

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: P551618

Luminaire Tested: **FCC-X-2-LD4-2LO-40-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: P551618
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-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

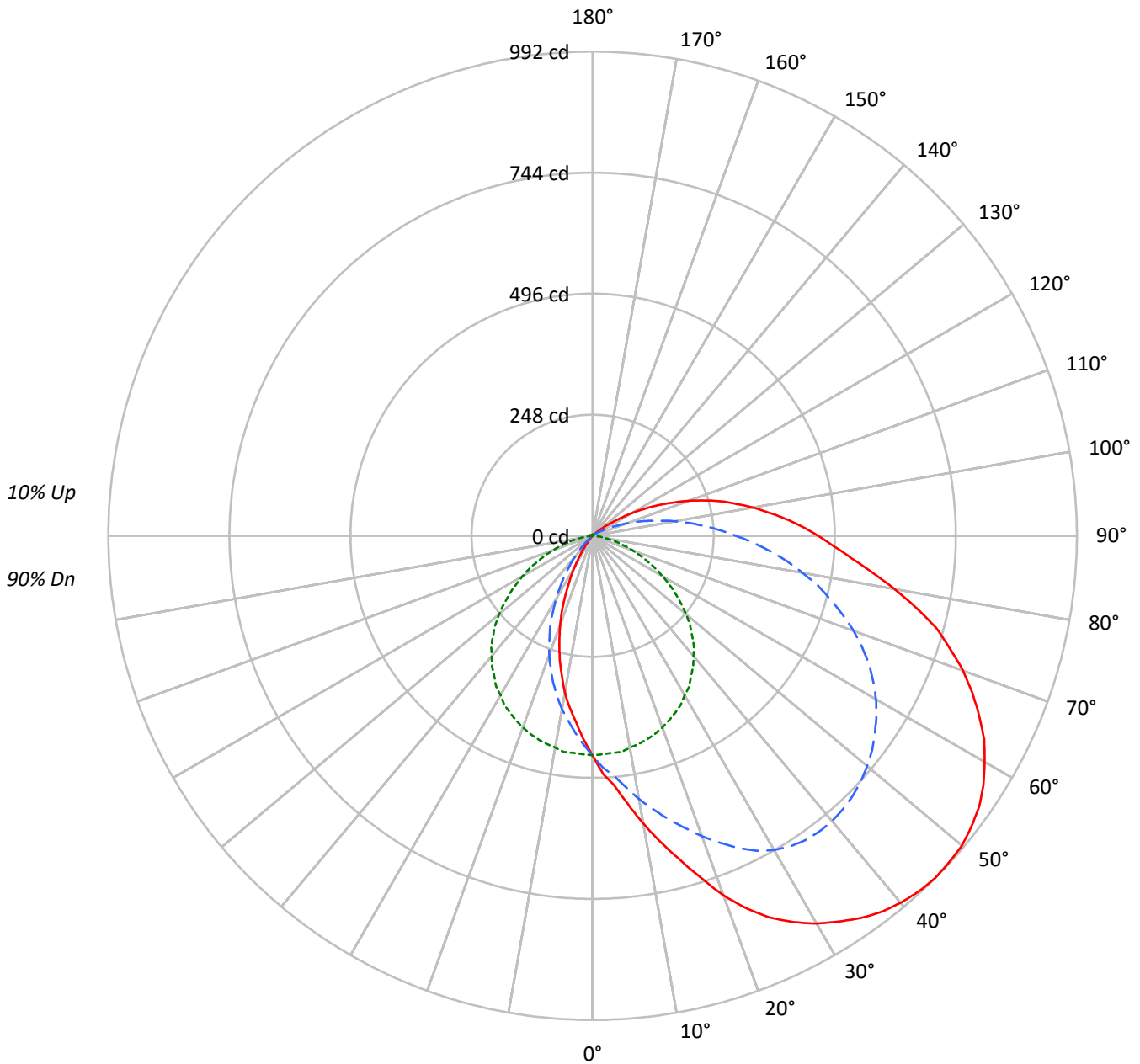
Lumens per Lamp: N/A
Luminaire Lumens: 2224.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551618

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-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°	4843	4843	4843
5°	5316	4771	3980
10°	6016	4713	3282
15°	6741	4653	2557
20°	7603	4578	1883
25°	8317	4489	1237
30°	8849	4372	696
35°	9309	4245	307
40°	9717	4089	73
45°	10067	3893	0
50°	10361	3633	0
55°	10585	3304	0
60°	10697	2920	0
65°	10741	2487	0
70°	10706	2026	0
75°	10570	1495	9
80°	10141	914	47
85°	9803	437	63



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.1	1.9
10°-20°	129.0	5.8
20°-30°	208.9	9.4
30°-40°	268.4	12.1
40°-50°	303.8	13.7
50°-60°	314.8	14.2
60°-70°	296.9	13.3
70°-80°	248.8	11.2
80°-90°	180.3	8.1
90°-100°	118.5	5.3
100°-110°	68.4	3.1
110°-120°	30.2	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°	381.1	17.1
0°-40°	649.5	29.2
0°-60°	1268.0	57.0
0°-90°	1994.0	89.7
90°-120°	217.2	9.8
90°-150°	228.4	10.3
90°-180°	230.0	10.3
0°-180°	2224.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	450	450	450	450	450	
5°	514	493	446	405	384	52
15°	686	601	432	312	260	198
25°	864	706	400	205	128	399
35°	956	761	351	100	32	600
45°	992	753	288	23	0	766
55°	967	706	208	0	0	863
65°	874	625	124	0	0	865
75°	728	504	53	1	1	764
85°	533	365	9	2	3	455
90°	462	293	2	3	4	253
95°	397	229	1	4	5	311
105°	273	118	1	3	5	288
115°	148	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°	449.9	449.9	449.9	449.9	449.9	449.9	449.9	449.9	449.9	449.9	449.9
2.5°	487.7	487.1	485.4	482.5	478.5	471.6	465.9	460.8	453.9	448.1	437.3
5°	513.5	510.6	508.3	505.4	496.3	490.0	479.7	468.2	457.3	446.4	424.6
7.5°	554.7	550.1	546.7	538.7	526.1	511.8	495.7	484.8	477.4	447.0	409.7
10°	598.9	594.8	588.0	573.6	558.2	537.5	514.6	488.8	465.9	440.7	396.6
12.5°	642.4	636.7	626.9	608.6	586.8	561.0	529.5	499.1	466.5	436.7	381.1
15°	686.0	679.7	669.3	647.0	618.3	584.5	546.1	507.7	469.3	431.5	365.0
17.5°	733.5	724.9	709.5	684.2	648.1	606.3	561.0	514.6	468.2	425.2	347.9
20°	784.5	772.5	755.9	722.1	679.7	630.4	575.9	521.5	467.6	417.8	328.4
22.5°	826.9	814.9	796.6	761.6	710.6	650.4	588.5	526.1	465.3	409.2	310.0
25°	863.6	853.9	833.8	793.7	739.8	671.6	600.6	529.5	461.9	400.0	290.5
27.5°	892.3	883.1	860.8	819.5	764.5	690.6	609.7	531.2	457.3	390.8	270.5
30°	917.5	908.3	881.4	839.0	781.1	705.5	618.9	531.8	451.6	377.1	248.7
32.5°	937.0	928.4	900.9	855.6	792.6	715.8	624.1	531.2	444.1	367.3	225.2
35°	956.5	947.9	915.8	867.6	801.2	720.4	628.1	528.4	435.0	351.3	202.9
37.5°	971.4	961.6	929.0	875.7	805.2	721.5	627.5	524.4	425.2	338.1	180.5
40°	981.7	971.4	936.4	880.2	806.3	719.8	622.9	517.5	413.8	321.5	157.0
42.5°	988.5	977.1	939.8	887.1	804.0	715.2	616.1	508.9	401.2	307.2	134.7
45°	992.0	980.0	940.4	881.4	800.0	706.6	605.7	498.0	387.4	287.7	112.3
47.5°	990.3	977.1	937.5	875.1	792.6	697.4	594.3	484.8	370.8	270.5	91.1
50°	987.4	973.6	931.2	867.1	782.2	686.0	581.7	468.8	353.6	249.3	72.2
52.5°	978.2	964.5	924.4	855.6	770.2	672.8	564.5	452.2	335.2	228.7	55.0
55°	966.8	954.2	912.3	845.3	754.7	656.7	548.4	434.4	317.5	207.5	39.5
57.5°	949.0	937.5	897.4	828.7	739.3	639.0	530.7	414.9	295.1	186.2	27.5
60°	927.2	915.8	876.8	809.8	721.5	618.9	511.2	394.8	275.1	165.0	17.2
62.5°	904.3	893.4	852.7	786.3	699.1	597.7	490.0	374.8	253.9	145.6	10.3
65°	873.9	863.6	826.9	758.2	674.5	574.8	466.5	350.7	232.1	123.8	5.7
67.5°	841.8	832.7	795.4	732.4	645.9	549.6	442.4	327.2	209.2	104.9	2.9
70°	807.5	796.0	761.6	697.4	616.6	520.9	416.1	303.2	187.4	86.5	0.0
72.5°	767.3	758.7	725.5	664.8	582.8	490.5	389.1	276.8	163.3	68.8	0.6
75°	728.4	717.5	687.1	629.8	549.6	458.5	359.3	252.2	139.8	52.7	0.6
77.5°	677.9	674.5	645.9	590.3	518.1	427.5	326.7	222.4	117.5	37.8	0.6
80°	627.5	624.1	601.7	550.7	481.4	390.8	296.3	194.3	95.7	25.2	0.6
82.5°	577.7	573.1	551.9	509.5	444.1	359.9	264.8	166.2	75.6	15.5	0.6
85°	533.0	527.2	504.3	465.3	405.7	324.9	232.1	138.7	56.2	8.6	1.1
87.5°	494.6	490.5	465.3	425.2	366.8	292.3	203.4	112.3	39.5	4.0	1.7
90°	461.9	453.3	431.0	388.5	330.1	256.2	173.1	90.0	26.4	2.3	2.3
92.5°	429.8	422.4	397.7	354.2	297.4	225.2	143.8	68.8	16.6	1.1	2.9
95°	396.6	388.5	364.5	324.4	264.2	193.7	118.1	50.4	9.2	1.1	2.9
97.5°	363.9	356.5	331.2	291.1	234.4	166.2	93.4	35.5	4.6	1.1	2.3
100°	333.5	324.9	302.0	261.9	204.6	138.7	72.2	22.9	2.9	1.1	2.3
102.5°	301.4	294.6	271.1	232.1	173.6	112.9	53.9	14.3	1.1	1.1	1.7
105°	272.8	264.2	241.3	201.1	147.9	88.8	37.8	8.6	1.1	1.1	1.7



TEST NUMBER: P551618

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	177.7	170.8	150.7	116.9	75.1	35.0	10.3	1.7	1.7	1.7	1.7
115°	148.4	138.1	120.3	90.5	55.6	22.9	5.2	1.7	1.7	1.7	1.7
117.5°	118.6	110.0	97.4	68.8	36.7	14.9	2.9	1.7	1.7	1.7	1.7
120°	92.8	84.8	70.5	47.6	24.6	8.6	1.1	1.7	1.7	1.7	1.7
122.5°	66.5	60.2	47.6	30.9	14.9	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.1	40.7	31.5	18.9	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.7	25.8	18.3	10.9	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.0	14.3	10.9	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	8.6	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.1	1.1	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: P551618

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	449.9	449.9	449.9
2.5°	428.1	420.1	417.8
5°	405.2	392.0	384.5
7.5°	382.2	364.5	355.9
10°	361.0	335.8	326.7
12.5°	335.8	306.6	292.3
15°	311.8	273.9	260.2
17.5°	284.8	242.4	226.4
20°	259.6	210.9	194.3
22.5°	230.9	179.9	161.6
25°	205.2	149.0	128.4
27.5°	176.5	117.5	99.7
30°	149.6	90.0	72.2
32.5°	123.8	65.9	49.9
35°	99.7	44.7	31.5
37.5°	76.8	27.5	16.0
40°	55.6	14.3	7.4
42.5°	37.2	6.9	4.0
45°	22.9	3.4	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	1.1	1.7
80°	1.1	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.4
87.5°	2.9	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.6	4.6
95°	4.0	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.0	5.2	5.7
102.5°	3.4	5.2	5.2
105°	2.9	4.0	4.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-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	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	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°	240.7	233.8	210.9	173.1	120.9	67.6	25.2	4.6	1.1	1.7	1.7
110°	209.7	204.0	180.5	143.8	97.4	50.4	16.6	2.9	1.7	1.7	1.7





107.5°	2.3	3.4	4.0
110°	2.3	2.9	3.4



(END OF REPORT)