

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: P551658

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-81-85-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: P551658
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-50-UNV-81-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

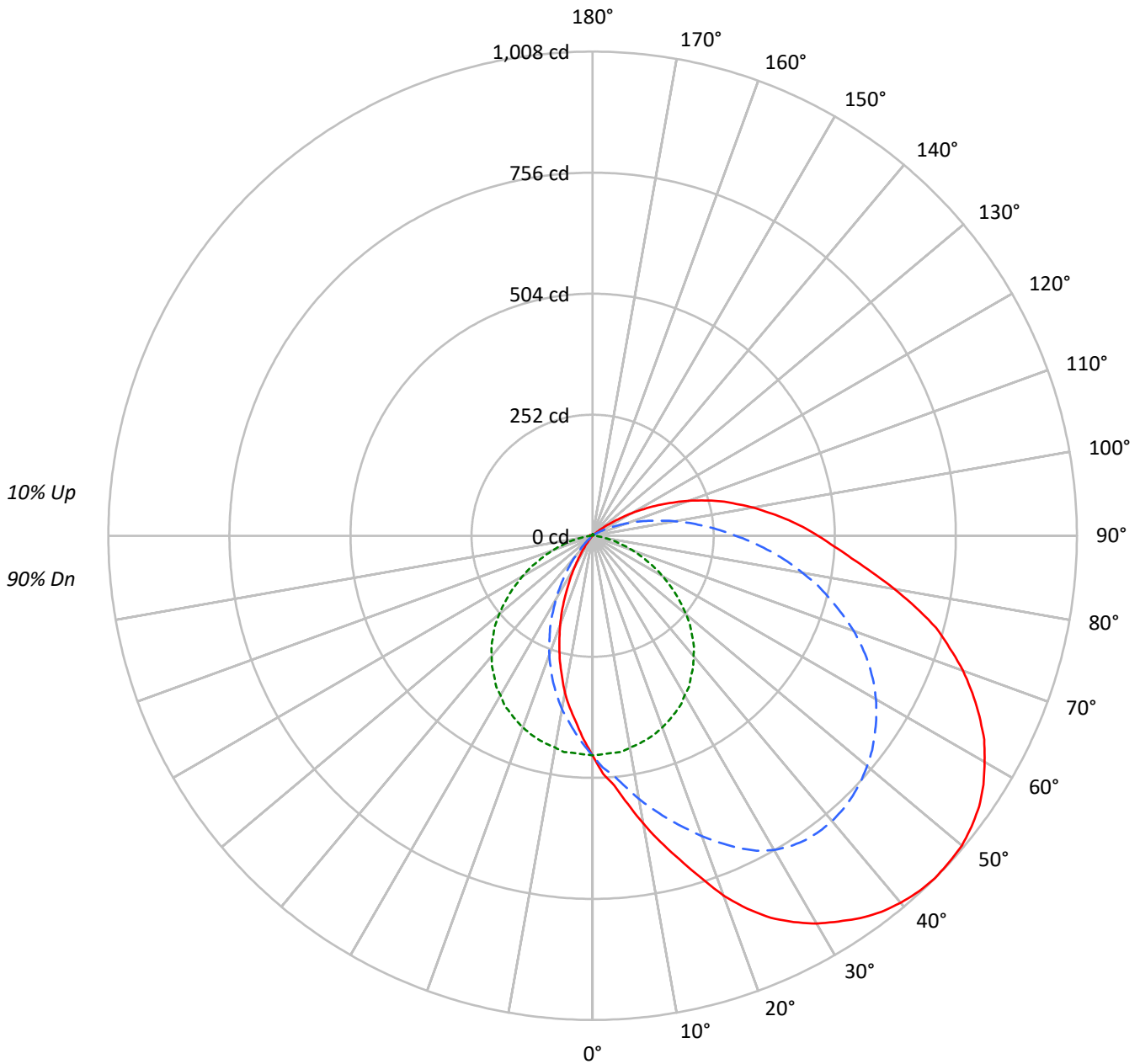
Lumens per Lamp: N/A
Luminaire Lumens: 2259.9 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-85-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°	4920	4920	4920
5°	5402	4848	4046
10°	6113	4789	3334
15°	6850	4728	2598
20°	7726	4651	1913
25°	8452	4562	1256
30°	8992	4442	708
35°	9459	4314	311
40°	9875	4155	75
45°	10230	3955	0
50°	10529	3692	0
55°	10756	3357	0
60°	10870	2968	0
65°	10915	2527	0
70°	10878	2059	0
75°	10741	1520	9
80°	10306	929	47
85°	9961	442	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	1.9
10°-20°	131.1	5.8
20°-30°	212.3	9.4
30°-40°	272.7	12.1
40°-50°	308.7	13.7
50°-60°	319.9	14.2
60°-70°	301.7	13.3
70°-80°	252.8	11.2
80°-90°	183.2	8.1
90°-100°	120.4	5.3
100°-110°	69.6	3.1
110°-120°	30.7	1.4
120°-130°	8.3	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°	387.2	17.1
0°-40°	660.0	29.2
0°-60°	1288.6	57.0
0°-90°	2026.3	89.7
90°-120°	220.7	9.8
90°-150°	232.1	10.3
90°-180°	234.0	10.4
0°-180°	2259.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	457	457	457	457	457	
5°	522	501	454	412	391	53
15°	697	611	438	317	264	201
25°	878	717	406	208	130	406
35°	972	773	357	101	32	610
45°	1008	766	292	23	0	778
55°	982	717	211	0	0	877
65°	888	635	126	0	0	879
75°	740	512	54	1	1	776
85°	542	371	9	2	4	463
90°	469	298	2	4	4	257
95°	403	233	1	4	5	316
105°	277	120	1	3	5	292
115°	151	40	2	2	3	151
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°	457.1	457.1	457.1	457.1	457.1	457.1	457.1	457.1	457.1	457.1	457.1
2.5°	495.6	495.0	493.2	490.3	486.3	479.3	473.4	468.2	461.2	455.4	444.3
5°	521.8	518.9	516.5	513.6	504.3	497.9	487.4	475.8	464.7	453.6	431.5
7.5°	563.7	559.1	555.6	547.4	534.6	520.0	503.7	492.7	485.1	454.2	416.4
10°	608.6	604.5	597.5	582.9	567.2	546.2	522.9	496.7	473.4	447.8	403.0
12.5°	652.8	647.0	637.1	618.5	596.3	570.1	538.1	507.2	474.0	443.7	387.3
15°	697.1	690.7	680.2	657.5	628.4	594.0	555.0	516.0	476.9	438.5	371.0
17.5°	745.4	736.7	720.9	695.3	658.6	616.1	570.1	522.9	475.8	432.1	353.5
20°	797.2	785.0	768.1	733.8	690.7	640.6	585.3	529.9	475.2	424.5	333.7
22.5°	840.3	828.1	809.5	773.9	722.1	661.0	598.1	534.6	472.9	415.8	315.1
25°	877.6	867.7	847.3	806.6	751.8	682.5	610.3	538.1	469.4	406.5	295.3
27.5°	906.7	897.4	874.7	832.8	776.9	701.7	619.6	539.8	464.7	397.2	274.9
30°	932.3	923.0	895.7	852.6	793.7	716.9	628.9	540.4	458.9	383.2	252.7
32.5°	952.1	943.4	915.5	869.4	805.4	727.4	634.2	539.8	451.3	373.3	228.9
35°	971.9	963.2	930.6	881.7	814.1	732.0	638.3	536.9	442.0	357.0	206.2
37.5°	987.1	977.2	944.0	889.8	818.2	733.2	637.7	532.8	432.1	343.6	183.4
40°	997.6	987.1	951.6	894.5	819.4	731.4	633.0	525.9	420.5	326.7	159.6
42.5°	1004.6	992.9	955.1	901.5	817.0	726.8	626.0	517.1	407.6	312.1	136.9
45°	1008.0	995.8	955.6	895.7	813.0	718.0	615.5	506.1	393.7	292.3	114.1
47.5°	1006.3	992.9	952.7	889.2	805.4	708.7	603.9	492.7	376.8	274.9	92.6
50°	1003.4	989.4	946.3	881.1	794.9	697.1	591.1	476.4	359.3	253.3	73.4
52.5°	994.1	980.1	939.3	869.4	782.7	683.7	573.6	459.5	340.7	232.4	55.9
55°	982.4	969.6	927.1	859.0	767.0	667.4	557.3	441.4	322.6	210.8	40.2
57.5°	964.4	952.7	912.0	842.1	751.2	649.3	539.3	421.6	299.9	189.3	28.0
60°	942.2	930.6	891.0	822.9	733.2	628.9	519.5	401.2	279.5	167.7	17.5
62.5°	918.9	907.9	866.5	799.0	710.5	607.4	497.9	380.9	258.0	147.9	10.5
65°	888.1	877.6	840.3	770.4	685.4	584.1	474.0	356.4	235.9	125.8	5.8
67.5°	855.5	846.2	808.3	744.2	656.3	558.5	449.6	332.5	212.6	106.6	2.9
70°	820.5	808.9	773.9	708.7	626.6	529.4	422.8	308.1	190.4	87.9	0.0
72.5°	779.8	771.0	737.3	675.5	592.2	498.5	395.4	281.3	166.0	69.9	0.6
75°	740.2	729.1	698.2	640.0	558.5	465.9	365.1	256.2	142.1	53.6	0.6
77.5°	688.9	685.4	656.3	599.8	526.4	434.4	331.9	226.0	119.4	38.4	0.6
80°	637.7	634.2	611.5	559.6	489.2	397.2	301.1	197.4	97.3	25.6	0.6
82.5°	587.0	582.3	560.8	517.7	451.3	365.7	269.0	168.9	76.9	15.7	0.6
85°	541.6	535.8	512.5	472.9	412.3	330.2	235.9	140.9	57.1	8.7	1.2
87.5°	502.6	498.5	472.9	432.1	372.7	297.0	206.7	114.1	40.2	4.1	1.7
90°	469.4	460.6	437.9	394.8	335.4	260.3	175.9	91.4	26.8	2.3	2.3
92.5°	436.8	429.2	404.1	359.9	302.2	228.9	146.2	69.9	16.9	1.2	2.9
95°	403.0	394.8	370.4	329.6	268.5	196.8	120.0	51.2	9.3	1.2	2.9
97.5°	369.8	362.2	336.6	295.8	238.2	168.9	94.9	36.1	4.7	1.2	2.3
100°	338.9	330.2	306.9	266.1	207.9	140.9	73.4	23.3	2.9	1.2	2.3
102.5°	306.3	299.3	275.5	235.9	176.5	114.7	54.7	14.6	1.2	1.2	1.7
105°	277.2	268.5	245.2	204.4	150.2	90.3	38.4	8.7	1.2	1.2	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	180.5	173.5	153.2	118.8	76.3	35.5	10.5	1.7	1.7	1.7	1.7
115°	150.8	140.3	122.3	92.0	56.5	23.3	5.2	1.7	1.7	1.7	1.7
117.5°	120.5	111.8	99.0	69.9	37.3	15.1	2.9	1.7	1.7	1.7	1.7
120°	94.3	86.2	71.6	48.3	25.0	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.6	61.1	48.3	31.4	15.1	4.1	1.7	1.7	2.3	2.3	1.7
125°	44.8	41.3	32.0	19.2	9.3	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	29.1	26.2	18.6	11.1	4.1	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.3	14.6	11.1	6.4	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.3	8.7	5.8	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	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°	457.1	457.1	457.1
2.5°	435.0	426.9	424.5
5°	411.7	398.3	390.8
7.5°	388.4	370.4	361.6
10°	366.9	341.3	331.9
12.5°	341.3	311.6	297.0
15°	316.8	278.4	264.4
17.5°	289.4	246.3	230.0
20°	263.8	214.3	197.4
22.5°	234.7	182.9	164.2
25°	208.5	151.4	130.4
27.5°	179.4	119.4	101.3
30°	152.0	91.4	73.4
32.5°	125.8	67.0	50.7
35°	101.3	45.4	32.0
37.5°	78.0	28.0	16.3
40°	56.5	14.6	7.6
42.5°	37.9	7.0	4.1
45°	23.3	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	1.7
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	5.2
97.5°	4.7	5.2	5.2
100°	4.1	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.1	4.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
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	1.2
152.5°	1.7	1.2	1.2
155°	1.7	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.7	1.2	0.6
162.5°	1.7	1.2	0.6
165°	1.7	1.2	0.0
167.5°	1.7	1.2	0.6
170°	1.7	1.2	0.6
172.5°	1.7	1.2	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°	244.6	237.6	214.3	175.9	122.9	68.7	25.6	4.7	1.2	1.7	1.7
110°	213.1	207.3	183.4	146.2	99.0	51.2	16.9	2.9	1.7	1.7	1.7





107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)