

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: P550723

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-96-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: P550723
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-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

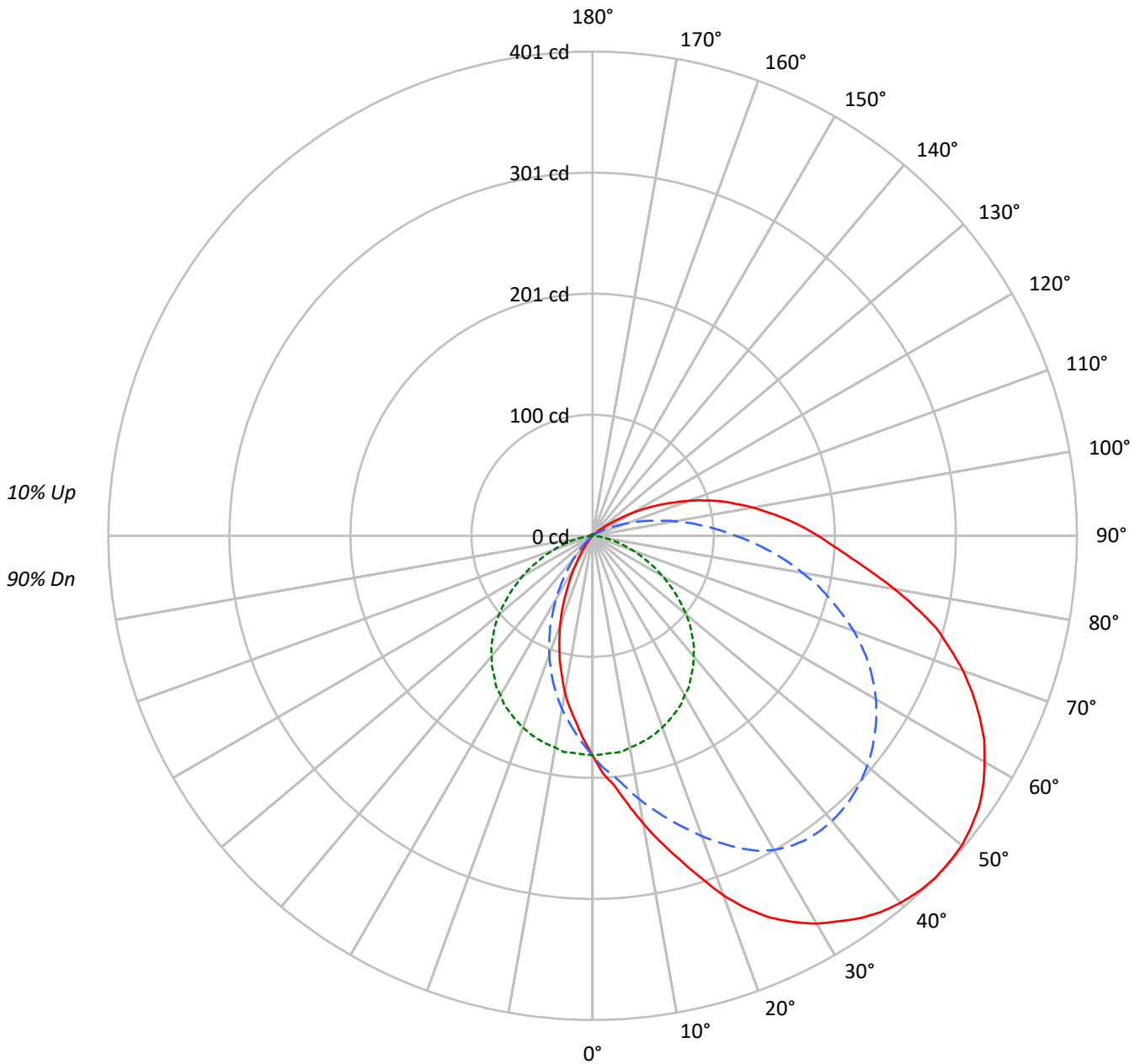
Lumens per Lamp: N/A
Luminaire Lumens: 899.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (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°	1957	1957	1957
5°	2149	1929	1609
10°	2432	1905	1326
15°	2725	1880	1034
20°	3073	1851	761
25°	3362	1815	500
30°	3577	1767	282
35°	3763	1716	124
40°	3928	1653	30
45°	4069	1574	0
50°	4188	1469	0
55°	4279	1336	0
60°	4324	1180	0
65°	4342	1004	0
70°	4327	820	0
75°	4272	604	3
80°	4100	370	19
85°	3962	178	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.4	1.9
10°-20°	52.2	5.8
20°-30°	84.5	9.4
30°-40°	108.5	12.1
40°-50°	122.8	13.7
50°-60°	127.2	14.2
60°-70°	120.0	13.3
70°-80°	100.6	11.2
80°-90°	72.9	8.1
90°-100°	47.9	5.3
100°-110°	27.7	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°	154.0	17.1
0°-40°	262.5	29.2
0°-60°	512.6	57.0
0°-90°	806.0	89.7
90°-120°	87.8	9.8
90°-150°	92.4	10.3
90°-180°	93.0	10.3
0°-180°	899.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	182	182	182	182	182	
5°	208	199	180	164	155	21
15°	277	243	174	126	105	80
25°	349	285	162	83	52	161
35°	387	308	142	40	13	242
45°	401	304	116	9	0	310
55°	391	285	84	0	0	349
65°	353	252	50	0	0	350
75°	294	204	21	0	0	309
85°	215	148	4	1	1	184
90°	187	118	1	1	2	102
95°	160	93	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°	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8	181.8
2.5°	197.1	196.9	196.2	195.1	193.4	190.6	188.3	186.2	183.5	181.2	176.7
5°	207.6	206.4	205.5	204.3	200.6	198.1	193.9	189.3	184.9	180.5	171.7
7.5°	224.2	222.4	221.0	217.8	212.7	206.9	200.4	196.0	193.0	180.7	165.6
10°	242.1	240.5	237.7	231.9	225.6	217.3	208.0	197.6	188.3	178.1	160.3
12.5°	259.7	257.4	253.4	246.0	237.2	226.8	214.0	201.8	188.6	176.5	154.0
15°	277.3	274.7	270.6	261.5	250.0	236.3	220.8	205.2	189.7	174.4	147.6
17.5°	296.5	293.0	286.8	276.6	262.0	245.1	226.8	208.0	189.3	171.9	140.6
20°	317.1	312.3	305.5	291.9	274.7	254.8	232.8	210.8	189.0	168.9	132.7
22.5°	334.3	329.4	322.0	307.9	287.2	262.9	237.9	212.7	188.1	165.4	125.3
25°	349.1	345.2	337.1	320.8	299.1	271.5	242.8	214.0	186.7	161.7	117.4
27.5°	360.7	357.0	347.9	331.3	309.0	279.1	246.5	214.7	184.9	158.0	109.3
30°	370.9	367.2	356.3	339.1	315.7	285.2	250.2	215.0	182.5	152.4	100.5
32.5°	378.7	375.3	364.2	345.9	320.4	289.3	252.3	214.7	179.5	148.5	91.0
35°	386.6	383.2	370.2	350.7	323.8	291.2	253.9	213.6	175.8	142.0	82.0
37.5°	392.6	388.7	375.5	354.0	325.5	291.6	253.7	212.0	171.9	136.7	73.0
40°	396.8	392.6	378.5	355.8	325.9	291.0	251.8	209.2	167.3	130.0	63.5
42.5°	399.6	395.0	379.9	358.6	325.0	289.1	249.0	205.7	162.2	124.2	54.4
45°	401.0	396.1	380.1	356.3	323.4	285.6	244.9	201.3	156.6	116.3	45.4
47.5°	400.3	395.0	379.0	353.7	320.4	281.9	240.2	196.0	149.9	109.3	36.8
50°	399.1	393.6	376.4	350.5	316.2	277.3	235.1	189.5	142.9	100.8	29.2
52.5°	395.4	389.9	373.7	345.9	311.3	272.0	228.2	182.8	135.5	92.4	22.2
55°	390.8	385.7	368.8	341.7	305.1	265.5	221.7	175.6	128.3	83.9	16.0
57.5°	383.6	379.0	362.8	335.0	298.8	258.3	214.5	167.7	119.3	75.3	11.1
60°	374.8	370.2	354.4	327.3	291.6	250.2	206.6	159.6	111.2	66.7	6.9
62.5°	365.5	361.1	344.7	317.8	282.6	241.6	198.1	151.5	102.6	58.8	4.2
65°	353.3	349.1	334.3	306.5	272.7	232.3	188.6	141.8	93.8	50.0	2.3
67.5°	340.3	336.6	321.5	296.1	261.1	222.2	178.8	132.3	84.6	42.4	1.2
70°	326.4	321.8	307.9	281.9	249.3	210.6	168.2	122.5	75.7	35.0	0.0
72.5°	310.2	306.7	293.3	268.7	235.6	198.3	157.3	111.9	66.0	27.8	0.2
75°	294.4	290.0	277.7	254.6	222.2	185.3	145.2	101.9	56.5	21.3	0.2
77.5°	274.0	272.7	261.1	238.6	209.4	172.8	132.0	89.9	47.5	15.3	0.2
80°	253.7	252.3	243.2	222.6	194.6	158.0	119.8	78.5	38.7	10.2	0.2
82.5°	233.5	231.7	223.1	205.9	179.5	145.5	107.0	67.2	30.6	6.3	0.2
85°	215.4	213.1	203.9	188.1	164.0	131.3	93.8	56.1	22.7	3.5	0.5
87.5°	199.9	198.3	188.1	171.9	148.3	118.1	82.2	45.4	16.0	1.6	0.7
90°	186.7	183.2	174.2	157.1	133.4	103.5	70.0	36.4	10.7	0.9	0.9
92.5°	173.7	170.7	160.8	143.2	120.2	91.0	58.1	27.8	6.7	0.5	1.2
95°	160.3	157.1	147.3	131.1	106.8	78.3	47.7	20.4	3.7	0.5	1.2
97.5°	147.1	144.1	133.9	117.7	94.7	67.2	37.8	14.4	1.9	0.5	0.9
100°	134.8	131.3	122.1	105.9	82.7	56.1	29.2	9.3	1.2	0.5	0.9
102.5°	121.8	119.1	109.6	93.8	70.2	45.6	21.8	5.8	0.5	0.5	0.7
105°	110.3	106.8	97.5	81.3	59.8	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°	71.8	69.0	60.9	47.3	30.3	14.1	4.2	0.7	0.7	0.7	0.7
115°	60.0	55.8	48.6	36.6	22.5	9.3	2.1	0.7	0.7	0.7	0.7
117.5°	48.0	44.5	39.4	27.8	14.8	6.0	1.2	0.7	0.7	0.7	0.7
120°	37.5	34.3	28.5	19.2	10.0	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	26.9	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°	181.8	181.8	181.8
2.5°	173.0	169.8	168.9
5°	163.8	158.4	155.4
7.5°	154.5	147.3	143.9
10°	145.9	135.7	132.0
12.5°	135.7	123.9	118.1
15°	126.0	110.7	105.2
17.5°	115.1	98.0	91.5
20°	104.9	85.2	78.5
22.5°	93.4	72.7	65.3
25°	82.9	60.2	51.9
27.5°	71.3	47.5	40.3
30°	60.5	36.4	29.2
32.5°	50.0	26.6	20.2
35°	40.3	18.1	12.7
37.5°	31.0	11.1	6.5
40°	22.5	5.8	3.0
42.5°	15.1	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°	97.3	94.5	85.2	70.0	48.9	27.3	10.2	1.9	0.5	0.7	0.7
110°	84.8	82.5	73.0	58.1	39.4	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)