

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: P550990

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-87-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: P550990  
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-93-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

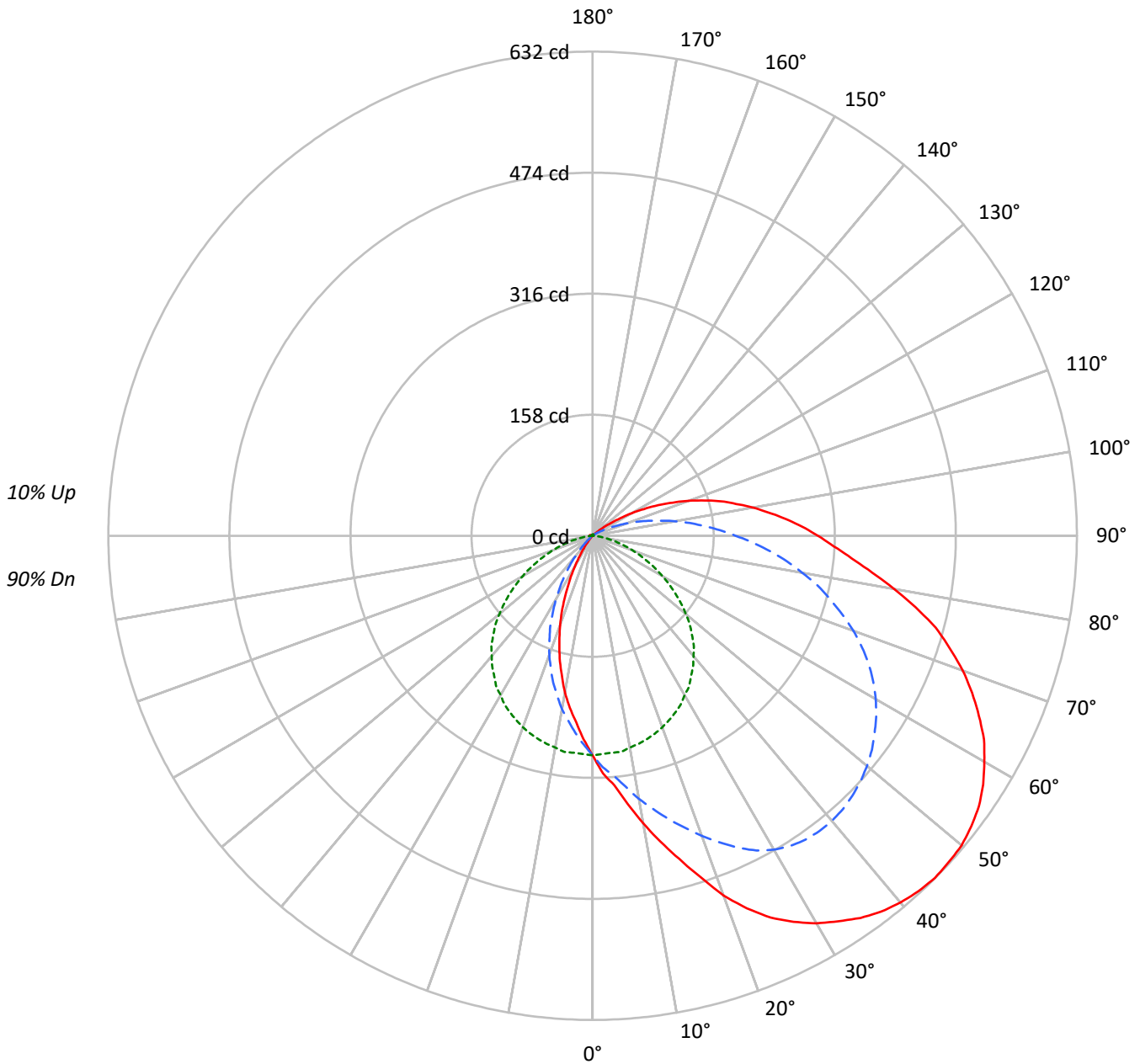
Lumens per Lamp: N/A  
Luminaire Lumens: 1416.1 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-93-87-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°	3083	3083	3083
5°	3384	3038	2534
10°	3830	3001	2089
15°	4291	2962	1628
20°	4841	2914	1199
25°	5296	2858	787
30°	5635	2783	444
35°	5927	2703	196
40°	6187	2603	47
45°	6410	2479	0
50°	6597	2313	0
55°	6739	2104	0
60°	6811	1860	0
65°	6839	1583	0
70°	6816	1291	0
75°	6729	953	6
80°	6456	584	29
85°	6240	280	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.4	1.9
10°-20°	82.1	5.8
20°-30°	133.0	9.4
30°-40°	170.9	12.1
40°-50°	193.4	13.7
50°-60°	200.4	14.2
60°-70°	189.0	13.3
70°-80°	158.4	11.2
80°-90°	114.8	8.1
90°-100°	75.5	5.3
100°-110°	43.6	3.1
110°-120°	19.2	1.4
120°-130°	5.2	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	242.6	17.1
0°-40°	413.5	29.2
0°-60°	807.4	57.0
0°-90°	1269.6	89.7
90°-120°	138.3	9.8
90°-150°	145.5	10.3
90°-180°	146.0	10.3
0°-180°	1416.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	286	286	286	286	286	
5°	327	314	284	258	245	33
15°	437	383	275	198	166	126
25°	550	449	255	131	82	254
35°	609	484	224	64	20	382
45°	632	480	183	15	0	488
55°	616	449	132	0	0	550
65°	556	398	79	0	0	551
75°	464	321	34	0	0	486
85°	339	233	6	2	2	290
90°	294	187	2	2	3	161
95°	252	146	1	3	3	198
105°	174	75	1	2	3	183
115°	94	25	1	1	2	95
125°	28	3	2	1	2	28
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	286.4	286.4	286.4	286.4	286.4	286.4	286.4	286.4	286.4	286.4	286.4
2.5°	310.5	310.1	309.0	307.2	304.7	300.3	296.6	293.4	289.0	285.3	278.4
5°	326.9	325.1	323.6	321.8	316.0	312.0	305.4	298.1	291.2	284.2	270.4
7.5°	353.2	350.3	348.1	343.0	335.0	325.8	315.6	308.7	303.9	284.6	260.9
10°	381.3	378.7	374.4	365.2	355.4	342.2	327.7	311.2	296.6	280.6	252.5
12.5°	409.0	405.4	399.2	387.5	373.6	357.2	337.1	317.8	297.0	278.0	242.6
15°	436.7	432.7	426.2	411.9	393.7	372.2	347.7	323.3	298.8	274.7	232.4
17.5°	467.0	461.6	451.7	435.7	412.7	386.0	357.2	327.7	298.1	270.7	221.5
20°	499.5	491.8	481.3	459.7	432.7	401.4	366.7	332.0	297.7	266.0	209.1
22.5°	526.5	518.8	507.2	484.9	452.4	414.1	374.7	335.0	296.3	260.5	197.4
25°	549.9	543.7	530.9	505.3	471.0	427.6	382.4	337.1	294.1	254.7	185.0
27.5°	568.1	562.3	548.0	521.8	486.7	439.7	388.2	338.2	291.2	248.8	172.2
30°	584.2	578.3	561.2	534.2	497.3	449.2	394.1	338.6	287.5	240.1	158.4
32.5°	596.6	591.1	573.6	544.8	504.6	455.7	397.3	338.2	282.8	233.9	143.4
35°	609.0	603.5	583.1	552.4	510.1	458.6	399.9	336.4	276.9	223.7	129.2
37.5°	618.5	612.3	591.5	557.5	512.6	459.4	399.5	333.9	270.7	215.3	114.9
40°	625.0	618.5	596.2	560.4	513.4	458.3	396.6	329.5	263.4	204.7	100.0
42.5°	629.4	622.1	598.4	564.8	511.9	455.4	392.2	324.0	255.4	195.6	85.7
45°	631.6	623.9	598.8	561.2	509.4	449.9	385.7	317.1	246.7	183.2	71.5
47.5°	630.5	622.1	596.9	557.2	504.6	444.0	378.4	308.7	236.1	172.2	58.0
50°	628.7	619.9	592.9	552.0	498.0	436.7	370.3	298.5	225.1	158.7	46.0
52.5°	622.8	614.1	588.5	544.8	490.4	428.4	359.4	287.9	213.4	145.6	35.0
55°	615.5	607.5	580.9	538.2	480.5	418.1	349.2	276.6	202.1	132.1	25.2
57.5°	604.2	596.9	571.4	527.6	470.7	406.8	337.9	264.2	187.9	118.6	17.5
60°	590.4	583.1	558.3	515.6	459.4	394.1	325.5	251.4	175.1	105.1	10.9
62.5°	575.8	568.8	542.9	500.6	445.1	380.6	312.0	238.6	161.6	92.7	6.6
65°	556.4	549.9	526.5	482.7	429.5	366.0	297.0	223.3	147.8	78.8	3.6
67.5°	536.0	530.2	506.4	466.3	411.2	349.9	281.7	208.3	133.2	66.8	1.8
70°	514.1	506.8	484.9	444.0	392.6	331.7	264.9	193.0	119.3	55.1	0.0
72.5°	488.6	483.1	461.9	423.2	371.1	312.3	247.7	176.2	104.0	43.8	0.4
75°	463.7	456.8	437.5	401.0	349.9	291.9	228.8	160.5	89.0	33.6	0.4
77.5°	431.6	429.5	411.2	375.8	329.8	272.2	208.0	141.6	74.8	24.1	0.4
80°	399.5	397.3	383.1	350.6	306.5	248.8	188.6	123.7	60.9	16.1	0.4
82.5°	367.8	364.9	351.4	324.4	282.8	229.1	168.6	105.8	48.2	9.9	0.4
85°	339.3	335.7	321.1	296.3	258.3	206.9	147.8	88.3	35.8	5.5	0.7
87.5°	314.9	312.3	296.3	270.7	233.5	186.1	129.5	71.5	25.2	2.6	1.1
90°	294.1	288.6	274.4	247.4	210.2	163.1	110.2	57.3	16.8	1.5	1.5
92.5°	273.7	268.9	253.2	225.5	189.4	143.4	91.6	43.8	10.6	0.7	1.8
95°	252.5	247.4	232.1	206.5	168.2	123.3	75.2	32.1	5.8	0.7	1.8
97.5°	231.7	226.9	210.9	185.4	149.2	105.8	59.5	22.6	2.9	0.7	1.5
100°	212.4	206.9	192.3	166.7	130.3	88.3	46.0	14.6	1.8	0.7	1.5
102.5°	191.9	187.5	172.6	147.8	110.6	71.9	34.3	9.1	0.7	0.7	1.1
105°	173.7	168.2	153.6	128.1	94.1	56.6	24.1	5.5	0.7	0.7	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	113.1	108.7	96.0	74.4	47.8	22.3	6.6	1.1	1.1	1.1	1.1
115°	94.5	87.9	76.6	57.6	35.4	14.6	3.3	1.1	1.1	1.1	1.1
117.5°	75.5	70.1	62.0	43.8	23.4	9.5	1.8	1.1	1.1	1.1	1.1
120°	59.1	54.0	44.9	30.3	15.7	5.5	0.7	1.1	1.1	1.1	1.1
122.5°	42.3	38.3	30.3	19.7	9.5	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.1	25.9	20.1	12.0	5.8	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.2	16.4	11.7	6.9	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.2	9.1	6.9	4.0	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.8	5.5	3.6	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	286.4	286.4	286.4
2.5°	272.6	267.4	266.0
5°	258.0	249.6	244.8
7.5°	243.4	232.1	226.6
10°	229.9	213.8	208.0
12.5°	213.8	195.2	186.1
15°	198.5	174.4	165.7
17.5°	181.3	154.3	144.1
20°	165.3	134.3	123.7
22.5°	147.0	114.6	102.9
25°	130.6	94.9	81.7
27.5°	112.4	74.8	63.5
30°	95.2	57.3	46.0
32.5°	78.8	42.0	31.7
35°	63.5	28.5	20.1
37.5°	48.9	17.5	10.2
40°	35.4	9.1	4.7
42.5°	23.7	4.4	2.6
45°	14.6	2.2	0.0
47.5°	8.4	0.0	0.0
50°	4.4	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	2.9	2.9
95°	2.6	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.6	3.3	3.6
102.5°	2.2	3.3	3.3
105°	1.8	2.6	2.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	153.2	148.9	134.3	110.2	77.0	43.1	16.1	2.9	0.7	1.1	1.1
110°	133.5	129.9	114.9	91.6	62.0	32.1	10.6	1.8	1.1	1.1	1.1







107.5°	1.5	2.2	2.6
110°	1.5	1.8	2.2



(END OF REPORT)