

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: P551447

Luminaire Tested: **FCC-X-2-LD4-2LO-30-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: P551447  
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-30-UNV-80-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

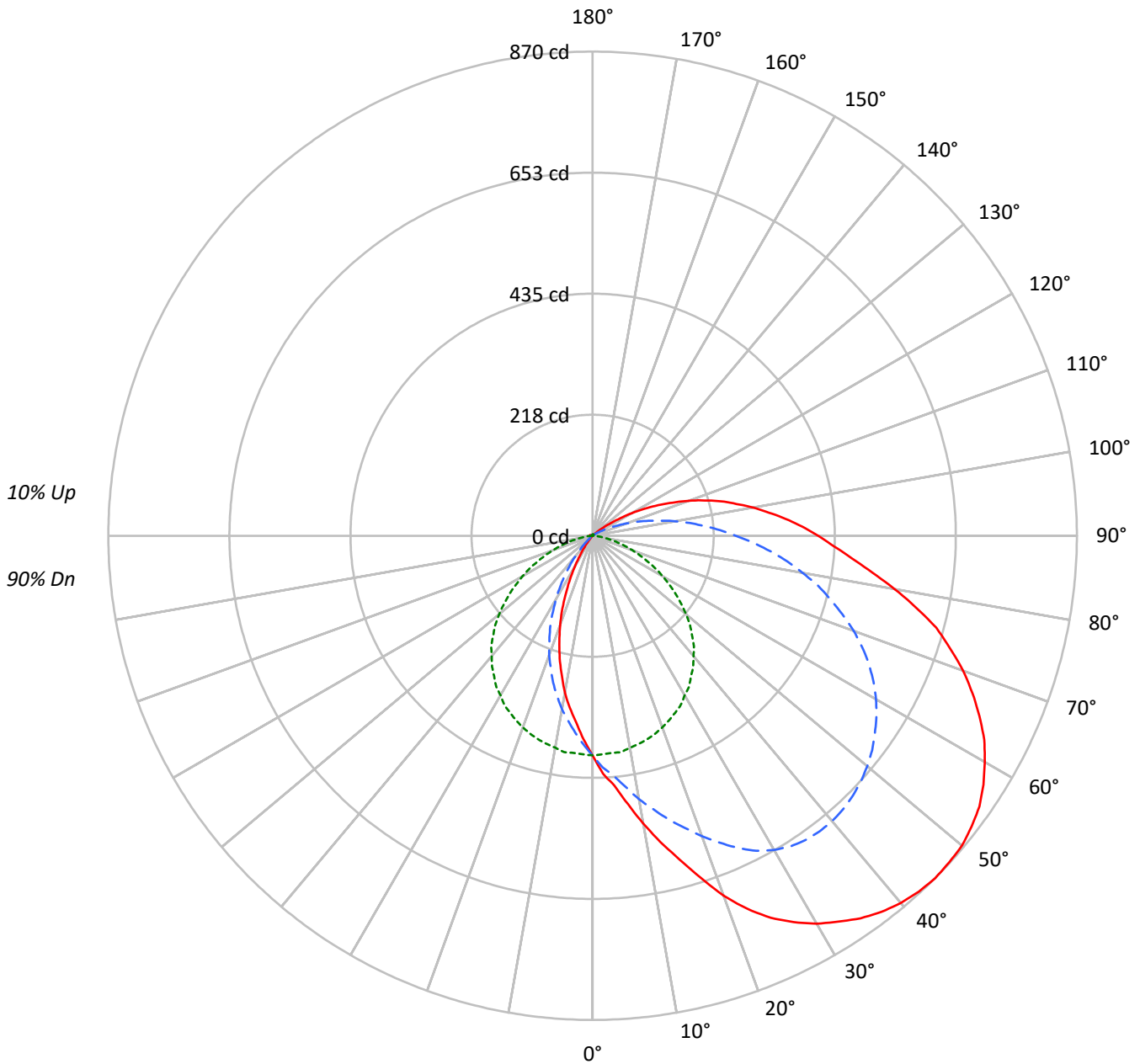
Lumens per Lamp: N/A  
Luminaire Lumens: 1950.9 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
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-LD4-2LO-30-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°	4247	4247	4247
5°	4663	4185	3492
10°	5276	4134	2879
15°	5914	4082	2243
20°	6669	4015	1651
25°	7297	3938	1084
30°	7763	3835	611
35°	8167	3724	269
40°	8525	3586	64
45°	8831	3415	0
50°	9089	3187	0
55°	9285	2898	0
60°	9384	2562	0
65°	9423	2181	0
70°	9391	1778	0
75°	9272	1313	7
80°	8897	802	40
85°	8598	381	55



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.8	1.9
10°-20°	113.2	5.8
20°-30°	183.3	9.4
30°-40°	235.5	12.1
40°-50°	266.5	13.7
50°-60°	276.1	14.2
60°-70°	260.4	13.3
70°-80°	218.2	11.2
80°-90°	158.2	8.1
90°-100°	104.0	5.3
100°-110°	60.0	3.1
110°-120°	26.5	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°	334.3	17.1
0°-40°	569.7	29.2
0°-60°	1112.4	57.0
0°-90°	1749.2	89.7
90°-120°	190.5	9.8
90°-150°	200.4	10.3
90°-180°	202.0	10.4
0°-180°	1950.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	395	395	395	395	395	
5°	450	433	392	355	337	45
15°	602	528	379	274	228	174
25°	758	619	351	180	113	350
35°	839	667	308	88	28	526
45°	870	661	252	20	0	672
55°	848	619	182	0	0	757
65°	767	548	109	0	0	759
75°	639	442	46	0	0	670
85°	468	320	8	2	3	399
90°	405	257	2	3	4	222
95°	348	201	1	4	4	273
105°	239	104	1	2	4	252
115°	130	34	2	2	2	130
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°	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6
2.5°	427.8	427.3	425.8	423.3	419.8	413.7	408.7	404.2	398.2	393.1	383.6
5°	450.4	447.9	445.9	443.4	435.4	429.8	420.8	410.7	401.2	391.6	372.5
7.5°	486.6	482.6	479.6	472.6	461.5	448.9	434.9	425.3	418.8	392.1	359.4
10°	525.3	521.8	515.8	503.2	489.7	471.6	451.4	428.8	408.7	386.6	347.9
12.5°	563.6	558.5	550.0	533.9	514.8	492.2	464.5	437.9	409.2	383.1	334.3
15°	601.8	596.2	587.2	567.6	542.4	512.8	479.1	445.4	411.7	378.6	320.2
17.5°	643.5	635.9	622.4	600.3	568.6	531.9	492.2	451.4	410.7	373.0	305.2
20°	688.2	677.7	663.1	633.4	596.2	553.0	505.2	457.5	410.2	366.5	288.1
22.5°	725.4	714.9	698.8	668.1	623.4	570.6	516.3	461.5	408.2	358.9	272.0
25°	757.6	749.1	731.5	696.3	649.0	589.2	526.9	464.5	405.2	350.9	254.9
27.5°	782.7	774.7	755.1	718.9	670.6	605.8	534.9	466.0	401.2	342.9	237.3
30°	804.9	796.8	773.2	736.0	685.2	618.9	542.9	466.5	396.1	330.8	218.2
32.5°	822.0	814.4	790.3	750.6	695.3	627.9	547.5	466.0	389.6	322.2	197.6
35°	839.1	831.5	803.4	761.1	702.8	631.9	551.0	463.5	381.6	308.2	178.0
37.5°	852.1	843.6	814.9	768.2	706.3	632.9	550.5	460.0	373.0	296.6	158.4
40°	861.2	852.1	821.5	772.2	707.3	631.4	546.5	454.0	363.0	282.0	137.7
42.5°	867.2	857.1	824.5	778.2	705.3	627.4	540.4	446.4	351.9	269.5	118.1
45°	870.2	859.7	825.0	773.2	701.8	619.9	531.4	436.9	339.8	252.4	98.5
47.5°	868.7	857.1	822.5	767.7	695.3	611.8	521.3	425.3	325.3	237.3	79.9
50°	866.2	854.1	816.9	760.6	686.2	601.8	510.3	411.2	310.2	218.7	63.3
52.5°	858.2	846.1	810.9	750.6	675.7	590.2	495.2	396.7	294.1	200.6	48.3
55°	848.1	837.0	800.3	741.5	662.1	576.1	481.1	381.1	278.5	182.0	34.7
57.5°	832.5	822.5	787.3	726.9	648.5	560.5	465.5	364.0	258.9	163.4	24.1
60°	813.4	803.4	769.2	710.4	632.9	542.9	448.4	346.4	241.3	144.8	15.1
62.5°	793.3	783.8	748.1	689.7	613.3	524.3	429.8	328.8	222.7	127.7	9.0
65°	766.7	757.6	725.4	665.1	591.7	504.2	409.2	307.7	203.6	108.6	5.0
67.5°	738.5	730.5	697.8	642.5	566.6	482.1	388.1	287.1	183.5	92.0	2.5
70°	708.3	698.3	668.1	611.8	540.9	457.0	365.0	265.9	164.4	75.9	0.0
72.5°	673.2	665.6	636.5	583.2	511.3	430.3	341.4	242.8	143.3	60.3	0.5
75°	639.0	629.4	602.8	552.5	482.1	402.2	315.2	221.2	122.7	46.3	0.5
77.5°	594.7	591.7	566.6	517.8	454.5	375.0	286.6	195.1	103.1	33.2	0.5
80°	550.5	547.5	527.9	483.1	422.3	342.9	259.9	170.4	84.0	22.1	0.5
82.5°	506.7	502.7	484.1	446.9	389.6	315.7	232.3	145.8	66.4	13.6	0.5
85°	467.5	462.5	442.4	408.2	355.9	285.0	203.6	121.7	49.3	7.5	1.0
87.5°	433.9	430.3	408.2	373.0	321.7	256.4	178.5	98.5	34.7	3.5	1.5
90°	405.2	397.7	378.1	340.8	289.6	224.7	151.8	78.9	23.1	2.0	2.0
92.5°	377.0	370.5	348.9	310.7	260.9	197.6	126.2	60.3	14.6	1.0	2.5
95°	347.9	340.8	319.7	284.5	231.8	169.9	103.6	44.2	8.0	1.0	2.5
97.5°	319.2	312.7	290.6	255.4	205.6	145.8	81.9	31.2	4.0	1.0	2.0
100°	292.6	285.0	264.9	229.7	179.5	121.7	63.3	20.1	2.5	1.0	2.0
102.5°	264.4	258.4	237.8	203.6	152.3	99.0	47.3	12.6	1.0	1.0	1.5
105°	239.3	231.8	211.6	176.5	129.7	77.9	33.2	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°	155.8	149.8	132.2	102.6	65.9	30.7	9.0	1.5	1.5	1.5	1.5
115°	130.2	121.2	105.6	79.4	48.8	20.1	4.5	1.5	1.5	1.5	1.5
117.5°	104.1	96.5	85.5	60.3	32.2	13.1	2.5	1.5	1.5	1.5	1.5
120°	81.4	74.4	61.8	41.7	21.6	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	58.3	52.8	41.7	27.1	13.1	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.7	35.7	27.6	16.6	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.1	22.6	16.1	9.6	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.1	12.6	9.6	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°	394.6	394.6	394.6
2.5°	375.5	368.5	366.5
5°	355.4	343.9	337.3
7.5°	335.3	319.7	312.2
10°	316.7	294.6	286.6
12.5°	294.6	269.0	256.4
15°	273.5	240.3	228.2
17.5°	249.9	212.7	198.6
20°	227.7	185.0	170.4
22.5°	202.6	157.9	141.8
25°	180.0	130.7	112.6
27.5°	154.8	103.1	87.5
30°	131.2	78.9	63.3
32.5°	108.6	57.8	43.7
35°	87.5	39.2	27.6
37.5°	67.4	24.1	14.1
40°	48.8	12.6	6.5
42.5°	32.7	6.0	3.5
45°	20.1	3.0	0.0
47.5°	11.6	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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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-84-ED1D-90

**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°	211.1	205.1	185.0	151.8	106.1	59.3	22.1	4.0	1.0	1.5	1.5
110°	184.0	179.0	158.4	126.2	85.5	44.2	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)