

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: P551485

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-87-ED1D-90**

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: P551485
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-30-UNV-82-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

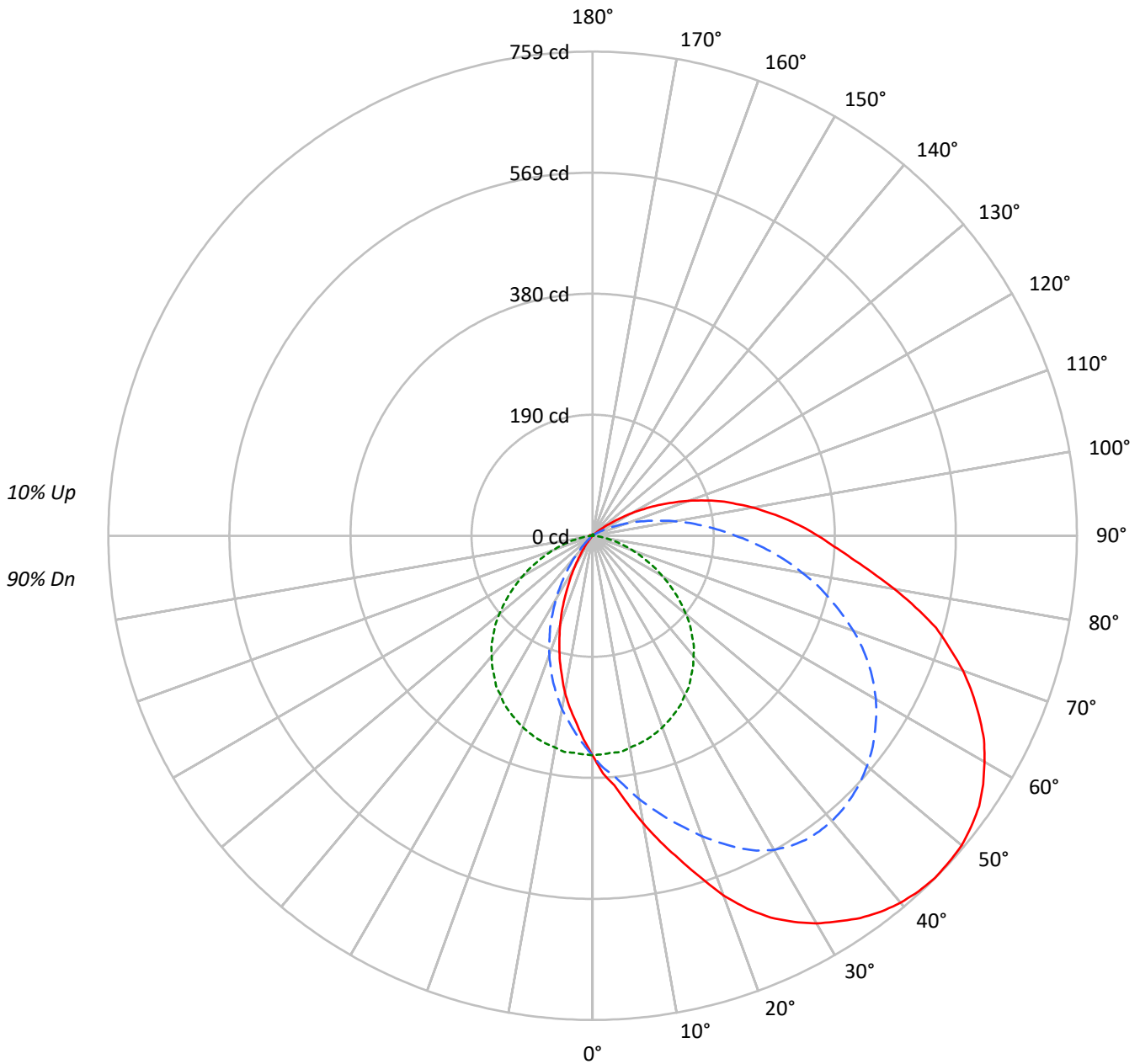
Lumens per Lamp: N/A
Luminaire Lumens: 1701.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551485

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-87-ED1D-90

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°	3704	3704	3704
5°	4065	3649	3045
10°	4600	3605	2509
15°	5156	3558	1956
20°	5815	3501	1440
25°	6361	3433	946
30°	6768	3343	532
35°	7120	3247	235
40°	7432	3127	56
45°	7700	2977	0
50°	7924	2779	0
55°	8095	2527	0
60°	8182	2233	0
65°	8215	1902	0
70°	8188	1551	0
75°	8084	1143	6
80°	7756	700	36
85°	7497	336	48



TEST NUMBER: P551485

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-87-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	1.9
10°-20°	98.7	5.8
20°-30°	159.8	9.4
30°-40°	205.3	12.1
40°-50°	232.4	13.7
50°-60°	240.7	14.2
60°-70°	227.1	13.3
70°-80°	190.3	11.2
80°-90°	137.9	8.1
90°-100°	90.7	5.3
100°-110°	52.4	3.1
110°-120°	23.1	1.4
120°-130°	6.3	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	291.4	17.1
0°-40°	496.7	29.2
0°-60°	969.9	57.0
0°-90°	1525.1	89.7
90°-120°	166.1	9.8
90°-150°	174.8	10.3
90°-180°	176.0	10.3
0°-180°	1701.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	344	344	344	344	344	
5°	393	377	341	310	294	40
15°	525	460	330	238	199	151
25°	660	540	306	157	98	305
35°	732	582	269	76	24	459
45°	759	576	220	18	0	586
55°	739	540	159	0	0	660
65°	668	478	95	0	0	661
75°	557	385	40	0	0	584
85°	408	279	7	2	3	348
90°	353	224	2	3	3	194
95°	303	175	1	3	4	238
105°	209	90	1	2	4	220
115°	114	30	1	1	2	114
125°	34	4	2	1	2	34
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	344.1	344.1	344.1	344.1	344.1	344.1	344.1	344.1	344.1	344.1	344.1
2.5°	373.0	372.6	371.2	369.1	366.0	360.7	356.3	352.4	347.1	342.8	334.4
5°	392.7	390.5	388.8	386.6	379.6	374.8	366.9	358.1	349.8	341.4	324.8
7.5°	424.3	420.8	418.1	412.0	402.4	391.4	379.1	370.8	365.1	341.9	313.4
10°	458.0	455.0	449.7	438.7	426.9	411.1	393.6	373.9	356.3	337.1	303.3
12.5°	491.3	487.0	479.5	465.5	448.8	429.1	405.0	381.8	356.8	334.0	291.5
15°	524.7	519.8	511.9	494.8	472.9	447.1	417.7	388.3	359.0	330.0	279.2
17.5°	561.0	554.5	542.6	523.3	495.7	463.7	429.1	393.6	358.1	325.2	266.1
20°	600.0	590.8	578.1	552.3	519.8	482.1	440.5	398.9	357.7	319.5	251.2
22.5°	632.5	623.3	609.2	582.5	543.5	497.5	450.1	402.4	355.9	313.0	237.1
25°	660.5	653.1	637.7	607.1	565.9	513.7	459.3	405.0	353.3	305.9	222.2
27.5°	682.4	675.4	658.3	626.8	584.7	528.2	466.4	406.3	349.8	298.9	206.9
30°	701.7	694.7	674.1	641.7	597.4	539.6	473.4	406.7	345.4	288.4	190.2
32.5°	716.6	710.1	689.0	654.4	606.2	547.4	477.3	406.3	339.7	281.0	172.3
35°	731.5	725.0	700.4	663.6	612.8	551.0	480.4	404.1	332.7	268.7	155.2
37.5°	742.9	735.5	710.5	669.7	615.8	551.8	479.9	401.1	325.2	258.6	138.1
40°	750.8	742.9	716.2	673.2	616.7	550.5	476.4	395.8	316.5	245.9	120.1
42.5°	756.1	747.3	718.8	678.5	614.9	547.0	471.2	389.2	306.8	234.9	103.0
45°	758.7	749.5	719.3	674.1	611.9	540.4	463.3	380.9	296.3	220.0	85.9
47.5°	757.4	747.3	717.1	669.3	606.2	533.4	454.5	370.8	283.6	206.9	69.7
50°	755.2	744.7	712.2	663.2	598.3	524.7	444.9	358.5	270.4	190.7	55.2
52.5°	748.2	737.7	707.0	654.4	589.1	514.6	431.7	345.8	256.4	174.9	42.1
55°	739.4	729.8	697.8	646.5	577.3	502.3	419.5	332.2	242.8	158.7	30.2
57.5°	725.8	717.1	686.4	633.8	565.4	488.7	405.9	317.3	225.7	142.4	21.0
60°	709.2	700.4	670.6	619.3	551.8	473.4	391.0	302.0	210.4	126.2	13.1
62.5°	691.6	683.3	652.2	601.4	534.7	457.2	374.8	286.7	194.2	111.3	7.9
65°	668.4	660.5	632.5	579.9	515.9	439.6	356.8	268.2	177.5	94.7	4.4
67.5°	643.9	636.9	608.4	560.2	494.0	420.3	338.4	250.3	160.0	80.2	2.2
70°	617.6	608.8	582.5	533.4	471.6	398.4	318.2	231.9	143.3	66.2	0.0
72.5°	586.9	580.3	554.9	508.4	445.8	375.2	297.6	211.7	124.9	52.6	0.4
75°	557.1	548.8	525.5	481.7	420.3	350.6	274.8	192.9	106.9	40.3	0.4
77.5°	518.5	515.9	494.0	451.5	396.2	327.0	249.8	170.1	89.9	28.9	0.4
80°	479.9	477.3	460.2	421.2	368.2	298.9	226.6	148.6	73.2	19.3	0.4
82.5°	441.8	438.3	422.1	389.7	339.7	275.3	202.5	127.1	57.9	11.8	0.4
85°	407.6	403.2	385.7	355.9	310.3	248.5	177.5	106.1	43.0	6.6	0.9
87.5°	378.3	375.2	355.9	325.2	280.5	223.5	155.6	85.9	30.2	3.1	1.3
90°	353.3	346.7	329.6	297.2	252.5	195.9	132.4	68.8	20.2	1.8	1.8
92.5°	328.7	323.0	304.2	270.9	227.5	172.3	110.0	52.6	12.7	0.9	2.2
95°	303.3	297.2	278.8	248.1	202.1	148.1	90.3	38.6	7.0	0.9	2.2
97.5°	278.3	272.6	253.3	222.7	179.3	127.1	71.4	27.2	3.5	0.9	1.8
100°	255.1	248.5	231.0	200.3	156.5	106.1	55.2	17.5	2.2	0.9	1.8
102.5°	230.5	225.3	207.3	177.5	132.8	86.3	41.2	11.0	0.9	0.9	1.3
105°	208.6	202.1	184.5	153.8	113.1	67.9	28.9	6.6	0.9	0.9	1.3



TEST NUMBER: P551485

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	135.9	130.6	115.3	89.4	57.4	26.7	7.9	1.3	1.3	1.3	1.3
115°	113.5	105.6	92.0	69.3	42.5	17.5	3.9	1.3	1.3	1.3	1.3
117.5°	90.7	84.2	74.5	52.6	28.1	11.4	2.2	1.3	1.3	1.3	1.3
120°	71.0	64.9	53.9	36.4	18.8	6.6	0.9	1.3	1.3	1.3	1.3
122.5°	50.8	46.0	36.4	23.7	11.4	3.1	1.3	1.3	1.8	1.8	1.3
125°	33.7	31.1	24.1	14.5	7.0	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	21.9	19.7	14.0	8.3	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.3	11.0	8.3	4.8	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.0	6.6	4.4	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P551485

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	344.1	344.1	344.1
2.5°	327.4	321.3	319.5
5°	309.9	299.8	294.1
7.5°	292.4	278.8	272.2
10°	276.1	256.8	249.8
12.5°	256.8	234.5	223.5
15°	238.4	209.5	199.0
17.5°	217.8	185.4	173.1
20°	198.6	161.3	148.6
22.5°	176.6	137.6	123.6
25°	156.9	114.0	98.2
27.5°	135.0	89.9	76.3
30°	114.4	68.8	55.2
32.5°	94.7	50.4	38.1
35°	76.3	34.2	24.1
37.5°	58.7	21.0	12.3
40°	42.5	11.0	5.7
42.5°	28.5	5.3	3.1
45°	17.5	2.6	0.0
47.5°	10.1	0.0	0.0
50°	5.3	0.0	0.0
52.5°	2.2	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°	0.4	0.4	0.4
77.5°	0.4	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.6
87.5°	2.2	2.6	3.1
90°	2.6	3.1	3.1
92.5°	2.6	3.5	3.5
95°	3.1	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.1	3.9	4.4
102.5°	2.6	3.9	3.9
105°	2.2	3.1	3.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	184.1	178.8	161.3	132.4	92.5	51.7	19.3	3.5	0.9	1.3	1.3
110°	160.4	156.0	138.1	110.0	74.5	38.6	12.7	2.2	1.3	1.3	1.3





107.5°	1.8	2.6	3.1
110°	1.8	2.2	2.6



(END OF REPORT)