

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: P551034

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-85-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: P551034  
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-LD4-1STD-35-UNV-82-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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**

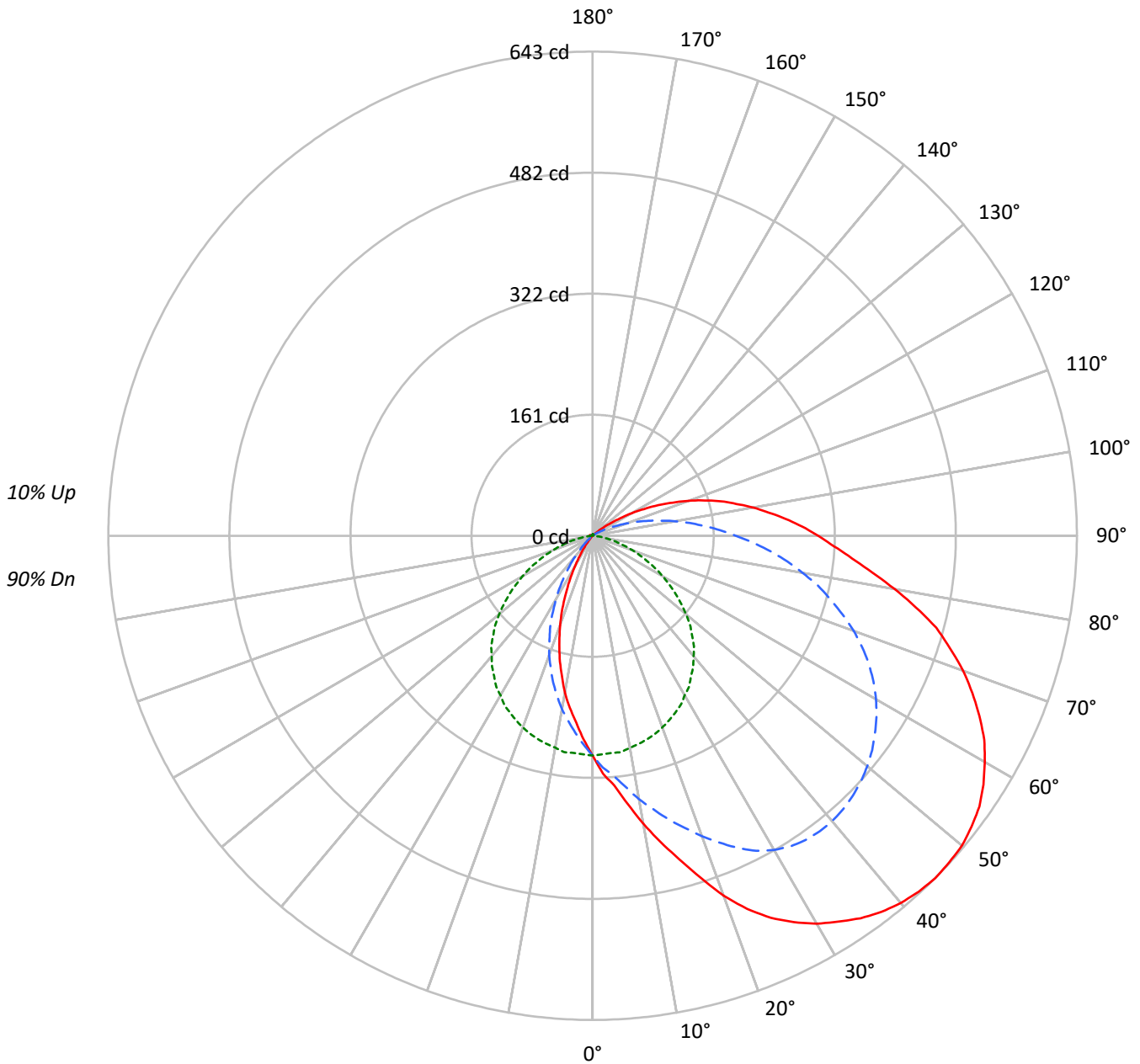
Lumens per Lamp: N/A  
Luminaire Lumens: 1442.0 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
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: P551034

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-85-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°	3140	3140	3140
5°	3446	3094	2581
10°	3900	3055	2127
15°	4371	3017	1658
20°	4930	2968	1221
25°	5393	2911	801
30°	5738	2834	451
35°	6035	2752	199
40°	6300	2652	48
45°	6527	2524	0
50°	6718	2355	0
55°	6862	2142	0
60°	6936	1894	0
65°	6964	1613	0
70°	6941	1314	0
75°	6853	970	6
80°	6576	591	31
85°	6356	285	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.9	1.9
10°-20°	83.7	5.8
20°-30°	135.5	9.4
30°-40°	174.0	12.1
40°-50°	197.0	13.7
50°-60°	204.1	14.2
60°-70°	192.5	13.3
70°-80°	161.3	11.2
80°-90°	116.9	8.1
90°-100°	76.8	5.3
100°-110°	44.4	3.1
110°-120°	19.6	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	247.1	17.1
0°-40°	421.1	29.2
0°-60°	822.2	57.0
0°-90°	1292.9	89.7
90°-120°	140.8	9.8
90°-150°	148.1	10.3
90°-180°	149.0	10.3
0°-180°	1442.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	292	292	292	292	292	
5°	333	320	290	263	249	34
15°	445	390	280	202	169	128
25°	560	458	259	133	83	259
35°	620	493	228	65	20	389
45°	643	488	186	15	0	497
55°	627	458	134	0	0	560
65°	567	405	80	0	0	561
75°	472	327	34	0	0	495
85°	346	237	6	2	2	295
90°	300	190	2	2	3	164
95°	257	148	1	3	3	202
105°	177	77	1	2	3	187
115°	96	25	1	1	2	96
125°	29	4	2	1	2	29
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°	291.7	291.7	291.7	291.7	291.7	291.7	291.7	291.7	291.7	291.7	291.7
2.5°	316.2	315.8	314.7	312.9	310.3	305.8	302.1	298.7	294.3	290.6	283.5
5°	332.9	331.1	329.6	327.7	321.8	317.7	311.0	303.6	296.5	289.5	275.3
7.5°	359.7	356.7	354.5	349.3	341.1	331.8	321.4	314.3	309.5	289.8	265.7
10°	388.3	385.7	381.2	371.9	361.9	348.5	333.7	316.9	302.1	285.7	257.1
12.5°	416.5	412.8	406.5	394.6	380.5	363.8	343.3	323.6	302.5	283.1	247.1
15°	444.8	440.7	434.0	419.5	400.9	379.0	354.1	329.2	304.3	279.8	236.7
17.5°	475.6	470.0	460.0	443.7	420.2	393.1	363.8	333.7	303.6	275.7	225.5
20°	508.7	500.9	490.1	468.2	440.7	408.7	373.4	338.1	303.2	270.9	212.9
22.5°	536.2	528.4	516.5	493.8	460.7	421.7	381.6	341.1	301.7	265.3	201.0
25°	560.0	553.6	540.6	514.6	479.7	435.5	389.4	343.3	299.5	259.4	188.4
27.5°	578.5	572.6	558.1	531.3	495.7	447.7	395.3	344.4	296.5	253.4	175.4
30°	594.9	588.9	571.5	544.0	506.4	457.4	401.3	344.8	292.8	244.5	161.3
32.5°	607.5	601.9	584.1	554.8	513.9	464.1	404.6	344.4	288.0	238.2	146.0
35°	620.1	614.6	593.8	562.6	519.5	467.1	407.2	342.6	282.0	227.8	131.5
37.5°	629.8	623.5	602.3	567.8	522.1	467.8	406.9	340.0	275.7	219.2	117.0
40°	636.5	629.8	607.1	570.7	522.8	466.7	403.9	335.5	268.3	208.5	101.8
42.5°	641.0	633.5	609.4	575.2	521.3	463.7	399.4	330.0	260.1	199.2	87.3
45°	643.2	635.4	609.7	571.5	518.7	458.1	392.7	322.9	251.2	186.5	72.8
47.5°	642.1	633.5	607.9	567.4	513.9	452.2	385.3	314.3	240.4	175.4	59.1
50°	640.2	631.3	603.8	562.2	507.2	444.8	377.1	303.9	229.3	161.6	46.8
52.5°	634.3	625.4	599.3	554.8	499.4	436.2	366.0	293.2	217.4	148.3	35.7
55°	626.8	618.7	591.5	548.1	489.4	425.8	355.6	281.6	205.8	134.5	25.6
57.5°	615.3	607.9	581.9	537.3	479.3	414.3	344.1	269.0	191.4	120.8	17.8
60°	601.2	593.8	568.5	525.0	467.8	401.3	331.4	256.0	178.4	107.0	11.1
62.5°	586.3	579.3	552.9	509.8	453.3	387.5	317.7	243.0	164.6	94.4	6.7
65°	566.6	560.0	536.2	491.6	437.3	372.7	302.5	227.4	150.5	80.3	3.7
67.5°	545.8	539.9	515.7	474.9	418.8	356.3	286.9	212.2	135.6	68.0	1.9
70°	523.5	516.1	493.8	452.2	399.8	337.8	269.8	196.6	121.5	56.1	0.0
72.5°	497.5	492.0	470.4	431.0	377.9	318.1	252.3	179.5	105.9	44.6	0.4
75°	472.3	465.2	445.5	408.4	356.3	297.3	233.0	163.5	90.7	34.2	0.4
77.5°	439.6	437.3	418.8	382.7	335.9	277.2	211.8	144.2	76.2	24.5	0.4
80°	406.9	404.6	390.1	357.1	312.1	253.4	192.1	126.0	62.1	16.3	0.4
82.5°	374.5	371.6	357.8	330.3	288.0	233.3	171.7	107.8	49.0	10.0	0.4
85°	345.6	341.8	327.0	301.7	263.1	210.7	150.5	89.9	36.4	5.6	0.7
87.5°	320.7	318.1	301.7	275.7	237.8	189.5	131.9	72.8	25.6	2.6	1.1
90°	299.5	293.9	279.4	251.9	214.0	166.1	112.2	58.3	17.1	1.5	1.5
92.5°	278.7	273.8	257.9	229.6	192.8	146.0	93.3	44.6	10.8	0.7	1.9
95°	257.1	251.9	236.3	210.3	171.3	125.6	76.5	32.7	5.9	0.7	1.9
97.5°	235.9	231.1	214.8	188.8	152.0	107.8	60.6	23.0	3.0	0.7	1.5
100°	216.3	210.7	195.8	169.8	132.7	89.9	46.8	14.9	1.9	0.7	1.5
102.5°	195.4	191.0	175.8	150.5	112.6	73.2	34.9	9.3	0.7	0.7	1.1
105°	176.9	171.3	156.4	130.4	95.9	57.6	24.5	5.6	0.7	0.7	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	115.2	110.7	97.7	75.8	48.7	22.7	6.7	1.1	1.1	1.1	1.1
115°	96.2	89.5	78.0	58.7	36.0	14.9	3.3	1.1	1.1	1.1	1.1
117.5°	76.9	71.3	63.2	44.6	23.8	9.7	1.9	1.1	1.1	1.1	1.1
120°	60.2	55.0	45.7	30.8	16.0	5.6	0.7	1.1	1.1	1.1	1.1
122.5°	43.1	39.0	30.8	20.1	9.7	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.6	26.4	20.4	12.3	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.6	16.7	11.9	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.4	9.3	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.6	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	291.7	291.7	291.7
2.5°	277.6	272.4	270.9
5°	262.7	254.2	249.3
7.5°	247.8	236.3	230.7
10°	234.1	217.7	211.8
12.5°	217.7	198.8	189.5
15°	202.1	177.6	168.7
17.5°	184.7	157.2	146.8
20°	168.3	136.7	126.0
22.5°	149.7	116.7	104.8
25°	133.0	96.6	83.2
27.5°	114.4	76.2	64.7
30°	97.0	58.3	46.8
32.5°	80.3	42.7	32.3
35°	64.7	29.0	20.4
37.5°	49.8	17.8	10.4
40°	36.0	9.3	4.8
42.5°	24.2	4.5	2.6
45°	14.9	2.2	0.0
47.5°	8.5	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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	0.7	1.1
80°	0.7	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.2
87.5°	1.9	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.3
97.5°	3.0	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.9	2.6	3.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	156.1	151.6	136.7	112.2	78.4	43.8	16.3	3.0	0.7	1.1	1.1
110°	136.0	132.3	117.0	93.3	63.2	32.7	10.8	1.9	1.1	1.1	1.1







107.5°	1.5	2.2	2.6
110°	1.5	1.9	2.2



(END OF REPORT)