

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: P551655

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-81-84-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: P551655  
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-50-UNV-81-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

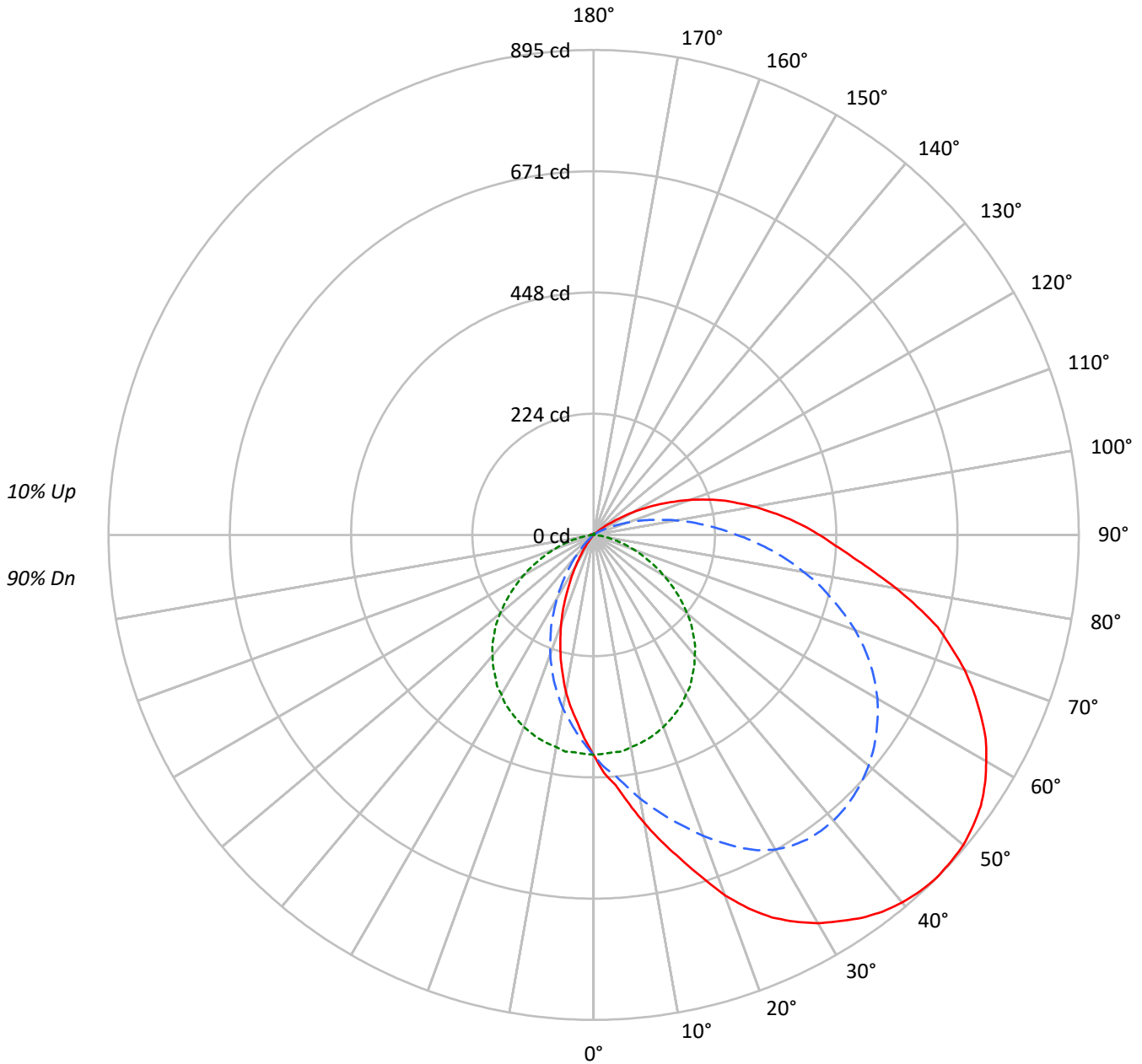
Lumens per Lamp: N/A  
Luminaire Lumens: 2006.1 lumens  
Efficiency: N/A  
Efficacy: 85.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-50-UNV-81-84-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°	4368	4368	4368
5°	4794	4304	3590
10°	5426	4251	2959
15°	6080	4197	2306
20°	6857	4128	1698
25°	7503	4049	1115
30°	7982	3943	628
35°	8397	3829	276
40°	8764	3688	66
45°	9081	3511	0
50°	9345	3278	0
55°	9547	2979	0
60°	9648	2635	0
65°	9689	2244	0
70°	9656	1830	0
75°	9534	1350	7
80°	9147	823	42
85°	8841	397	57



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.9	1.9
10°-20°	116.4	5.8
20°-30°	188.5	9.4
30°-40°	242.1	12.1
40°-50°	274.0	13.7
50°-60°	283.9	14.2
60°-70°	267.8	13.3
70°-80°	224.4	11.2
80°-90°	162.7	8.1
90°-100°	106.9	5.3
100°-110°	61.7	3.1
110°-120°	27.3	1.4
120°-130°	7.4	0.4
130°-140°	1.7	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°	343.7	17.1
0°-40°	585.8	29.2
0°-60°	1143.7	57.0
0°-90°	1798.6	89.7
90°-120°	195.9	9.8
90°-150°	206.2	10.3
90°-180°	208.0	10.4
0°-180°	2006.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	406	406	406	406	406	
5°	463	445	403	365	347	47
15°	619	542	389	281	235	178
25°	779	637	361	185	116	360
35°	863	686	317	90	28	541
45°	895	679	260	21	0	691
55°	872	637	187	0	0	779
65°	788	563	112	0	0	780
75°	657	455	48	0	0	689
85°	481	330	8	2	3	411
90°	417	264	2	3	4	228
95°	358	206	1	4	5	281
105°	246	107	1	3	4	260
115°	134	35	2	2	3	134
125°	40	5	2	2	2	40
135°	2	2	3	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	3	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°	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8	405.8
2.5°	439.9	439.4	437.8	435.2	431.6	425.4	420.2	415.6	409.4	404.2	394.4
5°	463.1	460.6	458.5	455.9	447.6	441.9	432.6	422.3	412.5	402.7	383.0
7.5°	500.4	496.2	493.1	485.9	474.5	461.6	447.1	437.3	430.6	403.2	369.6
10°	540.2	536.5	530.3	517.4	503.5	484.9	464.2	440.9	420.2	397.5	357.7
12.5°	579.4	574.3	565.5	548.9	529.3	506.0	477.6	450.2	420.8	393.9	343.7
15°	618.7	613.0	603.7	583.6	557.7	527.2	492.6	458.0	423.3	389.2	329.3
17.5°	661.6	653.9	639.9	617.2	584.6	546.9	506.0	464.2	422.3	383.5	313.8
20°	707.6	696.8	681.8	651.3	613.0	568.6	519.5	470.4	421.8	376.8	296.2
22.5°	745.9	735.0	718.5	687.0	641.0	586.7	530.9	474.5	419.7	369.1	279.6
25°	779.0	770.2	752.1	715.9	667.3	605.8	541.7	477.6	416.6	360.8	262.1
27.5°	804.8	796.5	776.4	739.2	689.5	622.9	550.0	479.2	412.5	352.5	244.0
30°	827.6	819.3	795.0	756.7	704.5	636.3	558.3	479.7	407.3	340.1	224.3
32.5°	845.1	837.4	812.6	771.7	714.9	645.6	562.9	479.2	400.6	331.3	203.1
35°	862.7	855.0	826.0	782.6	722.6	649.7	566.5	476.6	392.3	316.9	183.0
37.5°	876.1	867.4	837.9	789.8	726.2	650.8	566.0	473.0	383.5	305.0	162.8
40°	885.4	876.1	844.6	794.0	727.3	649.2	561.9	466.8	373.2	290.0	141.6
42.5°	891.7	881.3	847.7	800.2	725.2	645.1	555.7	459.0	361.8	277.1	121.5
45°	894.8	883.9	848.2	795.0	721.6	637.3	546.4	449.2	349.4	259.5	101.3
47.5°	893.2	881.3	845.6	789.3	714.9	629.1	536.0	437.3	334.4	244.0	82.2
50°	890.6	878.2	840.0	782.1	705.6	618.7	524.7	422.8	318.9	224.9	65.1
52.5°	882.3	869.9	833.8	771.7	694.7	606.8	509.1	407.8	302.4	206.2	49.6
55°	872.0	860.6	822.9	762.4	680.8	592.4	494.7	391.8	286.4	187.1	35.7
57.5°	856.0	845.6	809.5	747.4	666.8	576.3	478.6	374.2	266.2	168.0	24.8
60°	836.3	826.0	790.9	730.4	650.8	558.3	461.1	356.1	248.1	148.9	15.5
62.5°	815.7	805.8	769.1	709.2	630.6	539.1	441.9	338.1	229.0	131.3	9.3
65°	788.3	779.0	745.9	683.9	608.4	518.4	420.8	316.3	209.3	111.7	5.2
67.5°	759.3	751.1	717.5	660.6	582.5	495.7	399.0	295.1	188.7	94.6	2.6
70°	728.3	718.0	687.0	629.1	556.2	469.9	375.3	273.4	169.0	78.1	0.0
72.5°	692.1	684.4	654.4	599.6	525.7	442.5	351.0	249.7	147.3	62.0	0.5
75°	657.0	647.2	619.8	568.1	495.7	413.5	324.1	227.4	126.1	47.6	0.5
77.5°	611.5	608.4	582.5	532.4	467.3	385.6	294.6	200.6	106.0	34.1	0.5
80°	566.0	562.9	542.7	496.7	434.2	352.5	267.2	175.2	86.3	22.7	0.5
82.5°	521.0	516.9	497.8	459.5	400.6	324.6	238.8	149.9	68.2	14.0	0.5
85°	480.7	475.5	454.9	419.7	366.0	293.1	209.3	125.1	50.7	7.8	1.0
87.5°	446.1	442.5	419.7	383.5	330.8	263.6	183.5	101.3	35.7	3.6	1.6
90°	416.6	408.9	388.7	350.5	297.7	231.1	156.1	81.2	23.8	2.1	2.1
92.5°	387.7	381.0	358.7	319.4	268.3	203.1	129.7	62.0	15.0	1.0	2.6
95°	357.7	350.5	328.7	292.6	238.3	174.7	106.5	45.5	8.3	1.0	2.6
97.5°	328.2	321.5	298.8	262.6	211.4	149.9	84.3	32.0	4.1	1.0	2.1
100°	300.8	293.1	272.4	236.2	184.5	125.1	65.1	20.7	2.6	1.0	2.1
102.5°	271.9	265.7	244.5	209.3	156.6	101.8	48.6	12.9	1.0	1.0	1.6
105°	246.0	238.3	217.6	181.4	133.4	80.1	34.1	7.8	1.0	1.0	1.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	160.2	154.0	135.9	105.4	67.7	31.5	9.3	1.6	1.6	1.6	1.6
115°	133.9	124.6	108.5	81.7	50.1	20.7	4.7	1.6	1.6	1.6	1.6
117.5°	107.0	99.2	87.9	62.0	33.1	13.4	2.6	1.6	1.6	1.6	1.6
120°	83.7	76.5	63.6	42.9	22.2	7.8	1.0	1.6	1.6	1.6	1.6
122.5°	60.0	54.3	42.9	27.9	13.4	3.6	1.6	1.6	2.1	2.1	1.6
125°	39.8	36.7	28.4	17.1	8.3	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	25.8	23.3	16.5	9.8	3.6	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.5	12.9	9.8	5.7	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.3	7.8	5.2	1.0	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.6	1.6	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	405.8	405.8	405.8
2.5°	386.1	378.9	376.8
5°	365.4	353.6	346.8
7.5°	344.8	328.7	321.0
10°	325.6	302.9	294.6
12.5°	302.9	276.5	263.6
15°	281.2	247.1	234.7
17.5°	256.9	218.6	204.2
20°	234.2	190.2	175.2
22.5°	208.3	162.3	145.8
25°	185.0	134.4	115.8
27.5°	159.2	106.0	89.9
30°	134.9	81.2	65.1
32.5°	111.7	59.4	45.0
35°	89.9	40.3	28.4
37.5°	69.3	24.8	14.5
40°	50.1	12.9	6.7
42.5°	33.6	6.2	3.6
45°	20.7	3.1	0.0
47.5°	11.9	0.0	0.0
50°	6.2	0.0	0.0
52.5°	2.6	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	1.6
80°	1.0	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.7
97.5°	4.1	4.7	4.7
100°	3.6	4.7	5.2
102.5°	3.1	4.7	4.7
105°	2.6	3.6	4.1





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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-84-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.6	2.1	2.6
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.0
152.5°	1.6	1.0	1.0
155°	1.6	1.0	0.5
157.5°	2.1	1.0	0.5
160°	1.6	1.0	0.5
162.5°	1.6	1.0	0.5
165°	1.6	1.0	0.0
167.5°	1.6	1.0	0.5
170°	1.6	1.0	0.5
172.5°	1.6	1.0	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	217.1	210.9	190.2	156.1	109.1	61.0	22.7	4.1	1.0	1.6	1.6
110°	189.2	184.0	162.8	129.7	87.9	45.5	15.0	2.6	1.6	1.6	1.6







107.5°	2.1	3.1	3.6
110°	2.1	2.6	3.1



(END OF REPORT)