

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: P550699

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-86-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: P550699
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-81-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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

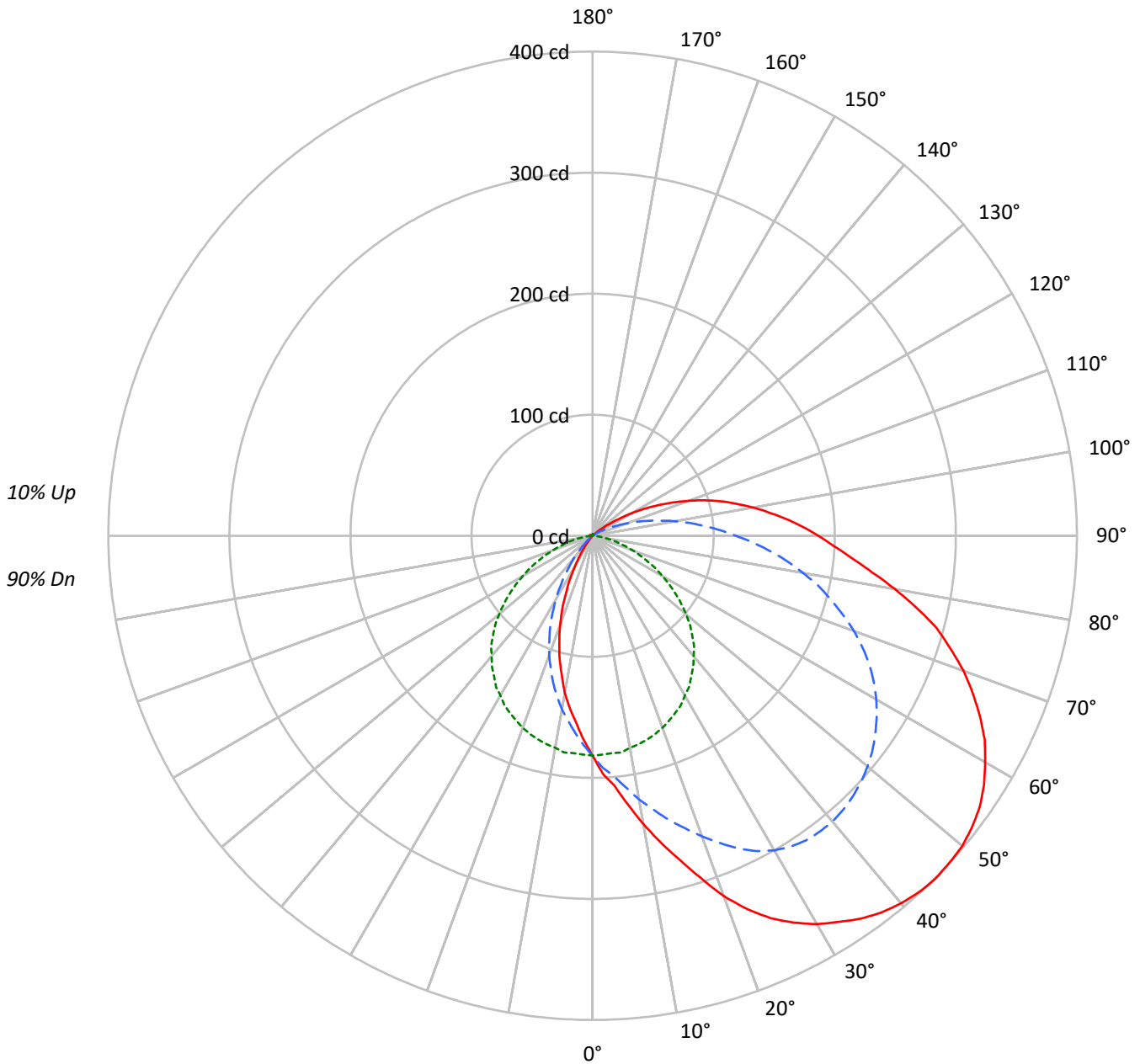
Lumens per Lamp: N/A
Luminaire Lumens: 898.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (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°	1955	1955	1955
5°	2146	1927	1608
10°	2429	1903	1325
15°	2722	1878	1033
20°	3070	1848	760
25°	3358	1812	499
30°	3573	1766	282
35°	3759	1713	124
40°	3924	1651	30
45°	4064	1572	0
50°	4184	1468	0
55°	4274	1334	0
60°	4319	1179	0
65°	4337	1004	0
70°	4322	818	0
75°	4268	604	3
80°	4095	370	19
85°	3958	178	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.4	1.9
10°-20°	52.1	5.8
20°-30°	84.4	9.4
30°-40°	108.4	12.1
40°-50°	122.7	13.7
50°-60°	127.1	14.2
60°-70°	119.9	13.3
70°-80°	100.4	11.2
80°-90°	72.8	8.1
90°-100°	47.9	5.3
100°-110°	27.6	3.1
110°-120°	12.2	1.4
120°-130°	3.3	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°	153.9	17.1
0°-40°	262.2	29.2
0°-60°	512.0	57.0
0°-90°	805.1	89.7
90°-120°	87.7	9.8
90°-150°	92.3	10.3
90°-180°	93.0	10.4
0°-180°	898.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	182	182	182	182	182	
5°	207	199	180	164	155	21
15°	277	243	174	126	105	80
25°	349	285	162	83	52	161
35°	386	307	142	40	13	242
45°	400	304	116	9	0	309
55°	390	285	84	0	0	349
65°	353	252	50	0	0	349
75°	294	204	21	0	0	308
85°	215	148	4	1	1	184
90°	186	118	1	1	2	102
95°	160	92	0	2	2	126
105°	110	48	0	1	2	116
115°	60	16	1	1	1	60
125°	18	2	1	1	1	18
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°	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6	181.6
2.5°	196.9	196.7	196.0	194.8	193.2	190.4	188.1	186.0	183.3	180.9	176.6
5°	207.3	206.2	205.2	204.1	200.4	197.8	193.7	189.0	184.7	180.3	171.5
7.5°	224.0	222.1	220.7	217.5	212.4	206.6	200.2	195.8	192.8	180.5	165.4
10°	241.8	240.2	237.4	231.6	225.4	217.0	207.8	197.4	188.1	177.9	160.1
12.5°	259.4	257.1	253.1	245.7	236.9	226.5	213.8	201.5	188.4	176.3	153.9
15°	277.0	274.4	270.3	261.2	249.7	236.0	220.5	205.0	189.5	174.2	147.4
17.5°	296.2	292.7	286.5	276.3	261.7	244.8	226.5	207.8	189.0	171.7	140.5
20°	316.8	311.9	305.2	291.6	274.4	254.5	232.6	210.6	188.8	168.7	132.6
22.5°	333.9	329.0	321.6	307.5	286.9	262.6	237.6	212.4	187.9	165.2	125.2
25°	348.7	344.8	336.7	320.5	298.7	271.2	242.5	213.8	186.5	161.5	117.3
27.5°	360.3	356.6	347.6	330.9	308.7	278.8	246.2	214.5	184.7	157.8	109.2
30°	370.5	366.8	355.9	338.8	315.4	284.8	249.9	214.7	182.3	152.3	100.4
32.5°	378.3	374.9	363.8	345.5	320.0	289.0	252.0	214.5	179.3	148.3	90.9
35°	386.2	382.7	369.8	350.3	323.5	290.9	253.6	213.3	175.6	141.8	81.9
37.5°	392.2	388.3	375.1	353.6	325.1	291.3	253.4	211.7	171.7	136.5	72.9
40°	396.4	392.2	378.1	355.4	325.6	290.6	251.5	208.9	167.1	129.8	63.4
42.5°	399.2	394.5	379.5	358.2	324.6	288.8	248.7	205.5	162.0	124.0	54.4
45°	400.5	395.7	379.7	355.9	323.0	285.3	244.6	201.1	156.4	116.2	45.4
47.5°	399.8	394.5	378.6	353.3	320.0	281.6	240.0	195.8	149.7	109.2	36.8
50°	398.7	393.1	376.0	350.1	315.9	277.0	234.9	189.3	142.8	100.7	29.2
52.5°	395.0	389.4	373.2	345.5	311.0	271.7	227.9	182.6	135.4	92.3	22.2
55°	390.4	385.3	368.4	341.3	304.7	265.2	221.4	175.4	128.2	83.8	16.0
57.5°	383.2	378.6	362.4	334.6	298.5	258.0	214.3	167.5	119.2	75.2	11.1
60°	374.4	369.8	354.0	327.0	291.3	249.9	206.4	159.4	111.1	66.6	6.9
62.5°	365.1	360.7	344.3	317.5	282.3	241.3	197.8	151.3	102.5	58.8	4.2
65°	352.9	348.7	333.9	306.1	272.4	232.1	188.4	141.6	93.7	50.0	2.3
67.5°	339.9	336.2	321.2	295.7	260.8	221.9	178.6	132.1	84.5	42.3	1.2
70°	326.0	321.4	307.5	281.6	249.0	210.3	168.0	122.4	75.7	34.9	0.0
72.5°	309.8	306.4	292.9	268.4	235.3	198.1	157.1	111.8	65.9	27.8	0.2
75°	294.1	289.7	277.4	254.3	221.9	185.1	145.1	101.8	56.5	21.3	0.2
77.5°	273.7	272.4	260.8	238.3	209.2	172.6	131.9	89.8	47.4	15.3	0.2
80°	253.4	252.0	243.0	222.4	194.4	157.8	119.6	78.4	38.6	10.2	0.2
82.5°	233.2	231.4	222.8	205.7	179.3	145.3	106.9	67.1	30.5	6.2	0.2
85°	215.2	212.9	203.6	187.9	163.8	131.2	93.7	56.0	22.7	3.5	0.5
87.5°	199.7	198.1	187.9	171.7	148.1	118.0	82.1	45.4	16.0	1.6	0.7
90°	186.5	183.0	174.0	156.9	133.3	103.4	69.9	36.3	10.6	0.9	0.9
92.5°	173.5	170.5	160.6	143.0	120.1	90.9	58.1	27.8	6.7	0.5	1.2
95°	160.1	156.9	147.2	131.0	106.7	78.2	47.7	20.4	3.7	0.5	1.2
97.5°	146.9	143.9	133.7	117.5	94.6	67.1	37.7	14.3	1.9	0.5	0.9
100°	134.7	131.2	121.9	105.7	82.6	56.0	29.2	9.3	1.2	0.5	0.9
102.5°	121.7	118.9	109.4	93.7	70.1	45.6	21.8	5.8	0.5	0.5	0.7
105°	110.1	106.7	97.4	81.2	59.7	35.9	15.3	3.5	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°	71.7	69.0	60.9	47.2	30.3	14.1	4.2	0.7	0.7	0.7	0.7
115°	59.9	55.8	48.6	36.6	22.4	9.3	2.1	0.7	0.7	0.7	0.7
117.5°	47.9	44.4	39.3	27.8	14.8	6.0	1.2	0.7	0.7	0.7	0.7
120°	37.5	34.2	28.5	19.2	9.9	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	26.8	24.3	19.2	12.5	6.0	1.6	0.7	0.7	0.9	0.9	0.7
125°	17.8	16.4	12.7	7.6	3.7	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.6	10.4	7.4	4.4	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.5	5.8	4.4	2.5	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.7	3.5	2.3	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.2	1.2	1.2	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
160°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.5	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	0.9
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°	181.6	181.6	181.6
2.5°	172.9	169.6	168.7
5°	163.6	158.3	155.3
7.5°	154.3	147.2	143.7
10°	145.8	135.6	131.9
12.5°	135.6	123.8	118.0
15°	125.9	110.6	105.1
17.5°	115.0	97.9	91.4
20°	104.8	85.2	78.4
22.5°	93.3	72.7	65.3
25°	82.8	60.2	51.8
27.5°	71.3	47.4	40.3
30°	60.4	36.3	29.2
32.5°	50.0	26.6	20.1
35°	40.3	18.0	12.7
37.5°	31.0	11.1	6.5
40°	22.4	5.8	3.0
42.5°	15.0	2.8	1.6
45°	9.3	1.4	0.0
47.5°	5.3	0.0	0.0
50°	2.8	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	0.9	1.2
82.5°	0.9	1.2	1.2
85°	0.9	1.2	1.4
87.5°	1.2	1.4	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.9	1.9
95°	1.6	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.6	2.1	2.3
102.5°	1.4	2.1	2.1
105°	1.2	1.6	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.2	1.2
115°	0.7	0.9	1.2
117.5°	0.7	0.9	0.9
120°	0.7	0.7	0.9
122.5°	0.7	0.7	0.9
125°	0.7	0.7	0.9
127.5°	0.9	0.7	0.7
130°	0.7	0.7	0.7
132.5°	0.9	0.7	0.7
135°	0.9	0.7	0.7
137.5°	0.9	0.7	0.7
140°	0.9	0.7	0.7
142.5°	0.9	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°	0.9	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°	97.2	94.4	85.2	69.9	48.8	27.3	10.2	1.9	0.5	0.7	0.7
110°	84.7	82.4	72.9	58.1	39.3	20.4	6.7	1.2	0.7	0.7	0.7





107.5°	0.9	1.4	1.6
110°	0.9	1.2	1.4



(END OF REPORT)