

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: P550487

Luminaire Tested: **FCC-X-2-LD4-1HI-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: P550487  
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-LD4-1HI-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**

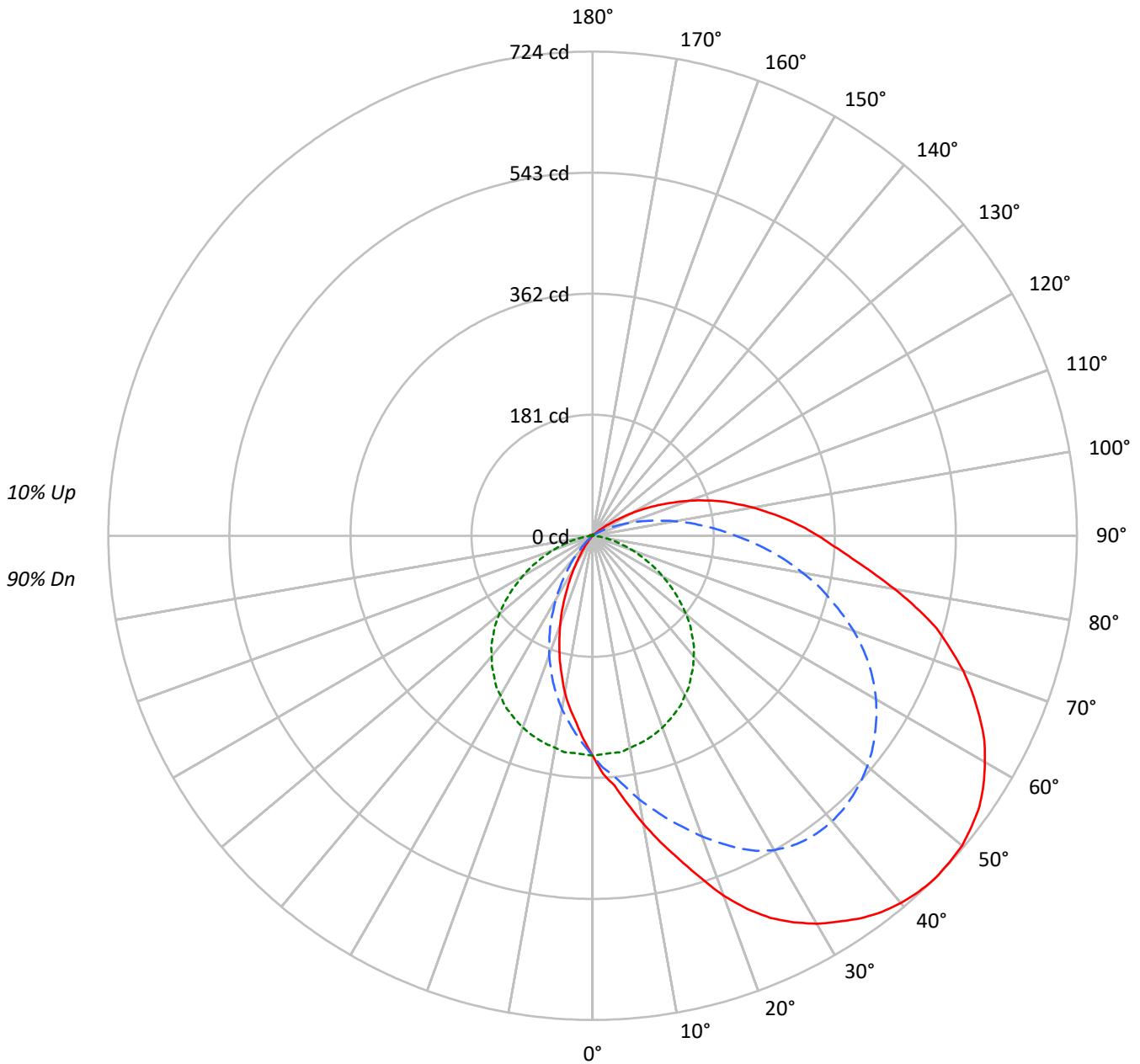
Lumens per Lamp: N/A  
Luminaire Lumens: 1624.1 lumens  
Efficiency: N/A  
Efficacy: 74.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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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CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-80-84-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°	3536	3536	3536
5°	3881	3484	2907
10°	4392	3441	2396
15°	4922	3398	1867
20°	5552	3343	1375
25°	6073	3278	902
30°	6462	3193	508
35°	6797	3099	224
40°	7095	2986	53
45°	7351	2843	0
50°	7566	2653	0
55°	7730	2412	0
60°	7812	2132	0
65°	7844	1816	0
70°	7817	1481	0
75°	7718	1092	6
80°	7405	667	34
85°	7158	320	46



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.5	1.9
10°-20°	94.2	5.8
20°-30°	152.6	9.4
30°-40°	196.0	12.1
40°-50°	221.9	13.7
50°-60°	229.9	14.2
60°-70°	216.8	13.3
70°-80°	181.7	11.2
80°-90°	131.7	8.1
90°-100°	86.5	5.3
100°-110°	50.0	3.1
110°-120°	22.1	1.4
120°-130°	6.0	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	278.3	17.1
0°-40°	474.2	29.2
0°-60°	925.9	57.0
0°-90°	1456.0	89.7
90°-120°	158.6	9.8
90°-150°	166.9	10.3
90°-180°	168.0	10.3
0°-180°	1624.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	328	328	328	328	328	
5°	375	360	326	296	281	38
15°	501	439	315	228	190	144
25°	631	515	292	150	94	291
35°	698	556	256	73	23	438
45°	724	550	210	17	0	559
55°	706	515	152	0	0	630
65°	638	456	90	0	0	631
75°	532	368	38	0	0	558
85°	389	267	6	2	2	332
90°	337	214	2	2	3	185
95°	290	167	1	3	4	227
105°	199	86	1	2	3	210
115°	108	29	1	1	2	109
125°	32	4	2	1	2	32
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	328.5	328.5	328.5	328.5	328.5	328.5	328.5	328.5	328.5	328.5	328.5
2.5°	356.1	355.7	354.4	352.3	349.4	344.4	340.2	336.4	331.4	327.2	319.3
5°	374.9	372.9	371.2	369.1	362.4	357.8	350.3	341.9	333.9	326.0	310.1
7.5°	405.1	401.7	399.2	393.4	384.2	373.7	362.0	354.0	348.6	326.4	299.2
10°	437.3	434.4	429.3	418.9	407.6	392.5	375.8	357.0	340.2	321.8	289.6
12.5°	469.1	464.9	457.8	444.4	428.5	409.7	386.7	364.5	340.6	318.9	278.3
15°	500.9	496.3	488.8	472.4	451.5	426.8	398.8	370.8	342.7	315.1	266.6
17.5°	535.6	529.4	518.1	499.6	473.3	442.7	409.7	375.8	341.9	310.5	254.0
20°	572.9	564.1	552.0	527.3	496.3	460.3	420.6	380.8	341.5	305.1	239.8
22.5°	603.8	595.1	581.7	556.1	518.9	475.0	429.8	384.2	339.8	298.8	226.4
25°	630.6	623.5	608.9	579.6	540.2	490.4	438.6	386.7	337.3	292.1	212.2
27.5°	651.6	644.9	628.5	598.4	558.2	504.3	445.2	387.9	333.9	285.4	197.5
30°	670.0	663.3	643.6	612.6	570.4	515.1	451.9	388.3	329.8	275.4	181.6
32.5°	684.2	677.9	657.8	624.8	578.7	522.7	455.7	387.9	324.3	268.2	164.5
35°	698.4	692.1	668.7	633.6	585.0	526.0	458.6	385.8	317.6	256.5	148.1
37.5°	709.3	702.2	678.3	639.4	587.9	526.8	458.2	382.9	310.5	246.9	131.8
40°	716.8	709.3	683.8	642.8	588.8	525.6	454.9	377.9	302.1	234.8	114.7
42.5°	721.9	713.5	686.3	647.8	587.1	522.2	449.9	371.6	292.9	224.3	98.3
45°	724.4	715.6	686.7	643.6	584.2	516.0	442.3	363.6	282.9	210.1	82.0
47.5°	723.1	713.5	684.6	639.0	578.7	509.3	433.9	354.0	270.7	197.5	66.5
50°	721.0	711.0	680.0	633.1	571.2	500.9	424.7	342.3	258.2	182.0	52.7
52.5°	714.3	704.3	675.0	624.8	562.4	491.3	412.2	330.2	244.8	167.0	40.2
55°	706.0	696.7	666.2	617.2	551.1	479.6	400.5	317.2	231.8	151.5	28.9
57.5°	693.0	684.6	655.3	605.1	539.8	466.6	387.5	303.0	215.5	136.0	20.1
60°	677.1	668.7	640.3	591.3	526.8	451.9	373.3	288.3	200.9	120.5	12.6
62.5°	660.3	652.4	622.7	574.1	510.5	436.5	357.8	273.7	185.4	106.3	7.5
65°	638.2	630.6	603.8	553.6	492.5	419.7	340.6	256.1	169.5	90.4	4.2
67.5°	614.7	608.0	580.8	534.8	471.6	401.3	323.1	238.9	152.7	76.6	2.1
70°	589.6	581.2	556.1	509.3	450.3	380.4	303.8	221.4	136.8	63.2	0.0
72.5°	560.3	554.0	529.8	485.4	425.6	358.2	284.1	202.1	119.3	50.2	0.4
75°	531.9	523.9	501.7	459.9	401.3	334.8	262.4	184.1	102.1	38.5	0.4
77.5°	495.0	492.5	471.6	431.0	378.3	312.2	238.5	162.4	85.8	27.6	0.4
80°	458.2	455.7	439.4	402.1	351.5	285.4	216.3	141.9	69.9	18.4	0.4
82.5°	421.8	418.5	403.0	372.0	324.3	262.8	193.3	121.4	55.2	11.3	0.4
85°	389.2	385.0	368.3	339.8	296.3	237.3	169.5	101.3	41.0	6.3	0.8
87.5°	361.1	358.2	339.8	310.5	267.8	213.4	148.6	82.0	28.9	2.9	1.3
90°	337.3	331.0	314.7	283.7	241.0	187.1	126.4	65.7	19.2	1.7	1.7
92.5°	313.8	308.4	290.4	258.6	217.2	164.5	105.0	50.2	12.1	0.8	2.1
95°	289.6	283.7	266.1	236.9	192.9	141.4	86.2	36.8	6.7	0.8	2.1
97.5°	265.7	260.3	241.9	212.6	171.2	121.4	68.2	25.9	3.3	0.8	1.7
100°	243.5	237.3	220.5	191.2	149.4	101.3	52.7	16.7	2.1	0.8	1.7
102.5°	220.1	215.1	197.9	169.5	126.8	82.4	39.3	10.5	0.8	0.8	1.3
105°	199.2	192.9	176.2	146.9	108.0	64.9	27.6	6.3	0.8	0.8	1.3



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CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-80-84-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	129.7	124.7	110.1	85.4	54.8	25.5	7.5	1.3	1.3	1.3	1.3
115°	108.4	100.9	87.9	66.1	40.6	16.7	3.8	1.3	1.3	1.3	1.3
117.5°	86.6	80.3	71.1	50.2	26.8	10.9	2.1	1.3	1.3	1.3	1.3
120°	67.8	61.9	51.5	34.7	18.0	6.3	0.8	1.3	1.3	1.3	1.3
122.5°	48.5	43.9	34.7	22.6	10.9	2.9	1.3	1.3	1.7	1.7	1.3
125°	32.2	29.7	23.0	13.8	6.7	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	20.9	18.8	13.4	8.0	2.9	1.3	1.3	1.7	1.7	1.7	1.3
130°	11.7	10.5	8.0	4.6	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.7	6.3	4.2	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.3	1.3	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	328.5	328.5	328.5
2.5°	312.6	306.7	305.1
5°	295.9	286.2	280.8
7.5°	279.1	266.1	259.9
10°	263.6	245.2	238.5
12.5°	245.2	223.9	213.4
15°	227.6	200.0	190.0
17.5°	208.0	177.0	165.3
20°	189.6	154.0	141.9
22.5°	168.6	131.4	118.0
25°	149.8	108.8	93.7
27.5°	128.9	85.8	72.8
30°	109.2	65.7	52.7
32.5°	90.4	48.1	36.4
35°	72.8	32.6	23.0
37.5°	56.1	20.1	11.7
40°	40.6	10.5	5.4
42.5°	27.2	5.0	2.9
45°	16.7	2.5	0.0
47.5°	9.6	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.3
80°	0.8	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.8
97.5°	3.3	3.8	3.8
100°	2.9	3.8	4.2
102.5°	2.5	3.8	3.8
105°	2.1	2.9	3.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.3	1.7	2.1
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.8
152.5°	1.3	0.8	0.8
155°	1.3	0.8	0.4
157.5°	1.7	0.8	0.4
160°	1.3	0.8	0.4
162.5°	1.3	0.8	0.4
165°	1.3	0.8	0.0
167.5°	1.3	0.8	0.4
170°	1.3	0.8	0.4
172.5°	1.3	0.8	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	175.8	170.7	154.0	126.4	88.3	49.4	18.4	3.3	0.8	1.3	1.3
110°	153.2	149.0	131.8	105.0	71.1	36.8	12.1	2.1	1.3	1.3	1.3







107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)