

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: P551592

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-81-84-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: P551592  
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-40-UNV-81-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

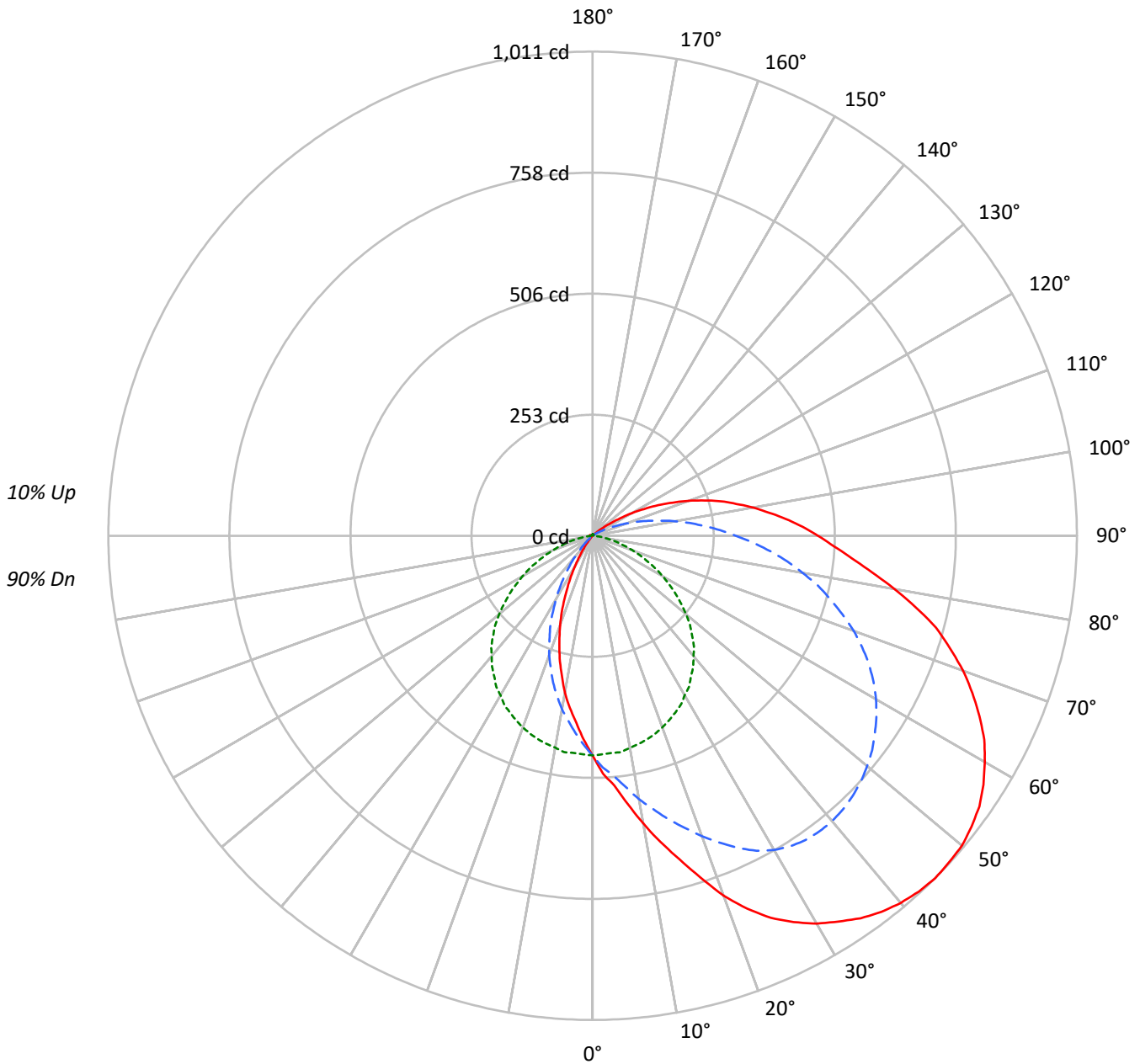
Lumens per Lamp: N/A  
Luminaire Lumens: 2267.1 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551592

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-81-84-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°	4936	4936	4936
5°	5418	4864	4058
10°	6131	4804	3345
15°	6871	4743	2606
20°	7750	4665	1919
25°	8478	4575	1261
30°	9020	4456	710
35°	9489	4327	312
40°	9905	4167	75
45°	10262	3967	0
50°	10561	3703	0
55°	10790	3368	0
60°	10905	2977	0
65°	10949	2535	0
70°	10913	2066	0
75°	10774	1523	9
80°	10336	932	47
85°	9992	447	64



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.9	1.9
10°-20°	131.5	5.8
20°-30°	213.0	9.4
30°-40°	273.6	12.1
40°-50°	309.7	13.7
50°-60°	320.8	14.2
60°-70°	302.6	13.3
70°-80°	253.6	11.2
80°-90°	183.8	8.1
90°-100°	120.8	5.3
100°-110°	69.8	3.1
110°-120°	30.8	1.4
120°-130°	8.4	0.4
130°-140°	1.9	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	388.4	17.1
0°-40°	662.0	29.2
0°-60°	1292.6	57.0
0°-90°	2032.6	89.7
90°-120°	221.4	9.8
90°-150°	232.9	10.3
90°-180°	234.0	10.3
0°-180°	2267.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	459	459	459	459	459	
5°	523	503	455	413	392	53
15°	699	613	440	318	265	202
25°	880	719	408	209	131	407
35°	975	775	358	102	32	611
45°	1011	768	293	23	0	781
55°	986	719	212	0	0	880
65°	891	637	126	0	0	881
75°	742	514	54	1	1	779
85°	543	372	9	2	4	464
90°	471	299	2	4	4	258
95°	404	233	1	4	5	317
105°	278	121	1	3	5	293
115°	151	40	2	2	3	152
125°	45	6	2	2	2	45
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°	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6
2.5°	497.1	496.5	494.8	491.9	487.8	480.8	474.9	469.7	462.6	456.8	445.7
5°	523.4	520.5	518.1	515.2	505.9	499.5	488.9	477.3	466.2	455.1	432.9
7.5°	565.5	560.8	557.3	549.1	536.3	521.6	505.3	494.2	486.6	455.6	417.7
10°	610.4	606.4	599.3	584.7	569.0	547.9	524.6	498.3	474.9	449.2	404.2
12.5°	654.8	649.0	639.1	620.4	598.2	571.9	539.8	508.8	475.5	445.1	388.5
15°	699.2	692.8	682.3	659.5	630.3	595.8	556.7	517.6	478.4	439.9	372.1
17.5°	747.7	739.0	723.2	697.5	660.7	618.0	571.9	524.6	477.3	433.4	354.6
20°	799.7	787.4	770.5	736.0	692.8	642.6	587.1	531.6	476.7	425.8	334.7
22.5°	842.9	830.7	812.0	776.3	724.3	663.0	599.9	536.3	474.3	417.1	316.0
25°	880.3	870.4	849.9	809.1	754.1	684.6	612.2	539.8	470.8	407.7	296.2
27.5°	909.5	900.2	877.4	835.3	779.3	703.9	621.5	541.5	466.2	398.4	275.7
30°	935.2	925.9	898.4	855.2	796.2	719.1	630.9	542.1	460.3	384.4	253.5
32.5°	955.1	946.3	918.3	872.1	807.9	729.6	636.1	541.5	452.7	374.4	229.6
35°	975.0	966.2	933.5	884.4	816.6	734.3	640.2	538.6	443.4	358.1	206.8
37.5°	990.1	980.2	946.9	892.6	820.7	735.4	639.6	534.5	433.4	344.6	184.0
40°	1000.7	990.1	954.5	897.3	821.9	733.7	635.0	527.5	421.8	327.7	160.1
42.5°	1007.7	996.0	958.0	904.3	819.6	729.0	628.0	518.7	408.9	313.1	137.3
45°	1011.2	998.9	958.6	898.4	815.5	720.3	617.4	507.6	394.9	293.2	114.5
47.5°	1009.4	996.0	955.7	892.0	807.9	710.9	605.8	494.2	377.9	275.7	92.9
50°	1006.5	992.5	949.2	883.8	797.4	699.2	592.9	477.8	360.4	254.1	73.6
52.5°	997.1	983.1	942.2	872.1	785.1	685.8	575.4	460.9	341.7	233.1	56.1
55°	985.5	972.6	930.0	861.6	769.3	669.4	559.0	442.8	323.6	211.5	40.3
57.5°	967.4	955.7	914.8	844.7	753.6	651.3	540.9	422.9	300.8	189.8	28.0
60°	945.2	933.5	893.8	825.4	735.4	630.9	521.1	402.5	280.4	168.2	17.5
62.5°	921.8	910.7	869.2	801.5	712.7	609.3	499.5	382.0	258.8	148.4	10.5
65°	890.8	880.3	842.9	772.8	687.5	585.9	475.5	357.5	236.6	126.2	5.8
67.5°	858.1	848.8	810.8	746.5	658.3	560.2	451.0	333.6	213.2	106.9	2.9
70°	823.1	811.4	776.3	710.9	628.5	531.0	424.1	309.0	191.0	88.2	0.0
72.5°	782.2	773.4	739.5	677.6	594.1	500.0	396.6	282.1	166.5	70.1	0.6
75°	742.5	731.4	700.4	642.0	560.2	467.3	366.3	257.0	142.5	53.7	0.6
77.5°	691.1	687.5	658.3	601.7	528.1	435.8	333.0	226.7	119.8	38.6	0.6
80°	639.6	636.1	613.4	561.4	490.7	398.4	302.0	198.0	97.6	25.7	0.6
82.5°	588.8	584.2	562.5	519.3	452.7	366.8	269.9	169.4	77.1	15.8	0.6
85°	543.3	537.4	514.1	474.3	413.6	331.2	236.6	141.4	57.2	8.8	1.2
87.5°	504.1	500.0	474.3	433.4	373.9	297.9	207.4	114.5	40.3	4.1	1.8
90°	470.8	462.1	439.3	396.1	336.5	261.1	176.4	91.7	26.9	2.3	2.3
92.5°	438.1	430.5	405.4	361.0	303.2	229.6	146.6	70.1	16.9	1.2	2.9
95°	404.2	396.1	371.5	330.6	269.3	197.4	120.3	51.4	9.3	1.2	2.9
97.5°	370.9	363.3	337.6	296.7	238.9	169.4	95.2	36.2	4.7	1.2	2.3
100°	340.0	331.2	307.8	267.0	208.5	141.4	73.6	23.4	2.9	1.2	2.3
102.5°	307.3	300.3	276.3	236.6	177.0	115.1	54.9	14.6	1.2	1.2	1.8
105°	278.1	269.3	245.9	205.0	150.7	90.5	38.6	8.8	1.2	1.2	1.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	181.1	174.1	153.6	119.2	76.5	35.6	10.5	1.8	1.8	1.8	1.8
115°	151.3	140.8	122.7	92.3	56.7	23.4	5.3	1.8	1.8	1.8	1.8
117.5°	120.9	112.2	99.3	70.1	37.4	15.2	2.9	1.8	1.8	1.8	1.8
120°	94.6	86.5	71.9	48.5	25.1	8.8	1.2	1.8	1.8	1.8	1.8
122.5°	67.8	61.3	48.5	31.5	15.2	4.1	1.8	1.8	2.3	2.3	1.8
125°	45.0	41.5	32.1	19.3	9.3	1.8	1.8	1.8	2.3	2.3	1.8
127.5°	29.2	26.3	18.7	11.1	4.1	1.8	1.8	2.3	2.3	2.3	1.8
130°	16.4	14.6	11.1	6.4	1.8	1.8	1.8	2.3	2.3	2.3	1.8
132.5°	9.3	8.8	5.8	1.2	1.8	1.8	1.8	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.8	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.8	1.8	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	458.6	458.6	458.6
2.5°	436.4	428.2	425.8
5°	413.0	399.6	392.0
7.5°	389.6	371.5	362.8
10°	368.0	342.3	333.0
12.5°	342.3	312.5	297.9
15°	317.8	279.2	265.2
17.5°	290.3	247.1	230.7
20°	264.6	215.0	198.0
22.5°	235.4	183.4	164.7
25°	209.1	151.9	130.9
27.5°	179.9	119.8	101.6
30°	152.5	91.7	73.6
32.5°	126.2	67.2	50.8
35°	101.6	45.6	32.1
37.5°	78.3	28.0	16.4
40°	56.7	14.6	7.6
42.5°	38.0	7.0	4.1
45°	23.4	3.5	0.0
47.5°	13.4	0.0	0.0
50°	7.0	0.0	0.0
52.5°	2.9	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	1.2	1.8
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.7	4.7
95°	4.1	4.7	5.3
97.5°	4.7	5.3	5.3
100°	4.1	5.3	5.8
102.5°	3.5	5.3	5.3
105°	2.9	4.1	4.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.8	2.3	2.9
117.5°	1.8	2.3	2.3
120°	1.8	1.8	2.3
122.5°	1.8	1.8	2.3
125°	1.8	1.8	2.3
127.5°	2.3	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.3	1.8	1.8
135°	2.3	1.8	1.8
137.5°	2.3	1.8	1.8
140°	2.3	1.8	1.8
142.5°	2.3	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	245.3	238.3	215.0	176.4	123.3	68.9	25.7	4.7	1.2	1.8	1.8
110°	213.8	208.0	184.0	146.6	99.3	51.4	16.9	2.9	1.8	1.8	1.8







107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)