

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: P551001

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-80-85-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: P551001  
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-80-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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**

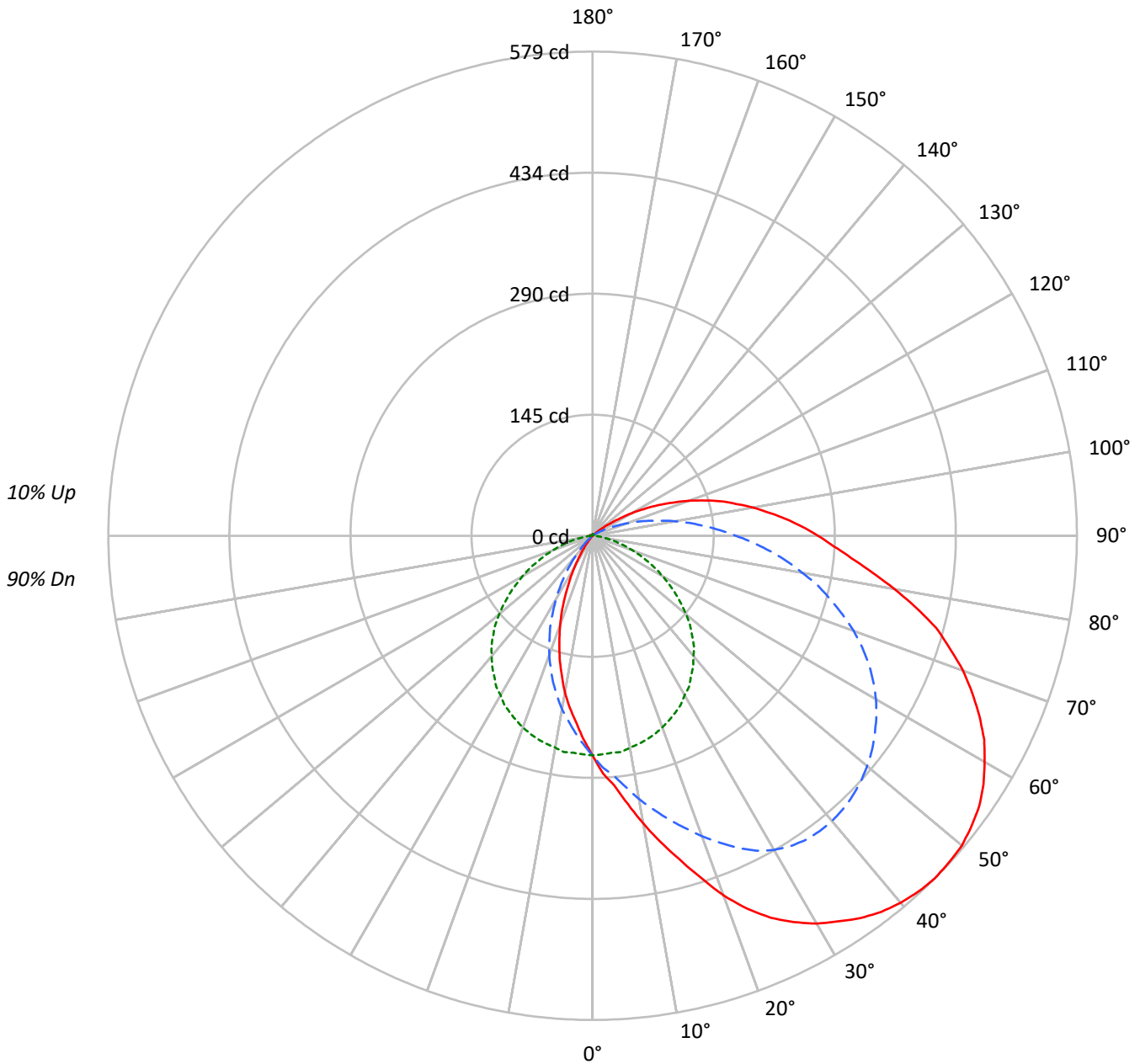
Lumens per Lamp: N/A  
Luminaire Lumens: 1298.0 lumens  
Efficiency: N/A  
Efficacy: 77.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (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

TEST NUMBER: P551001

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-80-85-ED1D-90

### 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°	2827	2827	2827
5°	3103	2784	2323
10°	3511	2751	1914
15°	3935	2716	1492
20°	4438	2671	1099
25°	4854	2620	721
30°	5165	2552	406
35°	5433	2477	179
40°	5671	2386	43
45°	5876	2272	0
50°	6047	2121	0
55°	6177	1928	0
60°	6244	1704	0
65°	6270	1450	0
70°	6249	1183	0
75°	6169	873	4
80°	5918	533	27
85°	5722	254	37



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.1	1.9
10°-20°	75.3	5.8
20°-30°	121.9	9.4
30°-40°	156.6	12.1
40°-50°	177.3	13.7
50°-60°	183.7	14.2
60°-70°	173.3	13.3
70°-80°	145.2	11.2
80°-90°	105.2	8.1
90°-100°	69.2	5.3
100°-110°	39.9	3.1
110°-120°	17.6	1.4
120°-130°	4.8	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°	222.4	17.1
0°-40°	379.0	29.2
0°-60°	740.1	57.0
0°-90°	1163.8	89.7
90°-120°	126.7	9.8
90°-150°	133.3	10.3
90°-180°	134.0	10.3
0°-180°	1298.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	263	263	263	263	263	
5°	300	288	260	236	224	30
15°	400	351	252	182	152	115
25°	504	412	234	120	75	233
35°	558	444	205	58	18	350
45°	579	440	168	13	0	447
55°	564	412	121	0	0	504
65°	510	365	72	0	0	505
75°	425	294	31	0	0	446
85°	311	213	5	1	2	266
90°	270	171	1	2	2	148
95°	231	134	1	2	3	182
105°	159	69	1	2	3	168
115°	87	23	1	1	2	87
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°	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6	262.6
2.5°	284.6	284.3	283.3	281.6	279.3	275.3	271.9	268.9	264.9	261.6	255.2
5°	299.7	298.0	296.7	295.0	289.6	286.0	279.9	273.3	266.9	260.5	247.8
7.5°	323.8	321.1	319.1	314.4	307.0	298.7	289.3	283.0	278.6	260.9	239.1
10°	349.5	347.2	343.2	334.8	325.8	313.7	300.3	285.3	271.9	257.2	231.4
12.5°	374.9	371.6	365.9	355.2	342.5	327.4	309.0	291.3	272.3	254.9	222.4
15°	400.4	396.7	390.7	377.6	360.9	341.2	318.7	296.3	273.9	251.9	213.1
17.5°	428.1	423.1	414.1	399.4	378.3	353.9	327.4	300.3	273.3	248.2	203.0
20°	457.9	450.9	441.2	421.4	396.7	367.9	336.1	304.4	272.9	243.8	191.6
22.5°	482.6	475.6	464.9	444.5	414.7	379.6	343.5	307.0	271.6	238.8	180.9
25°	504.0	498.4	486.6	463.2	431.8	392.0	350.5	309.0	269.6	233.5	169.6
27.5°	520.8	515.4	502.4	478.3	446.2	403.0	355.9	310.0	266.9	228.1	157.9
30°	535.5	530.1	514.4	489.7	455.9	411.7	361.2	310.4	263.6	220.1	145.2
32.5°	546.8	541.8	525.8	499.4	462.6	417.7	364.2	310.0	259.2	214.4	131.4
35°	558.2	553.2	534.5	506.4	467.6	420.4	366.6	308.4	253.9	205.0	118.4
37.5°	566.9	561.2	542.2	511.1	469.9	421.1	366.2	306.0	248.2	197.3	105.4
40°	572.9	566.9	546.5	513.7	470.6	420.1	363.6	302.0	241.5	187.6	91.6
42.5°	577.0	570.3	548.5	517.8	469.3	417.4	359.5	297.0	234.1	179.3	78.6
45°	579.0	571.9	548.9	514.4	466.9	412.4	353.5	290.6	226.1	167.9	65.6
47.5°	578.0	570.3	547.2	510.7	462.6	407.0	346.8	283.0	216.4	157.9	53.2
50°	576.3	568.3	543.5	506.0	456.5	400.4	339.5	273.6	206.4	145.5	42.1
52.5°	570.9	562.9	539.5	499.4	449.5	392.7	329.4	263.9	195.7	133.5	32.1
55°	564.2	556.9	532.5	493.3	440.5	383.3	320.1	253.5	185.3	121.1	23.1
57.5°	553.9	547.2	523.8	483.6	431.5	372.9	309.7	242.2	172.2	108.7	16.1
60°	541.2	534.5	511.7	472.6	421.1	361.2	298.3	230.4	160.5	96.3	10.0
62.5°	527.8	521.4	497.7	458.9	408.0	348.8	286.0	218.7	148.2	85.0	6.0
65°	510.1	504.0	482.6	442.5	393.7	335.5	272.3	204.7	135.5	72.2	3.3
67.5°	491.3	486.0	464.2	427.4	376.9	320.8	258.2	191.0	122.1	61.2	1.7
70°	471.3	464.6	444.5	407.0	359.9	304.0	242.8	176.9	109.4	50.5	0.0
72.5°	447.8	442.8	423.4	388.0	340.1	286.3	227.1	161.5	95.3	40.1	0.3
75°	425.1	418.7	401.0	367.6	320.8	267.6	209.7	147.2	81.6	30.8	0.3
77.5°	395.7	393.7	376.9	344.5	302.4	249.5	190.6	129.8	68.6	22.1	0.3
80°	366.2	364.2	351.2	321.4	280.9	228.1	172.9	113.4	55.9	14.7	0.3
82.5°	337.1	334.5	322.1	297.3	259.2	210.0	154.5	97.0	44.1	9.0	0.3
85°	311.1	307.7	294.3	271.6	236.8	189.6	135.5	80.9	32.8	5.0	0.7
87.5°	288.6	286.3	271.6	248.2	214.1	170.6	118.7	65.6	23.1	2.3	1.0
90°	269.6	264.6	251.5	226.8	192.7	149.5	101.0	52.5	15.4	1.3	1.3
92.5°	250.8	246.5	232.1	206.7	173.6	131.4	84.0	40.1	9.7	0.7	1.7
95°	231.4	226.8	212.7	189.3	154.2	113.0	68.9	29.4	5.4	0.7	1.7
97.5°	212.4	208.0	193.3	169.9	136.8	97.0	54.5	20.7	2.7	0.7	1.3
100°	194.7	189.6	176.3	152.9	119.4	80.9	42.1	13.4	1.7	0.7	1.3
102.5°	175.9	171.9	158.2	135.5	101.3	65.9	31.4	8.4	0.7	0.7	1.0
105°	159.2	154.2	140.8	117.4	86.3	51.8	22.1	5.0	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°	103.7	99.7	88.0	68.2	43.8	20.4	6.0	1.0	1.0	1.0	1.0
115°	86.6	80.6	70.2	52.8	32.4	13.4	3.0	1.0	1.0	1.0	1.0
117.5°	69.2	64.2	56.9	40.1	21.4	8.7	1.7	1.0	1.0	1.0	1.0
120°	54.2	49.5	41.1	27.8	14.4	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.8	35.1	27.8	18.1	8.7	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.8	23.7	18.4	11.0	5.4	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.7	15.1	10.7	6.4	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.4	8.4	6.4	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.4	5.0	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
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°	262.6	262.6	262.6
2.5°	249.8	245.2	243.8
5°	236.5	228.8	224.4
7.5°	223.1	212.7	207.7
10°	210.7	196.0	190.6
12.5°	196.0	178.9	170.6
15°	181.9	159.9	151.8
17.5°	166.2	141.5	132.1
20°	151.5	123.1	113.4
22.5°	134.8	105.0	94.3
25°	119.7	87.0	74.9
27.5°	103.0	68.6	58.2
30°	87.3	52.5	42.1
32.5°	72.2	38.5	29.1
35°	58.2	26.1	18.4
37.5°	44.8	16.1	9.4
40°	32.4	8.4	4.3
42.5°	21.7	4.0	2.3
45°	13.4	2.0	0.0
47.5°	7.7	0.0	0.0
50°	4.0	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	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.7	2.7
95°	2.3	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	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°	1.3	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°	140.5	136.5	123.1	101.0	70.6	39.5	14.7	2.7	0.7	1.0	1.0
110°	122.4	119.1	105.4	84.0	56.9	29.4	9.7	1.7	1.0	1.0	1.0







107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)