

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: P551448

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-84-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: P551448
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-80-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

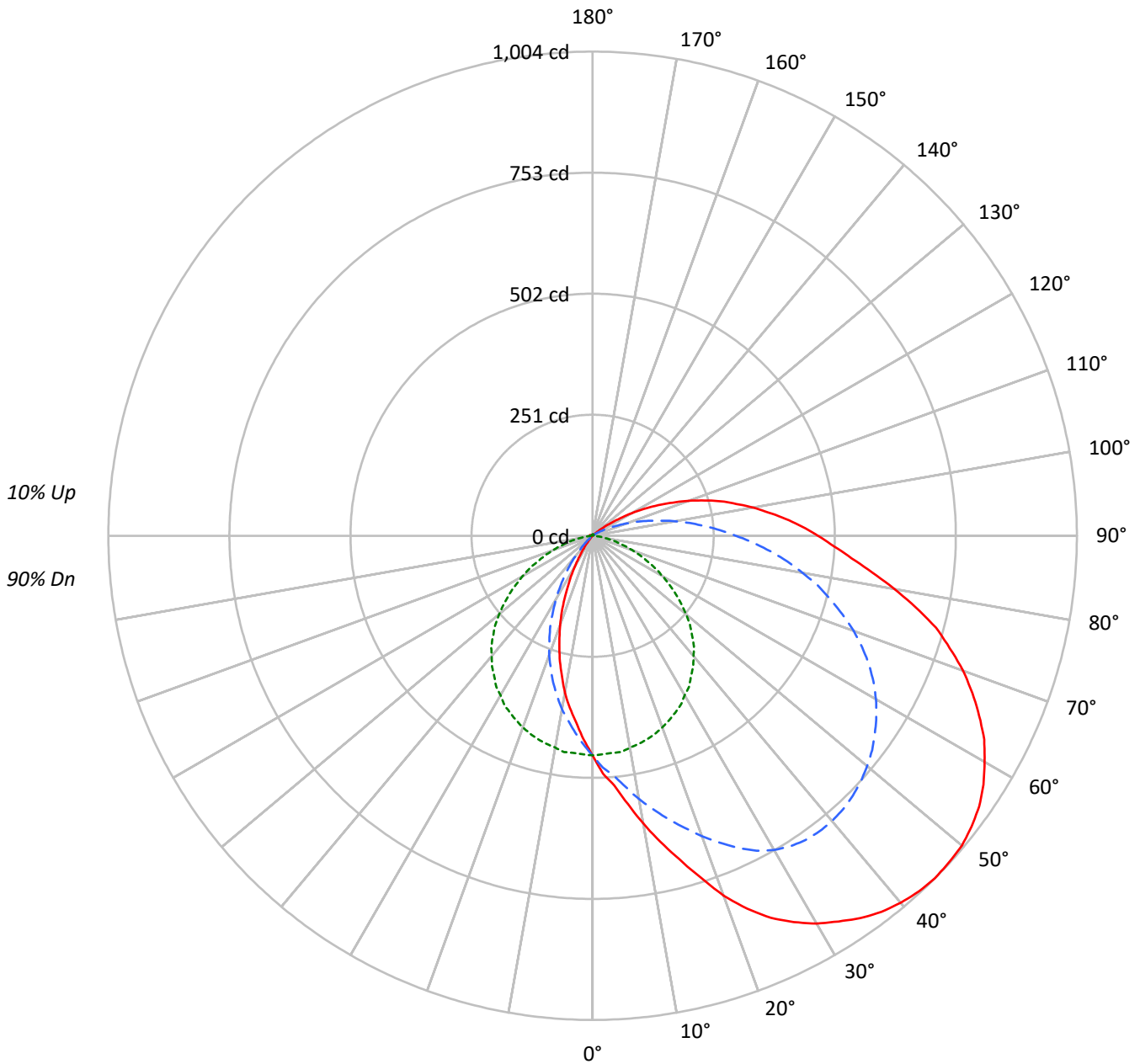
Lumens per Lamp: N/A
Luminaire Lumens: 2250.9 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	90				90				
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67				67				
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53				53				
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43				43				
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36				36				
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30				30				
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26				26				
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23				23				
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20				20				
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18				18				
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16				16				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4901	4901	4901
5°	5380	4829	4029
10°	6088	4770	3321
15°	6823	4710	2587
20°	7696	4632	1905
25°	8419	4544	1251
30°	8956	4425	705
35°	9422	4297	310
40°	9835	4138	74
45°	10189	3940	0
50°	10487	3677	0
55°	10713	3344	0
60°	10827	2955	0
65°	10871	2517	0
70°	10836	2052	0
75°	10697	1514	9
80°	10264	925	47
85°	9921	442	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.6	1.9
10°-20°	130.6	5.8
20°-30°	211.5	9.4
30°-40°	271.7	12.1
40°-50°	307.5	13.7
50°-60°	318.6	14.2
60°-70°	300.5	13.3
70°-80°	251.8	11.2
80°-90°	182.5	8.1
90°-100°	120.0	5.3
100°-110°	69.3	3.1
110°-120°	30.5	1.4
120°-130°	8.3	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°	385.7	17.1
0°-40°	657.3	29.2
0°-60°	1283.4	57.0
0°-90°	2018.2	89.7
90°-120°	219.8	9.8
90°-150°	231.2	10.3
90°-180°	233.0	10.4
0°-180°	2250.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	455	455	455	455	455	
5°	520	499	452	410	389	52
15°	694	609	437	316	263	200
25°	874	714	405	208	130	404
35°	968	770	356	101	32	607
45°	1004	762	291	23	0	775
55°	978	714	210	0	0	874
65°	884	632	125	0	0	875
75°	737	510	53	1	1	773
85°	539	370	9	2	4	461
90°	468	297	2	4	4	256
95°	401	232	1	4	5	315
105°	276	120	1	3	5	291
115°	150	40	2	2	3	150
125°	45	6	2	2	2	45
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°	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3	455.3
2.5°	493.6	493.0	491.3	488.4	484.3	477.4	471.6	466.3	459.4	453.6	442.6
5°	519.7	516.8	514.5	511.6	502.3	495.9	485.5	473.9	462.9	451.8	429.8
7.5°	561.5	556.8	553.3	545.2	532.5	518.0	501.7	490.7	483.2	452.4	414.7
10°	606.1	602.1	595.1	580.6	564.9	544.1	520.9	494.8	471.6	446.0	401.4
12.5°	650.2	644.4	634.6	616.0	594.0	567.8	535.9	505.2	472.1	442.0	385.7
15°	694.3	687.9	677.5	654.9	625.9	591.6	552.8	513.9	475.0	436.8	369.5
17.5°	742.4	733.7	718.1	692.6	656.0	613.7	567.8	520.9	473.9	430.4	352.1
20°	794.1	781.9	765.1	730.8	687.9	638.0	582.9	527.8	473.3	422.8	332.4
22.5°	837.0	824.8	806.2	770.9	719.2	658.3	595.7	532.5	471.0	414.1	313.8
25°	874.1	864.2	843.9	803.3	748.8	679.8	607.9	535.9	467.5	404.9	294.1
27.5°	903.1	893.8	871.2	829.4	773.8	698.9	617.2	537.7	462.9	395.6	273.8
30°	928.6	919.3	892.1	849.2	790.6	714.0	626.4	538.3	457.1	381.7	251.7
32.5°	948.3	939.6	911.8	866.0	802.2	724.5	631.7	537.7	449.5	371.8	228.0
35°	968.1	959.4	926.9	878.2	810.9	729.1	635.7	534.8	440.2	355.6	205.3
37.5°	983.2	973.3	940.2	886.3	814.9	730.3	635.1	530.7	430.4	342.2	182.7
40°	993.6	983.2	947.8	890.9	816.1	728.5	630.5	523.8	418.8	325.4	158.9
42.5°	1000.6	989.0	951.2	897.9	813.8	723.9	623.5	515.1	406.0	310.9	136.3
45°	1004.0	991.9	951.8	892.1	809.7	715.2	613.1	504.0	392.1	291.2	113.7
47.5°	1002.3	989.0	948.9	885.7	802.2	705.9	601.5	490.7	375.3	273.8	92.2
50°	999.4	985.5	942.5	877.6	791.7	694.3	588.7	474.5	357.9	252.3	73.1
52.5°	990.1	976.2	935.6	866.0	779.6	681.0	571.3	457.6	339.3	231.4	55.7
55°	978.5	965.7	923.4	855.5	763.9	664.7	555.1	439.7	321.3	210.0	40.0
57.5°	960.5	948.9	908.3	838.7	748.2	646.7	537.1	419.9	298.7	188.5	27.8
60°	938.5	926.9	887.4	819.6	730.3	626.4	517.4	399.6	278.4	167.0	17.4
62.5°	915.3	904.3	863.1	795.8	707.6	605.0	495.9	379.3	257.0	147.3	10.4
65°	884.5	874.1	837.0	767.4	682.7	581.8	472.1	355.0	234.9	125.3	5.8
67.5°	852.1	842.8	805.1	741.3	653.7	556.2	447.8	331.2	211.7	106.1	2.9
70°	817.3	805.7	770.9	705.9	624.1	527.2	421.1	306.8	189.7	87.6	0.0
72.5°	776.7	768.0	734.3	672.8	589.9	496.5	393.8	280.2	165.3	69.6	0.6
75°	737.2	726.2	695.5	637.5	556.2	464.0	363.7	255.2	141.5	53.4	0.6
77.5°	686.2	682.7	653.7	597.4	524.3	432.7	330.6	225.1	118.9	38.3	0.6
80°	635.1	631.7	609.0	557.4	487.2	395.6	299.9	196.6	96.9	25.5	0.6
82.5°	584.7	580.0	558.6	515.6	449.5	364.3	268.0	168.2	76.6	15.7	0.6
85°	539.4	533.6	510.4	471.0	410.7	328.9	234.9	140.4	56.8	8.7	1.2
87.5°	500.6	496.5	471.0	430.4	371.2	295.8	205.9	113.7	40.0	4.1	1.7
90°	467.5	458.8	436.2	393.3	334.1	259.3	175.2	91.1	26.7	2.3	2.3
92.5°	435.0	427.5	402.5	358.5	301.0	228.0	145.6	69.6	16.8	1.2	2.9
95°	401.4	393.3	368.9	328.3	267.4	196.1	119.5	51.0	9.3	1.2	2.9
97.5°	368.3	360.8	335.3	294.7	237.2	168.2	94.5	36.0	4.6	1.2	2.3
100°	337.6	328.9	305.7	265.1	207.1	140.4	73.1	23.2	2.9	1.2	2.3
102.5°	305.1	298.1	274.4	234.9	175.7	114.3	54.5	14.5	1.2	1.2	1.7
105°	276.1	267.4	244.2	203.6	149.6	89.9	38.3	8.7	1.2	1.2	1.7



TEST NUMBER: P551448

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	179.8	172.8	152.5	118.3	76.0	35.4	10.4	1.7	1.7	1.7	1.7
115°	150.2	139.8	121.8	91.6	56.3	23.2	5.2	1.7	1.7	1.7	1.7
117.5°	120.1	111.4	98.6	69.6	37.1	15.1	2.9	1.7	1.7	1.7	1.7
120°	94.0	85.8	71.3	48.1	24.9	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.3	60.9	48.1	31.3	15.1	4.1	1.7	1.7	2.3	2.3	1.7
125°	44.7	41.2	31.9	19.1	9.3	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	29.0	26.1	18.6	11.0	4.1	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.2	14.5	11.0	6.4	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.3	8.7	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°	455.3	455.3	455.3
2.5°	433.3	425.2	422.8
5°	410.1	396.7	389.2
7.5°	386.9	368.9	360.2
10°	365.4	339.9	330.6
12.5°	339.9	310.3	295.8
15°	315.5	277.3	263.3
17.5°	288.3	245.4	229.1
20°	262.8	213.5	196.6
22.5°	233.8	182.1	163.6
25°	207.7	150.8	129.9
27.5°	178.6	118.9	100.9
30°	151.4	91.1	73.1
32.5°	125.3	66.7	50.5
35°	100.9	45.2	31.9
37.5°	77.7	27.8	16.2
40°	56.3	14.5	7.5
42.5°	37.7	7.0	4.1
45°	23.2	3.5	0.0
47.5°	13.3	0.0	0.0
50°	7.0	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	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.6	4.6
95°	4.1	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.1	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.1	4.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-84-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°	243.6	236.7	213.5	175.2	122.4	68.4	25.5	4.6	1.2	1.7	1.7
110°	212.3	206.5	182.7	145.6	98.6	51.0	16.8	2.9	1.7	1.7	1.7





107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)