

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: P551187

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-96-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: P551187  
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-93-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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**

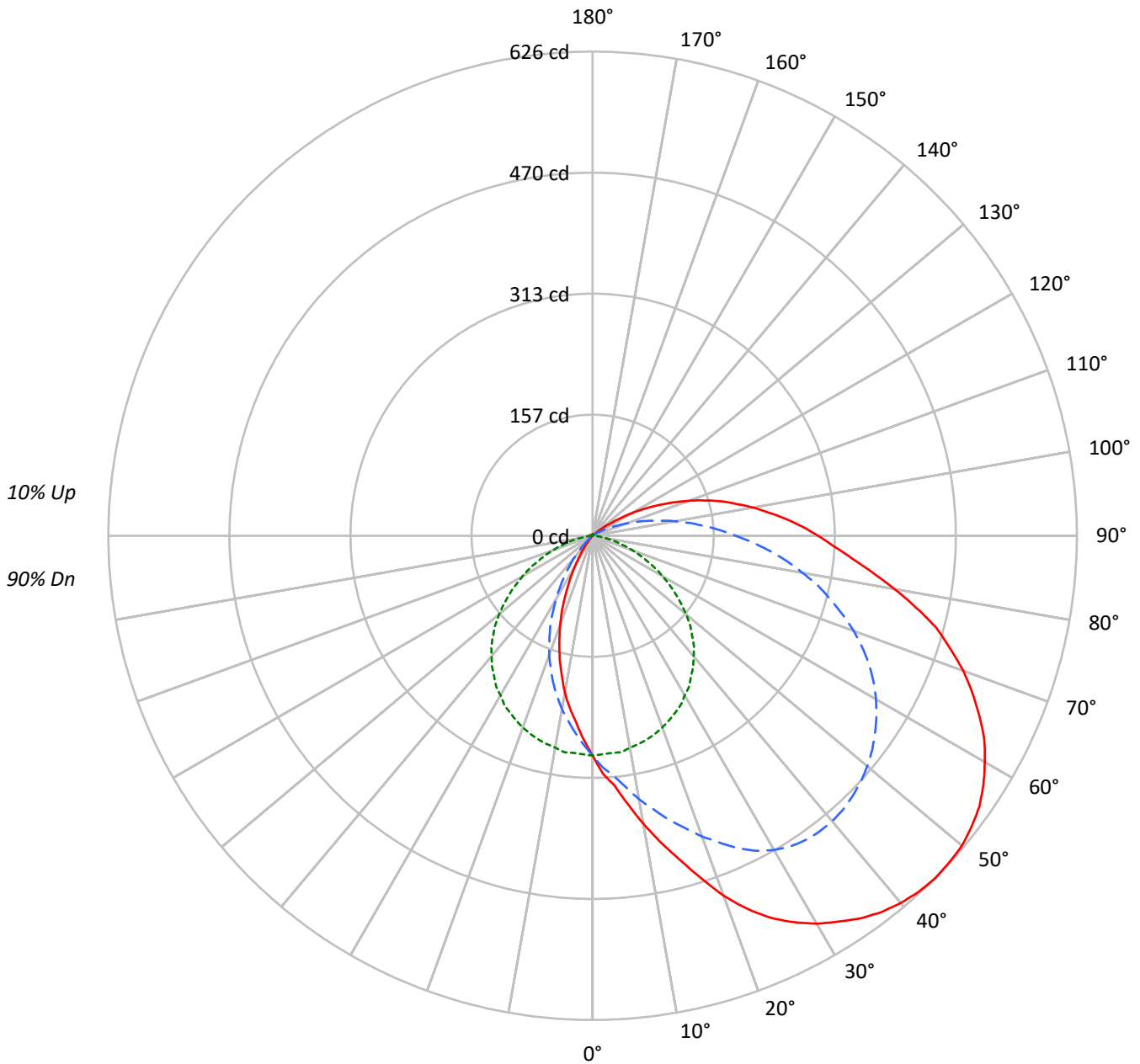
Lumens per Lamp: N/A  
Luminaire Lumens: 1404.0 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 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-93-96-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°	3057	3057	3057
5°	3356	3012	2514
10°	3798	2975	2071
15°	4255	2937	1614
20°	4800	2889	1188
25°	5251	2834	780
30°	5586	2759	440
35°	5877	2680	194
40°	6134	2582	47
45°	6355	2457	0
50°	6540	2294	0
55°	6682	2086	0
60°	6754	1844	0
65°	6781	1569	0
70°	6758	1279	0
75°	6672	944	6
80°	6401	577	29
85°	6189	275	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.2	1.9
10°-20°	81.5	5.8
20°-30°	131.9	9.4
30°-40°	169.4	12.1
40°-50°	191.8	13.7
50°-60°	198.7	14.2
60°-70°	187.4	13.3
70°-80°	157.1	11.2
80°-90°	113.8	8.1
90°-100°	74.8	5.3
100°-110°	43.2	3.1
110°-120°	19.1	1.4
120°-130°	5.2	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	240.6	17.1
0°-40°	410.0	29.2
0°-60°	800.5	57.0
0°-90°	1258.8	89.7
90°-120°	137.1	9.8
90°-150°	144.2	10.3
90°-180°	145.0	10.3
0°-180°	1404.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	284	284	284	284	284	
5°	324	311	282	256	243	33
15°	433	380	272	197	164	125
25°	545	446	252	130	81	252
35°	604	480	222	63	20	379
45°	626	476	182	14	0	483
55°	610	446	131	0	0	545
65°	552	394	78	0	0	546
75°	460	318	33	0	0	482
85°	336	231	5	1	2	287
90°	292	185	1	2	2	160
95°	250	145	1	2	3	196
105°	172	75	1	2	3	182
115°	94	25	1	1	2	94
125°	28	3	1	1	1	28
135°	1	1	2	1	1	3
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°	284.0	284.0	284.0	284.0	284.0	284.0	284.0	284.0	284.0	284.0	284.0
2.5°	307.9	307.5	306.4	304.6	302.1	297.7	294.1	290.9	286.5	282.9	276.0
5°	324.2	322.3	320.9	319.1	313.3	309.3	302.8	295.6	288.7	281.8	268.1
7.5°	350.2	347.3	345.1	340.1	332.1	323.1	312.9	306.1	301.4	282.2	258.7
10°	378.1	375.5	371.2	362.1	352.4	339.3	324.9	308.6	294.1	278.2	250.4
12.5°	405.6	401.9	395.8	384.2	370.5	354.2	334.3	315.1	294.5	275.7	240.6
15°	433.0	429.1	422.6	408.4	390.4	369.0	344.8	320.5	296.3	272.4	230.5
17.5°	463.1	457.6	447.9	432.0	409.2	382.8	354.2	324.9	295.6	268.4	219.6
20°	495.3	487.7	477.2	455.8	429.1	398.0	363.6	329.2	295.2	263.7	207.3
22.5°	522.0	514.4	502.9	480.8	448.6	410.6	371.5	332.1	293.8	258.3	195.7
25°	545.2	539.0	526.4	501.1	467.1	424.0	379.1	334.3	291.6	252.5	183.4
27.5°	563.3	557.5	543.4	517.3	482.6	435.9	384.9	335.4	288.7	246.7	170.8
30°	579.2	573.4	556.4	529.6	493.1	445.3	390.7	335.7	285.1	238.0	157.0
32.5°	591.5	586.1	568.7	540.1	500.3	451.9	394.0	335.4	280.4	231.9	142.2
35°	603.8	598.4	578.1	547.7	505.8	454.8	396.5	333.6	274.6	221.8	128.1
37.5°	613.2	607.1	586.4	552.8	508.3	455.5	396.1	331.0	268.4	213.4	114.0
40°	619.7	613.2	591.1	555.7	509.0	454.4	393.3	326.7	261.2	203.0	99.1
42.5°	624.1	616.8	593.3	560.0	507.6	451.5	388.9	321.3	253.2	193.9	85.0
45°	626.2	618.6	593.7	556.4	505.0	446.1	382.4	314.4	244.6	181.6	70.9
47.5°	625.2	616.8	591.9	552.4	500.3	440.3	375.2	306.1	234.1	170.8	57.5
50°	623.3	614.7	587.9	547.4	493.8	433.0	367.2	295.9	223.2	157.4	45.6
52.5°	617.6	608.9	583.5	540.1	486.2	424.7	356.4	285.4	211.6	144.3	34.7
55°	610.3	602.4	576.0	533.6	476.5	414.6	346.2	274.2	200.4	131.0	25.0
57.5°	599.1	591.9	566.5	523.1	466.7	403.4	335.0	261.9	186.3	117.6	17.4
60°	585.4	578.1	553.5	511.2	455.5	390.7	322.7	249.3	173.7	104.2	10.9
62.5°	570.9	564.0	538.3	496.4	441.4	377.3	309.3	236.6	160.3	91.9	6.5
65°	551.7	545.2	522.0	478.6	425.8	362.9	294.5	221.4	146.5	78.1	3.6
67.5°	531.5	525.7	502.1	462.4	407.7	346.9	279.3	206.6	132.0	66.2	1.8
70°	509.7	502.5	480.8	440.3	389.3	328.9	262.7	191.4	118.3	54.6	0.0
72.5°	484.4	479.0	458.0	419.7	367.9	309.7	245.6	174.7	103.1	43.4	0.4
75°	459.8	452.9	433.8	397.6	346.9	289.4	226.8	159.2	88.3	33.3	0.4
77.5°	428.0	425.8	407.7	372.6	327.0	269.9	206.2	140.4	74.2	23.9	0.4
80°	396.1	394.0	379.9	347.7	303.9	246.7	187.0	122.6	60.4	15.9	0.4
82.5°	364.7	361.8	348.4	321.6	280.4	227.2	167.1	104.9	47.8	9.8	0.4
85°	336.5	332.8	318.4	293.8	256.1	205.1	146.5	87.6	35.5	5.4	0.7
87.5°	312.2	309.7	293.8	268.4	231.5	184.5	128.4	70.9	25.0	2.5	1.1
90°	291.6	286.2	272.1	245.3	208.4	161.7	109.3	56.8	16.6	1.4	1.4
92.5°	271.3	266.6	251.1	223.6	187.8	142.2	90.8	43.4	10.5	0.7	1.8
95°	250.4	245.3	230.1	204.8	166.8	122.3	74.5	31.8	5.8	0.7	1.8
97.5°	229.7	225.0	209.1	183.8	148.0	104.9	59.0	22.4	2.9	0.7	1.4
100°	210.6	205.1	190.7	165.3	129.2	87.6	45.6	14.5	1.8	0.7	1.4
102.5°	190.3	186.0	171.1	146.5	109.6	71.3	34.0	9.0	0.7	0.7	1.1
105°	172.2	166.8	152.3	127.0	93.3	56.1	23.9	5.4	0.7	0.7	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	112.2	107.8	95.1	73.8	47.4	22.1	6.5	1.1	1.1	1.1	1.1
115°	93.7	87.2	76.0	57.2	35.1	14.5	3.3	1.1	1.1	1.1	1.1
117.5°	74.9	69.5	61.5	43.4	23.2	9.4	1.8	1.1	1.1	1.1	1.1
120°	58.6	53.5	44.5	30.0	15.6	5.4	0.7	1.1	1.1	1.1	1.1
122.5°	42.0	38.0	30.0	19.5	9.4	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.9	25.7	19.9	11.9	5.8	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	18.1	16.3	11.6	6.9	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	10.1	9.0	6.9	4.0	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.8	5.4	3.6	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	284.0	284.0	284.0
2.5°	270.2	265.2	263.7
5°	255.8	247.5	242.8
7.5°	241.3	230.1	224.7
10°	227.9	212.0	206.2
12.5°	212.0	193.6	184.5
15°	196.8	172.9	164.2
17.5°	179.8	153.0	142.9
20°	163.9	133.1	122.6
22.5°	145.8	113.6	102.0
25°	129.5	94.1	81.0
27.5°	111.4	74.2	62.9
30°	94.4	56.8	45.6
32.5°	78.1	41.6	31.5
35°	62.9	28.2	19.9
37.5°	48.5	17.4	10.1
40°	35.1	9.0	4.7
42.5°	23.5	4.3	2.5
45°	14.5	2.2	0.0
47.5°	8.3	0.0	0.0
50°	4.3	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.2
87.5°	1.8	2.2	2.5
90°	2.2	2.5	2.5
92.5°	2.2	2.9	2.9
95°	2.5	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.5	3.3	3.6
102.5°	2.2	3.3	3.3
105°	1.8	2.5	2.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	151.9	147.6	133.1	109.3	76.3	42.7	15.9	2.9	0.7	1.1	1.1
110°	132.4	128.8	114.0	90.8	61.5	31.8	10.5	1.8	1.1	1.1	1.1







107.5°	1.4	2.2	2.5
110°	1.4	1.8	2.2



(END OF REPORT)