

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: P550576

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-81-88-ED1D**

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: P550576  
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-LD4-1HI-40-UNV-81-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

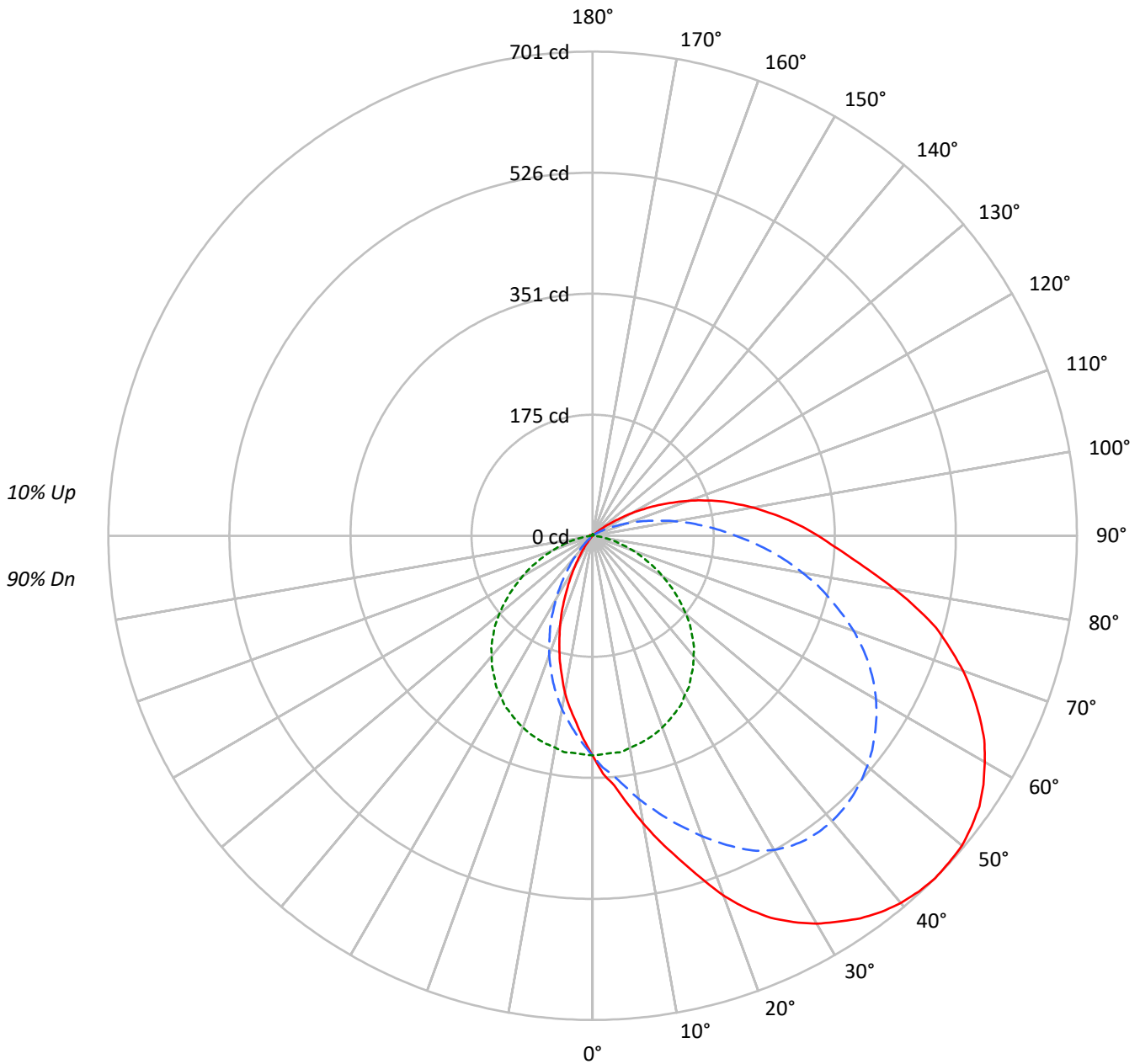
Lumens per Lamp: N/A  
Luminaire Lumens: 1571.9 lumens  
Efficiency: N/A  
Efficacy: 72.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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

TEST NUMBER: P550576

CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-88-ED1D

### 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°	3423	3423	3423
5°	3757	3372	2814
10°	4252	3331	2319
15°	4765	3289	1807
20°	5374	3235	1331
25°	5879	3173	874
30°	6255	3089	492
35°	6580	3000	217
40°	6869	2889	52
45°	7116	2751	0
50°	7323	2568	0
55°	7481	2334	0
60°	7561	2065	0
65°	7592	1757	0
70°	7566	1434	0
75°	7470	1058	6
80°	7167	646	32
85°	6928	310	44



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.5	1.9
10°-20°	91.2	5.8
20°-30°	147.7	9.4
30°-40°	189.7	12.1
40°-50°	214.8	13.7
50°-60°	222.5	14.2
60°-70°	209.8	13.3
70°-80°	175.8	11.2
80°-90°	127.4	8.1
90°-100°	83.8	5.3
100°-110°	48.4	3.1
110°-120°	21.3	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	269.3	17.1
0°-40°	459.1	29.2
0°-60°	896.3	57.0
0°-90°	1409.4	89.7
90°-120°	153.5	9.8
90°-150°	161.4	10.3
90°-180°	162.0	10.3
0°-180°	1571.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	318	318	318	318	318	
5°	363	349	316	286	272	37
15°	485	425	305	220	184	140
25°	610	499	283	145	91	282
35°	676	538	248	70	22	424
45°	701	532	203	16	0	541
55°	683	499	147	0	0	610
65°	618	442	88	0	0	611
75°	515	356	37	0	0	540
85°	377	258	6	2	2	322
90°	326	207	2	2	3	179
95°	280	162	1	3	4	220
105°	193	84	1	2	3	203
115°	105	28	1	1	2	105
125°	31	4	2	1	2	31
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550576

CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-88-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0
2.5°	344.7	344.3	343.1	341.1	338.2	333.4	329.3	325.7	320.8	316.8	309.1
5°	362.9	360.9	359.3	357.3	350.8	346.3	339.0	330.9	323.2	315.5	300.2
7.5°	392.1	388.9	386.4	380.8	371.9	361.7	350.4	342.7	337.4	316.0	289.6
10°	423.3	420.5	415.6	405.5	394.5	380.0	363.8	345.5	329.3	311.5	280.3
12.5°	454.1	450.0	443.1	430.2	414.8	396.6	374.3	352.8	329.7	308.7	269.4
15°	484.9	480.4	473.1	457.3	437.1	413.2	386.0	358.9	331.8	305.0	258.0
17.5°	518.5	512.4	501.5	483.7	458.1	428.6	396.6	363.8	330.9	300.6	245.9
20°	554.5	546.0	534.3	510.4	480.4	445.6	407.1	368.6	330.5	295.3	232.1
22.5°	584.5	576.0	563.0	538.3	502.3	459.8	416.0	371.9	328.9	289.2	219.1
25°	610.4	603.6	589.4	561.0	522.9	474.7	424.5	374.3	326.5	282.7	205.4
27.5°	630.7	624.2	608.4	579.2	540.4	488.1	431.0	375.5	323.2	276.3	191.2
30°	648.5	642.0	623.0	593.0	552.1	498.6	437.5	375.9	319.2	266.5	175.8
32.5°	662.3	656.2	636.8	604.8	560.2	505.9	441.1	375.5	313.9	259.6	159.2
35°	676.1	670.0	647.3	613.3	566.3	509.2	444.0	373.5	307.4	248.3	143.4
37.5°	686.6	679.7	656.6	618.9	569.1	510.0	443.5	370.6	300.6	239.0	127.6
40°	693.9	686.6	661.9	622.2	569.9	508.8	440.3	365.8	292.5	227.2	111.0
42.5°	698.7	690.6	664.3	627.0	568.3	505.5	435.4	359.7	283.5	217.1	95.2
45°	701.2	692.7	664.7	623.0	565.5	499.4	428.2	352.0	273.8	203.3	79.4
47.5°	700.0	690.6	662.7	618.5	560.2	493.0	420.1	342.7	262.1	191.2	64.4
50°	697.9	688.2	658.2	612.9	552.9	484.9	411.1	331.3	249.9	176.2	51.0
52.5°	691.4	681.7	653.4	604.8	544.4	475.5	399.0	319.6	237.0	161.6	38.9
55°	683.3	674.4	644.9	597.5	533.5	464.2	387.6	307.0	224.4	146.6	27.9
57.5°	670.8	662.7	634.3	585.7	522.5	451.7	375.1	293.3	208.6	131.6	19.4
60°	655.4	647.3	619.8	572.4	510.0	437.5	361.3	279.1	194.4	116.7	12.2
62.5°	639.2	631.5	602.7	555.8	494.2	422.5	346.3	264.9	179.4	102.9	7.3
65°	617.7	610.4	584.5	535.9	476.8	406.3	329.7	247.9	164.1	87.5	4.1
67.5°	595.0	588.6	562.2	517.7	456.5	388.5	312.7	231.3	147.8	74.1	2.0
70°	570.7	562.6	538.3	493.0	435.9	368.2	294.1	214.3	132.5	61.2	0.0
72.5°	542.4	536.3	512.8	469.9	412.0	346.7	275.0	195.6	115.4	48.6	0.4
75°	514.8	507.1	485.7	445.2	388.5	324.1	254.0	178.2	98.8	37.3	0.4
77.5°	479.2	476.8	456.5	417.2	366.2	302.2	230.9	157.2	83.0	26.7	0.4
80°	443.5	441.1	425.3	389.3	340.3	276.3	209.4	137.3	67.6	17.8	0.4
82.5°	408.3	405.1	390.1	360.1	313.9	254.4	187.1	117.5	53.5	10.9	0.4
85°	376.7	372.7	356.5	328.9	286.8	229.7	164.1	98.0	39.7	6.1	0.8
87.5°	349.6	346.7	328.9	300.6	259.2	206.6	143.8	79.4	27.9	2.8	1.2
90°	326.5	320.4	304.6	274.6	233.3	181.1	122.3	63.6	18.6	1.6	1.6
92.5°	303.8	298.5	281.1	250.3	210.2	159.2	101.7	48.6	11.7	0.8	2.0
95°	280.3	274.6	257.6	229.3	186.7	136.9	83.4	35.6	6.5	0.8	2.0
97.5°	257.2	252.0	234.1	205.8	165.7	117.5	66.0	25.1	3.2	0.8	1.6
100°	235.7	229.7	213.5	185.1	144.6	98.0	51.0	16.2	2.0	0.8	1.6
102.5°	213.1	208.2	191.6	164.1	122.7	79.8	38.1	10.1	0.8	0.8	1.2
105°	192.8	186.7	170.5	142.2	104.5	62.8	26.7	6.1	0.8	0.8	1.2



TEST NUMBER: P550576

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	125.6	120.7	106.5	82.6	53.1	24.7	7.3	1.2	1.2	1.2	1.2
115°	104.9	97.6	85.1	64.0	39.3	16.2	3.6	1.2	1.2	1.2	1.2
117.5°	83.8	77.8	68.9	48.6	25.9	10.5	2.0	1.2	1.2	1.2	1.2
120°	65.6	59.9	49.8	33.6	17.4	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.0	42.5	33.6	21.9	10.5	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.2	28.8	22.3	13.4	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.3	18.2	13.0	7.7	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.3	10.1	7.7	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P550576

CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-88-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	318.0	318.0	318.0
2.5°	302.6	296.9	295.3
5°	286.4	277.1	271.8
7.5°	270.2	257.6	251.5
10°	255.2	237.4	230.9
12.5°	237.4	216.7	206.6
15°	220.4	193.6	183.9
17.5°	201.3	171.3	160.0
20°	183.5	149.1	137.3
22.5°	163.2	127.2	114.2
25°	145.0	105.3	90.7
27.5°	124.8	83.0	70.5
30°	105.7	63.6	51.0
32.5°	87.5	46.6	35.2
35°	70.5	31.6	22.3
37.5°	54.3	19.4	11.3
40°	39.3	10.1	5.3
42.5°	26.3	4.9	2.8
45°	16.2	2.4	0.0
47.5°	9.3	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.1
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	170.1	165.3	149.1	122.3	85.5	47.8	17.8	3.2	0.8	1.2	1.2
110°	148.3	144.2	127.6	101.7	68.9	35.6	11.7	2.0	1.2	1.2	1.2







107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)