

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: P550999

Luminaire Tested: **FCC-X-2-LD4-1STD-35-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: P550999  
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-LD4-1STD-35-UNV-80-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

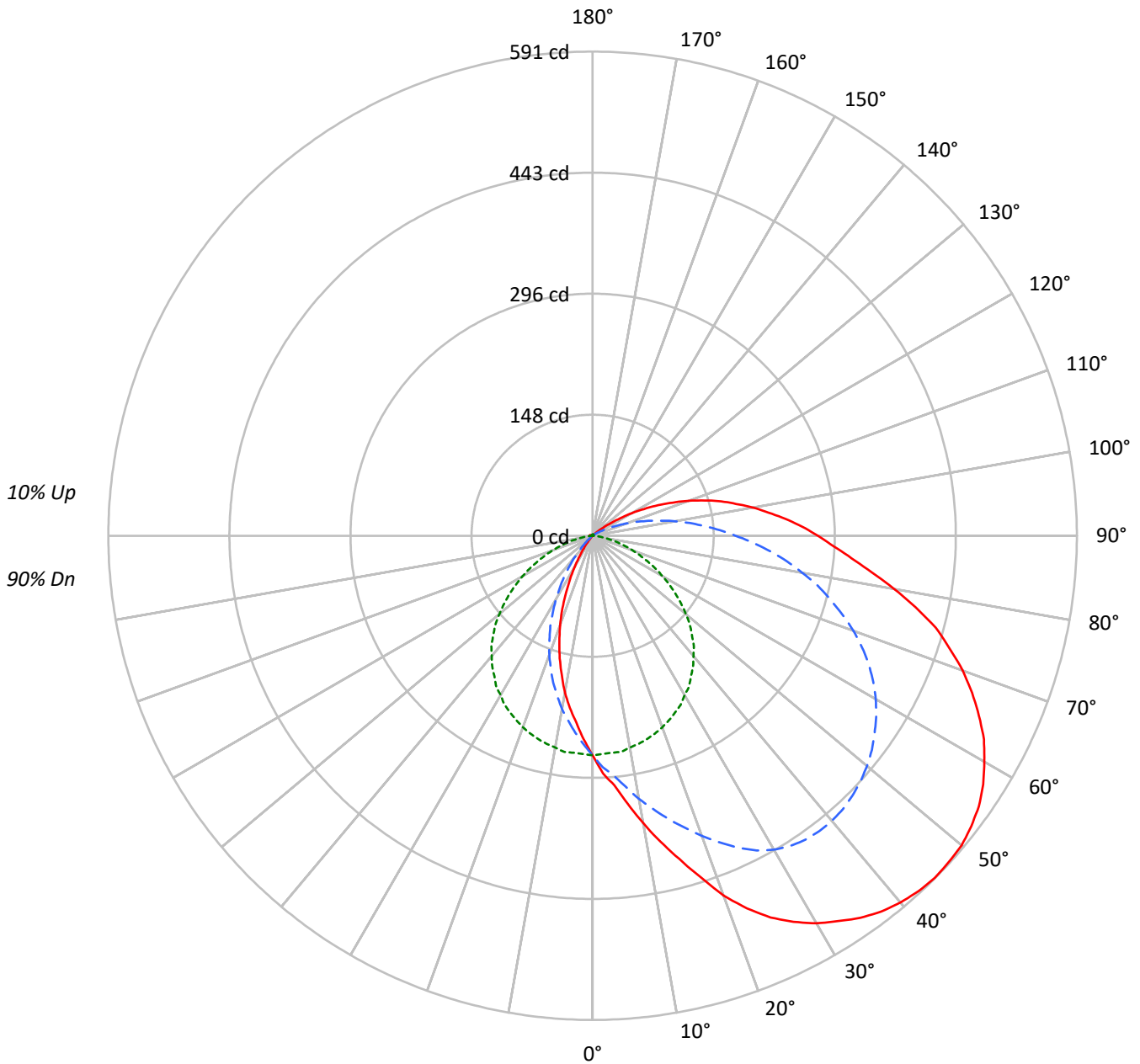
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1324.0 lumens  
Efficiency: N/A  
Efficacy: 79.3 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): 16.7  
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

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### 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°	2883	2883	2883
5°	3165	2841	2370
10°	3581	2806	1954
15°	4013	2770	1522
20°	4527	2725	1121
25°	4951	2672	736
30°	5268	2603	415
35°	5542	2527	183
40°	5785	2434	44
45°	5994	2318	0
50°	6168	2163	0
55°	6301	1967	0
60°	6368	1740	0
65°	6395	1480	0
70°	6373	1206	0
75°	6292	890	4
80°	6038	544	27
85°	5836	259	37



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.7	1.9
10°-20°	76.8	5.8
20°-30°	124.4	9.4
30°-40°	159.8	12.1
40°-50°	180.9	13.7
50°-60°	187.4	14.2
60°-70°	176.7	13.3
70°-80°	148.1	11.2
80°-90°	107.3	8.1
90°-100°	70.6	5.3
100°-110°	40.7	3.1
110°-120°	18.0	1.4
120°-130°	4.9	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	226.8	17.1
0°-40°	386.6	29.2
0°-60°	754.9	57.0
0°-90°	1187.1	89.7
90°-120°	129.3	9.8
90°-150°	136.0	10.3
90°-180°	137.0	10.3
0°-180°	1324.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	268	268	268	268	268	
5°	306	294	266	241	229	31
15°	408	358	257	186	155	118
25°	514	420	238	122	76	238
35°	569	453	209	59	19	357
45°	591	448	171	14	0	456
55°	576	420	124	0	0	514
65°	520	372	74	0	0	515
75°	434	300	31	0	0	455
85°	317	217	5	1	2	271
90°	275	174	1	2	2	151
95°	236	136	1	2	3	185
105°	162	70	1	2	3	171
115°	88	23	1	1	2	89
125°	26	3	1	1	1	26
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°	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8	267.8
2.5°	290.3	290.0	289.0	287.3	284.9	280.8	277.4	274.3	270.2	266.8	260.3
5°	305.7	304.0	302.6	300.9	295.4	291.7	285.6	278.7	272.2	265.8	252.8
7.5°	330.2	327.5	325.5	320.7	313.2	304.7	295.1	288.6	284.2	266.1	243.9
10°	356.5	354.1	350.0	341.5	332.3	320.0	306.4	291.0	277.4	262.4	236.1
12.5°	382.4	379.0	373.2	362.3	349.4	334.0	315.2	297.2	277.7	260.0	226.9
15°	408.4	404.6	398.5	385.2	368.1	348.0	325.1	302.3	279.4	256.9	217.3
17.5°	436.7	431.6	422.4	407.3	385.9	361.0	334.0	306.4	278.7	253.1	207.1
20°	467.1	459.9	450.0	429.9	404.6	375.3	342.9	310.5	278.4	248.7	195.5
22.5°	492.3	485.1	474.2	453.4	423.0	387.2	350.4	313.2	277.0	243.6	184.6
25°	514.1	508.3	496.4	472.5	440.4	399.8	357.5	315.2	275.0	238.1	173.0
27.5°	531.2	525.7	512.4	487.9	455.1	411.1	363.0	316.3	272.2	232.7	161.0
30°	546.2	540.7	524.7	499.5	465.0	420.0	368.5	316.6	268.8	224.5	148.1
32.5°	557.8	552.7	536.3	509.4	471.8	426.1	371.5	316.3	264.4	218.7	134.1
35°	569.4	564.3	545.2	516.5	476.9	428.8	373.9	314.6	258.9	209.1	120.8
37.5°	578.3	572.5	553.0	521.3	479.3	429.5	373.6	312.2	253.1	201.3	107.5
40°	584.4	578.3	557.5	524.0	480.0	428.5	370.8	308.1	246.3	191.4	93.5
42.5°	588.5	581.7	559.5	528.1	478.7	425.8	366.8	303.0	238.8	182.9	80.2
45°	590.6	583.4	559.8	524.7	476.3	420.7	360.6	296.5	230.6	171.3	66.9
47.5°	589.5	581.7	558.1	521.0	471.8	415.2	353.8	288.6	220.7	161.0	54.2
50°	587.8	579.6	554.4	516.2	465.7	408.4	346.3	279.1	210.5	148.4	43.0
52.5°	582.4	574.2	550.3	509.4	458.5	400.5	336.0	269.2	199.6	136.1	32.8
55°	575.5	568.0	543.1	503.2	449.3	391.0	326.5	258.6	189.0	123.5	23.5
57.5°	565.0	558.1	534.3	493.3	440.1	380.4	315.9	247.0	175.7	110.9	16.4
60°	552.0	545.2	522.0	482.1	429.5	368.5	304.3	235.1	163.8	98.3	10.2
62.5°	538.4	531.9	507.7	468.1	416.2	355.8	291.7	223.1	151.1	86.7	6.1
65°	520.3	514.1	492.3	451.4	401.5	342.2	277.7	208.8	138.2	73.7	3.4
67.5°	501.2	495.7	473.5	436.0	384.5	327.2	263.4	194.8	124.5	62.4	1.7
70°	480.7	473.9	453.4	415.2	367.1	310.1	247.7	180.5	111.6	51.5	0.0
72.5°	456.8	451.7	431.9	395.7	347.0	292.0	231.7	164.8	97.2	40.9	0.3
75°	433.6	427.1	409.1	374.9	327.2	272.9	213.9	150.1	83.2	31.4	0.3
77.5°	403.6	401.5	384.5	351.4	308.4	254.5	194.5	132.4	69.9	22.5	0.3
80°	373.6	371.5	358.2	327.9	286.6	232.7	176.4	115.7	57.0	15.0	0.3
82.5°	343.9	341.2	328.5	303.3	264.4	214.3	157.6	98.9	45.0	9.2	0.3
85°	317.3	313.9	300.2	277.0	241.5	193.4	138.2	82.6	33.4	5.1	0.7
87.5°	294.4	292.0	277.0	253.1	218.3	174.0	121.1	66.9	23.5	2.4	1.0
90°	275.0	269.9	256.6	231.3	196.5	152.5	103.0	53.6	15.7	1.4	1.4
92.5°	255.9	251.4	236.8	210.8	177.1	134.1	85.6	40.9	9.9	0.7	1.7
95°	236.1	231.3	217.0	193.1	157.3	115.3	70.3	30.0	5.5	0.7	1.7
97.5°	216.6	212.2	197.2	173.3	139.5	98.9	55.6	21.2	2.7	0.7	1.4
100°	198.6	193.4	179.8	155.9	121.8	82.6	43.0	13.6	1.7	0.7	1.4
102.5°	179.5	175.4	161.4	138.2	103.4	67.2	32.1	8.5	0.7	0.7	1.0
105°	162.4	157.3	143.6	119.7	88.0	52.9	22.5	5.1	0.7	0.7	1.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	105.8	101.7	89.7	69.6	44.7	20.8	6.1	1.0	1.0	1.0	1.0
115°	88.4	82.2	71.6	53.9	33.1	13.6	3.1	1.0	1.0	1.0	1.0
117.5°	70.6	65.5	58.0	40.9	21.8	8.9	1.7	1.0	1.0	1.0	1.0
120°	55.3	50.5	42.0	28.3	14.7	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.6	35.8	28.3	18.4	8.9	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.3	24.2	18.8	11.3	5.5	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.1	15.4	10.9	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.6	8.5	6.5	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.5	5.1	3.4	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	267.8	267.8	267.8
2.5°	254.8	250.1	248.7
5°	241.2	233.4	228.9
7.5°	227.6	217.0	211.9
10°	214.9	199.9	194.5
12.5°	199.9	182.5	174.0
15°	185.6	163.1	154.9
17.5°	169.6	144.3	134.8
20°	154.5	125.5	115.7
22.5°	137.5	107.1	96.2
25°	122.1	88.7	76.4
27.5°	105.1	69.9	59.4
30°	89.0	53.6	43.0
32.5°	73.7	39.2	29.7
35°	59.4	26.6	18.8
37.5°	45.7	16.4	9.6
40°	33.1	8.5	4.4
42.5°	22.2	4.1	2.4
45°	13.6	2.0	0.0
47.5°	7.8	0.0	0.0
50°	4.1	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.0
87.5°	1.7	2.0	2.4
90°	2.0	2.4	2.4
92.5°	2.0	2.7	2.7
95°	2.4	2.7	3.1
97.5°	2.7	3.1	3.1
100°	2.4	3.1	3.4
102.5°	2.0	3.1	3.1
105°	1.7	2.4	2.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	143.3	139.2	125.5	103.0	72.0	40.3	15.0	2.7	0.7	1.0	1.0
110°	124.9	121.5	107.5	85.6	58.0	30.0	9.9	1.7	1.0	1.0	1.0







107.5°	1.4	2.0	2.4
110°	1.4	1.7	2.0



(END OF REPORT)