

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: P551141

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-80-97-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: P551141  
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-LD4-1STD-50-UNV-80-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

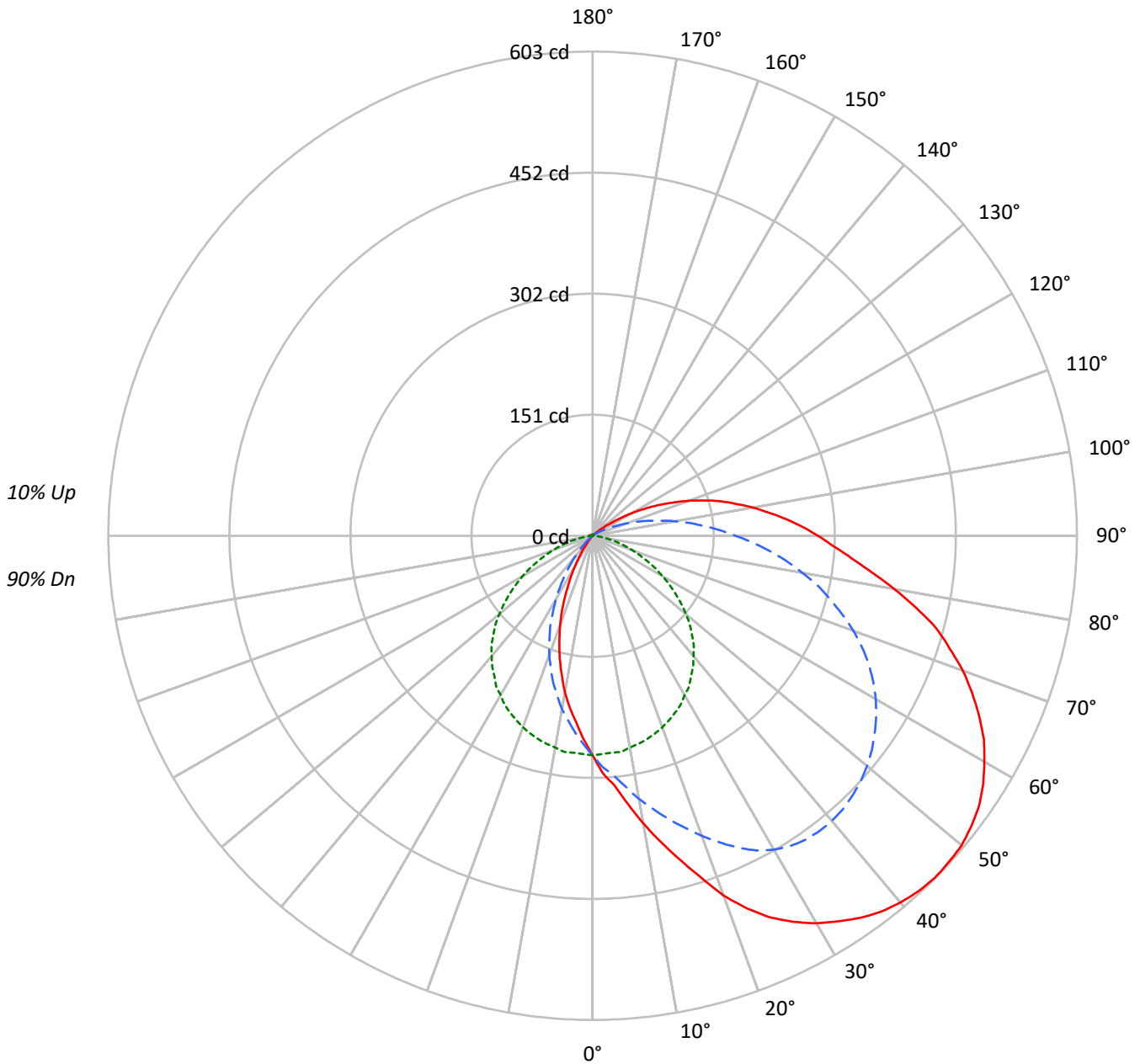
Lumens per Lamp: N/A  
Luminaire Lumens: 1350.9 lumens  
Efficiency: N/A  
Efficacy: 80.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-80-97-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°	2942	2942	2942
5°	3229	2899	2418
10°	3654	2863	1993
15°	4095	2826	1553
20°	4619	2781	1144
25°	5052	2727	751
30°	5375	2656	423
35°	5655	2578	186
40°	5902	2484	45
45°	6115	2365	0
50°	6294	2207	0
55°	6430	2006	0
60°	6499	1775	0
65°	6525	1510	0
70°	6503	1232	0
75°	6421	907	4
80°	6160	555	27
85°	5955	264	39



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-80-97-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.2	1.9
10°-20°	78.4	5.8
20°-30°	126.9	9.4
30°-40°	163.0	12.1
40°-50°	184.6	13.7
50°-60°	191.2	14.2
60°-70°	180.3	13.3
70°-80°	151.1	11.2
80°-90°	109.5	8.1
90°-100°	72.0	5.3
100°-110°	41.6	3.1
110°-120°	18.3	1.4
120°-130°	4.9	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	231.5	17.1
0°-40°	394.5	29.2
0°-60°	770.3	57.0
0°-90°	1211.3	89.7
90°-120°	131.9	9.8
90°-150°	138.7	10.3
90°-180°	140.0	10.4
0°-180°	1350.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	273	273	273	273	273	
5°	312	300	271	246	234	31
15°	417	365	262	189	158	120
25°	525	429	243	125	78	242
35°	581	462	213	61	19	364
45°	603	458	175	14	0	465
55°	587	429	126	0	0	524
65°	531	379	75	0	0	525
75°	442	306	32	0	0	464
85°	324	222	5	1	2	276
90°	281	178	1	2	2	154
95°	241	139	1	2	3	189
105°	166	72	1	2	3	175
115°	90	24	1	1	2	90
125°	27	3	1	1	1	27
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	273.3	273.3	273.3	273.3	273.3	273.3	273.3	273.3	273.3	273.3	273.3
2.5°	296.3	295.9	294.9	293.1	290.7	286.5	283.0	279.9	275.7	272.2	265.6
5°	311.9	310.2	308.8	307.0	301.5	297.6	291.4	284.4	277.8	271.2	258.0
7.5°	337.0	334.2	332.1	327.2	319.6	310.9	301.1	294.5	290.0	271.5	248.9
10°	363.8	361.3	357.2	348.5	339.1	326.5	312.6	296.9	283.0	267.7	240.9
12.5°	390.2	386.8	380.8	369.7	356.5	340.8	321.7	303.2	283.4	265.3	231.5
15°	416.7	412.9	406.6	393.0	375.6	355.1	331.8	308.4	285.1	262.1	221.8
17.5°	445.6	440.4	431.0	415.7	393.7	368.3	340.8	312.6	284.4	258.3	211.3
20°	476.6	469.3	459.2	438.6	412.9	382.9	349.9	316.8	284.1	253.8	199.5
22.5°	502.3	495.0	483.9	462.7	431.7	395.1	357.5	319.6	282.7	248.6	188.3
25°	524.6	518.7	506.5	482.1	449.4	408.0	364.8	321.7	280.6	243.0	176.5
27.5°	542.0	536.5	522.9	497.8	464.4	419.5	370.4	322.7	277.8	237.4	164.3
30°	557.3	551.8	535.4	509.6	474.5	428.5	376.0	323.1	274.3	229.1	151.1
32.5°	569.2	564.0	547.2	519.7	481.5	434.8	379.1	322.7	269.8	223.1	136.8
35°	581.0	575.8	556.3	527.1	486.7	437.6	381.5	321.0	264.2	213.4	123.2
37.5°	590.1	584.1	564.3	531.9	489.1	438.3	381.2	318.5	258.3	205.4	109.7
40°	596.3	590.1	568.8	534.7	489.8	437.2	378.4	314.4	251.3	195.3	95.4
42.5°	600.5	593.5	570.9	538.9	488.4	434.5	374.2	309.1	243.7	186.6	81.8
45°	602.6	595.3	571.3	535.4	486.0	429.2	368.0	302.5	235.3	174.8	68.2
47.5°	601.6	593.5	569.5	531.6	481.5	423.7	361.0	294.5	225.2	164.3	55.4
50°	599.8	591.5	565.7	526.7	475.2	416.7	353.3	284.8	214.8	151.4	43.9
52.5°	594.2	585.9	561.5	519.7	467.9	408.7	342.9	274.7	203.7	138.9	33.4
55°	587.3	579.6	554.2	513.5	458.5	398.9	333.2	263.9	192.9	126.0	24.0
57.5°	576.5	569.5	545.2	503.4	449.1	388.2	322.4	252.0	179.3	113.1	16.7
60°	563.3	556.3	532.6	491.9	438.3	376.0	310.5	239.9	167.1	100.3	10.4
62.5°	549.3	542.7	518.0	477.6	424.7	363.1	297.6	227.7	154.2	88.4	6.3
65°	530.9	524.6	502.3	460.6	409.7	349.2	283.4	213.0	141.0	75.2	3.5
67.5°	511.4	505.8	483.2	444.9	392.3	333.8	268.7	198.8	127.1	63.7	1.7
70°	490.5	483.5	462.7	423.7	374.6	316.4	252.7	184.2	113.8	52.6	0.0
72.5°	466.1	460.9	440.7	403.8	354.0	298.0	236.4	168.1	99.2	41.8	0.3
75°	442.5	435.8	417.4	382.6	333.8	278.5	218.3	153.2	84.9	32.0	0.3
77.5°	411.8	409.7	392.3	358.6	314.7	259.7	198.4	135.1	71.4	23.0	0.3
80°	381.2	379.1	365.5	334.5	292.4	237.4	180.0	118.0	58.1	15.3	0.3
82.5°	350.9	348.1	335.2	309.5	269.8	218.6	160.8	101.0	46.0	9.4	0.3
85°	323.8	320.3	306.3	282.7	246.5	197.4	141.0	84.2	34.1	5.2	0.7
87.5°	300.4	298.0	282.7	258.3	222.8	177.5	123.6	68.2	24.0	2.4	1.0
90°	280.6	275.4	261.8	236.0	200.5	155.6	105.1	54.7	16.0	1.4	1.4
92.5°	261.1	256.6	241.6	215.1	180.7	136.8	87.4	41.8	10.1	0.7	1.7
95°	240.9	236.0	221.4	197.0	160.5	117.7	71.7	30.6	5.6	0.7	1.7
97.5°	221.1	216.5	201.2	176.8	142.4	101.0	56.7	21.6	2.8	0.7	1.4
100°	202.6	197.4	183.5	159.1	124.3	84.2	43.9	13.9	1.7	0.7	1.4
102.5°	183.1	178.9	164.7	141.0	105.5	68.6	32.7	8.7	0.7	0.7	1.0
105°	165.7	160.5	146.6	122.2	89.8	54.0	23.0	5.2	0.7	0.7	1.0



TEST NUMBER: P551141

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-80-97-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	107.9	103.7	91.6	71.0	45.6	21.2	6.3	1.0	1.0	1.0	1.0
115°	90.2	83.9	73.1	55.0	33.8	13.9	3.1	1.0	1.0	1.0	1.0
117.5°	72.1	66.8	59.2	41.8	22.3	9.1	1.7	1.0	1.0	1.0	1.0
120°	56.4	51.5	42.8	28.9	15.0	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	40.4	36.6	28.9	18.8	9.1	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.8	24.7	19.1	11.5	5.6	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.4	15.7	11.1	6.6	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.7	8.7	6.6	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.6	5.2	3.5	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



TEST NUMBER: P551141

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-80-97-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	273.3	273.3	273.3
2.5°	260.0	255.2	253.8
5°	246.1	238.1	233.6
7.5°	232.2	221.4	216.2
10°	219.3	204.0	198.4
12.5°	204.0	186.2	177.5
15°	189.4	166.4	158.0
17.5°	173.0	147.3	137.5
20°	157.7	128.1	118.0
22.5°	140.3	109.3	98.2
25°	124.6	90.5	78.0
27.5°	107.2	71.4	60.6
30°	90.9	54.7	43.9
32.5°	75.2	40.0	30.3
35°	60.6	27.2	19.1
37.5°	46.6	16.7	9.7
40°	33.8	8.7	4.5
42.5°	22.6	4.2	2.4
45°	13.9	2.1	0.0
47.5°	8.0	0.0	0.0
50°	4.2	0.0	0.0
52.5°	1.7	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.8	2.8
95°	2.4	2.8	3.1
97.5°	2.8	3.1	3.1
100°	2.4	3.1	3.5
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.8





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	146.2	142.0	128.1	105.1	73.5	41.1	15.3	2.8	0.7	1.0	1.0
110°	127.4	123.9	109.7	87.4	59.2	30.6	10.1	1.7	1.0	1.0	1.0







107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)