

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: P550624

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-80-88-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: P550624  
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-LD4-1HI-50-UNV-80-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

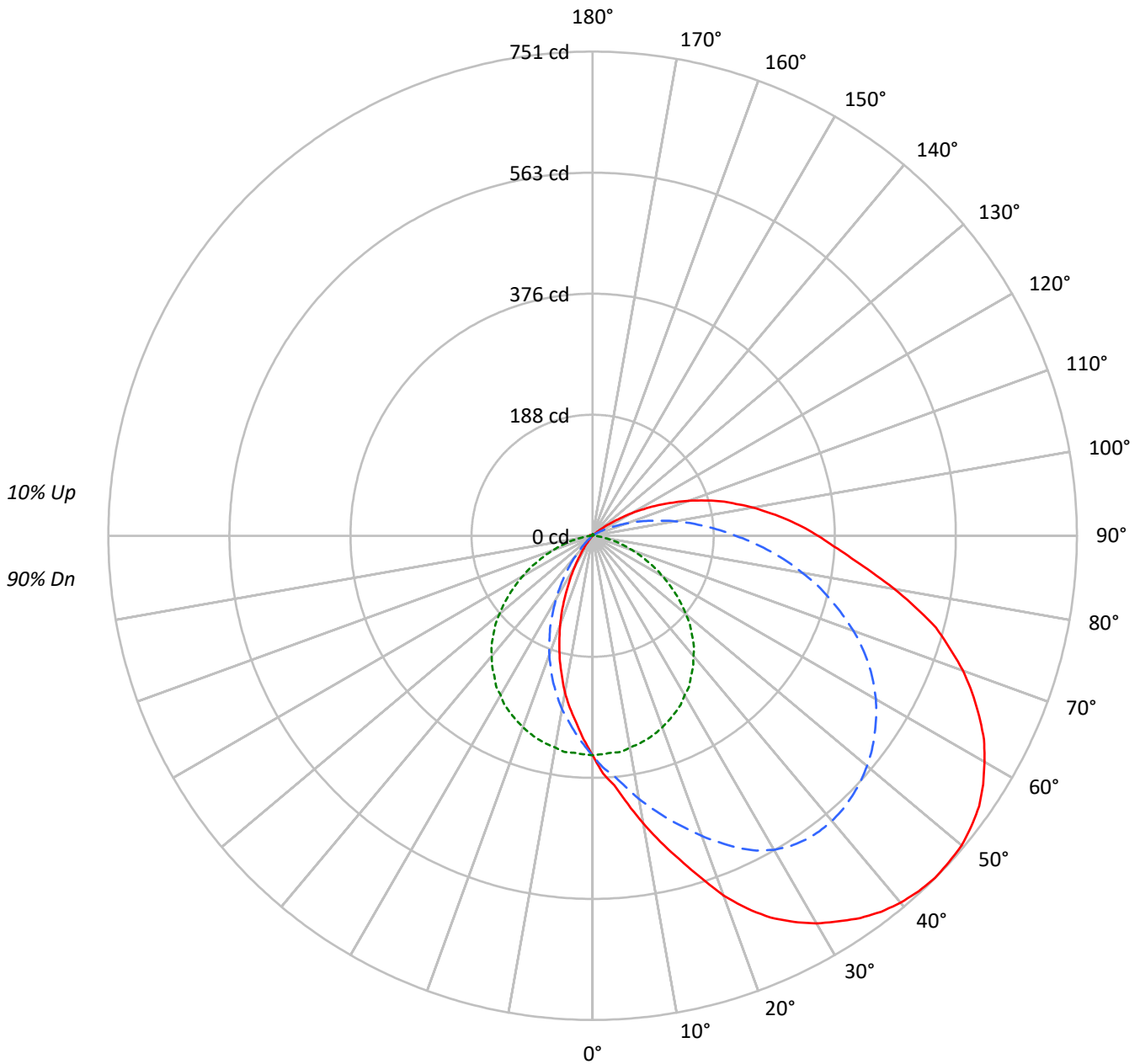
Lumens per Lamp: N/A  
Luminaire Lumens: 1683.0 lumens  
Efficiency: N/A  
Efficacy: 77.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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: P550624

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-80-88-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P550624

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-80-88-ED1D

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

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

	0°	90°	180°
0°	3664	3664	3664
5°	4023	3610	3012
10°	4552	3567	2483
15°	5101	3522	1935
20°	5754	3463	1425
25°	6294	3397	935
30°	6696	3308	527
35°	7045	3212	233
40°	7354	3094	55
45°	7618	2946	0
50°	7840	2749	0
55°	8010	2500	0
60°	8095	2210	0
65°	8128	1882	0
70°	8101	1534	0
75°	7998	1132	6
80°	7675	693	36
85°	7417	331	48



TEST NUMBER: P550624

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-80-88-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.6	1.9
10°-20°	97.6	5.8
20°-30°	158.1	9.4
30°-40°	203.1	12.1
40°-50°	229.9	13.7
50°-60°	238.2	14.2
60°-70°	224.6	13.3
70°-80°	188.3	11.2
80°-90°	136.5	8.1
90°-100°	89.7	5.3
100°-110°	51.8	3.1
110°-120°	22.9	1.4
120°-130°	6.2	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	288.4	17.1
0°-40°	491.5	29.2
0°-60°	959.6	57.0
0°-90°	1508.9	89.7
90°-120°	164.3	9.8
90°-150°	172.9	10.3
90°-180°	174.0	10.3
0°-180°	1683.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	340	340	340	340	340	
5°	389	373	338	307	291	39
15°	519	455	327	236	197	150
25°	654	534	303	155	97	302
35°	724	576	266	76	24	454
45°	751	570	218	17	0	580
55°	732	534	157	0	0	653
65°	661	473	94	0	0	654
75°	551	381	40	0	0	578
85°	403	276	6	2	3	344
90°	350	222	2	3	3	192
95°	300	173	1	3	4	235
105°	206	90	1	2	4	218
115°	112	30	1	1	2	112
125°	33	4	2	1	2	33
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: P550624

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-80-88-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	340.4	340.4	340.4	340.4	340.4	340.4	340.4	340.4	340.4	340.4	340.4
2.5°	369.1	368.6	367.3	365.1	362.1	356.9	352.6	348.7	343.5	339.1	330.9
5°	388.6	386.4	384.7	382.5	375.6	370.8	363.0	354.3	346.1	337.8	321.3
7.5°	419.8	416.3	413.7	407.6	398.1	387.3	375.1	366.9	361.2	338.3	310.1
10°	453.2	450.1	444.9	434.1	422.4	406.8	389.4	369.9	352.6	333.5	300.1
12.5°	486.1	481.8	474.4	460.6	444.1	424.6	400.7	377.7	353.0	330.5	288.4
15°	519.1	514.3	506.5	489.6	467.9	442.3	413.3	384.2	355.2	326.6	276.2
17.5°	555.1	548.6	536.9	517.8	490.5	458.8	424.6	389.4	354.3	321.8	263.2
20°	593.7	584.6	572.0	546.4	514.3	477.0	435.8	394.6	353.9	316.1	248.5
22.5°	625.8	616.7	602.8	576.3	537.8	492.2	445.4	398.1	352.1	309.6	234.6
25°	653.5	646.2	631.0	600.6	559.9	508.3	454.5	400.7	349.5	302.7	219.9
27.5°	675.2	668.3	651.4	620.1	578.5	522.6	461.4	402.0	346.1	295.8	204.7
30°	694.3	687.4	667.0	634.9	591.1	533.8	468.4	402.4	341.7	285.4	188.2
32.5°	709.0	702.5	681.7	647.5	599.8	541.7	472.3	402.0	336.1	278.0	170.4
35°	723.8	717.3	693.0	656.6	606.3	545.1	475.3	399.8	329.2	265.8	153.5
37.5°	735.1	727.7	703.0	662.6	609.3	546.0	474.9	396.8	321.8	255.9	136.6
40°	742.9	735.1	708.6	666.1	610.2	544.7	471.4	391.6	313.1	243.3	118.8
42.5°	748.1	739.4	711.2	671.3	608.4	541.2	466.2	385.1	303.6	232.4	101.9
45°	750.7	741.6	711.7	667.0	605.4	534.7	458.4	376.9	293.2	217.7	85.0
47.5°	749.4	739.4	709.5	662.2	599.8	527.8	449.7	366.9	280.6	204.7	69.0
50°	747.2	736.8	704.7	656.1	592.0	519.1	440.2	354.7	267.6	188.6	54.6
52.5°	740.3	729.9	699.5	647.5	582.9	509.1	427.2	342.2	253.7	173.0	41.6
55°	731.6	722.1	690.4	639.7	571.1	497.0	415.0	328.7	240.3	157.0	29.9
57.5°	718.2	709.5	679.1	627.1	559.4	483.5	401.6	314.0	223.3	140.9	20.8
60°	701.7	693.0	663.5	612.8	546.0	468.4	386.8	298.8	208.2	124.9	13.0
62.5°	684.3	676.1	645.3	595.0	529.1	452.3	370.8	283.6	192.1	110.2	7.8
65°	661.3	653.5	625.8	573.7	510.4	435.0	353.0	265.4	175.6	93.7	4.3
67.5°	637.1	630.1	601.9	554.2	488.7	415.9	334.8	247.6	158.3	79.4	2.2
70°	611.0	602.4	576.3	527.8	466.6	394.2	314.8	229.4	141.8	65.5	0.0
72.5°	580.7	574.2	549.0	503.1	441.0	371.2	294.5	209.5	123.6	52.0	0.4
75°	551.2	543.0	520.0	476.6	415.9	346.9	271.9	190.8	105.8	39.9	0.4
77.5°	513.0	510.4	488.7	446.7	392.0	323.5	247.2	168.3	88.9	28.6	0.4
80°	474.9	472.3	455.4	416.8	364.3	295.8	224.2	147.0	72.4	19.1	0.4
82.5°	437.1	433.7	417.6	385.5	336.1	272.3	200.4	125.8	57.2	11.7	0.4
85°	403.3	399.0	381.6	352.1	307.0	245.9	175.6	104.9	42.5	6.5	0.9
87.5°	374.3	371.2	352.1	321.8	277.5	221.2	154.0	85.0	29.9	3.0	1.3
90°	349.5	343.0	326.1	294.0	249.8	193.9	131.0	68.1	19.9	1.7	1.7
92.5°	325.3	319.6	301.0	268.0	225.1	170.4	108.9	52.0	12.6	0.9	2.2
95°	300.1	294.0	275.8	245.5	199.9	146.6	89.3	38.2	6.9	0.9	2.2
97.5°	275.4	269.7	250.7	220.3	177.4	125.8	70.7	26.9	3.5	0.9	1.7
100°	252.4	245.9	228.5	198.2	154.8	104.9	54.6	17.3	2.2	0.9	1.7
102.5°	228.1	222.9	205.1	175.6	131.4	85.4	40.8	10.8	0.9	0.9	1.3
105°	206.4	199.9	182.6	152.2	111.9	67.2	28.6	6.5	0.9	0.9	1.3



TEST NUMBER: P550624

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-80-88-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	134.4	129.2	114.1	88.5	56.8	26.5	7.8	1.3	1.3	1.3	1.3
115°	112.3	104.5	91.1	68.5	42.1	17.3	3.9	1.3	1.3	1.3	1.3
117.5°	89.8	83.3	73.7	52.0	27.8	11.3	2.2	1.3	1.3	1.3	1.3
120°	70.3	64.2	53.3	36.0	18.6	6.5	0.9	1.3	1.3	1.3	1.3
122.5°	50.3	45.5	36.0	23.4	11.3	3.0	1.3	1.3	1.7	1.7	1.3
125°	33.4	30.8	23.9	14.3	6.9	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.7	19.5	13.9	8.2	3.0	1.3	1.3	1.7	1.7	1.7	1.3
130°	12.1	10.8	8.2	4.8	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.9	6.5	4.3	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	2.2	2.2	2.2	1.7
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	1.7
142.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
145°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	1.7	1.7	1.7
147.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
150°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
152.5°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
155°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
157.5°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P550624

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-80-88-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	340.4	340.4	340.4
2.5°	324.0	317.9	316.1
5°	306.6	296.6	291.0
7.5°	289.3	275.8	269.3
10°	273.2	254.1	247.2
12.5°	254.1	232.0	221.2
15°	235.9	207.3	196.9
17.5°	215.5	183.4	171.3
20°	196.5	159.6	147.0
22.5°	174.8	136.2	122.3
25°	155.3	112.8	97.1
27.5°	133.6	88.9	75.5
30°	113.2	68.1	54.6
32.5°	93.7	49.9	37.7
35°	75.5	33.8	23.9
37.5°	58.1	20.8	12.1
40°	42.1	10.8	5.6
42.5°	28.2	5.2	3.0
45°	17.3	2.6	0.0
47.5°	10.0	0.0	0.0
50°	5.2	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.7	2.2
82.5°	1.7	2.2	2.2
85°	1.7	2.2	2.6
87.5°	2.2	2.6	3.0
90°	2.6	3.0	3.0
92.5°	2.6	3.5	3.5
95°	3.0	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.0	3.9	4.3
102.5°	2.6	3.9	3.9
105°	2.2	3.0	3.5





TEST NUMBER: P550624

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-80-88-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.7	2.2	2.2
115°	1.3	1.7	2.2
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.7	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	182.1	176.9	159.6	131.0	91.5	51.2	19.1	3.5	0.9	1.3	1.3
110°	158.7	154.4	136.6	108.9	73.7	38.2	12.6	2.2	1.3	1.3	1.3







107.5°	1.7	2.6	3.0
110°	1.7	2.2	2.6



(END OF REPORT)