

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: P550495

Luminaire Tested: **FCC-X-2-LD4-1HI-35-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: P550495
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-35-UNV-80-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

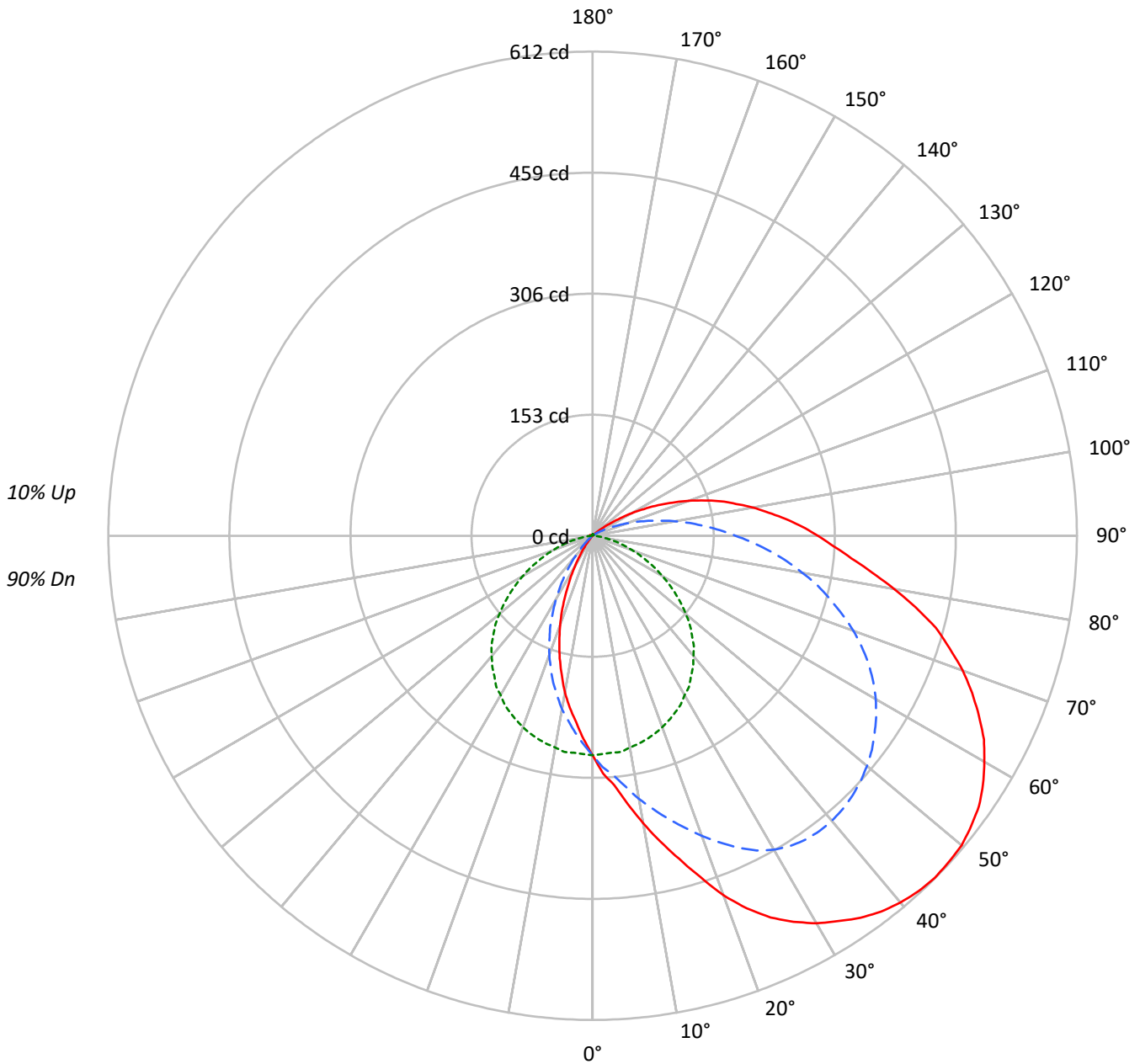
Lumens per Lamp: N/A
Luminaire Lumens: 1371.1 lumens
Efficiency: N/A
Efficacy: 63.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2985	2985	2985
5°	3276	2941	2453
10°	3708	2906	2023
15°	4156	2868	1576
20°	4687	2821	1161
25°	5128	2767	762
30°	5455	2695	429
35°	5738	2617	189
40°	5991	2521	46
45°	6206	2399	0
50°	6387	2240	0
55°	6525	2037	0
60°	6594	1800	0
65°	6621	1533	0
70°	6600	1249	0
75°	6515	922	6
80°	6251	562	29
85°	6042	270	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	1.9
10°-20°	79.5	5.8
20°-30°	128.8	9.4
30°-40°	165.5	12.1
40°-50°	187.3	13.7
50°-60°	194.0	14.2
60°-70°	183.0	13.3
70°-80°	153.4	11.2
80°-90°	111.2	8.1
90°-100°	73.1	5.3
100°-110°	42.2	3.1
110°-120°	18.6	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	234.9	17.1
0°-40°	400.4	29.2
0°-60°	781.7	57.0
0°-90°	1229.2	89.7
90°-120°	133.9	9.8
90°-150°	140.9	10.3
90°-180°	142.0	10.4
0°-180°	1371.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	277	277	277	277	277	
5°	316	304	275	250	237	32
15°	423	371	266	192	160	122
25°	532	435	247	126	79	246
35°	590	469	217	62	19	370
45°	612	464	177	14	0	472
55°	596	435	128	0	0	532
65°	539	385	76	0	0	533
75°	449	311	32	0	0	471
85°	328	225	5	1	2	281
90°	285	181	1	2	2	156
95°	244	141	1	2	3	192
105°	168	73	1	2	3	177
115°	92	24	1	1	2	92
125°	27	3	1	1	1	27
135°	1	1	2	1	1	3
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°	277.3	277.3	277.3	277.3	277.3	277.3	277.3	277.3	277.3	277.3	277.3
2.5°	300.6	300.3	299.2	297.5	295.0	290.7	287.2	284.0	279.8	276.3	269.5
5°	316.5	314.8	313.4	311.6	305.9	302.0	295.7	288.6	281.9	275.2	261.8
7.5°	342.0	339.1	337.0	332.1	324.3	315.5	305.6	298.9	294.3	275.6	252.6
10°	369.2	366.7	362.5	353.6	344.1	331.4	317.2	301.3	287.2	271.7	244.5
12.5°	396.0	392.5	386.5	375.2	361.8	345.9	326.4	307.7	287.6	269.2	234.9
15°	422.9	419.0	412.6	398.8	381.2	360.3	336.7	313.0	289.3	266.0	225.0
17.5°	452.2	446.9	437.4	421.8	399.6	373.8	345.9	317.2	288.6	262.1	214.4
20°	483.6	476.2	466.0	445.1	419.0	388.6	355.0	321.5	288.3	257.5	202.4
22.5°	509.8	502.4	491.1	469.5	438.1	401.0	362.8	324.3	286.9	252.2	191.1
25°	532.4	526.4	514.0	489.3	456.1	414.0	370.2	326.4	284.7	246.6	179.1
27.5°	550.0	544.4	530.6	505.2	471.3	425.7	375.9	327.5	281.9	240.9	166.7
30°	565.6	559.9	543.3	517.2	481.5	434.9	381.5	327.8	278.4	232.5	153.3
32.5°	577.6	572.3	555.3	527.4	488.6	441.2	384.7	327.5	273.8	226.4	138.8
35°	589.6	584.3	564.5	534.9	493.9	444.1	387.2	325.7	268.1	216.6	125.1
37.5°	598.8	592.8	572.7	539.8	496.4	444.8	386.8	323.2	262.1	208.4	111.3
40°	605.2	598.8	577.3	542.6	497.1	443.7	384.0	319.0	255.1	198.2	96.8
42.5°	609.4	602.3	579.4	546.9	495.6	440.9	379.8	313.7	247.3	189.4	83.0
45°	611.5	604.1	579.7	543.3	493.2	435.6	373.4	307.0	238.8	177.3	69.2
47.5°	610.5	602.3	578.0	539.4	488.6	429.9	366.3	298.9	228.6	166.7	56.2
50°	608.7	600.2	574.1	534.5	482.2	422.9	358.6	289.0	218.0	153.7	44.5
52.5°	603.0	594.6	569.8	527.4	474.8	414.7	348.0	278.7	206.7	141.0	33.9
55°	596.0	588.2	562.4	521.1	465.3	404.9	338.1	267.8	195.7	127.9	24.4
57.5°	585.0	578.0	553.2	510.8	455.7	393.9	327.1	255.8	181.9	114.8	17.0
60°	571.6	564.5	540.5	499.2	444.8	381.5	315.1	243.4	169.6	101.7	10.6
62.5°	557.5	550.8	525.7	484.7	431.0	368.5	302.0	231.0	156.5	89.7	6.4
65°	538.7	532.4	509.8	467.4	415.8	354.3	287.6	216.2	143.1	76.3	3.5
67.5°	519.0	513.3	490.3	451.5	398.1	338.8	272.7	201.7	128.9	64.6	1.8
70°	497.8	490.7	469.5	429.9	380.1	321.1	256.5	186.9	115.5	53.3	0.0
72.5°	473.0	467.7	447.2	409.8	359.3	302.4	239.9	170.6	100.7	42.4	0.4
75°	449.0	442.3	423.6	388.2	338.8	282.6	221.5	155.4	86.2	32.5	0.4
77.5°	417.9	415.8	398.1	363.9	319.4	263.5	201.4	137.1	72.4	23.3	0.4
80°	386.8	384.7	370.9	339.5	296.8	240.9	182.6	119.8	59.0	15.5	0.4
82.5°	356.1	353.3	340.2	314.1	273.8	221.9	163.2	102.4	46.6	9.5	0.4
85°	328.5	325.0	310.9	286.9	250.1	200.3	143.1	85.5	34.6	5.3	0.7
87.5°	304.9	302.4	286.9	262.1	226.1	180.2	125.4	69.2	24.4	2.5	1.1
90°	284.7	279.4	265.7	239.5	203.5	157.9	106.7	55.5	16.3	1.4	1.4
92.5°	265.0	260.4	245.2	218.3	183.3	138.8	88.7	42.4	10.2	0.7	1.8
95°	244.5	239.5	224.7	200.0	162.9	119.4	72.8	31.1	5.7	0.7	1.8
97.5°	224.3	219.7	204.2	179.5	144.5	102.4	57.6	21.9	2.8	0.7	1.4
100°	205.6	200.3	186.2	161.4	126.1	85.5	44.5	14.1	1.8	0.7	1.4
102.5°	185.8	181.6	167.1	143.1	107.0	69.6	33.2	8.8	0.7	0.7	1.1
105°	168.2	162.9	148.7	124.0	91.1	54.8	23.3	5.3	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°	109.5	105.3	92.9	72.1	46.3	21.5	6.4	1.1	1.1	1.1	1.1
115°	91.5	85.1	74.2	55.8	34.3	14.1	3.2	1.1	1.1	1.1	1.1
117.5°	73.1	67.8	60.1	42.4	22.6	9.2	1.8	1.1	1.1	1.1	1.1
120°	57.2	52.3	43.5	29.3	15.2	5.3	0.7	1.1	1.1	1.1	1.1
122.5°	41.0	37.1	29.3	19.1	9.2	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.2	25.1	19.4	11.7	5.7	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.7	15.9	11.3	6.7	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	9.9	8.8	6.7	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.7	5.3	3.5	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
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°	277.3	277.3	277.3
2.5°	263.9	259.0	257.5
5°	249.8	241.6	237.0
7.5°	235.6	224.7	219.4
10°	222.6	207.0	201.4
12.5°	207.0	189.0	180.2
15°	192.2	168.9	160.4
17.5°	175.6	149.4	139.5
20°	160.0	130.0	119.8
22.5°	142.4	110.9	99.6
25°	126.5	91.9	79.1
27.5°	108.8	72.4	61.5
30°	92.2	55.5	44.5
32.5°	76.3	40.6	30.7
35°	61.5	27.6	19.4
37.5°	47.3	17.0	9.9
40°	34.3	8.8	4.6
42.5°	23.0	4.2	2.5
45°	14.1	2.1	0.0
47.5°	8.1	0.0	0.0
50°	4.2	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	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.8	2.8
95°	2.5	2.8	3.2
97.5°	2.8	3.2	3.2
100°	2.5	3.2	3.5
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	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°	1.4	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°	148.4	144.1	130.0	106.7	74.5	41.7	15.5	2.8	0.7	1.1	1.1
110°	129.3	125.8	111.3	88.7	60.1	31.1	10.2	1.8	1.1	1.1	1.1





107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)