

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: P550679

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-80-84-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: P550679  
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-80-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

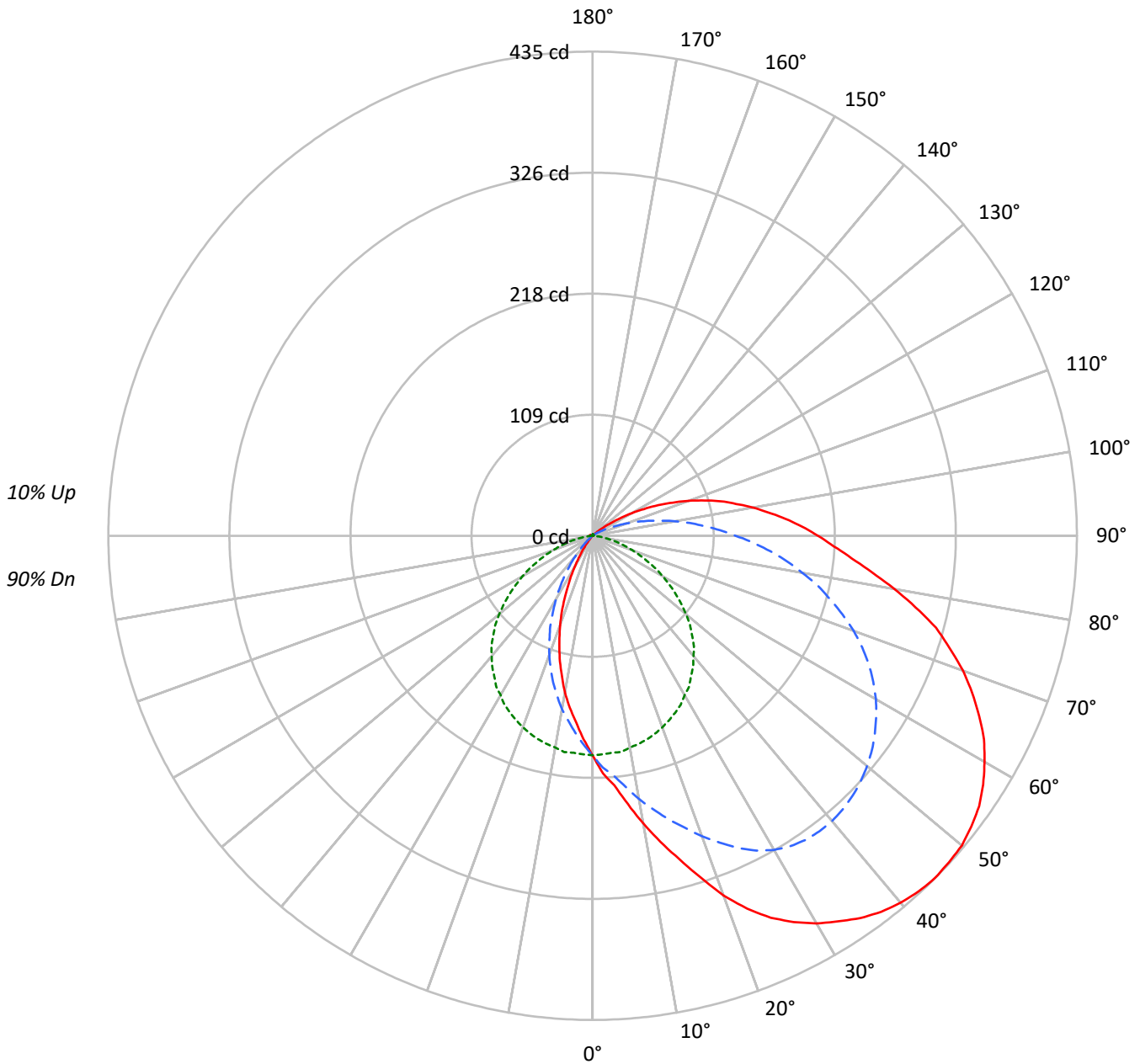
Lumens per Lamp: N/A  
Luminaire Lumens: 975.1 lumens  
Efficiency: N/A  
Efficacy: 83.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	2123	2123	2123
5°	2330	2092	1745
10°	2637	2066	1438
15°	2955	2040	1121
20°	3333	2006	826
25°	3646	1968	542
30°	3879	1916	306
35°	4081	1861	134
40°	4260	1792	33
45°	4414	1706	0
50°	4542	1593	0
55°	4640	1447	0
60°	4690	1281	0
65°	4709	1091	0
70°	4693	888	0
75°	4633	655	4
80°	4446	403	21
85°	4296	193	28



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.9	1.9
10°-20°	56.6	5.8
20°-30°	91.6	9.4
30°-40°	117.7	12.1
40°-50°	133.2	13.7
50°-60°	138.0	14.2
60°-70°	130.1	13.3
70°-80°	109.1	11.2
80°-90°	79.1	8.1
90°-100°	52.0	5.3
100°-110°	30.0	3.1
110°-120°	13.3	1.4
120°-130°	3.6	0.4
130°-140°	0.8	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	167.1	17.1
0°-40°	284.7	29.2
0°-60°	555.9	57.0
0°-90°	874.2	89.6
90°-120°	95.3	9.8
90°-150°	100.2	10.3
90°-180°	101.0	10.4
0°-180°	975.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	197	197	197	197	197	
5°	225	216	196	178	169	23
15°	301	264	189	137	114	87
25°	379	309	175	90	56	175
35°	419	334	154	44	14	263
45°	435	330	126	10	0	336
55°	424	309	91	0	0	378
65°	383	274	54	0	0	379
75°	319	221	23	0	0	335
85°	234	160	4	1	2	200
90°	202	128	1	2	2	111
95°	174	100	0	2	2	136
105°	120	52	0	1	2	126
115°	65	17	1	1	1	65
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°	197.2	197.2	197.2	197.2	197.2	197.2	197.2	197.2	197.2	197.2	197.2
2.5°	213.8	213.5	212.8	211.5	209.8	206.8	204.3	202.0	199.0	196.5	191.7
5°	225.1	223.8	222.8	221.6	217.6	214.8	210.3	205.3	200.5	195.7	186.2
7.5°	243.2	241.2	239.7	236.2	230.6	224.4	217.3	212.5	209.3	196.0	179.6
10°	262.5	260.8	257.8	251.5	244.7	235.7	225.6	214.3	204.3	193.2	173.9
12.5°	281.6	279.1	274.9	266.8	257.3	246.0	232.1	218.8	204.5	191.4	167.1
15°	300.7	298.0	293.4	283.6	271.1	256.3	239.4	222.6	205.8	189.2	160.0
17.5°	321.6	317.8	311.0	300.0	284.1	265.8	246.0	225.6	205.3	186.4	152.5
20°	343.9	338.7	331.4	316.6	298.0	276.4	252.5	228.6	205.0	183.1	144.0
22.5°	362.5	357.3	349.2	333.9	311.5	285.2	258.0	230.6	204.0	179.4	135.9
25°	378.6	374.3	365.5	348.0	324.3	294.4	263.3	232.1	202.5	175.4	127.4
27.5°	391.2	387.2	377.4	359.3	335.1	302.7	267.3	232.9	200.5	171.3	118.6
30°	402.2	398.2	386.4	367.8	342.4	309.3	271.3	233.1	198.0	165.3	109.0
32.5°	410.8	407.0	394.9	375.1	347.5	313.8	273.6	232.9	194.7	161.0	98.7
35°	419.3	415.5	401.5	380.4	351.2	315.8	275.4	231.6	190.7	154.0	88.9
37.5°	425.8	421.6	407.3	383.9	353.0	316.3	275.1	229.9	186.4	148.2	79.1
40°	430.4	425.8	410.5	385.9	353.5	315.6	273.1	226.9	181.4	140.9	68.8
42.5°	433.4	428.4	412.0	388.9	352.5	313.5	270.1	223.1	175.9	134.7	59.0
45°	434.9	429.6	412.3	386.4	350.7	309.8	265.6	218.3	169.8	126.1	49.2
47.5°	434.1	428.4	411.0	383.6	347.5	305.8	260.5	212.5	162.5	118.6	39.9
50°	432.9	426.8	408.3	380.1	342.9	300.7	255.0	205.5	155.0	109.3	31.7
52.5°	428.9	422.8	405.2	375.1	337.7	294.9	247.5	198.2	147.0	100.2	24.1
55°	423.8	418.3	400.0	370.6	330.9	287.9	240.4	190.4	139.2	90.9	17.3
57.5°	416.0	411.0	393.4	363.3	324.1	280.1	232.6	181.9	129.4	81.7	12.1
60°	406.5	401.5	384.4	355.0	316.3	271.3	224.1	173.1	120.6	72.4	7.5
62.5°	396.4	391.7	373.8	344.7	306.5	262.0	214.8	164.3	111.3	63.8	4.5
65°	383.1	378.6	362.5	332.4	295.7	252.0	204.5	153.8	101.7	54.3	2.5
67.5°	369.1	365.0	348.7	321.1	283.1	240.9	194.0	143.5	91.7	46.0	1.3
70°	354.0	349.0	333.9	305.8	270.3	228.4	182.4	132.9	82.2	37.9	0.0
72.5°	336.4	332.6	318.1	291.4	255.5	215.1	170.6	121.3	71.6	30.1	0.3
75°	319.3	314.5	301.2	276.1	240.9	201.0	157.5	110.5	61.3	23.1	0.3
77.5°	297.2	295.7	283.1	258.8	227.1	187.4	143.2	97.5	51.5	16.6	0.3
80°	275.1	273.6	263.8	241.4	211.0	171.3	129.9	85.2	42.0	11.1	0.3
82.5°	253.2	251.2	241.9	223.3	194.7	157.8	116.1	72.9	33.2	6.8	0.3
85°	233.6	231.1	221.1	204.0	177.9	142.4	101.7	60.8	24.6	3.8	0.5
87.5°	216.8	215.1	204.0	186.4	160.8	128.1	89.2	49.2	17.3	1.8	0.8
90°	202.5	198.7	188.9	170.3	144.7	112.3	75.9	39.4	11.6	1.0	1.0
92.5°	188.4	185.2	174.4	155.3	130.4	98.7	63.1	30.1	7.3	0.5	1.3
95°	173.9	170.3	159.8	142.2	115.8	84.9	51.8	22.1	4.0	0.5	1.3
97.5°	159.5	156.3	145.2	127.6	102.8	72.9	41.0	15.6	2.0	0.5	1.0
100°	146.2	142.4	132.4	114.8	89.7	60.8	31.7	10.0	1.3	0.5	1.0
102.5°	132.1	129.1	118.8	101.7	76.1	49.5	23.6	6.3	0.5	0.5	0.8
105°	119.6	115.8	105.8	88.2	64.8	38.9	16.6	3.8	0.5	0.5	0.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	77.9	74.9	66.1	51.3	32.9	15.3	4.5	0.8	0.8	0.8	0.8
115°	65.1	60.5	52.8	39.7	24.4	10.0	2.3	0.8	0.8	0.8	0.8
117.5°	52.0	48.2	42.7	30.1	16.1	6.5	1.3	0.8	0.8	0.8	0.8
120°	40.7	37.2	30.9	20.9	10.8	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.1	26.4	20.9	13.6	6.5	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.3	17.8	13.8	8.3	4.0	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.6	11.3	8.0	4.8	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.0	6.3	4.8	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.0	3.8	2.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	197.2	197.2	197.2
2.5°	187.7	184.2	183.1
5°	177.6	171.8	168.6
7.5°	167.6	159.8	156.0
10°	158.3	147.2	143.2
12.5°	147.2	134.4	128.1
15°	136.7	120.1	114.1
17.5°	124.9	106.3	99.2
20°	113.8	92.5	85.2
22.5°	101.2	78.9	70.8
25°	89.9	65.3	56.3
27.5°	77.4	51.5	43.7
30°	65.6	39.4	31.7
32.5°	54.3	28.9	21.9
35°	43.7	19.6	13.8
37.5°	33.7	12.1	7.0
40°	24.4	6.3	3.3
42.5°	16.3	3.0	1.8
45°	10.0	1.5	0.0
47.5°	5.8	0.0	0.0
50°	3.0	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.0	2.0
95°	1.8	2.0	2.3
97.5°	2.0	2.3	2.3
100°	1.8	2.3	2.5
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	105.5	102.5	92.5	75.9	53.0	29.6	11.1	2.0	0.5	0.8	0.8
110°	92.0	89.4	79.1	63.1	42.7	22.1	7.3	1.3	0.8	0.8	0.8







107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)