

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: P551164

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-86-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: P551164  
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-50-UNV-82-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

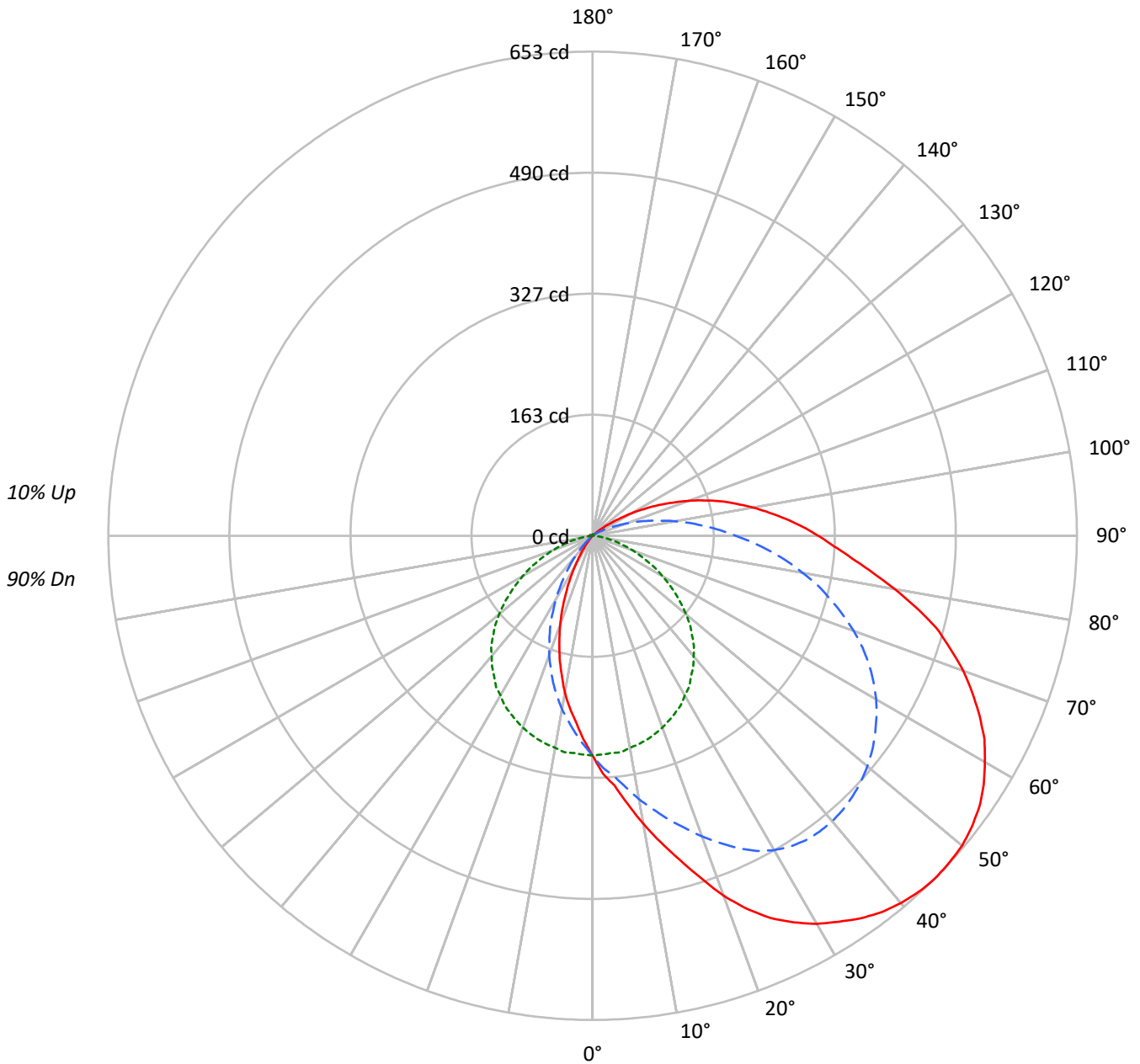
Lumens per Lamp: N/A  
Luminaire Lumens: 1465.0 lumens  
Efficiency: N/A  
Efficacy: 87.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 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: P551164

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-86-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°	3189	3189	3189
5°	3501	3143	2622
10°	3963	3105	2162
15°	4441	3065	1684
20°	5008	3015	1240
25°	5479	2957	815
30°	5829	2880	459
35°	6132	2796	202
40°	6401	2694	49
45°	6631	2564	0
50°	6825	2393	0
55°	6972	2177	0
60°	7047	1924	0
65°	7076	1637	0
70°	7052	1335	0
75°	6962	984	6
80°	6681	602	31
85°	6457	290	42



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.4	1.9
10°-20°	85.0	5.8
20°-30°	137.6	9.4
30°-40°	176.8	12.1
40°-50°	200.1	13.7
50°-60°	207.3	14.2
60°-70°	195.5	13.3
70°-80°	163.9	11.2
80°-90°	118.8	8.1
90°-100°	78.1	5.3
100°-110°	45.1	3.1
110°-120°	19.9	1.4
120°-130°	5.4	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°	251.0	17.1
0°-40°	427.8	29.2
0°-60°	835.3	57.0
0°-90°	1313.5	89.7
90°-120°	143.0	9.8
90°-150°	150.4	10.3
90°-180°	151.0	10.3
0°-180°	1465.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	338	325	294	267	253	34
15°	452	396	284	205	171	130
25°	569	465	264	135	85	263
35°	630	501	231	66	21	395
45°	653	496	190	15	0	504
55°	637	465	137	0	0	569
65°	576	411	82	0	0	570
75°	480	332	35	0	0	503
85°	351	241	6	2	2	300
90°	304	193	2	2	3	167
95°	261	151	1	3	3	205
105°	180	78	1	2	3	190
115°	98	26	1	1	2	98
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	



TEST NUMBER: P551164

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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	296.3	296.3	296.3	296.3	296.3	296.3	296.3	296.3	296.3	296.3	296.3
2.5°	321.2	320.9	319.7	317.9	315.2	310.7	306.9	303.5	299.0	295.2	288.0
5°	338.2	336.3	334.8	333.0	326.9	322.8	316.0	308.4	301.2	294.1	279.7
7.5°	365.4	362.4	360.1	354.8	346.5	337.1	326.5	319.4	314.5	294.4	269.9
10°	394.5	391.8	387.3	377.9	367.7	354.1	339.0	322.0	306.9	290.3	261.2
12.5°	423.2	419.4	413.0	400.9	386.6	369.6	348.8	328.8	307.3	287.7	251.0
15°	451.9	447.7	440.9	426.2	407.3	385.0	359.8	334.5	309.2	284.3	240.5
17.5°	483.2	477.5	467.3	450.7	426.9	399.4	369.6	339.0	308.4	280.1	229.1
20°	516.8	508.9	497.9	475.6	447.7	415.2	379.4	343.5	308.0	275.2	216.3
22.5°	544.7	536.8	524.7	501.7	468.1	428.5	387.7	346.5	306.5	269.5	204.2
25°	568.9	562.5	549.3	522.8	487.3	442.4	395.6	348.8	304.3	263.5	191.4
27.5°	587.8	581.7	567.0	539.8	503.6	454.9	401.7	349.9	301.2	257.5	178.2
30°	604.4	598.3	580.6	552.7	514.5	464.7	407.7	350.3	297.5	248.4	163.8
32.5°	617.2	611.5	593.4	563.6	522.1	471.5	411.1	349.9	292.6	242.0	148.4
35°	630.0	624.4	603.2	571.5	527.7	474.5	413.7	348.1	286.5	231.4	133.6
37.5°	639.9	633.4	611.9	576.8	530.4	475.3	413.4	345.4	280.1	222.7	118.9
40°	646.7	639.9	616.8	579.8	531.1	474.1	410.3	340.9	272.6	211.8	103.4
42.5°	651.2	643.6	619.1	584.4	529.6	471.1	405.8	335.2	264.2	202.3	88.7
45°	653.4	645.5	619.5	580.6	527.0	465.5	399.0	328.0	255.2	189.5	74.0
47.5°	652.3	643.6	617.6	576.4	522.1	459.4	391.5	319.4	244.2	178.2	60.0
50°	650.4	641.4	613.4	571.2	515.3	451.9	383.2	308.8	232.9	164.2	47.6
52.5°	644.4	635.3	608.9	563.6	507.4	443.2	371.8	297.8	220.8	150.6	36.2
55°	636.8	628.5	601.0	556.8	497.2	432.6	361.3	286.1	209.1	136.7	26.0
57.5°	625.1	617.6	591.2	545.9	487.0	420.9	349.6	273.3	194.4	122.7	18.1
60°	610.8	603.2	577.6	533.4	475.3	407.7	336.7	260.1	181.2	108.7	11.3
62.5°	595.7	588.5	561.7	517.9	460.5	393.7	322.8	246.9	167.2	95.9	6.8
65°	575.7	568.9	544.7	499.4	444.3	378.6	307.3	231.0	152.9	81.5	3.8
67.5°	554.5	548.5	524.0	482.4	425.4	362.0	291.4	215.6	137.8	69.1	1.9
70°	531.9	524.3	501.7	459.4	406.2	343.1	274.1	199.7	123.4	57.0	0.0
72.5°	505.5	499.8	477.9	437.9	383.9	323.1	256.3	182.3	107.6	45.3	0.4
75°	479.8	472.6	452.6	414.9	362.0	302.0	236.7	166.1	92.1	34.7	0.4
77.5°	446.6	444.3	425.4	388.8	341.3	281.6	215.2	146.5	77.4	24.9	0.4
80°	413.4	411.1	396.4	362.8	317.1	257.5	195.2	128.0	63.0	16.6	0.4
82.5°	380.5	377.5	363.5	335.6	292.6	237.1	174.4	109.5	49.8	10.2	0.4
85°	351.1	347.3	332.2	306.5	267.3	214.0	152.9	91.4	37.0	5.7	0.8
87.5°	325.8	323.1	306.5	280.1	241.6	192.5	134.0	74.0	26.0	2.6	1.1
90°	304.3	298.6	283.9	255.9	217.4	168.7	114.0	59.3	17.4	1.5	1.5
92.5°	283.1	278.2	262.0	233.3	195.9	148.4	94.8	45.3	10.9	0.8	1.9
95°	261.2	255.9	240.1	213.7	174.0	127.6	77.8	33.2	6.0	0.8	1.9
97.5°	239.7	234.8	218.2	191.8	154.4	109.5	61.5	23.4	3.0	0.8	1.5
100°	219.7	214.0	198.9	172.5	134.8	91.4	47.6	15.1	1.9	0.8	1.5
102.5°	198.6	194.0	178.6	152.9	114.4	74.4	35.5	9.4	0.8	0.8	1.1
105°	179.7	174.0	158.9	132.5	97.4	58.5	24.9	5.7	0.8	0.8	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	117.0	112.5	99.3	77.0	49.5	23.0	6.8	1.1	1.1	1.1	1.1
115°	97.8	91.0	79.3	59.6	36.6	15.1	3.4	1.1	1.1	1.1	1.1
117.5°	78.1	72.5	64.2	45.3	24.2	9.8	1.9	1.1	1.1	1.1	1.1
120°	61.2	55.9	46.4	31.3	16.2	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	43.8	39.6	31.3	20.4	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	29.1	26.8	20.8	12.5	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.9	17.0	12.1	7.2	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.6	9.4	7.2	4.2	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	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°	296.3	296.3	296.3
2.5°	282.0	276.7	275.2
5°	266.9	258.2	253.3
7.5°	251.8	240.1	234.4
10°	237.8	221.2	215.2
12.5°	221.2	202.0	192.5
15°	205.4	180.4	171.4
17.5°	187.6	159.7	149.1
20°	171.0	138.9	128.0
22.5°	152.1	118.5	106.5
25°	135.1	98.1	84.6
27.5°	116.3	77.4	65.7
30°	98.5	59.3	47.6
32.5°	81.5	43.4	32.8
35°	65.7	29.4	20.8
37.5°	50.6	18.1	10.6
40°	36.6	9.4	4.9
42.5°	24.5	4.5	2.6
45°	15.1	2.3	0.0
47.5°	8.7	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	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	3.4	3.4
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	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	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°	158.5	154.0	138.9	114.0	79.7	44.5	16.6	3.0	0.8	1.1	1.1
110°	138.2	134.4	118.9	94.8	64.2	33.2	10.9	1.9	1.1	1.1	1.1







107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)