

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: P550860

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-86-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: P550860  
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-LD4-1LO-40-UNV-93-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

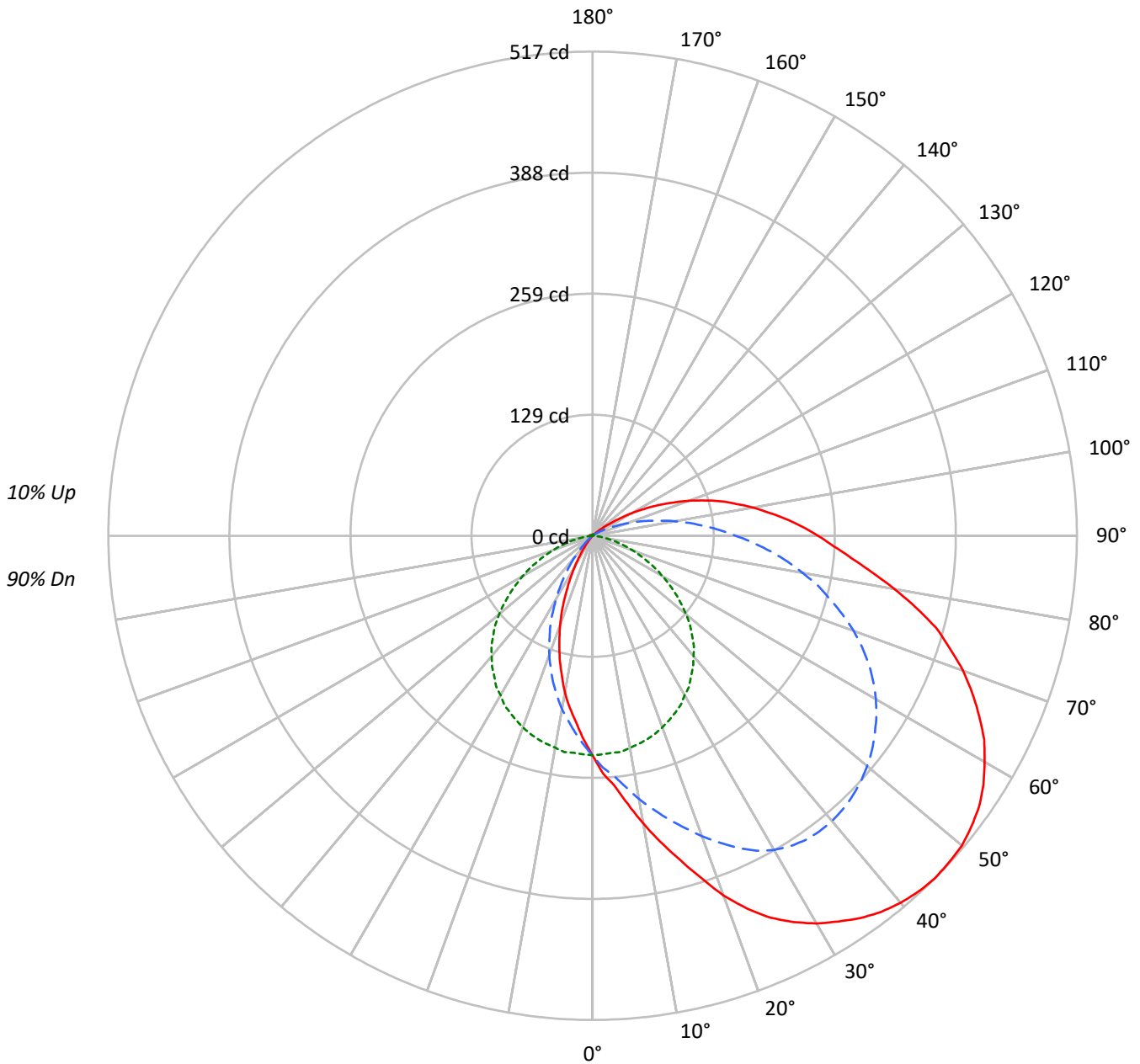
Lumens per Lamp: N/A  
Luminaire Lumens: 1159.0 lumens  
Efficiency: N/A  
Efficacy: 99.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
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: P550860

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-86-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	2523	2523	2523
5°	2770	2486	2075
10°	3135	2456	1710
15°	3513	2425	1333
20°	3962	2385	981
25°	4335	2340	644
30°	4611	2278	363
35°	4851	2212	160
40°	5064	2130	39
45°	5247	2028	0
50°	5400	1893	0
55°	5516	1721	0
60°	5575	1522	0
65°	5597	1296	0
70°	5579	1057	0
75°	5508	780	4
80°	5285	475	24
85°	5107	229	33



TEST NUMBER: P550860

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.5	1.9
10°-20°	67.2	5.8
20°-30°	108.9	9.4
30°-40°	139.9	12.1
40°-50°	158.3	13.7
50°-60°	164.0	14.2
60°-70°	154.7	13.3
70°-80°	129.6	11.2
80°-90°	94.0	8.1
90°-100°	61.8	5.3
100°-110°	35.7	3.1
110°-120°	15.7	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	198.6	17.1
0°-40°	338.5	29.2
0°-60°	660.8	57.0
0°-90°	1039.2	89.7
90°-120°	113.2	9.8
90°-150°	119.1	10.3
90°-180°	120.0	10.4
0°-180°	1159.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	234	234	234	234	234	
5°	268	257	233	211	200	27
15°	358	313	225	162	136	103
25°	450	368	208	107	67	208
35°	498	396	183	52	16	313
45°	517	393	150	12	0	399
55°	504	368	108	0	0	450
65°	455	326	64	0	0	451
75°	380	263	28	0	0	398
85°	278	190	4	1	2	237
90°	241	153	1	2	2	132
95°	207	119	1	2	3	162
105°	142	62	1	2	2	150
115°	77	20	1	1	2	77
125°	23	3	1	1	1	23
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	234.4	234.4	234.4	234.4	234.4	234.4	234.4	234.4	234.4	234.4	234.4
2.5°	254.1	253.8	253.0	251.5	249.4	245.8	242.8	240.1	236.5	233.5	227.9
5°	267.6	266.1	264.9	263.4	258.6	255.3	250.0	244.0	238.3	232.6	221.3
7.5°	289.1	286.7	284.9	280.7	274.2	266.7	258.3	252.7	248.8	232.9	213.5
10°	312.1	310.0	306.4	298.9	290.9	280.1	268.2	254.7	242.8	229.7	206.7
12.5°	334.8	331.8	326.7	317.2	305.8	292.4	275.9	260.1	243.1	227.6	198.6
15°	357.5	354.2	348.8	337.2	322.2	304.6	284.6	264.6	244.6	224.9	190.2
17.5°	382.3	377.8	369.7	356.6	337.8	316.0	292.4	268.2	244.0	221.6	181.3
20°	408.8	402.6	393.9	376.3	354.2	328.5	300.1	271.8	243.7	217.7	171.1
22.5°	430.9	424.7	415.1	396.9	370.3	339.0	306.7	274.2	242.5	213.2	161.6
25°	450.1	445.0	434.5	413.6	385.6	350.0	313.0	275.9	240.7	208.5	151.4
27.5°	465.0	460.2	448.6	427.1	398.4	359.9	317.8	276.8	238.3	203.7	141.0
30°	478.1	473.4	459.3	437.2	407.1	367.6	322.5	277.1	235.3	196.5	129.6
32.5°	488.3	483.8	469.5	445.9	413.0	373.0	325.2	276.8	231.5	191.4	117.4
35°	498.4	494.0	477.2	452.2	417.5	375.4	327.3	275.4	226.7	183.1	105.7
37.5°	506.2	501.1	484.1	456.3	419.6	376.0	327.0	273.3	221.6	176.2	94.1
40°	511.6	506.2	488.0	458.7	420.2	375.1	324.6	269.7	215.6	167.5	81.8
42.5°	515.2	509.2	489.8	462.3	419.0	372.7	321.0	265.2	209.1	160.1	70.2
45°	517.0	510.7	490.1	459.3	416.9	368.2	315.7	259.5	201.9	149.9	58.5
47.5°	516.1	509.2	488.6	456.0	413.0	363.5	309.7	252.7	193.2	141.0	47.5
50°	514.6	507.4	485.3	451.9	407.7	357.5	303.1	244.3	184.3	129.9	37.6
52.5°	509.8	502.6	481.7	445.9	401.4	350.6	294.2	235.6	174.7	119.2	28.7
55°	503.8	497.2	475.4	440.5	393.3	342.2	285.8	226.4	165.5	108.1	20.6
57.5°	494.6	488.6	467.7	431.8	385.3	333.0	276.5	216.2	153.8	97.1	14.3
60°	483.2	477.2	456.9	422.0	376.0	322.5	266.4	205.8	143.4	86.0	9.0
62.5°	471.3	465.6	444.4	409.7	364.3	311.5	255.3	195.3	132.3	75.9	5.4
65°	455.4	450.1	430.9	395.1	351.5	299.5	243.1	182.8	121.0	64.5	3.0
67.5°	438.7	433.9	414.5	381.7	336.6	286.4	230.6	170.5	109.0	54.7	1.5
70°	420.8	414.8	396.9	363.5	321.3	271.5	216.8	158.0	97.7	45.1	0.0
72.5°	399.9	395.4	378.1	346.4	303.7	255.6	202.8	144.2	85.1	35.8	0.3
75°	379.6	373.9	358.1	328.2	286.4	238.9	187.3	131.4	72.9	27.5	0.3
77.5°	353.3	351.5	336.6	307.6	270.0	222.8	170.2	115.9	61.2	19.7	0.3
80°	327.0	325.2	313.6	287.0	250.9	203.7	154.4	101.2	49.9	13.1	0.3
82.5°	301.0	298.6	287.6	265.5	231.5	187.6	138.0	86.6	39.4	8.1	0.3
85°	277.7	274.8	262.8	242.5	211.4	169.3	121.0	72.3	29.3	4.5	0.6
87.5°	257.7	255.6	242.5	221.6	191.1	152.3	106.0	58.5	20.6	2.1	0.9
90°	240.7	236.2	224.6	202.5	172.0	133.5	90.2	46.9	13.7	1.2	1.2
92.5°	224.0	220.1	207.3	184.6	155.0	117.4	75.0	35.8	8.7	0.6	1.5
95°	206.7	202.5	189.9	169.0	137.7	100.9	61.5	26.3	4.8	0.6	1.5
97.5°	189.6	185.8	172.6	151.7	122.1	86.6	48.7	18.5	2.4	0.6	1.2
100°	173.8	169.3	157.4	136.5	106.6	72.3	37.6	11.9	1.5	0.6	1.2
102.5°	157.1	153.5	141.3	121.0	90.5	58.8	28.1	7.5	0.6	0.6	0.9
105°	142.2	137.7	125.7	104.8	77.1	46.3	19.7	4.5	0.6	0.6	0.9



TEST NUMBER: P550860

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	92.6	89.0	78.5	60.9	39.1	18.2	5.4	0.9	0.9	0.9	0.9
115°	77.3	72.0	62.7	47.2	29.0	11.9	2.7	0.9	0.9	0.9	0.9
117.5°	61.8	57.3	50.8	35.8	19.1	7.8	1.5	0.9	0.9	0.9	0.9
120°	48.4	44.2	36.7	24.8	12.8	4.5	0.6	0.9	0.9	0.9	0.9
122.5°	34.6	31.4	24.8	16.1	7.8	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.0	21.2	16.4	9.9	4.8	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.9	13.4	9.6	5.7	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.4	7.5	5.7	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.8	4.5	3.0	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P550860

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-86-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	234.4	234.4	234.4
2.5°	223.1	218.9	217.7
5°	211.1	204.3	200.4
7.5°	199.2	189.9	185.5
10°	188.1	175.0	170.2
12.5°	175.0	159.8	152.3
15°	162.5	142.8	135.6
17.5°	148.4	126.3	118.0
20°	135.3	109.9	101.2
22.5°	120.4	93.8	84.2
25°	106.9	77.6	66.9
27.5°	92.0	61.2	52.0
30°	77.9	46.9	37.6
32.5°	64.5	34.3	26.0
35°	52.0	23.3	16.4
37.5°	40.0	14.3	8.4
40°	29.0	7.5	3.9
42.5°	19.4	3.6	2.1
45°	11.9	1.8	0.0
47.5°	6.9	0.0	0.0
50°	3.6	0.0	0.0
52.5°	1.5	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	125.4	121.8	109.9	90.2	63.0	35.2	13.1	2.4	0.6	0.9	0.9
110°	109.3	106.3	94.1	75.0	50.8	26.3	8.7	1.5	0.9	0.9	0.9







107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)