

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: P550432

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-88-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: P550432
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
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

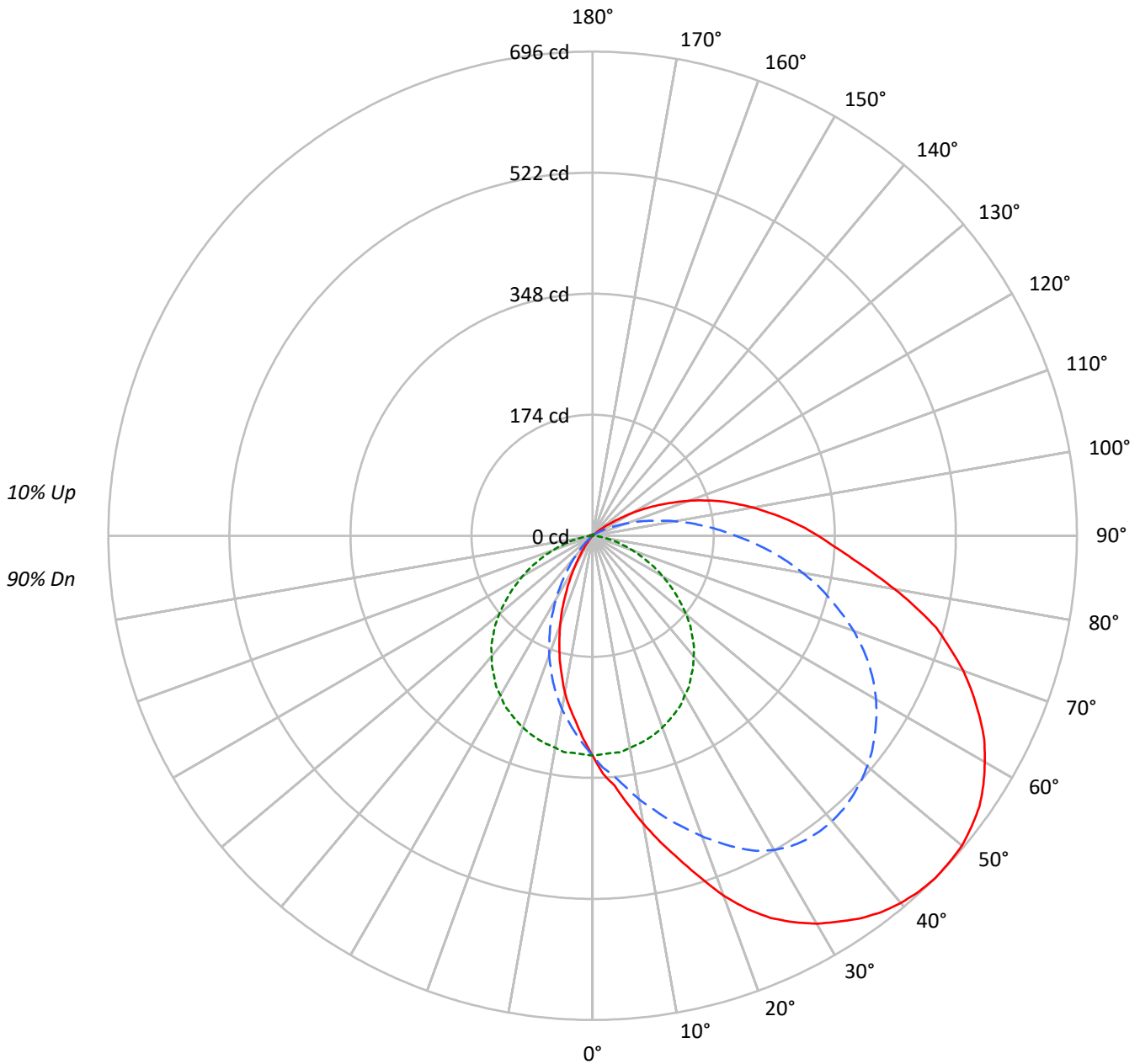
Lumens per Lamp: N/A
Luminaire Lumens: 1561.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3399	3399	3399
5°	3731	3349	2794
10°	4222	3308	2303
15°	4732	3266	1794
20°	5337	3212	1322
25°	5838	3151	868
30°	6211	3069	489
35°	6534	2980	215
40°	6820	2870	51
45°	7066	2732	0
50°	7272	2551	0
55°	7430	2318	0
60°	7508	2049	0
65°	7539	1745	0
70°	7513	1422	0
75°	7418	1049	6
80°	7117	642	32
85°	6880	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	1.9
10°-20°	90.6	5.8
20°-30°	146.7	9.4
30°-40°	188.4	12.1
40°-50°	213.3	13.7
50°-60°	220.9	14.2
60°-70°	208.4	13.3
70°-80°	174.6	11.2
80°-90°	126.6	8.1
90°-100°	83.2	5.3
100°-110°	48.0	3.1
110°-120°	21.2	1.4
120°-130°	5.7	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°	267.5	17.1
0°-40°	455.8	29.2
0°-60°	890.0	57.0
0°-90°	1399.6	89.7
90°-120°	152.4	9.8
90°-150°	160.3	10.3
90°-180°	161.0	10.3
0°-180°	1561.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	316	316	316	316	316	
5°	360	346	313	284	270	36
15°	482	422	303	219	183	139
25°	606	495	281	144	90	280
35°	671	534	247	70	22	421
45°	696	529	202	16	0	538
55°	679	495	146	0	0	606
65°	613	438	87	0	0	607
75°	511	354	37	0	0	536
85°	374	256	6	2	2	319
90°	324	206	2	2	3	178
95°	278	161	1	3	4	218
105°	192	83	1	2	3	202
115°	104	28	1	1	2	104
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°	315.8	315.8	315.8	315.8	315.8	315.8	315.8	315.8	315.8	315.8	315.8
2.5°	342.3	341.9	340.7	338.7	335.9	331.0	327.0	323.4	318.6	314.5	306.9
5°	360.4	358.4	356.8	354.8	348.3	343.9	336.7	328.6	321.0	313.3	298.1
7.5°	389.4	386.1	383.7	378.1	369.2	359.2	347.9	340.3	335.1	313.7	287.6
10°	420.3	417.5	412.7	402.6	391.8	377.3	361.2	343.1	327.0	309.3	278.3
12.5°	450.9	446.9	440.0	427.2	411.9	393.8	371.7	350.3	327.4	306.5	267.5
15°	481.5	477.0	469.8	454.1	434.0	410.3	383.3	356.4	329.4	302.9	256.2
17.5°	514.9	508.8	498.0	480.3	454.9	425.6	393.8	361.2	328.6	298.5	244.2
20°	550.7	542.2	530.5	506.8	477.0	442.5	404.2	366.0	328.2	293.2	230.5
22.5°	580.4	572.0	559.1	534.6	498.8	456.5	413.1	369.2	326.6	287.2	217.6
25°	606.2	599.3	585.2	557.1	519.3	471.4	421.5	371.7	324.2	280.8	203.9
27.5°	626.3	619.8	604.2	575.2	536.6	484.7	428.0	372.9	321.0	274.3	189.9
30°	644.0	637.5	618.6	588.9	548.2	495.1	434.4	373.3	317.0	264.7	174.6
32.5°	657.7	651.6	632.3	600.5	556.3	502.4	438.0	372.9	311.7	257.8	158.1
35°	671.3	665.3	642.8	609.0	562.3	505.6	440.8	370.9	305.3	246.6	142.4
37.5°	681.8	674.9	652.0	614.6	565.1	506.4	440.4	368.0	298.5	237.3	126.7
40°	689.0	681.8	657.2	617.8	565.9	505.2	437.2	363.2	290.4	225.7	110.2
42.5°	693.9	685.8	659.7	622.7	564.3	502.0	432.4	357.2	281.6	215.6	94.5
45°	696.3	687.8	660.1	618.6	561.5	496.0	425.2	349.5	271.9	201.9	78.8
47.5°	695.1	685.8	658.1	614.2	556.3	489.5	417.1	340.3	260.2	189.9	64.0
50°	693.0	683.4	653.6	608.6	549.0	481.5	408.3	329.0	248.2	175.0	50.7
52.5°	686.6	677.0	648.8	600.5	540.6	472.2	396.2	317.4	235.3	160.5	38.6
55°	678.6	669.7	640.4	593.3	529.7	461.0	384.9	304.9	222.8	145.6	27.8
57.5°	666.1	658.1	629.9	581.6	518.9	448.5	372.5	291.2	207.1	130.7	19.3
60°	650.8	642.8	615.4	568.4	506.4	434.4	358.8	277.1	193.1	115.8	12.1
62.5°	634.7	627.1	598.5	551.9	490.7	419.5	343.9	263.1	178.2	102.2	7.2
65°	613.4	606.2	580.4	532.2	473.4	403.4	327.4	246.2	162.9	86.9	4.0
67.5°	590.9	584.4	558.3	514.1	453.3	385.7	310.5	229.7	146.8	73.6	2.0
70°	566.7	558.7	534.6	489.5	432.8	365.6	292.0	212.8	131.5	60.7	0.0
72.5°	538.6	532.6	509.2	466.6	409.1	344.3	273.1	194.3	114.6	48.3	0.4
75°	511.2	503.6	482.3	442.1	385.7	321.8	252.2	177.0	98.1	37.0	0.4
77.5°	475.8	473.4	453.3	414.3	363.6	300.1	229.3	156.1	82.5	26.5	0.4
80°	440.4	438.0	422.3	386.5	337.9	274.3	208.0	136.4	67.2	17.7	0.4
82.5°	405.5	402.2	387.4	357.6	311.7	252.6	185.8	116.6	53.1	10.9	0.4
85°	374.1	370.1	354.0	326.6	284.8	228.1	162.9	97.3	39.4	6.0	0.8
87.5°	347.1	344.3	326.6	298.5	257.4	205.1	142.8	78.8	27.8	2.8	1.2
90°	324.2	318.2	302.5	272.7	231.7	179.8	121.5	63.2	18.5	1.6	1.6
92.5°	301.7	296.4	279.1	248.6	208.8	158.1	101.0	48.3	11.7	0.8	2.0
95°	278.3	272.7	255.8	227.7	185.4	136.0	82.9	35.4	6.4	0.8	2.0
97.5°	255.4	250.2	232.5	204.3	164.5	116.6	65.6	24.9	3.2	0.8	1.6
100°	234.1	228.1	212.0	183.8	143.6	97.3	50.7	16.1	2.0	0.8	1.6
102.5°	211.6	206.7	190.3	162.9	121.9	79.2	37.8	10.1	0.8	0.8	1.2
105°	191.5	185.4	169.3	141.2	103.8	62.3	26.5	6.0	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°	124.7	119.9	105.8	82.1	52.7	24.5	7.2	1.2	1.2	1.2	1.2
115°	104.2	96.9	84.5	63.6	39.0	16.1	3.6	1.2	1.2	1.2	1.2
117.5°	83.3	77.2	68.4	48.3	25.7	10.5	2.0	1.2	1.2	1.2	1.2
120°	65.2	59.5	49.5	33.4	17.3	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.7	42.2	33.4	21.7	10.5	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.0	28.6	22.1	13.3	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.1	18.1	12.9	7.6	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.3	10.1	7.6	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.4	6.0	4.0	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°	315.8	315.8	315.8
2.5°	300.5	294.8	293.2
5°	284.4	275.1	269.9
7.5°	268.3	255.8	249.8
10°	253.4	235.7	229.3
12.5°	235.7	215.2	205.1
15°	218.8	192.3	182.6
17.5°	199.9	170.1	158.9
20°	182.2	148.0	136.4
22.5°	162.1	126.3	113.4
25°	144.0	104.6	90.1
27.5°	123.9	82.5	70.0
30°	105.0	63.2	50.7
32.5°	86.9	46.3	35.0
35°	70.0	31.4	22.1
37.5°	53.9	19.3	11.3
40°	39.0	10.1	5.2
42.5°	26.1	4.8	2.8
45°	16.1	2.4	0.0
47.5°	9.3	0.0	0.0
50°	4.8	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	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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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°	168.9	164.1	148.0	121.5	84.9	47.5	17.7	3.2	0.8	1.2	1.2
110°	147.2	143.2	126.7	101.0	68.4	35.4	11.7	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)