

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: P550620

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-80-86-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: P550620  
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-50-UNV-80-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

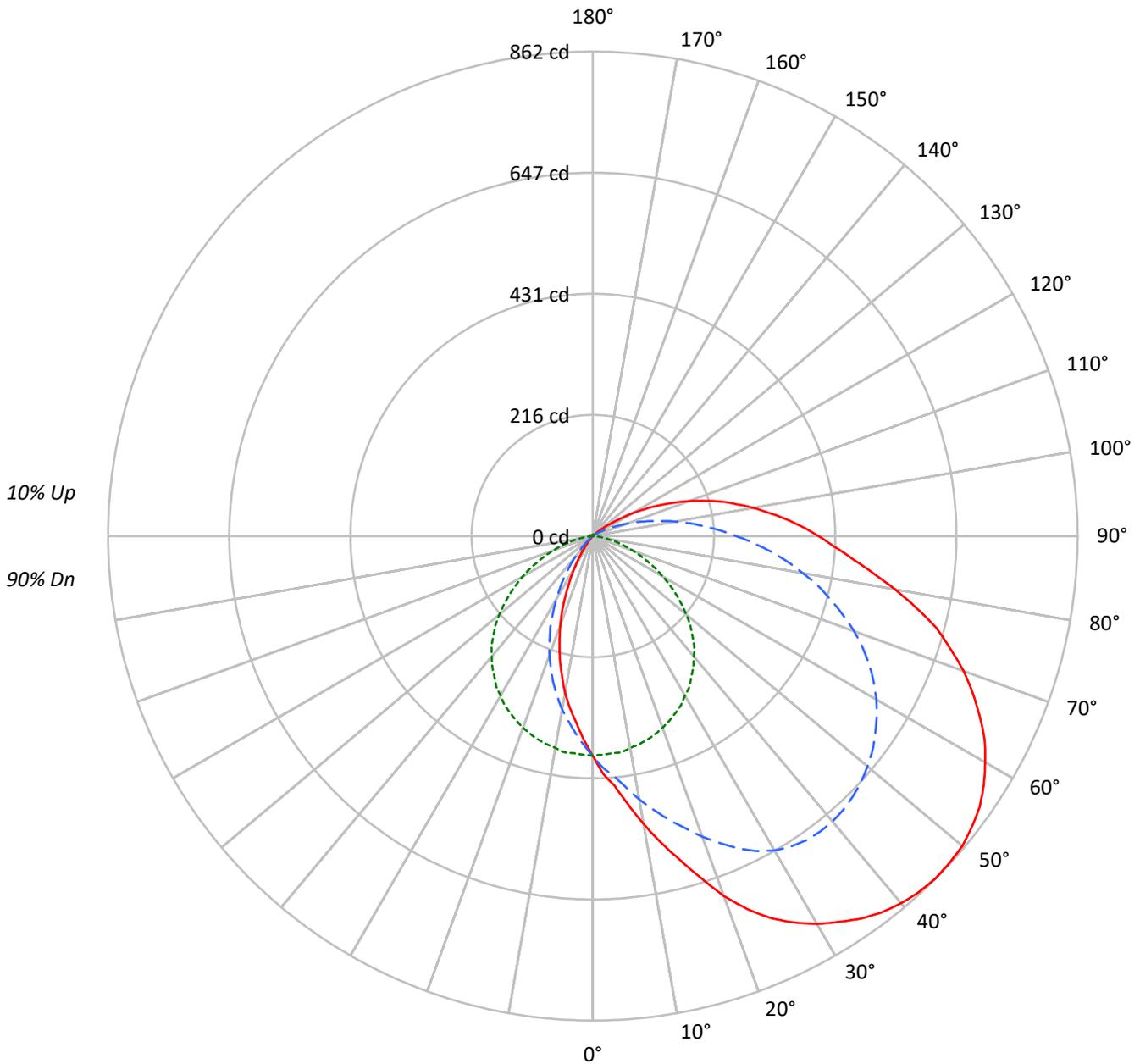
Lumens per Lamp: N/A  
Luminaire Lumens: 1932.1 lumens  
Efficiency: N/A  
Efficacy: 89.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-50-UNV-80-86-ED1D

### 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°	4207	4207	4207
5°	4618	4145	3458
10°	5225	4094	2851
15°	5856	4042	2221
20°	6604	3976	1636
25°	7225	3900	1074
30°	7687	3798	605
35°	8087	3688	267
40°	8441	3552	64
45°	8745	3381	0
50°	9001	3157	0
55°	9194	2869	0
60°	9293	2538	0
65°	9331	2159	0
70°	9299	1762	0
75°	9181	1299	7
80°	8809	794	40
85°	8515	381	55



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.4	1.9
10°-20°	112.1	5.8
20°-30°	181.5	9.4
30°-40°	233.2	12.1
40°-50°	263.9	13.7
50°-60°	273.4	14.2
60°-70°	257.9	13.3
70°-80°	216.1	11.2
80°-90°	156.7	8.1
90°-100°	103.0	5.3
100°-110°	59.5	3.1
110°-120°	26.2	1.4
120°-130°	7.1	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	331.0	17.1
0°-40°	564.2	29.2
0°-60°	1101.6	57.0
0°-90°	1732.2	89.7
90°-120°	188.7	9.8
90°-150°	198.5	10.3
90°-180°	200.0	10.4
0°-180°	1932.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	391	391	391	391	391	
5°	446	428	388	352	334	45
15°	596	522	375	271	226	172
25°	750	613	348	178	112	347
35°	831	661	305	87	27	521
45°	862	654	250	20	0	665
55°	840	613	180	0	0	750
65°	759	543	108	0	0	751
75°	633	438	46	0	0	664
85°	463	317	8	2	3	395
90°	401	255	2	3	4	220
95°	344	199	1	4	4	270
105°	237	103	1	2	4	250
115°	129	34	2	2	2	129
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	390.8	390.8	390.8	390.8	390.8	390.8	390.8	390.8	390.8	390.8	390.8
2.5°	423.7	423.2	421.7	419.2	415.7	409.7	404.7	400.3	394.3	389.3	379.8
5°	446.1	443.6	441.6	439.1	431.1	425.6	416.7	406.7	397.3	387.8	368.9
7.5°	481.9	477.9	474.9	468.0	457.0	444.6	430.6	421.2	414.7	388.3	355.9
10°	520.2	516.7	510.8	498.3	484.9	467.0	447.1	424.6	404.7	382.8	344.5
12.5°	558.1	553.1	544.6	528.7	509.8	487.4	460.0	433.6	405.2	379.3	331.1
15°	595.9	590.4	581.5	562.1	537.2	507.8	474.4	441.1	407.7	374.9	317.1
17.5°	637.2	629.8	616.3	594.4	563.0	526.7	487.4	447.1	406.7	369.4	302.2
20°	681.5	671.1	656.6	627.3	590.4	547.6	500.3	453.0	406.2	362.9	285.3
22.5°	718.4	707.9	692.0	661.6	617.3	565.0	511.3	457.0	404.2	355.5	269.3
25°	750.2	741.8	724.3	689.5	642.7	583.5	521.7	460.0	401.3	347.5	252.4
27.5°	775.1	767.2	747.7	711.9	664.1	599.9	529.7	461.5	397.3	339.5	235.0
30°	797.0	789.1	765.7	728.8	678.5	612.8	537.7	462.0	392.3	327.6	216.1
32.5°	814.0	806.5	782.6	743.3	688.5	621.8	542.1	461.5	385.8	319.1	195.6
35°	830.9	823.4	795.5	753.7	696.0	625.8	545.6	459.0	377.9	305.2	176.2
37.5°	843.8	835.4	807.0	760.7	699.5	626.8	545.1	455.5	369.4	293.7	156.8
40°	852.8	843.8	813.5	764.7	700.4	625.3	541.1	449.5	359.4	279.3	136.4
42.5°	858.8	848.8	816.4	770.6	698.5	621.3	535.2	442.1	348.5	266.8	117.0
45°	861.7	851.3	816.9	765.7	695.0	613.8	526.2	432.6	336.5	249.9	97.6
47.5°	860.3	848.8	814.5	760.2	688.5	605.9	516.3	421.2	322.1	235.0	79.2
50°	857.8	845.8	809.0	753.2	679.5	595.9	505.3	407.2	307.2	216.6	62.7
52.5°	849.8	837.8	803.0	743.3	669.1	584.5	490.4	392.8	291.2	198.6	47.8
55°	839.8	828.9	792.5	734.3	655.6	570.5	476.4	377.4	275.8	180.2	34.4
57.5°	824.4	814.5	779.6	719.9	642.2	555.1	461.0	360.4	256.4	161.8	23.9
60°	805.5	795.5	761.7	703.4	626.8	537.7	444.1	343.0	239.0	143.4	14.9
62.5°	785.6	776.1	740.8	683.0	607.4	519.2	425.6	325.6	220.5	126.4	9.0
65°	759.2	750.2	718.4	658.6	585.9	499.3	405.2	304.7	201.6	107.5	5.0
67.5°	731.3	723.3	691.0	636.2	561.1	477.4	384.3	284.3	181.7	91.1	2.5
70°	701.4	691.5	661.6	605.9	535.7	452.5	361.4	263.4	162.8	75.2	0.0
72.5°	666.6	659.1	630.3	577.5	506.3	426.1	338.0	240.5	141.9	59.7	0.5
75°	632.7	623.3	596.9	547.1	477.4	398.3	312.1	219.0	121.5	45.8	0.5
77.5°	588.9	585.9	561.1	512.8	450.0	371.4	283.8	193.2	102.1	32.9	0.5
80°	545.1	542.1	522.7	478.4	418.2	339.5	257.4	168.8	83.1	21.9	0.5
82.5°	501.8	497.8	479.4	442.6	385.8	312.6	230.0	144.4	65.7	13.4	0.5
85°	463.0	458.0	438.1	404.2	352.5	282.3	201.6	120.5	48.8	7.5	1.0
87.5°	429.6	426.1	404.2	369.4	318.6	253.9	176.7	97.6	34.4	3.5	1.5
90°	401.3	393.8	374.4	337.5	286.8	222.5	150.3	78.2	22.9	2.0	2.0
92.5°	373.4	366.9	345.5	307.7	258.4	195.6	125.0	59.7	14.4	1.0	2.5
95°	344.5	337.5	316.6	281.8	229.5	168.3	102.6	43.8	8.0	1.0	2.5
97.5°	316.1	309.7	287.7	252.9	203.6	144.4	81.1	30.9	4.0	1.0	2.0
100°	289.7	282.3	262.4	227.5	177.7	120.5	62.7	19.9	2.5	1.0	2.0
102.5°	261.9	255.9	235.5	201.6	150.8	98.1	46.8	12.4	1.0	1.0	1.5
105°	237.0	229.5	209.6	174.7	128.4	77.2	32.9	7.5	1.0	1.0	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	154.3	148.4	130.9	101.6	65.2	30.4	9.0	1.5	1.5	1.5	1.5
115°	128.9	120.0	104.5	78.7	48.3	19.9	4.5	1.5	1.5	1.5	1.5
117.5°	103.1	95.6	84.6	59.7	31.9	12.9	2.5	1.5	1.5	1.5	1.5
120°	80.6	73.7	61.2	41.3	21.4	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	57.7	52.3	41.3	26.9	12.9	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.3	35.3	27.4	16.4	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.9	22.4	15.9	9.5	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.9	12.4	9.5	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.0	7.5	5.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	390.8	390.8	390.8
2.5°	371.9	364.9	362.9
5°	352.0	340.5	334.0
7.5°	332.1	316.6	309.2
10°	313.6	291.7	283.8
12.5°	291.7	266.3	253.9
15°	270.8	238.0	226.0
17.5°	247.4	210.6	196.6
20°	225.5	183.2	168.8
22.5°	200.6	156.3	140.4
25°	178.2	129.4	111.5
27.5°	153.3	102.1	86.6
30°	129.9	78.2	62.7
32.5°	107.5	57.3	43.3
35°	86.6	38.8	27.4
37.5°	66.7	23.9	13.9
40°	48.3	12.4	6.5
42.5°	32.4	6.0	3.5
45°	19.9	3.0	0.0
47.5°	11.5	0.0	0.0
50°	6.0	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.0	4.0
95°	3.5	4.0	4.5
97.5°	4.0	4.5	4.5
100°	3.5	4.5	5.0
102.5°	3.0	4.5	4.5
105°	2.5	3.5	4.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	209.1	203.1	183.2	150.3	105.0	58.7	21.9	4.0	1.0	1.5	1.5
110°	182.2	177.2	156.8	125.0	84.6	43.8	14.4	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)