

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: P550490

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-80-85-ED1D**

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: P550490  
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-80-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

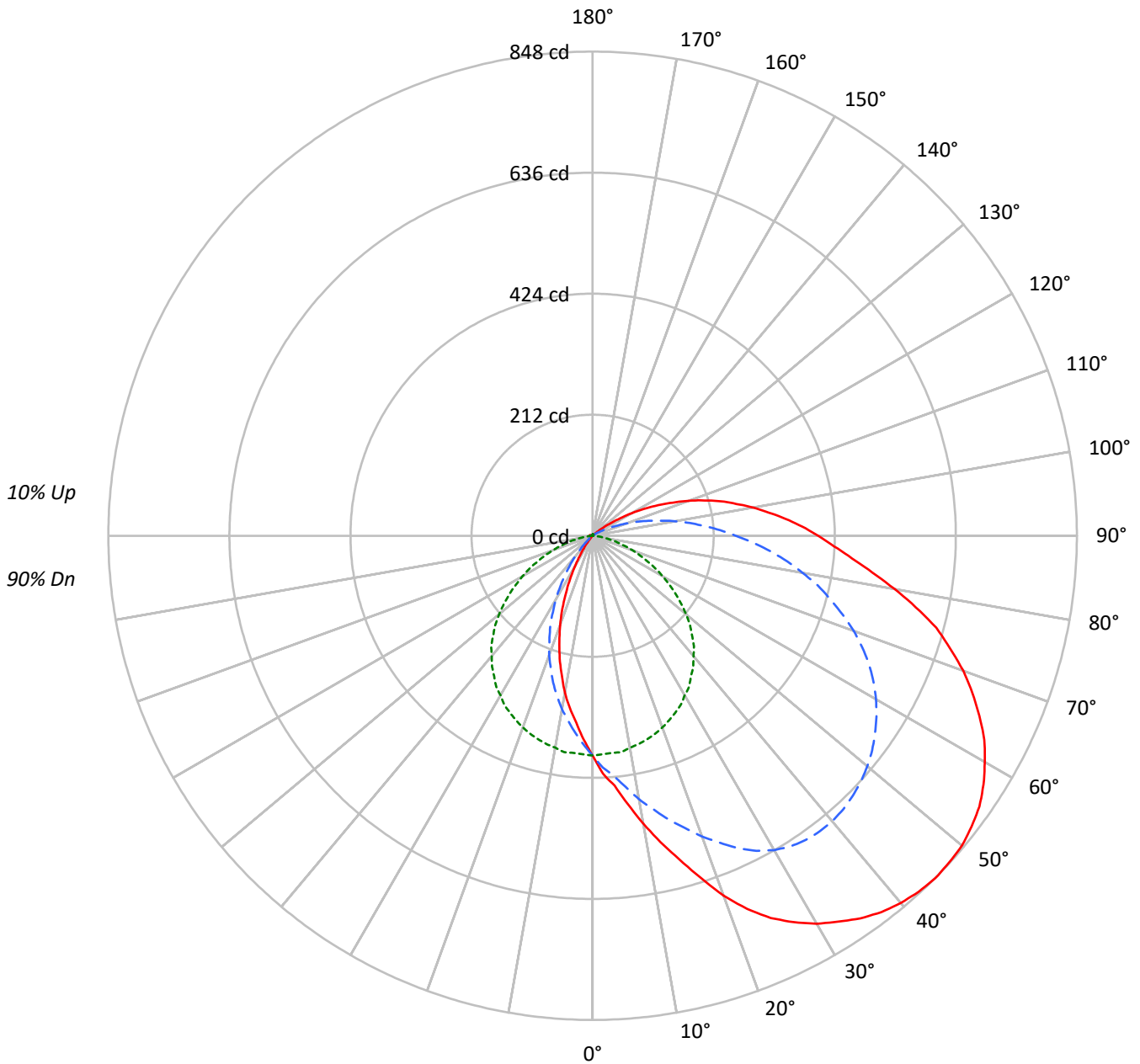
Lumens per Lamp: N/A  
Luminaire Lumens: 1902.1 lumens  
Efficiency: N/A  
Efficacy: 87.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550490

CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-80-85-ED1D

### 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°	4141	4141	4141
5°	4546	4081	3405
10°	5145	4031	2806
15°	5766	3979	2187
20°	6502	3915	1610
25°	7114	3839	1057
30°	7568	3739	596
35°	7961	3630	263
40°	8310	3496	63
45°	8610	3329	0
50°	8860	3107	0
55°	9052	2825	0
60°	9149	2497	0
65°	9186	2127	0
70°	9156	1734	0
75°	9039	1279	7
80°	8673	783	40
85°	8383	376	53



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.9	1.9
10°-20°	110.3	5.8
20°-30°	178.7	9.4
30°-40°	229.5	12.1
40°-50°	259.8	13.7
50°-60°	269.2	14.2
60°-70°	253.9	13.3
70°-80°	212.8	11.2
80°-90°	154.2	8.1
90°-100°	101.4	5.3
100°-110°	58.5	3.1
110°-120°	25.9	1.4
120°-130°	7.0	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	325.9	17.1
0°-40°	555.4	29.2
0°-60°	1084.5	57.0
0°-90°	1705.3	89.7
90°-120°	185.8	9.8
90°-150°	195.5	10.3
90°-180°	197.0	10.4
0°-180°	1902.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	385	385	385	385	385	
5°	439	422	382	346	329	44
15°	587	514	369	267	222	169
25°	739	604	342	176	110	341
35°	818	651	300	85	27	513
45°	848	644	246	20	0	655
55°	827	604	177	0	0	738
65°	747	534	106	0	0	739
75°	623	431	45	0	0	653
85°	456	312	7	2	3	389
90°	395	251	2	3	3	217
95°	339	196	1	3	4	266
105°	233	101	1	2	4	246
115°	127	34	2	2	2	127
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
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°	384.7	384.7	384.7	384.7	384.7	384.7	384.7	384.7	384.7	384.7	384.7
2.5°	417.1	416.6	415.1	412.7	409.2	403.4	398.5	394.0	388.2	383.3	373.9
5°	439.1	436.7	434.7	432.3	424.4	419.0	410.2	400.4	391.1	381.8	363.2
7.5°	474.4	470.5	467.6	460.7	449.9	437.7	423.9	414.6	408.3	382.3	350.4
10°	512.2	508.7	502.8	490.6	477.4	459.7	440.1	418.1	398.5	376.9	339.1
12.5°	549.4	544.5	536.2	520.5	501.9	479.8	452.9	426.9	398.9	373.5	325.9
15°	586.7	581.3	572.4	553.3	528.8	499.9	467.1	434.2	401.4	369.0	312.2
17.5°	627.3	620.0	606.7	585.2	554.3	518.5	479.8	440.1	400.4	363.7	297.5
20°	670.9	660.7	646.4	617.5	581.3	539.1	492.6	446.0	399.9	357.3	280.8
22.5°	707.2	696.9	681.2	651.3	607.7	556.3	503.3	449.9	398.0	349.9	265.1
25°	738.6	730.2	713.1	678.8	632.7	574.4	513.6	452.9	395.0	342.1	248.5
27.5°	763.1	755.2	736.1	700.8	653.8	590.6	521.5	454.3	391.1	334.2	231.3
30°	784.7	776.8	753.8	717.5	668.0	603.3	529.3	454.8	386.2	322.5	212.7
32.5°	801.3	794.0	770.4	731.7	677.8	612.1	533.7	454.3	379.8	314.2	192.6
35°	818.0	810.6	783.2	742.0	685.2	616.1	537.2	451.9	372.0	300.4	173.5
37.5°	830.7	822.4	794.5	748.9	688.6	617.0	536.7	448.4	363.7	289.2	154.4
40°	839.5	830.7	800.8	752.8	689.6	615.6	532.7	442.6	353.9	274.9	134.3
42.5°	845.4	835.6	803.8	758.7	687.6	611.6	526.9	435.2	343.1	262.7	115.2
45°	848.4	838.1	804.3	753.8	684.2	604.3	518.0	425.9	331.3	246.0	96.1
47.5°	846.9	835.6	801.8	748.4	677.8	596.5	508.2	414.6	317.1	231.3	77.9
50°	844.4	832.7	796.4	741.5	669.0	586.7	497.5	400.9	302.4	213.2	61.8
52.5°	836.6	824.8	790.5	731.7	658.7	575.4	482.7	386.7	286.7	195.6	47.0
55°	826.8	816.0	780.2	722.9	645.5	561.7	469.0	371.5	271.5	177.4	33.8
57.5°	811.6	801.8	767.5	708.7	632.2	546.5	453.8	354.8	252.4	159.3	23.5
60°	793.0	783.2	749.9	692.5	617.0	529.3	437.2	337.7	235.2	141.1	14.7
62.5°	773.4	764.1	729.3	672.4	597.9	511.2	419.0	320.5	217.1	124.5	8.8
65°	747.4	738.6	707.2	648.4	576.8	491.6	398.9	299.9	198.5	105.9	4.9
67.5°	720.0	712.1	680.3	626.3	552.3	470.0	378.4	279.8	178.9	89.7	2.5
70°	690.6	680.7	651.3	596.5	527.3	445.5	355.8	259.3	160.3	74.0	0.0
72.5°	656.2	648.9	620.5	568.5	498.4	419.5	332.8	236.7	139.7	58.8	0.5
75°	622.9	613.6	587.6	538.6	470.0	392.1	307.3	215.6	119.6	45.1	0.5
77.5°	579.8	576.8	552.3	504.8	443.1	365.6	279.4	190.2	100.5	32.3	0.5
80°	536.7	533.7	514.6	471.0	411.7	334.2	253.4	166.1	81.8	21.6	0.5
82.5°	494.0	490.1	472.0	435.7	379.8	307.8	226.4	142.1	64.7	13.2	0.5
85°	455.8	450.9	431.3	398.0	347.0	277.9	198.5	118.6	48.0	7.4	1.0
87.5°	423.0	419.5	398.0	363.7	313.7	250.0	174.0	96.1	33.8	3.4	1.5
90°	395.0	387.7	368.6	332.3	282.3	219.1	148.0	76.9	22.5	2.0	2.0
92.5°	367.6	361.2	340.1	302.9	254.4	192.6	123.0	58.8	14.2	1.0	2.5
95°	339.1	332.3	311.7	277.4	225.9	165.7	101.0	43.1	7.8	1.0	2.5
97.5°	311.2	304.8	283.3	249.0	200.5	142.1	79.9	30.4	3.9	1.0	2.0
100°	285.2	277.9	258.3	224.0	175.0	118.6	61.8	19.6	2.5	1.0	2.0
102.5°	257.8	251.9	231.8	198.5	148.5	96.5	46.1	12.3	1.0	1.0	1.5
105°	233.3	225.9	206.3	172.0	126.4	76.0	32.3	7.4	1.0	1.0	1.5



TEST NUMBER: P550490

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	151.9	146.0	128.9	100.0	64.2	29.9	8.8	1.5	1.5	1.5	1.5
115°	126.9	118.1	102.9	77.4	47.5	19.6	4.4	1.5	1.5	1.5	1.5
117.5°	101.5	94.1	83.3	58.8	31.4	12.7	2.5	1.5	1.5	1.5	1.5
120°	79.4	72.5	60.3	40.7	21.1	7.4	1.0	1.5	1.5	1.5	1.5
122.5°	56.9	51.5	40.7	26.5	12.7	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.7	34.8	27.0	16.2	7.8	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.5	22.1	15.7	9.3	3.4	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.7	12.3	9.3	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.8	7.4	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
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°	384.7	384.7	384.7
2.5°	366.1	359.2	357.3
5°	346.5	335.2	328.9
7.5°	326.9	311.7	304.4
10°	308.8	287.2	279.4
12.5°	287.2	262.2	250.0
15°	266.6	234.3	222.5
17.5°	243.6	207.3	193.6
20°	222.0	180.4	166.1
22.5°	197.5	153.9	138.2
25°	175.5	127.4	109.8
27.5°	151.0	100.5	85.3
30°	127.9	76.9	61.8
32.5°	105.9	56.4	42.6
35°	85.3	38.2	27.0
37.5°	65.7	23.5	13.7
40°	47.5	12.3	6.4
42.5°	31.9	5.9	3.4
45°	19.6	2.9	0.0
47.5°	11.3	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.5	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	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	2.9
87.5°	2.5	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	4.9
102.5°	2.9	4.4	4.4
105°	2.5	3.4	3.9





TEST NUMBER: P550490

CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-80-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	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°	2.0	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°	205.8	200.0	180.4	148.0	103.4	57.8	21.6	3.9	1.0	1.5	1.5
110°	179.4	174.5	154.4	123.0	83.3	43.1	14.2	2.5	1.5	1.5	1.5







107.5°	2.0	2.9	3.4
110°	2.0	2.5	2.9



(END OF REPORT)