

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: P550697

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-85-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: P550697  
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-81-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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**

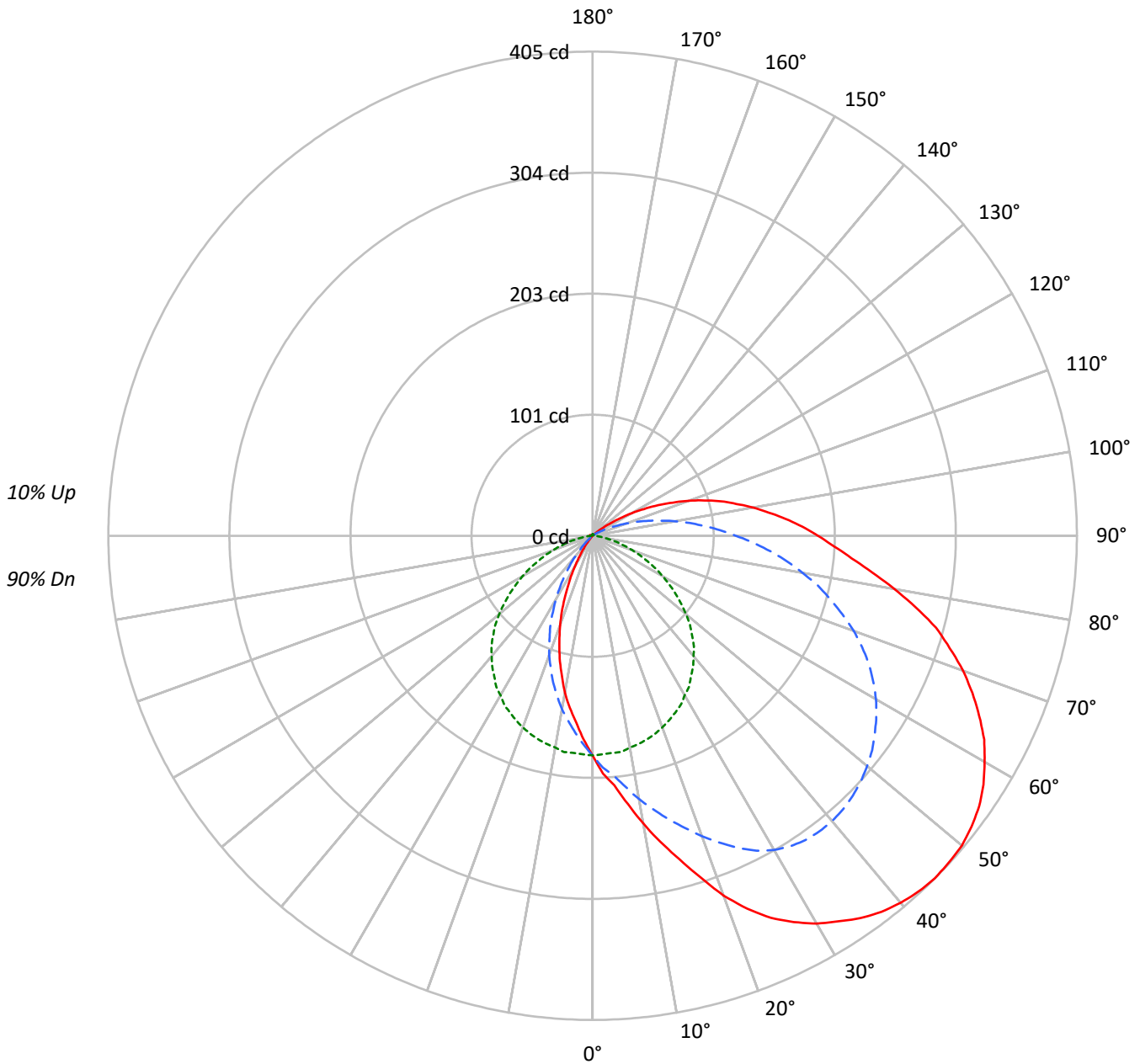
Lumens per Lamp: N/A  
Luminaire Lumens: 908.0 lumens  
Efficiency: N/A  
Efficacy: 77.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
Input Voltage (V): NR  
Input Current (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: P550697

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550697

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-85-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°	1977	1977	1977
5°	2170	1948	1625
10°	2456	1924	1340
15°	2753	1900	1044
20°	3104	1869	769
25°	3396	1833	505
30°	3613	1785	285
35°	3801	1733	126
40°	3967	1670	30
45°	4110	1590	0
50°	4230	1484	0
55°	4321	1349	0
60°	4368	1193	0
65°	4385	1014	0
70°	4371	827	0
75°	4316	610	3
80°	4140	374	19
85°	4002	178	26



TEST NUMBER: P550697

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.6	1.9
10°-20°	52.7	5.8
20°-30°	85.3	9.4
30°-40°	109.6	12.1
40°-50°	124.0	13.7
50°-60°	128.5	14.2
60°-70°	121.2	13.3
70°-80°	101.6	11.2
80°-90°	73.6	8.1
90°-100°	48.4	5.3
100°-110°	27.9	3.1
110°-120°	12.3	1.4
120°-130°	3.3	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°	155.6	17.1
0°-40°	265.2	29.2
0°-60°	517.7	57.0
0°-90°	814.1	89.7
90°-120°	88.7	9.8
90°-150°	93.3	10.3
90°-180°	94.0	10.4
0°-180°	908.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	184	184	184	184	184	
5°	210	201	182	165	157	21
15°	280	246	176	127	106	81
25°	353	288	163	84	52	163
35°	390	311	143	41	13	245
45°	405	308	118	9	0	313
55°	395	288	85	0	0	352
65°	357	255	50	0	0	353
75°	297	206	22	0	0	312
85°	218	149	4	1	1	186
90°	189	120	1	1	2	103
95°	162	94	0	2	2	127
105°	111	48	0	1	2	118
115°	61	16	1	1	1	61
125°	18	2	1	1	1	18
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°	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7	183.7
2.5°	199.1	198.9	198.2	197.0	195.4	192.6	190.2	188.1	185.3	183.0	178.5
5°	209.6	208.5	207.5	206.4	202.6	200.0	195.8	191.2	186.7	182.3	173.4
7.5°	226.5	224.6	223.2	219.9	214.8	208.9	202.4	197.9	194.9	182.5	167.3
10°	244.5	242.9	240.1	234.2	227.9	219.5	210.1	199.6	190.2	179.9	161.9
12.5°	262.3	259.9	256.0	248.5	239.6	229.1	216.2	203.8	190.5	178.3	155.6
15°	280.1	277.5	273.3	264.2	252.5	238.6	223.0	207.3	191.6	176.2	149.0
17.5°	299.5	296.0	289.7	279.4	264.6	247.5	229.1	210.1	191.2	173.6	142.0
20°	320.3	315.4	308.6	294.8	277.5	257.4	235.1	212.9	190.9	170.6	134.1
22.5°	337.6	332.7	325.2	310.9	290.1	265.6	240.3	214.8	190.0	167.1	126.6
25°	352.6	348.6	340.4	324.0	302.1	274.2	245.2	216.2	188.6	163.3	118.6
27.5°	364.3	360.5	351.4	334.6	312.1	281.9	248.9	216.9	186.7	159.6	110.4
30°	374.6	370.8	359.8	342.5	318.9	288.0	252.7	217.1	184.4	154.0	101.5
32.5°	382.5	379.0	367.8	349.3	323.6	292.2	254.8	216.9	181.3	150.0	92.0
35°	390.5	387.0	373.9	354.2	327.1	294.1	256.4	215.7	177.6	143.4	82.8
37.5°	396.6	392.6	379.3	357.5	328.7	294.6	256.2	214.1	173.6	138.0	73.7
40°	400.8	396.6	382.3	359.4	329.2	293.9	254.3	211.3	168.9	131.3	64.1
42.5°	403.6	398.9	383.7	362.2	328.3	292.0	251.5	207.8	163.8	125.4	55.0
45°	405.0	400.1	383.9	359.8	326.6	288.5	247.3	203.3	158.2	117.5	45.9
47.5°	404.3	398.9	382.8	357.3	323.6	284.7	242.6	197.9	151.4	110.4	37.2
50°	403.1	397.5	380.2	354.0	319.4	280.1	237.5	191.4	144.4	101.8	29.5
52.5°	399.4	393.8	377.4	349.3	314.5	274.7	230.5	184.6	136.9	93.4	22.5
55°	394.7	389.6	372.5	345.1	308.1	268.1	223.9	177.3	129.6	84.7	16.1
57.5°	387.5	382.8	366.4	338.3	301.8	260.9	216.7	169.4	120.5	76.0	11.2
60°	378.6	373.9	358.0	330.6	294.6	252.7	208.7	161.2	112.3	67.4	7.0
62.5°	369.2	364.8	348.1	321.0	285.4	244.0	200.0	153.0	103.6	59.4	4.2
65°	356.8	352.6	337.6	309.5	275.4	234.7	190.5	143.2	94.8	50.5	2.3
67.5°	343.7	340.0	324.8	299.0	263.7	224.4	180.6	133.6	85.4	42.8	1.2
70°	329.7	325.0	310.9	284.7	251.8	212.7	169.9	123.8	76.5	35.3	0.0
72.5°	313.3	309.8	296.2	271.4	237.9	200.3	158.9	113.0	66.7	28.1	0.2
75°	297.4	292.9	280.5	257.1	224.4	187.2	146.7	102.9	57.1	21.5	0.2
77.5°	276.8	275.4	263.7	241.0	211.5	174.5	133.4	90.8	48.0	15.4	0.2
80°	256.2	254.8	245.7	224.8	196.5	159.6	121.0	79.3	39.1	10.3	0.2
82.5°	235.8	234.0	225.3	208.0	181.3	146.9	108.1	67.9	30.9	6.3	0.2
85°	217.6	215.3	205.9	190.0	165.7	132.7	94.8	56.6	22.9	3.5	0.5
87.5°	201.9	200.3	190.0	173.6	149.7	119.3	83.1	45.9	16.1	1.6	0.7
90°	188.6	185.1	175.9	158.6	134.8	104.6	70.7	36.7	10.8	0.9	0.9
92.5°	175.5	172.4	162.4	144.6	121.4	92.0	58.7	28.1	6.8	0.5	1.2
95°	161.9	158.6	148.8	132.4	107.9	79.1	48.2	20.6	3.7	0.5	1.2
97.5°	148.6	145.5	135.2	118.9	95.7	67.9	38.1	14.5	1.9	0.5	0.9
100°	136.2	132.7	123.3	106.9	83.5	56.6	29.5	9.4	1.2	0.5	0.9
102.5°	123.1	120.3	110.7	94.8	70.9	46.1	22.0	5.8	0.5	0.5	0.7
105°	111.4	107.9	98.5	82.1	60.4	36.3	15.4	3.5	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°	72.5	69.7	61.5	47.7	30.7	14.3	4.2	0.7	0.7	0.7	0.7
115°	60.6	56.4	49.1	37.0	22.7	9.4	2.1	0.7	0.7	0.7	0.7
117.5°	48.4	44.9	39.8	28.1	15.0	6.1	1.2	0.7	0.7	0.7	0.7
120°	37.9	34.6	28.8	19.4	10.1	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.1	24.6	19.4	12.6	6.1	1.6	0.7	0.7	0.9	0.9	0.7
125°	18.0	16.6	12.9	7.7	3.7	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.7	10.5	7.5	4.4	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.6	5.8	4.4	2.6	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.7	3.5	2.3	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.2	1.2	1.2	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
160°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.5	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	0.9
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°	183.7	183.7	183.7
2.5°	174.8	171.5	170.6
5°	165.4	160.0	157.0
7.5°	156.1	148.8	145.3
10°	147.4	137.1	133.4
12.5°	137.1	125.2	119.3
15°	127.3	111.8	106.2
17.5°	116.3	99.0	92.4
20°	106.0	86.1	79.3
22.5°	94.3	73.5	66.0
25°	83.8	60.8	52.4
27.5°	72.1	48.0	40.7
30°	61.1	36.7	29.5
32.5°	50.5	26.9	20.4
35°	40.7	18.2	12.9
37.5°	31.4	11.2	6.6
40°	22.7	5.8	3.0
42.5°	15.2	2.8	1.6
45°	9.4	1.4	0.0
47.5°	5.4	0.0	0.0
50°	2.8	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	0.9	1.2
82.5°	0.9	1.2	1.2
85°	0.9	1.2	1.4
87.5°	1.2	1.4	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.9	1.9
95°	1.6	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.6	2.1	2.3
102.5°	1.4	2.1	2.1
105°	1.2	1.6	1.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	0.9	1.2	1.2
115°	0.7	0.9	1.2
117.5°	0.7	0.9	0.9
120°	0.7	0.7	0.9
122.5°	0.7	0.7	0.9
125°	0.7	0.7	0.9
127.5°	0.9	0.7	0.7
130°	0.7	0.7	0.7
132.5°	0.9	0.7	0.7
135°	0.9	0.7	0.7
137.5°	0.9	0.7	0.7
140°	0.9	0.7	0.7
142.5°	0.9	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°	0.9	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°	98.3	95.5	86.1	70.7	49.4	27.6	10.3	1.9	0.5	0.7	0.7
110°	85.6	83.3	73.7	58.7	39.8	20.6	6.8	1.2	0.7	0.7	0.7







107.5°	0.9	1.4	1.6
110°	0.9	1.2	1.4



(END OF REPORT)