

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: P551523

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-80-96-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: P551523  
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-LD4-2LO-35-UNV-80-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

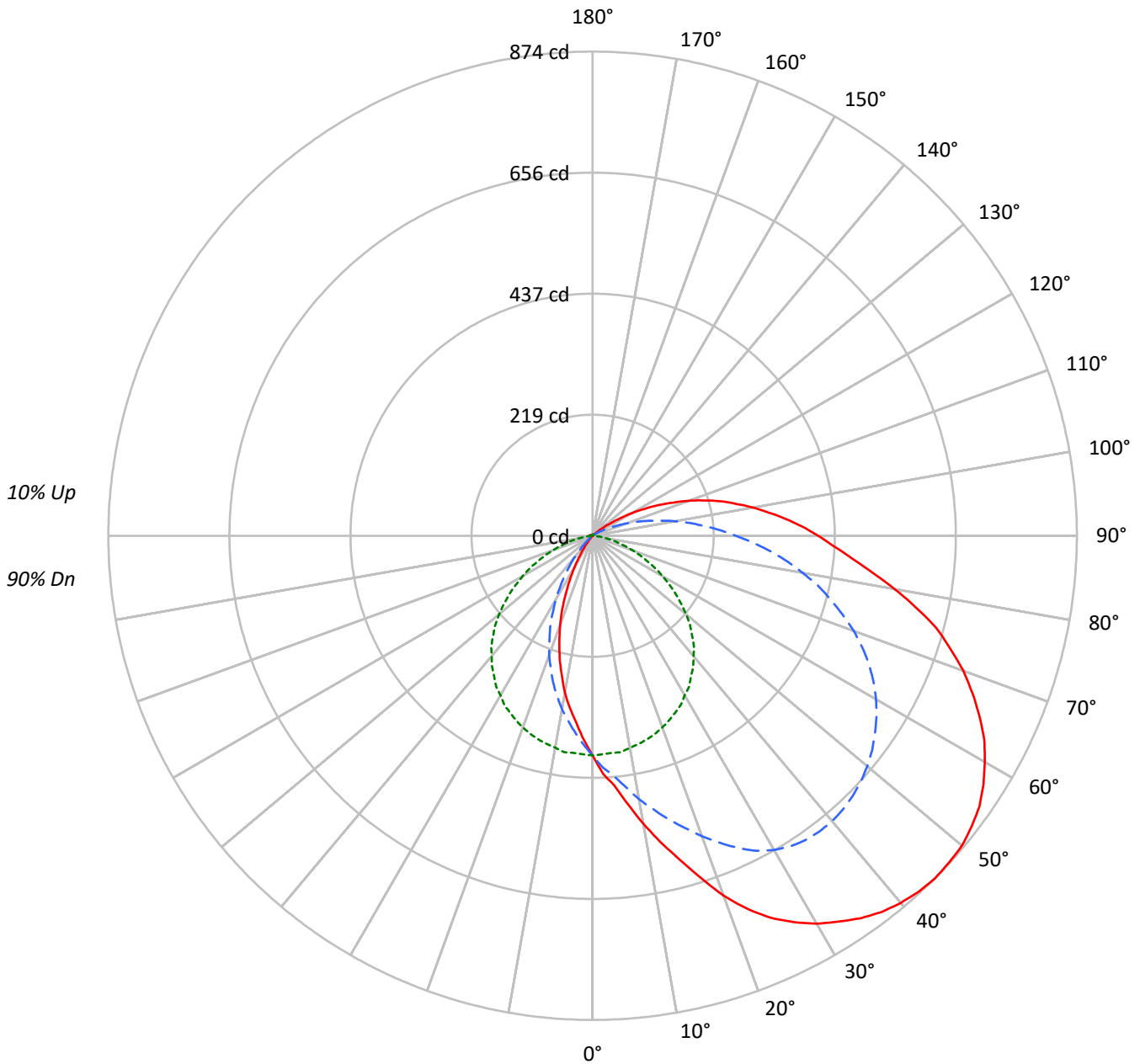
Lumens per Lamp: N/A  
Luminaire Lumens: 1959.9 lumens  
Efficiency: N/A  
Efficacy: 83.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
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-LD4-2LO-35-UNV-80-96-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°	4268	4268	4268
5°	4684	4205	3508
10°	5301	4154	2892
15°	5940	4101	2253
20°	6700	4034	1659
25°	7330	3956	1089
30°	7799	3852	613
35°	8204	3741	271
40°	8563	3603	65
45°	8872	3430	0
50°	9131	3202	0
55°	9328	2911	0
60°	9428	2575	0
65°	9466	2191	0
70°	9435	1787	0
75°	9315	1319	7
80°	8937	805	40
85°	8639	386	55



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.0	1.9
10°-20°	113.7	5.8
20°-30°	184.1	9.4
30°-40°	236.5	12.1
40°-50°	267.8	13.7
50°-60°	277.4	14.2
60°-70°	261.6	13.3
70°-80°	219.2	11.2
80°-90°	158.9	8.1
90°-100°	104.4	5.3
100°-110°	60.3	3.1
110°-120°	26.6	1.4
120°-130°	7.2	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°	335.8	17.1
0°-40°	572.4	29.2
0°-60°	1117.5	57.0
0°-90°	1757.3	89.7
90°-120°	191.3	9.8
90°-150°	201.3	10.3
90°-180°	203.0	10.4
0°-180°	1959.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	396	396	396	396	396	
5°	452	435	393	357	339	46
15°	604	530	380	275	229	174
25°	761	622	352	181	113	352
35°	843	670	310	88	28	529
45°	874	664	254	20	0	675
55°	852	622	183	0	0	761
65°	770	550	109	0	0	762
75°	642	444	46	0	0	673
85°	470	322	8	2	3	401
90°	407	258	2	3	4	223
95°	350	202	1	4	4	274
105°	240	104	1	2	4	254
115°	131	35	2	2	2	131
125°	39	5	2	2	2	39
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°	396.5	396.5	396.5	396.5	396.5	396.5	396.5	396.5	396.5	396.5	396.5
2.5°	429.8	429.3	427.8	425.2	421.7	415.7	410.6	406.1	400.0	394.9	385.3
5°	452.5	450.0	448.0	445.5	437.4	431.8	422.7	412.6	403.0	393.4	374.2
7.5°	488.9	484.8	481.8	474.7	463.6	451.0	436.9	427.3	420.7	393.9	361.1
10°	527.8	524.2	518.2	505.6	491.9	473.7	453.5	430.8	410.6	388.4	349.5
12.5°	566.2	561.1	552.5	536.4	517.2	494.4	466.7	439.9	411.1	384.8	335.9
15°	604.5	599.0	589.9	570.2	544.9	515.1	481.3	447.5	413.6	380.3	321.7
17.5°	646.5	638.9	625.2	603.0	571.2	534.3	494.4	453.5	412.6	374.7	306.6
20°	691.4	680.8	666.2	636.4	599.0	555.6	507.6	459.6	412.1	368.2	289.4
22.5°	728.8	718.2	702.0	671.2	626.3	573.2	518.7	463.6	410.1	360.6	273.2
25°	761.1	752.5	734.8	699.5	652.0	591.9	529.3	466.7	407.1	352.5	256.1
27.5°	786.4	778.3	758.6	722.2	673.7	608.6	537.4	468.2	403.0	344.4	238.4
30°	808.6	800.5	776.8	739.4	688.4	621.7	545.4	468.7	398.0	332.3	219.2
32.5°	825.7	818.2	793.9	754.0	698.5	630.8	550.0	468.2	391.4	323.7	198.5
35°	842.9	835.3	807.1	764.6	706.1	634.8	553.5	465.7	383.3	309.6	178.8
37.5°	856.1	847.5	818.7	771.7	709.6	635.9	553.0	462.1	374.7	298.0	159.1
40°	865.1	856.1	825.2	775.8	710.6	634.3	549.0	456.1	364.6	283.3	138.4
42.5°	871.2	861.1	828.3	781.8	708.6	630.3	542.9	448.5	353.5	270.7	118.7
45°	874.2	863.6	828.8	776.8	705.0	622.7	533.8	438.9	341.4	253.5	99.0
47.5°	872.7	861.1	826.3	771.2	698.5	614.6	523.7	427.3	326.8	238.4	80.3
50°	870.2	858.1	820.7	764.1	689.4	604.5	512.6	413.1	311.6	219.7	63.6
52.5°	862.1	850.0	814.6	754.0	678.8	592.9	497.5	398.5	295.5	201.5	48.5
55°	852.0	840.9	804.0	744.9	665.1	578.8	483.3	382.8	279.8	182.8	34.8
57.5°	836.4	826.3	790.9	730.3	651.5	563.1	467.7	365.7	260.1	164.1	24.2
60°	817.2	807.1	772.7	713.6	635.9	545.4	450.5	348.0	242.4	145.5	15.2
62.5°	797.0	787.4	751.5	692.9	616.2	526.8	431.8	330.3	223.7	128.3	9.1
65°	770.2	761.1	728.8	668.2	594.4	506.6	411.1	309.1	204.5	109.1	5.1
67.5°	741.9	733.8	701.0	645.4	569.2	484.3	389.9	288.4	184.3	92.4	2.5
70°	711.6	701.5	671.2	614.6	543.4	459.1	366.7	267.2	165.1	76.3	0.0
72.5°	676.3	668.7	639.4	585.9	513.6	432.3	342.9	243.9	143.9	60.6	0.5
75°	641.9	632.3	605.5	555.0	484.3	404.0	316.7	222.2	123.2	46.5	0.5
77.5°	597.5	594.4	569.2	520.2	456.6	376.8	287.9	196.0	103.5	33.3	0.5
80°	553.0	550.0	530.3	485.3	424.2	344.4	261.1	171.2	84.3	22.2	0.5
82.5°	509.1	505.0	486.4	449.0	391.4	317.2	233.3	146.5	66.7	13.6	0.5
85°	469.7	464.6	444.4	410.1	357.6	286.4	204.5	122.2	49.5	7.6	1.0
87.5°	435.9	432.3	410.1	374.7	323.2	257.6	179.3	99.0	34.8	3.5	1.5
90°	407.1	399.5	379.8	342.4	290.9	225.8	152.5	79.3	23.2	2.0	2.0
92.5°	378.8	372.2	350.5	312.1	262.1	198.5	126.8	60.6	14.6	1.0	2.5
95°	349.5	342.4	321.2	285.9	232.8	170.7	104.0	44.4	8.1	1.0	2.5
97.5°	320.7	314.1	291.9	256.6	206.6	146.5	82.3	31.3	4.0	1.0	2.0
100°	293.9	286.4	266.2	230.8	180.3	122.2	63.6	20.2	2.5	1.0	2.0
102.5°	265.7	259.6	238.9	204.5	153.0	99.5	47.5	12.6	1.0	1.0	1.5
105°	240.4	232.8	212.6	177.3	130.3	78.3	33.3	7.6	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°	156.6	150.5	132.8	103.0	66.2	30.8	9.1	1.5	1.5	1.5	1.5
115°	130.8	121.7	106.1	79.8	49.0	20.2	4.5	1.5	1.5	1.5	1.5
117.5°	104.5	97.0	85.9	60.6	32.3	13.1	2.5	1.5	1.5	1.5	1.5
120°	81.8	74.7	62.1	41.9	21.7	7.6	1.0	1.5	1.5	1.5	1.5
122.5°	58.6	53.0	41.9	27.3	13.1	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.9	35.9	27.8	16.7	8.1	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.3	22.7	16.2	9.6	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.1	12.6	9.6	5.6	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.1	7.6	5.1	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°	396.5	396.5	396.5
2.5°	377.3	370.2	368.2
5°	357.1	345.5	338.9
7.5°	336.9	321.2	313.6
10°	318.2	296.0	287.9
12.5°	296.0	270.2	257.6
15°	274.7	241.4	229.3
17.5°	251.0	213.6	199.5
20°	228.8	185.9	171.2
22.5°	203.5	158.6	142.4
25°	180.8	131.3	113.1
27.5°	155.6	103.5	87.9
30°	131.8	79.3	63.6
32.5°	109.1	58.1	43.9
35°	87.9	39.4	27.8
37.5°	67.7	24.2	14.1
40°	49.0	12.6	6.6
42.5°	32.8	6.1	3.5
45°	20.2	3.0	0.0
47.5°	11.6	0.0	0.0
50°	6.1	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	5.1
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°	212.1	206.1	185.9	152.5	106.6	59.6	22.2	4.0	1.0	1.5	1.5
110°	184.8	179.8	159.1	126.8	85.9	44.4	14.6	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)