

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: P550993

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-94-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: P550993  
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-93-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,  
AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

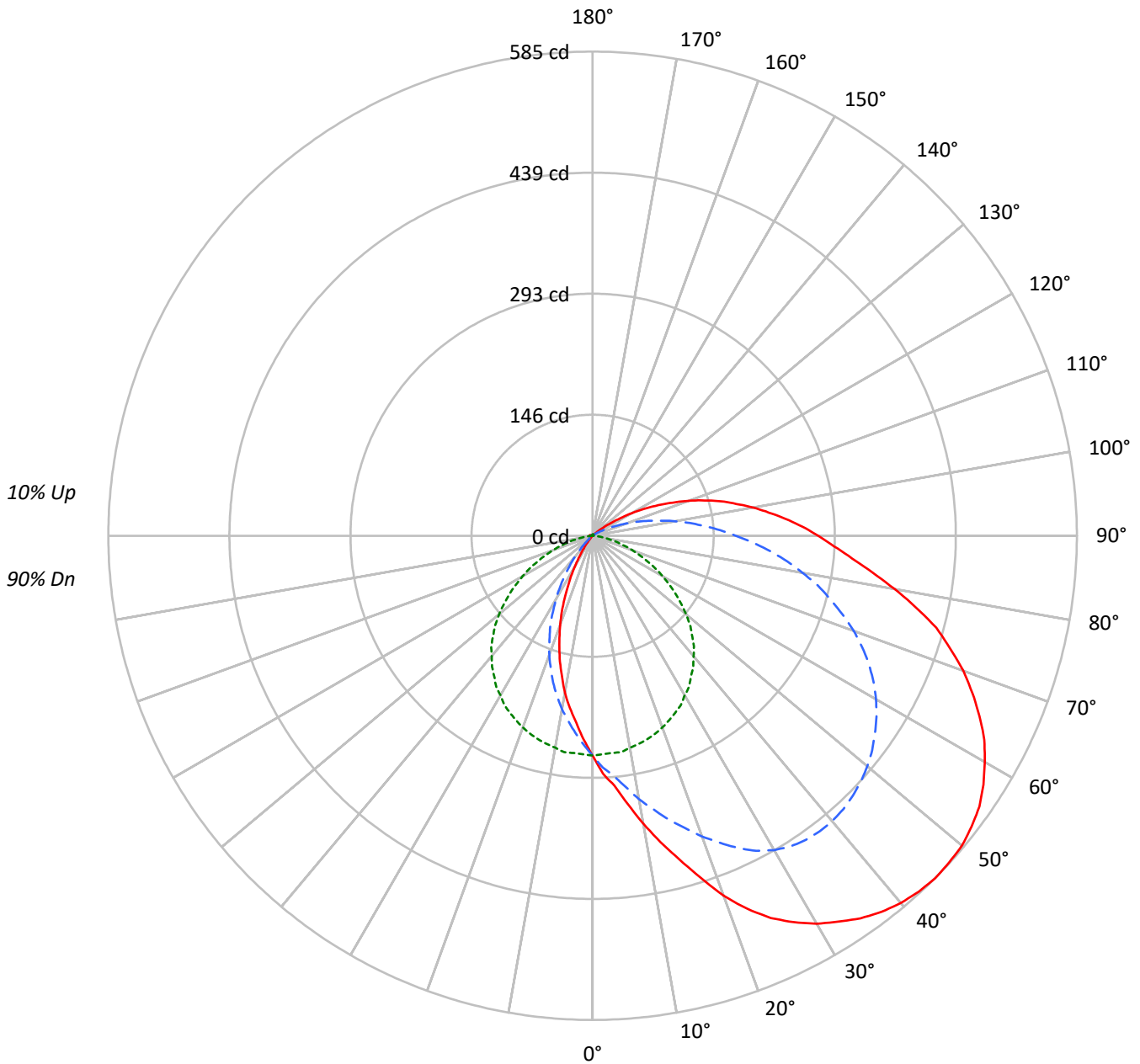
Lumens per Lamp: N/A  
Luminaire Lumens: 1312.1 lumens  
Efficiency: N/A  
Efficacy: 78.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-94-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°	2857	2857	2857
5°	3136	2815	2348
10°	3549	2781	1936
15°	3977	2745	1508
20°	4485	2701	1111
25°	4907	2649	729
30°	5221	2579	411
35°	5491	2504	181
40°	5732	2412	44
45°	5939	2296	0
50°	6112	2144	0
55°	6244	1949	0
60°	6311	1724	0
65°	6337	1466	0
70°	6315	1195	0
75°	6235	882	4
80°	5983	540	27
85°	5782	259	37



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.4	1.9
10°-20°	76.1	5.8
20°-30°	123.3	9.4
30°-40°	158.3	12.1
40°-50°	179.2	13.7
50°-60°	185.7	14.2
60°-70°	175.1	13.3
70°-80°	146.8	11.2
80°-90°	106.4	8.1
90°-100°	69.9	5.3
100°-110°	40.4	3.1
110°-120°	17.8	1.4
120°-130°	4.8	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	224.8	17.1
0°-40°	383.1	29.2
0°-60°	748.1	57.0
0°-90°	1176.3	89.7
90°-120°	128.1	9.8
90°-150°	134.8	10.3
90°-180°	136.0	10.4
0°-180°	1312.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	265	265	265	265	265	
5°	303	291	263	239	227	31
15°	405	355	255	184	154	117
25°	510	416	236	121	76	235
35°	564	449	207	59	19	354
45°	585	444	170	14	0	452
55°	570	416	122	0	0	509
65°	516	368	73	0	0	510
75°	430	297	31	0	0	451
85°	314	216	5	1	2	269
90°	272	173	1	2	2	149
95°	234	135	1	2	3	184
105°	161	70	1	2	3	170
115°	88	23	1	1	2	88
125°	26	3	1	1	1	26
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°	265.4	265.4	265.4	265.4	265.4	265.4	265.4	265.4	265.4	265.4	265.4
2.5°	287.7	287.4	286.3	284.7	282.3	278.2	274.9	271.8	267.8	264.4	257.9
5°	302.9	301.2	299.9	298.2	292.8	289.1	283.0	276.2	269.8	263.4	250.5
7.5°	327.3	324.5	322.5	317.8	310.3	301.9	292.4	286.0	281.6	263.7	241.7
10°	353.3	350.9	346.9	338.4	329.3	317.1	303.6	288.4	274.9	260.0	233.9
12.5°	379.0	375.6	369.9	359.0	346.2	331.0	312.4	294.5	275.2	257.6	224.8
15°	404.7	401.0	394.9	381.7	364.8	344.8	322.2	299.5	276.9	254.6	215.4
17.5°	432.7	427.7	418.5	403.7	382.4	357.7	331.0	303.6	276.2	250.8	205.2
20°	462.8	455.7	445.9	426.0	401.0	371.9	339.8	307.6	275.9	246.5	193.7
22.5°	487.8	480.7	469.9	449.3	419.2	383.7	347.2	310.3	274.5	241.4	182.9
25°	509.5	503.7	491.9	468.2	436.5	396.2	354.3	312.4	272.5	236.0	171.4
27.5°	526.4	521.0	507.8	483.4	451.0	407.4	359.7	313.4	269.8	230.6	159.6
30°	541.3	535.8	520.0	494.9	460.8	416.2	365.1	313.7	266.4	222.5	146.7
32.5°	552.7	547.7	531.4	504.7	467.6	422.3	368.2	313.4	262.0	216.7	132.9
35°	564.2	559.2	540.2	511.8	472.6	425.0	370.5	311.7	256.6	207.2	119.7
37.5°	573.0	567.3	548.0	516.6	475.0	425.6	370.2	309.3	250.8	199.5	106.5
40°	579.1	573.0	552.4	519.3	475.7	424.6	367.5	305.3	244.1	189.7	92.6
42.5°	583.2	576.4	554.4	523.3	474.3	421.9	363.4	300.2	236.7	181.2	79.4
45°	585.2	578.1	554.8	520.0	471.9	416.8	357.3	293.8	228.5	169.7	66.3
47.5°	584.2	576.4	553.1	516.2	467.6	411.4	350.6	286.0	218.7	159.6	53.8
50°	582.5	574.4	549.4	511.5	461.5	404.7	343.1	276.5	208.6	147.1	42.6
52.5°	577.1	569.0	545.3	504.7	454.4	396.9	333.0	266.7	197.8	134.9	32.5
55°	570.3	562.9	538.2	498.7	445.2	387.4	323.5	256.3	187.3	122.4	23.3
57.5°	559.8	553.1	529.4	488.9	436.1	376.9	313.1	244.8	174.1	109.9	16.2
60°	547.0	540.2	517.2	477.7	425.6	365.1	301.6	232.9	162.3	97.4	10.1
62.5°	533.5	527.1	503.1	463.8	412.4	352.6	289.1	221.1	149.8	85.9	6.1
65°	515.6	509.5	487.8	447.3	397.9	339.1	275.2	206.9	136.9	73.0	3.4
67.5°	496.6	491.2	469.2	432.1	381.0	324.2	261.0	193.0	123.4	61.9	1.7
70°	476.3	469.6	449.3	411.4	363.8	307.3	245.4	178.8	110.5	51.0	0.0
72.5°	452.7	447.6	428.0	392.2	343.8	289.4	229.6	163.3	96.4	40.6	0.3
75°	429.7	423.3	405.3	371.5	324.2	270.5	212.0	148.8	82.5	31.1	0.3
77.5°	399.9	397.9	381.0	348.2	305.6	252.2	192.7	131.2	69.3	22.3	0.3
80°	370.2	368.2	355.0	324.9	284.0	230.6	174.8	114.6	56.5	14.9	0.3
82.5°	340.8	338.1	325.6	300.5	262.0	212.3	156.2	98.0	44.6	9.1	0.3
85°	314.4	311.0	297.5	274.5	239.4	191.7	136.9	81.8	33.1	5.1	0.7
87.5°	291.8	289.4	274.5	250.8	216.4	172.4	120.0	66.3	23.3	2.4	1.0
90°	272.5	267.4	254.2	229.2	194.7	151.1	102.1	53.1	15.6	1.4	1.4
92.5°	253.6	249.2	234.6	208.9	175.5	132.9	84.9	40.6	9.8	0.7	1.7
95°	233.9	229.2	215.0	191.3	155.9	114.3	69.6	29.8	5.4	0.7	1.7
97.5°	214.7	210.3	195.4	171.7	138.3	98.0	55.1	21.0	2.7	0.7	1.4
100°	196.8	191.7	178.2	154.5	120.7	81.8	42.6	13.5	1.7	0.7	1.4
102.5°	177.8	173.8	159.9	136.9	102.4	66.6	31.8	8.5	0.7	0.7	1.0
105°	160.9	155.9	142.3	118.7	87.2	52.4	22.3	5.1	0.7	0.7	1.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	104.8	100.7	88.9	69.0	44.3	20.6	6.1	1.0	1.0	1.0	1.0
115°	87.6	81.5	71.0	53.4	32.8	13.5	3.0	1.0	1.0	1.0	1.0
117.5°	70.0	64.9	57.5	40.6	21.6	8.8	1.7	1.0	1.0	1.0	1.0
120°	54.8	50.0	41.6	28.1	14.5	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.2	35.5	28.1	18.3	8.8	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.0	24.0	18.6	11.2	5.4	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	16.9	15.2	10.8	6.4	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.5	8.5	6.4	3.7	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.4	5.1	3.4	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	265.4	265.4	265.4
2.5°	252.5	247.8	246.5
5°	239.0	231.2	226.8
7.5°	225.5	215.0	209.9
10°	213.0	198.1	192.7
12.5°	198.1	180.9	172.4
15°	183.9	161.6	153.5
17.5°	168.0	143.0	133.5
20°	153.1	124.4	114.6
22.5°	136.2	106.2	95.3
25°	121.0	87.9	75.7
27.5°	104.1	69.3	58.8
30°	88.2	53.1	42.6
32.5°	73.0	38.9	29.4
35°	58.8	26.4	18.6
37.5°	45.3	16.2	9.5
40°	32.8	8.5	4.4
42.5°	22.0	4.1	2.4
45°	13.5	2.0	0.0
47.5°	7.8	0.0	0.0
50°	4.1	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.0
87.5°	1.7	2.0	2.4
90°	2.0	2.4	2.4
92.5°	2.0	2.7	2.7
95°	2.4	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.4	3.0	3.4
102.5°	2.0	3.0	3.0
105°	1.7	2.4	2.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	142.0	137.9	124.4	102.1	71.3	39.9	14.9	2.7	0.7	1.0	1.0
110°	123.7	120.4	106.5	84.9	57.5	29.8	9.8	1.7	1.0	1.0	1.0







107.5°	1.4	2.0	2.4
110°	1.4	1.7	2.0



(END OF REPORT)