

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: P551169

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-94-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: P551169
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-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

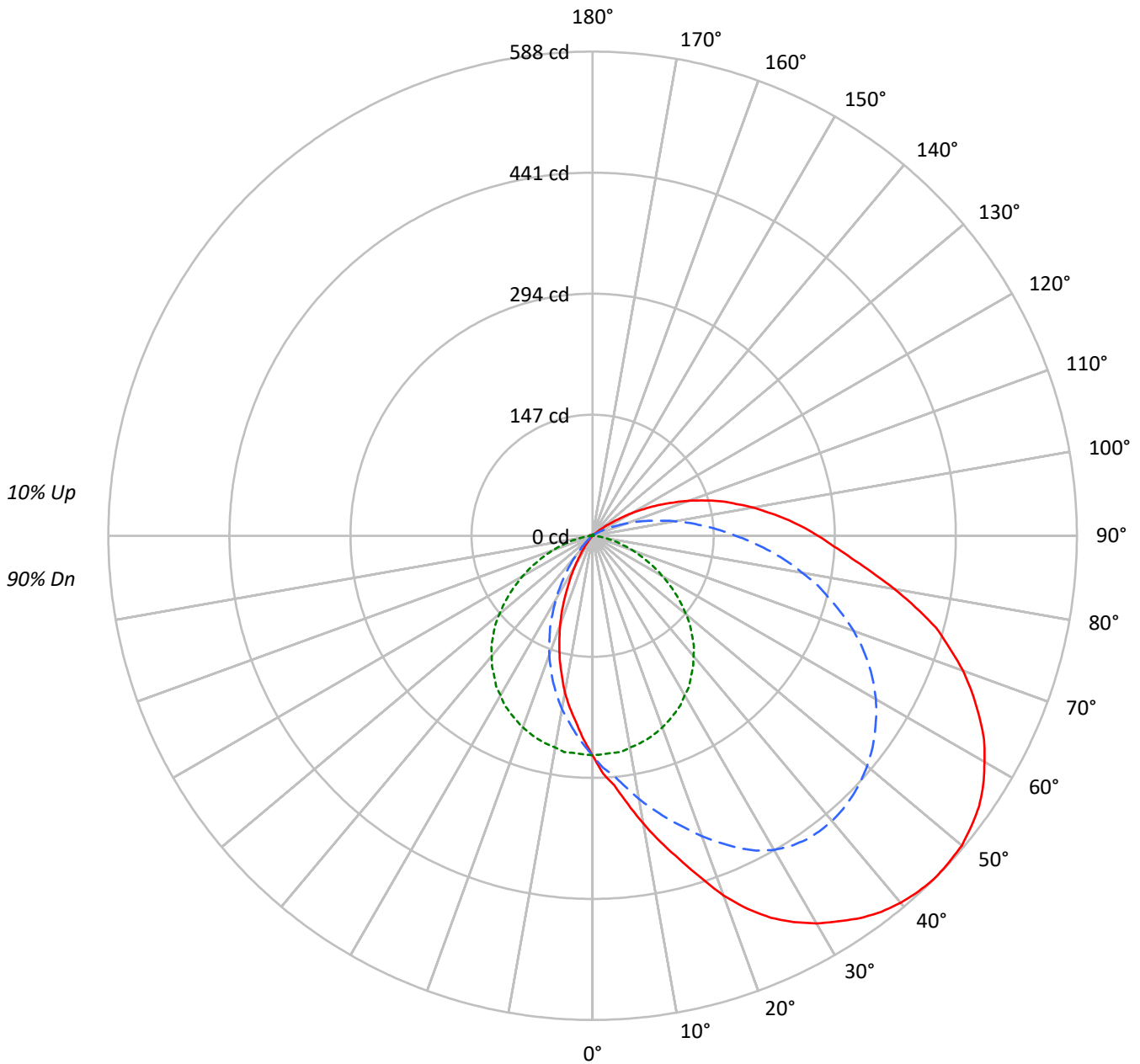
Lumens per Lamp: N/A
Luminaire Lumens: 1318.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	2870	2870	2870
5°	3150	2828	2359
10°	3565	2793	1945
15°	3995	2757	1515
20°	4505	2713	1115
25°	4929	2661	733
30°	5244	2591	413
35°	5517	2516	182
40°	5759	2423	44
45°	5966	2307	0
50°	6141	2153	0
55°	6272	1957	0
60°	6339	1731	0
65°	6365	1474	0
70°	6344	1202	0
75°	6264	885	4
80°	6010	540	27
85°	5808	259	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.5	1.9
10°-20°	76.5	5.8
20°-30°	123.8	9.4
30°-40°	159.1	12.1
40°-50°	180.1	13.7
50°-60°	186.5	14.2
60°-70°	175.9	13.3
70°-80°	147.4	11.2
80°-90°	106.9	8.1
90°-100°	70.2	5.3
100°-110°	40.6	3.1
110°-120°	17.9	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°	225.8	17.1
0°-40°	384.9	29.2
0°-60°	751.5	57.0
0°-90°	1181.7	89.7
90°-120°	128.7	9.8
90°-150°	135.4	10.3
90°-180°	136.0	10.3
0°-180°	1318.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	267	267	267	267	267	
5°	304	292	265	240	228	31
15°	406	356	256	185	154	117
25°	512	418	237	122	76	237
35°	567	451	208	59	19	355
45°	588	446	170	14	0	454
55°	573	418	123	0	0	512
65°	518	370	73	0	0	512
75°	432	299	31	0	0	453
85°	316	216	5	1	2	270
90°	274	174	1	2	2	150
95°	235	136	1	2	3	184
105°	162	70	1	2	3	171
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°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6
2.5°	289.0	288.7	287.7	286.0	283.6	279.5	276.1	273.1	269.0	265.6	259.1
5°	304.3	302.6	301.2	299.5	294.1	290.4	284.3	277.5	271.0	264.6	251.7
7.5°	328.7	326.0	324.0	319.2	311.8	303.3	293.8	287.3	282.9	264.9	242.8
10°	354.9	352.5	348.4	340.0	330.8	318.6	305.0	289.7	276.1	261.2	235.0
12.5°	380.7	377.3	371.5	360.7	347.8	332.5	313.8	295.8	276.4	258.8	225.8
15°	406.5	402.8	396.7	383.4	366.4	346.4	323.7	300.9	278.1	255.7	216.3
17.5°	434.7	429.6	420.4	405.5	384.1	359.3	332.5	305.0	277.5	252.0	206.1
20°	464.9	457.8	448.0	427.9	402.8	373.6	341.3	309.1	277.1	247.6	194.6
22.5°	490.1	482.9	472.1	451.4	421.1	385.5	348.8	311.8	275.8	242.5	183.7
25°	511.8	506.0	494.1	470.4	438.4	398.0	355.9	313.8	273.7	237.1	172.2
27.5°	528.8	523.4	510.1	485.7	453.0	409.2	361.4	314.8	271.0	231.6	160.3
30°	543.7	538.3	522.3	497.2	462.9	418.1	366.8	315.2	267.6	223.5	147.4
32.5°	555.3	550.2	533.9	507.0	469.7	424.2	369.8	314.8	263.2	217.7	133.5
35°	566.8	561.7	542.7	514.2	474.8	426.9	372.2	313.1	257.8	208.2	120.2
37.5°	575.7	569.9	550.5	518.9	477.2	427.6	371.9	310.8	252.0	200.4	107.0
40°	581.8	575.7	554.9	521.7	477.8	426.6	369.2	306.7	245.2	190.5	93.1
42.5°	585.8	579.0	557.0	525.7	476.5	423.8	365.1	301.6	237.7	182.0	79.8
45°	587.9	580.7	557.3	522.3	474.1	418.7	359.0	295.1	229.6	170.5	66.6
47.5°	586.9	579.0	555.6	518.6	469.7	413.3	352.2	287.3	219.7	160.3	54.0
50°	585.2	577.0	551.9	513.8	463.6	406.5	344.7	277.8	209.5	147.7	42.8
52.5°	579.7	571.6	547.8	507.0	456.4	398.7	334.5	268.0	198.7	135.5	32.6
55°	572.9	565.5	540.7	500.9	447.3	389.2	325.0	257.4	188.1	122.9	23.4
57.5°	562.4	555.6	531.8	491.1	438.1	378.7	314.5	245.9	174.9	110.4	16.3
60°	549.5	542.7	519.6	479.9	427.6	366.8	302.9	234.0	163.0	97.8	10.2
62.5°	535.9	529.5	505.4	466.0	414.3	354.2	290.4	222.1	150.5	86.3	6.1
65°	517.9	511.8	490.1	449.3	399.7	340.6	276.4	207.8	137.5	73.4	3.4
67.5°	498.9	493.5	471.4	434.0	382.7	325.7	262.2	193.9	124.0	62.2	1.7
70°	478.5	471.7	451.4	413.3	365.4	308.7	246.6	179.7	111.1	51.3	0.0
72.5°	454.7	449.7	430.0	394.0	345.4	290.7	230.6	164.0	96.8	40.8	0.3
75°	431.7	425.2	407.2	373.2	325.7	271.7	212.9	149.4	82.9	31.2	0.3
77.5°	401.8	399.7	382.7	349.8	307.0	253.4	193.6	131.8	69.6	22.4	0.3
80°	371.9	369.8	356.6	326.4	285.3	231.6	175.6	115.1	56.7	14.9	0.3
82.5°	342.3	339.6	327.1	301.9	263.2	213.3	156.9	98.5	44.8	9.2	0.3
85°	315.8	312.4	298.9	275.8	240.4	192.6	137.5	82.2	33.3	5.1	0.7
87.5°	293.1	290.7	275.8	252.0	217.4	173.2	120.6	66.6	23.4	2.4	1.0
90°	273.7	268.6	255.4	230.3	195.6	151.8	102.6	53.3	15.6	1.4	1.4
92.5°	254.7	250.3	235.7	209.9	176.3	133.5	85.2	40.8	9.8	0.7	1.7
95°	235.0	230.3	216.0	192.2	156.6	114.8	70.0	29.9	5.4	0.7	1.7
97.5°	215.7	211.2	196.3	172.5	138.9	98.5	55.4	21.1	2.7	0.7	1.4
100°	197.7	192.6	179.0	155.2	121.2	82.2	42.8	13.6	1.7	0.7	1.4
102.5°	178.6	174.6	160.6	137.5	102.9	66.9	31.9	8.5	0.7	0.7	1.0
105°	161.7	156.6	143.0	119.2	87.6	52.6	22.4	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°	105.3	101.2	89.3	69.3	44.5	20.7	6.1	1.0	1.0	1.0	1.0
115°	88.0	81.8	71.3	53.7	32.9	13.6	3.1	1.0	1.0	1.0	1.0
117.5°	70.3	65.2	57.7	40.8	21.7	8.8	1.7	1.0	1.0	1.0	1.0
120°	55.0	50.3	41.8	28.2	14.6	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.4	35.7	28.2	18.3	8.8	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.2	24.1	18.7	11.2	5.4	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.0	15.3	10.9	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.5	8.5	6.5	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°	266.6	266.6	266.6
2.5°	253.7	248.9	247.6
5°	240.1	232.3	227.9
7.5°	226.5	216.0	210.9
10°	214.0	199.0	193.6
12.5°	199.0	181.7	173.2
15°	184.8	162.3	154.2
17.5°	168.8	143.7	134.1
20°	153.8	125.0	115.1
22.5°	136.9	106.6	95.8
25°	121.6	88.3	76.1
27.5°	104.6	69.6	59.1
30°	88.6	53.3	42.8
32.5°	73.4	39.1	29.5
35°	59.1	26.5	18.7
37.5°	45.5	16.3	9.5
40°	32.9	8.5	4.4
42.5°	22.1	4.1	2.4
45°	13.6	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	3.1
97.5°	2.7	3.1	3.1
100°	2.4	3.1	3.4
102.5°	2.0	3.1	3.1
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°	142.6	138.6	125.0	102.6	71.7	40.1	14.9	2.7	0.7	1.0	1.0
110°	124.3	120.9	107.0	85.2	57.7	29.9	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)