

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: P551660

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-81-86-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: P551660
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-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

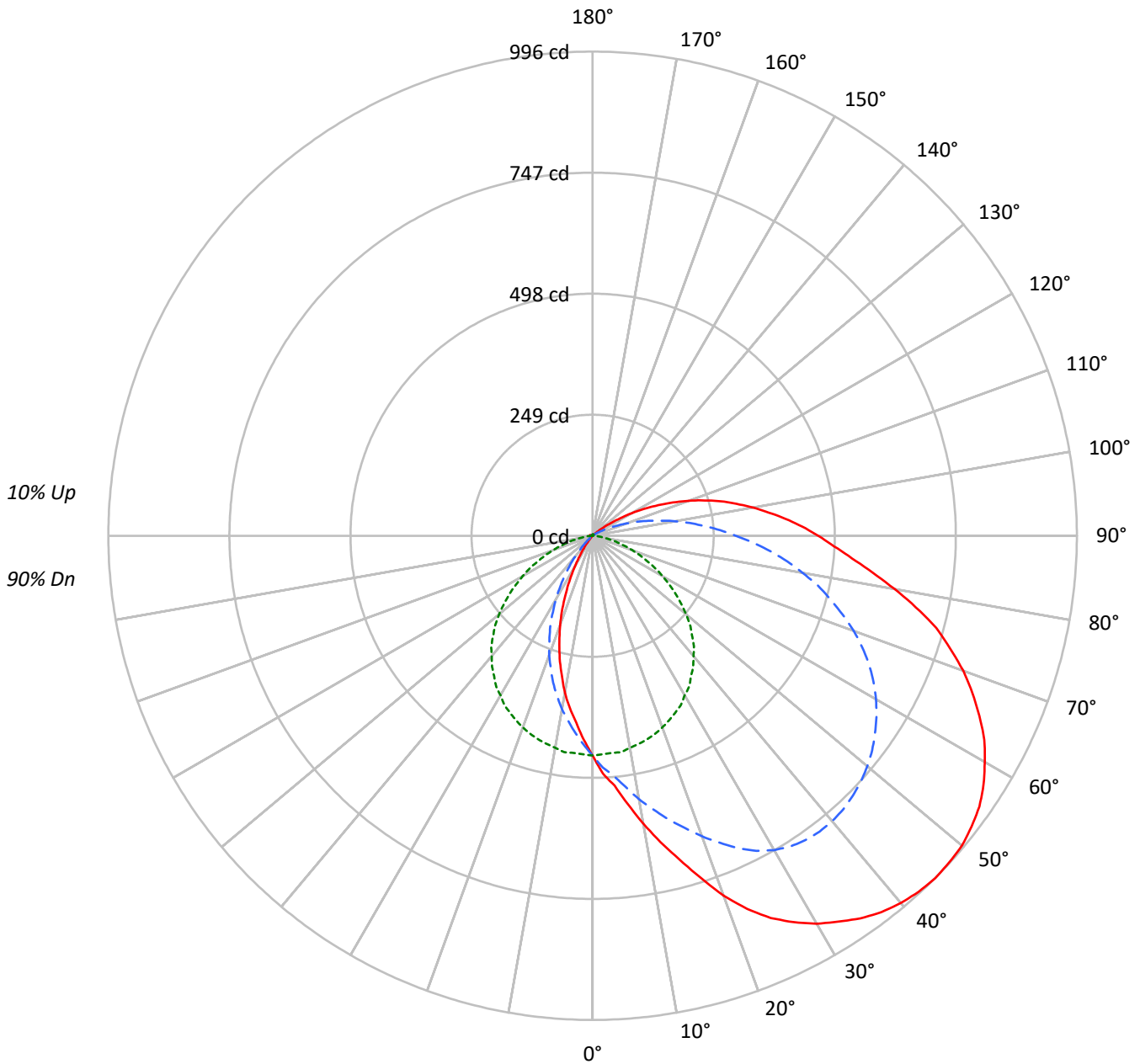
Lumens per Lamp: N/A
Luminaire Lumens: 2234.0 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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: P551660

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-86-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°	4864	4864	4864
5°	5340	4793	3999
10°	6043	4734	3296
15°	6772	4674	2568
20°	7638	4597	1891
25°	8355	4509	1241
30°	8889	4391	699
35°	9351	4264	309
40°	9761	4106	74
45°	10112	3910	0
50°	10407	3649	0
55°	10632	3318	0
60°	10745	2934	0
65°	10790	2497	0
70°	10754	2036	0
75°	10618	1503	9
80°	10186	918	47
85°	9847	437	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	1.9
10°-20°	129.6	5.8
20°-30°	209.9	9.4
30°-40°	269.6	12.1
40°-50°	305.2	13.7
50°-60°	316.2	14.2
60°-70°	298.2	13.3
70°-80°	249.9	11.2
80°-90°	181.1	8.1
90°-100°	119.1	5.3
100°-110°	68.8	3.1
110°-120°	30.3	1.4
120°-130°	8.2	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°	382.8	17.1
0°-40°	652.4	29.2
0°-60°	1273.7	57.0
0°-90°	2003.0	89.7
90°-120°	218.2	9.8
90°-150°	229.5	10.3
90°-180°	231.0	10.3
0°-180°	2234.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	452	452	452	452	452	
5°	516	495	448	407	386	52
15°	689	604	434	313	261	199
25°	868	709	402	206	129	401
35°	961	764	353	100	32	603
45°	996	757	289	23	0	769
55°	971	709	208	0	0	867
65°	878	627	124	0	0	869
75°	732	506	53	1	1	767
85°	535	367	9	2	4	457
90°	464	294	2	4	4	254
95°	398	230	1	4	5	312
105°	274	119	1	3	5	289
115°	149	39	2	2	3	149
125°	44	5	2	2	2	44
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°	451.9	451.9	451.9	451.9	451.9	451.9	451.9	451.9	451.9	451.9	451.9
2.5°	489.9	489.3	487.6	484.7	480.7	473.8	468.0	462.8	455.9	450.2	439.2
5°	515.8	512.9	510.6	507.7	498.5	492.2	481.8	470.3	459.4	448.4	426.6
7.5°	557.2	552.6	549.2	541.1	528.4	514.1	497.9	487.0	479.5	449.0	411.6
10°	601.6	597.5	590.6	576.2	560.7	540.0	516.9	491.0	468.0	442.7	398.3
12.5°	645.3	639.5	629.8	611.3	589.5	563.6	531.9	501.4	468.6	438.6	382.8
15°	689.1	682.7	672.4	649.9	621.1	587.2	548.6	510.0	471.5	433.5	366.7
17.5°	736.8	728.2	712.7	687.3	651.1	609.0	563.6	516.9	470.3	427.1	349.4
20°	788.1	776.0	759.3	725.3	682.7	633.2	578.5	523.8	469.7	419.6	329.8
22.5°	830.7	818.6	800.2	765.0	713.8	653.4	591.2	528.4	467.4	411.0	311.4
25°	867.5	857.7	837.6	797.3	743.2	674.7	603.3	531.9	464.0	401.8	291.9
27.5°	896.3	887.1	864.6	823.2	767.9	693.7	612.5	533.6	459.4	392.6	271.7
30°	921.6	912.4	885.3	842.8	784.6	708.6	621.7	534.2	453.6	378.8	249.8
32.5°	941.2	932.6	904.9	859.4	796.1	719.0	626.9	533.6	446.1	369.0	226.2
35°	960.8	952.1	919.9	871.5	804.8	723.6	630.9	530.7	436.9	352.9	203.8
37.5°	975.7	965.9	933.1	879.6	808.8	724.7	630.3	526.7	427.1	339.6	181.3
40°	986.1	975.7	940.6	884.2	809.9	723.0	625.7	519.8	415.6	322.9	157.7
42.5°	993.0	981.5	944.1	891.1	807.6	718.4	618.8	511.2	403.0	308.5	135.3
45°	996.4	984.4	944.6	885.3	803.6	709.8	608.5	500.2	389.1	289.0	112.8
47.5°	994.7	981.5	941.8	879.0	796.1	700.6	596.9	487.0	372.4	271.7	91.5
50°	991.8	978.0	935.4	871.0	785.8	689.1	584.3	470.9	355.2	250.4	72.5
52.5°	982.6	968.8	928.5	859.4	773.7	675.8	567.0	454.2	336.8	229.7	55.3
55°	971.1	958.5	916.4	849.1	758.1	659.7	550.9	436.3	318.9	208.4	39.7
57.5°	953.3	941.8	901.5	832.4	742.6	641.8	533.1	416.8	296.5	187.1	27.6
60°	931.4	919.9	880.7	813.4	724.7	621.7	513.5	396.6	276.3	165.8	17.3
62.5°	908.4	897.4	856.6	789.8	702.3	600.4	492.2	376.5	255.0	146.2	10.4
65°	877.9	867.5	830.7	761.6	677.5	577.4	468.6	352.3	233.1	124.3	5.8
67.5°	845.6	836.4	799.0	735.7	648.8	552.0	444.4	328.7	210.1	105.3	2.9
70°	811.1	799.6	765.0	700.6	619.4	523.3	417.9	304.5	188.2	86.9	0.0
72.5°	770.8	762.2	728.8	667.8	585.4	492.8	390.9	278.0	164.1	69.1	0.6
75°	731.7	720.7	690.2	632.6	552.0	460.5	360.9	253.3	140.5	53.0	0.6
77.5°	681.0	677.5	648.8	592.9	520.4	429.4	328.1	223.4	118.0	38.0	0.6
80°	630.3	626.9	604.4	553.2	483.5	392.6	297.6	195.1	96.1	25.3	0.6
82.5°	580.3	575.6	554.4	511.8	446.1	361.5	265.9	166.9	76.0	15.5	0.6
85°	535.4	529.6	506.6	467.4	407.6	326.4	233.1	139.3	56.4	8.6	1.2
87.5°	496.8	492.8	467.4	427.1	368.4	293.6	204.4	112.8	39.7	4.0	1.7
90°	464.0	455.3	432.9	390.3	331.6	257.3	173.8	90.4	26.5	2.3	2.3
92.5°	431.7	424.3	399.5	355.8	298.8	226.2	144.5	69.1	16.7	1.2	2.9
95°	398.3	390.3	366.1	325.8	265.4	194.6	118.6	50.7	9.2	1.2	2.9
97.5°	365.5	358.1	332.7	292.4	235.4	166.9	93.8	35.7	4.6	1.2	2.3
100°	335.0	326.4	303.4	263.1	205.5	139.3	72.5	23.0	2.9	1.2	2.3
102.5°	302.8	295.9	272.3	233.1	174.4	113.4	54.1	14.4	1.2	1.2	1.7
105°	274.0	265.4	242.3	202.1	148.5	89.2	38.0	8.6	1.2	1.2	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	178.5	171.5	151.4	117.4	75.4	35.1	10.4	1.7	1.7	1.7	1.7
115°	149.1	138.7	120.9	91.0	55.8	23.0	5.2	1.7	1.7	1.7	1.7
117.5°	119.2	110.5	97.9	69.1	36.8	15.0	2.9	1.7	1.7	1.7	1.7
120°	93.3	85.2	70.8	47.8	24.8	8.6	1.2	1.7	1.7	1.7	1.7
122.5°	66.8	60.4	47.8	31.1	15.0	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.3	40.9	31.7	19.0	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.8	25.9	18.4	10.9	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.1	14.4	10.9	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	8.6	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°	451.9	451.9	451.9
2.5°	430.0	422.0	419.6
5°	407.0	393.7	386.3
7.5°	384.0	366.1	357.5
10°	362.7	337.3	328.1
12.5°	337.3	308.0	293.6
15°	313.2	275.2	261.3
17.5°	286.1	243.5	227.4
20°	260.8	211.8	195.1
22.5°	232.0	180.8	162.3
25°	206.1	149.7	128.9
27.5°	177.3	118.0	100.2
30°	150.2	90.4	72.5
32.5°	124.3	66.2	50.1
35°	100.2	44.9	31.7
37.5°	77.1	27.6	16.1
40°	55.8	14.4	7.5
42.5°	37.4	6.9	4.0
45°	23.0	3.5	0.0
47.5°	13.2	0.0	0.0
50°	6.9	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	4.0
90°	3.5	4.0	4.0
92.5°	3.5	4.6	4.6
95°	4.0	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.0	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.0	4.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-86-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°	241.8	234.9	211.8	173.8	121.5	67.9	25.3	4.6	1.2	1.7	1.7
110°	210.7	204.9	181.3	144.5	97.9	50.7	16.7	2.9	1.7	1.7	1.7





107.5°	2.3	3.5	4.0
110°	2.3	2.9	3.5



(END OF REPORT)