

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: P550681

Luminaire Tested: **FCC-X-2-LD4-1LO-30-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: P550681  
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-LD4-1LO-30-UNV-80-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

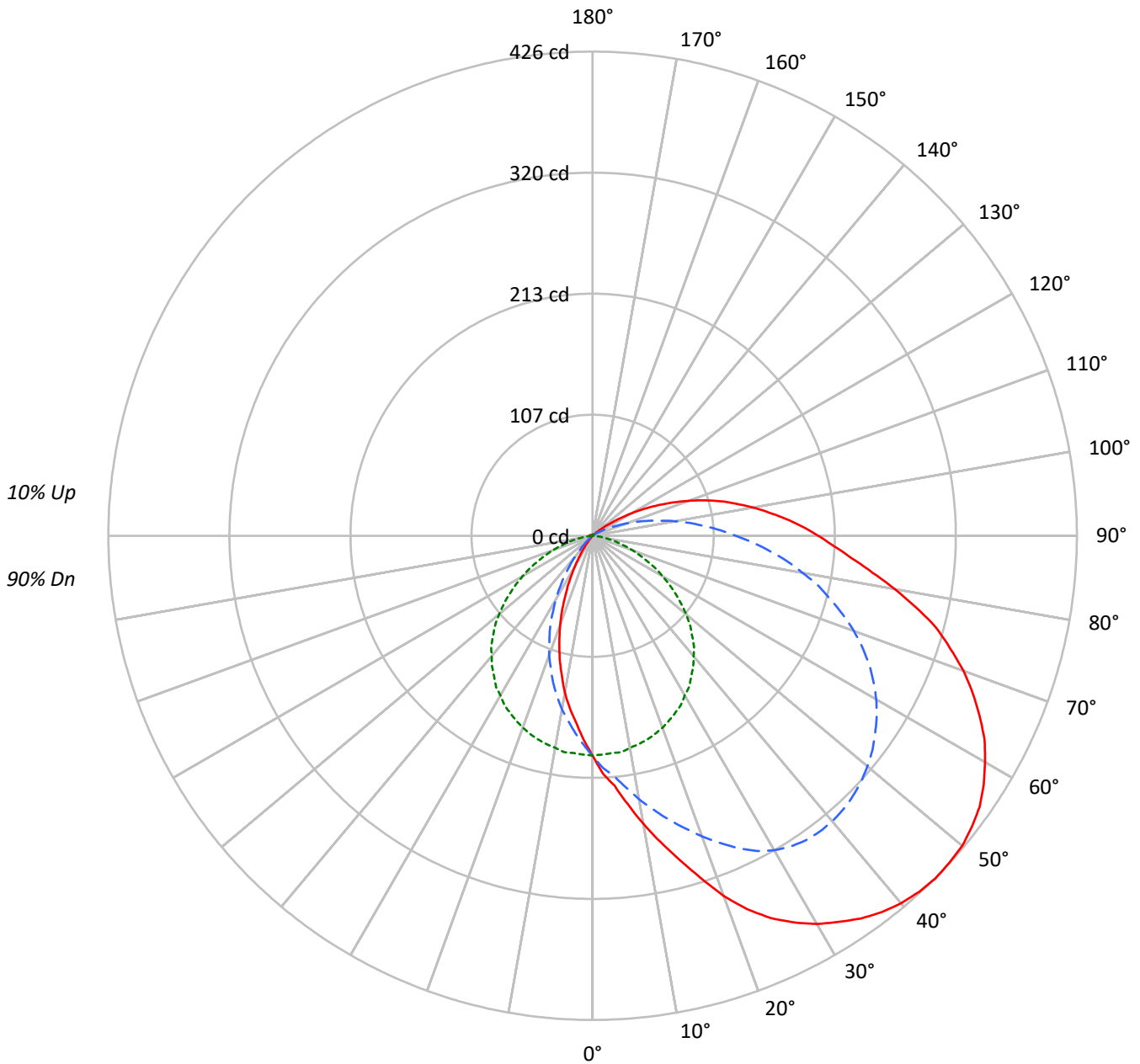
Lumens per Lamp: N/A  
Luminaire Lumens: 955.9 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
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: P550681

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-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°	2082	2082	2082
5°	2285	2051	1711
10°	2585	2025	1410
15°	2898	2000	1099
20°	3268	1968	809
25°	3575	1929	532
30°	3804	1879	299
35°	4001	1824	131
40°	4177	1758	32
45°	4327	1674	0
50°	4453	1562	0
55°	4550	1420	0
60°	4599	1255	0
65°	4618	1069	0
70°	4602	871	0
75°	4543	644	3
80°	4359	392	19
85°	4214	188	28



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.5	1.9
10°-20°	55.5	5.8
20°-30°	89.8	9.4
30°-40°	115.4	12.1
40°-50°	130.6	13.7
50°-60°	135.3	14.2
60°-70°	127.6	13.3
70°-80°	106.9	11.2
80°-90°	77.5	8.1
90°-100°	50.9	5.3
100°-110°	29.4	3.1
110°-120°	13.0	1.4
120°-130°	3.5	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	163.8	17.1
0°-40°	279.2	29.2
0°-60°	545.1	57.0
0°-90°	857.1	89.7
90°-120°	93.3	9.8
90°-150°	98.2	10.3
90°-180°	99.0	10.4
0°-180°	955.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	193	193	193	193	193	
5°	221	212	192	174	165	22
15°	295	259	186	134	112	85
25°	371	303	172	88	55	172
35°	411	327	151	43	14	258
45°	426	324	124	10	0	329
55°	416	303	89	0	0	371
65°	376	268	53	0	0	372
75°	313	217	23	0	0	328
85°	229	157	4	1	2	196
90°	198	126	1	2	2	109
95°	170	98	0	2	2	134
105°	117	51	0	1	2	124
115°	64	17	1	1	1	64
125°	19	2	1	1	1	19
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4	193.4
2.5°	209.6	209.4	208.6	207.4	205.7	202.7	200.3	198.1	195.1	192.6	188.0
5°	220.7	219.5	218.5	217.3	213.3	210.6	206.2	201.3	196.6	191.9	182.5
7.5°	238.5	236.5	235.0	231.6	226.1	220.0	213.1	208.4	205.2	192.1	176.1
10°	257.4	255.7	252.7	246.6	239.9	231.1	221.2	210.1	200.3	189.4	170.5
12.5°	276.1	273.7	269.5	261.6	252.3	241.2	227.6	214.6	200.5	187.7	163.8
15°	294.9	292.2	287.7	278.1	265.8	251.3	234.8	218.3	201.8	185.5	156.9
17.5°	315.3	311.6	305.0	294.1	278.6	260.6	241.2	221.2	201.3	182.8	149.5
20°	337.2	332.1	324.9	310.4	292.2	271.0	247.6	224.2	201.0	179.6	141.2
22.5°	355.5	350.3	342.4	327.4	305.5	279.6	253.0	226.1	200.0	175.9	133.3
25°	371.2	367.0	358.4	341.2	318.0	288.7	258.2	227.6	198.5	171.9	124.9
27.5°	383.5	379.6	370.0	352.3	328.6	296.8	262.1	228.4	196.6	168.0	116.3
30°	394.4	390.4	378.9	360.6	335.8	303.2	266.0	228.6	194.1	162.1	106.9
32.5°	402.8	399.1	387.2	367.8	340.7	307.7	268.3	228.4	190.9	157.9	96.8
35°	411.1	407.4	393.6	373.0	344.4	309.6	270.0	227.1	187.0	151.0	87.2
37.5°	417.5	413.4	399.3	376.4	346.1	310.1	269.7	225.4	182.8	145.3	77.6
40°	422.0	417.5	402.5	378.4	346.6	309.4	267.8	222.4	177.9	138.2	67.5
42.5°	424.9	420.0	404.0	381.3	345.6	307.4	264.8	218.7	172.4	132.0	57.9
45°	426.4	421.2	404.2	378.9	343.9	303.7	260.4	214.1	166.5	123.7	48.3
47.5°	425.7	420.0	403.0	376.2	340.7	299.8	255.5	208.4	159.4	116.3	39.2
50°	424.4	418.5	400.3	372.7	336.3	294.9	250.0	201.5	152.0	107.2	31.0
52.5°	420.5	414.6	397.3	367.8	331.1	289.2	242.6	194.4	144.1	98.3	23.6
55°	415.6	410.2	392.2	363.3	324.4	282.3	235.7	186.7	136.5	89.2	17.0
57.5°	407.9	403.0	385.8	356.2	317.8	274.7	228.1	178.3	126.9	80.1	11.8
60°	398.6	393.6	376.9	348.1	310.1	266.0	219.7	169.7	118.2	70.9	7.4
62.5°	388.7	384.0	366.6	338.0	300.5	256.9	210.6	161.1	109.1	62.6	4.4
65°	375.7	371.2	355.5	325.9	289.9	247.1	200.5	150.8	99.8	53.2	2.5
67.5°	361.9	357.9	341.9	314.8	277.6	236.2	190.2	140.7	89.9	45.1	1.2
70°	347.1	342.2	327.4	299.8	265.1	223.9	178.8	130.3	80.6	37.2	0.0
72.5°	329.8	326.2	311.9	285.8	250.5	210.9	167.3	119.0	70.2	29.6	0.2
75°	313.1	308.4	295.4	270.7	236.2	197.1	154.5	108.4	60.1	22.7	0.2
77.5°	291.4	289.9	277.6	253.7	222.7	183.8	140.4	95.6	50.5	16.3	0.2
80°	269.7	268.3	258.7	236.7	206.9	168.0	127.4	83.5	41.1	10.8	0.2
82.5°	248.3	246.3	237.2	219.0	190.9	154.7	113.8	71.4	32.5	6.7	0.2
85°	229.1	226.6	216.8	200.0	174.4	139.7	99.8	59.6	24.1	3.7	0.5
87.5°	212.6	210.9	200.0	182.8	157.7	125.6	87.5	48.3	17.0	1.7	0.7
90°	198.5	194.9	185.2	167.0	141.9	110.1	74.4	38.7	11.3	1.0	1.0
92.5°	184.8	181.6	171.0	152.2	127.8	96.8	61.8	29.6	7.1	0.5	1.2
95°	170.5	167.0	156.7	139.4	113.6	83.3	50.7	21.7	3.9	0.5	1.2
97.5°	156.4	153.2	142.4	125.1	100.8	71.4	40.2	15.3	2.0	0.5	1.0
100°	143.4	139.7	129.8	112.6	87.9	59.6	31.0	9.9	1.2	0.5	1.0
102.5°	129.6	126.6	116.5	99.8	74.6	48.5	23.2	6.2	0.5	0.5	0.7
105°	117.3	113.6	103.7	86.5	63.6	38.2	16.3	3.7	0.5	0.5	0.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	76.4	73.4	64.8	50.3	32.3	15.0	4.4	0.7	0.7	0.7	0.7
115°	63.8	59.4	51.7	38.9	23.9	9.9	2.2	0.7	0.7	0.7	0.7
117.5°	51.0	47.3	41.9	29.6	15.8	6.4	1.2	0.7	0.7	0.7	0.7
120°	39.9	36.5	30.3	20.4	10.6	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.6	25.9	20.4	13.3	6.4	1.7	0.7	0.7	1.0	1.0	0.7
125°	19.0	17.5	13.5	8.1	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.3	11.1	7.9	4.7	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.9	6.2	4.7	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.7	2.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	193.4	193.4	193.4
2.5°	184.0	180.6	179.6
5°	174.2	168.5	165.3
7.5°	164.3	156.7	153.0
10°	155.2	144.4	140.4
12.5°	144.4	131.8	125.6
15°	134.0	117.7	111.8
17.5°	122.4	104.2	97.3
20°	111.6	90.7	83.5
22.5°	99.3	77.4	69.5
25°	88.2	64.0	55.2
27.5°	75.9	50.5	42.9
30°	64.3	38.7	31.0
32.5°	53.2	28.3	21.4
35°	42.9	19.2	13.5
37.5°	33.0	11.8	6.9
40°	23.9	6.2	3.2
42.5°	16.0	3.0	1.7
45°	9.9	1.5	0.0
47.5°	5.7	0.0	0.0
50°	3.0	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	2.0	2.0
95°	1.7	2.0	2.2
97.5°	2.0	2.2	2.2
100°	1.7	2.2	2.5
102.5°	1.5	2.2	2.2
105°	1.2	1.7	2.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	1.0	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	103.5	100.5	90.7	74.4	52.0	29.1	10.8	2.0	0.5	0.7	0.7
110°	90.2	87.7	77.6	61.8	41.9	21.7	7.1	1.2	0.7	0.7	0.7







107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)