

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: P550431

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-88-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: P550431
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-80-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

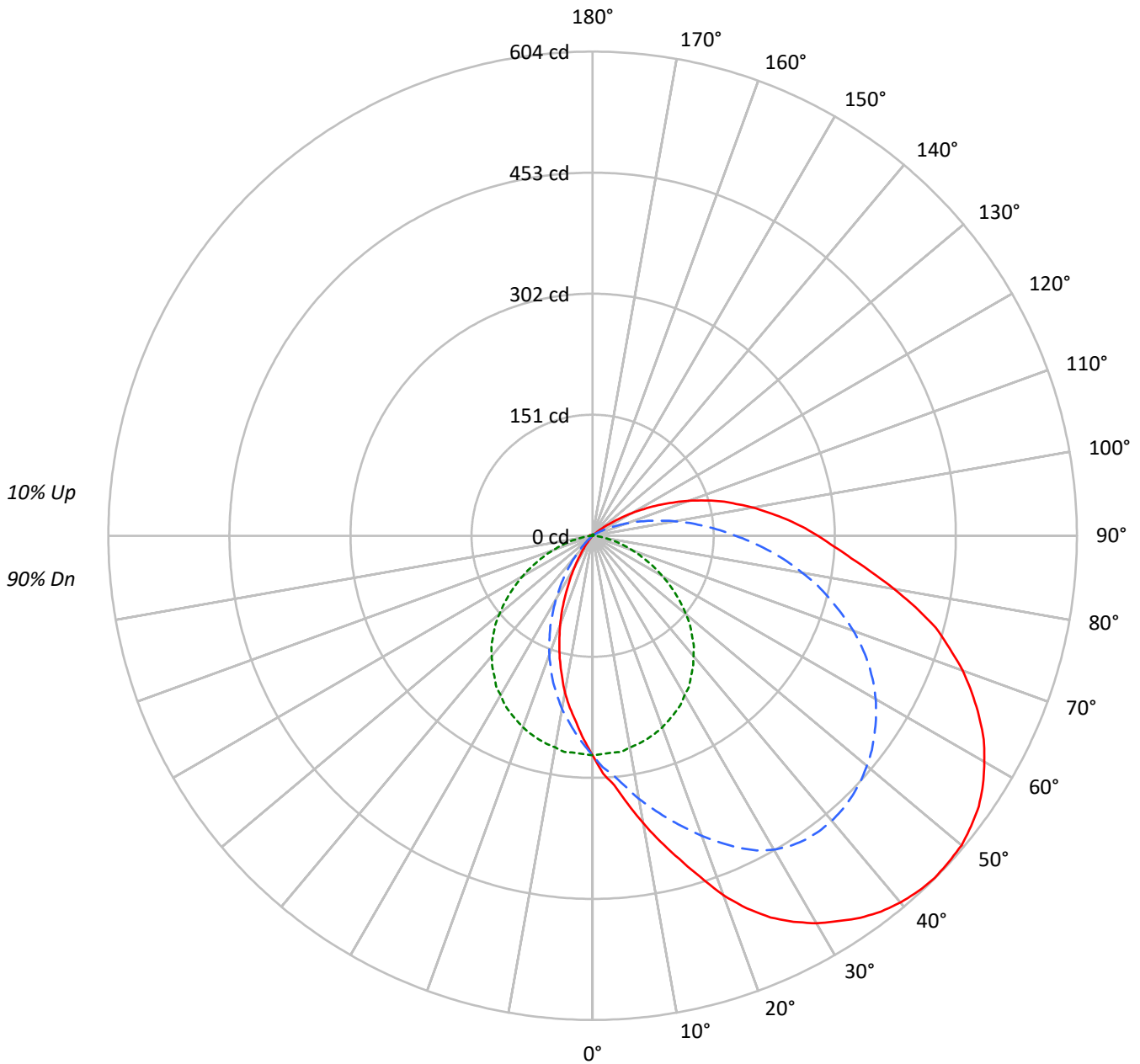
Lumens per Lamp: N/A
Luminaire Lumens: 1352.9 lumens
Efficiency: N/A
Efficacy: 62.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2946	2946	2946
5°	3234	2903	2421
10°	3659	2867	1996
15°	4101	2830	1556
20°	4626	2785	1145
25°	5060	2730	752
30°	5384	2659	423
35°	5664	2582	187
40°	5911	2488	45
45°	6125	2368	0
50°	6303	2211	0
55°	6439	2010	0
60°	6508	1777	0
65°	6535	1512	0
70°	6512	1232	0
75°	6430	910	4
80°	6170	555	27
85°	5963	264	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	1.9
10°-20°	78.5	5.8
20°-30°	127.1	9.4
30°-40°	163.3	12.1
40°-50°	184.8	13.7
50°-60°	191.5	14.2
60°-70°	180.6	13.3
70°-80°	151.3	11.2
80°-90°	109.7	8.1
90°-100°	72.1	5.3
100°-110°	41.6	3.1
110°-120°	18.4	1.4
120°-130°	5.0	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°	231.8	17.1
0°-40°	395.1	29.2
0°-60°	771.4	57.0
0°-90°	1213.0	89.7
90°-120°	132.1	9.8
90°-150°	138.9	10.3
90°-180°	140.0	10.3
0°-180°	1352.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	274	274	274	274	274	
5°	312	300	272	246	234	31
15°	417	366	262	190	158	120
25°	525	429	243	125	78	243
35°	582	463	214	61	19	365
45°	604	458	175	14	0	466
55°	588	429	126	0	0	525
65°	532	380	75	0	0	526
75°	443	307	32	0	0	465
85°	324	222	5	1	2	277
90°	281	178	1	2	2	154
95°	241	139	1	2	3	189
105°	166	72	1	2	3	175
115°	90	24	1	1	2	90
125°	27	3	1	1	1	27
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°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7
2.5°	296.7	296.3	295.3	293.6	291.1	286.9	283.4	280.3	276.1	272.6	266.0
5°	312.4	310.6	309.2	307.5	301.9	298.1	291.8	284.8	278.2	271.6	258.3
7.5°	337.5	334.7	332.6	327.7	320.0	311.3	301.6	294.9	290.4	271.9	249.3
10°	364.3	361.9	357.7	349.0	339.6	327.0	313.1	297.4	283.4	268.1	241.3
12.5°	390.8	387.3	381.4	370.3	357.0	341.3	322.1	303.7	283.8	265.7	231.8
15°	417.3	413.5	407.2	393.6	376.2	355.6	332.3	308.9	285.5	262.5	222.1
17.5°	446.3	441.0	431.6	416.3	394.3	368.9	341.3	313.1	284.8	258.7	211.6
20°	477.3	470.0	459.9	439.3	413.5	383.5	350.4	317.3	284.5	254.2	199.8
22.5°	503.1	495.8	484.6	463.3	432.3	395.7	358.0	320.0	283.1	248.9	188.6
25°	525.4	519.5	507.3	482.9	450.1	408.6	365.4	322.1	281.0	243.3	176.8
27.5°	542.8	537.2	523.7	498.5	465.1	420.1	370.9	323.2	278.2	237.8	164.6
30°	558.2	552.6	536.2	510.4	475.2	429.2	376.5	323.5	274.7	229.4	151.3
32.5°	570.0	564.8	548.1	520.5	482.2	435.4	379.7	323.2	270.2	223.5	137.0
35°	581.9	576.6	557.1	527.8	487.4	438.2	382.1	321.4	264.6	213.7	123.4
37.5°	590.9	585.0	565.1	532.7	489.8	438.9	381.8	319.0	258.7	205.7	109.8
40°	597.2	590.9	569.7	535.5	490.5	437.9	379.0	314.8	251.7	195.6	95.5
42.5°	601.4	594.4	571.8	539.7	489.1	435.1	374.8	309.6	244.0	186.9	81.9
45°	603.5	596.2	572.1	536.2	486.7	429.9	368.5	303.0	235.7	175.0	68.3
47.5°	602.4	594.4	570.4	532.4	482.2	424.3	361.5	294.9	225.6	164.6	55.4
50°	600.7	592.3	566.5	527.5	475.9	417.3	353.9	285.2	215.1	151.7	43.9
52.5°	595.1	586.8	562.4	520.5	468.6	409.3	343.4	275.1	204.0	139.1	33.5
55°	588.1	580.5	555.0	514.2	459.2	399.5	333.6	264.3	193.1	126.2	24.1
57.5°	577.3	570.4	546.0	504.1	449.7	388.7	322.8	252.4	179.5	113.3	16.7
60°	564.1	557.1	533.4	492.6	438.9	376.5	311.0	240.2	167.3	100.4	10.5
62.5°	550.1	543.5	518.8	478.3	425.3	363.6	298.1	228.0	154.4	88.6	6.3
65°	531.7	525.4	503.1	461.2	410.3	349.7	283.8	213.4	141.2	75.3	3.5
67.5°	512.1	506.6	483.9	445.6	392.9	334.3	269.1	199.1	127.3	63.8	1.7
70°	491.2	484.3	463.3	424.3	375.1	316.9	253.1	184.4	114.0	52.6	0.0
72.5°	466.8	461.6	441.4	404.4	354.6	298.4	236.7	168.4	99.4	41.8	0.3
75°	443.1	436.5	418.0	383.2	334.3	278.9	218.6	153.4	85.1	32.1	0.3
77.5°	412.4	410.3	392.9	359.1	315.2	260.1	198.7	135.3	71.5	23.0	0.3
80°	381.8	379.7	366.1	335.0	292.9	237.8	180.2	118.2	58.2	15.3	0.3
82.5°	351.4	348.6	335.7	309.9	270.2	218.9	161.1	101.1	46.0	9.4	0.3
85°	324.2	320.7	306.8	283.1	246.8	197.7	141.2	84.4	34.2	5.2	0.7
87.5°	300.9	298.4	283.1	258.7	223.1	177.8	123.8	68.3	24.1	2.4	1.0
90°	281.0	275.8	262.2	236.4	200.8	155.8	105.3	54.7	16.0	1.4	1.4
92.5°	261.5	256.9	242.0	215.5	180.9	137.0	87.5	41.8	10.1	0.7	1.7
95°	241.3	236.4	221.7	197.3	160.7	117.8	71.8	30.7	5.6	0.7	1.7
97.5°	221.4	216.9	201.5	177.1	142.6	101.1	56.8	21.6	2.8	0.7	1.4
100°	202.9	197.7	183.7	159.3	124.5	84.4	43.9	13.9	1.7	0.7	1.4
102.5°	183.4	179.2	164.9	141.2	105.6	68.7	32.8	8.7	0.7	0.7	1.0
105°	166.0	160.7	146.8	122.4	89.9	54.0	23.0	5.2	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°	108.1	103.9	91.7	71.1	45.7	21.3	6.3	1.0	1.0	1.0	1.0
115°	90.3	84.0	73.2	55.1	33.8	13.9	3.1	1.0	1.0	1.0	1.0
117.5°	72.2	66.9	59.3	41.8	22.3	9.1	1.7	1.0	1.0	1.0	1.0
120°	56.5	51.6	42.9	28.9	15.0	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	40.4	36.6	28.9	18.8	9.1	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.8	24.8	19.2	11.5	5.6	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.4	15.7	11.2	6.6	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.8	8.7	6.6	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.6	5.2	3.5	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°	273.7	273.7	273.7
2.5°	260.4	255.6	254.2
5°	246.5	238.5	233.9
7.5°	232.5	221.7	216.5
10°	219.6	204.3	198.7
12.5°	204.3	186.5	177.8
15°	189.7	166.6	158.3
17.5°	173.3	147.5	137.7
20°	157.9	128.3	118.2
22.5°	140.5	109.5	98.3
25°	124.8	90.6	78.1
27.5°	107.4	71.5	60.7
30°	91.0	54.7	43.9
32.5°	75.3	40.1	30.3
35°	60.7	27.2	19.2
37.5°	46.7	16.7	9.8
40°	33.8	8.7	4.5
42.5°	22.7	4.2	2.4
45°	13.9	2.1	0.0
47.5°	8.0	0.0	0.0
50°	4.2	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	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.8	2.8
95°	2.4	2.8	3.1
97.5°	2.8	3.1	3.1
100°	2.4	3.1	3.5
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.8



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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°	146.4	142.2	128.3	105.3	73.6	41.1	15.3	2.8	0.7	1.0	1.0
110°	127.6	124.1	109.8	87.5	59.3	30.7	10.1	1.7	1.0	1.0	1.0





107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)