

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: P550518

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-81-97-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: P550518
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-LD4-1HI-35-UNV-81-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

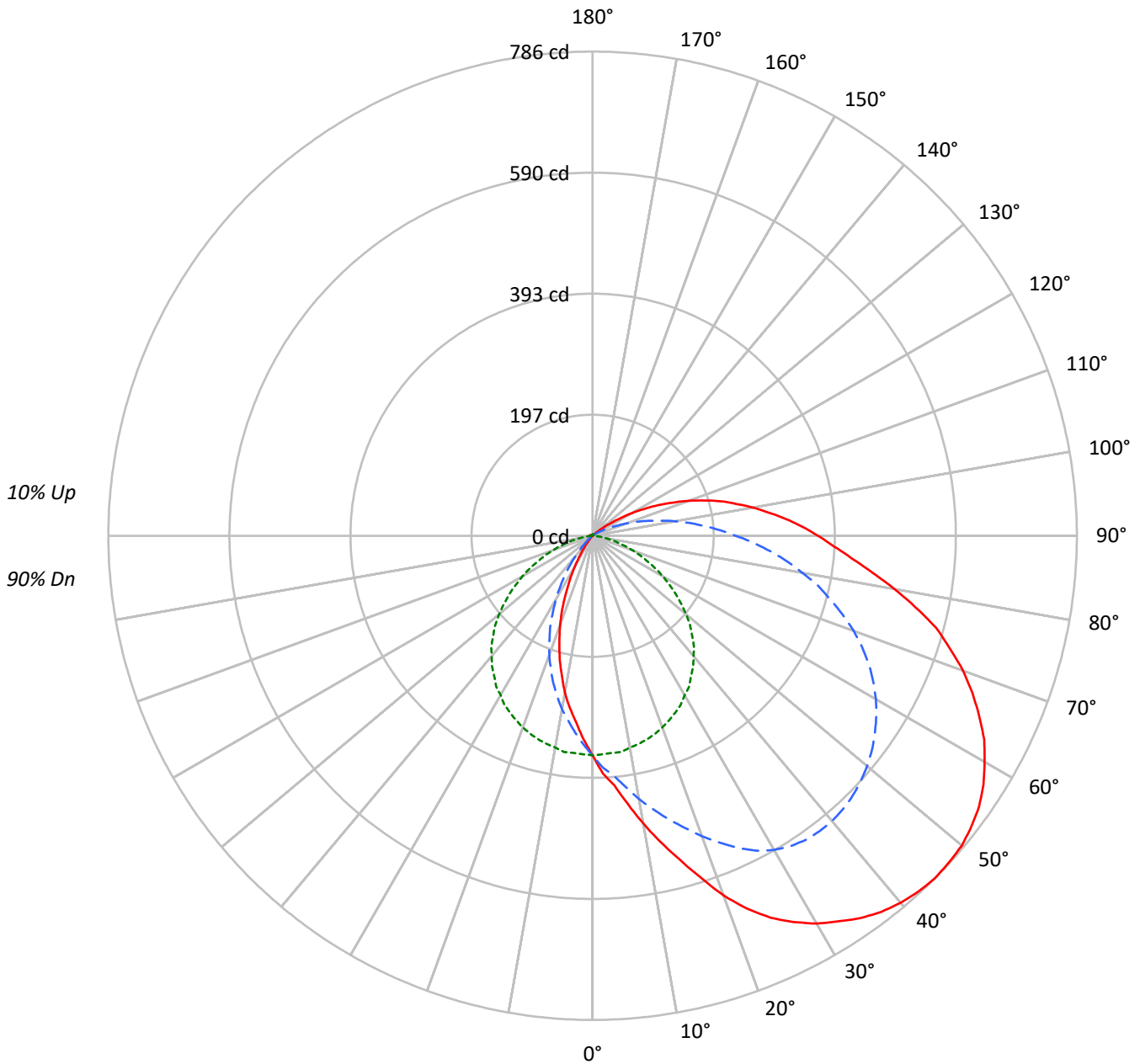
Lumens per Lamp: N/A
Luminaire Lumens: 1762.1 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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°	3836	3836	3836
5°	4211	3780	3154
10°	4766	3733	2599
15°	5341	3687	2025
20°	6024	3627	1491
25°	6590	3556	979
30°	7011	3463	552
35°	7376	3363	243
40°	7698	3239	58
45°	7976	3084	0
50°	8209	2878	0
55°	8385	2618	0
60°	8475	2315	0
65°	8510	1970	0
70°	8481	1607	0
75°	8374	1185	7
80°	8035	725	37
85°	7765	346	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	1.9
10°-20°	102.2	5.8
20°-30°	165.5	9.4
30°-40°	212.6	12.1
40°-50°	240.7	13.7
50°-60°	249.4	14.2
60°-70°	235.2	13.3
70°-80°	197.1	11.2
80°-90°	142.9	8.1
90°-100°	93.9	5.3
100°-110°	54.2	3.1
110°-120°	23.9	1.4
120°-130°	6.5	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	301.9	17.1
0°-40°	514.5	29.2
0°-60°	1004.6	57.0
0°-90°	1579.8	89.7
90°-120°	172.1	9.8
90°-150°	181.0	10.3
90°-180°	182.0	10.3
0°-180°	1762.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	356	356	356	356	356	
5°	407	391	354	321	305	41
15°	544	476	342	247	206	157
25°	684	559	317	162	102	316
35°	758	603	278	79	25	475
45°	786	597	228	18	0	607
55°	766	559	164	0	0	684
65°	692	495	98	0	0	685
75°	577	399	42	0	0	605
85°	422	289	7	2	3	361
90°	366	232	2	3	3	201
95°	314	181	1	3	4	246
105°	216	94	1	2	4	228
115°	118	31	1	1	2	118
125°	35	4	2	1	2	35
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4	356.4
2.5°	386.4	385.9	384.6	382.3	379.1	373.7	369.1	365.0	359.6	355.0	346.4
5°	406.8	404.5	402.7	400.5	393.2	388.2	380.0	370.9	362.3	353.7	336.4
7.5°	439.5	435.9	433.1	426.8	416.8	405.4	392.7	384.1	378.2	354.1	324.6
10°	474.5	471.3	465.8	454.5	442.2	425.9	407.7	387.3	369.1	349.1	314.2
12.5°	509.0	504.4	496.7	482.2	464.9	444.5	419.5	395.5	369.6	346.0	301.9
15°	543.5	538.5	530.3	512.6	489.9	463.1	432.7	402.3	371.8	341.9	289.2
17.5°	581.2	574.3	562.1	542.1	513.5	480.4	444.5	407.7	370.9	336.9	275.6
20°	621.6	612.0	598.9	572.1	538.5	499.4	456.3	413.2	370.5	331.0	260.2
22.5°	655.2	645.6	631.1	603.4	563.0	515.3	466.3	416.8	368.7	324.2	245.6
25°	684.2	676.5	660.6	628.8	586.1	532.1	475.8	419.5	365.9	316.9	230.2
27.5°	706.9	699.7	681.9	649.3	605.7	547.1	483.1	420.9	362.3	309.6	214.3
30°	726.9	719.6	698.3	664.7	618.8	558.9	490.3	421.3	357.8	298.7	197.0
32.5°	742.3	735.5	713.7	677.9	627.9	567.1	494.4	420.9	351.9	291.0	178.4
35°	757.8	751.0	725.5	687.4	634.7	570.7	497.6	418.6	344.6	278.3	160.7
37.5°	769.6	761.9	736.0	693.8	637.9	571.6	497.2	415.4	336.9	267.9	143.0
40°	777.7	769.6	741.9	697.4	638.8	570.3	493.5	410.0	327.8	254.7	124.4
42.5°	783.2	774.1	744.6	702.8	637.0	566.6	488.1	403.2	317.8	243.4	106.7
45°	785.9	776.4	745.1	698.3	633.8	559.8	479.9	394.5	306.9	227.9	89.0
47.5°	784.6	774.1	742.8	693.3	627.9	552.5	470.8	384.1	293.8	214.3	72.2
50°	782.3	771.4	737.8	686.9	619.7	543.5	460.8	371.4	280.1	197.5	57.2
52.5°	775.0	764.1	732.3	677.9	610.2	533.0	447.2	358.2	265.6	181.2	43.6
55°	765.9	756.0	722.8	669.7	598.0	520.3	434.5	344.2	251.5	164.4	31.3
57.5°	751.9	742.8	711.0	656.5	585.7	506.2	420.4	328.7	233.8	147.6	21.8
60°	734.6	725.5	694.7	641.5	571.6	490.3	405.0	312.8	217.9	130.8	13.6
62.5°	716.5	707.8	675.6	622.9	553.9	473.5	388.2	296.9	201.1	115.3	8.2
65°	692.4	684.2	655.2	600.7	534.4	455.4	369.6	277.9	183.9	98.1	4.5
67.5°	667.0	659.7	630.2	580.2	511.7	435.4	350.5	259.2	165.7	83.1	2.3
70°	639.7	630.6	603.4	552.5	488.5	412.7	329.6	240.2	148.5	68.6	0.0
72.5°	607.9	601.1	574.8	526.7	461.7	388.6	308.3	219.3	129.4	54.5	0.5
75°	577.1	568.4	544.4	499.0	435.4	363.2	284.7	199.8	110.8	41.8	0.5
77.5°	537.1	534.4	511.7	467.6	410.4	338.7	258.8	176.2	93.1	30.0	0.5
80°	497.2	494.4	476.7	436.3	381.4	309.6	234.7	153.9	75.8	20.0	0.5
82.5°	457.7	454.0	437.2	403.6	351.9	285.1	209.8	131.7	59.9	12.3	0.5
85°	422.2	417.7	399.5	368.7	321.5	257.4	183.9	109.9	44.5	6.8	0.9
87.5°	391.8	388.6	368.7	336.9	290.6	231.6	161.2	89.0	31.3	3.2	1.4
90°	365.9	359.1	341.4	307.8	261.5	202.9	137.1	71.3	20.9	1.8	1.8
92.5°	340.5	334.6	315.1	280.6	235.6	178.4	114.0	54.5	13.2	0.9	2.3
95°	314.2	307.8	288.8	257.0	209.3	153.5	93.5	40.0	7.3	0.9	2.3
97.5°	288.3	282.4	262.4	230.6	185.7	131.7	74.0	28.1	3.6	0.9	1.8
100°	264.2	257.4	239.3	207.5	162.1	109.9	57.2	18.2	2.3	0.9	1.8
102.5°	238.8	233.4	214.8	183.9	137.6	89.4	42.7	11.4	0.9	0.9	1.4
105°	216.1	209.3	191.1	159.4	117.1	70.4	30.0	6.8	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	140.7	135.3	119.4	92.6	59.5	27.7	8.2	1.4	1.4	1.4	1.4
115°	117.6	109.4	95.3	71.7	44.0	18.2	4.1	1.4	1.4	1.4	1.4
117.5°	94.0	87.2	77.2	54.5	29.1	11.8	2.3	1.4	1.4	1.4	1.4
120°	73.6	67.2	55.8	37.7	19.5	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.7	47.7	37.7	24.5	11.8	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.0	32.2	25.0	15.0	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.7	20.4	14.5	8.6	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.7	11.4	8.6	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.8	4.5	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	356.4	356.4	356.4
2.5°	339.2	332.8	331.0
5°	321.0	310.6	304.7
7.5°	302.8	288.8	282.0
10°	286.0	266.1	258.8
12.5°	266.1	242.9	231.6
15°	247.0	217.0	206.1
17.5°	225.7	192.1	179.3
20°	205.7	167.1	153.9
22.5°	183.0	142.6	128.0
25°	162.5	118.0	101.7
27.5°	139.8	93.1	79.0
30°	118.5	71.3	57.2
32.5°	98.1	52.2	39.5
35°	79.0	35.4	25.0
37.5°	60.8	21.8	12.7
40°	44.0	11.4	5.9
42.5°	29.5	5.4	3.2
45°	18.2	2.7	0.0
47.5°	10.4	0.0	0.0
50°	5.4	0.0	0.0
52.5°	2.3	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.7
87.5°	2.3	2.7	3.2
90°	2.7	3.2	3.2
92.5°	2.7	3.6	3.6
95°	3.2	3.6	4.1
97.5°	3.6	4.1	4.1
100°	3.2	4.1	4.5
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.8	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	190.7	185.2	167.1	137.1	95.8	53.6	20.0	3.6	0.9	1.4	1.4
110°	166.2	161.6	143.0	114.0	77.2	40.0	13.2	2.3	1.4	1.4	1.4





107.5°	1.8	2.7	3.2
110°	1.8	2.3	2.7



(END OF REPORT)