

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: P551449

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-85-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: P551449
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-80-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

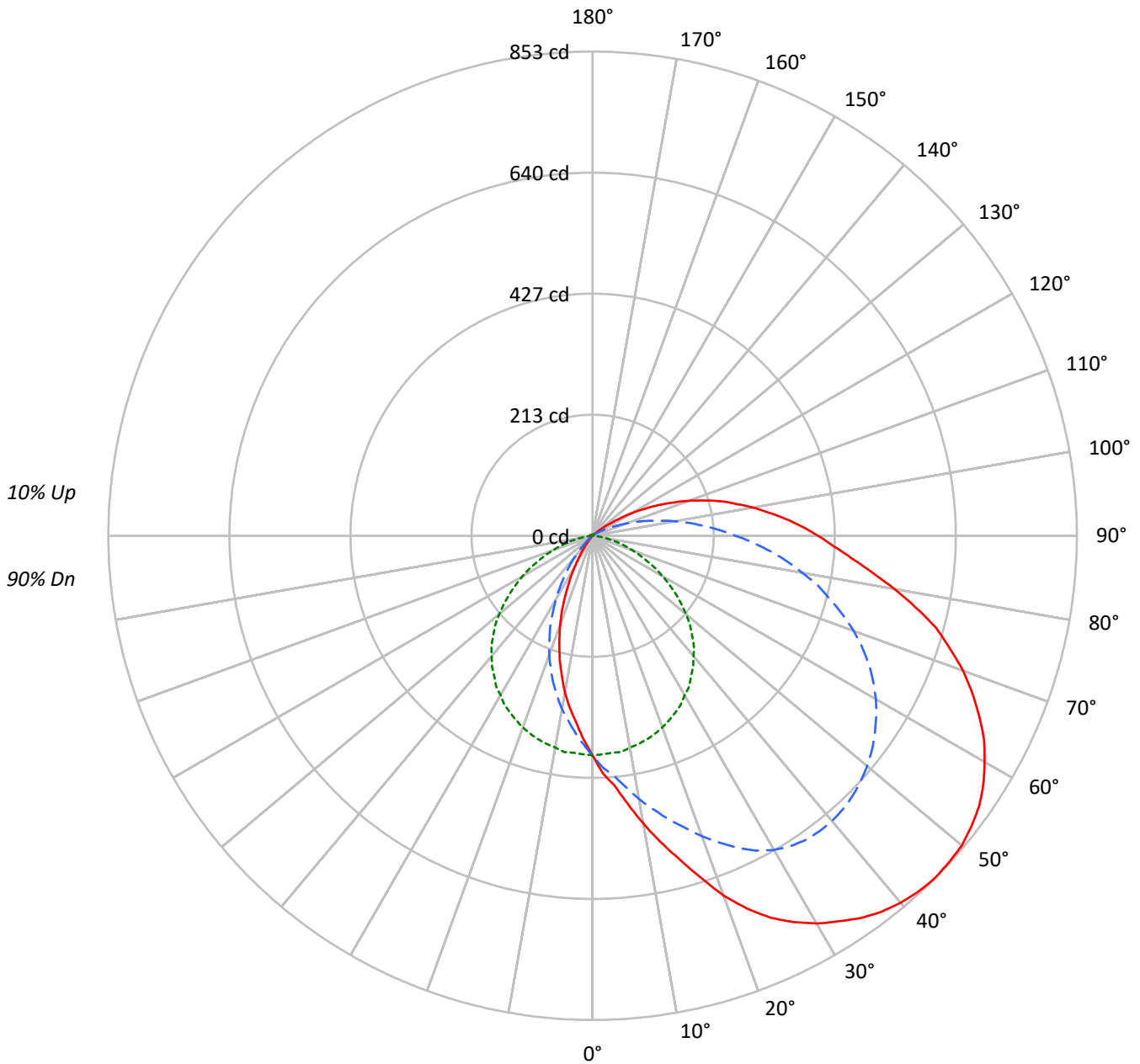
Lumens per Lamp: N/A
Luminaire Lumens: 1912.1 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	4163	4163	4163
5°	4569	4102	3422
10°	5171	4052	2820
15°	5795	4000	2198
20°	6537	3935	1618
25°	7151	3859	1063
30°	7608	3758	599
35°	8003	3649	264
40°	8354	3515	63
45°	8654	3346	0
50°	8908	3123	0
55°	9099	2839	0
60°	9197	2511	0
65°	9234	2137	0
70°	9204	1743	0
75°	9087	1285	7
80°	8719	787	40
85°	8427	376	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.0	1.9
10°-20°	110.9	5.8
20°-30°	179.6	9.4
30°-40°	230.7	12.1
40°-50°	261.2	13.7
50°-60°	270.6	14.2
60°-70°	255.2	13.3
70°-80°	213.9	11.2
80°-90°	155.0	8.1
90°-100°	101.9	5.3
100°-110°	58.8	3.1
110°-120°	26.0	1.4
120°-130°	7.0	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	327.6	17.1
0°-40°	558.3	29.2
0°-60°	1090.2	57.0
0°-90°	1714.3	89.7
90°-120°	186.7	9.8
90°-150°	196.5	10.3
90°-180°	198.0	10.4
0°-180°	1912.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	387	387	387	387	387	
5°	441	424	384	348	331	45
15°	590	517	371	268	224	170
25°	742	607	344	176	110	343
35°	822	654	302	86	27	516
45°	853	648	247	20	0	658
55°	831	607	178	0	0	742
65°	751	537	106	0	0	743
75°	626	433	45	0	0	657
85°	458	314	7	2	3	391
90°	397	252	2	3	3	218
95°	341	197	1	3	4	267
105°	234	102	1	2	4	247
115°	128	34	2	2	2	128
125°	38	5	2	2	2	38
135°	2	2	2	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	2	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°	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8
2.5°	419.3	418.8	417.3	414.8	411.4	405.5	400.5	396.1	390.2	385.3	375.9
5°	441.4	439.0	437.0	434.5	426.7	421.2	412.4	402.5	393.2	383.8	365.1
7.5°	476.9	473.0	470.0	463.1	452.3	440.0	426.2	416.8	410.4	384.3	352.3
10°	514.8	511.4	505.5	493.2	479.9	462.1	442.4	420.3	400.5	378.9	340.9
12.5°	552.3	547.4	539.0	523.2	504.5	482.3	455.2	429.1	401.0	375.4	327.6
15°	589.7	584.3	575.4	556.2	531.6	502.5	469.5	436.5	403.5	371.0	313.8
17.5°	630.6	623.2	609.9	588.3	557.2	521.3	482.3	442.4	402.5	365.6	299.1
20°	674.5	664.1	649.8	620.8	584.3	541.9	495.1	448.3	402.0	359.2	282.3
22.5°	710.9	700.6	684.8	654.8	610.9	559.2	506.0	452.3	400.1	351.8	266.5
25°	742.5	734.1	716.8	682.4	636.0	577.4	516.3	455.2	397.1	343.9	249.8
27.5°	767.1	759.2	740.0	704.5	657.2	593.7	524.2	456.7	393.2	336.0	232.5
30°	788.8	780.9	757.7	721.3	671.5	606.5	532.1	457.2	388.2	324.2	213.8
32.5°	805.5	798.1	774.5	735.6	681.4	615.4	536.5	456.7	381.8	315.8	193.6
35°	822.3	814.9	787.3	745.9	688.8	619.3	540.0	454.2	373.9	302.0	174.4
37.5°	835.1	826.7	798.6	752.8	692.2	620.3	539.5	450.8	365.6	290.7	155.2
40°	844.0	835.1	805.0	756.8	693.2	618.8	535.5	444.9	355.7	276.4	135.0
42.5°	849.9	840.0	808.0	762.7	691.2	614.9	529.6	437.5	344.9	264.1	115.8
45°	852.8	842.5	808.5	757.7	687.8	607.5	520.8	428.1	333.0	247.3	96.6
47.5°	851.3	840.0	806.0	752.3	681.4	599.6	510.9	416.8	318.8	232.5	78.3
50°	848.9	837.1	800.6	745.4	672.5	589.7	500.1	403.0	304.0	214.3	62.1
52.5°	841.0	829.2	794.7	735.6	662.2	578.4	485.3	388.7	288.2	196.6	47.3
55°	831.1	820.3	784.3	726.7	648.9	564.6	471.5	373.4	272.9	178.3	34.0
57.5°	815.9	806.0	771.5	712.4	635.6	549.3	456.2	356.7	253.7	160.1	23.6
60°	797.2	787.3	753.8	696.2	620.3	532.1	439.5	339.5	236.5	141.9	14.8
62.5°	777.4	768.1	733.1	676.0	601.1	513.9	421.2	322.2	218.3	125.1	8.9
65°	751.3	742.5	710.9	651.8	579.9	494.2	401.0	301.5	199.5	106.4	4.9
67.5°	723.7	715.9	683.8	629.6	555.2	472.5	380.3	281.3	179.8	90.2	2.5
70°	694.2	684.3	654.8	599.6	530.1	447.8	357.7	260.6	161.1	74.4	0.0
72.5°	659.7	652.3	623.7	571.5	501.1	421.7	334.5	238.0	140.4	59.1	0.5
75°	626.2	616.8	590.7	541.5	472.5	394.1	308.9	216.8	120.2	45.3	0.5
77.5°	582.8	579.9	555.2	507.5	445.4	367.5	280.8	191.2	101.0	32.5	0.5
80°	539.5	536.5	517.3	473.5	413.8	336.0	254.7	167.0	82.3	21.7	0.5
82.5°	496.6	492.7	474.4	438.0	381.8	309.4	227.6	142.9	65.0	13.3	0.5
85°	458.2	453.3	433.6	400.1	348.8	279.3	199.5	119.2	48.3	7.4	1.0
87.5°	425.2	421.7	400.1	365.6	315.3	251.3	174.9	96.6	34.0	3.4	1.5
90°	397.1	389.7	370.5	334.0	283.8	220.2	148.8	77.4	22.7	2.0	2.0
92.5°	369.5	363.1	341.9	304.5	255.7	193.6	123.7	59.1	14.3	1.0	2.5
95°	340.9	334.0	313.3	278.9	227.1	166.5	101.5	43.4	7.9	1.0	2.5
97.5°	312.9	306.4	284.8	250.3	201.5	142.9	80.3	30.5	3.9	1.0	2.0
100°	286.7	279.3	259.6	225.2	175.9	119.2	62.1	19.7	2.5	1.0	2.0
102.5°	259.1	253.2	233.0	199.5	149.3	97.1	46.3	12.3	1.0	1.0	1.5
105°	234.5	227.1	207.4	172.9	127.1	76.4	32.5	7.4	1.0	1.0	1.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	152.7	146.8	129.6	100.5	64.5	30.1	8.9	1.5	1.5	1.5	1.5
115°	127.6	118.7	103.5	77.8	47.8	19.7	4.4	1.5	1.5	1.5	1.5
117.5°	102.0	94.6	83.8	59.1	31.5	12.8	2.5	1.5	1.5	1.5	1.5
120°	79.8	72.9	60.6	40.9	21.2	7.4	1.0	1.5	1.5	1.5	1.5
122.5°	57.2	51.7	40.9	26.6	12.8	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.9	35.0	27.1	16.3	7.9	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.6	22.2	15.8	9.4	3.4	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.8	12.3	9.4	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.9	7.4	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	386.8	386.8	386.8
2.5°	368.0	361.1	359.2
5°	348.3	337.0	330.6
7.5°	328.6	313.3	306.0
10°	310.4	288.7	280.8
12.5°	288.7	263.6	251.3
15°	268.0	235.5	223.7
17.5°	244.9	208.4	194.6
20°	223.2	181.3	167.0
22.5°	198.5	154.7	138.9
25°	176.4	128.1	110.4
27.5°	151.7	101.0	85.7
30°	128.6	77.4	62.1
32.5°	106.4	56.7	42.9
35°	85.7	38.4	27.1
37.5°	66.0	23.6	13.8
40°	47.8	12.3	6.4
42.5°	32.0	5.9	3.4
45°	19.7	3.0	0.0
47.5°	11.3	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.5	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	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.4
90°	3.0	3.4	3.4
92.5°	3.0	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	3.0	4.4	4.4
105°	2.5	3.4	3.9



TEST NUMBER: P551449

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	206.9	201.0	181.3	148.8	104.0	58.1	21.7	3.9	1.0	1.5	1.5
110°	180.3	175.4	155.2	123.7	83.8	43.4	14.3	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.4
110°	2.0	2.5	3.0



(END OF REPORT)