

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: P550537

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-93-85-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: P550537  
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-LD4-1HI-35-UNV-93-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

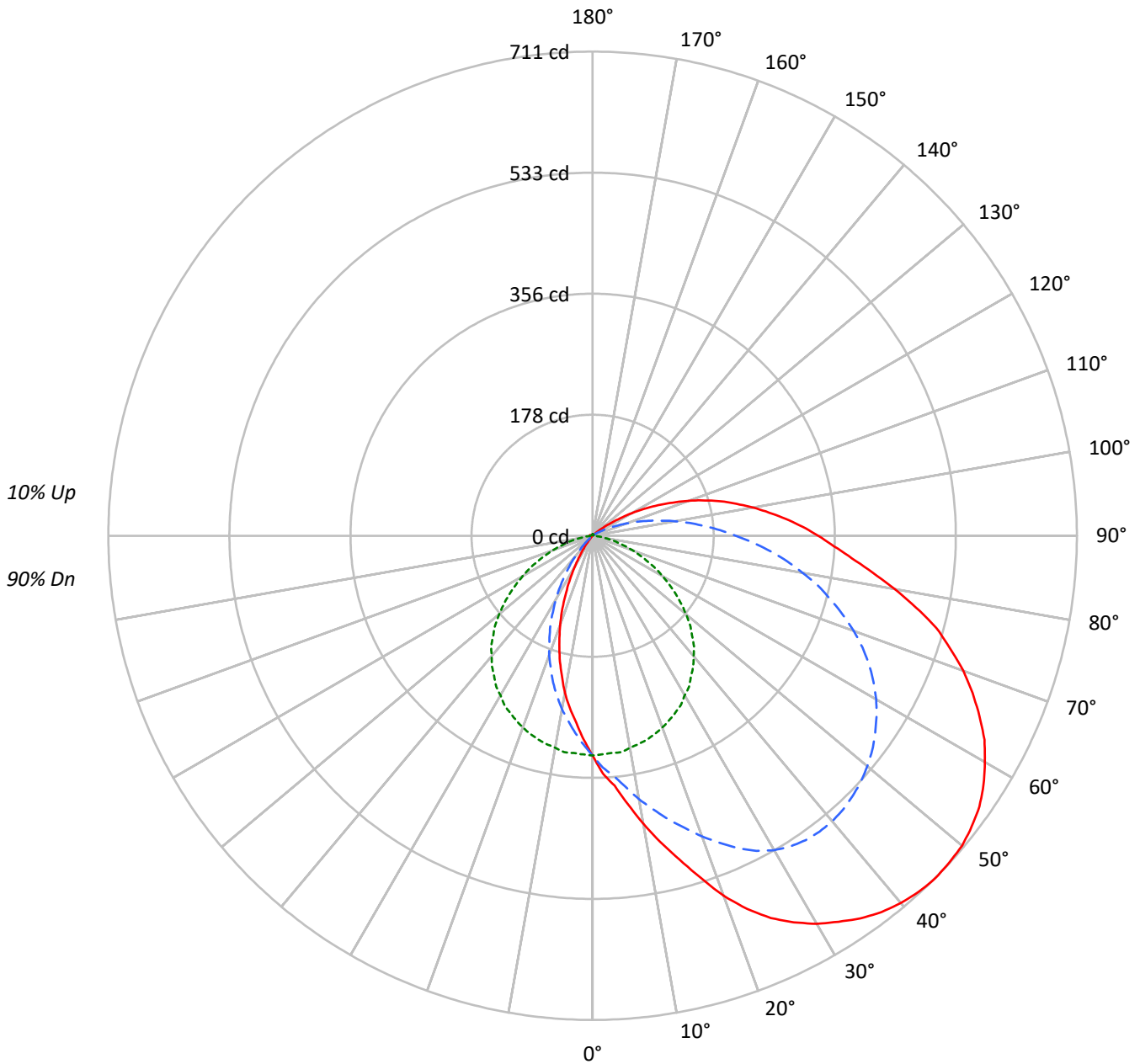
Lumens per Lamp: N/A  
Luminaire Lumens: 1594.9 lumens  
Efficiency: N/A  
Efficacy: 73.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P550537

CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-93-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550537

CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-93-85-ED1D-90

**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°	3472	3472	3472
5°	3813	3422	2855
10°	4314	3380	2353
15°	4835	3337	1834
20°	5453	3282	1350
25°	5966	3220	887
30°	6346	3135	500
35°	6676	3044	220
40°	6968	2933	52
45°	7220	2791	0
50°	7430	2606	0
55°	7591	2369	0
60°	7672	2095	0
65°	7704	1784	0
70°	7678	1455	0
75°	7580	1072	6
80°	7272	657	34
85°	7029	315	46



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.9	1.9
10°-20°	92.5	5.8
20°-30°	149.8	9.4
30°-40°	192.5	12.1
40°-50°	217.9	13.7
50°-60°	225.7	14.2
60°-70°	212.9	13.3
70°-80°	178.4	11.2
80°-90°	129.3	8.1
90°-100°	85.0	5.3
100°-110°	49.1	3.1
110°-120°	21.6	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
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0°-30°	273.3	17.1
0°-40°	465.8	29.2
0°-60°	909.4	57.0
0°-90°	1430.1	89.7
90°-120°	155.7	9.8
90°-150°	163.8	10.3
90°-180°	165.0	10.3
0°-180°	1594.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	323	323	323	323	323	
5°	368	354	320	291	276	37
15°	492	431	310	224	187	142
25°	619	506	287	147	92	286
35°	686	546	252	72	23	430
45°	711	540	206	16	0	549
55°	693	506	149	0	0	619
65°	627	448	89	0	0	620
75°	522	361	38	0	0	548
85°	382	262	6	2	2	326
90°	331	210	2	2	3	182
95°	284	164	1	3	4	223
105°	196	85	1	2	3	206
115°	106	28	1	1	2	107
125°	32	4	2	1	2	32
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°	322.6	322.6	322.6	322.6	322.6	322.6	322.6	322.6	322.6	322.6	322.6
2.5°	349.8	349.3	348.1	346.1	343.2	338.2	334.1	330.4	325.5	321.4	313.6
5°	368.3	366.2	364.6	362.5	355.9	351.4	344.0	335.8	328.0	320.2	304.5
7.5°	397.8	394.6	392.1	386.3	377.3	367.0	355.5	347.7	342.4	320.6	293.9
10°	429.5	426.6	421.7	411.4	400.3	385.5	369.1	350.6	334.1	316.1	284.4
12.5°	460.7	456.6	449.6	436.5	420.9	402.4	379.8	358.0	334.5	313.2	273.3
15°	492.0	487.4	480.0	464.0	443.5	419.2	391.7	364.1	336.6	309.5	261.8
17.5°	526.1	519.9	508.8	490.7	464.8	434.8	402.4	369.1	335.8	305.0	249.5
20°	562.7	554.0	542.1	517.9	487.4	452.1	413.0	374.0	335.4	299.6	235.5
22.5°	593.1	584.4	571.3	546.2	509.6	466.5	422.1	377.3	333.7	293.4	222.3
25°	619.4	612.4	598.0	569.2	530.6	481.7	430.7	379.8	331.3	286.9	208.4
27.5°	639.9	633.3	617.3	587.7	548.3	495.2	437.3	381.0	328.0	280.3	194.0
30°	658.0	651.4	632.1	601.7	560.2	505.9	443.9	381.4	323.9	270.4	178.4
32.5°	672.0	665.8	646.1	613.6	568.4	513.3	447.6	381.0	318.5	263.4	161.5
35°	685.9	679.8	656.8	622.2	574.6	516.6	450.4	378.9	311.9	251.9	145.5
37.5°	696.6	689.6	666.2	628.0	577.4	517.4	450.0	376.1	305.0	242.5	129.5
40°	704.0	696.6	671.6	631.3	578.3	516.2	446.8	371.1	296.7	230.6	112.6
42.5°	709.0	700.7	674.0	636.2	576.6	512.9	441.8	365.0	287.7	220.3	96.6
45°	711.4	702.8	674.4	632.1	573.7	506.8	434.4	357.2	277.8	206.3	80.6
47.5°	710.2	700.7	672.4	627.6	568.4	500.2	426.2	347.7	265.9	194.0	65.3
50°	708.1	698.3	667.9	621.8	561.0	492.0	417.2	336.2	253.6	178.8	51.8
52.5°	701.6	691.7	662.9	613.6	552.4	482.5	404.8	324.3	240.4	164.0	39.5
55°	693.3	684.3	654.3	606.2	541.3	471.0	393.3	311.5	227.7	148.8	28.4
57.5°	680.6	672.4	643.6	594.3	530.2	458.3	380.6	297.6	211.7	133.6	19.7
60°	665.0	656.8	628.8	580.7	517.4	443.9	366.6	283.2	197.3	118.4	12.3
62.5°	648.5	640.7	611.6	563.9	501.4	428.7	351.4	268.8	182.1	104.4	7.4
65°	626.8	619.4	593.1	543.7	483.7	412.2	334.5	251.5	166.5	88.8	4.1
67.5°	603.8	597.2	570.5	525.3	463.2	394.1	317.3	234.7	150.0	75.2	2.1
70°	579.1	570.9	546.2	500.2	442.2	373.6	298.4	217.4	134.4	62.1	0.0
72.5°	550.3	544.2	520.3	476.8	418.0	351.8	279.1	198.5	117.1	49.3	0.4
75°	522.4	514.6	492.8	451.7	394.1	328.8	257.7	180.8	100.3	37.8	0.4
77.5°	486.2	483.7	463.2	423.3	371.5	306.6	234.3	159.5	84.3	27.1	0.4
80°	450.0	447.6	431.5	395.0	345.2	280.3	212.5	139.3	68.6	18.1	0.4
82.5°	414.3	411.0	395.8	365.4	318.5	258.1	189.9	119.2	54.3	11.1	0.4
85°	382.2	378.1	361.7	333.7	291.0	233.0	166.5	99.5	40.3	6.2	0.8
87.5°	354.7	351.8	333.7	305.0	263.0	209.6	145.9	80.6	28.4	2.9	1.2
90°	331.3	325.1	309.1	278.7	236.7	183.7	124.1	64.5	18.9	1.6	1.6
92.5°	308.2	302.9	285.2	254.0	213.3	161.5	103.2	49.3	11.9	0.8	2.1
95°	284.4	278.7	261.4	232.6	189.5	138.9	84.7	36.2	6.6	0.8	2.1
97.5°	261.0	255.6	237.6	208.8	168.1	119.2	67.0	25.5	3.3	0.8	1.6
100°	239.2	233.0	216.6	187.8	146.7	99.5	51.8	16.4	2.1	0.8	1.6
102.5°	216.2	211.3	194.4	166.5	124.5	81.0	38.6	10.3	0.8	0.8	1.2
105°	195.6	189.5	173.0	144.3	106.0	63.7	27.1	6.2	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-93-85-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	127.4	122.5	108.1	83.8	53.8	25.1	7.4	1.2	1.2	1.2	1.2
115°	106.4	99.0	86.3	64.9	39.9	16.4	3.7	1.2	1.2	1.2	1.2
117.5°	85.1	78.9	69.9	49.3	26.3	10.7	2.1	1.2	1.2	1.2	1.2
120°	66.6	60.8	50.6	34.1	17.7	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	47.7	43.2	34.1	22.2	10.7	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.6	29.2	22.6	13.6	6.6	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.5	18.5	13.2	7.8	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.5	10.3	7.8	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.6	6.2	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	2.1	2.1	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.1	2.1	2.1	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.1	2.1	2.1	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.1	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	2.1
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	2.1
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	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	2.1	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°	322.6	322.6	322.6
2.5°	307.0	301.3	299.6
5°	290.6	281.1	275.8
7.5°	274.1	261.4	255.2
10°	258.9	240.8	234.3
12.5°	240.8	219.9	209.6
15°	223.6	196.5	186.6
17.5°	204.3	173.9	162.3
20°	186.2	151.2	139.3
22.5°	165.6	129.1	115.9
25°	147.1	106.9	92.1
27.5°	126.6	84.3	71.5
30°	107.3	64.5	51.8
32.5°	88.8	47.3	35.8
35°	71.5	32.1	22.6
37.5°	55.1	19.7	11.5
40°	39.9	10.3	5.3
42.5°	26.7	4.9	2.9
45°	16.4	2.5	0.0
47.5°	9.5	0.0	0.0
50°	4.9	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	0.8	1.2
80°	0.8	1.6	2.1
82.5°	1.6	2.1	2.1
85°	1.6	2.1	2.5
87.5°	2.1	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°	2.1	2.9	3.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.1	2.1
115°	1.2	1.6	2.1
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°	172.6	167.7	151.2	124.1	86.7	48.5	18.1	3.3	0.8	1.2	1.2
110°	150.4	146.3	129.5	103.2	69.9	36.2	11.9	2.1	1.2	1.2	1.2







107.5°	1.6	2.5	2.9
110°	1.6	2.1	2.5



(END OF REPORT)