

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: P550488

Luminaire Tested: **FCC-X-2-LD4-1HI-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: P550488  
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  
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**

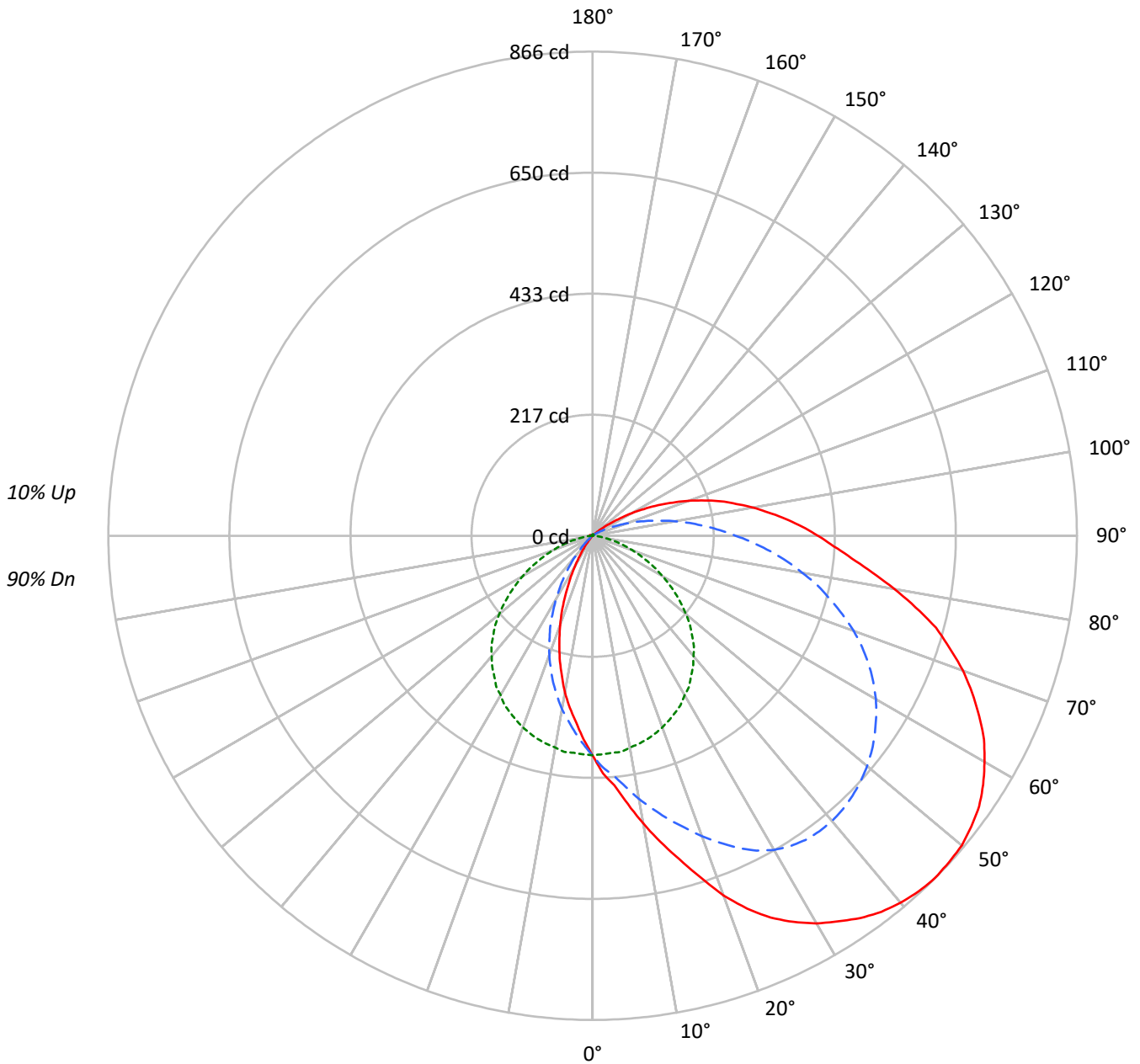
Lumens per Lamp: N/A  
Luminaire Lumens: 1941.0 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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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### 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°	4226	4226	4226
5°	4639	4164	3474
10°	5250	4113	2864
15°	5883	4061	2232
20°	6635	3995	1644
25°	7259	3918	1079
30°	7723	3815	608
35°	8125	3705	268
40°	8481	3569	64
45°	8786	3398	0
50°	9043	3171	0
55°	9238	2884	0
60°	9336	2548	0
65°	9374	2169	0
70°	9343	1769	0
75°	9225	1305	7
80°	8851	798	40
85°	8554	381	55



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.6	1.9
10°-20°	112.6	5.8
20°-30°	182.4	9.4
30°-40°	234.2	12.1
40°-50°	265.2	13.7
50°-60°	274.7	14.2
60°-70°	259.1	13.3
70°-80°	217.1	11.2
80°-90°	157.4	8.1
90°-100°	103.4	5.3
100°-110°	59.7	3.1
110°-120°	26.4	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°	332.6	17.1
0°-40°	566.8	29.2
0°-60°	1106.7	57.0
0°-90°	1740.3	89.7
90°-120°	189.5	9.8
90°-150°	199.4	10.3
90°-180°	201.0	10.4
0°-180°	1941.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	393	393	393	393	393	
5°	448	430	390	354	336	45
15°	599	525	377	272	227	173
25°	754	616	349	179	112	348
35°	835	664	307	87	28	524
45°	866	657	251	20	0	668
55°	844	616	181	0	0	753
65°	763	545	108	0	0	755
75°	636	440	46	0	0	667
85°	465	319	8	2	3	397
90°	403	256	2	3	4	221
95°	346	200	1	4	4	272
105°	238	103	1	2	4	251
115°	130	34	2	2	2	130
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°	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6
2.5°	425.6	425.1	423.6	421.1	417.6	411.6	406.6	402.1	396.1	391.1	381.6
5°	448.1	445.6	443.6	441.1	433.1	427.6	418.6	408.6	399.1	389.6	370.6
7.5°	484.1	480.1	477.1	470.1	459.1	446.6	432.6	423.1	416.6	390.1	357.6
10°	522.7	519.2	513.2	500.7	487.1	469.1	449.1	426.6	406.6	384.6	346.1
12.5°	560.7	555.7	547.2	531.2	512.2	489.6	462.1	435.6	407.1	381.1	332.6
15°	598.7	593.2	584.2	564.7	539.7	510.2	476.6	443.1	409.6	376.6	318.6
17.5°	640.2	632.7	619.2	597.2	565.7	529.2	489.6	449.1	408.6	371.1	303.6
20°	684.7	674.2	659.7	630.2	593.2	550.2	502.7	455.1	408.1	364.6	286.6
22.5°	721.7	711.2	695.2	664.7	620.2	567.7	513.7	459.1	406.1	357.1	270.6
25°	753.7	745.2	727.7	692.7	645.7	586.2	524.2	462.1	403.1	349.1	253.6
27.5°	778.7	770.7	751.2	715.2	667.2	602.7	532.2	463.6	399.1	341.1	236.1
30°	800.7	792.7	769.2	732.2	681.7	615.7	540.2	464.1	394.1	329.1	217.1
32.5°	817.7	810.2	786.2	746.7	691.7	624.7	544.7	463.6	387.6	320.6	196.6
35°	834.8	827.2	799.2	757.2	699.2	628.7	548.2	461.1	379.6	306.6	177.1
37.5°	847.8	839.3	810.7	764.2	702.7	629.7	547.7	457.6	371.1	295.1	157.5
40°	856.8	847.8	817.2	768.2	703.7	628.2	543.7	451.6	361.1	280.6	137.0
42.5°	862.8	852.8	820.2	774.2	701.7	624.2	537.7	444.1	350.1	268.1	117.5
45°	865.8	855.3	820.7	769.2	698.2	616.7	528.7	434.6	338.1	251.1	98.0
47.5°	864.3	852.8	818.2	763.7	691.7	608.7	518.7	423.1	323.6	236.1	79.5
50°	861.8	849.8	812.7	756.7	682.7	598.7	507.7	409.1	308.6	217.6	63.0
52.5°	853.8	841.8	806.7	746.7	672.2	587.2	492.6	394.6	292.6	199.6	48.0
55°	843.8	832.7	796.2	737.7	658.7	573.2	478.6	379.1	277.1	181.1	34.5
57.5°	828.2	818.2	783.2	723.2	645.2	557.7	463.1	362.1	257.6	162.5	24.0
60°	809.2	799.2	765.2	706.7	629.7	540.2	446.1	344.6	240.1	144.0	15.0
62.5°	789.2	779.7	744.2	686.2	610.2	521.7	427.6	327.1	221.6	127.0	9.0
65°	762.7	753.7	721.7	661.7	588.7	501.7	407.1	306.1	202.6	108.0	5.0
67.5°	734.7	726.7	694.2	639.2	563.7	479.6	386.1	285.6	182.6	91.5	2.5
70°	704.7	694.7	664.7	608.7	538.2	454.6	363.1	264.6	163.5	75.5	0.0
72.5°	669.7	662.2	633.2	580.2	508.7	428.1	339.6	241.6	142.5	60.0	0.5
75°	635.7	626.2	599.7	549.7	479.6	400.1	313.6	220.1	122.0	46.0	0.5
77.5°	591.7	588.7	563.7	515.2	452.1	373.1	285.1	194.1	102.5	33.0	0.5
80°	547.7	544.7	525.2	480.6	420.1	341.1	258.6	169.6	83.5	22.0	0.5
82.5°	504.2	500.1	481.6	444.6	387.6	314.1	231.1	145.0	66.0	13.5	0.5
85°	465.1	460.1	440.1	406.1	354.1	283.6	202.6	121.0	49.0	7.5	1.0
87.5°	431.6	428.1	406.1	371.1	320.1	255.1	177.6	98.0	34.5	3.5	1.5
90°	403.1	395.6	376.1	339.1	288.1	223.6	151.0	78.5	23.0	2.0	2.0
92.5°	375.1	368.6	347.1	309.1	259.6	196.6	125.5	60.0	14.5	1.0	2.5
95°	346.1	339.1	318.1	283.1	230.6	169.1	103.0	44.0	8.0	1.0	2.5
97.5°	317.6	311.1	289.1	254.1	204.6	145.0	81.5	31.0	4.0	1.0	2.0
100°	291.1	283.6	263.6	228.6	178.6	121.0	63.0	20.0	2.5	1.0	2.0
102.5°	263.1	257.1	236.6	202.6	151.5	98.5	47.0	12.5	1.0	1.0	1.5
105°	238.1	230.6	210.6	175.6	129.0	77.5	33.0	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°	155.0	149.0	131.5	102.0	65.5	30.5	9.0	1.5	1.5	1.5	1.5
115°	129.5	120.5	105.0	79.0	48.5	20.0	4.5	1.5	1.5	1.5	1.5
117.5°	103.5	96.0	85.0	60.0	32.0	13.0	2.5	1.5	1.5	1.5	1.5
120°	81.0	74.0	61.5	41.5	21.5	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	58.0	52.5	41.5	27.0	13.0	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.5	35.5	27.5	16.5	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.0	22.5	16.0	9.5	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.0	12.5	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°	392.6	392.6	392.6
2.5°	373.6	366.6	364.6
5°	353.6	342.1	335.6
7.5°	333.6	318.1	310.6
10°	315.1	293.1	285.1
12.5°	293.1	267.6	255.1
15°	272.1	239.1	227.1
17.5°	248.6	211.6	197.6
20°	226.6	184.1	169.6
22.5°	201.6	157.0	141.0
25°	179.1	130.0	112.0
27.5°	154.0	102.5	87.0
30°	130.5	78.5	63.0
32.5°	108.0	57.5	43.5
35°	87.0	39.0	27.5
37.5°	67.0	24.0	14.0
40°	48.5	12.5	6.5
42.5°	32.5	6.0	3.5
45°	20.0	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°	210.1	204.1	184.1	151.0	105.5	59.0	22.0	4.0	1.0	1.5	1.5
110°	183.1	178.1	157.5	125.5	85.0	44.0	14.5	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)