

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: P550851

Luminaire Tested: **FCC-X-2-LD4-1LO-40-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: P550851
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-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

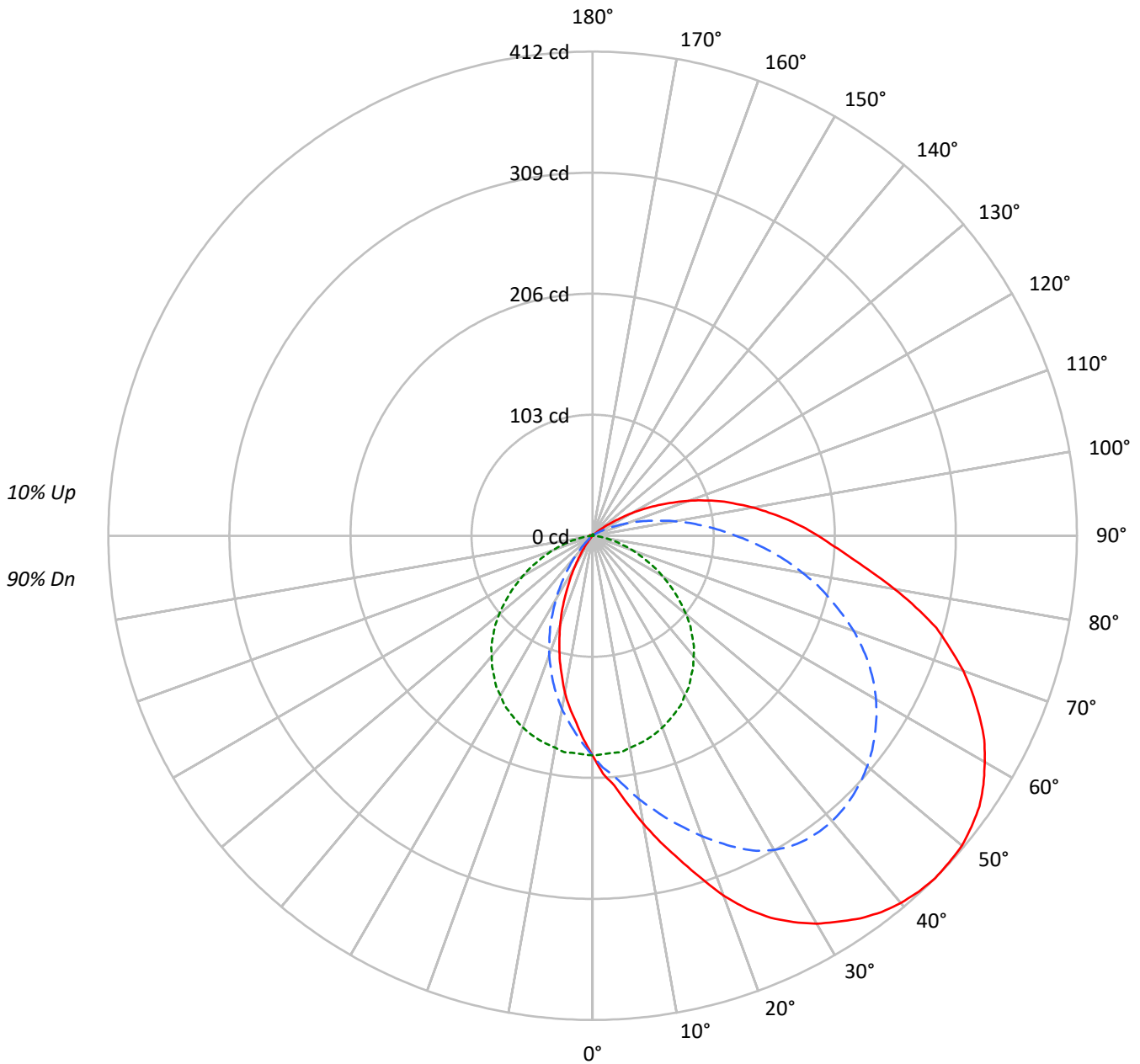
Lumens per Lamp: N/A
Luminaire Lumens: 924.1 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550851

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-82-96-ED1D-90

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°	2012	2012	2012
5°	2208	1983	1654
10°	2499	1958	1363
15°	2801	1933	1062
20°	3158	1902	782
25°	3456	1865	513
30°	3677	1817	289
35°	3868	1764	127
40°	4038	1699	31
45°	4182	1617	0
50°	4304	1510	0
55°	4398	1373	0
60°	4444	1214	0
65°	4463	1032	0
70°	4448	843	0
75°	4391	621	3
80°	4213	381	19
85°	4072	183	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.9	1.9
10°-20°	53.6	5.8
20°-30°	86.8	9.4
30°-40°	111.5	12.1
40°-50°	126.2	13.7
50°-60°	130.8	14.2
60°-70°	123.3	13.3
70°-80°	103.4	11.2
80°-90°	74.9	8.1
90°-100°	49.2	5.3
100°-110°	28.4	3.1
110°-120°	12.6	1.4
120°-130°	3.4	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°	158.3	17.1
0°-40°	269.8	29.2
0°-60°	526.8	57.0
0°-90°	828.5	89.7
90°-120°	90.2	9.8
90°-150°	94.9	10.3
90°-180°	96.0	10.4
0°-180°	924.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	187	187	187	187	187	
5°	213	205	186	168	160	22
15°	285	250	179	130	108	82
25°	359	293	166	85	53	166
35°	397	316	146	41	13	249
45°	412	313	120	10	0	318
55°	402	293	86	0	0	359
65°	363	260	51	0	0	359
75°	303	209	22	0	0	317
85°	221	152	4	1	1	189
90°	192	122	1	1	2	105
95°	165	95	0	2	2	129
105°	113	49	0	1	2	120
115°	62	16	1	1	1	62
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°	186.9	186.9	186.9	186.9	186.9	186.9	186.9	186.9	186.9	186.9	186.9
2.5°	202.6	202.4	201.7	200.5	198.8	196.0	193.6	191.4	188.6	186.2	181.7
5°	213.3	212.1	211.2	210.0	206.2	203.6	199.3	194.5	190.0	185.5	176.4
7.5°	230.5	228.6	227.1	223.8	218.6	212.6	206.0	201.4	198.3	185.7	170.2
10°	248.8	247.1	244.3	238.3	231.9	223.3	213.8	203.1	193.6	183.1	164.8
12.5°	266.9	264.5	260.5	252.9	243.8	233.1	220.0	207.4	193.8	181.4	158.3
15°	285.0	282.4	278.1	268.8	256.9	242.9	226.9	211.0	195.0	179.3	151.7
17.5°	304.8	301.2	294.8	284.3	269.3	251.9	233.1	213.8	194.5	176.7	144.5
20°	325.9	320.9	314.0	300.0	282.4	261.9	239.3	216.7	194.3	173.6	136.4
22.5°	343.6	338.6	330.9	316.4	295.2	270.2	244.5	218.6	193.3	170.0	128.8
25°	358.8	354.8	346.4	329.8	307.4	279.0	249.5	220.0	191.9	166.2	120.7
27.5°	370.7	366.9	357.6	340.5	317.6	286.9	253.3	220.7	190.0	162.4	112.4
30°	381.2	377.4	366.2	348.6	324.5	293.1	257.1	221.0	187.6	156.7	103.3
32.5°	389.3	385.7	374.3	355.5	329.3	297.4	259.3	220.7	184.5	152.6	93.6
35°	397.4	393.8	380.5	360.5	332.9	299.3	260.9	219.5	180.7	146.0	84.3
37.5°	403.6	399.5	385.9	363.8	334.5	299.8	260.7	217.9	176.7	140.5	75.0
40°	407.9	403.6	389.0	365.7	335.0	299.0	258.8	215.0	171.9	133.6	65.2
42.5°	410.7	405.9	390.5	368.6	334.0	297.1	255.9	211.4	166.7	127.6	56.0
45°	412.1	407.1	390.7	366.2	332.4	293.6	251.7	206.9	161.0	119.5	46.7
47.5°	411.4	405.9	389.5	363.6	329.3	289.8	246.9	201.4	154.0	112.4	37.9
50°	410.2	404.5	386.9	360.2	325.0	285.0	241.7	194.8	146.9	103.6	30.0
52.5°	406.4	400.7	384.0	355.5	320.0	279.5	234.5	187.9	139.3	95.0	22.9
55°	401.7	396.4	379.0	351.2	313.6	272.9	227.9	180.5	131.9	86.2	16.4
57.5°	394.3	389.5	372.9	344.3	307.1	265.5	220.5	172.4	122.6	77.4	11.4
60°	385.2	380.5	364.3	336.4	299.8	257.1	212.4	164.0	114.3	68.6	7.1
62.5°	375.7	371.2	354.3	326.7	290.5	248.3	203.6	155.7	105.5	60.5	4.3
65°	363.1	358.8	343.6	315.0	280.2	238.8	193.8	145.7	96.4	51.4	2.4
67.5°	349.8	345.9	330.5	304.3	268.3	228.3	183.8	136.0	86.9	43.6	1.2
70°	335.5	330.7	316.4	289.8	256.2	216.4	172.9	126.0	77.9	36.0	0.0
72.5°	318.8	315.2	301.4	276.2	242.1	203.8	161.7	115.0	67.9	28.6	0.2
75°	302.6	298.1	285.5	261.7	228.3	190.5	149.3	104.8	58.1	21.9	0.2
77.5°	281.7	280.2	268.3	245.2	215.2	177.6	135.7	92.4	48.8	15.7	0.2
80°	260.7	259.3	250.0	228.8	200.0	162.4	123.1	80.7	39.8	10.5	0.2
82.5°	240.0	238.1	229.3	211.7	184.5	149.5	110.0	69.0	31.4	6.4	0.2
85°	221.4	219.0	209.5	193.3	168.6	135.0	96.4	57.6	23.3	3.6	0.5
87.5°	205.5	203.8	193.3	176.7	152.4	121.4	84.5	46.7	16.4	1.7	0.7
90°	191.9	188.3	179.0	161.4	137.1	106.4	71.9	37.4	11.0	1.0	1.0
92.5°	178.6	175.5	165.2	147.1	123.6	93.6	59.8	28.6	6.9	0.5	1.2
95°	164.8	161.4	151.4	134.8	109.8	80.5	49.0	21.0	3.8	0.5	1.2
97.5°	151.2	148.1	137.6	121.0	97.4	69.0	38.8	14.8	1.9	0.5	1.0
100°	138.6	135.0	125.5	108.8	85.0	57.6	30.0	9.5	1.2	0.5	1.0
102.5°	125.2	122.4	112.6	96.4	72.1	46.9	22.4	6.0	0.5	0.5	0.7
105°	113.3	109.8	100.2	83.6	61.4	36.9	15.7	3.6	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°	73.8	71.0	62.6	48.6	31.2	14.5	4.3	0.7	0.7	0.7	0.7
115°	61.7	57.4	50.0	37.6	23.1	9.5	2.1	0.7	0.7	0.7	0.7
117.5°	49.3	45.7	40.5	28.6	15.2	6.2	1.2	0.7	0.7	0.7	0.7
120°	38.6	35.2	29.3	19.8	10.2	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	27.6	25.0	19.8	12.9	6.2	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.3	16.9	13.1	7.9	3.8	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	11.9	10.7	7.6	4.5	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.7	6.0	4.5	2.6	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.8	3.6	2.4	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
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°	186.9	186.9	186.9
2.5°	177.9	174.5	173.6
5°	168.3	162.9	159.8
7.5°	158.8	151.4	147.9
10°	150.0	139.5	135.7
12.5°	139.5	127.4	121.4
15°	129.5	113.8	108.1
17.5°	118.3	100.7	94.0
20°	107.9	87.6	80.7
22.5°	96.0	74.8	67.1
25°	85.2	61.9	53.3
27.5°	73.3	48.8	41.4
30°	62.1	37.4	30.0
32.5°	51.4	27.4	20.7
35°	41.4	18.6	13.1
37.5°	31.9	11.4	6.7
40°	23.1	6.0	3.1
42.5°	15.5	2.9	1.7
45°	9.5	1.4	0.0
47.5°	5.5	0.0	0.0
50°	2.9	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	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.4
87.5°	1.2	1.4	1.7
90°	1.4	1.7	1.7
92.5°	1.4	1.9	1.9
95°	1.7	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.7	2.1	2.4
102.5°	1.4	2.1	2.1
105°	1.2	1.7	1.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	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°	1.0	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°	100.0	97.1	87.6	71.9	50.2	28.1	10.5	1.9	0.5	0.7	0.7
110°	87.1	84.8	75.0	59.8	40.5	21.0	6.9	1.2	0.7	0.7	0.7





107.5°	1.0	1.4	1.7
110°	1.0	1.2	1.4



(END OF REPORT)