

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: P551135

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-80-88-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: P551135  
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-50-UNV-80-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

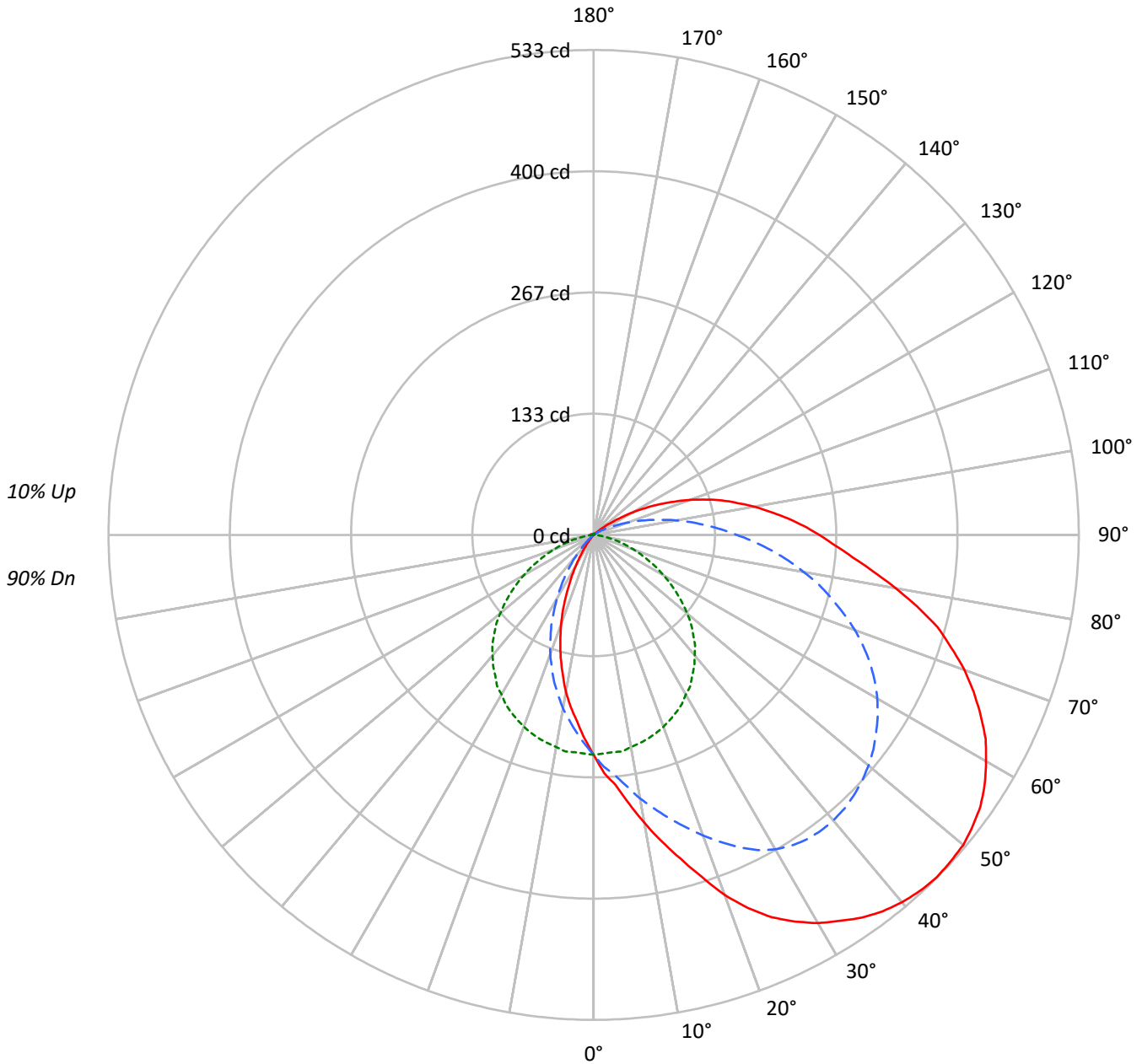
Lumens per Lamp: N/A  
Luminaire Lumens: 1193.9 lumens  
Efficiency: N/A  
Efficacy: 71.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (Ain): 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-50-UNV-80-88-ED1D-90

### 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°	2599	2599	2599
5°	2854	2562	2137
10°	3229	2530	1762
15°	3619	2498	1373
20°	4082	2457	1011
25°	4466	2411	664
30°	4751	2346	374
35°	4998	2279	164
40°	5216	2195	40
45°	5405	2089	0
50°	5562	1950	0
55°	5682	1774	0
60°	5743	1568	0
65°	5767	1336	0
70°	5747	1089	0
75°	5674	803	4
80°	5445	490	24
85°	5262	234	33



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.1	1.9
10°-20°	69.3	5.8
20°-30°	112.2	9.4
30°-40°	144.1	12.1
40°-50°	163.1	13.7
50°-60°	169.0	14.2
60°-70°	159.4	13.3
70°-80°	133.6	11.2
80°-90°	96.8	8.1
90°-100°	63.6	5.3
100°-110°	36.7	3.1
110°-120°	16.2	1.4
120°-130°	4.4	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°	204.6	17.1
0°-40°	348.7	29.2
0°-60°	680.8	57.0
0°-90°	1070.5	89.7
90°-120°	116.6	9.8
90°-150°	122.6	10.3
90°-180°	123.0	10.3
0°-180°	1193.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	242	242	242	242	242	
5°	276	265	240	218	206	28
15°	368	323	232	167	140	106
25°	464	379	215	110	69	214
35°	514	408	189	54	17	322
45°	533	404	154	12	0	411
55°	519	379	111	0	0	463
65°	469	335	66	0	0	464
75°	391	271	28	0	0	410
85°	286	196	5	1	2	244
90°	248	157	1	2	2	136
95°	213	123	1	2	3	167
105°	146	64	1	2	2	155
115°	80	21	1	1	2	80
125°	24	3	1	1	1	24
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°	241.5	241.5	241.5	241.5	241.5	241.5	241.5	241.5	241.5	241.5	241.5
2.5°	261.8	261.5	260.6	259.1	256.9	253.2	250.1	247.4	243.7	240.6	234.7
5°	275.7	274.1	272.9	271.4	266.4	263.1	257.5	251.4	245.5	239.7	228.0
7.5°	297.8	295.4	293.5	289.2	282.4	274.7	266.1	260.3	256.3	240.0	220.0
10°	321.5	319.4	315.7	308.0	299.7	288.6	276.3	262.4	250.1	236.6	212.9
12.5°	344.9	341.8	336.6	326.7	315.0	301.2	284.3	268.0	250.4	234.4	204.6
15°	368.3	364.9	359.4	347.4	332.0	313.8	293.2	272.6	252.0	231.7	196.0
17.5°	393.8	389.2	380.9	367.4	348.0	325.5	301.2	276.3	251.4	228.3	186.8
20°	421.2	414.7	405.8	387.7	364.9	338.4	309.2	280.0	251.1	224.3	176.3
22.5°	444.0	437.5	427.7	408.9	381.5	349.2	316.0	282.4	249.8	219.7	166.4
25°	463.7	458.4	447.7	426.1	397.2	360.6	322.4	284.3	248.0	214.8	156.0
27.5°	479.0	474.1	462.1	440.0	410.4	370.7	327.4	285.2	245.5	209.8	145.2
30°	492.6	487.7	473.2	450.4	419.3	378.7	332.3	285.5	242.4	202.4	133.5
32.5°	503.0	498.4	483.7	459.3	425.5	384.3	335.0	285.2	238.4	197.2	120.9
35°	513.5	508.9	491.6	465.8	430.1	386.7	337.2	283.7	233.5	188.6	108.9
37.5°	521.5	516.3	498.7	470.1	432.3	387.4	336.9	281.5	228.3	181.5	96.9
40°	527.0	521.5	502.7	472.6	432.9	386.4	334.4	277.8	222.1	172.6	84.3
42.5°	530.7	524.6	504.6	476.3	431.7	384.0	330.7	273.2	215.4	164.9	72.3
45°	532.6	526.1	504.9	473.2	429.5	379.4	325.2	267.4	208.0	154.4	60.3
47.5°	531.6	524.6	503.3	469.8	425.5	374.4	319.0	260.3	199.1	145.2	48.9
50°	530.1	522.7	500.0	465.5	420.0	368.3	312.3	251.7	189.8	133.8	38.8
52.5°	525.2	517.8	496.3	459.3	413.5	361.2	303.1	242.7	180.0	122.8	29.5
55°	519.0	512.3	489.8	453.8	405.2	352.6	294.4	233.2	170.4	111.4	21.2
57.5°	509.5	503.3	481.8	444.9	396.9	343.0	284.9	222.7	158.4	100.0	14.8
60°	497.8	491.6	470.7	434.7	387.4	332.3	274.4	212.0	147.7	88.6	9.2
62.5°	485.5	479.7	457.8	422.1	375.4	320.9	263.1	201.2	136.3	78.1	5.5
65°	469.2	463.7	444.0	407.0	362.1	308.6	250.4	188.3	124.6	66.5	3.1
67.5°	452.0	447.0	427.0	393.2	346.7	295.1	237.5	175.7	112.3	56.3	1.5
70°	433.5	427.3	408.9	374.4	331.0	279.7	223.4	162.8	100.6	46.5	0.0
72.5°	412.0	407.3	389.5	356.9	312.9	263.4	208.9	148.6	87.7	36.9	0.3
75°	391.0	385.2	368.9	338.1	295.1	246.1	192.9	135.4	75.1	28.3	0.3
77.5°	364.0	362.1	346.7	316.9	278.1	229.5	175.4	119.4	63.1	20.3	0.3
80°	336.9	335.0	323.0	295.7	258.4	209.8	159.1	104.3	51.4	13.5	0.3
82.5°	310.1	307.7	296.3	273.5	238.4	193.2	142.1	89.2	40.6	8.3	0.3
85°	286.1	283.1	270.7	249.8	217.8	174.4	124.6	74.5	30.2	4.6	0.6
87.5°	265.5	263.4	249.8	228.3	196.9	156.9	109.2	60.3	21.2	2.2	0.9
90°	248.0	243.4	231.4	208.6	177.2	137.5	92.9	48.3	14.2	1.2	1.2
92.5°	230.7	226.7	213.5	190.1	159.7	120.9	77.2	36.9	8.9	0.6	1.5
95°	212.9	208.6	195.7	174.1	141.8	104.0	63.4	27.1	4.9	0.6	1.5
97.5°	195.4	191.4	177.8	156.3	125.8	89.2	50.1	19.1	2.5	0.6	1.2
100°	179.1	174.4	162.1	140.6	109.8	74.5	38.8	12.3	1.5	0.6	1.2
102.5°	161.8	158.1	145.5	124.6	93.2	60.6	28.9	7.7	0.6	0.6	0.9
105°	146.4	141.8	129.5	108.0	79.4	47.7	20.3	4.6	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°	95.4	91.7	80.9	62.8	40.3	18.8	5.5	0.9	0.9	0.9	0.9
115°	79.7	74.1	64.6	48.6	29.8	12.3	2.8	0.9	0.9	0.9	0.9
117.5°	63.7	59.1	52.3	36.9	19.7	8.0	1.5	0.9	0.9	0.9	0.9
120°	49.8	45.5	37.8	25.5	13.2	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.7	32.3	25.5	16.6	8.0	2.2	0.9	0.9	1.2	1.2	0.9
125°	23.7	21.8	16.9	10.2	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.4	13.8	9.8	5.8	2.2	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.6	7.7	5.8	3.4	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.9	4.6	3.1	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°	241.5	241.5	241.5
2.5°	229.8	225.5	224.3
5°	217.5	210.4	206.4
7.5°	205.2	195.7	191.1
10°	193.8	180.3	175.4
12.5°	180.3	164.6	156.9
15°	167.4	147.1	139.7
17.5°	152.9	130.1	121.5
20°	139.4	113.2	104.3
22.5°	124.0	96.6	86.8
25°	110.1	80.0	68.9
27.5°	94.8	63.1	53.5
30°	80.3	48.3	38.8
32.5°	66.5	35.4	26.8
35°	53.5	24.0	16.9
37.5°	41.2	14.8	8.6
40°	29.8	7.7	4.0
42.5°	20.0	3.7	2.2
45°	12.3	1.8	0.0
47.5°	7.1	0.0	0.0
50°	3.7	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	1.8
87.5°	1.5	1.8	2.2
90°	1.8	2.2	2.2
92.5°	1.8	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.1
102.5°	1.8	2.8	2.8
105°	1.5	2.2	2.5





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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°	129.2	125.5	113.2	92.9	64.9	36.3	13.5	2.5	0.6	0.9	0.9
110°	112.6	109.5	96.9	77.2	52.3	27.1	8.9	1.5	0.9	0.9	0.9







107.5°	1.2	1.8	2.2
110°	1.2	1.5	1.8



(END OF REPORT)