

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: P550721

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-94-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: P550721
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-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

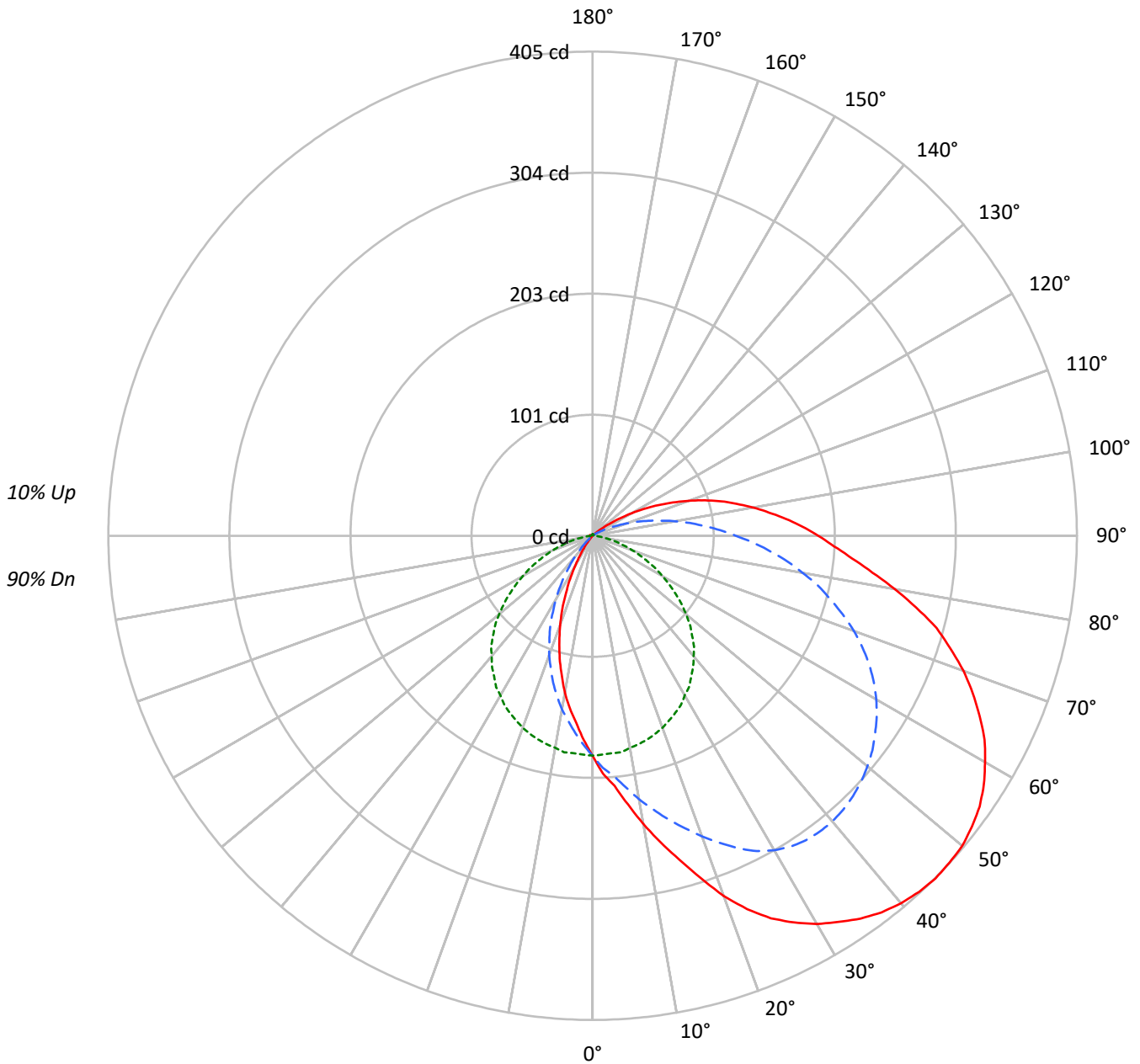
Lumens per Lamp: N/A
Luminaire Lumens: 909.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	1979	1979	1979
5°	2173	1951	1627
10°	2459	1926	1341
15°	2756	1902	1045
20°	3108	1871	769
25°	3400	1835	506
30°	3617	1786	285
35°	3805	1735	126
40°	3971	1671	30
45°	4114	1591	0
50°	4235	1485	0
55°	4326	1350	0
60°	4372	1195	0
65°	4390	1016	0
70°	4375	829	0
75°	4320	610	3
80°	4145	374	19
85°	4006	178	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.6	1.9
10°-20°	52.7	5.8
20°-30°	85.4	9.4
30°-40°	109.7	12.1
40°-50°	124.2	13.7
50°-60°	128.7	14.2
60°-70°	121.3	13.3
70°-80°	101.7	11.2
80°-90°	73.7	8.1
90°-100°	48.4	5.3
100°-110°	28.0	3.1
110°-120°	12.3	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°	155.7	17.1
0°-40°	265.5	29.2
0°-60°	518.3	57.0
0°-90°	815.0	89.7
90°-120°	88.8	9.8
90°-150°	93.4	10.3
90°-180°	94.0	10.3
0°-180°	909.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	184	184	184	184	184	
5°	210	202	182	166	157	21
15°	280	246	176	127	106	81
25°	353	288	164	84	52	163
35°	391	311	144	41	13	245
45°	405	308	118	9	0	313
55°	395	288	85	0	0	353
65°	357	255	51	0	0	353
75°	298	206	22	0	0	312
85°	218	149	4	1	1	186
90°	189	120	1	1	2	104
95°	162	94	0	2	2	127
105°	112	48	0	1	2	118
115°	61	16	1	1	1	61
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°	183.9	183.9	183.9	183.9	183.9	183.9	183.9	183.9	183.9	183.9	183.9
2.5°	199.3	199.1	198.4	197.2	195.6	192.8	190.4	188.3	185.5	183.2	178.7
5°	209.9	208.7	207.8	206.6	202.8	200.3	196.0	191.4	186.9	182.5	173.6
7.5°	226.7	224.9	223.5	220.2	215.0	209.2	202.6	198.2	195.1	182.7	167.5
10°	244.8	243.1	240.3	234.5	228.1	219.7	210.3	199.8	190.4	180.1	162.1
12.5°	262.6	260.2	256.2	248.7	239.8	229.3	216.4	204.0	190.7	178.5	155.8
15°	280.4	277.8	273.6	264.4	252.7	238.9	223.2	207.5	191.8	176.4	149.2
17.5°	299.8	296.3	290.0	279.7	264.9	247.8	229.3	210.3	191.4	173.8	142.2
20°	320.7	315.7	308.9	295.1	277.8	257.7	235.4	213.1	191.1	170.8	134.2
22.5°	338.0	333.1	325.6	311.3	290.4	265.8	240.6	215.0	190.2	167.2	126.7
25°	353.0	349.0	340.8	324.4	302.4	274.5	245.5	216.4	188.8	163.5	118.8
27.5°	364.7	360.9	351.8	334.9	312.5	282.2	249.2	217.1	186.9	159.7	110.6
30°	375.0	371.3	360.2	342.9	319.3	288.3	253.0	217.4	184.6	154.1	101.7
32.5°	383.0	379.4	368.2	349.7	323.9	292.6	255.1	217.1	181.5	150.1	92.1
35°	390.9	387.4	374.3	354.6	327.5	294.4	256.7	216.0	177.8	143.6	82.9
37.5°	397.0	393.0	379.7	357.9	329.1	294.9	256.5	214.3	173.8	138.2	73.8
40°	401.2	397.0	382.7	359.8	329.6	294.2	254.6	211.5	169.1	131.4	64.2
42.5°	404.0	399.4	384.1	362.6	328.6	292.3	251.8	208.0	164.0	125.5	55.0
45°	405.4	400.5	384.4	360.2	327.0	288.8	247.6	203.5	158.3	117.6	45.9
47.5°	404.7	399.4	383.2	357.7	323.9	285.1	242.9	198.2	151.5	110.6	37.2
50°	403.6	398.0	380.6	354.4	319.7	280.4	237.7	191.6	144.5	101.9	29.5
52.5°	399.8	394.2	377.8	349.7	314.8	275.0	230.7	184.8	137.0	93.5	22.5
55°	395.1	390.0	372.9	345.5	308.5	268.4	224.2	177.5	129.8	84.8	16.2
57.5°	387.9	383.2	366.8	338.7	302.2	261.2	216.9	169.6	120.6	76.1	11.2
60°	379.0	374.3	358.4	331.0	294.9	253.0	208.9	161.4	112.4	67.5	7.0
62.5°	369.6	365.2	348.5	321.4	285.8	244.3	200.3	153.2	103.8	59.5	4.2
65°	357.2	353.0	338.0	309.9	275.7	234.9	190.7	143.3	94.9	50.6	2.3
67.5°	344.1	340.3	325.1	299.3	264.0	224.6	180.8	133.7	85.5	42.9	1.2
70°	330.0	325.3	311.3	285.1	252.0	212.9	170.0	123.9	76.6	35.4	0.0
72.5°	313.6	310.1	296.5	271.7	238.2	200.5	159.0	113.1	66.8	28.1	0.2
75°	297.7	293.3	280.8	257.4	224.6	187.4	146.9	103.1	57.2	21.5	0.2
77.5°	277.1	275.7	264.0	241.3	211.7	174.7	133.5	90.9	48.0	15.5	0.2
80°	256.5	255.1	245.9	225.1	196.8	159.7	121.1	79.4	39.1	10.3	0.2
82.5°	236.1	234.2	225.6	208.2	181.5	147.1	108.2	67.9	30.9	6.3	0.2
85°	217.8	215.5	206.1	190.2	165.8	132.8	94.9	56.7	23.0	3.5	0.5
87.5°	202.1	200.5	190.2	173.8	149.9	119.5	83.2	45.9	16.2	1.6	0.7
90°	188.8	185.3	176.1	158.8	134.9	104.7	70.7	36.8	10.8	0.9	0.9
92.5°	175.7	172.6	162.6	144.8	121.6	92.1	58.8	28.1	6.8	0.5	1.2
95°	162.1	158.8	149.0	132.6	108.0	79.2	48.3	20.6	3.7	0.5	1.2
97.5°	148.7	145.7	135.4	119.0	95.8	67.9	38.2	14.5	1.9	0.5	0.9
100°	136.3	132.8	123.4	107.0	83.6	56.7	29.5	9.4	1.2	0.5	0.9
102.5°	123.2	120.4	110.8	94.9	71.0	46.1	22.0	5.9	0.5	0.5	0.7
105°	111.5	108.0	98.6	82.2	60.4	36.3	15.5	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°	72.6	69.8	61.6	47.8	30.7	14.3	4.2	0.7	0.7	0.7	0.7
115°	60.7	56.4	49.2	37.0	22.7	9.4	2.1	0.7	0.7	0.7	0.7
117.5°	48.5	45.0	39.8	28.1	15.0	6.1	1.2	0.7	0.7	0.7	0.7
120°	37.9	34.7	28.8	19.4	10.1	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.2	24.6	19.4	12.6	6.1	1.6	0.7	0.7	0.9	0.9	0.7
125°	18.0	16.6	12.9	7.7	3.7	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.7	10.5	7.5	4.5	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.6	5.9	4.5	2.6	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°	183.9	183.9	183.9
2.5°	175.0	171.7	170.8
5°	165.6	160.2	157.2
7.5°	156.2	149.0	145.5
10°	147.6	137.3	133.5
12.5°	137.3	125.3	119.5
15°	127.4	112.0	106.3
17.5°	116.4	99.1	92.5
20°	106.1	86.2	79.4
22.5°	94.4	73.5	66.1
25°	83.9	60.9	52.5
27.5°	72.1	48.0	40.8
30°	61.1	36.8	29.5
32.5°	50.6	26.9	20.4
35°	40.8	18.3	12.9
37.5°	31.4	11.2	6.6
40°	22.7	5.9	3.0
42.5°	15.2	2.8	1.6
45°	9.4	1.4	0.0
47.5°	5.4	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°	98.4	95.6	86.2	70.7	49.4	27.6	10.3	1.9	0.5	0.7	0.7
110°	85.7	83.4	73.8	58.8	39.8	20.6	6.8	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)