

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: P551534

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-81-87-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: P551534
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-35-UNV-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

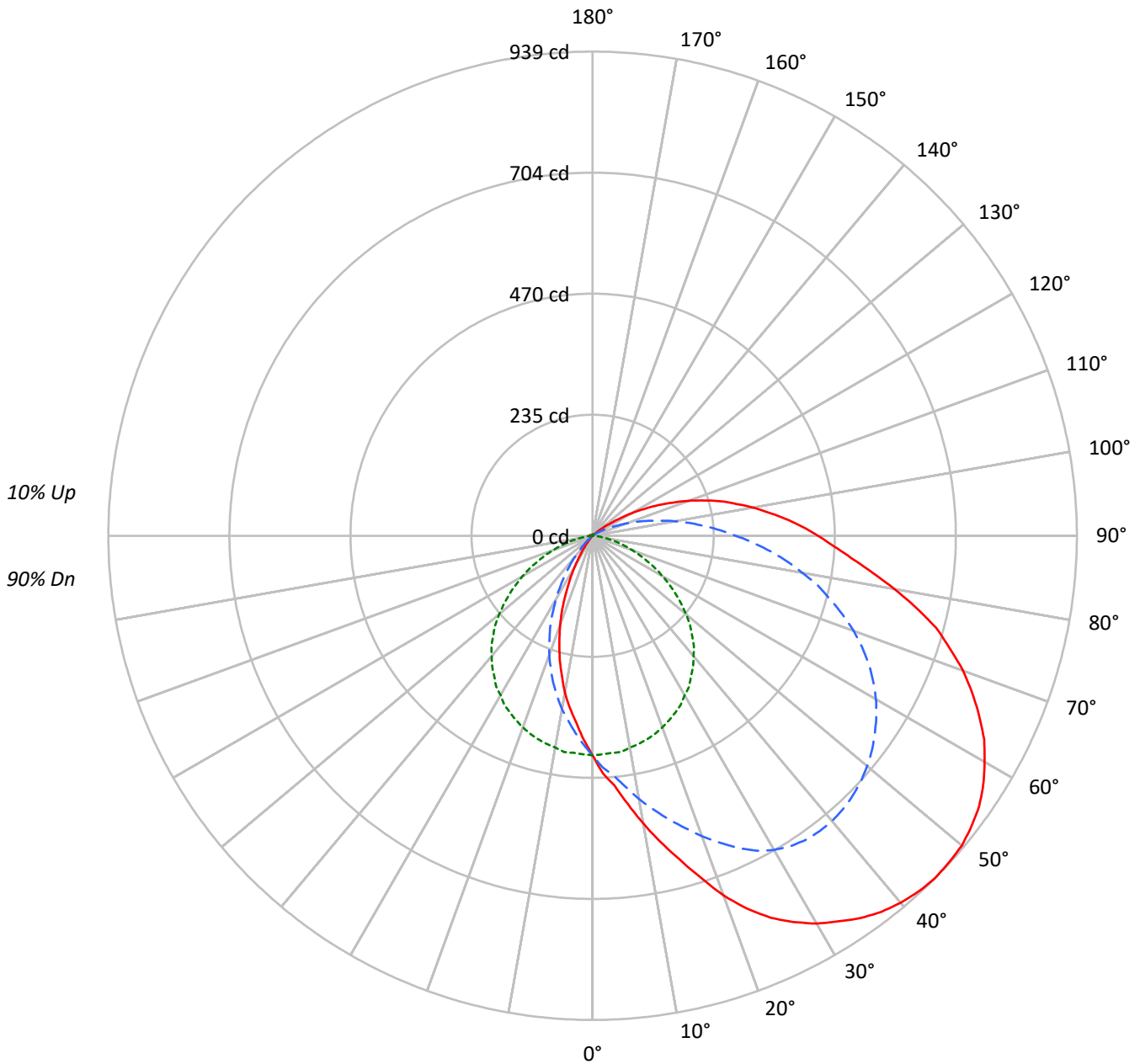
Lumens per Lamp: N/A
Luminaire Lumens: 2105.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551534

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-87-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°	4583	4583	4583
5°	5031	4516	3768
10°	5693	4461	3106
15°	6381	4404	2420
20°	7197	4332	1782
25°	7872	4249	1170
30°	8376	4137	659
35°	8811	4018	290
40°	9197	3870	70
45°	9528	3685	0
50°	9807	3438	0
55°	10018	3127	0
60°	10125	2764	0
65°	10167	2354	0
70°	10133	1919	0
75°	10004	1415	7
80°	9598	867	44
85°	9277	412	61



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.8	1.9
10°-20°	122.1	5.8
20°-30°	197.8	9.4
30°-40°	254.0	12.1
40°-50°	287.6	13.7
50°-60°	297.9	14.2
60°-70°	281.0	13.3
70°-80°	235.5	11.2
80°-90°	170.7	8.1
90°-100°	112.2	5.3
100°-110°	64.8	3.1
110°-120°	28.6	1.4
120°-130°	7.7	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°	360.7	17.1
0°-40°	614.7	29.2
0°-60°	1200.2	57.0
0°-90°	1887.3	89.7
90°-120°	205.5	9.8
90°-150°	216.2	10.3
90°-180°	218.0	10.4
0°-180°	2105.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	426	426	426	426	426	
5°	486	467	422	384	364	49
15°	649	569	408	295	246	187
25°	817	668	379	194	122	378
35°	905	720	332	94	30	568
45°	939	713	272	22	0	725
55°	915	668	196	0	0	817
65°	827	591	117	0	0	818
75°	689	477	50	0	0	723
85°	504	346	8	2	3	431
90°	437	277	2	3	4	240
95°	375	217	1	4	5	294
105°	258	112	1	3	4	272
115°	140	37	2	2	3	141
125°	42	5	2	2	2	42
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	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°	425.8	425.8	425.8	425.8	425.8	425.8	425.8	425.8	425.8	425.8	425.8
2.5°	461.6	461.0	459.4	456.7	452.9	446.4	441.0	436.1	429.6	424.2	413.9
5°	486.0	483.3	481.1	478.4	469.7	463.8	454.0	443.1	432.8	422.5	401.9
7.5°	525.1	520.7	517.5	509.9	497.9	484.4	469.2	458.9	451.8	423.1	387.8
10°	566.8	563.0	556.5	543.0	528.3	508.8	487.1	462.7	441.0	417.1	375.3
12.5°	608.0	602.6	593.4	576.0	555.4	531.0	501.2	472.4	441.5	413.3	360.7
15°	649.3	643.3	633.5	612.4	585.3	553.3	516.9	480.6	444.2	408.4	345.5
17.5°	694.3	686.1	671.5	647.6	613.5	573.9	531.0	487.1	443.1	402.5	329.2
20°	742.6	731.2	715.4	683.4	643.3	596.6	545.1	493.6	442.6	395.4	310.8
22.5°	782.7	771.3	753.9	720.9	672.6	615.6	557.1	497.9	440.4	387.3	293.4
25°	817.4	808.2	789.2	751.2	700.2	635.7	568.4	501.2	437.2	378.6	275.0
27.5°	844.5	835.9	814.7	775.6	723.6	653.6	577.1	502.8	432.8	369.9	256.0
30°	868.4	859.7	834.2	794.1	739.3	667.7	585.8	503.4	427.4	356.9	235.4
32.5°	886.8	878.7	852.7	809.8	750.2	677.5	590.7	502.8	420.4	347.7	213.2
35°	905.3	897.1	866.8	821.2	758.3	681.8	594.5	500.1	411.7	332.5	192.0
37.5°	919.4	910.2	879.2	828.8	762.1	682.9	593.9	496.3	402.5	320.0	170.9
40°	929.1	919.4	886.3	833.1	763.2	681.3	589.6	489.8	391.6	304.3	148.6
42.5°	935.7	924.8	889.6	839.6	761.0	676.9	583.1	481.7	379.7	290.7	127.5
45°	938.9	927.5	890.1	834.2	757.2	668.8	573.3	471.4	366.7	272.3	106.3
47.5°	937.3	924.8	887.4	828.3	750.2	660.1	562.5	458.9	350.9	256.0	86.2
50°	934.6	921.6	881.4	820.7	740.4	649.3	550.5	443.7	334.7	235.9	68.3
52.5°	925.9	912.9	874.9	809.8	729.0	636.8	534.3	428.0	317.3	216.4	52.1
55°	915.0	903.1	863.5	800.1	714.4	621.6	519.1	411.1	300.5	196.4	37.4
57.5°	898.2	887.4	849.4	784.3	699.7	604.8	502.3	392.7	279.3	176.3	26.0
60°	877.6	866.8	829.9	766.4	682.9	585.8	483.8	373.7	260.4	156.2	16.3
62.5°	855.9	845.6	807.1	744.2	661.7	565.7	463.8	354.7	240.3	137.8	9.8
65°	827.2	817.4	782.7	717.6	638.4	544.0	441.5	332.0	219.7	117.2	5.4
67.5°	796.8	788.1	752.9	693.2	611.3	520.2	418.7	309.7	198.0	99.3	2.7
70°	764.3	753.4	720.9	660.1	583.6	493.0	393.8	286.9	177.4	81.9	0.0
72.5°	726.3	718.1	686.7	629.2	551.6	464.3	368.3	262.0	154.6	65.1	0.5
75°	689.4	679.1	650.3	596.1	520.2	433.9	340.1	238.7	132.3	49.9	0.5
77.5°	641.7	638.4	611.3	558.7	490.3	404.6	309.2	210.5	111.2	35.8	0.5
80°	593.9	590.7	569.5	521.3	455.6	369.9	280.4	183.9	90.6	23.9	0.5
82.5°	546.7	542.4	522.3	482.2	420.4	340.6	250.6	157.3	71.6	14.6	0.5
85°	504.4	499.0	477.3	440.4	384.0	307.5	219.7	131.3	53.2	8.1	1.1
87.5°	468.1	464.3	440.4	402.5	347.1	276.6	192.6	106.3	37.4	3.8	1.6
90°	437.2	429.0	407.9	367.8	312.4	242.5	163.8	85.2	25.0	2.2	2.2
92.5°	406.8	399.8	376.4	335.2	281.5	213.2	136.1	65.1	15.7	1.1	2.7
95°	375.3	367.8	345.0	307.0	250.1	183.3	111.7	47.7	8.7	1.1	2.7
97.5°	344.4	337.4	313.5	275.5	221.8	157.3	88.4	33.6	4.3	1.1	2.2
100°	315.7	307.5	285.8	247.9	193.6	131.3	68.3	21.7	2.7	1.1	2.2
102.5°	285.3	278.8	256.6	219.7	164.3	106.9	51.0	13.6	1.1	1.1	1.6
105°	258.2	250.1	228.4	190.4	139.9	84.1	35.8	8.1	1.1	1.1	1.6



TEST NUMBER: P551534

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	168.1	161.6	142.7	110.7	71.1	33.1	9.8	1.6	1.6	1.6	1.6
115°	140.5	130.7	113.9	85.7	52.6	21.7	4.9	1.6	1.6	1.6	1.6
117.5°	112.3	104.1	92.2	65.1	34.7	14.1	2.7	1.6	1.6	1.6	1.6
120°	87.9	80.3	66.7	45.0	23.3	8.1	1.1	1.6	1.6	1.6	1.6
122.5°	62.9	57.0	45.0	29.3	14.1	3.8	1.6	1.6	2.2	2.2	1.6
125°	41.8	38.5	29.8	17.9	8.7	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.1	24.4	17.4	10.3	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.2	13.6	10.3	6.0	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.7	8.1	5.4	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.7	2.7	2.7	2.2
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.2
142.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
145°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
150°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
152.5°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
157.5°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.2
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	425.8	425.8	425.8
2.5°	405.2	397.6	395.4
5°	383.5	371.0	364.0
7.5°	361.8	345.0	336.8
10°	341.7	317.9	309.2
12.5°	317.9	290.2	276.6
15°	295.1	259.3	246.3
17.5°	269.6	229.4	214.3
20°	245.7	199.6	183.9
22.5°	218.6	170.3	153.0
25°	194.2	141.0	121.5
27.5°	167.1	111.2	94.4
30°	141.6	85.2	68.3
32.5°	117.2	62.4	47.2
35°	94.4	42.3	29.8
37.5°	72.7	26.0	15.2
40°	52.6	13.6	7.1
42.5°	35.3	6.5	3.8
45°	21.7	3.3	0.0
47.5°	12.5	0.0	0.0
50°	6.5	0.0	0.0
52.5°	2.7	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°	0.5	0.5	0.5
77.5°	0.5	1.1	1.6
80°	1.1	2.2	2.7
82.5°	2.2	2.7	2.7
85°	2.2	2.7	3.3
87.5°	2.7	3.3	3.8
90°	3.3	3.8	3.8
92.5°	3.3	4.3	4.3
95°	3.8	4.3	4.9
97.5°	4.3	4.9	4.9
100°	3.8	4.9	5.4
102.5°	3.3	4.9	4.9
105°	2.7	3.8	4.3



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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.7	2.7
115°	1.6	2.2	2.7
117.5°	1.6	2.2	2.2
120°	1.6	1.6	2.2
122.5°	1.6	1.6	2.2
125°	1.6	1.6	2.2
127.5°	2.2	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.2	1.6	1.6
135°	2.2	1.6	1.6
137.5°	2.2	1.6	1.6
140°	2.2	1.6	1.6
142.5°	2.2	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.2	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	227.8	221.3	199.6	163.8	114.4	64.0	23.9	4.3	1.1	1.6	1.6
110°	198.5	193.1	170.9	136.1	92.2	47.7	15.7	2.7	1.6	1.6	1.6





107.5°	2.2	3.3	3.8
110°	2.2	2.7	3.3



(END OF REPORT)