

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: P551454

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-87-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: P551454  
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-80-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

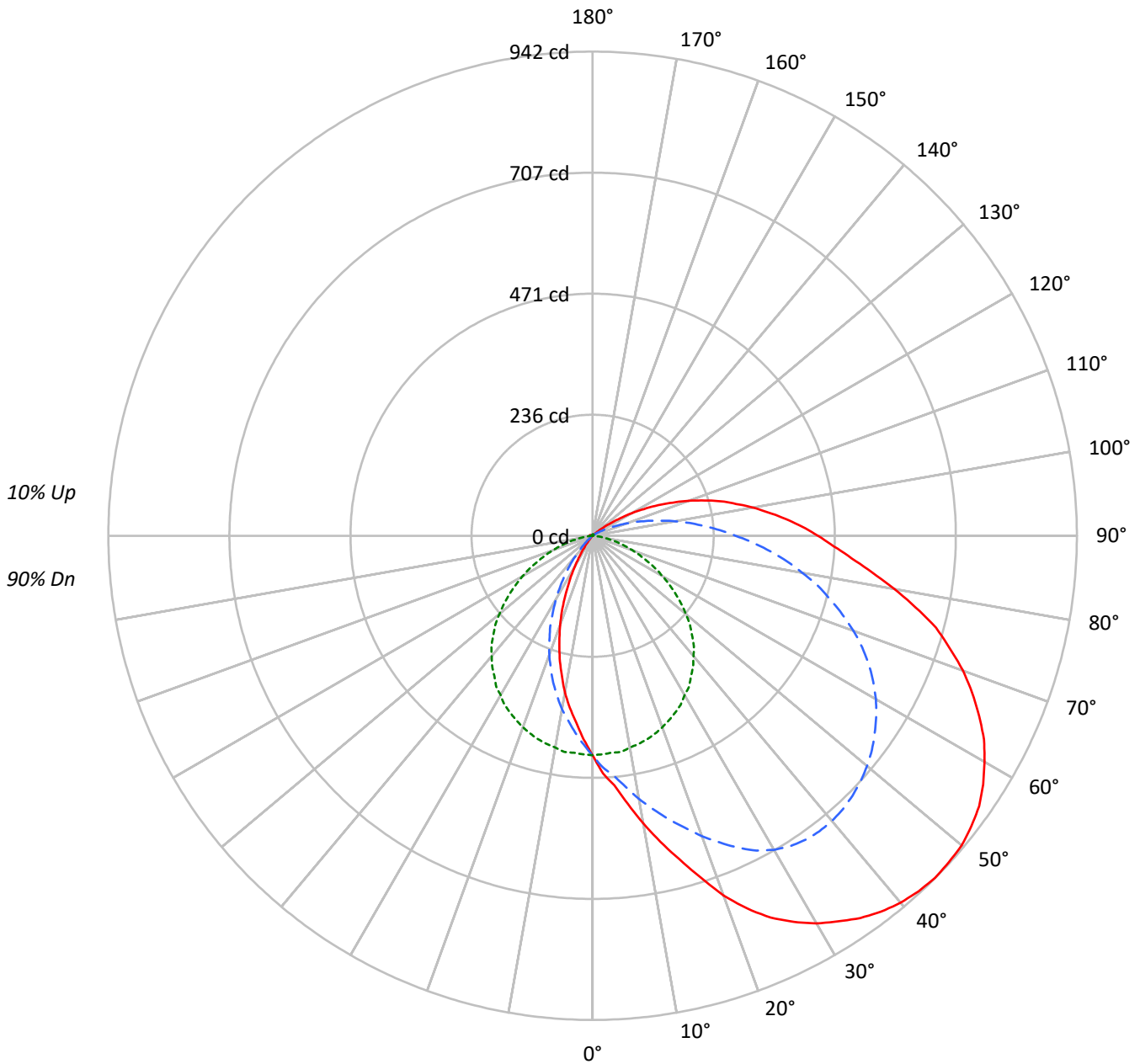
Lumens per Lamp: N/A  
Luminaire Lumens: 2111.0 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (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: P551454

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-87-ED1D

### Luminous Intensity Polar Plot





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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	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°	4596	4596	4596
5°	5046	4529	3779
10°	5709	4473	3115
15°	6398	4417	2427
20°	7217	4344	1787
25°	7895	4261	1173
30°	8400	4149	661
35°	8836	4028	291
40°	9223	3881	70
45°	9556	3695	0
50°	9834	3448	0
55°	10047	3135	0
60°	10153	2773	0
65°	10195	2360	0
70°	10161	1923	0
75°	10033	1418	7
80°	9625	867	44
85°	9304	417	61



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.9	1.9
10°-20°	122.5	5.8
20°-30°	198.3	9.4
30°-40°	254.8	12.1
40°-50°	288.4	13.7
50°-60°	298.8	14.2
60°-70°	281.8	13.3
70°-80°	236.1	11.2
80°-90°	171.2	8.1
90°-100°	112.5	5.3
100°-110°	65.0	3.1
110°-120°	28.7	1.4
120°-130°	7.8	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°	361.7	17.1
0°-40°	616.5	29.2
0°-60°	1203.6	57.0
0°-90°	1892.7	89.7
90°-120°	206.1	9.8
90°-150°	216.8	10.3
90°-180°	218.0	10.3
0°-180°	2111.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	427	427	427	427	427	
5°	487	468	424	385	365	49
15°	651	571	410	296	247	188
25°	820	670	380	195	122	379
35°	908	722	333	95	30	569
45°	942	715	273	22	0	727
55°	918	670	197	0	0	819
65°	830	593	118	0	0	821
75°	691	478	50	0	0	725
85°	506	347	8	2	3	432
90°	438	278	2	3	4	240
95°	376	217	1	4	5	295
105°	259	112	1	3	4	273
115°	141	37	2	2	3	141
125°	42	5	2	2	2	42
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	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°	427.0	427.0	427.0	427.0	427.0	427.0	427.0	427.0	427.0	427.0	427.0
2.5°	462.9	462.4	460.7	458.0	454.2	447.7	442.2	437.3	430.8	425.4	415.0
5°	487.4	484.7	482.5	479.8	471.1	465.1	455.3	444.4	434.1	423.7	403.1
7.5°	526.5	522.2	518.9	511.3	499.4	485.8	470.5	460.2	453.1	424.3	388.9
10°	568.4	564.6	558.1	544.5	529.8	510.2	488.5	464.0	442.2	418.3	376.4
12.5°	609.8	604.3	595.1	577.7	557.0	532.5	502.6	473.8	442.8	414.5	361.7
15°	651.1	645.1	635.3	614.1	586.9	554.8	518.4	481.9	445.5	409.6	346.5
17.5°	696.3	688.1	673.4	649.5	615.2	575.5	532.5	488.5	444.4	403.6	330.2
20°	744.7	733.3	717.5	685.4	645.1	598.4	546.7	495.0	443.9	396.5	311.7
22.5°	784.9	773.5	756.1	722.9	674.5	617.4	558.6	499.4	441.7	388.4	294.3
25°	819.7	810.5	791.5	753.4	702.2	637.5	570.1	502.6	438.4	379.7	275.8
27.5°	846.9	838.2	817.0	777.9	725.6	655.5	578.8	504.2	434.1	371.0	256.7
30°	870.9	862.2	836.6	796.3	741.4	669.6	587.5	504.8	428.6	357.9	236.1
32.5°	889.4	881.2	855.1	812.1	752.3	679.4	592.4	504.2	421.6	348.7	213.8
35°	907.9	899.7	869.2	823.5	760.4	683.8	596.2	501.5	412.9	333.4	192.6
37.5°	922.0	912.8	881.8	831.2	764.3	684.8	595.6	497.7	403.6	320.9	171.3
40°	931.8	922.0	888.8	835.5	765.3	683.2	591.3	491.2	392.7	305.2	149.0
42.5°	938.3	927.4	892.1	842.0	763.2	678.9	584.8	483.0	380.8	291.6	127.8
45°	941.6	930.2	892.6	836.6	759.4	670.7	575.0	472.7	367.7	273.1	106.6
47.5°	940.0	927.4	889.9	830.6	752.3	662.0	564.1	460.2	351.9	256.7	86.5
50°	937.2	924.2	883.9	823.0	742.5	651.1	552.1	445.0	335.6	236.6	68.5
52.5°	928.5	915.5	877.4	812.1	731.1	638.6	535.8	429.2	318.2	217.0	52.2
55°	917.7	905.7	866.0	802.3	716.4	623.4	520.6	412.3	301.4	196.9	37.5
57.5°	900.8	889.9	851.8	786.6	701.7	606.5	503.7	393.8	280.1	176.8	26.1
60°	880.1	869.2	832.3	768.6	684.8	587.5	485.2	374.8	261.1	156.7	16.3
62.5°	858.4	848.0	809.4	746.3	663.6	567.3	465.1	355.7	241.0	138.2	9.8
65°	829.5	819.7	784.9	719.7	640.2	545.6	442.8	332.9	220.3	117.5	5.4
67.5°	799.1	790.4	755.0	695.2	613.0	521.7	419.9	310.6	198.5	99.5	2.7
70°	766.4	755.6	722.9	662.0	585.3	494.5	394.9	287.8	177.9	82.1	0.0
72.5°	728.4	720.2	688.6	631.0	553.2	465.6	369.3	262.7	155.0	65.3	0.5
75°	691.4	681.0	652.2	597.8	521.7	435.2	341.1	239.3	132.7	50.0	0.5
77.5°	643.5	640.2	613.0	560.3	491.7	405.8	310.1	211.1	111.5	35.9	0.5
80°	595.6	592.4	571.2	522.7	456.9	371.0	281.2	184.4	90.8	23.9	0.5
82.5°	548.3	544.0	523.8	483.6	421.6	341.6	251.3	157.7	71.8	14.7	0.5
85°	505.9	500.4	478.7	441.7	385.1	308.4	220.3	131.6	53.3	8.2	1.1
87.5°	469.4	465.6	441.7	403.6	348.1	277.4	193.1	106.6	37.5	3.8	1.6
90°	438.4	430.3	409.1	368.8	313.3	243.1	164.3	85.4	25.0	2.2	2.2
92.5°	408.0	400.9	377.5	336.2	282.3	213.8	136.5	65.3	15.8	1.1	2.7
95°	376.4	368.8	346.0	307.9	250.8	183.9	112.1	47.9	8.7	1.1	2.7
97.5°	345.4	338.3	314.4	276.3	222.5	157.7	88.7	33.7	4.4	1.1	2.2
100°	316.6	308.4	286.7	248.6	194.2	131.6	68.5	21.8	2.7	1.1	2.2
102.5°	286.1	279.6	257.3	220.3	164.8	107.2	51.1	13.6	1.1	1.1	1.6
105°	258.9	250.8	229.0	190.9	140.3	84.3	35.9	8.2	1.1	1.1	1.6



TEST NUMBER: P551454

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	168.6	162.1	143.1	111.0	71.3	33.2	9.8	1.6	1.6	1.6	1.6
115°	140.9	131.1	114.2	85.9	52.8	21.8	4.9	1.6	1.6	1.6	1.6
117.5°	112.6	104.4	92.5	65.3	34.8	14.1	2.7	1.6	1.6	1.6	1.6
120°	88.1	80.5	66.9	45.1	23.4	8.2	1.1	1.6	1.6	1.6	1.6
122.5°	63.1	57.1	45.1	29.4	14.1	3.8	1.6	1.6	2.2	2.2	1.6
125°	41.9	38.6	29.9	18.0	8.7	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.2	24.5	17.4	10.3	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.2	13.6	10.3	6.0	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.7	8.2	5.4	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.7	2.7	2.7	2.2
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.2
142.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
145°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
150°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
152.5°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
157.5°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.2
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	427.0	427.0	427.0
2.5°	406.3	398.7	396.5
5°	384.6	372.1	365.0
7.5°	362.8	346.0	337.8
10°	342.7	318.8	310.1
12.5°	318.8	291.0	277.4
15°	295.9	260.0	247.0
17.5°	270.3	230.1	214.9
20°	246.4	200.2	184.4
22.5°	219.2	170.8	153.4
25°	194.7	141.4	121.8
27.5°	167.5	111.5	94.6
30°	142.0	85.4	68.5
32.5°	117.5	62.6	47.3
35°	94.6	42.4	29.9
37.5°	72.9	26.1	15.2
40°	52.8	13.6	7.1
42.5°	35.4	6.5	3.8
45°	21.8	3.3	0.0
47.5°	12.5	0.0	0.0
50°	6.5	0.0	0.0
52.5°	2.7	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	1.1	1.6
80°	1.1	2.2	2.7
82.5°	2.2	2.7	2.7
85°	2.2	2.7	3.3
87.5°	2.7	3.3	3.8
90°	3.3	3.8	3.8
92.5°	3.3	4.4	4.4
95°	3.8	4.4	4.9
97.5°	4.4	4.9	4.9
100°	3.8	4.9	5.4
102.5°	3.3	4.9	4.9
105°	2.7	3.8	4.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.2	2.7	2.7
115°	1.6	2.2	2.7
117.5°	1.6	2.2	2.2
120°	1.6	1.6	2.2
122.5°	1.6	1.6	2.2
125°	1.6	1.6	2.2
127.5°	2.2	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.2	1.6	1.6
135°	2.2	1.6	1.6
137.5°	2.2	1.6	1.6
140°	2.2	1.6	1.6
142.5°	2.2	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.2	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	228.5	221.9	200.2	164.3	114.8	64.2	23.9	4.4	1.1	1.6	1.6
110°	199.1	193.6	171.3	136.5	92.5	47.9	15.8	2.7	1.6	1.6	1.6







107.5°	2.2	3.3	3.8
110°	2.2	2.7	3.3



(END OF REPORT)