

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: P550761

Luminaire Tested: **FCC-X-2-LD4-1LO-35-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: P550761  
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-35-UNV-81-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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**

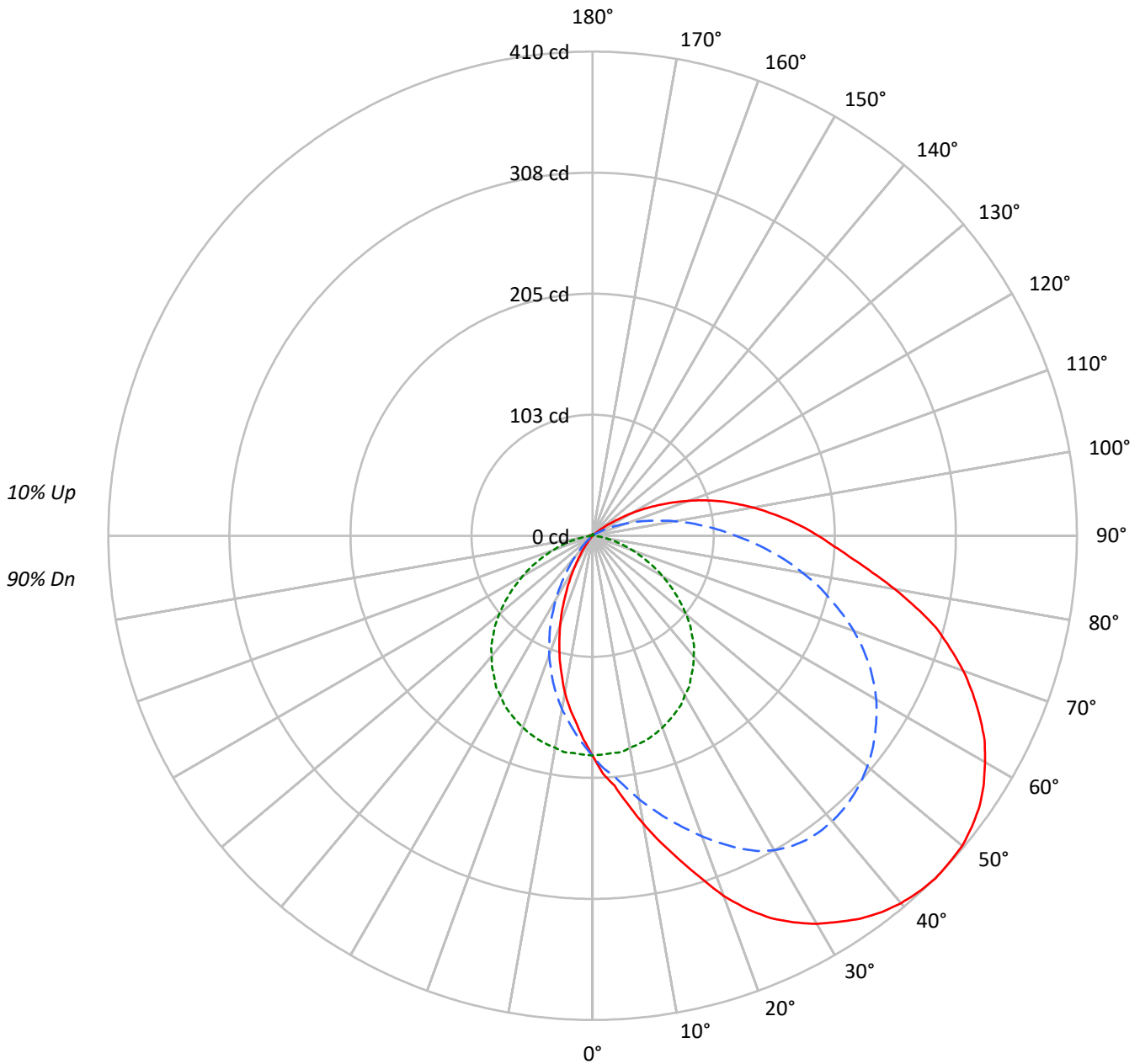
Lumens per Lamp: N/A  
Luminaire Lumens: 919.9 lumens  
Efficiency: N/A  
Efficacy: 78.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550761

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-81-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550761

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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°	2003	2003	2003
5°	2199	1974	1647
10°	2488	1950	1357
15°	2789	1925	1057
20°	3145	1893	779
25°	3441	1857	511
30°	3660	1808	288
35°	3851	1756	127
40°	4020	1691	31
45°	4165	1610	0
50°	4286	1503	0
55°	4378	1366	0
60°	4425	1209	0
65°	4443	1028	0
70°	4428	839	0
75°	4372	618	3
80°	4195	377	19
85°	4055	183	26



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.8	1.9
10°-20°	53.4	5.8
20°-30°	86.4	9.4
30°-40°	111.0	12.1
40°-50°	125.7	13.7
50°-60°	130.2	14.2
60°-70°	122.8	13.3
70°-80°	102.9	11.2
80°-90°	74.6	8.1
90°-100°	49.0	5.3
100°-110°	28.3	3.1
110°-120°	12.5	1.4
120°-130°	3.4	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°	157.6	17.1
0°-40°	268.7	29.2
0°-60°	524.6	57.0
0°-90°	824.9	89.7
90°-120°	89.8	9.8
90°-150°	94.5	10.3
90°-180°	95.0	10.3
0°-180°	919.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	186	186	186	186	186	
5°	212	204	185	168	159	21
15°	284	249	178	129	108	82
25°	357	292	166	85	53	165
35°	396	315	145	41	13	248
45°	410	312	119	10	0	317
55°	400	292	86	0	0	357
65°	362	258	51	0	0	358
75°	301	208	22	0	0	316
85°	220	151	4	1	1	188
90°	191	121	1	1	2	105
95°	164	95	0	2	2	129
105°	113	49	0	1	2	119
115°	61	16	1	1	1	62
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°	186.1	186.1	186.1	186.1	186.1	186.1	186.1	186.1	186.1	186.1	186.1
2.5°	201.7	201.5	200.8	199.6	197.9	195.1	192.7	190.6	187.8	185.4	180.9
5°	212.4	211.2	210.3	209.1	205.3	202.7	198.4	193.7	189.2	184.7	175.7
7.5°	229.5	227.6	226.2	222.8	217.6	211.7	205.1	200.6	197.5	184.9	169.5
10°	247.7	246.1	243.2	237.3	230.9	222.4	212.9	202.2	192.7	182.3	164.0
12.5°	265.7	263.4	259.3	251.8	242.8	232.1	219.0	206.5	193.0	180.6	157.6
15°	283.8	281.2	276.9	267.6	255.8	241.8	225.9	210.0	194.2	178.5	151.0
17.5°	303.4	299.9	293.5	283.1	268.1	250.8	232.1	212.9	193.7	175.9	143.9
20°	324.5	319.6	312.7	298.7	281.2	260.8	238.2	215.7	193.4	172.8	135.8
22.5°	342.1	337.1	329.5	315.1	294.0	269.1	243.5	217.6	192.5	169.3	128.3
25°	357.3	353.2	344.9	328.3	306.0	277.8	248.4	219.0	191.1	165.5	120.2
27.5°	369.1	365.3	356.1	339.0	316.2	285.7	252.2	219.8	189.2	161.7	111.9
30°	379.5	375.7	364.6	347.1	323.1	291.8	256.0	220.0	186.8	156.0	102.9
32.5°	387.6	384.0	372.7	353.9	327.9	296.1	258.2	219.8	183.7	152.0	93.2
35°	395.7	392.1	378.8	358.9	331.4	298.0	259.8	218.6	179.9	145.3	83.9
37.5°	401.8	397.8	384.3	362.2	333.1	298.5	259.6	216.9	175.9	139.9	74.7
40°	406.1	401.8	387.4	364.1	333.5	297.8	257.7	214.1	171.2	133.0	65.0
42.5°	408.9	404.2	388.8	367.0	332.6	295.9	254.8	210.5	165.9	127.1	55.7
45°	410.4	405.4	389.0	364.6	330.9	292.3	250.6	206.0	160.3	119.0	46.5
47.5°	409.6	404.2	387.8	362.0	327.9	288.5	245.8	200.6	153.4	111.9	37.7
50°	408.5	402.8	385.2	358.7	323.6	283.8	240.6	193.9	146.3	103.1	29.9
52.5°	404.7	399.0	382.4	353.9	318.6	278.3	233.5	187.0	138.7	94.6	22.8
55°	399.9	394.7	377.4	349.7	312.2	271.7	226.9	179.7	131.3	85.8	16.4
57.5°	392.6	387.8	371.2	342.8	305.8	264.3	219.5	171.6	122.1	77.0	11.4
60°	383.6	378.8	362.7	335.0	298.5	256.0	211.5	163.3	113.8	68.3	7.1
62.5°	374.1	369.6	352.7	325.2	289.2	247.3	202.7	155.0	105.0	60.2	4.3
65°	361.5	357.3	342.1	313.6	279.0	237.8	193.0	145.1	96.0	51.2	2.4
67.5°	348.2	344.5	329.0	303.0	267.2	227.3	183.0	135.4	86.5	43.4	1.2
70°	334.0	329.3	315.1	288.5	255.1	215.5	172.1	125.4	77.5	35.8	0.0
72.5°	317.4	313.9	300.1	275.0	241.1	202.9	161.0	114.5	67.6	28.4	0.2
75°	301.3	296.8	284.2	260.5	227.3	189.6	148.6	104.3	57.8	21.8	0.2
77.5°	280.4	279.0	267.2	244.2	214.3	176.8	135.1	92.0	48.6	15.6	0.2
80°	259.6	258.2	248.9	227.8	199.1	161.7	122.6	80.4	39.6	10.4	0.2
82.5°	239.0	237.1	228.3	210.7	183.7	148.9	109.5	68.7	31.3	6.4	0.2
85°	220.5	218.1	208.6	192.5	167.8	134.4	96.0	57.4	23.2	3.6	0.5
87.5°	204.6	202.9	192.5	175.9	151.7	120.9	84.2	46.5	16.4	1.7	0.7
90°	191.1	187.5	178.3	160.7	136.5	106.0	71.6	37.2	10.9	0.9	0.9
92.5°	177.8	174.7	164.5	146.5	123.0	93.2	59.5	28.4	6.9	0.5	1.2
95°	164.0	160.7	150.8	134.2	109.3	80.1	48.8	20.9	3.8	0.5	1.2
97.5°	150.5	147.5	137.0	120.4	97.0	68.7	38.6	14.7	1.9	0.5	0.9
100°	138.0	134.4	124.9	108.3	84.6	57.4	29.9	9.5	1.2	0.5	0.9
102.5°	124.7	121.9	112.1	96.0	71.8	46.7	22.3	5.9	0.5	0.5	0.7
105°	112.8	109.3	99.8	83.2	61.2	36.7	15.6	3.6	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°	73.5	70.6	62.3	48.4	31.1	14.5	4.3	0.7	0.7	0.7	0.7
115°	61.4	57.1	49.8	37.5	23.0	9.5	2.1	0.7	0.7	0.7	0.7
117.5°	49.1	45.5	40.3	28.4	15.2	6.2	1.2	0.7	0.7	0.7	0.7
120°	38.4	35.1	29.2	19.7	10.2	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	27.5	24.9	19.7	12.8	6.2	1.7	0.7	0.7	0.9	0.9	0.7
125°	18.3	16.8	13.0	7.8	3.8	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.9	10.7	7.6	4.5	1.7	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.6	5.9	4.5	2.6	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.8	3.6	2.4	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°	186.1	186.1	186.1
2.5°	177.1	173.8	172.8
5°	167.6	162.2	159.1
7.5°	158.1	150.8	147.2
10°	149.3	138.9	135.1
12.5°	138.9	126.8	120.9
15°	129.0	113.3	107.6
17.5°	117.8	100.3	93.6
20°	107.4	87.2	80.4
22.5°	95.5	74.4	66.9
25°	84.9	61.6	53.1
27.5°	73.0	48.6	41.2
30°	61.9	37.2	29.9
32.5°	51.2	27.3	20.6
35°	41.2	18.5	13.0
37.5°	31.8	11.4	6.6
40°	23.0	5.9	3.1
42.5°	15.4	2.8	1.7
45°	9.5	1.4	0.0
47.5°	5.5	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	1.7
90°	1.4	1.7	1.7
92.5°	1.4	1.9	1.9
95°	1.7	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.7	2.1	2.4
102.5°	1.4	2.1	2.1
105°	1.2	1.7	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°	99.6	96.7	87.2	71.6	50.0	28.0	10.4	1.9	0.5	0.7	0.7
110°	86.8	84.4	74.7	59.5	40.3	20.9	6.9	1.2	0.7	0.7	0.7







107.5°	0.9	1.4	1.7
110°	0.9	1.2	1.4



(END OF REPORT)