

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: P551612

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-82-86-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: P551612
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-82-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

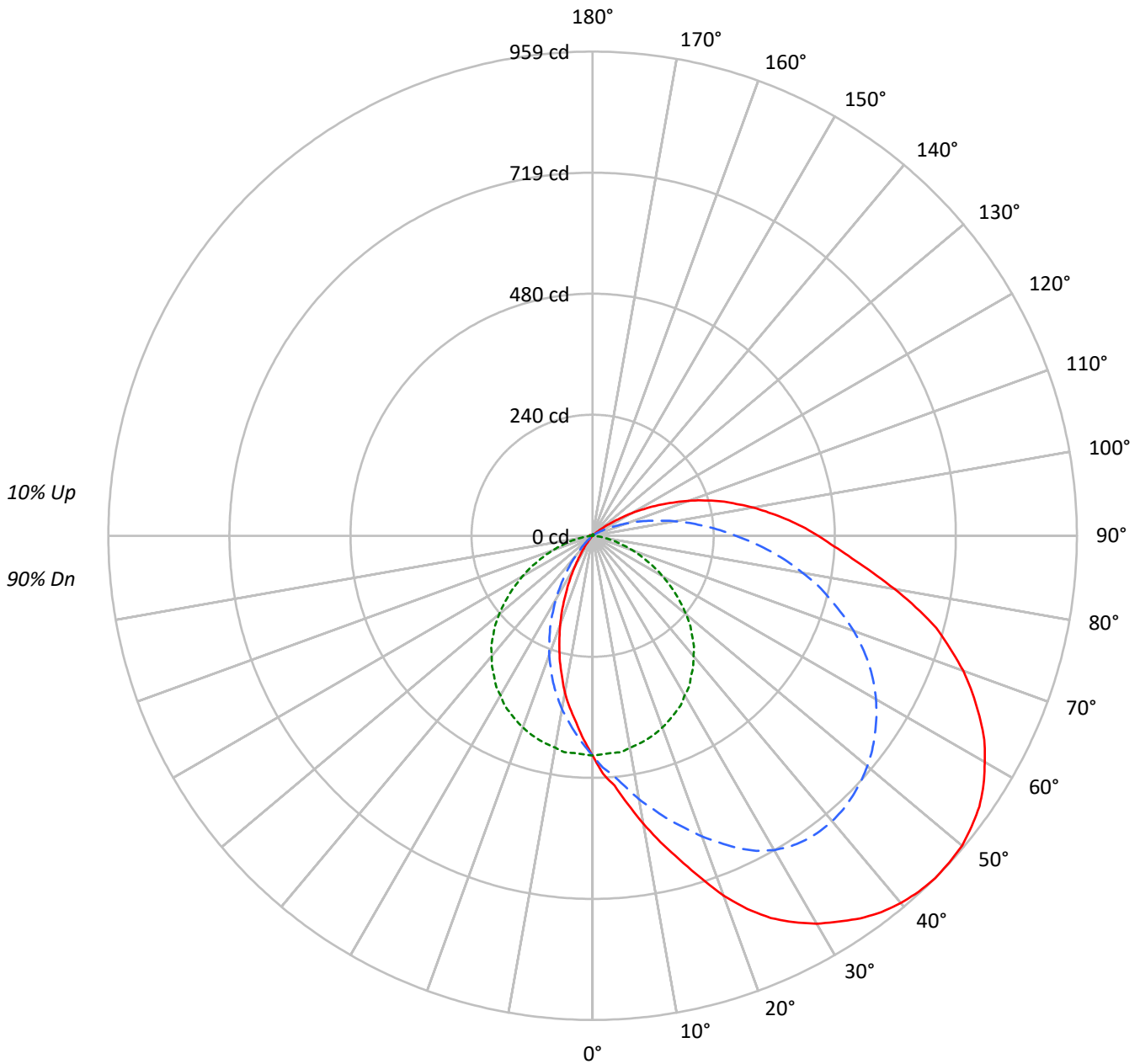
Lumens per Lamp: N/A
Luminaire Lumens: 2151.1 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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: P551612

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-86-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4683	4683	4683
5°	5141	4615	3850
10°	5818	4558	3173
15°	6520	4501	2472
20°	7354	4427	1821
25°	8045	4342	1196
30°	8559	4228	673
35°	9004	4106	297
40°	9399	3954	71
45°	9736	3764	0
50°	10021	3514	0
55°	10237	3194	0
60°	10346	2824	0
65°	10388	2404	0
70°	10355	1961	0
75°	10223	1446	9
80°	9808	885	45
85°	9481	422	61



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.7	1.9
10°-20°	124.8	5.8
20°-30°	202.1	9.4
30°-40°	259.6	12.1
40°-50°	293.9	13.7
50°-60°	304.4	14.2
60°-70°	287.1	13.3
70°-80°	240.6	11.2
80°-90°	174.4	8.1
90°-100°	114.6	5.3
100°-110°	66.2	3.1
110°-120°	29.2	1.4
120°-130°	7.9	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°	368.5	17.1
0°-40°	628.1	29.2
0°-60°	1226.4	57.0
0°-90°	1928.6	89.7
90°-120°	210.1	9.8
90°-150°	221.0	10.3
90°-180°	222.0	10.3
0°-180°	2151.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	435	435	435	435	435	
5°	497	477	432	392	372	50
15°	664	582	417	302	252	191
25°	835	683	387	198	124	386
35°	925	736	340	96	30	580
45°	959	729	278	22	0	741
55°	935	683	201	0	0	835
65°	845	604	120	0	0	836
75°	704	487	51	1	1	739
85°	516	353	8	2	3	440
90°	447	284	2	3	4	245
95°	384	221	1	4	5	301
105°	264	114	1	3	4	278
115°	144	38	2	2	3	144
125°	43	5	2	2	2	43
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°	435.1	435.1	435.1	435.1	435.1	435.1	435.1	435.1	435.1	435.1	435.1
2.5°	471.7	471.1	469.5	466.7	462.8	456.2	450.6	445.6	439.0	433.4	422.9
5°	496.6	493.8	491.6	488.9	480.0	473.9	463.9	452.8	442.3	431.8	410.7
7.5°	536.5	532.1	528.8	521.0	508.8	495.0	479.4	468.9	461.7	432.3	396.3
10°	579.2	575.3	568.7	554.8	539.9	519.9	497.7	472.8	450.6	426.2	383.5
12.5°	621.3	615.8	606.4	588.6	567.6	542.6	512.1	482.8	451.2	422.3	368.6
15°	663.5	657.4	647.4	625.8	598.0	565.3	528.2	491.1	453.9	417.4	353.1
17.5°	709.5	701.1	686.2	661.8	626.9	586.4	542.6	497.7	452.8	411.3	336.4
20°	758.8	747.1	731.1	698.4	657.4	609.7	557.0	504.4	452.3	404.1	317.6
22.5°	799.8	788.2	770.4	736.6	687.3	629.1	569.2	508.8	450.1	395.7	299.9
25°	835.3	825.9	806.5	767.7	715.6	649.6	580.9	512.1	446.7	386.9	281.0
27.5°	863.0	854.1	832.5	792.6	739.4	667.9	589.7	513.8	442.3	378.0	261.6
30°	887.4	878.5	852.5	811.4	755.5	682.3	598.6	514.4	436.8	364.7	240.5
32.5°	906.2	897.9	871.3	827.5	766.5	692.3	603.6	513.8	429.6	355.3	217.8
35°	925.1	916.7	885.7	839.2	774.9	696.7	607.5	511.0	420.7	339.8	196.2
37.5°	939.5	930.1	898.5	846.9	778.7	697.8	606.9	507.1	411.3	327.0	174.6
40°	949.5	939.5	905.7	851.3	779.8	696.2	602.5	500.5	400.2	310.9	151.9
42.5°	956.1	945.0	909.0	858.0	777.6	691.7	595.8	492.2	388.0	297.1	130.3
45°	959.4	947.8	909.5	852.5	773.7	683.4	585.9	481.7	374.7	278.2	108.6
47.5°	957.8	945.0	906.8	846.4	766.5	674.5	574.8	468.9	358.6	261.6	88.1
50°	955.0	941.7	900.7	838.6	756.6	663.5	562.6	453.4	342.0	241.1	69.8
52.5°	946.1	932.8	894.0	827.5	744.9	650.7	545.9	437.3	324.2	221.2	53.2
55°	935.0	922.8	882.4	817.5	730.0	635.2	530.4	420.1	307.1	200.6	38.2
57.5°	917.9	906.8	868.0	801.5	715.0	618.0	513.2	401.3	285.4	180.1	26.6
60°	896.8	885.7	848.0	783.2	697.8	598.6	494.4	381.9	266.0	159.6	16.6
62.5°	874.6	864.1	824.7	760.4	676.2	578.1	473.9	362.5	245.5	140.8	10.0
65°	845.2	835.3	799.8	733.3	652.4	555.9	451.2	339.2	224.5	119.7	5.5
67.5°	814.2	805.3	769.3	708.3	624.7	531.5	427.9	316.5	202.3	101.4	2.8
70°	781.0	769.9	736.6	674.5	596.4	503.8	402.4	293.2	181.2	83.7	0.0
72.5°	742.2	733.8	701.7	642.9	563.7	474.4	376.3	267.7	158.0	66.5	0.6
75°	704.5	693.9	664.6	609.1	531.5	443.4	347.5	243.9	135.2	51.0	0.6
77.5°	655.7	652.4	624.7	570.9	501.1	413.5	315.9	215.1	113.6	36.6	0.6
80°	606.9	603.6	582.0	532.6	465.6	378.0	286.6	187.9	92.6	24.4	0.6
82.5°	558.7	554.3	533.8	492.7	429.6	348.1	256.1	160.7	73.2	15.0	0.6
85°	515.5	509.9	487.8	450.1	392.4	314.3	224.5	134.1	54.3	8.3	1.1
87.5°	478.3	474.4	450.1	411.3	354.7	282.7	196.8	108.6	38.2	3.9	1.7
90°	446.7	438.4	416.8	375.8	319.3	247.8	167.4	87.0	25.5	2.2	2.2
92.5°	415.7	408.5	384.7	342.5	287.7	217.8	139.1	66.5	16.1	1.1	2.8
95°	383.5	375.8	352.5	313.7	255.5	187.3	114.2	48.8	8.9	1.1	2.8
97.5°	352.0	344.8	320.4	281.6	226.7	160.7	90.3	34.4	4.4	1.1	2.2
100°	322.6	314.3	292.1	253.3	197.9	134.1	69.8	22.2	2.8	1.1	2.2
102.5°	291.5	284.9	262.2	224.5	167.9	109.2	52.1	13.9	1.1	1.1	1.7
105°	263.8	255.5	233.3	194.5	143.0	85.9	36.6	8.3	1.1	1.1	1.7



TEST NUMBER: P551612

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	171.8	165.2	145.8	113.1	72.6	33.8	10.0	1.7	1.7	1.7	1.7
115°	143.6	133.6	116.4	87.6	53.8	22.2	5.0	1.7	1.7	1.7	1.7
117.5°	114.7	106.4	94.2	66.5	35.5	14.4	2.8	1.7	1.7	1.7	1.7
120°	89.8	82.0	68.2	46.0	23.8	8.3	1.1	1.7	1.7	1.7	1.7
122.5°	64.3	58.2	46.0	29.9	14.4	3.9	1.7	1.7	2.2	2.2	1.7
125°	42.7	39.4	30.5	18.3	8.9	1.7	1.7	1.7	2.2	2.2	1.7
127.5°	27.7	24.9	17.7	10.5	3.9	1.7	1.7	2.2	2.2	2.2	1.7
130°	15.5	13.9	10.5	6.1	1.7	1.7	1.7	2.2	2.2	2.2	1.7
132.5°	8.9	8.3	5.5	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.2	2.8	2.8	2.8	2.2
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.2
142.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
145°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
150°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
152.5°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
157.5°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.2
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



TEST NUMBER: P551612

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	435.1	435.1	435.1
2.5°	414.0	406.3	404.1
5°	391.9	379.1	371.9
7.5°	369.7	352.5	344.2
10°	349.2	324.8	315.9
12.5°	324.8	296.5	282.7
15°	301.5	264.9	251.6
17.5°	275.5	234.5	218.9
20°	251.1	204.0	187.9
22.5°	223.4	174.0	156.3
25°	198.4	144.1	124.2
27.5°	170.7	113.6	96.4
30°	144.7	87.0	69.8
32.5°	119.7	63.7	48.2
35°	96.4	43.2	30.5
37.5°	74.3	26.6	15.5
40°	53.8	13.9	7.2
42.5°	36.0	6.7	3.9
45°	22.2	3.3	0.0
47.5°	12.7	0.0	0.0
50°	6.7	0.0	0.0
52.5°	2.8	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	1.1	1.7
80°	1.1	2.2	2.8
82.5°	2.2	2.8	2.8
85°	2.2	2.8	3.3
87.5°	2.8	3.3	3.9
90°	3.3	3.9	3.9
92.5°	3.3	4.4	4.4
95°	3.9	4.4	5.0
97.5°	4.4	5.0	5.0
100°	3.9	5.0	5.5
102.5°	3.3	5.0	5.0
105°	2.8	3.9	4.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.8	2.8
115°	1.7	2.2	2.8
117.5°	1.7	2.2	2.2
120°	1.7	1.7	2.2
122.5°	1.7	1.7	2.2
125°	1.7	1.7	2.2
127.5°	2.2	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.2	1.7	1.7
135°	2.2	1.7	1.7
137.5°	2.2	1.7	1.7
140°	2.2	1.7	1.7
142.5°	2.2	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.2	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	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°	232.8	226.1	204.0	167.4	116.9	65.4	24.4	4.4	1.1	1.7	1.7
110°	202.9	197.3	174.6	139.1	94.2	48.8	16.1	2.8	1.7	1.7	1.7





107.5°	2.2	3.3	3.9
110°	2.2	2.8	3.3



(END OF REPORT)