

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: P551450

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-85-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: P551450  
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-30-UNV-80-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

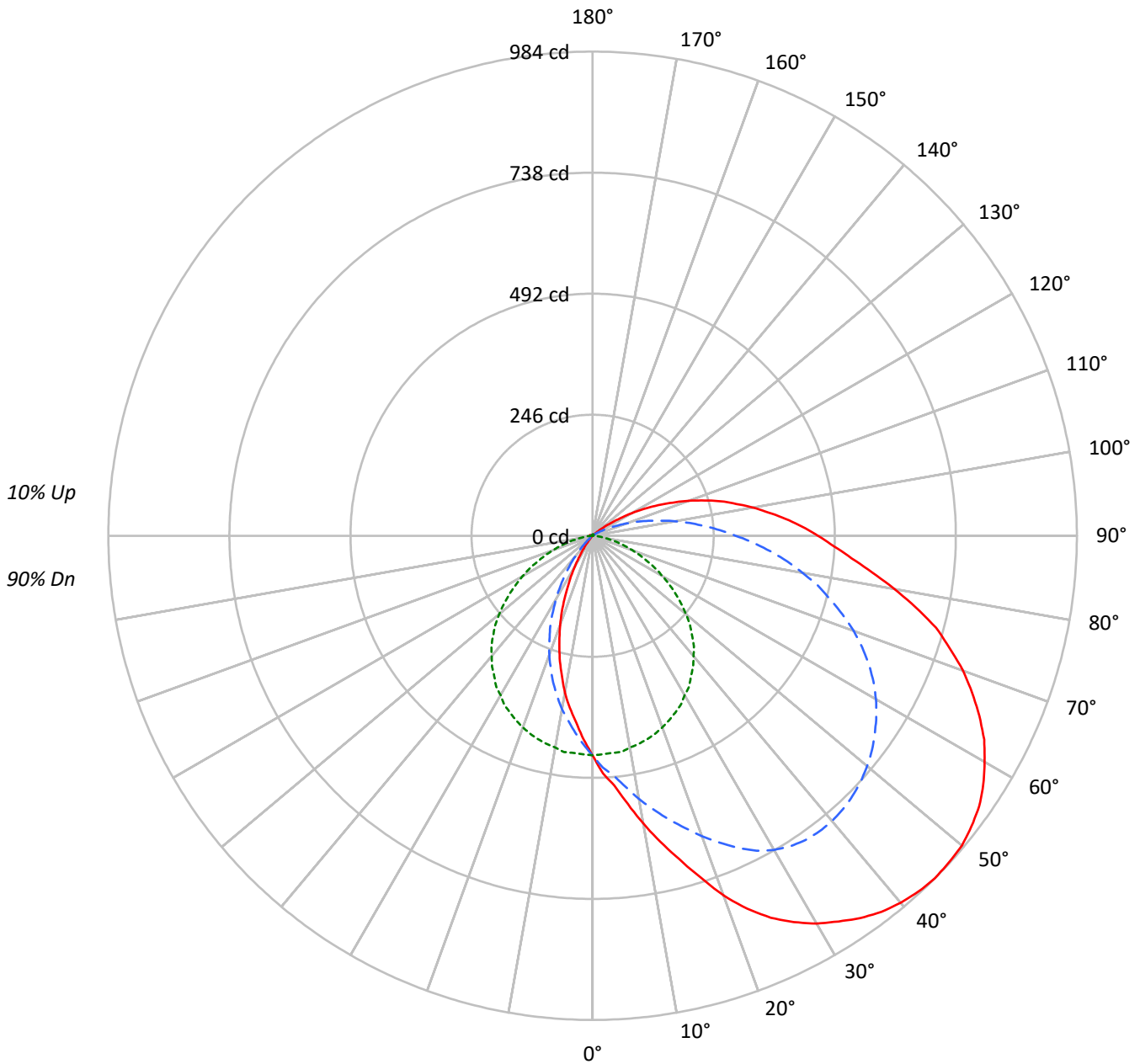
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2206.0 lumens  
Efficiency: N/A  
Efficacy: 93.9 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: P551450  
CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-85-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551450

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	4803	4803	4803
5°	5272	4733	3948
10°	5966	4674	3254
15°	6686	4615	2536
20°	7542	4540	1867
25°	8250	4453	1226
30°	8778	4336	691
35°	9234	4211	305
40°	9638	4056	73
45°	9986	3862	0
50°	10277	3604	0
55°	10498	3277	0
60°	10610	2897	0
65°	10655	2466	0
70°	10619	2010	0
75°	10484	1483	9
80°	10058	907	45
85°	9722	432	63



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.7	1.9
10°-20°	128.0	5.8
20°-30°	207.2	9.4
30°-40°	266.2	12.1
40°-50°	301.4	13.7
50°-60°	312.2	14.2
60°-70°	294.5	13.3
70°-80°	246.8	11.2
80°-90°	178.9	8.1
90°-100°	117.5	5.3
100°-110°	67.9	3.1
110°-120°	30.0	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°	378.0	17.1
0°-40°	644.2	29.2
0°-60°	1257.8	57.0
0°-90°	1977.9	89.7
90°-120°	215.4	9.8
90°-150°	226.6	10.3
90°-180°	228.0	10.3
0°-180°	2206.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	446	446	446	446	446	
5°	509	489	443	402	381	51
15°	680	597	428	309	258	196
25°	857	700	397	204	127	396
35°	949	755	348	99	31	595
45°	984	747	285	23	0	760
55°	959	700	206	0	0	856
65°	867	620	123	0	0	858
75°	722	500	52	1	1	758
85°	529	362	8	2	3	451
90°	458	291	2	3	4	251
95°	393	227	1	4	5	309
105°	271	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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	446.2	446.2	446.2	446.2	446.2	446.2	446.2	446.2	446.2	446.2	446.2
2.5°	483.7	483.2	481.5	478.6	474.6	467.8	462.1	457.0	450.2	444.5	433.7
5°	509.3	506.5	504.2	501.4	492.3	486.0	475.8	464.4	453.6	442.8	421.2
7.5°	550.2	545.7	542.3	534.3	521.8	507.6	491.7	480.9	473.5	443.4	406.4
10°	594.0	590.0	583.2	569.0	553.7	533.2	510.5	484.9	462.1	437.1	393.4
12.5°	637.2	631.5	621.9	603.7	582.1	556.5	525.2	495.1	462.7	433.1	378.0
15°	680.4	674.2	663.9	641.8	613.3	579.8	541.7	503.6	465.5	428.0	362.1
17.5°	727.6	719.1	703.7	678.7	642.9	601.4	556.5	510.5	464.4	421.8	345.0
20°	778.2	766.2	749.8	716.2	674.2	625.3	571.3	517.3	463.8	414.4	325.7
22.5°	820.3	808.3	790.1	755.4	704.9	645.2	583.8	521.8	461.6	405.9	307.5
25°	856.6	847.0	827.1	787.3	733.8	666.2	595.7	525.2	458.2	396.8	288.2
27.5°	885.1	876.0	853.8	812.9	758.3	685.0	604.8	526.9	453.6	387.7	268.3
30°	910.1	901.0	874.3	832.2	774.8	699.7	613.9	527.5	447.9	374.0	246.7
32.5°	929.4	920.9	893.6	848.7	786.1	710.0	619.0	526.9	440.5	364.4	223.4
35°	948.7	940.2	908.4	860.6	794.7	714.5	623.0	524.1	431.4	348.5	201.2
37.5°	963.5	953.8	921.4	868.6	798.7	715.7	622.4	520.1	421.8	335.4	179.1
40°	973.7	963.5	928.8	873.1	799.8	714.0	617.9	513.3	410.4	318.9	155.8
42.5°	980.5	969.2	932.2	879.9	797.5	709.4	611.1	504.8	397.9	304.7	133.6
45°	984.0	972.0	932.8	874.3	793.5	700.9	600.8	494.0	384.3	285.4	111.4
47.5°	982.3	969.2	930.0	868.0	786.1	691.8	589.5	480.9	367.8	268.3	90.4
50°	979.4	965.8	923.7	860.0	775.9	680.4	577.0	465.0	350.7	247.3	71.6
52.5°	970.3	956.7	916.9	848.7	764.0	667.3	559.9	448.5	332.5	226.8	54.6
55°	958.9	946.4	904.9	838.4	748.6	651.4	544.0	430.9	314.9	205.8	39.2
57.5°	941.3	930.0	890.2	822.0	733.3	633.8	526.4	411.5	292.7	184.7	27.3
60°	919.7	908.4	869.7	803.2	715.7	613.9	507.0	391.7	272.8	163.7	17.1
62.5°	897.0	886.2	845.8	779.9	693.5	592.9	486.0	371.8	251.8	144.4	10.2
65°	866.9	856.6	820.3	752.0	669.0	570.1	462.7	347.9	230.2	122.8	5.7
67.5°	835.0	825.9	789.0	726.5	640.6	545.1	438.8	324.6	207.5	104.0	2.8
70°	800.9	789.6	755.4	691.8	611.6	516.7	412.7	300.7	185.9	85.8	0.0
72.5°	761.1	752.6	719.6	659.4	578.1	486.6	386.0	274.6	162.0	68.2	0.6
75°	722.5	711.7	681.6	624.7	545.1	454.7	356.4	250.1	138.7	52.3	0.6
77.5°	672.5	669.0	640.6	585.5	513.9	424.1	324.0	220.6	116.5	37.5	0.6
80°	622.4	619.0	596.9	546.3	477.5	387.7	293.9	192.7	94.9	25.0	0.6
82.5°	573.0	568.4	547.4	505.3	440.5	357.0	262.6	164.8	75.0	15.3	0.6
85°	528.6	523.0	500.2	461.6	402.5	322.3	230.2	137.6	55.7	8.5	1.1
87.5°	490.6	486.6	461.6	421.8	363.8	289.9	201.8	111.4	39.2	4.0	1.7
90°	458.2	449.6	427.5	385.4	327.4	254.1	171.7	89.2	26.1	2.3	2.3
92.5°	426.3	418.9	394.5	351.3	295.0	223.4	142.7	68.2	16.5	1.1	2.8
95°	393.4	385.4	361.5	321.7	262.0	192.1	117.1	50.0	9.1	1.1	2.8
97.5°	361.0	353.6	328.6	288.8	232.5	164.8	92.7	35.2	4.5	1.1	2.3
100°	330.8	322.3	299.6	259.8	202.9	137.6	71.6	22.7	2.8	1.1	2.3
102.5°	299.0	292.2	268.9	230.2	172.2	112.0	53.4	14.2	1.1	1.1	1.7
105°	270.6	262.0	239.3	199.5	146.7	88.1	37.5	8.5	1.1	1.1	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	176.2	169.4	149.5	116.0	74.5	34.7	10.2	1.7	1.7	1.7	1.7
115°	147.2	137.0	119.4	89.8	55.1	22.7	5.1	1.7	1.7	1.7	1.7
117.5°	117.7	109.1	96.6	68.2	36.4	14.8	2.8	1.7	1.7	1.7	1.7
120°	92.1	84.1	69.9	47.2	24.4	8.5	1.1	1.7	1.7	1.7	1.7
122.5°	65.9	59.7	47.2	30.7	14.8	4.0	1.7	1.7	2.3	2.3	1.7
125°	43.8	40.4	31.3	18.8	9.1	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.4	25.6	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	6.3	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



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	446.2	446.2	446.2
2.5°	424.6	416.7	414.4
5°	401.9	388.8	381.4
7.5°	379.1	361.5	353.0
10°	358.1	333.1	324.0
12.5°	333.1	304.1	289.9
15°	309.2	271.7	258.1
17.5°	282.5	240.4	224.5
20°	257.5	209.2	192.7
22.5°	229.1	178.5	160.3
25°	203.5	147.8	127.3
27.5°	175.1	116.5	98.9
30°	148.4	89.2	71.6
32.5°	122.8	65.4	49.5
35°	98.9	44.3	31.3
37.5°	76.2	27.3	15.9
40°	55.1	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





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**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°	238.7	231.9	209.2	171.7	119.9	67.1	25.0	4.5	1.1	1.7	1.7
110°	208.0	202.4	179.1	142.7	96.6	50.0	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)