

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: P550531

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-82-96-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: P550531
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-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

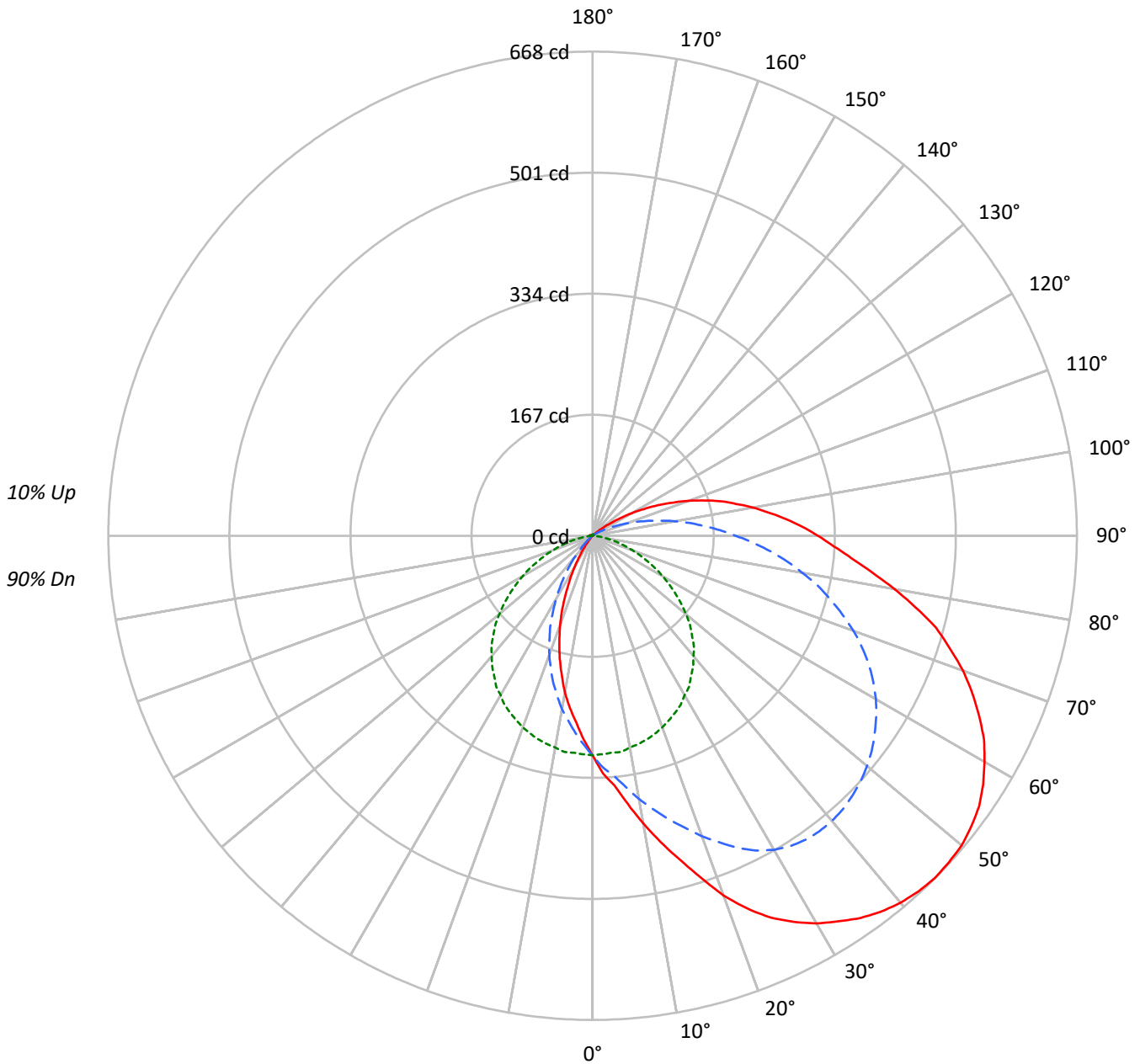
Lumens per Lamp: N/A
Luminaire Lumens: 1497.0 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (A_{in}): 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°	3259	3259	3259
5°	3578	3212	2679
10°	4049	3172	2209
15°	4537	3132	1721
20°	5118	3081	1268
25°	5599	3021	832
30°	5957	2942	469
35°	6266	2858	206
40°	6541	2752	49
45°	6776	2620	0
50°	6974	2446	0
55°	7124	2223	0
60°	7200	1966	0
65°	7231	1673	0
70°	7206	1363	0
75°	7115	1007	6
80°	6826	617	31
85°	6597	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	1.9
10°-20°	86.8	5.8
20°-30°	140.6	9.4
30°-40°	180.7	12.1
40°-50°	204.5	13.7
50°-60°	211.9	14.2
60°-70°	199.8	13.3
70°-80°	167.5	11.2
80°-90°	121.4	8.1
90°-100°	79.8	5.3
100°-110°	46.1	3.1
110°-120°	20.3	1.4
120°-130°	5.5	0.4
130°-140°	1.3	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	256.5	17.1
0°-40°	437.2	29.2
0°-60°	853.5	57.0
0°-90°	1342.2	89.7
90°-120°	146.2	9.8
90°-150°	153.8	10.3
90°-180°	155.0	10.4
0°-180°	1497.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	303	303	303	303	303	
5°	346	332	300	273	259	35
15°	462	405	290	210	175	133
25°	581	475	269	138	86	269
35°	644	512	236	67	21	404
45°	668	507	194	15	0	516
55°	651	475	140	0	0	581
65°	588	420	83	0	0	582
75°	490	339	36	0	0	514
85°	359	246	6	2	2	306
90°	311	197	2	2	3	170
95°	267	154	1	3	4	209
105°	184	80	1	2	3	194
115°	100	26	1	1	2	100
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°	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8
2.5°	328.3	327.9	326.7	324.8	322.1	317.5	313.6	310.1	305.5	301.6	294.3
5°	345.6	343.7	342.2	340.2	334.1	329.8	322.9	315.2	307.8	300.5	285.8
7.5°	373.4	370.3	368.0	362.6	354.1	344.5	333.7	326.3	321.3	300.9	275.8
10°	403.1	400.4	395.8	386.1	375.7	361.8	346.4	329.0	313.6	296.6	266.9
12.5°	432.4	428.6	422.0	409.7	395.0	377.6	356.4	336.0	314.0	293.9	256.5
15°	461.7	457.5	450.5	435.5	416.2	393.5	367.6	341.8	315.9	290.5	245.7
17.5°	493.7	488.0	477.5	460.6	436.3	408.1	377.6	346.4	315.2	286.2	234.1
20°	528.1	520.0	508.8	486.0	457.5	424.3	387.7	351.0	314.8	281.2	221.0
22.5°	556.6	548.5	536.2	512.7	478.3	437.8	396.2	354.1	313.2	275.4	208.7
25°	581.3	574.8	561.3	534.3	498.0	452.1	404.3	356.4	310.9	269.2	195.6
27.5°	600.6	594.4	579.4	551.6	514.6	464.8	410.4	357.6	307.8	263.1	182.1
30°	617.6	611.4	593.3	564.7	525.8	474.8	416.6	358.0	304.0	253.8	167.4
32.5°	630.7	624.9	606.4	575.9	533.5	481.8	420.1	357.6	298.9	247.3	151.6
35°	643.8	638.0	616.4	584.0	539.3	484.9	422.8	355.7	292.8	236.5	136.6
37.5°	653.8	647.3	625.3	589.4	542.0	485.6	422.4	353.0	286.2	227.6	121.5
40°	660.8	653.8	630.3	592.5	542.7	484.5	419.3	348.3	278.5	216.4	105.7
42.5°	665.4	657.7	632.6	597.1	541.2	481.4	414.7	342.5	270.0	206.8	90.6
45°	667.7	659.6	633.0	593.3	538.5	475.6	407.7	335.2	260.8	193.6	75.6
47.5°	666.6	657.7	631.1	589.0	533.5	469.4	400.0	326.3	249.6	182.1	61.3
50°	664.6	655.4	626.8	583.6	526.5	461.7	391.5	315.5	238.0	167.8	48.6
52.5°	658.5	649.2	622.2	575.9	518.4	452.9	380.0	304.4	225.7	153.9	37.0
55°	650.7	642.3	614.1	569.0	508.0	442.1	369.2	292.4	213.7	139.6	26.6
57.5°	638.8	631.1	604.1	557.8	497.6	430.1	357.2	279.3	198.7	125.4	18.5
60°	624.1	616.4	590.2	545.1	485.6	416.6	344.1	265.8	185.2	111.1	11.6
62.5°	608.7	601.4	574.0	529.2	470.6	402.3	329.8	252.3	170.9	98.0	6.9
65°	588.3	581.3	556.6	510.3	454.0	386.9	314.0	236.1	156.2	83.3	3.9
67.5°	566.7	560.5	535.4	493.0	434.7	369.9	297.8	220.3	140.8	70.6	1.9
70°	543.5	535.8	512.7	469.4	415.1	350.6	280.0	204.1	126.1	58.2	0.0
72.5°	516.5	510.7	488.3	447.5	392.3	330.2	261.9	186.3	109.9	46.3	0.4
75°	490.3	482.9	462.5	423.9	369.9	308.6	241.9	169.7	94.1	35.5	0.4
77.5°	456.3	454.0	434.7	397.3	348.7	287.8	219.9	149.7	79.1	25.5	0.4
80°	422.4	420.1	405.0	370.7	324.0	263.1	199.4	130.8	64.4	17.0	0.4
82.5°	388.8	385.7	371.5	342.9	298.9	242.2	178.2	111.9	50.9	10.4	0.4
85°	358.7	354.9	339.5	313.2	273.1	218.7	156.2	93.3	37.8	5.8	0.8
87.5°	332.9	330.2	313.2	286.2	246.9	196.7	136.9	75.6	26.6	2.7	1.2
90°	310.9	305.1	290.1	261.5	222.2	172.4	116.5	60.6	17.7	1.5	1.5
92.5°	289.3	284.3	267.7	238.4	200.2	151.6	96.8	46.3	11.2	0.8	1.9
95°	266.9	261.5	245.3	218.3	177.8	130.4	79.5	33.9	6.2	0.8	1.9
97.5°	244.9	239.9	223.0	196.0	157.8	111.9	62.9	23.9	3.1	0.8	1.5
100°	224.5	218.7	203.3	176.3	137.7	93.3	48.6	15.4	1.9	0.8	1.5
102.5°	202.9	198.3	182.5	156.2	116.9	76.0	36.3	9.6	0.8	0.8	1.2
105°	183.6	177.8	162.4	135.4	99.5	59.8	25.5	5.8	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	119.6	115.0	101.5	78.7	50.5	23.5	6.9	1.2	1.2	1.2	1.2
115°	99.9	93.0	81.0	60.9	37.4	15.4	3.5	1.2	1.2	1.2	1.2
117.5°	79.8	74.1	65.6	46.3	24.7	10.0	1.9	1.2	1.2	1.2	1.2
120°	62.5	57.1	47.4	32.0	16.6	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.7	40.5	32.0	20.8	10.0	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.7	27.4	21.2	12.7	6.2	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.3	17.4	12.3	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.6	7.3	4.2	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
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°	302.8	302.8	302.8
2.5°	288.1	282.7	281.2
5°	272.7	263.8	258.8
7.5°	257.3	245.3	239.5
10°	243.0	226.0	219.9
12.5°	226.0	206.4	196.7
15°	209.8	184.4	175.1
17.5°	191.7	163.2	152.4
20°	174.7	142.0	130.8
22.5°	155.5	121.1	108.8
25°	138.1	100.3	86.4
27.5°	118.8	79.1	67.1
30°	100.7	60.6	48.6
32.5°	83.3	44.4	33.6
35°	67.1	30.1	21.2
37.5°	51.7	18.5	10.8
40°	37.4	9.6	5.0
42.5°	25.1	4.6	2.7
45°	15.4	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.6	0.0	0.0
52.5°	1.9	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	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	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°	1.9	2.7	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	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°	1.5	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°	162.0	157.4	142.0	116.5	81.4	45.5	17.0	3.1	0.8	1.2	1.2
110°	141.2	137.3	121.5	96.8	65.6	33.9	11.2	1.9	1.2	1.2	1.2





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)