

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: P550467

Luminaire Tested: **FCC-X-2-LD4-1HI-30-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: P550467
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-30-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 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

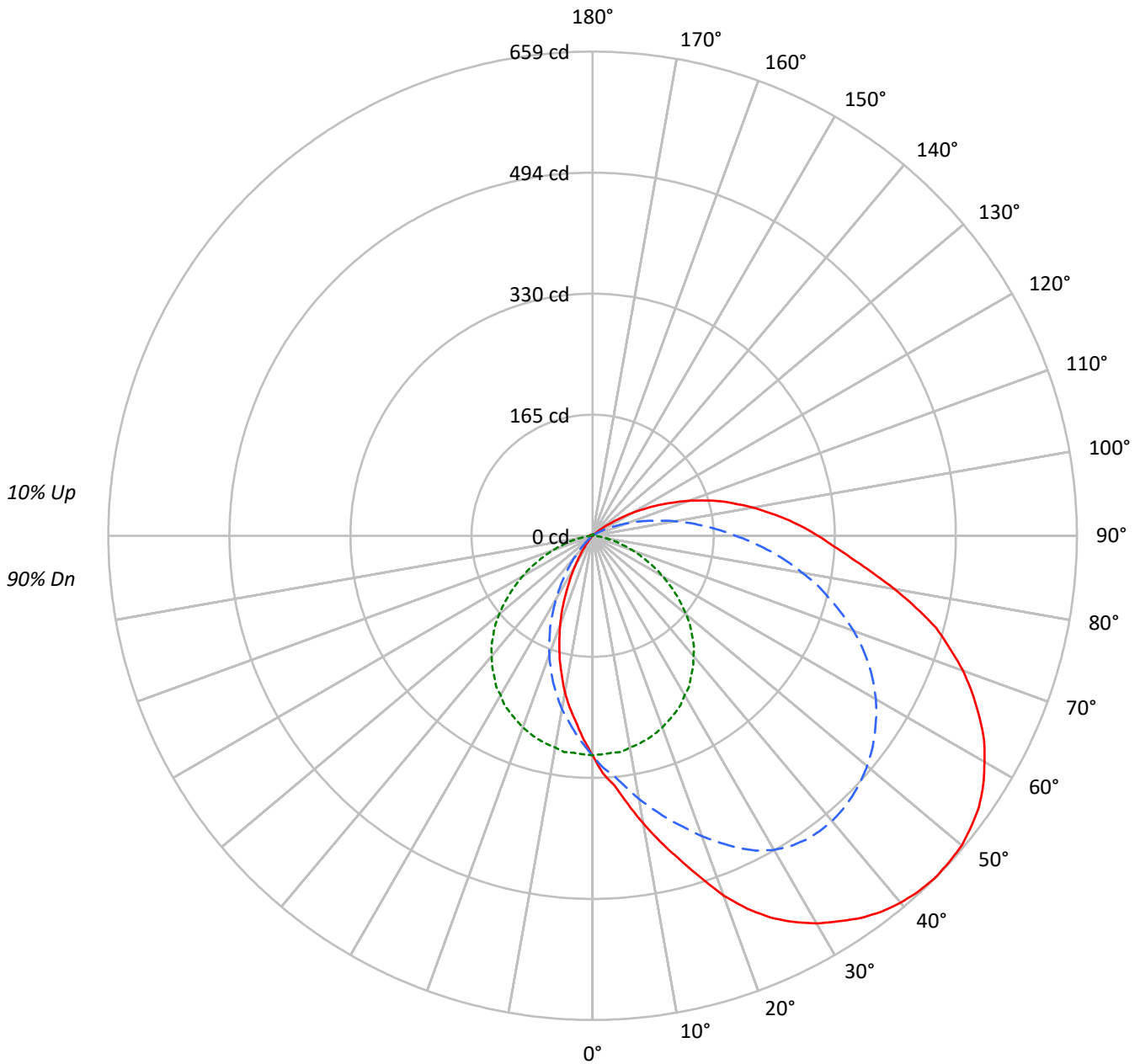
Lumens per Lamp: N/A
Luminaire Lumens: 1476.9 lumens
Efficiency: N/A
Efficacy: 68.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3216	3216	3216
5°	3530	3169	2644
10°	3995	3130	2179
15°	4477	3090	1698
20°	5049	3039	1250
25°	5523	2982	822
30°	5877	2903	463
35°	6182	2819	203
40°	6453	2715	49
45°	6686	2586	0
50°	6881	2414	0
55°	7030	2194	0
60°	7104	1940	0
65°	7134	1651	0
70°	7109	1347	0
75°	7019	993	6
80°	6734	606	31
85°	6509	290	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.6	1.9
10°-20°	85.7	5.8
20°-30°	138.8	9.4
30°-40°	178.3	12.1
40°-50°	201.8	13.7
50°-60°	209.0	14.2
60°-70°	197.2	13.3
70°-80°	165.2	11.2
80°-90°	119.8	8.1
90°-100°	78.7	5.3
100°-110°	45.5	3.1
110°-120°	20.0	1.4
120°-130°	5.4	0.4
130°-140°	1.2	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°	253.1	17.1
0°-40°	431.3	29.2
0°-60°	842.1	57.0
0°-90°	1324.3	89.7
90°-120°	144.2	9.8
90°-150°	151.6	10.3
90°-180°	153.0	10.4
0°-180°	1476.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	299	299	299	299	299	
5°	341	328	296	269	255	34
15°	456	399	287	207	173	131
25°	574	469	266	136	85	265
35°	635	505	233	66	21	398
45°	659	500	191	15	0	509
55°	642	469	138	0	0	573
65°	580	415	82	0	0	574
75°	484	335	35	0	0	507
85°	354	243	6	2	2	302
90°	307	195	2	2	3	168
95°	263	152	1	3	3	207
105°	181	79	1	2	3	191
115°	99	26	1	1	2	99
125°	29	4	2	1	2	29
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°	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8	298.8
2.5°	323.9	323.5	322.4	320.5	317.8	313.2	309.4	306.0	301.4	297.6	290.4
5°	341.0	339.1	337.6	335.7	329.6	325.4	318.6	310.9	303.7	296.5	282.0
7.5°	368.4	365.4	363.1	357.8	349.4	339.9	329.2	322.0	317.0	296.9	272.1
10°	397.7	395.1	390.5	381.0	370.7	357.0	341.8	324.6	309.4	292.7	263.4
12.5°	426.6	422.8	416.4	404.2	389.7	372.6	351.7	331.5	309.8	290.0	253.1
15°	455.6	451.4	444.5	429.7	410.7	388.2	362.7	337.2	311.7	286.6	242.4
17.5°	487.2	481.4	471.2	454.4	430.4	402.7	372.6	341.8	310.9	282.4	231.0
20°	521.0	513.0	502.0	479.5	451.4	418.6	382.5	346.3	310.6	277.4	218.1
22.5°	549.2	541.2	529.0	505.8	471.9	432.0	390.9	349.4	309.0	271.7	205.9
25°	573.5	567.1	553.8	527.1	491.3	446.0	398.9	351.7	306.8	265.7	193.0
27.5°	592.6	586.5	571.6	544.2	507.7	458.6	404.9	352.8	303.7	259.6	179.6
30°	609.3	603.2	585.3	557.2	518.7	468.5	411.0	353.2	299.9	250.4	165.2
32.5°	622.3	616.6	598.3	568.2	526.4	475.4	414.5	352.8	295.0	244.0	149.6
35°	635.2	629.5	608.2	576.2	532.1	478.4	417.1	350.9	288.9	233.3	134.7
37.5°	645.1	638.6	616.9	581.5	534.7	479.2	416.7	348.2	282.4	224.5	119.9
40°	651.9	645.1	621.9	584.6	535.5	478.0	413.7	343.7	274.8	213.5	104.3
42.5°	656.5	648.9	624.2	589.2	534.0	475.0	409.1	338.0	266.4	204.0	89.4
45°	658.8	650.8	624.5	585.3	531.3	469.3	402.3	330.7	257.3	191.1	74.6
47.5°	657.7	648.9	622.6	581.2	526.4	463.2	394.7	322.0	246.2	179.6	60.5
50°	655.8	646.6	618.5	575.8	519.5	455.6	386.3	311.3	234.8	165.6	48.0
52.5°	649.7	640.5	613.9	568.2	511.5	446.8	374.9	300.3	222.6	151.9	36.5
55°	642.1	633.7	605.9	561.4	501.2	436.2	364.2	288.5	210.8	137.8	26.3
57.5°	630.3	622.6	596.0	550.3	491.0	424.4	352.4	275.5	196.0	123.7	18.3
60°	615.8	608.2	582.3	537.8	479.2	411.0	339.5	262.2	182.7	109.6	11.4
62.5°	600.6	593.3	566.3	522.2	464.3	397.0	325.4	248.9	168.6	96.7	6.9
65°	580.4	573.5	549.2	503.5	448.0	381.7	309.8	232.9	154.1	82.2	3.8
67.5°	559.1	553.0	528.3	486.4	428.9	365.0	293.8	217.3	138.9	69.6	1.9
70°	536.2	528.6	505.8	463.2	409.5	346.0	276.3	201.3	124.5	57.5	0.0
72.5°	509.6	503.9	481.8	441.5	387.1	325.8	258.4	183.8	108.5	45.7	0.4
75°	483.7	476.5	456.3	418.3	365.0	304.5	238.6	167.5	92.9	35.0	0.4
77.5°	450.2	448.0	428.9	392.0	344.1	283.9	216.9	147.7	78.0	25.1	0.4
80°	416.7	414.5	399.6	365.7	319.7	259.6	196.8	129.0	63.6	16.7	0.4
82.5°	383.6	380.6	366.5	338.3	295.0	239.0	175.8	110.4	50.2	10.3	0.4
85°	353.9	350.1	334.9	309.0	269.5	215.8	154.1	92.1	37.3	5.7	0.8
87.5°	328.4	325.8	309.0	282.4	243.6	194.1	135.1	74.6	26.3	2.7	1.1
90°	306.8	301.0	286.2	258.0	219.2	170.1	114.9	59.8	17.5	1.5	1.5
92.5°	285.4	280.5	264.1	235.2	197.5	149.6	95.5	45.7	11.0	0.8	1.9
95°	263.4	258.0	242.1	215.4	175.5	128.6	78.4	33.5	6.1	0.8	1.9
97.5°	241.7	236.7	220.0	193.3	155.7	110.4	62.0	23.6	3.0	0.8	1.5
100°	221.5	215.8	200.6	173.9	135.9	92.1	48.0	15.2	1.9	0.8	1.5
102.5°	200.2	195.6	180.0	154.1	115.3	75.0	35.8	9.5	0.8	0.8	1.1
105°	181.2	175.5	160.2	133.6	98.2	59.0	25.1	5.7	0.8	0.8	1.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	118.0	113.4	100.1	77.6	49.9	23.2	6.9	1.1	1.1	1.1	1.1
115°	98.6	91.7	79.9	60.1	36.9	15.2	3.4	1.1	1.1	1.1	1.1
117.5°	78.8	73.1	64.7	45.7	24.4	9.9	1.9	1.1	1.1	1.1	1.1
120°	61.7	56.3	46.8	31.6	16.4	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	44.1	40.0	31.6	20.6	9.9	2.7	1.1	1.1	1.5	1.5	1.1
125°	29.3	27.0	20.9	12.6	6.1	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	19.0	17.1	12.2	7.2	2.7	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.7	9.5	7.2	4.2	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.1	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	298.8	298.8	298.8
2.5°	284.3	279.0	277.4
5°	269.1	260.3	255.4
7.5°	253.9	242.1	236.3
10°	239.8	223.0	216.9
12.5°	223.0	203.6	194.1
15°	207.0	181.9	172.8
17.5°	189.2	161.0	150.3
20°	172.4	140.1	129.0
22.5°	153.4	119.5	107.3
25°	136.3	99.0	85.3
27.5°	117.2	78.0	66.2
30°	99.3	59.8	48.0
32.5°	82.2	43.8	33.1
35°	66.2	29.7	20.9
37.5°	51.0	18.3	10.7
40°	36.9	9.5	4.9
42.5°	24.7	4.6	2.7
45°	15.2	2.3	0.0
47.5°	8.8	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	1.1
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	3.0	3.0
95°	2.7	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.7	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.7	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	159.8	155.3	140.1	114.9	80.3	44.9	16.7	3.0	0.8	1.1	1.1
110°	139.3	135.5	119.9	95.5	64.7	33.5	11.0	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)