

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: P550683

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-80-86-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: P550683
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-LD4-1LO-30-UNV-80-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

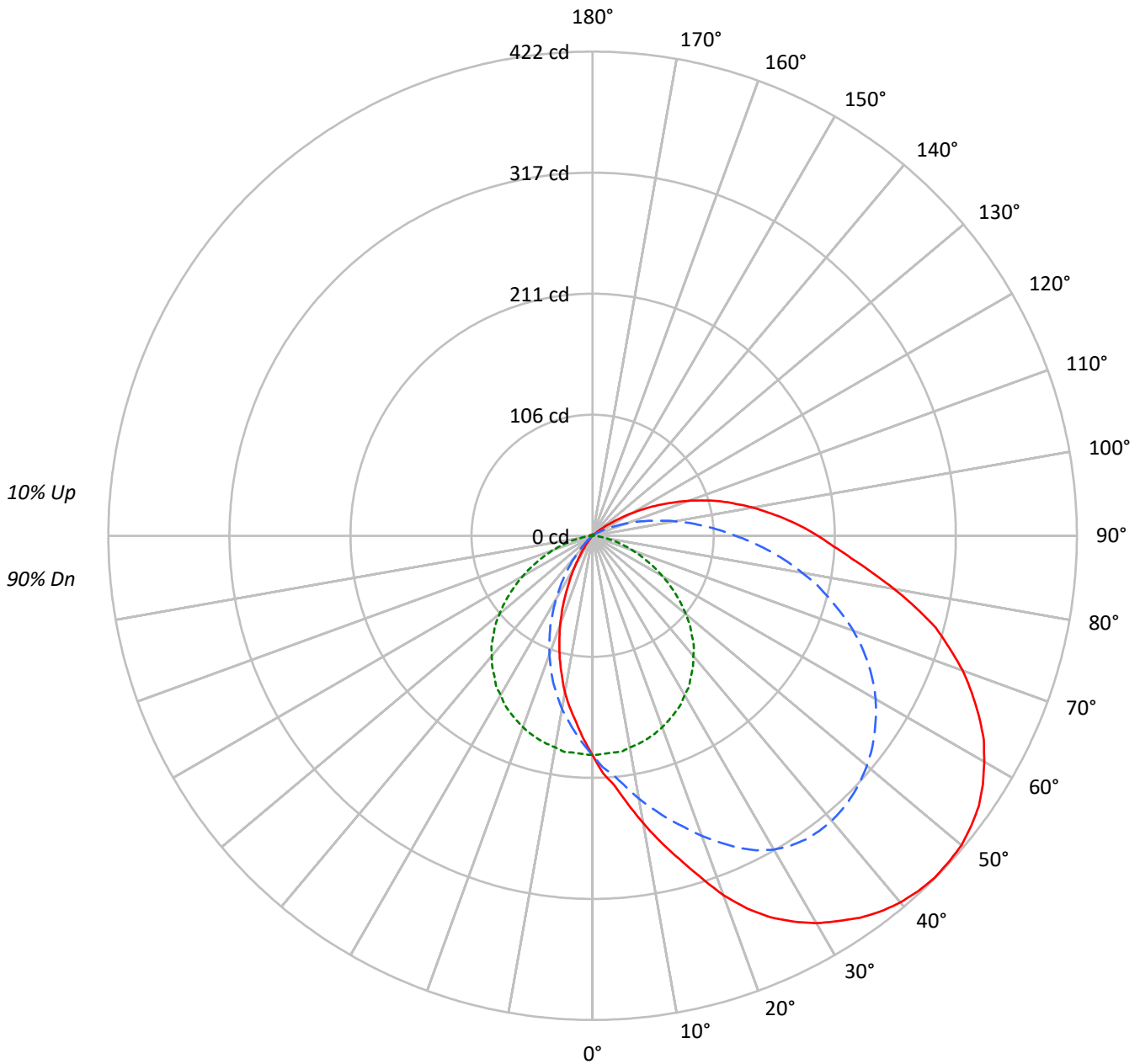
Lumens per Lamp: N/A
Luminaire Lumens: 945.0 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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°	2058	2058	2058
5°	2259	2028	1692
10°	2556	2003	1394
15°	2865	1978	1087
20°	3231	1945	800
25°	3535	1908	525
30°	3761	1857	296
35°	3955	1804	130
40°	4129	1737	32
45°	4278	1653	0
50°	4403	1543	0
55°	4498	1403	0
60°	4545	1241	0
65°	4564	1056	0
70°	4549	862	0
75°	4491	635	3
80°	4308	388	19
85°	4166	188	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.3	1.9
10°-20°	54.8	5.8
20°-30°	88.8	9.4
30°-40°	114.0	12.1
40°-50°	129.1	13.7
50°-60°	133.7	14.2
60°-70°	126.1	13.3
70°-80°	105.7	11.2
80°-90°	76.6	8.1
90°-100°	50.4	5.3
100°-110°	29.1	3.1
110°-120°	12.8	1.4
120°-130°	3.5	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	161.9	17.1
0°-40°	276.0	29.2
0°-60°	538.8	57.0
0°-90°	847.3	89.7
90°-120°	92.3	9.8
90°-150°	97.0	10.3
90°-180°	98.0	10.4
0°-180°	945.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	191	191	191	191	191	
5°	218	210	190	172	163	22
15°	292	256	183	132	111	84
25°	367	300	170	87	54	170
35°	406	323	149	42	13	255
45°	422	320	122	10	0	325
55°	411	300	88	0	0	367
65°	371	265	53	0	0	367
75°	310	214	22	0	0	325
85°	226	155	4	1	2	193
90°	196	125	1	2	2	108
95°	168	97	0	2	2	132
105°	116	50	0	1	2	122
115°	63	17	1	1	1	63
125°	19	2	1	1	1	19
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	191.2	191.2	191.2	191.2	191.2	191.2	191.2	191.2	191.2	191.2	191.2
2.5°	207.2	207.0	206.2	205.0	203.3	200.4	198.0	195.8	192.9	190.4	185.8
5°	218.2	217.0	216.0	214.8	210.9	208.2	203.8	198.9	194.3	189.7	180.4
7.5°	235.7	233.8	232.3	228.9	223.5	217.4	210.6	206.0	202.8	189.9	174.1
10°	254.5	252.8	249.8	243.7	237.2	228.4	218.7	207.7	198.0	187.3	168.5
12.5°	273.0	270.5	266.4	258.6	249.3	238.4	225.0	212.1	198.2	185.6	161.9
15°	291.5	288.8	284.4	274.9	262.7	248.4	232.1	215.7	199.4	183.4	155.1
17.5°	311.7	308.0	301.5	290.7	275.4	257.6	238.4	218.7	198.9	180.7	147.8
20°	333.4	328.2	321.2	306.8	288.8	267.9	244.7	221.6	198.7	177.5	139.5
22.5°	351.4	346.3	338.5	323.6	301.9	276.4	250.1	223.5	197.7	173.9	131.7
25°	367.0	362.8	354.3	337.3	314.4	285.4	255.2	225.0	196.3	170.0	123.5
27.5°	379.1	375.2	365.7	348.2	324.8	293.4	259.1	225.7	194.3	166.1	114.9
30°	389.9	386.0	374.5	356.5	331.9	299.8	263.0	226.0	191.9	160.2	105.7
32.5°	398.1	394.5	382.8	363.6	336.8	304.1	265.2	225.7	188.7	156.1	95.7
35°	406.4	402.8	389.1	368.7	340.4	306.1	266.9	224.5	184.8	149.3	86.2
37.5°	412.7	408.6	394.7	372.1	342.1	306.6	266.6	222.8	180.7	143.7	76.7
40°	417.1	412.7	397.9	374.0	342.6	305.8	264.7	219.9	175.8	136.6	66.7
42.5°	420.0	415.2	399.3	376.9	341.6	303.9	261.8	216.2	170.5	130.5	57.2
45°	421.5	416.4	399.6	374.5	339.9	300.2	257.4	211.6	164.6	122.2	47.7
47.5°	420.8	415.2	398.4	371.8	336.8	296.3	252.5	206.0	157.5	114.9	38.7
50°	419.6	413.7	395.7	368.4	332.4	291.5	247.2	199.2	150.2	105.9	30.7
52.5°	415.7	409.8	392.8	363.6	327.3	285.9	239.9	192.1	142.4	97.2	23.4
55°	410.8	405.4	387.7	359.2	320.7	279.1	233.0	184.6	134.9	88.1	16.8
57.5°	403.2	398.4	381.3	352.1	314.1	271.5	225.5	176.3	125.4	79.1	11.7
60°	394.0	389.1	372.6	344.1	306.6	263.0	217.2	167.8	116.9	70.1	7.3
62.5°	384.2	379.6	362.3	334.1	297.1	254.0	208.2	159.3	107.9	61.9	4.4
65°	371.3	367.0	351.4	322.2	286.6	244.2	198.2	149.0	98.6	52.6	2.4
67.5°	357.7	353.8	338.0	311.2	274.4	233.5	188.0	139.0	88.9	44.6	1.2
70°	343.1	338.2	323.6	296.3	262.0	221.3	176.8	128.8	79.6	36.8	0.0
72.5°	326.1	322.4	308.3	282.5	247.6	208.4	165.3	117.6	69.4	29.2	0.2
75°	309.5	304.9	292.0	267.6	233.5	194.8	152.7	107.1	59.4	22.4	0.2
77.5°	288.1	286.6	274.4	250.8	220.1	181.7	138.8	94.5	49.9	16.1	0.2
80°	266.6	265.2	255.7	234.0	204.5	166.1	125.9	82.5	40.7	10.7	0.2
82.5°	245.5	243.5	234.5	216.5	188.7	152.9	112.5	70.6	32.1	6.6	0.2
85°	226.5	224.0	214.3	197.7	172.4	138.1	98.6	58.9	23.9	3.7	0.5
87.5°	210.1	208.4	197.7	180.7	155.8	124.2	86.4	47.7	16.8	1.7	0.7
90°	196.3	192.6	183.1	165.1	140.3	108.8	73.5	38.2	11.2	1.0	1.0
92.5°	182.6	179.5	169.0	150.5	126.4	95.7	61.1	29.2	7.1	0.5	1.2
95°	168.5	165.1	154.9	137.8	112.3	82.3	50.2	21.4	3.9	0.5	1.2
97.5°	154.6	151.5	140.7	123.7	99.6	70.6	39.7	15.1	1.9	0.5	1.0
100°	141.7	138.1	128.3	111.3	86.9	58.9	30.7	9.7	1.2	0.5	1.0
102.5°	128.1	125.2	115.2	98.6	73.8	48.0	22.9	6.1	0.5	0.5	0.7
105°	115.9	112.3	102.5	85.5	62.8	37.7	16.1	3.7	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	75.5	72.6	64.0	49.7	31.9	14.9	4.4	0.7	0.7	0.7	0.7
115°	63.1	58.7	51.1	38.5	23.6	9.7	2.2	0.7	0.7	0.7	0.7
117.5°	50.4	46.8	41.4	29.2	15.6	6.3	1.2	0.7	0.7	0.7	0.7
120°	39.4	36.0	30.0	20.2	10.5	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.2	25.6	20.2	13.1	6.3	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.7	17.3	13.4	8.0	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.2	11.0	7.8	4.6	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.8	6.1	4.6	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.7	2.4	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	191.2	191.2	191.2
2.5°	181.9	178.5	177.5
5°	172.2	166.6	163.4
7.5°	162.4	154.9	151.2
10°	153.4	142.7	138.8
12.5°	142.7	130.3	124.2
15°	132.5	116.4	110.6
17.5°	121.0	103.0	96.2
20°	110.3	89.6	82.5
22.5°	98.1	76.5	68.7
25°	87.2	63.3	54.5
27.5°	75.0	49.9	42.4
30°	63.6	38.2	30.7
32.5°	52.6	28.0	21.2
35°	42.4	19.0	13.4
37.5°	32.6	11.7	6.8
40°	23.6	6.1	3.2
42.5°	15.8	2.9	1.7
45°	9.7	1.5	0.0
47.5°	5.6	0.0	0.0
50°	2.9	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	1.9	1.9
95°	1.7	1.9	2.2
97.5°	1.9	2.2	2.2
100°	1.7	2.2	2.4
102.5°	1.5	2.2	2.2
105°	1.2	1.7	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	1.0	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	102.3	99.3	89.6	73.5	51.4	28.7	10.7	1.9	0.5	0.7	0.7
110°	89.1	86.7	76.7	61.1	41.4	21.4	7.1	1.2	0.7	0.7	0.7





107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)