

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: P551556

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-82-96-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: P551556  
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-82-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

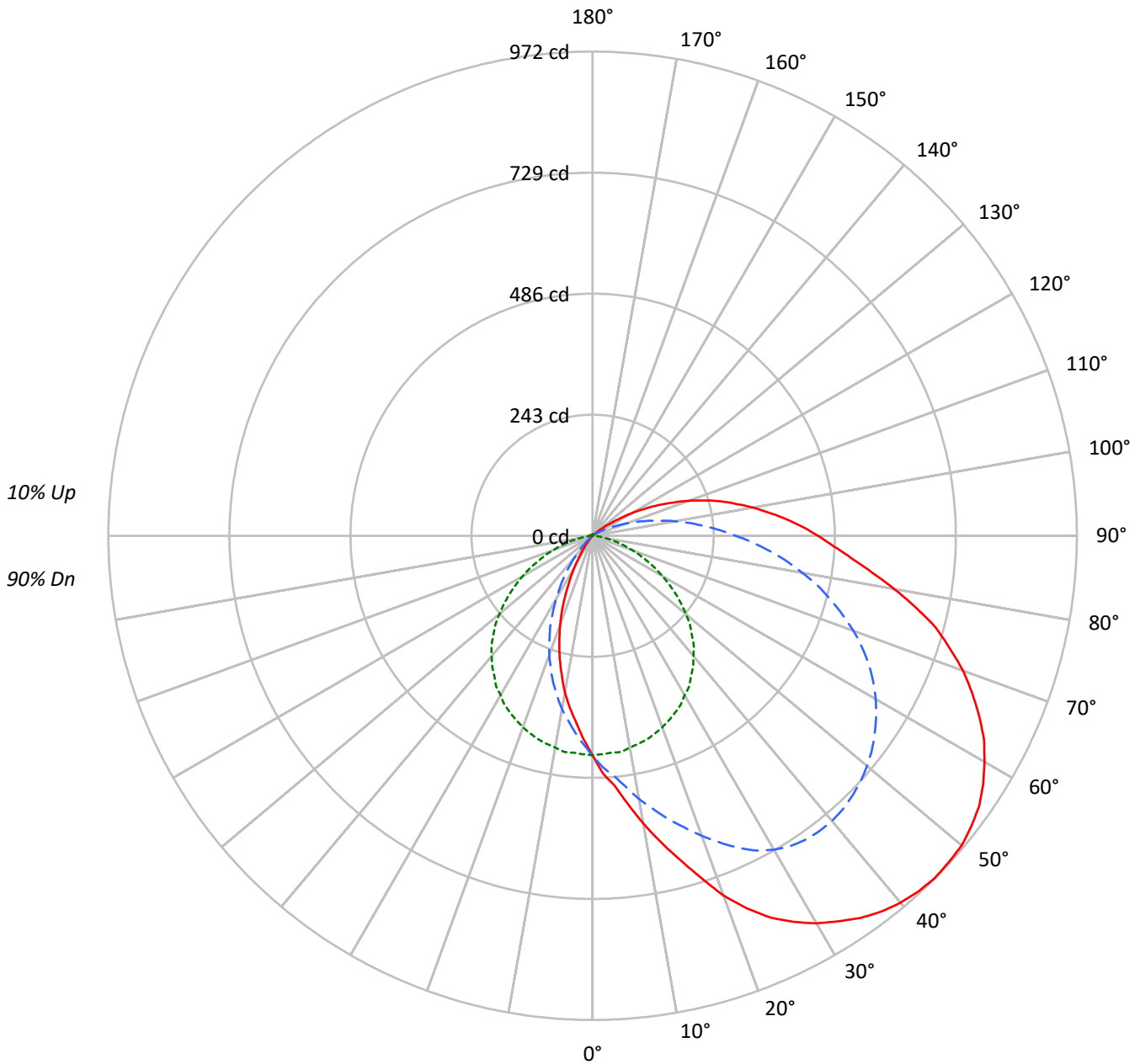
Lumens per Lamp: N/A  
Luminaire Lumens: 2178.0 lumens  
Efficiency: N/A  
Efficacy: 92.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-96-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°	4743	4743	4743
5°	5206	4673	3899
10°	5891	4616	3213
15°	6602	4557	2504
20°	7446	4482	1844
25°	8146	4396	1211
30°	8666	4281	682
35°	9117	4156	301
40°	9516	4003	72
45°	9859	3812	0
50°	10147	3558	0
55°	10366	3236	0
60°	10477	2860	0
65°	10520	2434	0
70°	10485	1984	0
75°	10351	1463	9
80°	9931	896	45
85°	9599	427	63



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.2	1.9
10°-20°	126.4	5.8
20°-30°	204.6	9.4
30°-40°	262.8	12.1
40°-50°	297.5	13.7
50°-60°	308.3	14.2
60°-70°	290.7	13.3
70°-80°	243.6	11.2
80°-90°	176.6	8.1
90°-100°	116.1	5.3
100°-110°	67.0	3.1
110°-120°	29.6	1.4
120°-130°	8.0	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	373.2	17.1
0°-40°	636.0	29.2
0°-60°	1241.8	57.0
0°-90°	1952.8	89.7
90°-120°	212.7	9.8
90°-150°	223.7	10.3
90°-180°	225.0	10.3
0°-180°	2178.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	441	441	441	441	441	
5°	503	483	437	397	377	51
15°	672	589	423	305	255	194
25°	846	691	392	201	126	391
35°	937	745	344	98	31	587
45°	972	738	282	22	0	750
55°	947	691	203	0	0	845
65°	856	612	121	0	0	847
75°	713	494	52	1	1	748
85°	522	358	8	2	3	446
90°	452	287	2	3	4	248
95°	388	224	1	4	5	305
105°	267	116	1	3	4	282
115°	145	38	2	2	3	146
125°	43	5	2	2	2	43
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	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°	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6	440.6
2.5°	477.6	477.0	475.4	472.5	468.6	461.9	456.3	451.2	444.5	438.9	428.2
5°	502.9	500.0	497.8	495.0	486.0	479.8	469.7	458.5	447.9	437.2	415.9
7.5°	543.3	538.8	535.4	527.5	515.2	501.2	485.5	474.8	467.5	437.8	401.3
10°	586.5	582.5	575.8	561.8	546.6	526.4	504.0	478.7	456.3	431.6	388.4
12.5°	629.1	623.5	614.0	596.0	574.7	549.4	518.6	488.8	456.8	427.6	373.2
15°	671.8	665.6	655.5	633.6	605.6	572.4	534.8	497.2	459.6	422.6	357.5
17.5°	718.4	709.9	694.8	670.1	634.7	593.8	549.4	504.0	458.5	416.4	340.7
20°	768.3	756.5	740.2	707.1	665.6	617.3	564.0	510.7	458.0	409.1	321.6
22.5°	809.8	798.1	780.1	745.9	695.9	637.0	576.4	515.2	455.7	400.7	303.6
25°	845.8	836.2	816.6	777.3	724.5	657.7	588.2	518.6	452.3	391.7	284.5
27.5°	873.8	864.8	843.0	802.5	748.7	676.3	597.1	520.3	447.9	382.8	264.9
30°	898.5	889.5	863.2	821.6	764.9	690.9	606.1	520.8	442.2	369.3	243.6
32.5°	917.6	909.2	882.2	837.9	776.2	701.0	611.2	520.3	434.9	359.7	220.6
35°	936.7	928.3	896.8	849.7	784.6	705.5	615.1	517.4	426.0	344.0	198.7
37.5°	951.3	941.7	909.7	857.5	788.5	706.6	614.5	513.5	416.4	331.1	176.8
40°	961.4	951.3	917.0	862.0	789.6	704.9	610.0	506.8	405.2	314.8	153.8
42.5°	968.1	956.9	920.4	868.8	787.4	700.4	603.3	498.4	392.9	300.8	131.9
45°	971.5	959.7	921.0	863.2	783.5	692.0	593.2	487.7	379.4	281.7	110.0
47.5°	969.8	956.9	918.2	857.0	776.2	683.0	582.0	474.8	363.1	264.9	89.2
50°	967.0	953.5	912.0	849.1	766.1	671.8	569.6	459.1	346.3	244.1	70.7
52.5°	958.0	944.5	905.2	837.9	754.3	658.9	552.8	442.8	328.3	223.9	53.9
55°	946.8	934.4	893.5	827.8	739.1	643.2	537.1	425.4	310.9	203.2	38.7
57.5°	929.4	918.2	878.9	811.5	724.0	625.8	519.7	406.3	289.0	182.4	26.9
60°	908.1	896.8	858.7	793.0	706.6	606.1	500.6	386.7	269.4	161.6	16.8
62.5°	885.6	874.9	835.1	770.0	684.7	585.4	479.8	367.0	248.6	142.5	10.1
65°	855.9	845.8	809.8	742.5	660.6	562.9	456.8	343.5	227.3	121.2	5.6
67.5°	824.4	815.5	779.0	717.2	632.5	538.2	433.3	320.5	204.8	102.7	2.8
70°	790.8	779.5	745.9	683.0	603.9	510.1	407.4	296.9	183.5	84.7	0.0
72.5°	751.5	743.1	710.5	651.0	570.8	480.4	381.1	271.1	159.9	67.3	0.6
75°	713.3	702.6	672.9	616.8	538.2	449.0	351.9	246.9	136.9	51.6	0.6
77.5°	663.9	660.6	632.5	578.1	507.3	418.7	319.9	217.8	115.0	37.0	0.6
80°	614.5	611.2	589.3	539.3	471.4	382.8	290.2	190.3	93.7	24.7	0.6
82.5°	565.7	561.2	540.5	498.9	434.9	352.4	259.3	162.8	74.1	15.2	0.6
85°	521.9	516.3	493.9	455.7	397.3	318.2	227.3	135.8	55.0	8.4	1.1
87.5°	484.3	480.4	455.7	416.4	359.2	286.2	199.2	110.0	38.7	3.9	1.7
90°	452.3	443.9	422.0	380.5	323.3	250.9	169.5	88.1	25.8	2.2	2.2
92.5°	420.9	413.6	389.5	346.8	291.3	220.6	140.9	67.3	16.3	1.1	2.8
95°	388.4	380.5	356.9	317.7	258.7	189.7	115.6	49.4	9.0	1.1	2.8
97.5°	356.4	349.1	324.4	285.1	229.5	162.8	91.5	34.8	4.5	1.1	2.2
100°	326.6	318.2	295.8	256.5	200.4	135.8	70.7	22.4	2.8	1.1	2.2
102.5°	295.2	288.5	265.5	227.3	170.0	110.6	52.8	14.0	1.1	1.1	1.7
105°	267.1	258.7	236.3	197.0	144.8	87.0	37.0	8.4	1.1	1.1	1.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	174.0	167.2	147.6	114.5	73.5	34.2	10.1	1.7	1.7	1.7	1.7
115°	145.4	135.3	117.9	88.7	54.4	22.4	5.1	1.7	1.7	1.7	1.7
117.5°	116.2	107.8	95.4	67.3	35.9	14.6	2.8	1.7	1.7	1.7	1.7
120°	90.9	83.1	69.0	46.6	24.1	8.4	1.1	1.7	1.7	1.7	1.7
122.5°	65.1	58.9	46.6	30.3	14.6	3.9	1.7	1.7	2.2	2.2	1.7
125°	43.2	39.8	30.9	18.5	9.0	1.7	1.7	1.7	2.2	2.2	1.7
127.5°	28.1	25.3	18.0	10.7	3.9	1.7	1.7	2.2	2.2	2.2	1.7
130°	15.7	14.0	10.7	6.2	1.7	1.7	1.7	2.2	2.2	2.2	1.7
132.5°	9.0	8.4	5.6	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.2	2.8	2.8	2.8	2.2
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.2
142.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
145°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
150°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
152.5°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
157.5°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.2
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	440.6	440.6	440.6
2.5°	419.2	411.4	409.1
5°	396.8	383.9	376.6
7.5°	374.3	356.9	348.5
10°	353.6	328.9	319.9
12.5°	328.9	300.3	286.2
15°	305.3	268.3	254.8
17.5°	278.9	237.4	221.7
20°	254.2	206.5	190.3
22.5°	226.2	176.2	158.3
25°	200.9	145.9	125.7
27.5°	172.9	115.0	97.7
30°	146.5	88.1	70.7
32.5°	121.2	64.5	48.8
35°	97.7	43.8	30.9
37.5°	75.2	26.9	15.7
40°	54.4	14.0	7.3
42.5°	36.5	6.7	3.9
45°	22.4	3.4	0.0
47.5°	12.9	0.0	0.0
50°	6.7	0.0	0.0
52.5°	2.8	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.2	2.8
82.5°	2.2	2.8	2.8
85°	2.2	2.8	3.4
87.5°	2.8	3.4	3.9
90°	3.4	3.9	3.9
92.5°	3.4	4.5	4.5
95°	3.9	4.5	5.1
97.5°	4.5	5.1	5.1
100°	3.9	5.1	5.6
102.5°	3.4	5.1	5.1
105°	2.8	3.9	4.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.2	2.8	2.8
115°	1.7	2.2	2.8
117.5°	1.7	2.2	2.2
120°	1.7	1.7	2.2
122.5°	1.7	1.7	2.2
125°	1.7	1.7	2.2
127.5°	2.2	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.2	1.7	1.7
135°	2.2	1.7	1.7
137.5°	2.2	1.7	1.7
140°	2.2	1.7	1.7
142.5°	2.2	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.2	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	235.7	229.0	206.5	169.5	118.4	66.2	24.7	4.5	1.1	1.7	1.7
110°	205.4	199.8	176.8	140.9	95.4	49.4	16.3	2.8	1.7	1.7	1.7







107.5°	2.2	3.4	3.9
110°	2.2	2.8	3.4



(END OF REPORT)