

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: P551554

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-82-94-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: P551554  
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-82-94-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

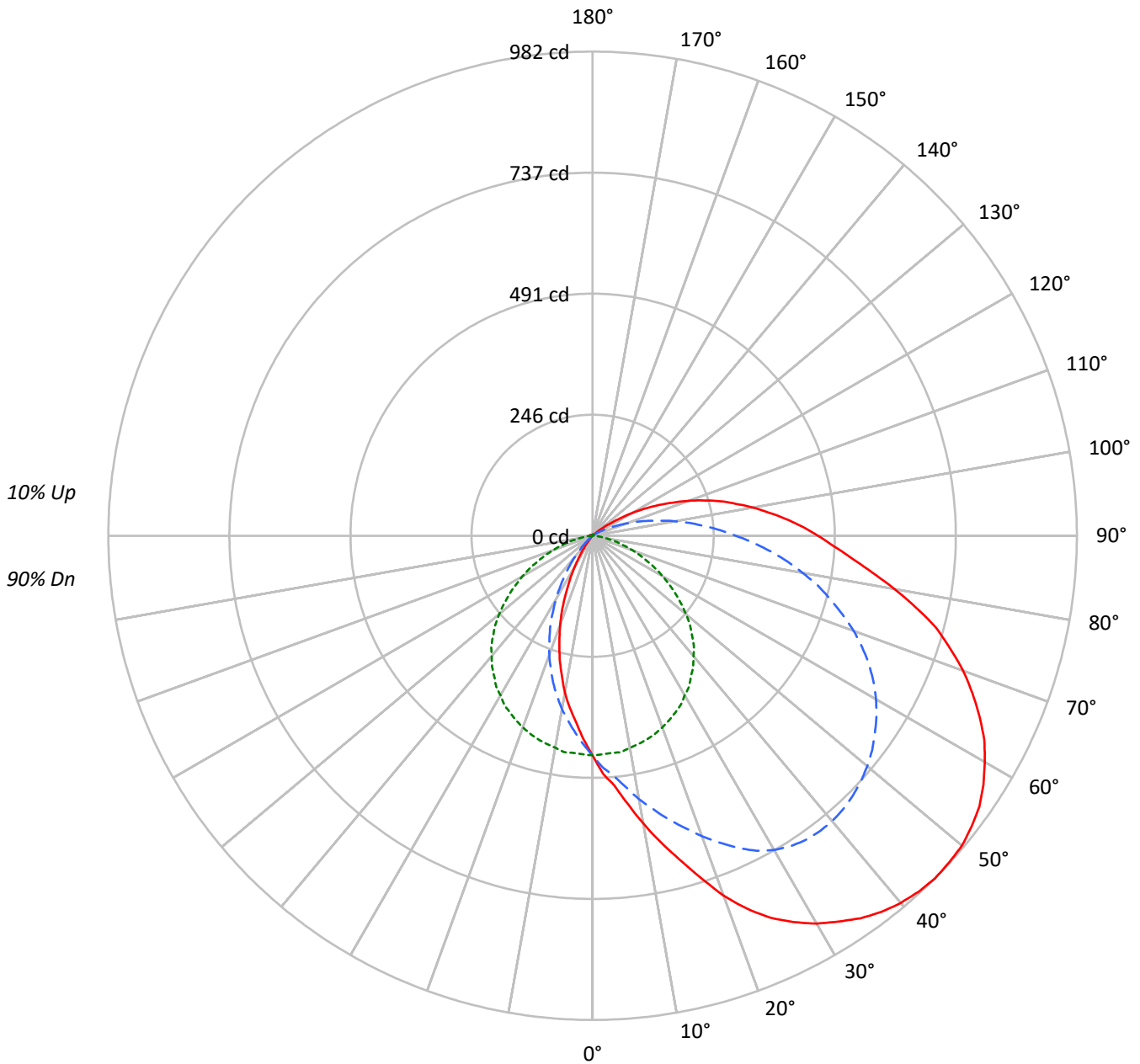
Lumens per Lamp: N/A  
Luminaire Lumens: 2202.0 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551554

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-94-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551554

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-94-ED1D

**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°	4794	4794	4794
5°	5263	4724	3941
10°	5955	4666	3248
15°	6675	4607	2531
20°	7528	4532	1864
25°	8236	4444	1224
30°	8761	4329	690
35°	9217	4202	304
40°	9621	4048	73
45°	9968	3854	0
50°	10258	3597	0
55°	10480	3271	0
60°	10592	2892	0
65°	10635	2462	0
70°	10600	2008	0
75°	10465	1480	9
80°	10041	907	45
85°	9705	432	63



TEST NUMBER: P551554

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-94-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.7	1.9
10°-20°	127.7	5.8
20°-30°	206.9	9.4
30°-40°	265.7	12.1
40°-50°	300.8	13.7
50°-60°	311.7	14.2
60°-70°	293.9	13.3
70°-80°	246.3	11.2
80°-90°	178.5	8.1
90°-100°	117.3	5.3
100°-110°	67.8	3.1
110°-120°	29.9	1.4
120°-130°	8.1	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	377.3	17.1
0°-40°	643.0	29.2
0°-60°	1255.5	57.0
0°-90°	1974.3	89.7
90°-120°	215.0	9.8
90°-150°	226.2	10.3
90°-180°	228.0	10.4
0°-180°	2202.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	445	445	445	445	445	
5°	508	488	442	401	381	51
15°	679	596	427	309	258	196
25°	855	699	396	203	127	395
35°	947	753	348	99	31	594
45°	982	746	285	23	0	758
55°	957	699	205	0	0	855
65°	865	618	123	0	0	856
75°	721	499	52	1	1	756
85°	528	362	8	2	3	451
90°	457	290	2	3	4	251
95°	393	227	1	4	5	308
105°	270	117	1	3	4	285
115°	147	39	2	2	3	147
125°	44	5	2	2	2	44
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	



TEST NUMBER: P551554

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-94-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4
2.5°	482.9	482.3	480.6	477.8	473.8	467.0	461.3	456.2	449.4	443.7	432.9
5°	508.4	505.6	503.3	500.4	491.4	485.1	474.9	463.6	452.8	442.0	420.4
7.5°	549.2	544.7	541.3	533.4	520.9	506.7	490.8	480.0	472.6	442.6	405.7
10°	592.9	589.0	582.2	568.0	552.7	532.2	509.5	484.0	461.3	436.3	392.6
12.5°	636.1	630.4	620.7	602.6	581.0	555.5	524.3	494.2	461.9	432.4	377.3
15°	679.2	672.9	662.7	640.6	612.2	578.8	540.7	502.7	464.7	427.3	361.4
17.5°	726.3	717.8	702.4	677.5	641.7	600.3	555.5	509.5	463.6	421.0	344.4
20°	776.8	764.9	748.4	714.9	672.9	624.1	570.2	516.3	463.0	413.6	325.1
22.5°	818.8	806.8	788.7	754.1	703.6	644.0	582.7	520.9	460.7	405.1	307.0
25°	855.1	845.4	825.6	785.9	732.5	665.0	594.6	524.3	457.3	396.0	287.7
27.5°	883.4	874.4	852.2	811.4	756.9	683.7	603.7	526.0	452.8	387.0	267.8
30°	908.4	899.3	872.7	830.7	773.4	698.5	612.8	526.6	447.1	373.4	246.3
32.5°	927.7	919.2	892.0	847.1	784.7	708.7	617.9	526.0	439.7	363.7	223.0
35°	947.0	938.5	906.7	859.0	793.2	713.2	621.9	523.1	430.7	347.8	200.9
37.5°	961.7	952.1	919.8	867.0	797.2	714.4	621.3	519.2	421.0	334.8	178.7
40°	972.0	961.7	927.1	871.5	798.3	712.7	616.8	512.4	409.7	318.3	155.5
42.5°	978.8	967.4	930.5	878.3	796.1	708.1	610.0	503.9	397.2	304.1	133.3
45°	982.2	970.3	931.1	872.7	792.1	699.6	599.7	493.1	383.6	284.8	111.2
47.5°	980.5	967.4	928.3	866.4	784.7	690.5	588.4	480.0	367.1	267.8	90.2
50°	977.6	964.0	922.0	858.5	774.5	679.2	575.9	464.1	350.1	246.8	71.5
52.5°	968.6	954.9	915.2	847.1	762.6	666.1	558.9	447.7	331.9	226.4	54.5
55°	957.2	944.7	903.3	836.9	747.3	650.2	543.0	430.1	314.3	205.4	39.2
57.5°	939.6	928.3	888.6	820.5	732.0	632.7	525.4	410.8	292.2	184.4	27.2
60°	918.1	906.7	868.1	801.7	714.4	612.8	506.1	390.9	272.4	163.4	17.0
62.5°	895.4	884.6	844.3	778.5	692.2	591.8	485.1	371.1	251.4	144.1	10.2
65°	865.3	855.1	818.8	750.7	667.8	569.1	461.9	347.3	229.8	122.6	5.7
67.5°	833.5	824.4	787.6	725.1	639.5	544.1	438.0	324.0	207.1	103.8	2.8
70°	799.5	788.1	754.1	690.5	610.5	515.8	411.9	300.2	185.5	85.7	0.0
72.5°	759.8	751.2	718.3	658.2	577.0	485.7	385.3	274.1	161.7	68.1	0.6
75°	721.2	710.4	680.3	623.6	544.1	453.9	355.8	249.7	138.4	52.2	0.6
77.5°	671.2	667.8	639.5	584.4	512.9	423.3	323.4	220.2	116.3	37.4	0.6
80°	621.3	617.9	595.8	545.3	476.6	387.0	293.3	192.3	94.8	25.0	0.6
82.5°	571.9	567.4	546.4	504.4	439.7	356.3	262.1	164.5	74.9	15.3	0.6
85°	527.7	522.0	499.3	460.7	401.7	321.7	229.8	137.3	55.6	8.5	1.1
87.5°	489.7	485.7	460.7	421.0	363.1	289.4	201.4	111.2	39.2	4.0	1.7
90°	457.3	448.8	426.7	384.7	326.8	253.6	171.4	89.1	26.1	2.3	2.3
92.5°	425.6	418.2	393.8	350.7	294.5	223.0	142.4	68.1	16.5	1.1	2.8
95°	392.6	384.7	360.9	321.2	261.6	191.8	116.9	49.9	9.1	1.1	2.8
97.5°	360.3	352.9	328.0	288.2	232.1	164.5	92.5	35.2	4.5	1.1	2.3
100°	330.2	321.7	299.0	259.3	202.6	137.3	71.5	22.7	2.8	1.1	2.3
102.5°	298.5	291.6	268.4	229.8	171.9	111.8	53.3	14.2	1.1	1.1	1.7
105°	270.1	261.6	238.9	199.2	146.4	87.9	37.4	8.5	1.1	1.1	1.7



TEST NUMBER: P551554

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-94-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	175.9	169.1	149.2	115.8	74.3	34.6	10.2	1.7	1.7	1.7	1.7
115°	147.0	136.7	119.2	89.6	55.0	22.7	5.1	1.7	1.7	1.7	1.7
117.5°	117.5	108.9	96.5	68.1	36.3	14.8	2.8	1.7	1.7	1.7	1.7
120°	91.9	84.0	69.8	47.1	24.4	8.5	1.1	1.7	1.7	1.7	1.7
122.5°	65.8	59.6	47.1	30.6	14.8	4.0	1.7	1.7	2.3	2.3	1.7
125°	43.7	40.3	31.2	18.7	9.1	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.4	25.5	18.2	10.8	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	15.9	14.2	10.8	6.2	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.1	8.5	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.8	2.8	2.8	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



TEST NUMBER: P551554

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-94-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	445.4	445.4	445.4
2.5°	423.9	415.9	413.6
5°	401.2	388.1	380.7
7.5°	378.5	360.9	352.4
10°	357.5	332.5	323.4
12.5°	332.5	303.6	289.4
15°	308.7	271.2	257.6
17.5°	282.0	240.0	224.1
20°	257.0	208.8	192.3
22.5°	228.7	178.2	160.0
25°	203.1	147.5	127.1
27.5°	174.8	116.3	98.7
30°	148.1	89.1	71.5
32.5°	122.6	65.3	49.4
35°	98.7	44.3	31.2
37.5°	76.0	27.2	15.9
40°	55.0	14.2	7.4
42.5°	36.9	6.8	4.0
45°	22.7	3.4	0.0
47.5°	13.1	0.0	0.0
50°	6.8	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	2.3	2.8
82.5°	2.3	2.8	2.8
85°	2.3	2.8	3.4
87.5°	2.8	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.5	4.5
95°	4.0	4.5	5.1
97.5°	4.5	5.1	5.1
100°	4.0	5.1	5.7
102.5°	3.4	5.1	5.1
105°	2.8	4.0	4.5





TEST NUMBER: P551554

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-94-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.3	2.8	2.8
115°	1.7	2.3	2.8
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	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°	2.3	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°	238.3	231.5	208.8	171.4	119.7	67.0	25.0	4.5	1.1	1.7	1.7
110°	207.7	202.0	178.7	142.4	96.5	49.9	16.5	2.8	1.7	1.7	1.7







107.5°	2.3	3.4	4.0
110°	2.3	2.8	3.4



(END OF REPORT)