

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: P550738

Luminaire Tested: **FCC-X-2-LD4-1LO-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: P550738  
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-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**

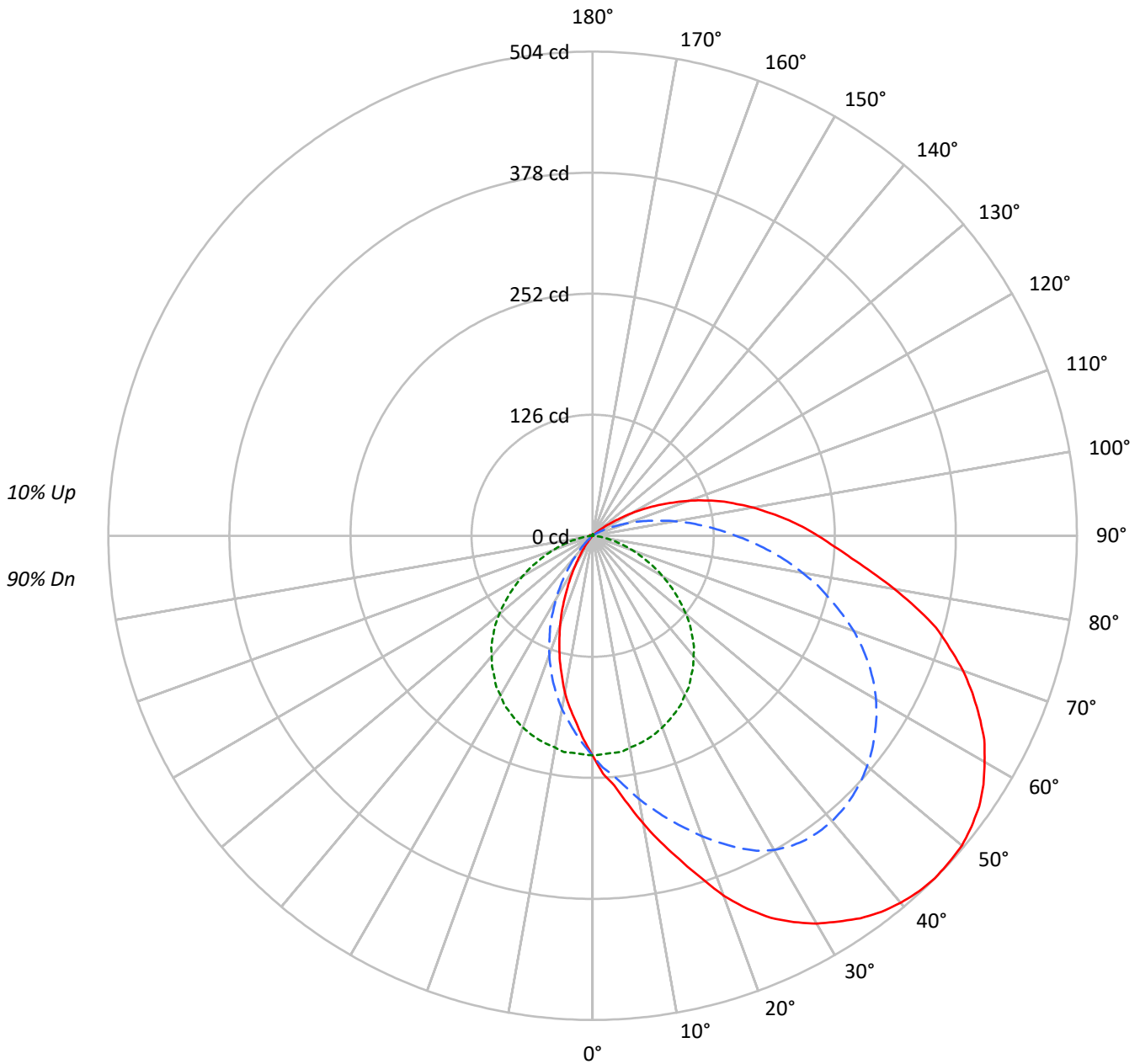
Lumens per Lamp: N/A  
Luminaire Lumens: 1130.1 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 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

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CATALOG NUMBER: FCC-X-2-LD4-1LO-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°	2461	2461	2461
5°	2701	2424	2023
10°	3057	2394	1667
15°	3425	2365	1299
20°	3863	2326	957
25°	4226	2280	628
30°	4496	2221	354
35°	4730	2157	156
40°	4937	2077	38
45°	5115	1978	0
50°	5264	1847	0
55°	5378	1678	0
60°	5435	1485	0
65°	5457	1263	0
70°	5440	1031	0
75°	5370	760	4
80°	5152	464	24
85°	4981	224	31



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.9	1.9
10°-20°	65.6	5.8
20°-30°	106.2	9.4
30°-40°	136.4	12.1
40°-50°	154.4	13.7
50°-60°	159.9	14.2
60°-70°	150.8	13.3
70°-80°	126.4	11.2
80°-90°	91.6	8.1
90°-100°	60.2	5.3
100°-110°	34.8	3.1
110°-120°	15.4	1.4
120°-130°	4.2	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°	193.6	17.1
0°-40°	330.0	29.2
0°-60°	644.3	57.0
0°-90°	1013.2	89.7
90°-120°	110.4	9.8
90°-150°	116.2	10.3
90°-180°	117.0	10.4
0°-180°	1130.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	229	229	229	229	229	
5°	261	251	227	206	195	26
15°	348	306	219	158	132	100
25°	439	359	203	104	65	203
35°	486	387	178	51	16	305
45°	504	383	146	12	0	389
55°	491	359	105	0	0	439
65°	444	317	63	0	0	439
75°	370	256	27	0	0	388
85°	271	186	4	1	2	231
90°	235	149	1	2	2	129
95°	202	116	1	2	3	158
105°	139	60	1	2	2	146
115°	75	20	1	1	2	76
125°	22	3	1	1	1	22
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°	228.6	228.6	228.6	228.6	228.6	228.6	228.6	228.6	228.6	228.6	228.6
2.5°	247.8	247.5	246.6	245.2	243.1	239.6	236.7	234.1	230.6	227.7	222.2
5°	260.9	259.4	258.3	256.8	252.2	249.0	243.7	237.9	232.4	226.8	215.8
7.5°	281.9	279.5	277.8	273.7	267.3	260.0	251.9	246.3	242.5	227.1	208.2
10°	304.3	302.2	298.7	291.5	283.6	273.1	261.5	248.4	236.7	223.9	201.5
12.5°	326.4	323.5	318.5	309.2	298.2	285.1	269.0	253.6	237.0	221.9	193.6
15°	348.5	345.3	340.1	328.7	314.2	297.0	277.5	258.0	238.5	219.3	185.5
17.5°	372.7	368.3	360.5	347.7	329.3	308.1	285.1	261.5	237.9	216.1	176.7
20°	398.6	392.5	384.1	366.9	345.3	320.3	292.6	265.0	237.6	212.3	166.8
22.5°	420.2	414.0	404.7	387.0	361.1	330.5	299.0	267.3	236.4	207.9	157.5
25°	438.8	433.8	423.7	403.3	375.9	341.3	305.2	269.0	234.7	203.2	147.6
27.5°	453.4	448.7	437.3	416.4	388.4	350.9	309.8	269.9	232.4	198.6	137.4
30°	466.2	461.5	447.8	426.3	396.9	358.4	314.5	270.2	229.4	191.6	126.4
32.5°	476.1	471.7	457.7	434.7	402.7	363.7	317.1	269.9	225.7	186.6	114.4
35°	486.0	481.6	465.3	440.8	407.1	366.0	319.1	268.5	221.0	178.5	103.1
37.5°	493.5	488.6	472.0	444.9	409.1	366.6	318.8	266.4	216.1	171.8	91.7
40°	498.8	493.5	475.8	447.2	409.7	365.7	316.5	262.9	210.2	163.3	79.8
42.5°	502.3	496.5	477.5	450.7	408.5	363.4	313.0	258.6	203.8	156.1	68.4
45°	504.0	497.9	477.8	447.8	406.5	359.0	307.8	253.0	196.8	146.2	57.1
47.5°	503.1	496.5	476.4	444.6	402.7	354.4	301.9	246.3	188.4	137.4	46.3
50°	501.7	494.7	473.2	440.5	397.5	348.5	295.5	238.2	179.7	126.7	36.7
52.5°	497.0	490.0	469.7	434.7	391.3	341.8	286.8	229.7	170.3	116.2	28.0
55°	491.2	484.8	463.5	429.5	383.5	333.7	278.7	220.7	161.3	105.4	20.1
57.5°	482.2	476.4	456.0	421.0	375.6	324.7	269.6	210.8	150.0	94.6	14.0
60°	471.1	465.3	445.5	411.4	366.6	314.5	259.7	200.6	139.8	83.9	8.7
62.5°	459.5	453.9	433.3	399.5	355.2	303.7	249.0	190.4	129.0	74.0	5.2
65°	444.0	438.8	420.2	385.2	342.7	292.0	237.0	178.2	117.9	62.9	2.9
67.5°	427.7	423.1	404.1	372.1	328.2	279.2	224.8	166.3	106.3	53.3	1.5
70°	410.3	404.4	387.0	354.4	313.3	264.7	211.4	154.0	95.2	44.0	0.0
72.5°	389.9	385.5	368.6	337.8	296.1	249.2	197.7	140.6	83.0	34.9	0.3
75°	370.1	364.6	349.1	320.0	279.2	232.9	182.6	128.1	71.0	26.8	0.3
77.5°	344.5	342.7	328.2	299.9	263.2	217.2	166.0	113.0	59.7	19.2	0.3
80°	318.8	317.1	305.7	279.8	244.6	198.6	150.5	98.7	48.6	12.8	0.3
82.5°	293.5	291.2	280.4	258.9	225.7	182.9	134.5	84.4	38.4	7.9	0.3
85°	270.8	267.9	256.2	236.4	206.2	165.1	117.9	70.5	28.5	4.4	0.6
87.5°	251.3	249.2	236.4	216.1	186.4	148.5	103.4	57.1	20.1	2.0	0.9
90°	234.7	230.3	219.0	197.4	167.7	130.2	87.9	45.7	13.4	1.2	1.2
92.5°	218.4	214.6	202.1	179.9	151.1	114.4	73.1	34.9	8.4	0.6	1.5
95°	201.5	197.4	185.2	164.8	134.2	98.4	60.0	25.6	4.7	0.6	1.5
97.5°	184.9	181.1	168.3	147.9	119.1	84.4	47.5	18.1	2.3	0.6	1.2
100°	169.5	165.1	153.4	133.1	103.9	70.5	36.7	11.6	1.5	0.6	1.2
102.5°	153.2	149.7	137.7	117.9	88.2	57.4	27.4	7.3	0.6	0.6	0.9
105°	138.6	134.2	122.6	102.2	75.1	45.1	19.2	4.4	0.6	0.6	0.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	90.3	86.8	76.6	59.4	38.1	17.8	5.2	0.9	0.9	0.9	0.9
115°	75.4	70.2	61.1	46.0	28.2	11.6	2.6	0.9	0.9	0.9	0.9
117.5°	60.3	55.9	49.5	34.9	18.6	7.6	1.5	0.9	0.9	0.9	0.9
120°	47.2	43.1	35.8	24.2	12.5	4.4	0.6	0.9	0.9	0.9	0.9
122.5°	33.8	30.6	24.2	15.7	7.6	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.4	20.7	16.0	9.6	4.7	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.6	13.1	9.3	5.5	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.2	7.3	5.5	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.7	4.4	2.9	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



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	228.6	228.6	228.6
2.5°	217.5	213.4	212.3
5°	205.9	199.2	195.4
7.5°	194.2	185.2	180.8
10°	183.4	170.6	166.0
12.5°	170.6	155.8	148.5
15°	158.4	139.2	132.2
17.5°	144.7	123.2	115.0
20°	131.9	107.2	98.7
22.5°	117.3	91.4	82.1
25°	104.2	75.7	65.2
27.5°	89.7	59.7	50.7
30°	76.0	45.7	36.7
32.5°	62.9	33.5	25.3
35°	50.7	22.7	16.0
37.5°	39.0	14.0	8.2
40°	28.2	7.3	3.8
42.5°	18.9	3.5	2.0
45°	11.6	1.7	0.0
47.5°	6.7	0.0	0.0
50°	3.5	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	1.7
87.5°	1.5	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	2.9
102.5°	1.7	2.6	2.6
105°	1.5	2.0	2.3





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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°	122.3	118.8	107.2	87.9	61.4	34.4	12.8	2.3	0.6	0.9	0.9
110°	106.6	103.7	91.7	73.1	49.5	25.6	8.4	1.5	0.9	0.9	0.9







107.5°	1.2	1.7	2.0
110°	1.2	1.5	1.7



(END OF REPORT)