

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: P551049

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-85-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: P551049  
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-35-UNV-93-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

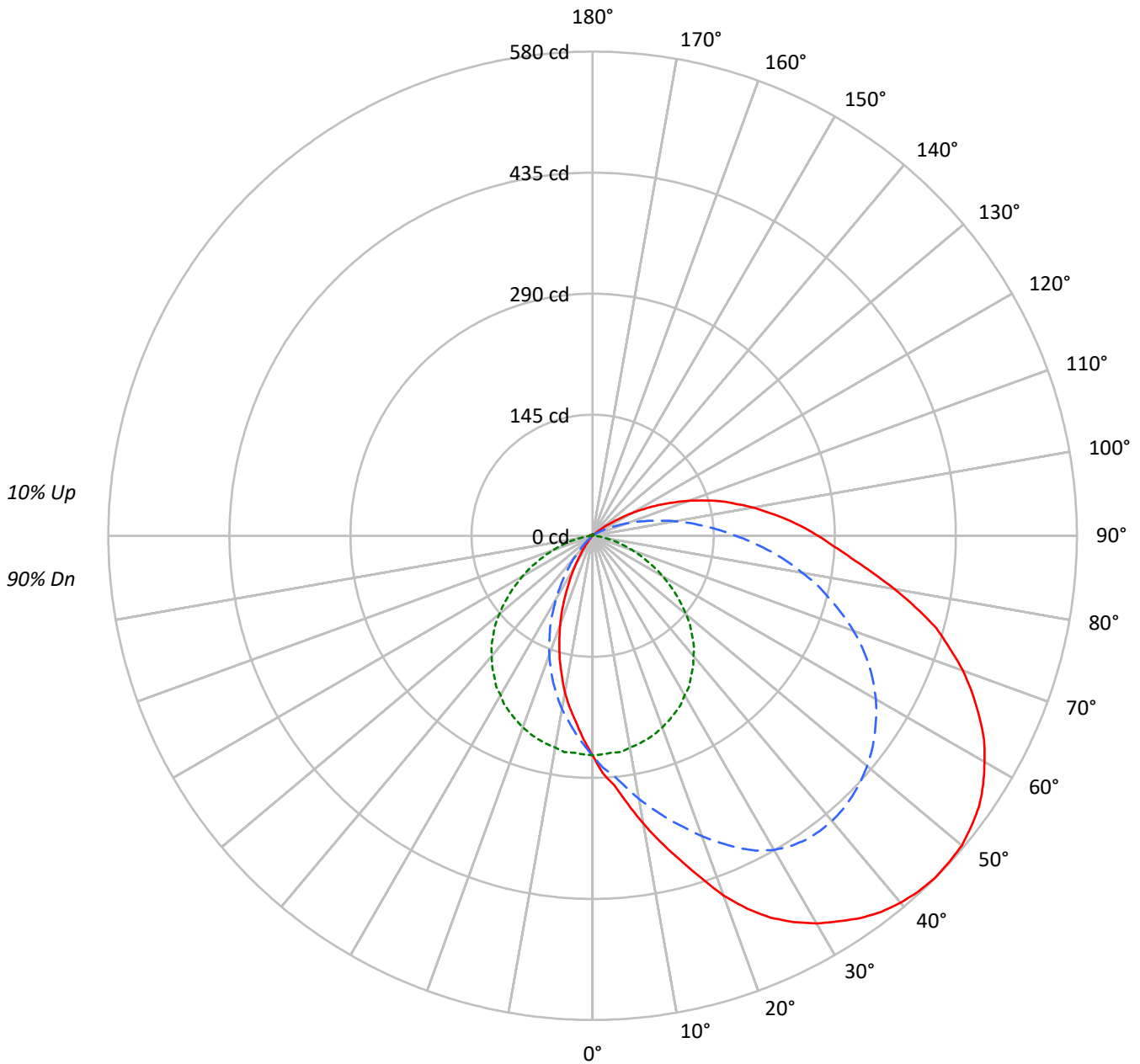
Lumens per Lamp: N/A  
Luminaire Lumens: 1299.9 lumens  
Efficiency: N/A  
Efficacy: 77.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P551049

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551049

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D-90

**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°	2831	2831	2831
5°	3107	2789	2327
10°	3517	2755	1917
15°	3941	2719	1495
20°	4444	2676	1101
25°	4862	2624	722
30°	5173	2555	407
35°	5442	2481	179
40°	5680	2390	44
45°	5884	2276	0
50°	6057	2124	0
55°	6187	1932	0
60°	6253	1708	0
65°	6278	1454	0
70°	6258	1185	0
75°	6179	873	4
80°	5928	533	27
85°	5729	254	37



TEST NUMBER: P551049

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.2	1.9
10°-20°	75.4	5.8
20°-30°	122.1	9.4
30°-40°	156.9	12.1
40°-50°	177.6	13.7
50°-60°	184.0	14.2
60°-70°	173.5	13.3
70°-80°	145.4	11.2
80°-90°	105.4	8.1
90°-100°	69.3	5.3
100°-110°	40.0	3.1
110°-120°	17.6	1.4
120°-130°	4.8	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°	222.7	17.1
0°-40°	379.6	29.2
0°-60°	741.2	57.0
0°-90°	1165.5	89.7
90°-120°	126.9	9.8
90°-150°	133.5	10.3
90°-180°	134.0	10.3
0°-180°	1299.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	263	263	263	263	263	
5°	300	288	261	237	225	30
15°	401	352	252	182	152	116
25°	505	413	234	120	75	233
35°	559	445	205	58	18	351
45°	580	440	168	13	0	448
55°	565	413	121	0	0	505
65°	511	365	72	0	0	505
75°	426	295	31	0	0	447
85°	312	214	5	1	2	266
90°	270	171	1	2	2	148
95°	232	134	1	2	3	182
105°	160	69	1	2	3	168
115°	87	23	1	1	2	87
125°	26	3	1	1	1	26
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	



TEST NUMBER: P551049

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	263.0	263.0	263.0	263.0	263.0	263.0	263.0	263.0	263.0	263.0	263.0
2.5°	285.1	284.7	283.7	282.1	279.7	275.7	272.3	269.3	265.3	262.0	255.6
5°	300.1	298.5	297.1	295.5	290.1	286.4	280.4	273.7	267.3	260.9	248.2
7.5°	324.3	321.6	319.6	314.9	307.5	299.1	289.8	283.4	279.0	261.3	239.5
10°	350.1	347.7	343.7	335.3	326.3	314.2	300.8	285.7	272.3	257.6	231.8
12.5°	375.5	372.2	366.5	355.7	343.0	327.9	309.5	291.8	272.7	255.3	222.8
15°	401.0	397.3	391.3	378.2	361.4	341.7	319.2	296.8	274.3	252.2	213.4
17.5°	428.8	423.7	414.7	400.0	378.9	354.4	327.9	300.8	273.7	248.6	203.3
20°	458.6	451.6	441.8	422.1	397.3	368.5	336.7	304.8	273.3	244.2	191.9
22.5°	483.4	476.3	465.6	445.2	415.4	380.2	344.0	307.5	272.0	239.2	181.2
25°	504.8	499.1	487.4	463.9	432.5	392.6	351.1	309.5	270.0	233.8	169.8
27.5°	521.6	516.2	503.1	479.0	446.9	403.7	356.4	310.5	267.3	228.5	158.1
30°	536.3	530.9	515.2	490.4	456.6	412.4	361.8	310.9	264.0	220.4	145.4
32.5°	547.7	542.7	526.6	500.1	463.3	418.4	364.8	310.5	259.6	214.7	131.6
35°	559.1	554.1	535.3	507.2	468.3	421.1	367.1	308.9	254.2	205.3	118.6
37.5°	567.8	562.1	543.0	511.8	470.6	421.7	366.8	306.5	248.6	197.6	105.5
40°	573.8	567.8	547.4	514.5	471.3	420.7	364.1	302.5	241.9	187.9	91.8
42.5°	577.8	571.1	549.4	518.5	470.0	418.1	360.1	297.5	234.5	179.5	78.7
45°	579.8	572.8	549.7	515.2	467.6	413.0	354.1	291.1	226.4	168.2	65.7
47.5°	578.8	571.1	548.0	511.5	463.3	407.7	347.4	283.4	216.7	158.1	53.3
50°	577.2	569.1	544.3	506.8	457.2	401.0	340.0	274.0	206.7	145.7	42.2
52.5°	571.8	563.8	540.3	500.1	450.2	393.3	330.0	264.3	196.0	133.7	32.2
55°	565.1	557.7	533.3	494.1	441.2	383.9	320.6	253.9	185.6	121.3	23.1
57.5°	554.7	548.0	524.6	484.4	432.1	373.5	310.2	242.5	172.5	108.9	16.1
60°	542.0	535.3	512.5	473.3	421.7	361.8	298.8	230.8	160.8	96.5	10.0
62.5°	528.6	522.2	498.4	459.6	408.7	349.4	286.4	219.1	148.4	85.1	6.0
65°	510.8	504.8	483.4	443.2	394.3	336.0	272.7	205.0	135.7	72.4	3.3
67.5°	492.1	486.7	465.0	428.1	377.5	321.2	258.6	191.3	122.3	61.3	1.7
70°	472.0	465.3	445.2	407.7	360.4	304.5	243.2	177.2	109.5	50.6	0.0
72.5°	448.5	443.5	424.1	388.6	340.7	286.7	227.5	161.8	95.5	40.2	0.3
75°	425.8	419.4	401.6	368.1	321.2	268.0	210.0	147.4	81.7	30.8	0.3
77.5°	396.3	394.3	377.5	345.0	302.8	249.9	190.9	130.0	68.7	22.1	0.3
80°	366.8	364.8	351.7	321.9	281.4	228.5	173.2	113.6	55.9	14.7	0.3
82.5°	337.7	335.0	322.6	297.8	259.6	210.4	154.8	97.1	44.2	9.0	0.3
85°	311.5	308.2	294.8	272.0	237.2	189.9	135.7	81.1	32.8	5.0	0.7
87.5°	289.1	286.7	272.0	248.6	214.4	170.8	118.9	65.7	23.1	2.3	1.0
90°	270.0	265.0	251.9	227.1	192.9	149.7	101.2	52.6	15.4	1.3	1.3
92.5°	251.2	246.9	232.5	207.0	173.9	131.6	84.1	40.2	9.7	0.7	1.7
95°	231.8	227.1	213.0	189.6	154.4	113.2	69.0	29.5	5.4	0.7	1.7
97.5°	212.7	208.4	193.6	170.2	137.0	97.1	54.6	20.8	2.7	0.7	1.3
100°	195.0	189.9	176.5	153.1	119.6	81.1	42.2	13.4	1.7	0.7	1.3
102.5°	176.2	172.2	158.4	135.7	101.5	66.0	31.5	8.4	0.7	0.7	1.0
105°	159.5	154.4	141.0	117.6	86.4	51.9	22.1	5.0	0.7	0.7	1.0



TEST NUMBER: P551049

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	103.8	99.8	88.1	68.3	43.9	20.4	6.0	1.0	1.0	1.0	1.0
115°	86.8	80.7	70.3	52.9	32.5	13.4	3.0	1.0	1.0	1.0	1.0
117.5°	69.3	64.3	56.9	40.2	21.4	8.7	1.7	1.0	1.0	1.0	1.0
120°	54.3	49.6	41.2	27.8	14.4	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.9	35.2	27.8	18.1	8.7	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.8	23.8	18.4	11.1	5.4	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.7	15.1	10.7	6.4	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.4	8.4	6.4	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.4	5.0	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
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: P551049

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	263.0	263.0	263.0
2.5°	250.2	245.5	244.2
5°	236.8	229.1	224.8
7.5°	223.4	213.0	208.0
10°	211.0	196.3	190.9
12.5°	196.3	179.2	170.8
15°	182.2	160.1	152.1
17.5°	166.5	141.7	132.3
20°	151.7	123.3	113.6
22.5°	135.0	105.2	94.5
25°	119.9	87.1	75.0
27.5°	103.2	68.7	58.3
30°	87.4	52.6	42.2
32.5°	72.4	38.5	29.1
35°	58.3	26.1	18.4
37.5°	44.9	16.1	9.4
40°	32.5	8.4	4.4
42.5°	21.8	4.0	2.3
45°	13.4	2.0	0.0
47.5°	7.7	0.0	0.0
50°	4.0	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	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.7	2.7
95°	2.3	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.7





TEST NUMBER: P551049

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-85-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	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°	1.3	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°	140.7	136.7	123.3	101.2	70.7	39.5	14.7	2.7	0.7	1.0	1.0
110°	122.6	119.3	105.5	84.1	56.9	29.5	9.7	1.7	1.0	1.0	1.0







107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)