

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: P551590

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-97-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: P551590
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-80-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

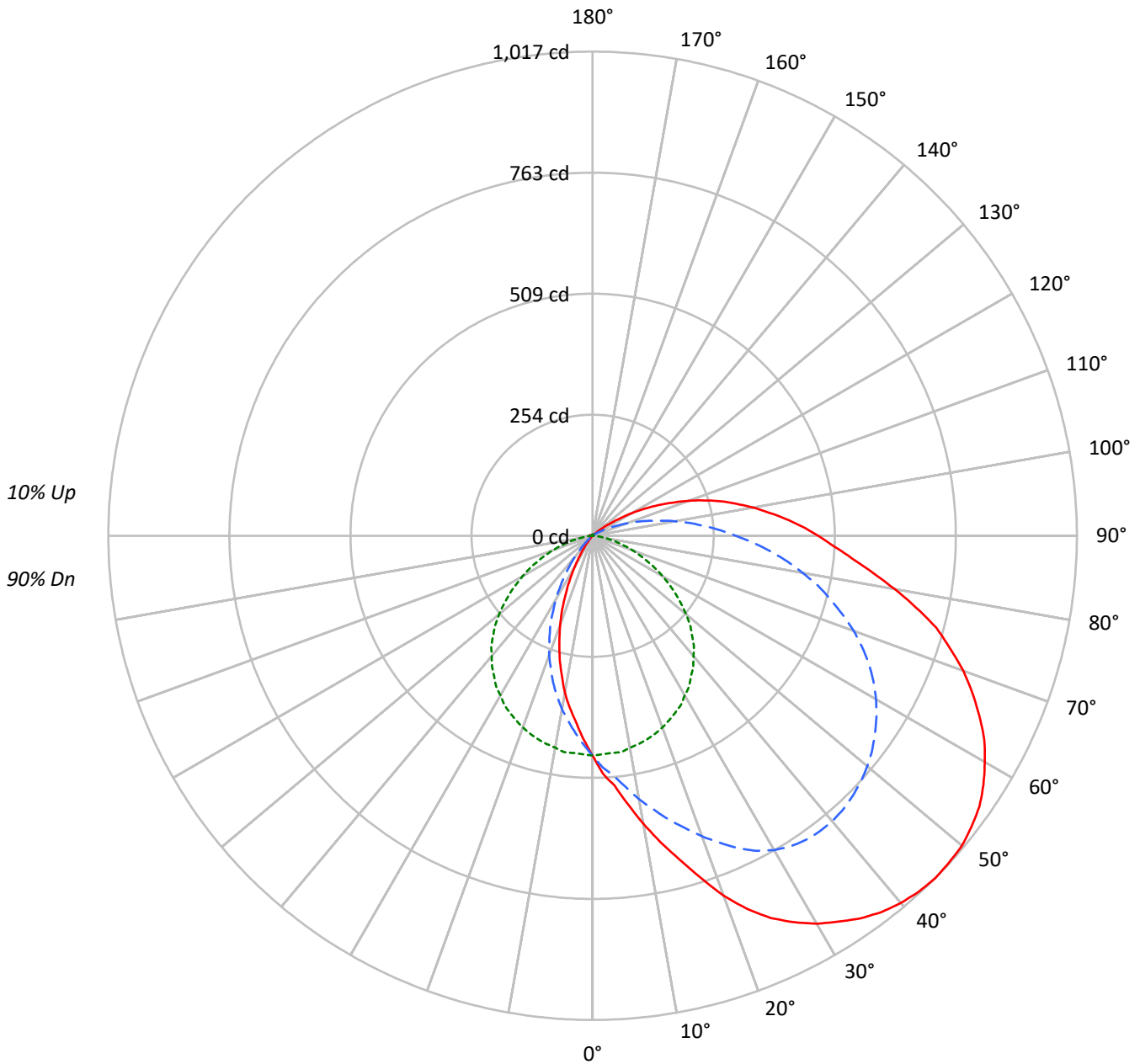
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2281.1 lumens
Efficiency: N/A
Efficacy: 97.1 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_{in}): 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: P551590
CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-97-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551590

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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°	4966	4966	4966
5°	5451	4894	4083
10°	6169	4834	3365
15°	6913	4772	2622
20°	7797	4695	1931
25°	8531	4605	1268
30°	9076	4483	715
35°	9548	4353	314
40°	9966	4193	75
45°	10325	3993	0
50°	10626	3727	0
55°	10856	3389	0
60°	10971	2996	0
65°	11016	2551	0
70°	10980	2080	0
75°	10840	1534	9
80°	10401	939	47
85°	10053	447	64



TEST NUMBER: P551590

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-97-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	1.9
10°-20°	132.3	5.8
20°-30°	214.3	9.4
30°-40°	275.3	12.1
40°-50°	311.6	13.7
50°-60°	322.8	14.2
60°-70°	304.5	13.3
70°-80°	255.2	11.2
80°-90°	185.0	8.1
90°-100°	121.6	5.3
100°-110°	70.2	3.1
110°-120°	31.0	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°	390.8	17.1
0°-40°	666.1	29.2
0°-60°	1300.5	57.0
0°-90°	2045.1	89.7
90°-120°	222.8	9.8
90°-150°	234.4	10.3
90°-180°	236.0	10.3
0°-180°	2281.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	461	461	461	461	461	
5°	527	506	458	416	394	53
15°	704	617	443	320	267	203
25°	886	724	410	210	132	409
35°	981	780	360	102	32	615
45°	1017	773	295	24	0	785
55°	992	724	213	0	0	885
65°	896	641	127	0	0	887
75°	747	517	54	1	1	784
85°	547	375	9	2	4	467
90°	474	301	2	4	4	260
95°	407	235	1	4	5	319
105°	280	121	1	3	5	295
115°	152	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°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4
2.5°	500.2	499.6	497.8	494.9	490.8	483.7	477.8	472.6	465.5	459.6	448.5
5°	526.6	523.7	521.3	518.4	509.0	502.5	492.0	480.2	469.0	457.9	435.5
7.5°	569.0	564.2	560.7	552.5	539.6	524.9	508.4	497.2	489.6	458.5	420.2
10°	614.2	610.1	603.0	588.3	572.5	551.3	527.8	501.4	477.8	452.0	406.7
12.5°	658.9	653.0	643.0	624.2	601.9	575.4	543.1	511.9	478.4	447.9	390.9
15°	703.5	697.1	686.5	663.6	634.2	599.5	560.1	520.8	481.4	442.6	374.4
17.5°	752.3	743.5	727.6	701.8	664.8	621.8	575.4	527.8	480.2	436.1	356.8
20°	804.6	792.3	775.3	740.6	697.1	646.5	590.7	534.9	479.6	428.5	336.8
22.5°	848.1	835.8	817.0	781.1	728.8	667.1	603.6	539.6	477.3	419.7	318.0
25°	885.8	875.8	855.2	814.0	758.8	688.9	616.0	543.1	473.7	410.3	298.0
27.5°	915.1	905.7	882.8	840.5	784.1	708.3	625.4	544.9	469.0	400.9	277.4
30°	941.0	931.6	904.0	860.5	801.1	723.5	634.8	545.4	463.2	386.7	255.1
32.5°	961.0	952.2	924.0	877.5	812.9	734.1	640.1	544.9	455.5	376.8	231.0
35°	981.0	972.2	939.2	889.9	821.7	738.8	644.2	541.9	446.1	360.3	208.1
37.5°	996.3	986.3	952.8	898.1	825.8	740.0	643.6	537.8	436.1	346.8	185.1
40°	1006.8	996.3	960.4	902.8	827.0	738.2	638.9	530.7	424.4	329.7	161.0
42.5°	1013.9	1002.1	963.9	909.9	824.6	733.5	631.8	521.9	411.4	315.0	138.1
45°	1017.4	1005.1	964.5	904.0	820.5	724.7	621.3	510.8	397.3	295.1	115.2
47.5°	1015.6	1002.1	961.6	897.5	812.9	715.3	609.5	497.2	380.3	277.4	93.5
50°	1012.7	998.6	955.1	889.3	802.3	703.5	596.6	480.8	362.6	255.7	74.1
52.5°	1003.3	989.2	948.1	877.5	789.9	690.0	578.9	463.7	343.8	234.5	56.4
55°	991.6	978.6	935.7	866.9	774.1	673.6	562.5	445.5	325.6	212.8	40.6
57.5°	973.3	961.6	920.4	849.9	758.2	655.4	544.3	425.5	302.7	191.0	28.2
60°	951.0	939.2	899.3	830.5	740.0	634.8	524.3	405.0	282.1	169.3	17.6
62.5°	927.5	916.3	874.6	806.4	717.1	613.0	502.5	384.4	260.4	149.3	10.6
65°	896.3	885.8	848.1	777.6	691.8	589.5	478.4	359.7	238.0	127.0	5.9
67.5°	863.4	854.0	815.8	751.2	662.4	563.7	453.8	335.6	214.5	107.6	2.9
70°	828.2	816.4	781.1	715.3	632.4	534.3	426.7	310.9	192.2	88.8	0.0
72.5°	787.0	778.2	744.1	681.8	597.8	503.1	399.1	283.9	167.5	70.5	0.6
75°	747.0	735.9	704.7	645.9	563.7	470.2	368.5	258.6	143.4	54.1	0.6
77.5°	695.3	691.8	662.4	605.4	531.3	438.5	335.0	228.1	120.5	38.8	0.6
80°	643.6	640.1	617.1	564.8	493.7	400.9	303.9	199.3	98.2	25.9	0.6
82.5°	592.5	587.8	566.0	522.5	455.5	369.1	271.5	170.5	77.6	15.9	0.6
85°	546.6	540.7	517.2	477.3	416.1	333.3	238.0	142.2	57.6	8.8	1.2
87.5°	507.2	503.1	477.3	436.1	376.2	299.8	208.7	115.2	40.6	4.1	1.8
90°	473.7	464.9	442.0	398.5	338.5	262.7	177.5	92.3	27.0	2.4	2.4
92.5°	440.8	433.2	407.9	363.2	305.0	231.0	147.5	70.5	17.0	1.2	2.9
95°	406.7	398.5	373.8	332.7	271.0	198.7	121.1	51.7	9.4	1.2	2.9
97.5°	373.2	365.6	339.7	298.6	240.4	170.5	95.8	36.4	4.7	1.2	2.4
100°	342.1	333.3	309.7	268.6	209.8	142.2	74.1	23.5	2.9	1.2	2.4
102.5°	309.2	302.1	278.0	238.0	178.1	115.8	55.2	14.7	1.2	1.2	1.8
105°	279.8	271.0	247.4	206.3	151.6	91.1	38.8	8.8	1.2	1.2	1.8



TEST NUMBER: P551590

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	182.2	175.2	154.6	119.9	77.0	35.9	10.6	1.8	1.8	1.8	1.8
115°	152.2	141.7	123.4	92.9	57.0	23.5	5.3	1.8	1.8	1.8	1.8
117.5°	121.7	112.8	99.9	70.5	37.6	15.3	2.9	1.8	1.8	1.8	1.8
120°	95.2	87.0	72.3	48.8	25.3	8.8	1.2	1.8	1.8	1.8	1.8
122.5°	68.2	61.7	48.8	31.7	15.3	4.1	1.8	1.8	2.4	2.4	1.8
125°	45.3	41.7	32.3	19.4	9.4	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	29.4	26.4	18.8	11.2	4.1	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.5	14.7	11.2	6.5	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.4	8.8	5.9	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.9	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	2.9	2.9	2.9	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	2.9	2.9	2.9	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.9	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.9	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	2.9	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	2.9	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	2.9	2.4	2.4	2.9
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	2.9	2.4	2.4	2.9
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.9	2.9	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



TEST NUMBER: P551590

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-97-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	461.4	461.4	461.4
2.5°	439.1	430.8	428.5
5°	415.5	402.0	394.4
7.5°	392.0	373.8	365.0
10°	370.3	344.4	335.0
12.5°	344.4	314.5	299.8
15°	319.7	280.9	266.8
17.5°	292.1	248.6	232.2
20°	266.3	216.3	199.3
22.5°	236.9	184.6	165.7
25°	210.4	152.8	131.7
27.5°	181.0	120.5	102.3
30°	153.4	92.3	74.1
32.5°	127.0	67.6	51.1
35°	102.3	45.8	32.3
37.5°	78.8	28.2	16.5
40°	57.0	14.7	7.6
42.5°	38.2	7.1	4.1
45°	23.5	3.5	0.0
47.5°	13.5	0.0	0.0
50°	7.1	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	2.4	2.9
82.5°	2.4	2.9	2.9
85°	2.4	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	5.9
102.5°	3.5	5.3	5.3
105°	2.9	4.1	4.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-97-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	2.9	2.9
115°	1.8	2.4	2.9
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	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°	2.4	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°	246.9	239.8	216.3	177.5	124.0	69.4	25.9	4.7	1.2	1.8	1.8
110°	215.1	209.2	185.1	147.5	99.9	51.7	17.0	2.9	1.8	1.8	1.8





107.5°	2.4	3.5	4.1
110°	2.4	2.9	3.5



(END OF REPORT)