

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: P550991

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-88-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: P550991  
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-LD4-1STD-30-UNV-93-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

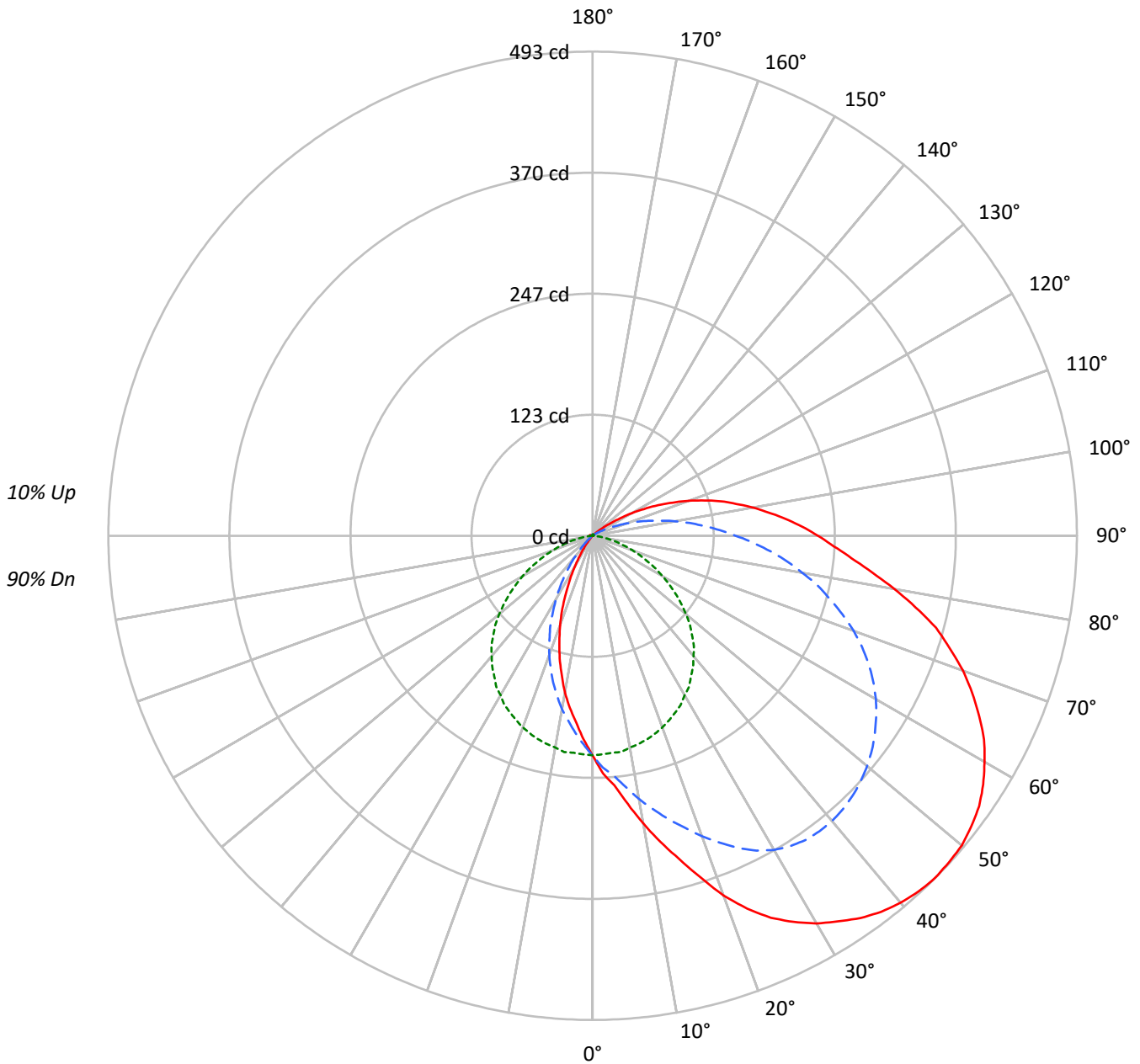
Lumens per Lamp: N/A  
Luminaire Lumens: 1105.1 lumens  
Efficiency: N/A  
Efficacy: 66.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
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: P550991

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-88-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550991

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-88-ED1D-90

**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°	2406	2406	2406
5°	2641	2371	1978
10°	2988	2342	1630
15°	3349	2312	1271
20°	3778	2275	935
25°	4133	2230	614
30°	4397	2172	346
35°	4625	2108	153
40°	4827	2031	37
45°	5002	1934	0
50°	5148	1806	0
55°	5259	1642	0
60°	5315	1451	0
65°	5337	1235	0
70°	5319	1007	0
75°	5251	743	4
80°	5039	453	23
85°	4870	219	31



TEST NUMBER: P550991

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-88-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.4	1.9
10°-20°	64.1	5.8
20°-30°	103.8	9.4
30°-40°	133.4	12.1
40°-50°	151.0	13.7
50°-60°	156.4	14.2
60°-70°	147.5	13.3
70°-80°	123.6	11.2
80°-90°	89.6	8.1
90°-100°	58.9	5.3
100°-110°	34.0	3.1
110°-120°	15.0	1.4
120°-130°	4.1	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	189.3	17.1
0°-40°	322.7	29.2
0°-60°	630.0	57.0
0°-90°	990.7	89.7
90°-120°	107.9	9.8
90°-150°	113.6	10.3
90°-180°	114.0	10.3
0°-180°	1105.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	224	224	224	224	224	
5°	255	245	222	201	191	26
15°	341	299	214	155	129	98
25°	429	351	199	102	64	198
35°	475	378	174	50	16	298
45°	493	374	143	11	0	381
55°	480	351	103	0	0	429
65°	434	310	62	0	0	430
75°	362	250	26	0	0	380
85°	265	182	4	1	2	226
90°	230	146	1	2	2	126
95°	197	114	1	2	3	155
105°	136	59	1	1	2	143
115°	74	20	1	1	1	74
125°	22	3	1	1	1	22
135°	1	1	1	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	1	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550991

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-88-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	223.5	223.5	223.5	223.5	223.5	223.5	223.5	223.5	223.5	223.5	223.5
2.5°	242.3	242.0	241.2	239.7	237.8	234.3	231.5	228.9	225.5	222.7	217.3
5°	255.1	253.7	252.6	251.1	246.6	243.4	238.3	232.6	227.2	221.8	211.0
7.5°	275.6	273.3	271.6	267.6	261.4	254.3	246.3	240.9	237.2	222.1	203.6
10°	297.5	295.6	292.1	285.0	277.3	267.1	255.7	242.9	231.5	219.0	197.0
12.5°	319.2	316.3	311.5	302.4	291.6	278.8	263.1	248.0	231.8	217.0	189.3
15°	340.8	337.7	332.6	321.5	307.2	290.4	271.4	252.3	233.2	214.4	181.4
17.5°	364.5	360.2	352.5	340.0	322.0	301.2	278.8	255.7	232.6	211.3	172.8
20°	389.8	383.8	375.6	358.8	337.7	313.2	286.2	259.1	232.3	207.6	163.2
22.5°	410.9	404.9	395.8	378.4	353.1	323.2	292.4	261.4	231.2	203.3	154.0
25°	429.1	424.3	414.3	394.4	367.6	333.7	298.4	263.1	229.5	198.7	144.4
27.5°	443.3	438.8	427.7	407.2	379.8	343.1	303.0	263.9	227.2	194.2	134.4
30°	455.9	451.3	437.9	416.8	388.1	350.5	307.5	264.2	224.4	187.4	123.6
32.5°	465.5	461.3	447.6	425.1	393.8	355.6	310.1	263.9	220.7	182.5	111.9
35°	475.2	470.9	455.0	431.1	398.1	357.9	312.1	262.5	216.1	174.5	100.8
37.5°	482.6	477.8	461.6	435.1	400.0	358.5	311.8	260.5	211.3	168.0	89.7
40°	487.7	482.6	465.3	437.3	400.6	357.6	309.5	257.1	205.6	159.7	78.0
42.5°	491.2	485.5	467.0	440.8	399.5	355.3	306.1	252.8	199.3	152.6	66.9
45°	492.9	486.9	467.2	437.9	397.5	351.1	301.0	247.4	192.5	142.9	55.8
47.5°	492.0	485.5	465.8	434.8	393.8	346.5	295.3	240.9	184.2	134.4	45.3
50°	490.6	483.8	462.7	430.8	388.7	340.8	289.0	232.9	175.7	123.9	35.9
52.5°	486.0	479.2	459.3	425.1	382.7	334.3	280.5	224.7	166.6	113.6	27.3
55°	480.3	474.1	453.3	420.0	375.0	326.3	272.5	215.8	157.7	103.1	19.6
57.5°	471.5	465.8	445.9	411.7	367.3	317.5	263.7	206.1	146.6	92.5	13.7
60°	460.7	455.0	435.6	402.3	358.5	307.5	254.0	196.2	136.7	82.0	8.5
62.5°	449.3	443.9	423.7	390.7	347.4	297.0	243.4	186.2	126.1	72.3	5.1
65°	434.2	429.1	410.9	376.7	335.1	285.6	231.8	174.3	115.3	61.5	2.8
67.5°	418.3	413.7	395.2	363.9	320.9	273.1	219.8	162.6	103.9	52.1	1.4
70°	401.2	395.5	378.4	346.5	306.4	258.8	206.7	150.6	93.1	43.0	0.0
72.5°	381.3	377.0	360.5	330.3	289.6	243.7	193.3	137.5	81.1	34.2	0.3
75°	361.9	356.5	341.4	312.9	273.1	227.8	178.5	125.3	69.5	26.2	0.3
77.5°	336.8	335.1	320.9	293.3	257.4	212.4	162.3	110.5	58.4	18.8	0.3
80°	311.8	310.1	299.0	273.6	239.2	194.2	147.2	96.5	47.6	12.5	0.3
82.5°	287.0	284.7	274.2	253.1	220.7	178.8	131.5	82.6	37.6	7.7	0.3
85°	264.8	262.0	250.6	231.2	201.6	161.4	115.3	68.9	27.9	4.3	0.6
87.5°	245.7	243.7	231.2	211.3	182.2	145.2	101.1	55.8	19.6	2.0	0.9
90°	229.5	225.2	214.1	193.0	164.0	127.3	86.0	44.7	13.1	1.1	1.1
92.5°	213.5	209.8	197.6	176.0	147.8	111.9	71.5	34.2	8.3	0.6	1.4
95°	197.0	193.0	181.1	161.2	131.3	96.2	58.7	25.1	4.6	0.6	1.4
97.5°	180.8	177.1	164.6	144.6	116.5	82.6	46.4	17.7	2.3	0.6	1.1
100°	165.7	161.4	150.1	130.1	101.6	68.9	35.9	11.4	1.4	0.6	1.1
102.5°	149.8	146.4	134.7	115.3	86.3	56.1	26.8	7.1	0.6	0.6	0.9
105°	135.5	131.3	119.9	99.9	73.5	44.1	18.8	4.3	0.6	0.6	0.9



TEST NUMBER: P550991

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	88.3	84.9	74.9	58.1	37.3	17.4	5.1	0.9	0.9	0.9	0.9
115°	73.7	68.6	59.8	45.0	27.6	11.4	2.6	0.9	0.9	0.9	0.9
117.5°	58.9	54.7	48.4	34.2	18.2	7.4	1.4	0.9	0.9	0.9	0.9
120°	46.1	42.1	35.0	23.6	12.2	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.0	29.9	23.6	15.4	7.4	2.0	0.9	0.9	1.1	1.1	0.9
125°	21.9	20.2	15.7	9.4	4.6	0.9	0.9	0.9	1.1	1.1	0.9
127.5°	14.2	12.8	9.1	5.4	2.0	0.9	0.9	1.1	1.1	1.1	0.9
130°	8.0	7.1	5.4	3.1	0.9	0.9	0.9	1.1	1.1	1.1	0.9
132.5°	4.6	4.3	2.8	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.1
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: P550991

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	223.5	223.5	223.5
2.5°	212.7	208.7	207.6
5°	201.3	194.8	191.1
7.5°	189.9	181.1	176.8
10°	179.4	166.9	162.3
12.5°	166.9	152.3	145.2
15°	154.9	136.1	129.3
17.5°	141.5	120.4	112.5
20°	129.0	104.8	96.5
22.5°	114.7	89.4	80.3
25°	101.9	74.0	63.8
27.5°	87.7	58.4	49.5
30°	74.3	44.7	35.9
32.5°	61.5	32.7	24.8
35°	49.5	22.2	15.7
37.5°	38.2	13.7	8.0
40°	27.6	7.1	3.7
42.5°	18.5	3.4	2.0
45°	11.4	1.7	0.0
47.5°	6.5	0.0	0.0
50°	3.4	0.0	0.0
52.5°	1.4	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	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.8
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3





TEST NUMBER: P550991

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.9	1.1	1.4
117.5°	0.9	1.1	1.1
120°	0.9	0.9	1.1
122.5°	0.9	0.9	1.1
125°	0.9	0.9	1.1
127.5°	1.1	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.1	0.9	0.9
135°	1.1	0.9	0.9
137.5°	1.1	0.9	0.9
140°	1.1	0.9	0.9
142.5°	1.1	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°	1.1	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°	119.6	116.2	104.8	86.0	60.1	33.6	12.5	2.3	0.6	0.9	0.9
110°	104.2	101.4	89.7	71.5	48.4	25.1	8.3	1.4	0.9	0.9	0.9







107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)