

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: P551682

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-94-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: P551682
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-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

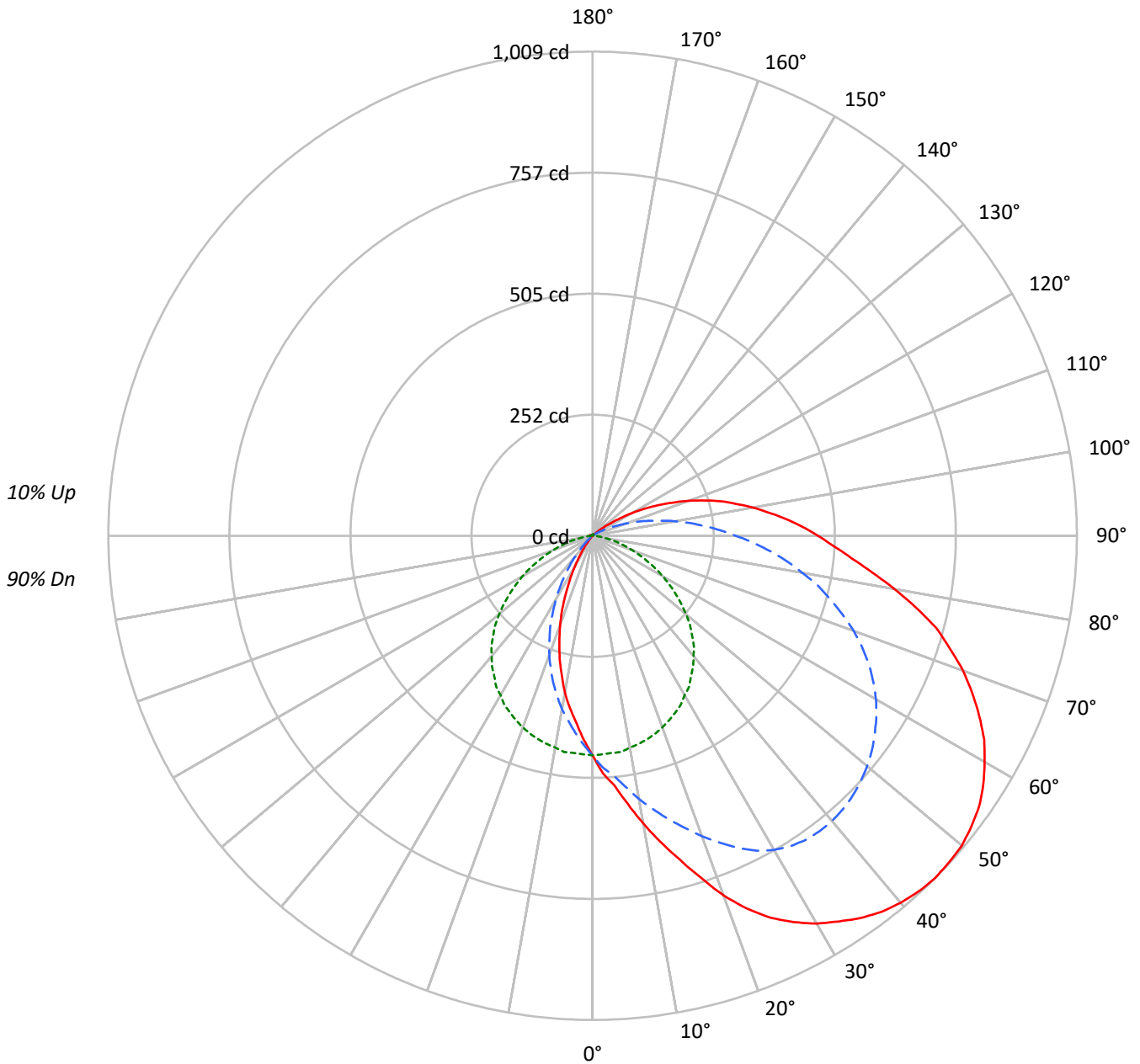
Lumens per Lamp: N/A
Luminaire Lumens: 2261.9 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551682

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-94-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°	4924	4924	4924
5°	5406	4853	4049
10°	6118	4793	3337
15°	6856	4732	2600
20°	7733	4655	1915
25°	8460	4565	1258
30°	9001	4446	708
35°	9468	4317	312
40°	9883	4159	75
45°	10239	3959	0
50°	10538	3695	0
55°	10766	3360	0
60°	10880	2971	0
65°	10925	2529	0
70°	10889	2062	0
75°	10750	1520	9
80°	10314	929	47
85°	9970	442	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	1.9
10°-20°	131.2	5.8
20°-30°	212.5	9.4
30°-40°	273.0	12.1
40°-50°	309.0	13.7
50°-60°	320.1	14.2
60°-70°	301.9	13.3
70°-80°	253.0	11.2
80°-90°	183.4	8.1
90°-100°	120.5	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°	387.6	17.1
0°-40°	660.6	29.2
0°-60°	1289.7	57.0
0°-90°	2028.1	89.7
90°-120°	220.9	9.8
90°-150°	232.3	10.3
90°-180°	234.0	10.3
0°-180°	2261.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	458	458	458	458	458	
5°	522	502	454	412	391	53
15°	698	612	439	317	265	201
25°	878	718	407	209	131	406
35°	973	774	357	101	32	610
45°	1009	766	293	23	0	779
55°	983	718	211	0	0	878
65°	889	635	126	0	0	879
75°	741	513	54	1	1	777
85°	542	372	9	2	4	463
90°	470	298	2	4	4	258
95°	403	233	1	4	5	316
105°	277	120	1	3	5	293
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°	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5
2.5°	496.0	495.4	493.7	490.8	486.7	479.7	473.9	468.6	461.6	455.8	444.7
5°	522.2	519.3	517.0	514.1	504.8	498.3	487.9	476.2	465.1	454.1	431.9
7.5°	564.2	559.5	556.1	547.9	535.1	520.5	504.2	493.1	485.5	454.6	416.7
10°	609.1	605.0	598.0	583.4	567.7	546.7	523.4	497.2	473.9	448.2	403.3
12.5°	653.4	647.6	637.7	619.0	596.9	570.6	538.6	507.7	474.5	444.1	387.6
15°	697.7	691.3	680.8	658.1	628.9	594.5	555.5	516.4	477.4	438.9	371.3
17.5°	746.1	737.3	721.6	695.9	659.2	616.7	570.6	523.4	476.2	432.5	353.8
20°	797.9	785.7	768.8	734.4	691.3	641.2	585.8	530.4	475.6	424.9	334.0
22.5°	841.1	828.8	810.2	774.6	722.8	661.6	598.6	535.1	473.3	416.2	315.3
25°	878.4	868.5	848.1	807.3	752.5	683.1	610.8	538.6	469.8	406.8	295.5
27.5°	907.5	898.2	875.5	833.5	777.5	702.4	620.2	540.3	465.1	397.5	275.1
30°	933.2	923.8	896.4	853.3	794.4	717.5	629.5	540.9	459.3	383.5	253.0
32.5°	953.0	944.2	916.3	870.2	806.1	728.0	634.7	540.3	451.7	373.6	229.1
35°	972.8	964.1	931.4	882.5	814.8	732.7	638.8	537.4	442.4	357.3	206.3
37.5°	988.0	978.0	944.8	890.6	818.9	733.8	638.2	533.3	432.5	343.9	183.6
40°	998.4	988.0	952.4	895.3	820.1	732.1	633.6	526.3	420.8	327.0	159.7
42.5°	1005.4	993.8	955.9	902.3	817.8	727.4	626.6	517.6	408.0	312.4	137.0
45°	1008.9	996.7	956.5	896.4	813.7	718.7	616.1	506.5	394.0	292.6	114.2
47.5°	1007.2	993.8	953.6	890.0	806.1	709.3	604.4	493.1	377.1	275.1	92.7
50°	1004.3	990.3	947.2	881.9	795.6	697.7	591.6	476.8	359.6	253.5	73.4
52.5°	994.9	981.0	940.2	870.2	783.4	684.3	574.1	459.9	341.0	232.6	56.0
55°	983.3	970.5	927.9	859.7	767.6	668.0	557.8	441.8	322.9	211.0	40.2
57.5°	965.2	953.6	912.8	842.8	751.9	649.9	539.7	422.0	300.2	189.4	28.0
60°	943.1	931.4	891.8	823.6	733.8	629.5	519.9	401.6	279.8	167.9	17.5
62.5°	919.8	908.7	867.3	799.7	711.1	607.9	498.3	381.2	258.2	148.0	10.5
65°	888.9	878.4	841.1	771.1	686.0	584.6	474.5	356.7	236.1	125.9	5.8
67.5°	856.2	846.9	809.0	744.9	656.9	559.0	450.0	332.8	212.7	106.7	2.9
70°	821.3	809.6	774.6	709.3	627.2	529.8	423.2	308.3	190.6	88.0	0.0
72.5°	780.5	771.7	737.9	676.1	592.8	498.9	395.8	281.5	166.1	69.9	0.6
75°	740.8	729.7	698.9	640.6	559.0	466.3	365.5	256.5	142.2	53.6	0.6
77.5°	689.5	686.0	656.9	600.3	526.9	434.8	332.2	226.2	119.5	38.5	0.6
80°	638.2	634.7	612.0	560.1	489.6	397.5	301.3	197.6	97.3	25.6	0.6
82.5°	587.5	582.9	561.3	518.2	451.7	366.0	269.3	169.0	76.9	15.7	0.6
85°	542.1	536.2	512.9	473.3	412.7	330.5	236.1	141.1	57.1	8.7	1.2
87.5°	503.0	498.9	473.3	432.5	373.0	297.3	206.9	114.2	40.2	4.1	1.7
90°	469.8	461.0	438.3	395.2	335.7	260.5	176.0	91.5	26.8	2.3	2.3
92.5°	437.1	429.6	404.5	360.2	302.5	229.1	146.3	69.9	16.9	1.2	2.9
95°	403.3	395.2	370.7	329.9	268.7	197.0	120.1	51.3	9.3	1.2	2.9
97.5°	370.1	362.5	336.9	296.1	238.4	169.0	95.0	36.1	4.7	1.2	2.3
100°	339.2	330.5	307.2	266.4	208.1	141.1	73.4	23.3	2.9	1.2	2.3
102.5°	306.6	299.6	275.7	236.1	176.6	114.8	54.8	14.6	1.2	1.2	1.7
105°	277.4	268.7	245.4	204.6	150.4	90.3	38.5	8.7	1.2	1.2	1.7



TEST NUMBER: P551682

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	180.7	173.7	153.3	118.9	76.4	35.6	10.5	1.7	1.7	1.7	1.7
115°	151.0	140.5	122.4	92.1	56.5	23.3	5.2	1.7	1.7	1.7	1.7
117.5°	120.7	111.9	99.1	69.9	37.3	15.2	2.9	1.7	1.7	1.7	1.7
120°	94.4	86.3	71.7	48.4	25.1	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.6	61.2	48.4	31.5	15.2	4.1	1.7	1.7	2.3	2.3	1.7
125°	44.9	41.4	32.1	19.2	9.3	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	29.1	26.2	18.7	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



TEST NUMBER: P551682

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	457.5	457.5	457.5
2.5°	435.4	427.2	424.9
5°	412.1	398.7	391.1
7.5°	388.8	370.7	362.0
10°	367.2	341.6	332.2
12.5°	341.6	311.8	297.3
15°	317.1	278.6	264.6
17.5°	289.7	246.6	230.2
20°	264.0	214.5	197.6
22.5°	234.9	183.0	164.4
25°	208.7	151.5	130.6
27.5°	179.5	119.5	101.4
30°	152.1	91.5	73.4
32.5°	125.9	67.0	50.7
35°	101.4	45.5	32.1
37.5°	78.1	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



TEST NUMBER: P551682

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-94-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°	244.8	237.8	214.5	176.0	123.0	68.8	25.6	4.7	1.2	1.7	1.7
110°	213.3	207.5	183.6	146.3	99.1	51.3	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)