

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: P550649

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-82-85-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: P550649
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-50-UNV-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

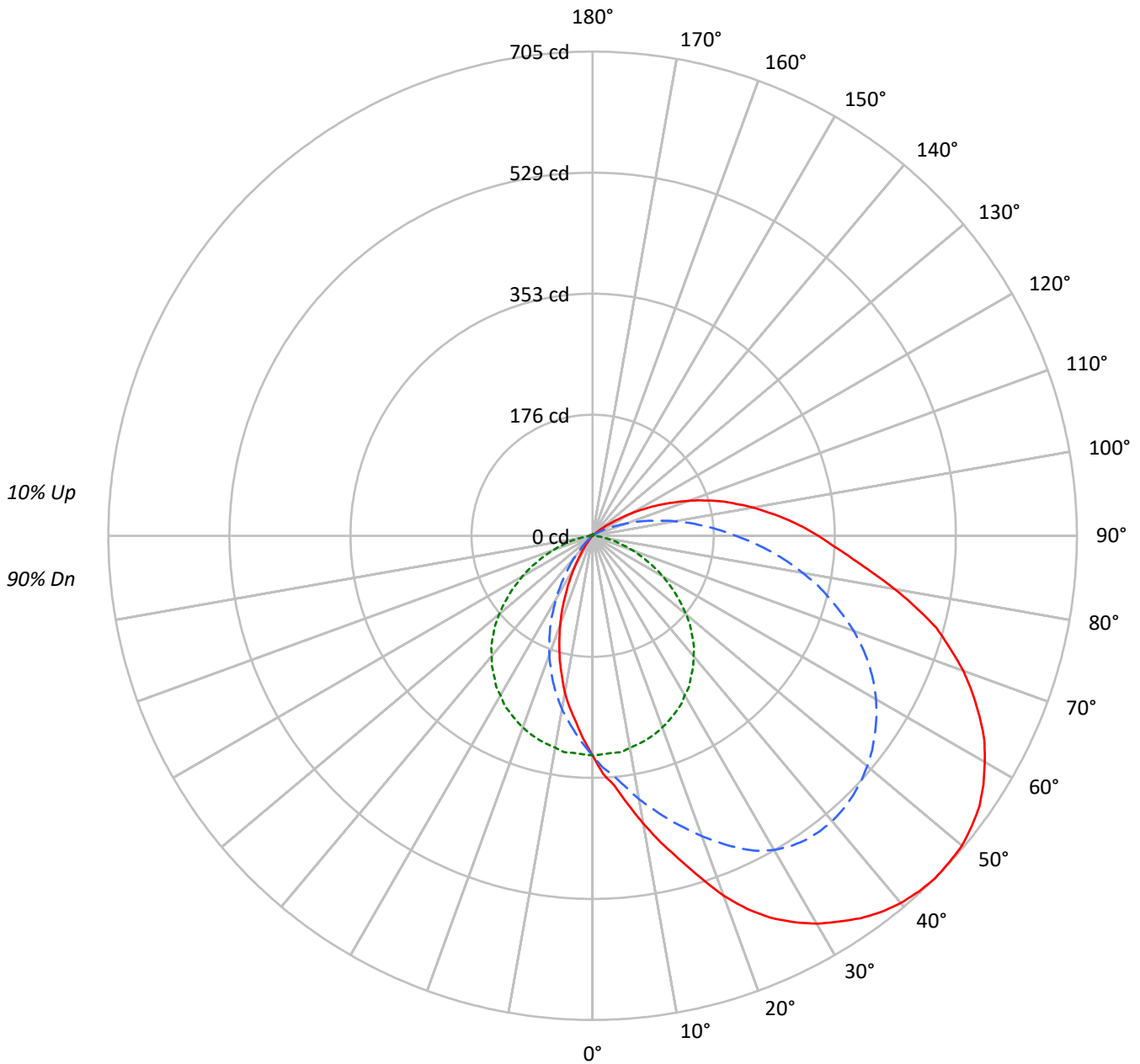
Lumens per Lamp: N/A
Luminaire Lumens: 1580.9 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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°	3442	3442	3442
5°	3779	3392	2830
10°	4276	3351	2332
15°	4792	3308	1818
20°	5405	3254	1338
25°	5913	3192	879
30°	6290	3108	495
35°	6617	3017	218
40°	6908	2906	52
45°	7157	2767	0
50°	7365	2583	0
55°	7525	2349	0
60°	7605	2076	0
65°	7636	1768	0
70°	7610	1441	0
75°	7514	1063	6
80°	7209	649	32
85°	6969	310	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.6	1.9
10°-20°	91.7	5.8
20°-30°	148.5	9.4
30°-40°	190.8	12.1
40°-50°	216.0	13.7
50°-60°	223.8	14.2
60°-70°	211.0	13.3
70°-80°	176.8	11.2
80°-90°	128.2	8.1
90°-100°	84.3	5.3
100°-110°	48.7	3.1
110°-120°	21.5	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	270.9	17.1
0°-40°	461.7	29.2
0°-60°	901.4	57.0
0°-90°	1417.5	89.7
90°-120°	154.4	9.8
90°-150°	162.3	10.3
90°-180°	163.0	10.3
0°-180°	1580.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	320	320	320	320	320	
5°	365	351	317	288	273	37
15°	488	428	307	222	185	141
25°	614	502	284	146	91	284
35°	680	541	250	71	22	426
45°	705	536	204	16	0	544
55°	687	502	148	0	0	614
65°	621	444	88	0	0	615
75°	518	358	38	0	0	543
85°	379	260	6	2	2	324
90°	328	208	2	2	3	180
95°	282	163	1	3	4	221
105°	194	84	1	2	3	205
115°	106	28	1	1	2	106
125°	31	4	2	1	2	31
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°	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8	319.8
2.5°	346.7	346.3	345.1	343.0	340.2	335.3	331.2	327.5	322.7	318.6	310.8
5°	365.0	363.0	361.4	359.3	352.8	348.3	341.0	332.8	325.1	317.4	301.9
7.5°	394.4	391.1	388.6	382.9	374.0	363.8	352.4	344.6	339.4	317.8	291.3
10°	425.7	422.9	418.0	407.8	396.8	382.1	365.8	347.5	331.2	313.3	281.9
12.5°	456.7	452.6	445.7	432.6	417.2	398.8	376.4	354.8	331.6	310.4	270.9
15°	487.6	483.2	475.8	459.9	439.6	415.5	388.2	360.9	333.6	306.8	259.5
17.5°	521.5	515.3	504.3	486.4	460.8	431.0	398.8	365.8	332.8	302.3	247.3
20°	557.7	549.2	537.3	513.3	483.2	448.1	409.4	370.7	332.4	297.0	233.4
22.5°	587.9	579.3	566.3	541.4	505.2	462.4	418.4	374.0	330.8	290.9	220.4
25°	613.9	607.0	592.7	564.2	525.9	477.5	426.9	376.4	328.4	284.4	206.5
27.5°	634.3	627.8	611.9	582.6	543.5	490.9	433.5	377.6	325.1	277.8	192.3
30°	652.2	645.7	626.6	596.4	555.3	501.5	440.0	378.1	321.0	268.1	176.8
32.5°	666.1	660.0	640.4	608.2	563.4	508.8	443.6	377.6	315.7	261.1	160.1
35°	679.9	673.8	651.0	616.8	569.5	512.1	446.5	375.6	309.2	249.7	144.2
37.5°	690.5	683.6	660.4	622.5	572.4	512.9	446.1	372.8	302.3	240.4	128.3
40°	697.9	690.5	665.7	625.7	573.2	511.7	442.8	367.9	294.1	228.5	111.6
42.5°	702.7	694.6	668.1	630.6	571.6	508.4	437.9	361.8	285.2	218.4	95.7
45°	705.2	696.6	668.5	626.6	568.7	502.3	430.6	354.0	275.4	204.5	79.8
47.5°	704.0	694.6	666.5	622.1	563.4	495.8	422.5	344.6	263.6	192.3	64.8
50°	701.9	692.1	662.0	616.4	556.1	487.6	413.5	333.2	251.4	177.2	51.3
52.5°	695.4	685.6	657.1	608.2	547.5	478.3	401.3	321.4	238.3	162.5	39.1
55°	687.3	678.3	648.6	600.9	536.5	466.9	389.9	308.8	225.7	147.5	28.1
57.5°	674.6	666.5	638.0	589.1	525.5	454.2	377.2	294.9	209.8	132.4	19.6
60°	659.2	651.0	623.3	575.6	512.9	440.0	363.4	280.7	195.5	117.3	12.2
62.5°	642.9	635.1	606.2	558.9	497.0	424.9	348.3	266.4	180.5	103.5	7.3
65°	621.3	613.9	587.9	539.0	479.5	408.6	331.6	249.3	165.0	88.0	4.1
67.5°	598.5	591.9	565.5	520.6	459.1	390.7	314.5	232.6	148.7	74.6	2.0
70°	574.0	565.9	541.4	495.8	438.3	370.3	295.8	215.5	133.2	61.5	0.0
72.5°	545.5	539.4	515.8	472.6	414.3	348.7	276.6	196.8	116.1	48.9	0.4
75°	517.8	510.0	488.5	447.7	390.7	325.9	255.4	179.3	99.4	37.5	0.4
77.5°	481.9	479.5	459.1	419.6	368.3	303.9	232.2	158.1	83.5	26.9	0.4
80°	446.1	443.6	427.8	391.5	342.2	277.8	210.6	138.1	68.0	17.9	0.4
82.5°	410.6	407.4	392.3	362.2	315.7	255.8	188.2	118.1	53.8	11.0	0.4
85°	378.9	374.8	358.5	330.8	288.4	231.0	165.0	98.6	39.9	6.1	0.8
87.5°	351.6	348.7	330.8	302.3	260.7	207.8	144.6	79.8	28.1	2.9	1.2
90°	328.4	322.2	306.4	276.2	234.7	182.1	123.0	64.0	18.7	1.6	1.6
92.5°	305.5	300.2	282.7	251.8	211.4	160.1	102.3	48.9	11.8	0.8	2.0
95°	281.9	276.2	259.1	230.6	187.8	137.7	83.9	35.9	6.5	0.8	2.0
97.5°	258.7	253.4	235.5	207.0	166.6	118.1	66.4	25.3	3.3	0.8	1.6
100°	237.1	231.0	214.7	186.2	145.4	98.6	51.3	16.3	2.0	0.8	1.6
102.5°	214.3	209.4	192.7	165.0	123.4	80.3	38.3	10.2	0.8	0.8	1.2
105°	193.9	187.8	171.5	143.0	105.1	63.1	26.9	6.1	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	126.3	121.4	107.1	83.1	53.4	24.9	7.3	1.2	1.2	1.2	1.2
115°	105.5	98.2	85.6	64.4	39.5	16.3	3.7	1.2	1.2	1.2	1.2
117.5°	84.3	78.2	69.3	48.9	26.1	10.6	2.0	1.2	1.2	1.2	1.2
120°	66.0	60.3	50.1	33.8	17.5	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.3	42.8	33.8	22.0	10.6	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.4	28.9	22.4	13.4	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.4	18.3	13.0	7.7	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.4	10.2	7.7	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
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°	319.8	319.8	319.8
2.5°	304.3	298.6	297.0
5°	288.0	278.7	273.4
7.5°	271.7	259.1	253.0
10°	256.7	238.7	232.2
12.5°	238.7	218.0	207.8
15°	221.6	194.7	185.0
17.5°	202.5	172.3	160.9
20°	184.5	149.9	138.1
22.5°	164.2	127.9	114.9
25°	145.8	105.9	91.3
27.5°	125.5	83.5	70.9
30°	106.3	64.0	51.3
32.5°	88.0	46.8	35.4
35°	70.9	31.8	22.4
37.5°	54.6	19.6	11.4
40°	39.5	10.2	5.3
42.5°	26.5	4.9	2.9
45°	16.3	2.4	0.0
47.5°	9.4	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	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	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.9
90°	2.4	2.9	2.9
92.5°	2.4	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.1
102.5°	2.4	3.7	3.7
105°	2.0	2.9	3.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	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°	1.6	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°	171.1	166.2	149.9	123.0	86.0	48.1	17.9	3.3	0.8	1.2	1.2
110°	149.1	145.0	128.3	102.3	69.3	35.9	11.8	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.9
110°	1.6	2.0	2.4



(END OF REPORT)