

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: P551547

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90**

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: P551547  
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-82-86-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

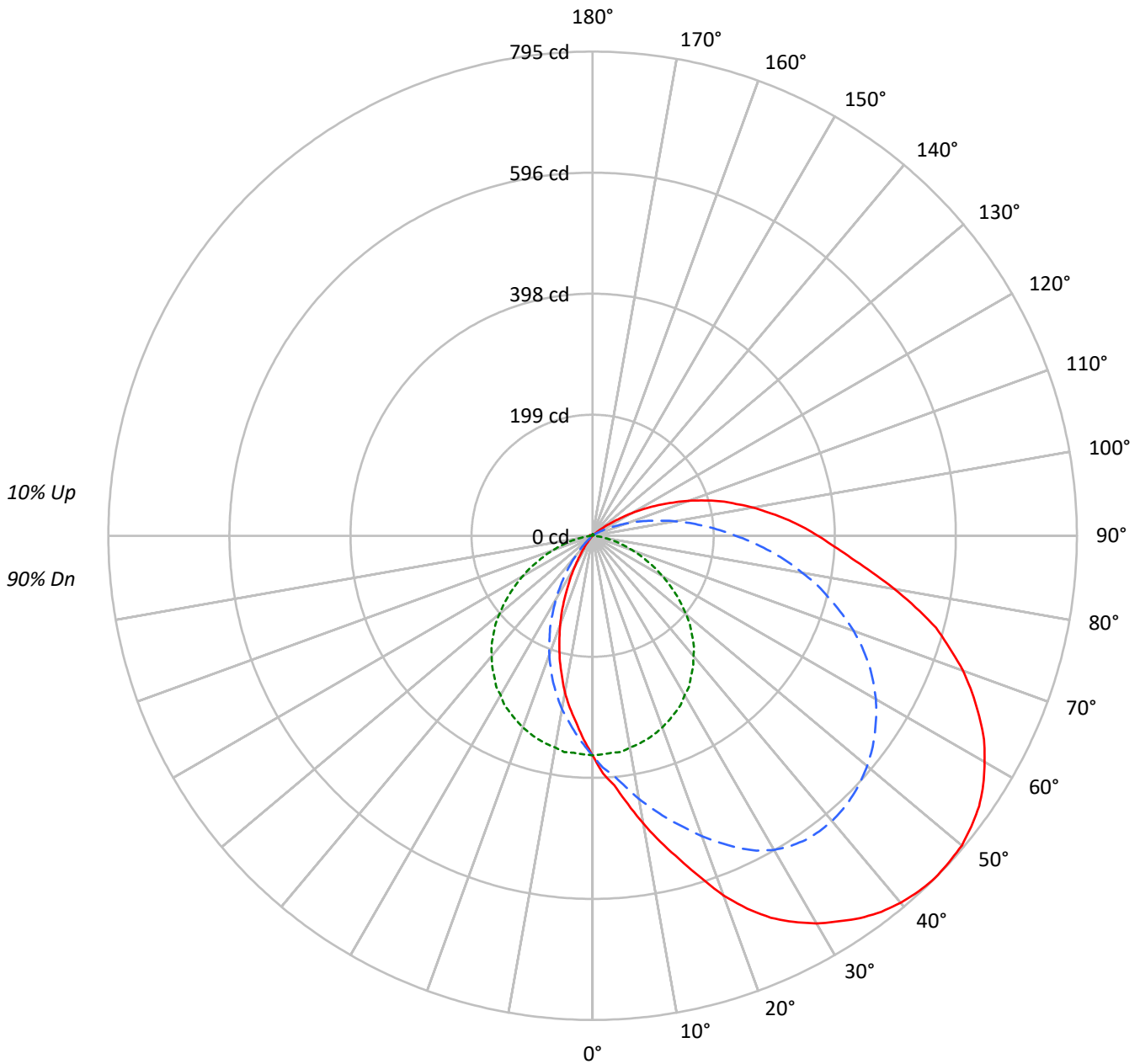
Lumens per Lamp: N/A  
Luminaire Lumens: 1782.0 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (Ain): 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: P551547

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551547

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90

**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°	3880	3880	3880
5°	4259	3823	3190
10°	4819	3776	2629
15°	5401	3729	2049
20°	6092	3667	1509
25°	6665	3597	991
30°	7090	3502	558
35°	7459	3401	246
40°	7786	3276	59
45°	8066	3119	0
50°	8302	2911	0
55°	8481	2647	0
60°	8572	2339	0
65°	8606	1992	0
70°	8578	1623	0
75°	8469	1197	7
80°	8126	733	37
85°	7853	351	51



TEST NUMBER: P551547

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.5	1.9
10°-20°	103.4	5.8
20°-30°	167.4	9.4
30°-40°	215.1	12.1
40°-50°	243.4	13.7
50°-60°	252.2	14.2
60°-70°	237.9	13.3
70°-80°	199.3	11.2
80°-90°	144.5	8.1
90°-100°	95.0	5.3
100°-110°	54.8	3.1
110°-120°	24.2	1.4
120°-130°	6.6	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	305.3	17.1
0°-40°	520.4	29.2
0°-60°	1016.0	57.0
0°-90°	1597.7	89.7
90°-120°	174.0	9.8
90°-150°	183.1	10.3
90°-180°	184.0	10.3
0°-180°	1782.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	360	360	360	360	360	
5°	411	395	358	325	308	41
15°	550	482	346	250	208	158
25°	692	566	320	164	103	320
35°	766	610	282	80	25	481
45°	795	604	230	18	0	614
55°	775	565	166	0	0	692
65°	700	501	99	0	0	693
75°	584	404	42	0	0	612
85°	427	293	7	2	3	365
90°	370	235	2	3	3	203
95°	318	183	1	3	4	249
105°	219	95	1	2	4	231
115°	119	31	1	1	2	119
125°	35	4	2	1	2	35
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551547

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5	360.5
2.5°	390.8	390.3	388.9	386.6	383.4	377.9	373.3	369.2	363.7	359.1	350.4
5°	411.4	409.1	407.3	405.0	397.6	392.6	384.3	375.1	366.4	357.7	340.3
7.5°	444.5	440.8	438.1	431.6	421.5	410.0	397.2	388.5	382.5	358.2	328.3
10°	479.8	476.6	471.1	459.6	447.2	430.7	412.3	391.7	373.3	353.1	317.8
12.5°	514.7	510.1	502.3	487.6	470.2	449.5	424.3	399.9	373.8	349.9	305.4
15°	549.6	544.6	536.3	518.4	495.5	468.4	437.6	406.8	376.1	345.8	292.5
17.5°	587.7	580.9	568.5	548.3	519.3	485.8	449.5	412.3	375.1	340.7	278.7
20°	628.6	619.0	605.7	578.6	544.6	505.1	461.5	417.9	374.7	334.7	263.1
22.5°	662.6	653.0	638.3	610.2	569.4	521.2	471.6	421.5	372.9	327.9	248.4
25°	692.0	684.2	668.1	636.0	592.8	538.2	481.2	424.3	370.1	320.5	232.8
27.5°	714.9	707.6	689.7	656.6	612.5	553.3	488.6	425.7	366.4	313.2	216.7
30°	735.1	727.8	706.2	672.2	625.9	565.2	495.9	426.1	361.8	302.1	199.3
32.5°	750.8	743.9	721.8	685.6	635.0	573.5	500.0	425.7	355.9	294.3	180.5
35°	766.4	759.5	733.8	695.2	641.9	577.2	503.3	423.4	348.5	281.5	162.5
37.5°	778.3	770.5	744.3	701.6	645.1	578.1	502.8	420.1	340.7	270.9	144.6
40°	786.6	778.3	750.3	705.3	646.1	576.7	499.1	414.6	331.5	257.6	125.8
42.5°	792.1	782.9	753.1	710.8	644.2	573.1	493.6	407.8	321.4	246.1	107.9
45°	794.8	785.2	753.5	706.2	641.0	566.2	485.4	399.0	310.4	230.5	90.0
47.5°	793.5	782.9	751.2	701.2	635.0	558.8	476.2	388.5	297.1	216.7	73.0
50°	791.2	780.1	746.2	694.7	626.8	549.6	466.1	375.6	283.3	199.7	57.9
52.5°	783.8	772.8	740.7	685.6	617.1	539.1	452.3	362.3	268.6	183.2	44.1
55°	774.6	764.5	731.0	677.3	604.7	526.2	439.4	348.1	254.4	166.2	31.7
57.5°	760.4	751.2	719.1	664.0	592.3	512.0	425.2	332.4	236.5	149.2	22.0
60°	743.0	733.8	702.5	648.8	578.1	495.9	409.6	316.4	220.4	132.2	13.8
62.5°	724.6	715.9	683.3	630.0	560.2	478.9	392.6	300.3	203.4	116.6	8.3
65°	700.2	692.0	662.6	607.5	540.5	460.6	373.8	281.0	186.0	99.2	4.6
67.5°	674.5	667.2	637.3	586.8	517.5	440.4	354.5	262.2	167.6	84.0	2.3
70°	647.0	637.8	610.2	558.8	494.1	417.4	333.4	242.9	150.2	69.3	0.0
72.5°	614.8	608.0	581.3	532.6	467.0	393.1	311.8	221.8	130.9	55.1	0.5
75°	583.6	574.9	550.6	504.6	440.4	367.3	287.9	202.0	112.0	42.2	0.5
77.5°	543.2	540.5	517.5	473.0	415.1	342.5	261.7	178.2	94.1	30.3	0.5
80°	502.8	500.0	482.1	441.3	385.7	313.2	237.4	155.7	76.7	20.2	0.5
82.5°	462.9	459.2	442.2	408.2	355.9	288.4	212.1	133.2	60.6	12.4	0.5
85°	427.0	422.4	404.1	372.9	325.1	260.4	186.0	111.1	45.0	6.9	0.9
87.5°	396.3	393.1	372.9	340.7	293.9	234.2	163.0	90.0	31.7	3.2	1.4
90°	370.1	363.2	345.3	311.3	264.5	205.3	138.7	72.1	21.1	1.8	1.8
92.5°	344.4	338.4	318.7	283.8	238.3	180.5	115.3	55.1	13.3	0.9	2.3
95°	317.8	311.3	292.0	259.9	211.7	155.2	94.6	40.4	7.3	0.9	2.3
97.5°	291.6	285.6	265.4	233.3	187.8	133.2	74.8	28.5	3.7	0.9	1.8
100°	267.2	260.4	242.0	209.8	163.9	111.1	57.9	18.4	2.3	0.9	1.8
102.5°	241.5	236.0	217.2	186.0	139.1	90.5	43.2	11.5	0.9	0.9	1.4
105°	218.6	211.7	193.3	161.2	118.5	71.2	30.3	6.9	0.9	0.9	1.4



TEST NUMBER: P551547

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	142.3	136.8	120.8	93.7	60.2	28.0	8.3	1.4	1.4	1.4	1.4
115°	118.9	110.7	96.4	72.6	44.5	18.4	4.1	1.4	1.4	1.4	1.4
117.5°	95.1	88.2	78.1	55.1	29.4	11.9	2.3	1.4	1.4	1.4	1.4
120°	74.4	68.0	56.5	38.1	19.7	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.3	48.2	38.1	24.8	11.9	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.4	32.6	25.3	15.2	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	23.0	20.7	14.7	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.9	11.5	8.7	5.1	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.9	4.6	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



TEST NUMBER: P551547

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	360.5	360.5	360.5
2.5°	343.0	336.6	334.7
5°	324.6	314.1	308.1
7.5°	306.3	292.0	285.2
10°	289.3	269.1	261.7
12.5°	269.1	245.7	234.2
15°	249.8	219.5	208.5
17.5°	228.2	194.2	181.4
20°	208.0	169.0	155.7
22.5°	185.0	144.2	129.5
25°	164.4	119.4	102.9
27.5°	141.4	94.1	79.9
30°	119.8	72.1	57.9
32.5°	99.2	52.8	39.9
35°	79.9	35.8	25.3
37.5°	61.5	22.0	12.9
40°	44.5	11.5	6.0
42.5°	29.8	5.5	3.2
45°	18.4	2.8	0.0
47.5°	10.6	0.0	0.0
50°	5.5	0.0	0.0
52.5°	2.3	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	0.9	1.4
80°	0.9	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.8
87.5°	2.3	2.8	3.2
90°	2.8	3.2	3.2
92.5°	2.8	3.7	3.7
95°	3.2	3.7	4.1
97.5°	3.7	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.8	4.1	4.1
105°	2.3	3.2	3.7





TEST NUMBER: P551547

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.8	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	192.9	187.3	169.0	138.7	96.9	54.2	20.2	3.7	0.9	1.4	1.4
110°	168.1	163.5	144.6	115.3	78.1	40.4	13.3	2.3	1.4	1.4	1.4







107.5°	1.8	2.8	3.2
110°	1.8	2.3	2.8



(END OF REPORT)