

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: P550943

Luminaire Tested: **FCC-X-2-LD4-1STD-30-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: P550943
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-30-UNV-80-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

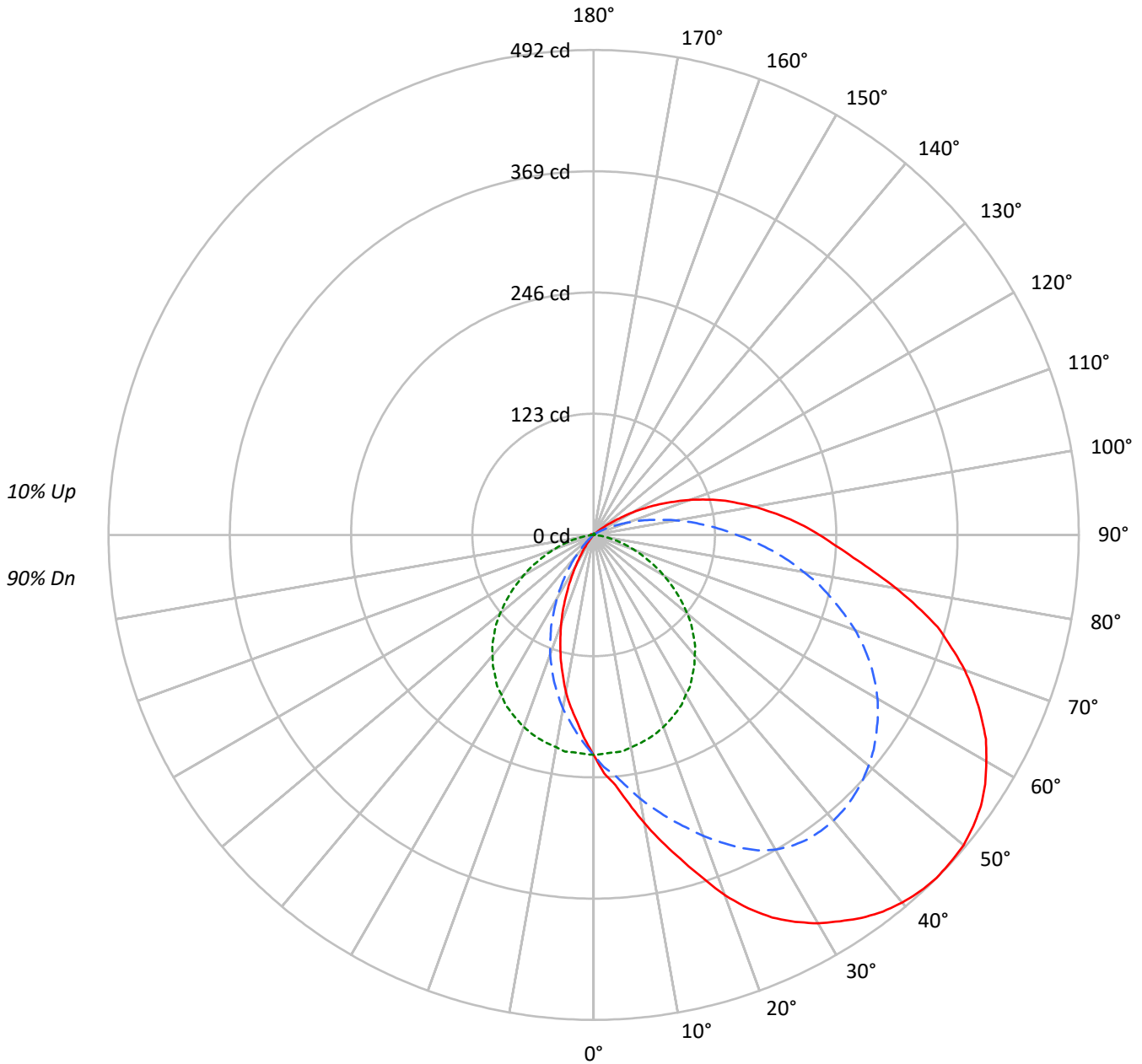
Lumens per Lamp: N/A
Luminaire Lumens: 1103.1 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): 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°	2401	2401	2401
5°	2637	2366	1974
10°	2983	2338	1627
15°	3343	2307	1268
20°	3771	2270	933
25°	4125	2227	614
30°	4388	2168	345
35°	4617	2105	152
40°	4820	2027	37
45°	4993	1931	0
50°	5138	1801	0
55°	5250	1639	0
60°	5306	1449	0
65°	5327	1233	0
70°	5310	1005	0
75°	5241	740	4
80°	5029	453	23
85°	4861	219	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.4	1.9
10°-20°	64.0	5.8
20°-30°	103.6	9.4
30°-40°	133.1	12.1
40°-50°	150.7	13.7
50°-60°	156.1	14.2
60°-70°	147.2	13.3
70°-80°	123.4	11.2
80°-90°	89.4	8.1
90°-100°	58.8	5.3
100°-110°	34.0	3.1
110°-120°	15.0	1.4
120°-130°	4.1	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	189.0	17.1
0°-40°	322.1	29.2
0°-60°	628.9	57.0
0°-90°	988.9	89.7
90°-120°	107.7	9.8
90°-150°	113.4	10.3
90°-180°	114.0	10.3
0°-180°	1103.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	223	223	223	223	223	
5°	255	245	221	201	191	26
15°	340	298	214	155	129	98
25°	428	350	198	102	64	198
35°	474	377	174	50	16	298
45°	492	374	143	11	0	380
55°	480	350	103	0	0	428
65°	433	310	61	0	0	429
75°	361	250	26	0	0	379
85°	264	181	4	1	2	226
90°	229	145	1	2	2	126
95°	197	114	1	2	3	154
105°	135	59	1	1	2	143
115°	74	20	1	1	1	74
125°	22	3	1	1	1	22
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	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°	223.1	223.1	223.1	223.1	223.1	223.1	223.1	223.1	223.1	223.1	223.1
2.5°	241.9	241.6	240.7	239.3	237.3	233.9	231.1	228.5	225.1	222.3	216.9
5°	254.7	253.2	252.1	250.7	246.1	243.0	237.9	232.2	226.8	221.4	210.6
7.5°	275.1	272.8	271.1	267.2	260.9	253.8	245.8	240.4	236.8	221.7	203.2
10°	297.0	295.0	291.6	284.5	276.8	266.6	255.2	242.4	231.1	218.6	196.7
12.5°	318.6	315.8	310.9	301.8	291.0	278.2	262.6	247.6	231.4	216.6	189.0
15°	340.2	337.1	332.0	320.9	306.7	289.9	270.9	251.8	232.8	214.0	181.0
17.5°	363.8	359.5	351.9	339.4	321.4	300.7	278.2	255.2	232.2	210.9	172.5
20°	389.1	383.1	374.9	358.1	337.1	312.6	285.6	258.6	231.9	207.2	162.9
22.5°	410.1	404.2	395.1	377.7	352.4	322.6	291.9	260.9	230.8	202.9	153.8
25°	428.3	423.5	413.5	393.6	366.9	333.1	297.9	262.6	229.1	198.4	144.1
27.5°	442.5	438.0	426.9	406.4	379.1	342.5	302.4	263.5	226.8	193.8	134.2
30°	455.0	450.5	437.1	416.1	387.4	349.9	307.0	263.8	224.0	187.0	123.4
32.5°	464.7	460.4	446.8	424.3	393.1	355.0	309.5	263.5	220.3	182.2	111.7
35°	474.4	470.1	454.2	430.3	397.3	357.3	311.5	262.0	215.7	174.2	100.6
37.5°	481.7	476.9	460.7	434.3	399.3	357.8	311.2	260.1	210.9	167.7	89.5
40°	486.9	481.7	464.4	436.6	399.9	357.0	308.9	256.6	205.2	159.4	77.9
42.5°	490.3	484.6	466.1	440.0	398.8	354.7	305.5	252.4	199.0	152.3	66.8
45°	492.0	486.0	466.4	437.1	396.8	350.4	300.4	247.0	192.1	142.7	55.7
47.5°	491.1	484.6	465.0	434.0	393.1	345.9	294.7	240.4	183.9	134.2	45.2
50°	489.7	482.9	461.9	430.0	388.0	340.2	288.5	232.5	175.4	123.6	35.8
52.5°	485.2	478.3	458.4	424.3	382.0	333.7	280.0	224.2	166.3	113.4	27.3
55°	479.5	473.2	452.5	419.2	374.3	325.7	272.0	215.4	157.5	102.9	19.6
57.5°	470.7	465.0	445.1	411.0	366.6	316.9	263.2	205.8	146.4	92.4	13.6
60°	459.9	454.2	434.9	401.6	357.8	307.0	253.5	195.8	136.4	81.9	8.5
62.5°	448.5	443.1	422.9	389.9	346.7	296.4	243.0	185.9	125.9	72.2	5.1
65°	433.4	428.3	410.1	376.0	334.5	285.1	231.4	173.9	115.1	61.4	2.8
67.5°	417.5	413.0	394.5	363.2	320.3	272.6	219.4	162.3	103.7	52.0	1.4
70°	400.5	394.8	377.7	345.9	305.8	258.4	206.3	150.4	92.9	42.9	0.0
72.5°	380.6	376.3	359.8	329.7	289.0	243.3	193.0	137.3	81.0	34.1	0.3
75°	361.2	355.8	340.8	312.4	272.6	227.4	178.2	125.1	69.3	26.1	0.3
77.5°	336.2	334.5	320.3	292.7	256.9	212.0	162.0	110.3	58.3	18.8	0.3
80°	311.2	309.5	298.4	273.1	238.7	193.8	146.9	96.3	47.5	12.5	0.3
82.5°	286.5	284.2	273.7	252.7	220.3	178.5	131.3	82.4	37.5	7.7	0.3
85°	264.3	261.5	250.1	230.8	201.2	161.2	115.1	68.8	27.9	4.3	0.6
87.5°	245.3	243.3	230.8	210.9	181.9	145.0	100.9	55.7	19.6	2.0	0.9
90°	229.1	224.8	213.7	192.7	163.7	127.0	85.8	44.6	13.1	1.1	1.1
92.5°	213.2	209.5	197.2	175.6	147.5	111.7	71.3	34.1	8.2	0.6	1.4
95°	196.7	192.7	180.8	160.9	131.0	96.1	58.5	25.0	4.5	0.6	1.4
97.5°	180.5	176.8	164.3	144.4	116.2	82.4	46.3	17.6	2.3	0.6	1.1
100°	165.4	161.2	149.8	129.9	101.5	68.8	35.8	11.4	1.4	0.6	1.1
102.5°	149.5	146.1	134.4	115.1	86.1	56.0	26.7	7.1	0.6	0.6	0.9
105°	135.3	131.0	119.7	99.8	73.3	44.1	18.8	4.3	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	88.1	84.7	74.7	58.0	37.2	17.3	5.1	0.9	0.9	0.9	0.9
115°	73.6	68.5	59.7	44.9	27.6	11.4	2.6	0.9	0.9	0.9	0.9
117.5°	58.8	54.6	48.3	34.1	18.2	7.4	1.4	0.9	0.9	0.9	0.9
120°	46.0	42.1	35.0	23.6	12.2	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.0	29.8	23.6	15.3	7.4	2.0	0.9	0.9	1.1	1.1	0.9
125°	21.9	20.2	15.6	9.4	4.5	0.9	0.9	0.9	1.1	1.1	0.9
127.5°	14.2	12.8	9.1	5.4	2.0	0.9	0.9	1.1	1.1	1.1	0.9
130°	8.0	7.1	5.4	3.1	0.9	0.9	0.9	1.1	1.1	1.1	0.9
132.5°	4.5	4.3	2.8	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.1
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	223.1	223.1	223.1
2.5°	212.3	208.3	207.2
5°	200.9	194.4	190.7
7.5°	189.6	180.8	176.5
10°	179.1	166.6	162.0
12.5°	166.6	152.1	145.0
15°	154.6	135.9	129.0
17.5°	141.3	120.2	112.3
20°	128.8	104.6	96.3
22.5°	114.5	89.2	80.1
25°	101.7	73.9	63.7
27.5°	87.5	58.3	49.5
30°	74.2	44.6	35.8
32.5°	61.4	32.7	24.7
35°	49.5	22.2	15.6
37.5°	38.1	13.6	8.0
40°	27.6	7.1	3.7
42.5°	18.5	3.4	2.0
45°	11.4	1.7	0.0
47.5°	6.5	0.0	0.0
50°	3.4	0.0	0.0
52.5°	1.4	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.8
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.9	1.1	1.4
117.5°	0.9	1.1	1.1
120°	0.9	0.9	1.1
122.5°	0.9	0.9	1.1
125°	0.9	0.9	1.1
127.5°	1.1	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.1	0.9	0.9
135°	1.1	0.9	0.9
137.5°	1.1	0.9	0.9
140°	1.1	0.9	0.9
142.5°	1.1	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.1	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	119.4	116.0	104.6	85.8	60.0	33.5	12.5	2.3	0.6	0.9	0.9
110°	104.0	101.2	89.5	71.3	48.3	25.0	8.2	1.4	0.9	0.9	0.9





107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)