

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: P550429

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-87-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: P550429
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-80-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

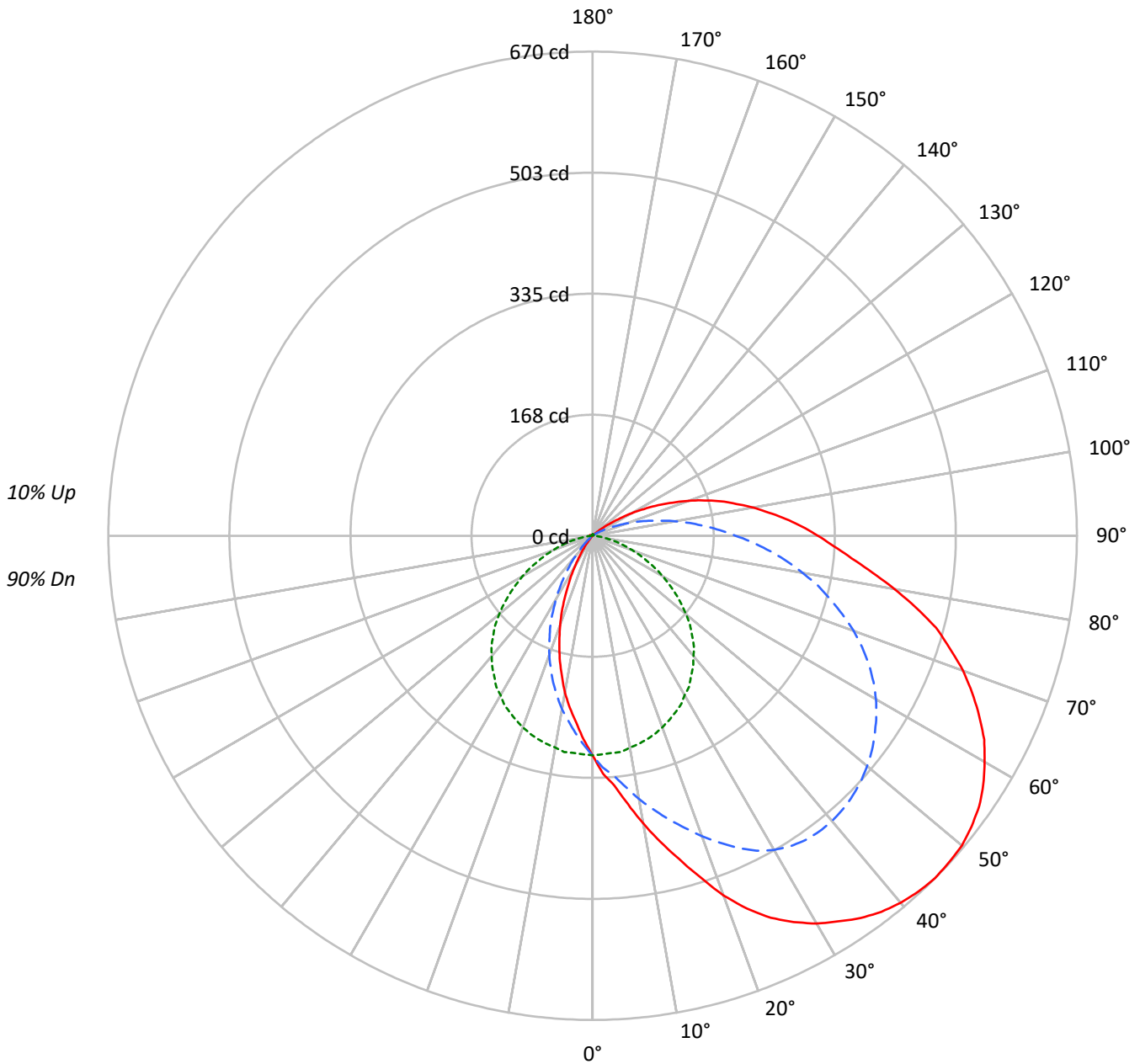
Lumens per Lamp: N/A
Luminaire Lumens: 1502.0 lumens
Efficiency: N/A
Efficacy: 69.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3270	3270	3270
5°	3590	3222	2688
10°	4062	3183	2216
15°	4553	3142	1727
20°	5134	3091	1271
25°	5618	3031	835
30°	5976	2953	471
35°	6287	2866	207
40°	6563	2761	49
45°	6798	2629	0
50°	6998	2454	0
55°	7148	2231	0
60°	7224	1973	0
65°	7254	1679	0
70°	7230	1368	0
75°	7138	1010	6
80°	6849	617	31
85°	6619	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	1.9
10°-20°	87.1	5.8
20°-30°	141.1	9.4
30°-40°	181.3	12.1
40°-50°	205.2	13.7
50°-60°	212.6	14.2
60°-70°	200.5	13.3
70°-80°	168.0	11.2
80°-90°	121.8	8.1
90°-100°	80.0	5.3
100°-110°	46.2	3.1
110°-120°	20.4	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°	257.3	17.1
0°-40°	438.6	29.2
0°-60°	856.4	57.0
0°-90°	1346.7	89.7
90°-120°	146.7	9.8
90°-150°	154.3	10.3
90°-180°	155.0	10.3
0°-180°	1502.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	304	304	304	304	304	
5°	347	333	302	274	260	35
15°	463	406	291	210	176	134
25°	583	477	270	139	87	270
35°	646	514	237	67	21	405
45°	670	509	194	16	0	517
55°	653	477	140	0	0	583
65°	590	422	84	0	0	584
75°	492	340	36	0	0	516
85°	360	247	6	2	2	307
90°	312	198	2	2	3	171
95°	268	155	1	3	4	210
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°	303.8	303.8	303.8	303.8	303.8	303.8	303.8	303.8	303.8	303.8	303.8
2.5°	329.4	329.0	327.8	325.9	323.2	318.5	314.7	311.2	306.5	302.7	295.3
5°	346.8	344.8	343.3	341.4	335.2	330.9	323.9	316.2	308.8	301.5	286.8
7.5°	374.6	371.5	369.2	363.8	355.3	345.6	334.8	327.4	322.4	301.9	276.7
10°	404.4	401.7	397.1	387.4	377.0	363.0	347.6	330.1	314.7	297.6	267.8
12.5°	433.9	430.0	423.4	411.0	396.3	378.9	357.6	337.1	315.0	294.9	257.4
15°	463.3	459.0	452.1	437.0	417.6	394.8	368.8	342.9	317.0	291.4	246.5
17.5°	495.4	489.6	479.1	462.1	437.7	409.5	378.9	347.6	316.2	287.2	234.9
20°	529.8	521.7	510.5	487.7	459.0	425.7	389.0	352.2	315.8	282.1	221.8
22.5°	558.5	550.4	538.0	514.4	479.9	439.3	397.5	355.3	314.3	276.3	209.4
25°	583.3	576.7	563.1	536.0	499.7	453.6	405.6	357.6	311.9	270.1	196.2
27.5°	602.6	596.4	581.3	553.5	516.3	466.4	411.8	358.8	308.8	264.0	182.7
30°	619.6	613.4	595.3	566.6	527.5	476.4	418.0	359.2	305.0	254.7	168.0
32.5°	632.8	627.0	608.4	577.8	535.3	483.4	421.5	358.8	299.9	248.1	152.1
35°	646.0	640.1	618.5	586.0	541.1	486.5	424.2	356.8	293.8	237.2	137.0
37.5°	656.0	649.4	627.4	591.4	543.8	487.3	423.8	354.1	287.2	228.3	121.9
40°	663.0	656.0	632.4	594.5	544.6	486.1	420.7	349.5	279.4	217.1	106.0
42.5°	667.6	659.9	634.7	599.1	543.0	483.0	416.1	343.7	270.9	207.4	91.0
45°	669.9	661.8	635.1	595.3	540.3	477.2	409.1	336.3	261.6	194.3	75.9
47.5°	668.8	659.9	633.2	591.0	535.3	471.0	401.4	327.4	250.4	182.7	61.5
50°	666.9	657.6	628.9	585.6	528.3	463.3	392.8	316.6	238.8	168.4	48.8
52.5°	660.7	651.4	624.3	577.8	520.2	454.4	381.2	305.4	226.4	154.4	37.2
55°	652.9	644.4	616.2	570.9	509.7	443.5	370.4	293.4	214.4	140.1	26.7
57.5°	640.9	633.2	606.1	559.6	499.3	431.5	358.4	280.2	199.3	125.8	18.6
60°	626.2	618.5	592.2	546.9	487.3	418.0	345.2	266.7	185.8	111.5	11.6
62.5°	610.7	603.4	575.9	531.0	472.2	403.7	330.9	253.1	171.5	98.3	7.0
65°	590.2	583.3	558.5	512.0	455.5	388.2	315.0	236.9	156.7	83.6	3.9
67.5°	568.5	562.4	537.2	494.6	436.2	371.2	298.8	221.0	141.3	70.8	1.9
70°	545.3	537.6	514.4	471.0	416.4	351.8	281.0	204.7	126.6	58.4	0.0
72.5°	518.2	512.4	490.0	449.0	393.6	331.3	262.8	186.9	110.3	46.4	0.4
75°	491.9	484.6	464.0	425.3	371.2	309.6	242.7	170.3	94.4	35.6	0.4
77.5°	457.9	455.5	436.2	398.6	349.9	288.7	220.6	150.2	79.3	25.5	0.4
80°	423.8	421.5	406.4	371.9	325.1	264.0	200.1	131.2	64.6	17.0	0.4
82.5°	390.1	387.0	372.7	344.1	299.9	243.1	178.8	112.2	51.1	10.4	0.4
85°	359.9	356.1	340.6	314.3	274.0	219.4	156.7	93.7	37.9	5.8	0.8
87.5°	334.0	331.3	314.3	287.2	247.7	197.4	137.4	75.9	26.7	2.7	1.2
90°	311.9	306.1	291.0	262.4	222.9	173.0	116.9	60.8	17.8	1.5	1.5
92.5°	290.3	285.2	268.6	239.2	200.9	152.1	97.1	46.4	11.2	0.8	1.9
95°	267.8	262.4	246.2	219.1	178.4	130.8	79.7	34.1	6.2	0.8	1.9
97.5°	245.8	240.7	223.7	196.6	158.3	112.2	63.1	24.0	3.1	0.8	1.5
100°	225.3	219.4	204.0	176.9	138.2	93.7	48.8	15.5	1.9	0.8	1.5
102.5°	203.6	198.9	183.1	156.7	117.3	76.2	36.4	9.7	0.8	0.8	1.2
105°	184.2	178.4	162.9	135.8	99.9	60.0	25.5	5.8	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°	120.0	115.3	101.8	79.0	50.7	23.6	7.0	1.2	1.2	1.2	1.2
115°	100.2	93.3	81.3	61.2	37.5	15.5	3.5	1.2	1.2	1.2	1.2
117.5°	80.1	74.3	65.8	46.4	24.8	10.1	1.9	1.2	1.2	1.2	1.2
120°	62.7	57.3	47.6	32.1	16.6	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.9	40.6	32.1	20.9	10.1	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.8	27.5	21.3	12.8	6.2	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.4	17.4	12.4	7.4	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.7	7.4	4.3	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°	303.8	303.8	303.8
2.5°	289.1	283.7	282.1
5°	273.6	264.7	259.7
7.5°	258.1	246.2	240.3
10°	243.8	226.8	220.6
12.5°	226.8	207.1	197.4
15°	210.5	185.0	175.7
17.5°	192.4	163.7	152.9
20°	175.3	142.4	131.2
22.5°	156.0	121.5	109.1
25°	138.6	100.6	86.7
27.5°	119.2	79.3	67.3
30°	101.0	60.8	48.8
32.5°	83.6	44.5	33.7
35°	67.3	30.2	21.3
37.5°	51.9	18.6	10.8
40°	37.5	9.7	5.0
42.5°	25.2	4.6	2.7
45°	15.5	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°	162.6	157.9	142.4	116.9	81.7	45.7	17.0	3.1	0.8	1.2	1.2
110°	141.7	137.8	121.9	97.1	65.8	34.1	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)