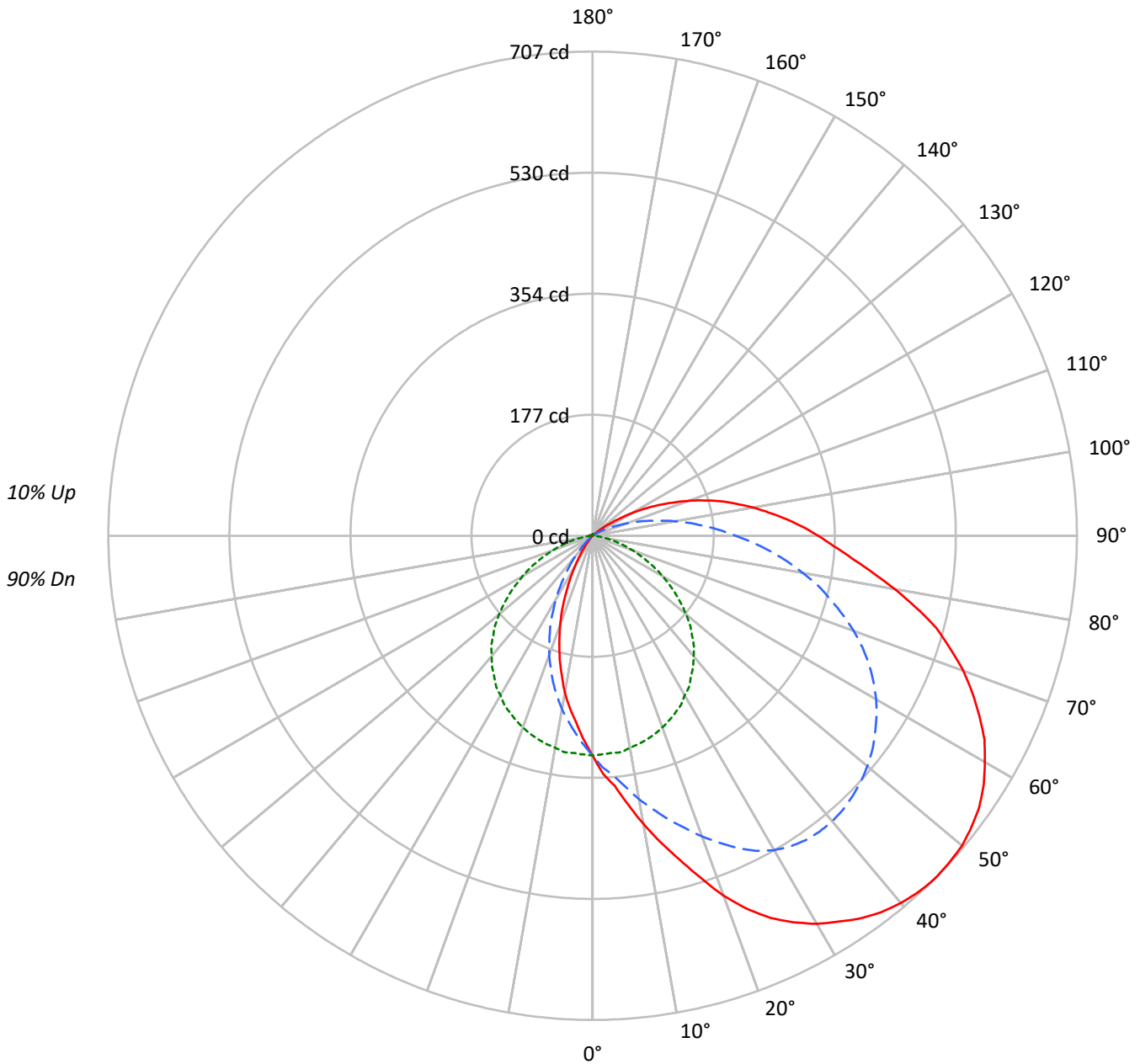
Lumens per Lamp: N/A
Luminaire Lumens: 1585.9 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-88-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°	3453	3453	3453
5°	3791	3403	2839
10°	4290	3361	2339
15°	4807	3318	1823
20°	5422	3264	1342
25°	5932	3202	881
30°	6311	3117	497
35°	6639	3027	219
40°	6930	2916	52
45°	7179	2777	0
50°	7388	2591	0
55°	7548	2355	0
60°	7628	2083	0
65°	7660	1774	0
70°	7634	1445	0
75°	7537	1066	6
80°	7232	653	32
85°	6991	310	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	1.9
10°-20°	92.0	5.8
20°-30°	149.0	9.4
30°-40°	191.4	12.1
40°-50°	216.7	13.7
50°-60°	224.5	14.2
60°-70°	211.7	13.3
70°-80°	177.4	11.2
80°-90°	128.6	8.1
90°-100°	84.5	5.3
100°-110°	48.8	3.1
110°-120°	21.5	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	271.7	17.1
0°-40°	463.1	29.2
0°-60°	904.3	57.0
0°-90°	1422.0	89.7
90°-120°	154.9	9.8
90°-150°	162.8	10.3
90°-180°	164.0	10.3
0°-180°	1585.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	321	321	321	321	321	
5°	366	352	318	289	274	37
15°	489	429	308	222	186	141
25°	616	503	285	146	92	285
35°	682	542	250	71	22	428
45°	707	537	205	16	0	546
55°	689	503	148	0	0	616
65°	623	445	88	0	0	617
75°	519	359	38	0	0	545
85°	380	260	6	2	2	325
90°	329	209	2	2	3	181
95°	283	163	1	3	4	222
105°	194	84	1	2	3	205
115°	106	28	1	1	2	106
125°	32	4	2	1	2	31
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	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°	320.8	320.8	320.8	320.8	320.8	320.8	320.8	320.8	320.8	320.8	320.8
2.5°	347.8	347.4	346.1	344.1	341.2	336.3	332.3	328.6	323.7	319.6	311.8
5°	366.2	364.1	362.5	360.5	353.9	349.4	342.1	333.9	326.1	318.4	302.8
7.5°	395.6	392.3	389.9	384.2	375.2	364.9	353.5	345.7	340.4	318.8	292.2
10°	427.1	424.2	419.3	409.1	398.0	383.3	367.0	348.6	332.3	314.3	282.8
12.5°	458.1	454.0	447.1	434.0	418.5	400.1	377.6	356.0	332.7	311.4	271.8
15°	489.2	484.7	477.3	461.4	441.0	416.8	389.5	362.1	334.7	307.7	260.3
17.5°	523.1	517.0	505.9	488.0	462.2	432.4	400.1	367.0	333.9	303.2	248.1
20°	559.5	550.9	539.0	514.9	484.7	449.5	410.7	371.9	333.5	297.9	234.2
22.5°	589.7	581.1	568.1	543.1	506.8	463.8	419.7	375.2	331.8	291.8	221.1
25°	615.9	608.9	594.6	566.0	527.6	479.0	428.3	377.6	329.4	285.3	207.2
27.5°	636.3	629.8	613.8	584.4	545.2	492.5	434.8	378.8	326.1	278.7	192.9
30°	654.3	647.7	628.5	598.3	557.0	503.1	441.4	379.3	322.0	268.9	177.4
32.5°	668.2	662.1	642.4	610.2	565.2	510.4	445.0	378.8	316.7	262.0	160.6
35°	682.1	675.9	653.1	618.7	571.3	513.7	447.9	376.8	310.2	250.5	144.7
37.5°	692.7	685.8	662.5	624.5	574.2	514.5	447.5	373.9	303.2	241.1	128.7
40°	700.1	692.7	667.8	627.7	575.0	513.3	444.2	369.0	295.1	229.3	112.0
42.5°	705.0	696.8	670.2	632.6	573.4	510.0	439.3	362.9	286.1	219.0	96.0
45°	707.4	698.8	670.6	628.5	570.5	503.9	432.0	355.1	276.3	205.2	80.1
47.5°	706.2	696.8	668.6	624.0	565.2	497.4	423.8	345.7	264.4	192.9	65.0
50°	704.1	694.3	664.1	618.3	557.8	489.2	414.8	334.3	252.2	177.8	51.5
52.5°	697.6	687.8	659.2	610.2	549.3	479.8	402.5	322.4	239.1	163.1	39.2
55°	689.4	680.4	650.6	602.8	538.2	468.3	391.1	309.8	226.4	147.9	28.2
57.5°	676.8	668.6	640.0	590.9	527.2	455.7	378.4	295.9	210.5	132.8	19.6
60°	661.2	653.1	625.3	577.5	514.5	441.4	364.5	281.6	196.2	117.7	12.3
62.5°	644.9	637.1	608.1	560.7	498.6	426.2	349.4	267.3	181.0	103.8	7.4
65°	623.2	615.9	589.7	540.7	481.0	409.9	332.7	250.1	165.5	88.3	4.1
67.5°	600.3	593.8	567.2	522.3	460.6	391.9	315.5	233.4	149.2	74.8	2.0
70°	575.8	567.6	543.1	497.4	439.7	371.5	296.7	216.2	133.6	61.7	0.0
72.5°	547.2	541.1	517.4	474.1	415.6	349.8	277.5	197.4	116.5	49.0	0.4
75°	519.4	511.7	490.0	449.1	391.9	326.9	256.2	179.8	99.7	37.6	0.4
77.5°	483.5	481.0	460.6	420.9	369.4	304.9	232.9	158.6	83.8	27.0	0.4
80°	447.5	445.0	429.1	392.7	343.3	278.7	211.3	138.5	68.2	18.0	0.4
82.5°	411.9	408.7	393.6	363.3	316.7	256.6	188.8	118.5	53.9	11.0	0.4
85°	380.1	376.0	359.6	331.8	289.3	231.7	165.5	98.9	40.1	6.1	0.8
87.5°	352.7	349.8	331.8	303.2	261.6	208.4	145.1	80.1	28.2	2.9	1.2
90°	329.4	323.3	307.3	277.1	235.4	182.7	123.4	64.2	18.8	1.6	1.6
92.5°	306.5	301.2	283.6	252.6	212.1	160.6	102.6	49.0	11.9	0.8	2.0
95°	282.8	277.1	259.9	231.3	188.4	138.1	84.2	36.0	6.5	0.8	2.0
97.5°	259.5	254.2	236.2	207.6	167.1	118.5	66.6	25.3	3.3	0.8	1.6
100°	237.8	231.7	215.4	186.8	145.9	98.9	51.5	16.3	2.0	0.8	1.6
102.5°	215.0	210.1	193.3	165.5	123.8	80.5	38.4	10.2	0.8	0.8	1.2
105°	194.5	188.4	172.1	143.4	105.4	63.3	27.0	6.1	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	126.7	121.8	107.5	83.4	53.5	24.9	7.4	1.2	1.2	1.2	1.2
115°	105.8	98.5	85.8	64.6	39.6	16.3	3.7	1.2	1.2	1.2	1.2
117.5°	84.6	78.5	69.5	49.0	26.2	10.6	2.0	1.2	1.2	1.2	1.2
120°	66.2	60.5	50.3	33.9	17.6	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.4	42.9	33.9	22.1	10.6	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.5	29.0	22.5	13.5	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.4	18.4	13.1	7.8	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.4	10.2	7.8	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	320.8	320.8	320.8
2.5°	305.3	299.6	297.9
5°	288.9	279.5	274.2
7.5°	272.6	259.9	253.8
10°	257.5	239.5	232.9
12.5°	239.5	218.6	208.4
15°	222.3	195.3	185.5
17.5°	203.1	172.9	161.4
20°	185.1	150.4	138.5
22.5°	164.7	128.3	115.2
25°	146.3	106.3	91.5
27.5°	125.9	83.8	71.1
30°	106.7	64.2	51.5
32.5°	88.3	47.0	35.6
35°	71.1	31.9	22.5
37.5°	54.8	19.6	11.4
40°	39.6	10.2	5.3
42.5°	26.6	4.9	2.9
45°	16.3	2.5	0.0
47.5°	9.4	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	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	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.5
87.5°	2.0	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.1
102.5°	2.5	3.7	3.7
105°	2.0	2.9	3.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	171.6	166.7	150.4	123.4	86.2	48.2	18.0	3.3	0.8	1.2	1.2
110°	149.6	145.5	128.7	102.6	69.5	36.0	11.9	2.0	1.2	1.2	1.2





107.5°	1.6	2.5	2.9
110°	1.6	2.0	2.5



(END OF REPORT)