

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: P551641

Luminaire Tested: **FCC-X-2-LD4-2LO-50-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: P551641
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-80-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

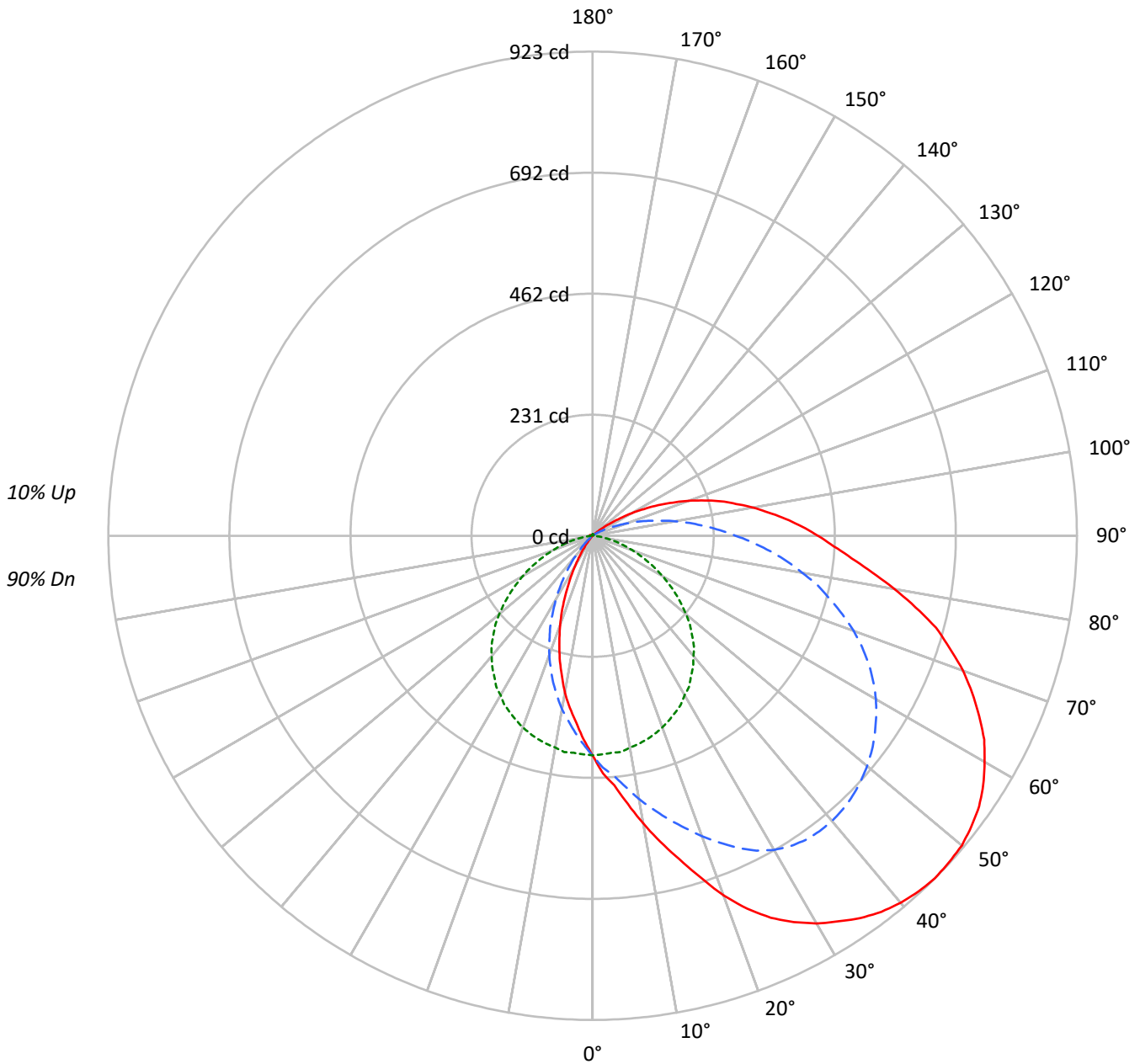
Lumens per Lamp: N/A
Luminaire Lumens: 2069.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551641

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-85-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°	4505	4505	4505
5°	4945	4439	3703
10°	5596	4385	3052
15°	6272	4328	2378
20°	7074	4259	1751
25°	7738	4176	1150
30°	8232	4067	648
35°	8660	3949	285
40°	9040	3804	68
45°	9366	3621	0
50°	9639	3380	0
55°	9847	3073	0
60°	9952	2716	0
65°	9992	2314	0
70°	9960	1886	0
75°	9833	1390	7
80°	9435	852	44
85°	9119	407	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	1.9
10°-20°	120.0	5.8
20°-30°	194.4	9.4
30°-40°	249.7	12.1
40°-50°	282.7	13.7
50°-60°	292.8	14.2
60°-70°	276.2	13.3
70°-80°	231.4	11.2
80°-90°	167.8	8.1
90°-100°	110.3	5.3
100°-110°	63.7	3.1
110°-120°	28.1	1.4
120°-130°	7.6	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	354.5	17.1
0°-40°	604.2	29.2
0°-60°	1179.7	57.0
0°-90°	1855.0	89.7
90°-120°	202.0	9.8
90°-150°	212.5	10.3
90°-180°	214.0	10.3
0°-180°	2069.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	418	418	418	418	418	
5°	478	459	415	377	358	48
15°	638	560	401	290	242	184
25°	803	657	372	191	119	371
35°	890	708	327	93	29	558
45°	923	701	268	21	0	713
55°	899	657	193	0	0	803
65°	813	581	115	0	0	804
75°	678	469	49	0	0	711
85°	496	340	8	2	3	423
90°	430	273	2	3	4	236
95°	369	213	1	4	5	289
105°	254	110	1	3	4	268
115°	138	36	2	2	3	138
125°	41	5	2	2	2	41
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°	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5	418.5
2.5°	453.7	453.2	451.6	448.9	445.2	438.8	433.4	428.6	422.2	416.9	406.8
5°	477.7	475.0	472.9	470.2	461.7	455.8	446.2	435.6	425.4	415.3	395.1
7.5°	516.1	511.8	508.6	501.1	489.4	476.1	461.2	451.0	444.1	415.8	381.2
10°	557.1	553.4	547.0	533.7	519.3	500.1	478.8	454.8	433.4	410.0	368.9
12.5°	597.6	592.3	583.2	566.2	545.9	521.9	492.6	464.4	434.0	406.2	354.5
15°	638.2	632.3	622.7	601.9	575.2	543.8	508.1	472.4	436.6	401.4	339.6
17.5°	682.4	674.4	660.0	636.6	603.0	564.1	521.9	478.8	435.6	395.6	323.6
20°	729.9	718.7	703.2	671.7	632.3	586.4	535.8	485.2	435.0	388.7	305.5
22.5°	769.3	758.1	741.1	708.5	661.1	605.1	547.5	489.4	432.9	380.7	288.4
25°	803.4	794.4	775.7	738.4	688.3	624.8	558.7	492.6	429.7	372.1	270.3
27.5°	830.1	821.6	800.8	762.4	711.2	642.4	567.3	494.2	425.4	363.6	251.6
30°	853.5	845.0	820.0	780.5	726.7	656.3	575.8	494.7	420.1	350.8	231.4
32.5°	871.7	863.7	838.1	796.0	737.3	665.9	580.6	494.2	413.2	341.7	209.5
35°	889.8	881.8	851.9	807.2	745.3	670.1	584.3	491.5	404.6	326.8	188.7
37.5°	903.7	894.6	864.2	814.6	749.1	671.2	583.8	487.8	395.6	314.5	167.9
40°	913.3	903.7	871.1	818.9	750.1	669.6	579.5	481.4	384.9	299.1	146.1
42.5°	919.7	909.0	874.3	825.3	748.0	665.3	573.1	473.4	373.2	285.8	125.3
45°	922.9	911.7	874.9	820.0	744.3	657.4	563.5	463.3	360.4	267.6	104.5
47.5°	921.3	909.0	872.2	814.1	737.3	648.8	552.9	451.0	344.9	251.6	84.8
50°	918.6	905.8	866.3	806.6	727.7	638.2	541.1	436.1	328.9	231.9	67.2
52.5°	910.1	897.3	859.9	796.0	716.5	625.9	525.1	420.6	311.9	212.7	51.2
55°	899.4	887.7	848.7	786.4	702.1	611.0	510.2	404.1	295.4	193.0	36.8
57.5°	882.9	872.2	834.9	770.9	687.7	594.4	493.7	386.0	274.6	173.3	25.6
60°	862.6	851.9	815.7	753.3	671.2	575.8	475.6	367.3	255.9	153.5	16.0
62.5°	841.3	831.2	793.3	731.5	650.4	556.1	455.8	348.7	236.2	135.4	9.6
65°	813.0	803.4	769.3	705.3	627.5	534.7	434.0	326.3	215.9	115.2	5.3
67.5°	783.2	774.6	740.0	681.3	600.8	511.3	411.6	304.4	194.6	97.6	2.7
70°	751.2	740.5	708.5	648.8	573.7	484.6	387.1	282.0	174.3	80.5	0.0
72.5°	713.9	705.9	674.9	618.4	542.2	456.4	362.0	257.5	151.9	64.0	0.5
75°	677.6	667.5	639.2	585.9	511.3	426.5	334.3	234.6	130.1	49.0	0.5
77.5°	630.7	627.5	600.8	549.1	482.0	397.7	303.9	206.9	109.3	35.2	0.5
80°	583.8	580.6	559.8	512.3	447.8	363.6	275.6	180.7	89.0	23.5	0.5
82.5°	537.4	533.1	513.4	474.0	413.2	334.8	246.3	154.6	70.4	14.4	0.5
85°	495.8	490.5	469.2	432.9	377.5	302.3	215.9	129.0	52.2	8.0	1.1
87.5°	460.1	456.4	432.9	395.6	341.2	271.9	189.3	104.5	36.8	3.7	1.6
90°	429.7	421.7	400.9	361.5	307.1	238.3	161.0	83.7	24.5	2.1	2.1
92.5°	399.8	392.9	370.0	329.5	276.7	209.5	133.8	64.0	15.5	1.1	2.7
95°	368.9	361.5	339.1	301.8	245.8	180.2	109.8	46.9	8.5	1.1	2.7
97.5°	338.5	331.6	308.2	270.8	218.1	154.6	86.9	33.1	4.3	1.1	2.1
100°	310.3	302.3	281.0	243.6	190.3	129.0	67.2	21.3	2.7	1.1	2.1
102.5°	280.4	274.0	252.2	215.9	161.5	105.0	50.1	13.3	1.1	1.1	1.6
105°	253.8	245.8	224.4	187.1	137.5	82.6	35.2	8.0	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°	165.3	158.9	140.2	108.8	69.8	32.5	9.6	1.6	1.6	1.6	1.6
115°	138.1	128.5	112.0	84.2	51.7	21.3	4.8	1.6	1.6	1.6	1.6
117.5°	110.4	102.4	90.6	64.0	34.1	13.9	2.7	1.6	1.6	1.6	1.6
120°	86.4	78.9	65.6	44.2	22.9	8.0	1.1	1.6	1.6	1.6	1.6
122.5°	61.8	56.0	44.2	28.8	13.9	3.7	1.6	1.6	2.1	2.1	1.6
125°	41.1	37.9	29.3	17.6	8.5	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.7	24.0	17.1	10.1	3.7	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.9	13.3	10.1	5.9	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.5	8.0	5.3	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.1	2.7	2.7	2.7	2.1
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.1	2.7	2.7	2.7	2.1
142.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1	2.1
145°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.1	2.1	2.1
147.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1	2.1
150°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.1
152.5°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.1
155°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.7
157.5°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	418.5	418.5	418.5
2.5°	398.2	390.8	388.7
5°	376.9	364.7	357.7
7.5°	355.6	339.1	331.1
10°	335.9	312.4	303.9
12.5°	312.4	285.2	271.9
15°	290.0	254.8	242.0
17.5°	265.0	225.5	210.6
20°	241.5	196.2	180.7
22.5°	214.9	167.4	150.3
25°	190.9	138.6	119.4
27.5°	164.2	109.3	92.8
30°	139.1	83.7	67.2
32.5°	115.2	61.3	46.4
35°	92.8	41.6	29.3
37.5°	71.4	25.6	14.9
40°	51.7	13.3	6.9
42.5°	34.7	6.4	3.7
45°	21.3	3.2	0.0
47.5°	12.3	0.0	0.0
50°	6.4	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	2.1	2.7
82.5°	2.1	2.7	2.7
85°	2.1	2.7	3.2
87.5°	2.7	3.2	3.7
90°	3.2	3.7	3.7
92.5°	3.2	4.3	4.3
95°	3.7	4.3	4.8
97.5°	4.3	4.8	4.8
100°	3.7	4.8	5.3
102.5°	3.2	4.8	4.8
105°	2.7	3.7	4.3



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.7	2.7
115°	1.6	2.1	2.7
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	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°	2.1	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°	223.9	217.5	196.2	161.0	112.5	62.9	23.5	4.3	1.1	1.6	1.6
110°	195.1	189.8	167.9	133.8	90.6	46.9	15.5	2.7	1.6	1.6	1.6





107.5°	2.1	3.2	3.7
110°	2.1	2.7	3.2



(END OF REPORT)