

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: P551651

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-80-96-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: P551651
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-50-UNV-80-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

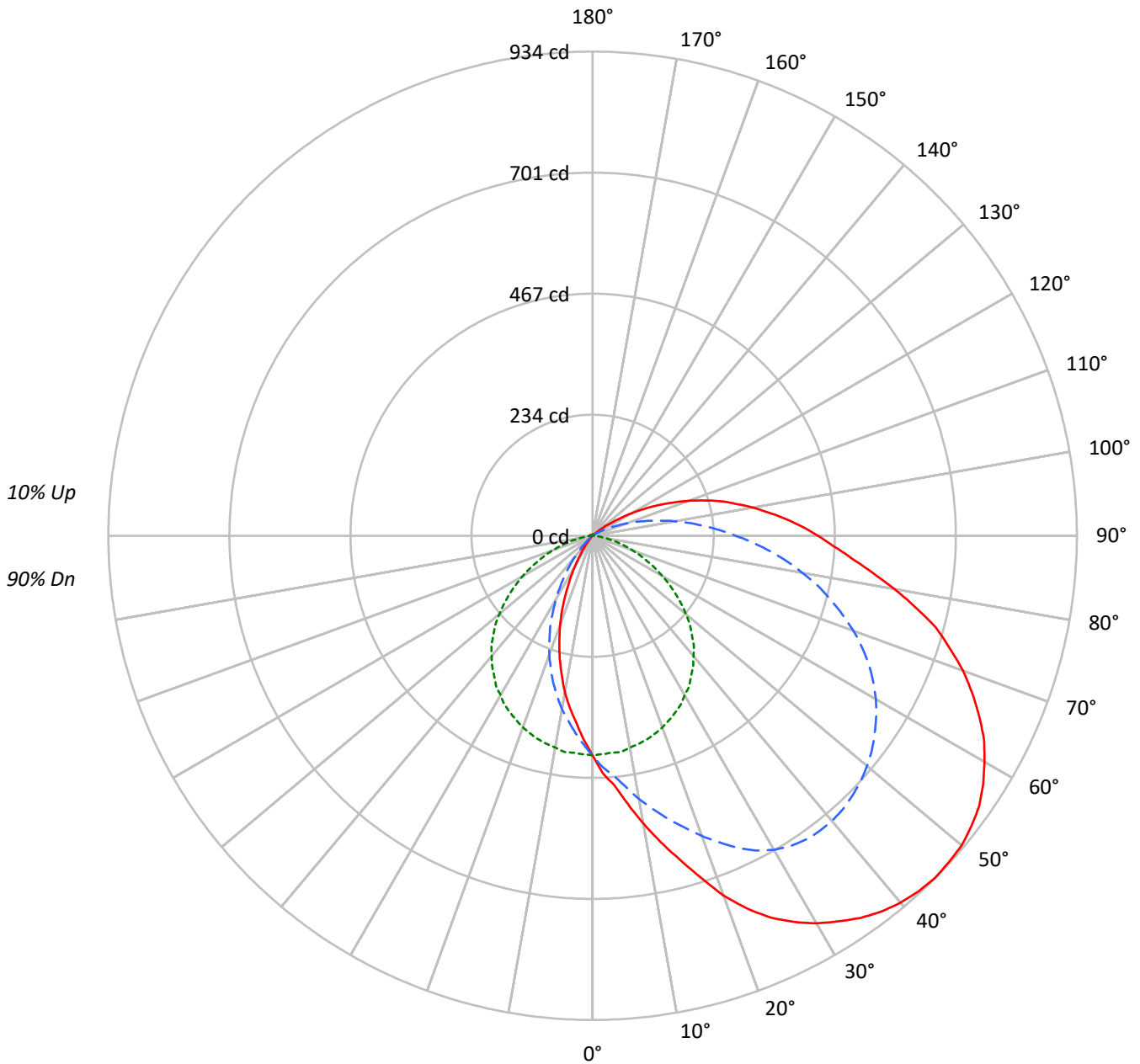
Lumens per Lamp: N/A
Luminaire Lumens: 2093.1 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551651

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-96-ED1D-90

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°	4557	4557	4557
5°	5002	4490	3746
10°	5661	4435	3088
15°	6344	4379	2406
20°	7155	4308	1772
25°	7828	4224	1163
30°	8327	4114	656
35°	8761	3995	289
40°	9144	3848	69
45°	9474	3663	0
50°	9750	3419	0
55°	9961	3108	0
60°	10067	2748	0
65°	10109	2340	0
70°	10075	1907	0
75°	9947	1407	7
80°	9545	860	44
85°	9225	412	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	1.9
10°-20°	121.4	5.8
20°-30°	196.6	9.4
30°-40°	252.6	12.1
40°-50°	285.9	13.7
50°-60°	296.2	14.2
60°-70°	279.4	13.3
70°-80°	234.1	11.2
80°-90°	169.7	8.1
90°-100°	111.6	5.3
100°-110°	64.4	3.1
110°-120°	28.4	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°	358.6	17.1
0°-40°	611.2	29.2
0°-60°	1193.4	57.0
0°-90°	1876.6	89.7
90°-120°	204.4	9.8
90°-150°	215.0	10.3
90°-180°	216.0	10.3
0°-180°	2093.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	423	423	423	423	423	
5°	483	464	420	381	362	49
15°	646	566	406	293	245	186
25°	813	664	376	193	121	376
35°	900	716	331	94	30	565
45°	934	709	271	22	0	721
55°	910	664	195	0	0	812
65°	822	588	116	0	0	814
75°	686	474	50	0	0	719
85°	502	344	8	2	3	428
90°	435	276	2	3	4	238
95°	373	215	1	4	5	293
105°	257	111	1	3	4	271
115°	140	37	2	2	3	140
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°	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4	423.4
2.5°	459.0	458.4	456.8	454.1	450.3	443.9	438.5	433.6	427.1	421.7	411.5
5°	483.2	480.5	478.4	475.7	467.0	461.1	451.4	440.6	430.4	420.1	399.6
7.5°	522.1	517.7	514.5	507.0	495.1	481.6	466.5	456.3	449.3	420.7	385.6
10°	563.6	559.8	553.3	539.9	525.3	505.9	484.3	460.0	438.5	414.7	373.2
12.5°	604.6	599.2	590.0	572.8	552.3	528.0	498.3	469.7	439.0	411.0	358.6
15°	645.6	639.6	629.9	608.9	581.9	550.1	514.0	477.8	441.7	406.1	343.5
17.5°	690.3	682.2	667.7	643.9	610.0	570.6	528.0	484.3	440.6	400.2	327.4
20°	738.3	727.0	711.4	679.5	639.6	593.2	542.0	490.8	440.1	393.2	309.0
22.5°	778.2	766.9	749.7	716.8	668.8	612.1	553.9	495.1	437.9	385.1	291.8
25°	812.8	803.6	784.7	747.0	696.3	632.1	565.2	498.3	434.7	376.4	273.4
27.5°	839.7	831.1	810.1	771.2	719.4	649.9	573.8	499.9	430.4	367.8	254.6
30°	863.4	854.8	829.5	789.6	735.1	663.9	582.5	500.5	425.0	354.9	234.1
32.5°	881.8	873.7	847.8	805.2	745.9	673.6	587.3	499.9	418.0	345.7	212.0
35°	900.1	892.0	861.8	816.5	754.0	677.9	591.1	497.3	409.3	330.6	190.9
37.5°	914.1	905.0	874.2	824.1	757.7	679.0	590.6	493.5	400.2	318.2	169.9
40°	923.8	914.1	881.2	828.4	758.8	677.4	586.2	487.0	389.4	302.6	147.8
42.5°	930.3	919.5	884.5	834.9	756.7	673.1	579.8	478.9	377.5	289.1	126.7
45°	933.6	922.2	885.0	829.5	752.9	665.0	570.1	468.7	364.6	270.7	105.7
47.5°	931.9	919.5	882.3	823.5	745.9	656.3	559.3	456.3	348.9	254.6	85.8
50°	929.2	916.3	876.4	816.0	736.2	645.6	547.4	441.2	332.8	234.6	68.0
52.5°	920.6	907.7	869.9	805.2	724.8	633.2	531.2	425.5	315.5	215.2	51.8
55°	909.8	898.0	858.6	795.5	710.3	618.1	516.1	408.8	298.8	195.2	37.2
57.5°	893.1	882.3	844.6	779.9	695.7	601.3	499.4	390.5	277.7	175.3	25.9
60°	872.6	861.8	825.2	762.1	679.0	582.5	481.1	371.6	258.9	155.3	16.2
62.5°	851.0	840.8	802.5	739.9	658.0	562.5	461.1	352.7	238.9	137.0	9.7
65°	822.5	812.8	778.2	713.5	634.8	540.9	439.0	330.1	218.4	116.5	5.4
67.5°	792.3	783.6	748.6	689.2	607.8	517.2	416.4	307.9	196.9	98.7	2.7
70°	759.9	749.1	716.8	656.3	580.3	490.2	391.5	285.3	176.4	81.4	0.0
72.5°	722.1	714.1	682.8	625.6	548.5	461.7	366.2	260.5	153.7	64.7	0.5
75°	685.5	675.2	646.6	592.7	517.2	431.5	338.2	237.3	131.6	49.6	0.5
77.5°	638.0	634.8	607.8	555.5	487.5	402.3	307.4	209.3	110.6	35.6	0.5
80°	590.6	587.3	566.3	518.3	453.0	367.8	278.8	182.8	90.1	23.7	0.5
82.5°	543.6	539.3	519.4	479.5	418.0	338.7	249.2	156.4	71.2	14.6	0.5
85°	501.6	496.2	474.6	437.9	381.8	305.8	218.4	130.5	52.9	8.1	1.1
87.5°	465.4	461.7	437.9	400.2	345.2	275.1	191.5	105.7	37.2	3.8	1.6
90°	434.7	426.6	405.6	365.7	310.6	241.1	162.9	84.7	24.8	2.2	2.2
92.5°	404.5	397.5	374.3	333.3	279.9	212.0	135.4	64.7	15.6	1.1	2.7
95°	373.2	365.7	343.0	305.3	248.6	182.3	111.1	47.5	8.6	1.1	2.7
97.5°	342.5	335.5	311.7	274.0	220.6	156.4	87.9	33.4	4.3	1.1	2.2
100°	313.9	305.8	284.2	246.5	192.5	130.5	68.0	21.6	2.7	1.1	2.2
102.5°	283.7	277.2	255.1	218.4	163.4	106.2	50.7	13.5	1.1	1.1	1.6
105°	256.7	248.6	227.1	189.3	139.1	83.6	35.6	8.1	1.1	1.1	1.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	167.2	160.7	141.8	110.0	70.7	32.9	9.7	1.6	1.6	1.6	1.6
115°	139.7	130.0	113.3	85.2	52.3	21.6	4.9	1.6	1.6	1.6	1.6
117.5°	111.6	103.5	91.7	64.7	34.5	14.0	2.7	1.6	1.6	1.6	1.6
120°	87.4	79.8	66.3	44.8	23.2	8.1	1.1	1.6	1.6	1.6	1.6
122.5°	62.6	56.6	44.8	29.1	14.0	3.8	1.6	1.6	2.2	2.2	1.6
125°	41.5	38.3	29.7	17.8	8.6	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.0	24.3	17.3	10.2	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.1	13.5	10.2	5.9	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.6	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



TEST NUMBER: P551651

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	423.4	423.4	423.4
2.5°	402.9	395.3	393.2
5°	381.3	368.9	361.9
7.5°	359.7	343.0	334.9
10°	339.8	316.0	307.4
12.5°	316.0	288.5	275.1
15°	293.4	257.8	244.8
17.5°	268.0	228.1	213.0
20°	244.3	198.5	182.8
22.5°	217.3	169.3	152.1
25°	193.1	140.2	120.8
27.5°	166.1	110.6	93.8
30°	140.8	84.7	68.0
32.5°	116.5	62.0	46.9
35°	93.8	42.1	29.7
37.5°	72.3	25.9	15.1
40°	52.3	13.5	7.0
42.5°	35.1	6.5	3.8
45°	21.6	3.2	0.0
47.5°	12.4	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	3.2
87.5°	2.7	3.2	3.8
90°	3.2	3.8	3.8
92.5°	3.2	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°	3.2	4.9	4.9
105°	2.7	3.8	4.3



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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°	226.5	220.0	198.5	162.9	113.8	63.6	23.7	4.3	1.1	1.6	1.6
110°	197.4	192.0	169.9	135.4	91.7	47.5	15.6	2.7	1.6	1.6	1.6





107.5°	2.2	3.2	3.8
110°	2.2	2.7	3.2



(END OF REPORT)