

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: P551423

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-88-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: P551423  
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-LD4-2HI-50-UNV-82-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

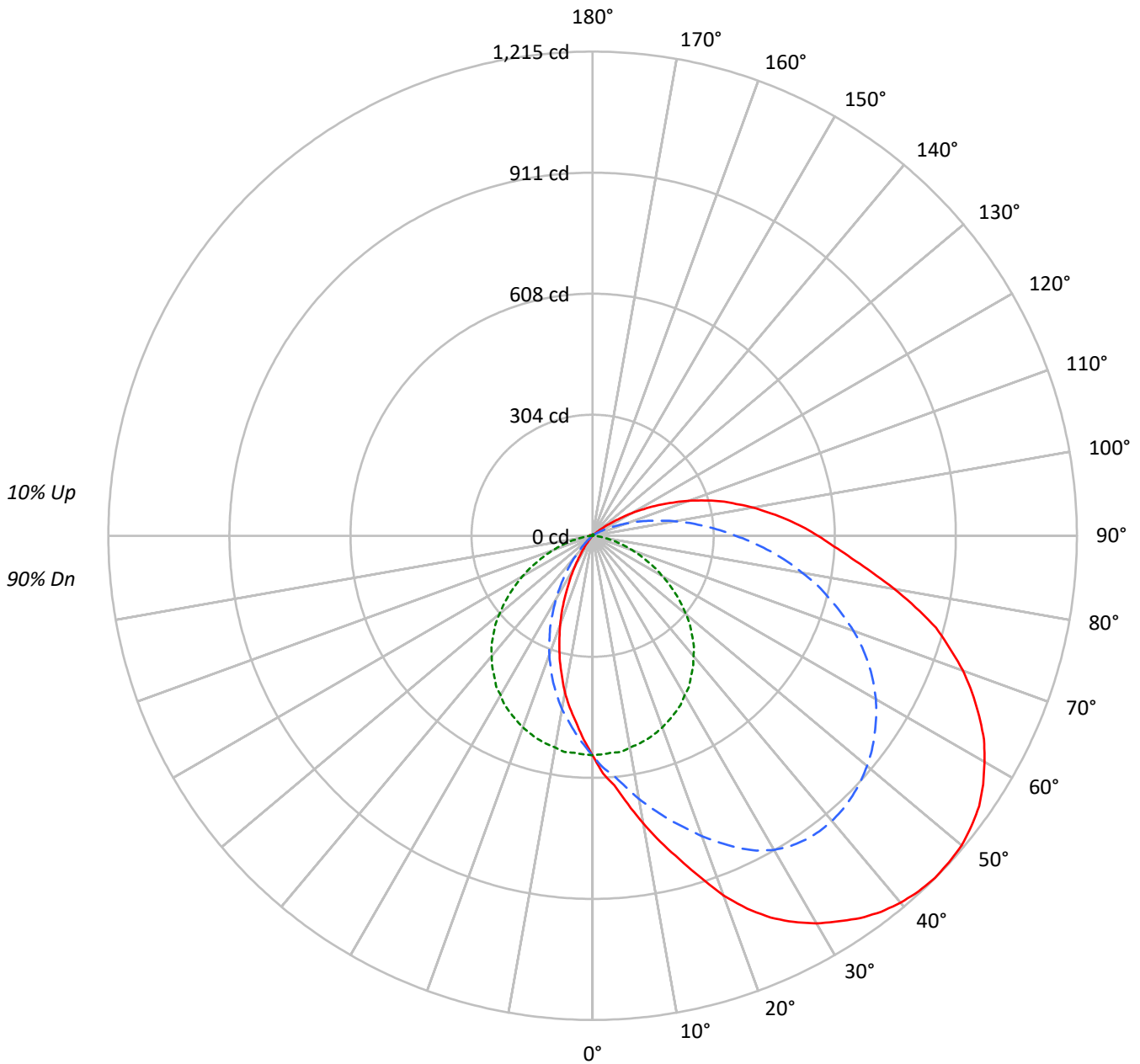
Lumens per Lamp: N/A  
Luminaire Lumens: 2723.0 lumens  
Efficiency: N/A  
Efficacy: 62.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
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

TEST NUMBER: P551423

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-82-88-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°	5929	5929	5929
5°	6508	5842	4874
10°	7365	5771	4017
15°	8254	5696	3131
20°	9309	5604	2306
25°	10184	5497	1514
30°	10834	5352	853
35°	11398	5197	376
40°	11897	5006	90
45°	12326	4766	0
50°	12685	4448	0
55°	12960	4045	0
60°	13098	3576	0
65°	13151	3045	0
70°	13107	2481	0
75°	12941	1832	10
80°	12416	1121	57
85°	12001	534	77



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.8	1.9
10°-20°	158.0	5.8
20°-30°	255.8	9.4
30°-40°	328.6	12.1
40°-50°	372.0	13.7
50°-60°	385.4	14.2
60°-70°	363.5	13.3
70°-80°	304.6	11.2
80°-90°	220.8	8.1
90°-100°	145.1	5.3
100°-110°	83.8	3.1
110°-120°	37.0	1.4
120°-130°	10.0	0.4
130°-140°	2.3	0.1
140°-150°	1.5	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	466.6	17.1
0°-40°	795.2	29.2
0°-60°	1552.6	57.0
0°-90°	2441.4	89.7
90°-120°	265.9	9.8
90°-150°	279.7	10.3
90°-180°	282.0	10.4
0°-180°	2723.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	551	551	551	551	551	
5°	629	604	547	496	471	63
15°	840	736	528	382	319	242
25°	1057	864	490	251	157	489
35°	1171	931	430	122	39	734
45°	1215	922	352	28	0	938
55°	1184	864	254	0	0	1057
65°	1070	765	152	0	0	1059
75°	892	617	65	1	1	935
85°	652	447	10	3	4	557
90°	566	359	3	4	5	310
95°	486	280	1	5	6	381
105°	334	145	1	4	6	352
115°	182	48	2	2	4	182
125°	54	7	3	2	3	54
135°	3	2	4	3	2	5
145°	1	2	3	2	2	1
155°	1	3	3	2	1	1
165°	1	2	3	2	0	0
175°	1	2	4	2	1	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°	550.8	550.8	550.8	550.8	550.8	550.8	550.8	550.8	550.8	550.8	550.8
2.5°	597.1	596.4	594.3	590.8	585.9	577.5	570.4	564.1	555.7	548.7	535.4
5°	628.7	625.2	622.4	618.9	607.6	599.9	587.3	573.3	559.9	546.6	519.9
7.5°	679.2	673.6	669.4	659.6	644.1	626.6	606.9	593.6	584.5	547.3	501.7
10°	733.2	728.3	719.9	702.4	683.4	658.2	630.1	598.5	570.4	539.6	485.5
12.5°	786.6	779.5	767.6	745.2	718.5	686.9	648.3	611.1	571.1	534.7	466.6
15°	839.9	832.2	819.5	792.2	757.1	715.7	668.7	621.7	574.7	528.3	447.0
17.5°	898.1	887.6	868.6	837.8	793.6	742.3	686.9	630.1	573.3	520.6	425.9
20°	960.6	945.8	925.5	884.1	832.2	771.8	705.2	638.5	572.5	511.5	402.0
22.5°	1012.5	997.8	975.3	932.5	870.0	796.4	720.6	644.1	569.7	501.0	379.6
25°	1057.4	1045.5	1020.9	971.8	905.8	822.3	735.3	648.3	565.5	489.8	355.7
27.5°	1092.5	1081.2	1053.9	1003.4	936.0	845.5	746.6	650.4	559.9	478.5	331.2
30°	1123.3	1112.1	1079.1	1027.2	956.4	863.7	757.8	651.1	552.9	461.7	304.5
32.5°	1147.2	1136.7	1103.0	1047.6	970.4	876.4	764.1	650.4	543.8	449.8	275.7
35°	1171.1	1160.5	1121.2	1062.3	980.9	882.0	769.0	646.9	532.6	430.1	248.4
37.5°	1189.3	1177.4	1137.4	1072.1	985.8	883.4	768.3	642.0	520.6	414.0	221.0
40°	1201.9	1189.3	1146.5	1077.7	987.2	881.3	762.7	633.6	506.6	393.6	192.3
42.5°	1210.4	1196.3	1150.7	1086.2	984.4	875.7	754.3	623.1	491.2	376.1	164.9
45°	1214.6	1199.8	1151.4	1079.1	979.5	865.1	741.6	609.7	474.3	352.2	137.5
47.5°	1212.5	1196.3	1147.9	1071.4	970.4	853.9	727.6	593.6	454.0	331.2	111.6
50°	1208.9	1192.1	1140.2	1061.6	957.8	839.9	712.2	574.0	432.9	305.2	88.4
52.5°	1197.7	1180.9	1131.8	1047.6	943.0	823.7	691.1	553.6	410.5	280.0	67.4
55°	1183.7	1168.3	1117.0	1034.9	924.1	804.1	671.5	531.9	388.7	254.0	48.4
57.5°	1161.9	1147.9	1098.8	1014.6	905.1	782.3	649.7	508.0	361.4	228.0	33.7
60°	1135.3	1121.2	1073.5	991.4	883.4	757.8	625.9	483.4	336.8	202.1	21.0
62.5°	1107.2	1093.9	1044.1	962.7	856.0	731.8	599.9	458.9	310.8	178.2	12.6
65°	1070.0	1057.4	1012.5	928.3	825.8	703.8	571.1	429.4	284.2	151.6	7.0
67.5°	1030.7	1019.5	973.9	896.7	790.8	672.9	541.7	400.6	256.1	128.4	3.5
70°	988.6	974.6	932.5	853.9	755.0	637.8	509.4	371.2	229.4	105.9	0.0
72.5°	939.5	929.0	888.3	813.9	713.6	600.6	476.4	338.9	200.0	84.2	0.7
75°	891.8	878.5	841.3	771.1	672.9	561.3	439.9	308.7	171.2	64.6	0.7
77.5°	830.1	825.8	790.8	722.7	634.3	523.4	399.9	272.2	143.8	46.3	0.7
80°	768.3	764.1	736.7	674.3	589.4	478.5	362.8	237.9	117.2	30.9	0.7
82.5°	707.3	701.7	675.7	623.8	543.8	440.6	324.2	203.5	92.6	18.9	0.7
85°	652.5	645.5	617.5	569.7	496.8	397.8	284.2	169.8	68.8	10.5	1.4
87.5°	605.5	600.6	569.7	520.6	449.1	357.8	249.1	137.5	48.4	4.9	2.1
90°	565.5	555.0	527.6	475.7	404.2	313.6	211.9	110.2	32.3	2.8	2.8
92.5°	526.2	517.1	486.9	433.6	364.2	275.7	176.1	84.2	20.3	1.4	3.5
95°	485.5	475.7	446.3	397.1	323.5	237.2	144.5	61.7	11.2	1.4	3.5
97.5°	445.5	436.4	405.6	356.4	287.0	203.5	114.4	43.5	5.6	1.4	2.8
100°	408.4	397.8	369.8	320.7	250.5	169.8	88.4	28.1	3.5	1.4	2.8
102.5°	369.1	360.6	331.9	284.2	212.6	138.2	66.0	17.5	1.4	1.4	2.1
105°	334.0	323.5	295.4	246.3	181.0	108.8	46.3	10.5	1.4	1.4	2.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	217.5	209.1	184.5	143.1	91.9	42.8	12.6	2.1	2.1	2.1	2.1
115°	181.7	169.1	147.3	110.9	68.1	28.1	6.3	2.1	2.1	2.1	2.1
117.5°	145.2	134.7	119.3	84.2	44.9	18.2	3.5	2.1	2.1	2.1	2.1
120°	113.7	103.8	86.3	58.2	30.2	10.5	1.4	2.1	2.1	2.1	2.1
122.5°	81.4	73.7	58.2	37.9	18.2	4.9	2.1	2.1	2.8	2.8	2.1
125°	54.0	49.8	38.6	23.2	11.2	2.1	2.1	2.1	2.8	2.8	2.1
127.5°	35.1	31.6	22.5	13.3	4.9	2.1	2.1	2.8	2.8	2.8	2.1
130°	19.6	17.5	13.3	7.7	2.1	2.1	2.1	2.8	2.8	2.8	2.1
132.5°	11.2	10.5	7.0	1.4	2.1	2.1	2.1	2.8	2.8	2.8	2.8
135°	2.8	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8
137.5°	0.7	0.7	1.4	1.4	2.1	2.1	2.8	3.5	3.5	3.5	2.8
140°	0.7	0.7	1.4	2.1	2.1	2.1	2.8	3.5	3.5	3.5	2.8
142.5°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8	2.8
145°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	2.8	2.8	2.8
147.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8	2.8
150°	0.7	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	2.8
152.5°	0.7	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	2.8
155°	1.4	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	3.5
157.5°	1.4	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	3.5
160°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.8
162.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.8
165°	1.4	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8
167.5°	1.4	1.4	1.4	2.1	2.1	2.1	2.8	2.8	2.8	2.8	2.8
170°	1.4	1.4	1.4	2.1	2.1	2.1	2.8	3.5	3.5	3.5	3.5
172.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	3.5
175°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	3.5
177.5°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	2.8
180°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	550.8	550.8	550.8
2.5°	524.1	514.3	511.5
5°	496.1	479.9	470.8
7.5°	468.0	446.3	435.7
10°	442.0	411.2	399.9
12.5°	411.2	375.4	357.8
15°	381.7	335.4	318.6
17.5°	348.7	296.8	277.2
20°	317.8	258.2	237.9
22.5°	282.8	220.3	197.9
25°	251.2	182.4	157.2
27.5°	216.1	143.8	122.1
30°	183.1	110.2	88.4
32.5°	151.6	80.7	61.0
35°	122.1	54.7	38.6
37.5°	94.0	33.7	19.6
40°	68.1	17.5	9.1
42.5°	45.6	8.4	4.9
45°	28.1	4.2	0.0
47.5°	16.1	0.0	0.0
50°	8.4	0.0	0.0
52.5°	3.5	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°	0.7	0.7	0.7
77.5°	0.7	1.4	2.1
80°	1.4	2.8	3.5
82.5°	2.8	3.5	3.5
85°	2.8	3.5	4.2
87.5°	3.5	4.2	4.9
90°	4.2	4.9	4.9
92.5°	4.2	5.6	5.6
95°	4.9	5.6	6.3
97.5°	5.6	6.3	6.3
100°	4.9	6.3	7.0
102.5°	4.2	6.3	6.3
105°	3.5	4.9	5.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.8	3.5	3.5
115°	2.1	2.8	3.5
117.5°	2.1	2.8	2.8
120°	2.1	2.1	2.8
122.5°	2.1	2.1	2.8
125°	2.1	2.1	2.8
127.5°	2.8	2.1	2.1
130°	2.1	2.1	2.1
132.5°	2.8	2.1	2.1
135°	2.8	2.1	2.1
137.5°	2.8	2.1	2.1
140°	2.8	2.1	2.1
142.5°	2.8	2.1	2.1
145°	2.1	2.1	2.1
147.5°	2.1	2.1	2.1
150°	2.1	2.1	1.4
152.5°	2.1	1.4	1.4
155°	2.1	1.4	0.7
157.5°	2.8	1.4	0.7
160°	2.1	1.4	0.7
162.5°	2.1	1.4	0.7
165°	2.1	1.4	0.0
167.5°	2.1	1.4	0.7
170°	2.1	1.4	0.7
172.5°	2.1	1.4	0.7
175°	2.1	0.7	0.7
177.5°	2.1	0.7	0.7
180°	2.1	2.1	2.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	294.7	286.3	258.2	211.9	148.0	82.8	30.9	5.6	1.4	2.1	2.1
110°	256.8	249.8	221.0	176.1	119.3	61.7	20.3	3.5	2.1	2.1	2.1







107.5°	2.8	4.2	4.9
110°	2.8	3.5	4.2



(END OF REPORT)