

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: P551073

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-94-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: P551073  
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-40-UNV-80-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

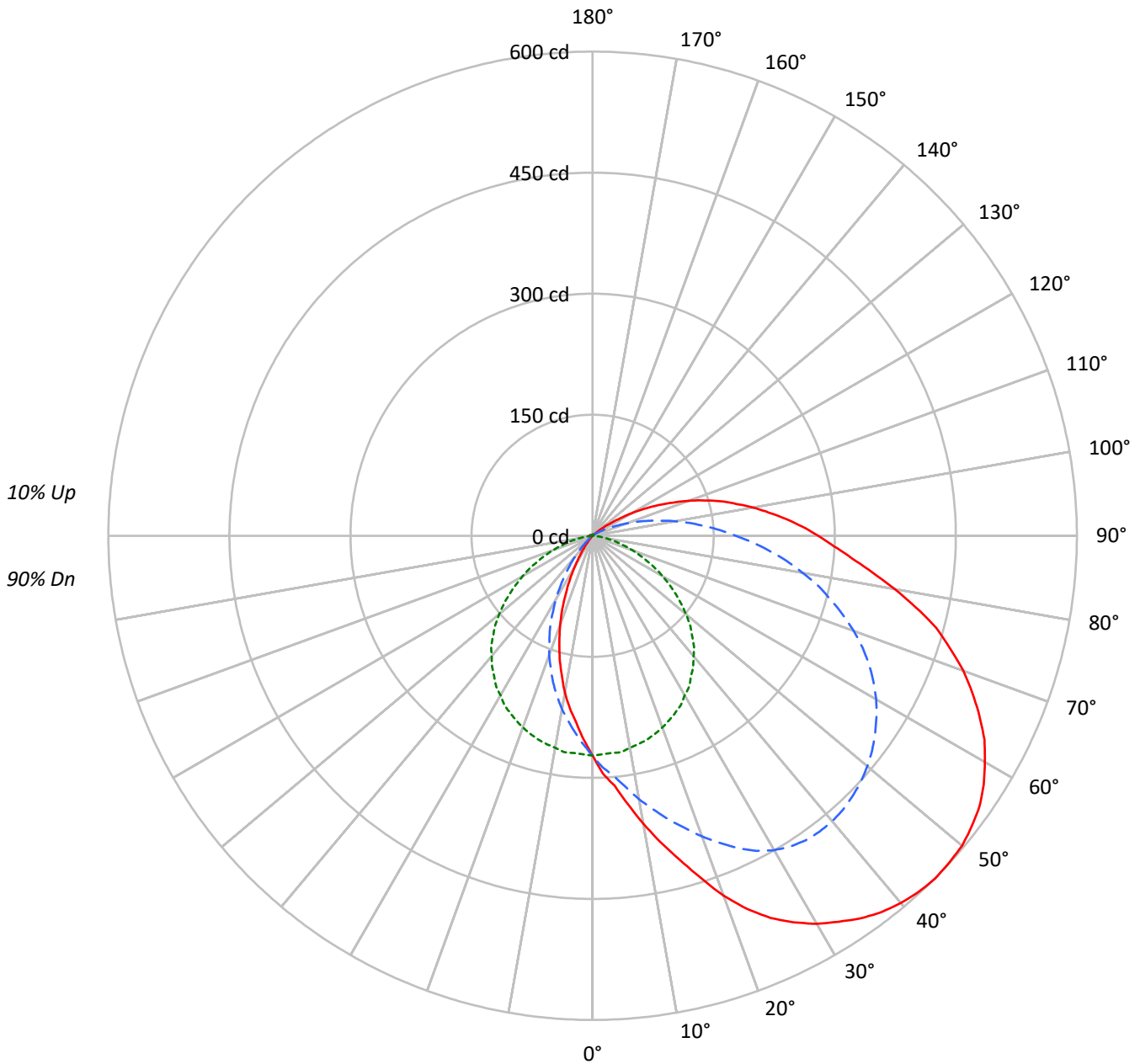
Lumens per Lamp: N/A  
Luminaire Lumens: 1345.9 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-94-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°	2931	2931	2931
5°	3217	2888	2409
10°	3640	2852	1986
15°	4080	2816	1548
20°	4601	2770	1140
25°	5034	2717	748
30°	5356	2645	421
35°	5634	2569	186
40°	5881	2475	45
45°	6093	2356	0
50°	6271	2199	0
55°	6406	2000	0
60°	6474	1768	0
65°	6501	1504	0
70°	6479	1228	0
75°	6396	905	4
80°	6138	555	27
85°	5933	264	39



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.1	1.9
10°-20°	78.1	5.8
20°-30°	126.5	9.4
30°-40°	162.4	12.1
40°-50°	183.9	13.7
50°-60°	190.5	14.2
60°-70°	179.7	13.3
70°-80°	150.5	11.2
80°-90°	109.1	8.1
90°-100°	71.7	5.3
100°-110°	41.4	3.1
110°-120°	18.3	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°	230.6	17.1
0°-40°	393.1	29.2
0°-60°	767.4	57.0
0°-90°	1206.8	89.7
90°-120°	131.4	9.8
90°-150°	138.2	10.3
90°-180°	139.0	10.3
0°-180°	1345.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	272	272	272	272	272	
5°	311	298	270	245	233	31
15°	415	364	261	189	158	120
25°	523	427	242	124	78	242
35°	579	460	213	60	19	363
45°	600	456	174	14	0	464
55°	585	427	126	0	0	522
65°	529	378	75	0	0	523
75°	441	305	32	0	0	462
85°	323	221	5	1	2	275
90°	280	177	1	2	2	153
95°	240	139	1	2	3	188
105°	165	72	1	2	3	174
115°	90	24	1	1	2	90
125°	27	3	1	1	1	27
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°	272.3	272.3	272.3	272.3	272.3	272.3	272.3	272.3	272.3	272.3	272.3
2.5°	295.2	294.8	293.8	292.0	289.6	285.4	282.0	278.9	274.7	271.2	264.6
5°	310.8	309.0	307.6	305.9	300.4	296.5	290.3	283.4	276.8	270.2	257.0
7.5°	335.7	333.0	330.9	326.0	318.4	309.7	300.0	293.4	288.9	270.5	248.0
10°	362.4	360.0	355.9	347.2	337.8	325.3	311.5	295.8	282.0	266.7	240.0
12.5°	388.8	385.3	379.4	368.3	355.2	339.5	320.5	302.1	282.3	264.3	230.6
15°	415.2	411.3	405.1	391.6	374.2	353.8	330.5	307.3	284.1	261.2	220.9
17.5°	443.9	438.7	429.4	414.1	392.3	366.9	339.5	311.5	283.4	257.3	210.5
20°	474.8	467.5	457.5	437.0	411.3	381.5	348.6	315.6	283.0	252.8	198.7
22.5°	500.5	493.2	482.1	460.9	430.1	393.7	356.2	318.4	281.6	247.6	187.6
25°	522.7	516.8	504.6	480.4	447.8	406.5	363.5	320.5	279.5	242.1	175.8
27.5°	540.0	534.5	520.9	496.0	462.7	417.9	369.0	321.5	276.8	236.5	163.7
30°	555.3	549.7	533.4	507.8	472.7	427.0	374.6	321.9	273.3	228.2	150.5
32.5°	567.1	561.9	545.2	517.8	479.7	433.2	377.7	321.5	268.8	222.3	136.3
35°	578.9	573.7	554.2	525.1	484.9	436.0	380.1	319.8	263.2	212.6	122.8
37.5°	587.9	582.0	562.2	530.0	487.3	436.7	379.8	317.4	257.3	204.6	109.3
40°	594.1	587.9	566.7	532.7	488.0	435.6	377.0	313.2	250.4	194.6	95.0
42.5°	598.3	591.3	568.8	536.9	486.6	432.8	372.8	308.0	242.8	185.9	81.5
45°	600.4	593.1	569.2	533.4	484.2	427.6	366.6	301.4	234.5	174.1	68.0
47.5°	599.3	591.3	567.4	529.6	479.7	422.1	359.7	293.4	224.4	163.7	55.1
50°	597.6	589.3	563.6	524.8	473.4	415.2	352.0	283.7	214.0	150.9	43.7
52.5°	592.0	583.7	559.4	517.8	466.1	407.2	341.6	273.7	202.9	138.4	33.3
55°	585.1	577.5	552.2	511.6	456.8	397.5	331.9	262.9	192.1	125.6	23.9
57.5°	574.4	567.4	543.1	501.5	447.4	386.7	321.2	251.1	178.6	112.7	16.6
60°	561.2	554.2	530.7	490.1	436.7	374.6	309.4	239.0	166.5	99.9	10.4
62.5°	547.3	540.7	516.1	475.9	423.1	361.7	296.5	226.8	153.6	88.1	6.2
65°	528.9	522.7	500.5	458.9	408.2	347.9	282.3	212.3	140.5	74.9	3.5
67.5°	509.5	503.9	481.4	443.3	390.9	332.6	267.8	198.0	126.6	63.5	1.7
70°	488.7	481.8	460.9	422.1	373.2	315.3	251.8	183.5	113.4	52.4	0.0
72.5°	464.4	459.2	439.1	402.3	352.7	296.9	235.5	167.5	98.8	41.6	0.3
75°	440.8	434.2	415.9	381.2	332.6	277.5	217.5	152.6	84.6	31.9	0.3
77.5°	410.3	408.2	390.9	357.2	313.5	258.7	197.7	134.6	71.1	22.9	0.3
80°	379.8	377.7	364.2	333.3	291.3	236.5	179.3	117.6	57.9	15.3	0.3
82.5°	349.6	346.8	334.0	308.3	268.8	217.8	160.2	100.6	45.8	9.4	0.3
85°	322.6	319.1	305.2	281.6	245.6	196.7	140.5	83.9	34.0	5.2	0.7
87.5°	299.3	296.9	281.6	257.3	222.0	176.9	123.1	68.0	23.9	2.4	1.0
90°	279.5	274.3	260.8	235.2	199.8	155.0	104.7	54.5	16.0	1.4	1.4
92.5°	260.1	255.6	240.7	214.3	180.0	136.3	87.1	41.6	10.1	0.7	1.7
95°	240.0	235.2	220.6	196.3	159.9	117.2	71.4	30.5	5.5	0.7	1.7
97.5°	220.2	215.7	200.5	176.2	141.9	100.6	56.5	21.5	2.8	0.7	1.4
100°	201.9	196.7	182.8	158.5	123.8	83.9	43.7	13.9	1.7	0.7	1.4
102.5°	182.4	178.3	164.1	140.5	105.1	68.3	32.6	8.7	0.7	0.7	1.0
105°	165.1	159.9	146.0	121.7	89.5	53.8	22.9	5.2	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°	107.5	103.4	91.2	70.8	45.4	21.2	6.2	1.0	1.0	1.0	1.0
115°	89.8	83.6	72.8	54.8	33.6	13.9	3.1	1.0	1.0	1.0	1.0
117.5°	71.8	66.6	59.0	41.6	22.2	9.0	1.7	1.0	1.0	1.0	1.0
120°	56.2	51.3	42.7	28.8	14.9	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	40.2	36.4	28.8	18.7	9.0	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.7	24.6	19.1	11.4	5.5	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.3	15.6	11.1	6.6	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.7	8.7	6.6	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.5	5.2	3.5	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°	272.3	272.3	272.3
2.5°	259.1	254.2	252.8
5°	245.2	237.2	232.7
7.5°	231.3	220.6	215.4
10°	218.5	203.2	197.7
12.5°	203.2	185.6	176.9
15°	188.7	165.8	157.5
17.5°	172.4	146.7	137.0
20°	157.1	127.6	117.6
22.5°	139.8	108.9	97.8
25°	124.2	90.2	77.7
27.5°	106.8	71.1	60.3
30°	90.5	54.5	43.7
32.5°	74.9	39.9	30.2
35°	60.3	27.1	19.1
37.5°	46.5	16.6	9.7
40°	33.6	8.7	4.5
42.5°	22.5	4.2	2.4
45°	13.9	2.1	0.0
47.5°	8.0	0.0	0.0
50°	4.2	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	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.8	2.8
95°	2.4	2.8	3.1
97.5°	2.8	3.1	3.1
100°	2.4	3.1	3.5
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.8





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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°	145.7	141.5	127.6	104.7	73.2	40.9	15.3	2.8	0.7	1.0	1.0
110°	126.9	123.5	109.3	87.1	59.0	30.5	10.1	1.7	1.0	1.0	1.0







107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)