

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: P550845

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-82-87-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: P550845
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-40-UNV-82-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

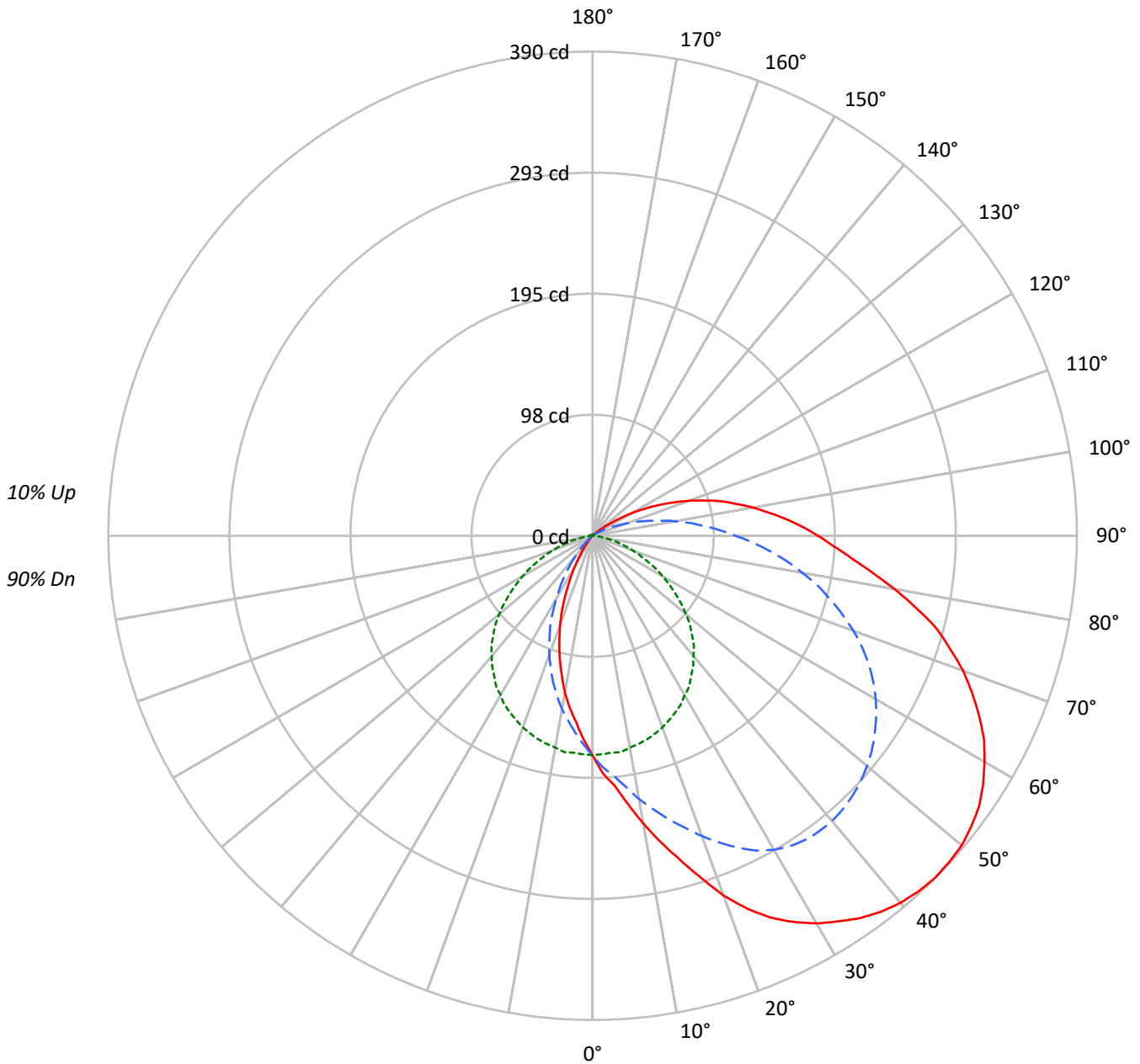
Lumens per Lamp: N/A
Luminaire Lumens: 874.1 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	1903	1903	1903
5°	2089	1875	1564
10°	2363	1852	1290
15°	2649	1829	1004
20°	2988	1799	739
25°	3269	1764	485
30°	3478	1718	274
35°	3659	1669	121
40°	3819	1606	29
45°	3956	1530	0
50°	4071	1428	0
55°	4159	1298	0
60°	4204	1148	0
65°	4221	976	0
70°	4207	796	0
75°	4153	587	3
80°	3985	359	18
85°	3851	173	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.9	1.9
10°-20°	50.7	5.8
20°-30°	82.1	9.4
30°-40°	105.5	12.1
40°-50°	119.4	13.7
50°-60°	123.7	14.2
60°-70°	116.7	13.3
70°-80°	97.8	11.2
80°-90°	70.9	8.1
90°-100°	46.6	5.3
100°-110°	26.9	3.1
110°-120°	11.9	1.4
120°-130°	3.2	0.4
130°-140°	0.7	0.1
140°-150°	0.5	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	149.7	17.1
0°-40°	255.2	29.2
0°-60°	498.3	57.0
0°-90°	783.6	89.7
90°-120°	85.4	9.8
90°-150°	89.8	10.3
90°-180°	90.0	10.3
0°-180°	874.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	177	177	177	177	177	
5°	202	194	175	159	151	20
15°	270	236	170	122	102	78
25°	339	277	157	81	50	157
35°	376	299	138	39	12	236
45°	390	296	113	9	0	301
55°	380	277	82	0	0	339
65°	343	246	49	0	0	340
75°	286	198	21	0	0	300
85°	209	144	3	1	1	179
90°	182	115	1	1	2	100
95°	156	90	0	2	2	122
105°	107	46	0	1	2	113
115°	58	15	1	1	1	58
125°	17	2	1	1	1	17
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°	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8
2.5°	191.7	191.4	190.8	189.6	188.0	185.3	183.1	181.1	178.4	176.1	171.8
5°	201.8	200.7	199.8	198.6	195.0	192.6	188.5	184.0	179.7	175.4	166.9
7.5°	218.0	216.2	214.8	211.7	206.7	201.1	194.8	190.5	187.6	175.7	161.0
10°	235.3	233.8	231.1	225.4	219.4	211.2	202.2	192.1	183.1	173.2	155.8
12.5°	252.5	250.2	246.4	239.2	230.6	220.5	208.1	196.2	183.3	171.6	149.8
15°	269.6	267.1	263.0	254.3	243.0	229.7	214.6	199.5	184.4	169.6	143.5
17.5°	288.3	284.9	278.8	268.9	254.7	238.3	220.5	202.2	184.0	167.1	136.7
20°	308.3	303.6	297.1	283.8	267.1	247.7	226.3	204.9	183.8	164.2	129.0
22.5°	325.0	320.2	313.0	299.3	279.3	255.6	231.3	206.7	182.9	160.8	121.8
25°	339.4	335.6	327.7	311.9	290.7	263.9	236.0	208.1	181.5	157.2	114.2
27.5°	350.7	347.0	338.3	322.0	300.4	271.4	239.6	208.8	179.7	153.6	106.3
30°	360.6	357.0	346.4	329.7	307.0	277.2	243.2	209.0	177.5	148.2	97.7
32.5°	368.2	364.8	354.0	336.2	311.5	281.3	245.3	208.8	174.5	144.4	88.5
35°	375.9	372.5	359.9	341.0	314.8	283.1	246.8	207.6	170.9	138.1	79.7
37.5°	381.7	377.9	365.1	344.1	316.4	283.5	246.6	206.1	167.1	132.9	70.9
40°	385.8	381.7	368.0	345.9	316.9	282.9	244.8	203.4	162.6	126.3	61.7
42.5°	388.5	384.0	369.3	348.6	316.0	281.1	242.1	200.0	157.6	120.7	52.9
45°	389.8	385.1	369.6	346.4	314.4	277.7	238.0	195.7	152.2	113.1	44.1
47.5°	389.2	384.0	368.4	343.9	311.5	274.1	233.5	190.5	145.7	106.3	35.8
50°	388.0	382.6	366.0	340.7	307.4	269.6	228.6	184.2	139.0	98.0	28.4
52.5°	384.4	379.0	363.3	336.2	302.7	264.4	221.8	177.7	131.7	89.9	21.6
55°	379.9	375.0	358.5	332.2	296.6	258.1	215.5	170.7	124.8	81.5	15.5
57.5°	372.9	368.4	352.7	325.7	290.5	251.1	208.5	163.1	116.0	73.2	10.8
60°	364.4	359.9	344.6	318.2	283.5	243.2	200.9	155.2	108.1	64.9	6.8
62.5°	355.4	351.1	335.1	309.0	274.8	234.9	192.6	147.3	99.8	57.2	4.1
65°	343.4	339.4	325.0	298.0	265.1	225.9	183.3	137.8	91.2	48.6	2.3
67.5°	330.8	327.2	312.6	287.8	253.8	216.0	173.9	128.6	82.2	41.2	1.1
70°	317.3	312.8	299.3	274.1	242.3	204.7	163.5	119.1	73.6	34.0	0.0
72.5°	301.6	298.2	285.1	261.2	229.0	192.8	152.9	108.8	64.2	27.0	0.2
75°	286.2	282.0	270.0	247.5	216.0	180.2	141.2	99.1	55.0	20.7	0.2
77.5°	266.4	265.1	253.8	232.0	203.6	168.0	128.4	87.4	46.2	14.9	0.2
80°	246.6	245.3	236.5	216.4	189.2	153.6	116.4	76.3	37.6	9.9	0.2
82.5°	227.0	225.2	216.9	200.2	174.5	141.4	104.0	65.3	29.7	6.1	0.2
85°	209.4	207.2	198.2	182.9	159.4	127.7	91.2	54.5	22.1	3.4	0.5
87.5°	194.4	192.8	182.9	167.1	144.1	114.9	79.9	44.1	15.5	1.6	0.7
90°	181.5	178.1	169.4	152.7	129.7	100.7	68.0	35.4	10.4	0.9	0.9
92.5°	168.9	166.0	156.3	139.2	116.9	88.5	56.5	27.0	6.5	0.5	1.1
95°	155.8	152.7	143.2	127.5	103.8	76.1	46.4	19.8	3.6	0.5	1.1
97.5°	143.0	140.1	130.2	114.4	92.1	65.3	36.7	14.0	1.8	0.5	0.9
100°	131.1	127.7	118.7	102.9	80.4	54.5	28.4	9.0	1.1	0.5	0.9
102.5°	118.5	115.8	106.5	91.2	68.2	44.4	21.2	5.6	0.5	0.5	0.7
105°	107.2	103.8	94.8	79.0	58.1	34.9	14.9	3.4	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°	69.8	67.1	59.2	45.9	29.5	13.7	4.1	0.7	0.7	0.7	0.7
115°	58.3	54.3	47.3	35.6	21.8	9.0	2.0	0.7	0.7	0.7	0.7
117.5°	46.6	43.2	38.3	27.0	14.4	5.9	1.1	0.7	0.7	0.7	0.7
120°	36.5	33.3	27.7	18.7	9.7	3.4	0.5	0.7	0.7	0.7	0.7
122.5°	26.1	23.6	18.7	12.2	5.9	1.6	0.7	0.7	0.9	0.9	0.7
125°	17.3	16.0	12.4	7.4	3.6	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.3	10.1	7.2	4.3	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.3	5.6	4.3	2.5	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.6	3.4	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	1.1	1.1	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
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	1.1	1.1	1.1	1.1
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	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°	176.8	176.8	176.8
2.5°	168.2	165.1	164.2
5°	159.2	154.0	151.1
7.5°	150.2	143.2	139.9
10°	141.9	132.0	128.4
12.5°	132.0	120.5	114.9
15°	122.5	107.6	102.2
17.5°	111.9	95.3	89.0
20°	102.0	82.9	76.3
22.5°	90.8	70.7	63.5
25°	80.6	58.6	50.4
27.5°	69.4	46.2	39.2
30°	58.8	35.4	28.4
32.5°	48.6	25.9	19.6
35°	39.2	17.6	12.4
37.5°	30.2	10.8	6.3
40°	21.8	5.6	2.9
42.5°	14.6	2.7	1.6
45°	9.0	1.4	0.0
47.5°	5.2	0.0	0.0
50°	2.7	0.0	0.0
52.5°	1.1	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	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.4
87.5°	1.1	1.4	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.8	1.8
95°	1.6	1.8	2.0
97.5°	1.8	2.0	2.0
100°	1.6	2.0	2.3
102.5°	1.4	2.0	2.0
105°	1.1	1.6	1.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.1	1.1
115°	0.7	0.9	1.1
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°	94.6	91.9	82.9	68.0	47.5	26.6	9.9	1.8	0.5	0.7	0.7
110°	82.4	80.2	70.9	56.5	38.3	19.8	6.5	1.1	0.7	0.7	0.7





107.5°	0.9	1.4	1.6
110°	0.9	1.1	1.4



(END OF REPORT)