

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: P551127

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-80-84-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: P551127
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-LD4-1STD-50-UNV-80-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

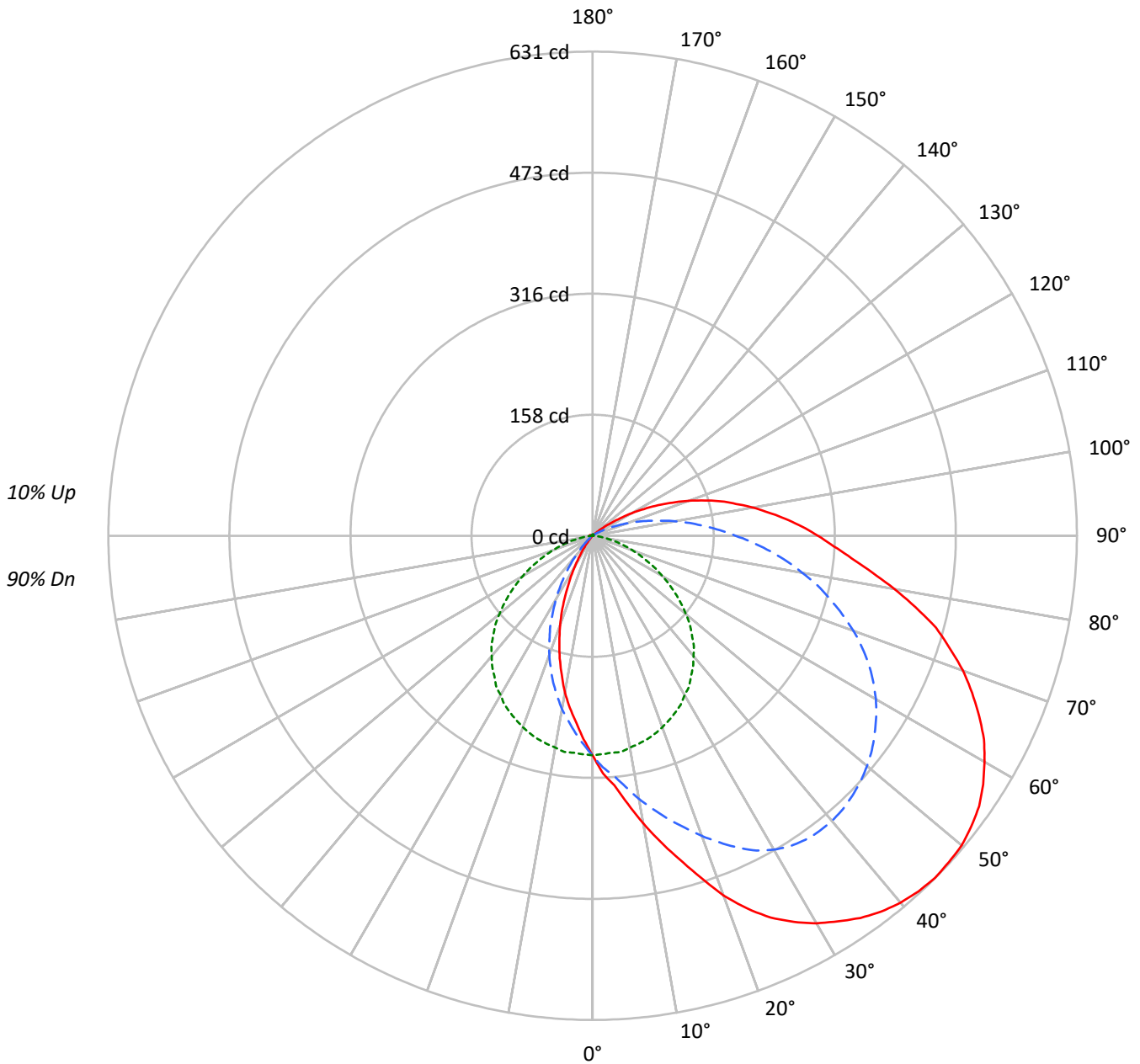
Lumens per Lamp: N/A
Luminaire Lumens: 1414.1 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3078	3078	3078
5°	3380	3033	2531
10°	3825	2997	2086
15°	4286	2959	1625
20°	4834	2910	1197
25°	5288	2854	786
30°	5626	2779	443
35°	5919	2698	195
40°	6178	2599	47
45°	6401	2475	0
50°	6588	2310	0
55°	6730	2100	0
60°	6801	1856	0
65°	6829	1581	0
70°	6807	1288	0
75°	6720	950	6
80°	6448	580	29
85°	6231	280	40



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.4	1.9
10°-20°	82.0	5.8
20°-30°	132.8	9.4
30°-40°	170.6	12.1
40°-50°	193.2	13.7
50°-60°	200.1	14.2
60°-70°	188.7	13.3
70°-80°	158.2	11.2
80°-90°	114.7	8.1
90°-100°	75.4	5.3
100°-110°	43.5	3.1
110°-120°	19.2	1.4
120°-130°	5.2	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°	242.3	17.1
0°-40°	412.9	29.2
0°-60°	806.2	57.0
0°-90°	1267.8	89.7
90°-120°	138.1	9.8
90°-150°	145.3	10.3
90°-180°	146.0	10.3
0°-180°	1414.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	286	286	286	286	286	
5°	326	314	284	258	244	33
15°	436	382	274	198	165	126
25°	549	449	254	130	82	254
35°	608	484	223	63	20	381
45°	631	479	183	15	0	487
55°	615	449	132	0	0	549
65°	556	397	79	0	0	550
75°	463	320	34	0	0	486
85°	339	232	6	2	2	289
90°	294	186	2	2	3	161
95°	252	146	1	3	3	198
105°	173	75	1	2	3	183
115°	94	25	1	1	2	94
125°	28	3	2	1	2	28
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°	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0	286.0
2.5°	310.1	309.7	308.6	306.8	304.2	299.9	296.2	292.9	288.6	284.9	278.0
5°	326.5	324.6	323.2	321.4	315.5	311.5	305.0	297.7	290.8	283.8	270.0
7.5°	352.7	349.8	347.6	342.5	334.5	325.4	315.2	308.2	303.5	284.2	260.5
10°	380.8	378.2	373.8	364.7	354.9	341.8	327.2	310.8	296.2	280.2	252.1
12.5°	408.4	404.8	398.6	386.9	373.1	356.7	336.7	317.4	296.6	277.6	242.3
15°	436.1	432.1	425.6	411.4	393.1	371.6	347.2	322.8	298.4	274.4	232.1
17.5°	466.4	460.9	451.1	435.0	412.1	385.5	356.7	327.2	297.7	270.4	221.2
20°	498.8	491.1	480.6	459.1	432.1	400.8	366.2	331.6	297.3	265.6	208.8
22.5°	525.8	518.1	506.5	484.2	451.8	413.5	374.2	334.5	295.9	260.1	197.1
25°	549.1	542.9	530.1	504.6	470.4	427.0	381.8	336.7	293.7	254.3	184.7
27.5°	567.3	561.5	547.3	521.0	486.0	439.0	387.7	337.8	290.8	248.5	172.0
30°	583.3	577.5	560.4	533.4	496.6	448.5	393.5	338.1	287.1	239.7	158.1
32.5°	595.7	590.3	572.8	544.0	503.9	455.1	396.8	337.8	282.4	233.6	143.2
35°	608.1	602.6	582.2	551.6	509.4	458.0	399.3	335.9	276.5	223.3	129.0
37.5°	617.6	611.4	590.6	556.7	511.9	458.7	399.0	333.4	270.4	215.0	114.8
40°	624.1	617.6	595.4	559.6	512.6	457.6	396.1	329.0	263.1	204.4	99.8
42.5°	628.5	621.2	597.5	564.0	511.2	454.7	391.7	323.5	255.0	195.3	85.6
45°	630.7	623.0	597.9	560.4	508.6	449.2	385.1	316.6	246.3	182.9	71.4
47.5°	629.6	621.2	596.1	556.4	503.9	443.4	377.8	308.2	235.7	172.0	57.9
50°	627.8	619.0	592.1	551.3	497.3	436.1	369.8	298.0	224.8	158.5	45.9
52.5°	622.0	613.2	587.7	544.0	489.7	427.8	358.9	287.5	213.1	145.4	35.0
55°	614.7	606.7	580.1	537.4	479.9	417.6	348.7	276.2	201.9	131.9	25.1
57.5°	603.4	596.1	570.6	526.9	470.0	406.3	337.4	263.8	187.6	118.4	17.5
60°	589.5	582.2	557.5	514.8	458.7	393.5	325.0	251.0	174.9	104.9	10.9
62.5°	575.0	568.0	542.2	499.9	444.5	380.0	311.5	238.3	161.4	92.5	6.6
65°	555.6	549.1	525.8	482.0	428.8	365.4	296.6	223.0	147.6	78.7	3.6
67.5°	535.2	529.4	505.7	465.6	410.6	349.4	281.3	208.0	133.0	66.7	1.8
70°	513.4	506.1	484.2	443.4	392.0	331.2	264.5	192.7	119.1	55.0	0.0
72.5°	487.9	482.4	461.3	422.7	370.5	311.9	247.4	176.0	103.8	43.7	0.4
75°	463.1	456.2	436.9	400.4	349.4	291.5	228.5	160.3	88.9	33.5	0.4
77.5°	431.0	428.8	410.6	375.3	329.4	271.8	207.7	141.4	74.7	24.0	0.4
80°	399.0	396.8	382.6	350.1	306.1	248.5	188.4	123.5	60.8	16.0	0.4
82.5°	367.3	364.4	350.9	323.9	282.4	228.8	168.3	105.7	48.1	9.8	0.4
85°	338.8	335.2	320.6	295.9	258.0	206.6	147.6	88.2	35.7	5.5	0.7
87.5°	314.4	311.9	295.9	270.4	233.2	185.8	129.3	71.4	25.1	2.6	1.1
90°	293.7	288.2	274.0	247.0	209.9	162.9	110.0	57.2	16.8	1.5	1.5
92.5°	273.3	268.5	252.9	225.2	189.1	143.2	91.5	43.7	10.6	0.7	1.8
95°	252.1	247.0	231.7	206.2	168.0	123.2	75.1	32.1	5.8	0.7	1.8
97.5°	231.4	226.6	210.6	185.1	149.0	105.7	59.4	22.6	2.9	0.7	1.5
100°	212.1	206.6	192.0	166.5	130.1	88.2	45.9	14.6	1.8	0.7	1.5
102.5°	191.7	187.3	172.3	147.6	110.4	71.8	34.2	9.1	0.7	0.7	1.1
105°	173.4	168.0	153.4	127.9	94.0	56.5	24.0	5.5	0.7	0.7	1.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	112.9	108.6	95.8	74.3	47.7	22.2	6.6	1.1	1.1	1.1	1.1
115°	94.4	87.8	76.5	57.6	35.3	14.6	3.3	1.1	1.1	1.1	1.1
117.5°	75.4	70.0	61.9	43.7	23.3	9.5	1.8	1.1	1.1	1.1	1.1
120°	59.0	53.9	44.8	30.2	15.7	5.5	0.7	1.1	1.1	1.1	1.1
122.5°	42.3	38.3	30.2	19.7	9.5	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.1	25.9	20.0	12.0	5.8	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.2	16.4	11.7	6.9	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.2	9.1	6.9	4.0	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.8	5.5	3.6	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	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°	286.0	286.0	286.0
2.5°	272.2	267.1	265.6
5°	257.6	249.2	244.5
7.5°	243.0	231.7	226.3
10°	229.5	213.5	207.7
12.5°	213.5	194.9	185.8
15°	198.2	174.2	165.4
17.5°	181.1	154.1	143.9
20°	165.1	134.1	123.5
22.5°	146.8	114.4	102.7
25°	130.4	94.7	81.6
27.5°	112.2	74.7	63.4
30°	95.1	57.2	45.9
32.5°	78.7	41.9	31.7
35°	63.4	28.4	20.0
37.5°	48.8	17.5	10.2
40°	35.3	9.1	4.7
42.5°	23.7	4.4	2.6
45°	14.6	2.2	0.0
47.5°	8.4	0.0	0.0
50°	4.4	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	2.9	2.9
95°	2.6	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.6	3.3	3.6
102.5°	2.2	3.3	3.3
105°	1.8	2.6	2.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
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	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	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°	153.0	148.7	134.1	110.0	76.9	43.0	16.0	2.9	0.7	1.1	1.1
110°	133.4	129.7	114.8	91.5	61.9	32.1	10.6	1.8	1.1	1.1	1.1





107.5°	1.5	2.2	2.6
110°	1.5	1.8	2.2



(END OF REPORT)