

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: P550994

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-94-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: P550994  
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  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,  
AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

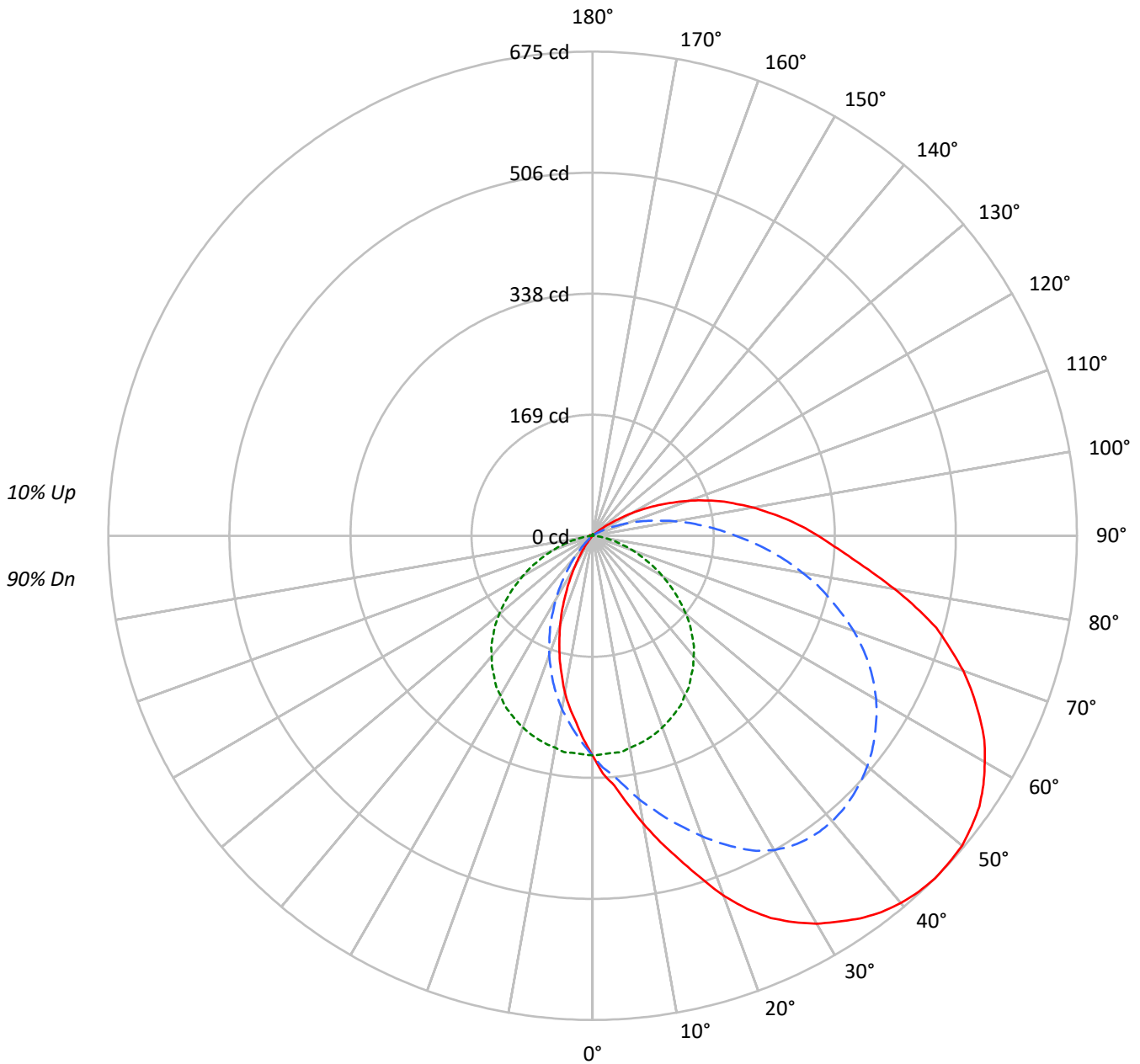
Lumens per Lamp: N/A  
Luminaire Lumens: 1514.1 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

### 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°	3296	3296	3296
5°	3618	3248	2710
10°	4095	3208	2234
15°	4589	3168	1740
20°	5176	3116	1282
25°	5662	3056	842
30°	6024	2976	475
35°	6337	2889	209
40°	6615	2784	50
45°	6853	2649	0
50°	7053	2473	0
55°	7205	2248	0
60°	7282	1989	0
65°	7312	1693	0
70°	7288	1380	0
75°	7194	1018	6
80°	6904	624	32
85°	6673	300	42



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.3	1.9
10°-20°	87.8	5.8
20°-30°	142.2	9.4
30°-40°	182.7	12.1
40°-50°	206.8	13.7
50°-60°	214.3	14.2
60°-70°	202.1	13.3
70°-80°	169.4	11.2
80°-90°	122.8	8.1
90°-100°	80.7	5.3
100°-110°	46.6	3.1
110°-120°	20.6	1.4
120°-130°	5.6	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°	259.4	17.1
0°-40°	442.1	29.2
0°-60°	863.2	57.0
0°-90°	1357.5	89.7
90°-120°	147.9	9.8
90°-150°	155.6	10.3
90°-180°	157.0	10.4
0°-180°	1514.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	306	306	306	306	306	
5°	350	336	304	276	262	35
15°	467	409	294	212	177	135
25°	588	480	272	140	87	272
35°	651	518	239	68	22	408
45°	675	513	196	16	0	521
55°	658	480	141	0	0	588
65°	595	425	84	0	0	589
75°	496	343	36	0	0	520
85°	363	249	6	2	2	310
90°	314	200	2	2	3	172
95°	270	156	1	3	4	212
105°	186	81	1	2	3	196
115°	101	27	1	1	2	101
125°	30	4	2	1	2	30
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°	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2
2.5°	332.0	331.6	330.4	328.5	325.8	321.1	317.2	313.7	309.0	305.1	297.7
5°	349.5	347.6	346.0	344.1	337.8	333.6	326.5	318.7	311.3	303.9	289.1
7.5°	377.6	374.5	372.2	366.7	358.1	348.4	337.5	330.0	325.0	304.3	278.9
10°	407.7	404.9	400.3	390.5	380.0	365.9	350.3	332.8	317.2	300.0	270.0
12.5°	437.3	433.4	426.8	414.3	399.5	381.9	360.5	339.8	317.6	297.3	259.4
15°	467.0	462.7	455.7	440.4	420.9	397.9	371.8	345.6	319.5	293.8	248.5
17.5°	499.4	493.5	483.0	465.8	441.2	412.7	381.9	350.3	318.7	289.5	236.8
20°	534.1	525.9	514.6	491.6	462.7	429.1	392.1	355.0	318.3	284.4	223.5
22.5°	562.9	554.8	542.3	518.5	483.8	442.8	400.7	358.1	316.8	278.5	211.1
25°	587.9	581.3	567.6	540.3	503.6	457.2	408.8	360.5	314.4	272.3	197.8
27.5°	607.4	601.2	586.0	557.9	520.4	470.1	415.1	361.6	311.3	266.1	184.1
30°	624.6	618.3	600.0	571.1	531.7	480.2	421.3	362.0	307.4	256.7	169.3
32.5°	637.8	632.0	613.3	582.5	539.5	487.3	424.8	361.6	302.3	250.1	153.3
35°	651.1	645.3	623.4	590.6	545.4	490.4	427.6	359.7	296.1	239.1	138.1
37.5°	661.3	654.6	632.4	596.1	548.1	491.2	427.2	357.0	289.5	230.2	122.9
40°	668.3	661.3	637.5	599.2	548.9	490.0	424.1	352.3	281.7	218.9	106.9
42.5°	673.0	665.2	639.8	603.9	547.3	486.9	419.4	346.4	273.1	209.1	91.7
45°	675.3	667.1	640.2	600.0	544.6	481.0	412.4	339.0	263.7	195.8	76.5
47.5°	674.1	665.2	638.2	595.7	539.5	474.8	404.6	330.0	252.4	184.1	62.0
50°	672.2	662.8	633.9	590.3	532.5	467.0	396.0	319.1	240.7	169.7	49.2
52.5°	665.9	656.6	629.3	582.5	524.3	458.0	384.3	307.8	228.2	155.7	37.5
55°	658.1	649.6	621.1	575.4	513.8	447.1	373.3	295.7	216.1	141.2	26.9
57.5°	646.0	638.2	610.9	564.1	503.3	435.0	361.3	282.4	200.9	126.8	18.7
60°	631.2	623.4	596.9	551.2	491.2	421.3	348.0	268.8	187.3	112.4	11.7
62.5°	615.6	608.2	580.5	535.2	475.9	406.9	333.6	255.1	172.8	99.1	7.0
65°	594.9	587.9	562.9	516.1	459.2	391.3	317.6	238.8	158.0	84.3	3.9
67.5°	573.1	566.8	541.5	498.6	439.7	374.1	301.2	222.8	142.4	71.4	2.0
70°	549.7	541.9	518.5	474.8	419.8	354.6	283.2	206.4	127.6	58.9	0.0
72.5°	522.4	516.5	493.9	452.5	396.8	333.9	264.9	188.4	111.2	46.8	0.4
75°	495.8	488.4	467.8	428.7	374.1	312.1	244.6	171.7	95.2	35.9	0.4
77.5°	461.5	459.2	439.7	401.8	352.7	291.0	222.4	151.4	80.0	25.7	0.4
80°	427.2	424.8	409.6	374.9	327.7	266.1	201.7	132.3	65.2	17.2	0.4
82.5°	393.2	390.1	375.7	346.8	302.3	245.0	180.2	113.1	51.5	10.5	0.4
85°	362.8	358.9	343.3	316.8	276.2	221.2	158.0	94.4	38.2	5.9	0.8
87.5°	336.7	333.9	316.8	289.5	249.7	199.0	138.5	76.5	26.9	2.7	1.2
90°	314.4	308.6	293.4	264.5	224.7	174.4	117.8	61.2	17.9	1.6	1.6
92.5°	292.6	287.5	270.7	241.1	202.5	153.3	97.9	46.8	11.3	0.8	2.0
95°	270.0	264.5	248.1	220.8	179.8	131.9	80.4	34.3	6.2	0.8	2.0
97.5°	247.7	242.7	225.5	198.2	159.6	113.1	63.6	24.2	3.1	0.8	1.6
100°	227.1	221.2	205.6	178.3	139.3	94.4	49.2	15.6	2.0	0.8	1.6
102.5°	205.2	200.5	184.5	158.0	118.2	76.9	36.7	9.8	0.8	0.8	1.2
105°	185.7	179.8	164.2	136.9	100.7	60.5	25.7	5.9	0.8	0.8	1.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	120.9	116.3	102.6	79.6	51.1	23.8	7.0	1.2	1.2	1.2	1.2
115°	101.0	94.0	81.9	61.6	37.8	15.6	3.5	1.2	1.2	1.2	1.2
117.5°	80.8	74.9	66.3	46.8	25.0	10.1	2.0	1.2	1.2	1.2	1.2
120°	63.2	57.7	48.0	32.4	16.8	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.3	41.0	32.4	21.1	10.1	2.7	1.2	1.2	1.6	1.6	1.2
125°	30.0	27.7	21.5	12.9	6.2	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.5	17.6	12.5	7.4	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	10.9	9.8	7.4	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.2	5.9	3.9	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



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	306.2	306.2	306.2
2.5°	291.4	286.0	284.4
5°	275.8	266.8	261.8
7.5°	260.2	248.1	242.3
10°	245.8	228.6	222.4
12.5°	228.6	208.7	199.0
15°	212.2	186.5	177.1
17.5°	193.9	165.0	154.1
20°	176.7	143.6	132.3
22.5°	157.2	122.5	110.0
25°	139.7	101.4	87.4
27.5°	120.2	80.0	67.9
30°	101.8	61.2	49.2
32.5°	84.3	44.9	33.9
35°	67.9	30.4	21.5
37.5°	52.3	18.7	10.9
40°	37.8	9.8	5.1
42.5°	25.4	4.7	2.7
45°	15.6	2.3	0.0
47.5°	9.0	0.0	0.0
50°	4.7	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	2.3
87.5°	2.0	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	2.0	2.7	3.1





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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°	163.9	159.2	143.6	117.8	82.3	46.0	17.2	3.1	0.8	1.2	1.2
110°	142.8	138.9	122.9	97.9	66.3	34.3	11.3	2.0	1.2	1.2	1.2







107.5°	1.6	2.3	2.7
110°	1.6	2.0	2.3



(END OF REPORT)