

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: P550744

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-80-84-ED1D**

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: P550744  
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-80-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

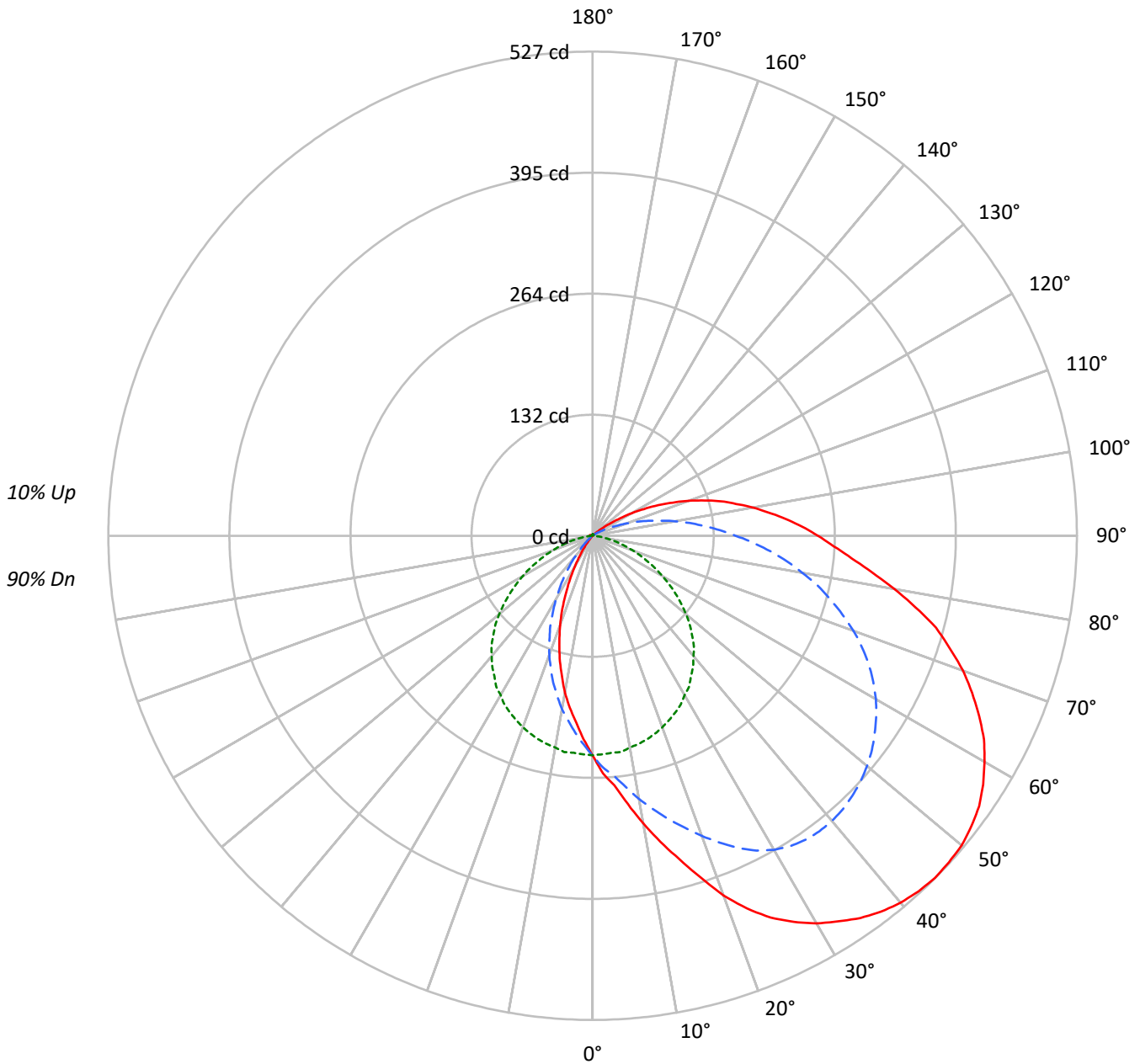
Lumens per Lamp: N/A  
Luminaire Lumens: 1180.9 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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°	2571	2571	2571
5°	2823	2534	2114
10°	3194	2502	1743
15°	3580	2470	1358
20°	4037	2430	1000
25°	4417	2384	657
30°	4699	2321	369
35°	4943	2253	163
40°	5160	2171	40
45°	5346	2068	0
50°	5502	1930	0
55°	5621	1755	0
60°	5681	1550	0
65°	5704	1320	0
70°	5685	1078	0
75°	5613	794	4
80°	5385	486	24
85°	5205	234	33



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.9	1.9
10°-20°	68.5	5.8
20°-30°	111.0	9.4
30°-40°	142.5	12.1
40°-50°	161.3	13.7
50°-60°	167.1	14.2
60°-70°	157.6	13.3
70°-80°	132.1	11.2
80°-90°	95.7	8.1
90°-100°	62.9	5.3
100°-110°	36.3	3.1
110°-120°	16.0	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	202.3	17.1
0°-40°	344.9	29.2
0°-60°	673.4	57.0
0°-90°	1058.8	89.7
90°-120°	115.3	9.8
90°-150°	121.2	10.3
90°-180°	122.0	10.3
0°-180°	1180.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	239	239	239	239	239	
5°	273	262	237	215	204	27
15°	364	319	229	166	138	105
25°	459	375	212	109	68	212
35°	508	404	186	53	17	319
45°	527	400	153	12	0	407
55°	513	375	110	0	0	458
65°	464	332	66	0	0	459
75°	387	268	28	0	0	406
85°	283	194	5	1	2	242
90°	245	156	1	2	2	134
95°	211	122	1	2	3	165
105°	145	63	1	2	2	153
115°	79	21	1	1	2	79
125°	23	3	1	1	1	23
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	238.9	238.9	238.9	238.9	238.9	238.9	238.9	238.9	238.9	238.9	238.9
2.5°	259.0	258.7	257.8	256.2	254.1	250.5	247.4	244.7	241.0	238.0	232.2
5°	272.7	271.1	269.9	268.4	263.5	260.2	254.7	248.6	242.8	237.1	225.5
7.5°	294.6	292.1	290.3	286.1	279.4	271.8	263.2	257.5	253.5	237.4	217.6
10°	318.0	315.9	312.2	304.6	296.4	285.4	273.3	259.6	247.4	234.0	210.6
12.5°	341.1	338.1	332.9	323.2	311.6	297.9	281.2	265.1	247.7	231.9	202.4
15°	364.3	360.9	355.4	343.6	328.4	310.4	290.0	269.6	249.2	229.1	193.8
17.5°	389.5	385.0	376.7	363.4	344.2	322.0	297.9	273.3	248.6	225.8	184.7
20°	416.6	410.2	401.4	383.4	360.9	334.7	305.8	276.9	248.3	221.8	174.4
22.5°	439.1	432.7	423.0	404.4	377.4	345.4	312.5	279.4	247.1	217.3	164.6
25°	458.6	453.4	442.8	421.5	392.9	356.7	318.9	281.2	245.3	212.4	154.3
27.5°	473.8	469.0	457.1	435.2	406.0	366.7	323.8	282.1	242.8	207.5	143.6
30°	487.2	482.3	468.0	445.5	414.8	374.6	328.7	282.4	239.8	200.2	132.1
32.5°	497.6	493.0	478.4	454.3	420.9	380.1	331.4	282.1	235.8	195.1	119.6
35°	507.9	503.3	486.3	460.7	425.4	382.5	333.5	280.6	231.0	186.5	107.7
37.5°	515.8	510.6	493.3	465.0	427.6	383.1	333.2	278.4	225.8	179.5	95.9
40°	521.3	515.8	497.3	467.4	428.2	382.2	330.8	274.8	219.7	170.7	83.4
42.5°	524.9	518.9	499.1	471.1	427.0	379.8	327.1	270.2	213.0	163.1	71.5
45°	526.8	520.4	499.4	468.0	424.8	375.2	321.7	264.5	205.7	152.8	59.6
47.5°	525.9	518.9	497.9	464.7	420.9	370.4	315.6	257.5	196.9	143.6	48.4
50°	524.3	517.0	494.5	460.4	415.4	364.3	308.9	248.9	187.8	132.4	38.3
52.5°	519.5	512.2	490.9	454.3	409.0	357.3	299.8	240.1	178.0	121.4	29.2
55°	513.4	506.7	484.5	448.9	400.8	348.7	291.2	230.7	168.6	110.2	21.0
57.5°	503.9	497.9	476.6	440.0	392.6	339.3	281.8	220.3	156.7	98.9	14.6
60°	492.4	486.3	465.6	430.0	383.1	328.7	271.4	209.7	146.1	87.6	9.1
62.5°	480.2	474.4	452.8	417.5	371.3	317.4	260.2	199.0	134.8	77.3	5.5
65°	464.1	458.6	439.1	402.6	358.2	305.2	247.7	186.2	123.2	65.7	3.0
67.5°	447.0	442.2	422.4	388.9	343.0	291.8	234.9	173.8	111.1	55.7	1.5
70°	428.8	422.7	404.4	370.4	327.4	276.6	220.9	161.0	99.5	46.0	0.0
72.5°	407.5	402.9	385.3	353.0	309.5	260.5	206.6	147.0	86.7	36.5	0.3
75°	386.8	381.0	364.9	334.4	291.8	243.5	190.8	133.9	74.3	28.0	0.3
77.5°	360.0	358.2	343.0	313.4	275.1	227.0	173.5	118.1	62.4	20.1	0.3
80°	333.2	331.4	319.5	292.4	255.6	207.5	157.3	103.2	50.8	13.4	0.3
82.5°	306.8	304.3	293.1	270.5	235.8	191.1	140.6	88.3	40.2	8.2	0.3
85°	283.0	280.0	267.8	247.1	215.5	172.5	123.2	73.6	29.8	4.6	0.6
87.5°	262.6	260.5	247.1	225.8	194.8	155.2	108.0	59.6	21.0	2.1	0.9
90°	245.3	240.7	228.8	206.3	175.3	136.0	91.9	47.8	14.0	1.2	1.2
92.5°	228.2	224.3	211.2	188.1	157.9	119.6	76.4	36.5	8.8	0.6	1.5
95°	210.6	206.3	193.5	172.2	140.3	102.9	62.7	26.8	4.9	0.6	1.5
97.5°	193.2	189.3	175.9	154.6	124.5	88.3	49.6	18.9	2.4	0.6	1.2
100°	177.1	172.5	160.4	139.1	108.6	73.6	38.3	12.2	1.5	0.6	1.2
102.5°	160.1	156.4	143.9	123.2	92.2	60.0	28.6	7.6	0.6	0.6	0.9
105°	144.9	140.3	128.1	106.8	78.5	47.2	20.1	4.6	0.6	0.6	0.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	94.3	90.7	80.0	62.1	39.9	18.6	5.5	0.9	0.9	0.9	0.9
115°	78.8	73.3	63.9	48.1	29.5	12.2	2.7	0.9	0.9	0.9	0.9
117.5°	63.0	58.4	51.7	36.5	19.5	7.9	1.5	0.9	0.9	0.9	0.9
120°	49.3	45.0	37.4	25.3	13.1	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.3	32.0	25.3	16.4	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.4	21.6	16.7	10.0	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.2	13.7	9.7	5.8	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.5	7.6	5.8	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.9	4.6	3.0	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	238.9	238.9	238.9
2.5°	227.3	223.1	221.8
5°	215.2	208.2	204.2
7.5°	203.0	193.5	189.0
10°	191.7	178.3	173.5
12.5°	178.3	162.8	155.2
15°	165.5	145.5	138.2
17.5°	151.2	128.7	120.2
20°	137.9	112.0	103.2
22.5°	122.6	95.6	85.8
25°	108.9	79.1	68.2
27.5°	93.7	62.4	53.0
30°	79.4	47.8	38.3
32.5°	65.7	35.0	26.5
35°	53.0	23.7	16.7
37.5°	40.8	14.6	8.5
40°	29.5	7.6	4.0
42.5°	19.8	3.7	2.1
45°	12.2	1.8	0.0
47.5°	7.0	0.0	0.0
50°	3.7	0.0	0.0
52.5°	1.5	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	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	127.8	124.2	112.0	91.9	64.2	35.9	13.4	2.4	0.6	0.9	0.9
110°	111.4	108.3	95.9	76.4	51.7	26.8	8.8	1.5	0.9	0.9	0.9







107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)