

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: P550832

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-88-ED1D**

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: P550832
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-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

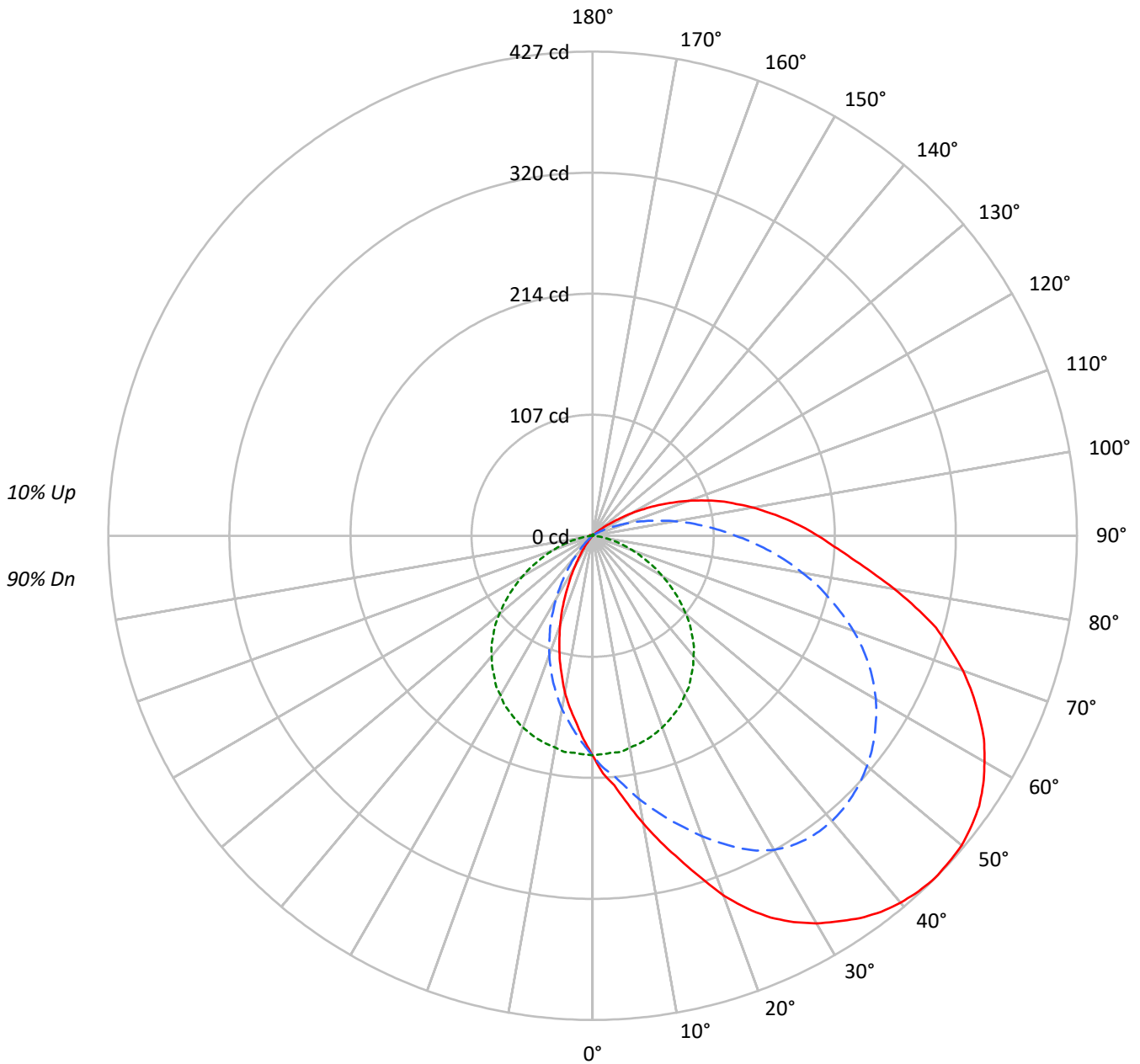
Lumens per Lamp: N/A
Luminaire Lumens: 956.9 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2084	2084	2084
5°	2288	2053	1713
10°	2588	2028	1412
15°	2901	2002	1101
20°	3272	1970	810
25°	3579	1931	532
30°	3808	1881	300
35°	4006	1827	132
40°	4181	1759	32
45°	4332	1675	0
50°	4459	1564	0
55°	4555	1422	0
60°	4603	1256	0
65°	4623	1071	0
70°	4607	871	0
75°	4548	644	3
80°	4363	395	19
85°	4217	188	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.5	1.9
10°-20°	55.5	5.8
20°-30°	89.9	9.4
30°-40°	115.5	12.1
40°-50°	130.7	13.7
50°-60°	135.4	14.2
60°-70°	127.7	13.3
70°-80°	107.0	11.2
80°-90°	77.6	8.1
90°-100°	51.0	5.3
100°-110°	29.4	3.1
110°-120°	13.0	1.4
120°-130°	3.5	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°	164.0	17.1
0°-40°	279.5	29.2
0°-60°	545.7	57.0
0°-90°	858.0	89.7
90°-120°	93.4	9.8
90°-150°	98.2	10.3
90°-180°	99.0	10.3
0°-180°	956.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	194	194	194	194	194	
5°	221	212	192	174	166	22
15°	295	259	186	134	112	85
25°	372	304	172	88	55	172
35°	412	327	151	43	14	258
45°	427	324	124	10	0	330
55°	416	304	89	0	0	371
65°	376	269	53	0	0	372
75°	313	217	23	0	0	329
85°	229	157	4	1	2	196
90°	199	126	1	2	2	109
95°	171	98	0	2	2	134
105°	117	51	0	1	2	124
115°	64	17	1	1	1	64
125°	19	2	1	1	1	19
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°	193.6	193.6	193.6	193.6	193.6	193.6	193.6	193.6	193.6	193.6	193.6
2.5°	209.9	209.6	208.9	207.6	205.9	202.9	200.5	198.3	195.3	192.8	188.2
5°	221.0	219.7	218.7	217.5	213.6	210.8	206.4	201.5	196.8	192.1	182.7
7.5°	238.7	236.7	235.3	231.8	226.4	220.2	213.3	208.6	205.4	192.3	176.3
10°	257.7	256.0	253.0	246.8	240.2	231.3	221.4	210.3	200.5	189.6	170.6
12.5°	276.4	274.0	269.8	261.9	252.5	241.4	227.9	214.8	200.7	187.9	164.0
15°	295.2	292.5	288.0	278.4	266.1	251.5	235.0	218.5	202.0	185.7	157.1
17.5°	315.6	311.9	305.3	294.4	278.9	260.9	241.4	221.4	201.5	183.0	149.7
20°	337.6	332.4	325.3	310.7	292.5	271.3	247.8	224.4	201.2	179.8	141.3
22.5°	355.8	350.7	342.8	327.7	305.8	279.9	253.3	226.4	200.2	176.1	133.4
25°	371.6	367.4	358.8	341.5	318.4	289.0	258.4	227.9	198.8	172.1	125.0
27.5°	384.0	380.0	370.4	352.6	329.0	297.1	262.4	228.6	196.8	168.2	116.4
30°	394.8	390.9	379.3	361.0	336.1	303.6	266.3	228.8	194.3	162.3	107.0
32.5°	403.2	399.5	387.6	368.2	341.0	308.0	268.5	228.6	191.1	158.1	96.9
35°	411.6	407.9	394.1	373.3	344.7	310.0	270.3	227.4	187.2	151.2	87.3
37.5°	418.0	413.8	399.7	376.8	346.5	310.5	270.0	225.6	183.0	145.5	77.7
40°	422.4	418.0	402.9	378.8	347.0	309.7	268.1	222.7	178.0	138.3	67.6
42.5°	425.4	420.4	404.4	381.7	346.0	307.8	265.1	219.0	172.6	132.2	58.0
45°	426.9	421.7	404.7	379.3	344.2	304.1	260.7	214.3	166.7	123.8	48.3
47.5°	426.1	420.4	403.4	376.6	341.0	300.1	255.7	208.6	159.5	116.4	39.2
50°	424.9	419.0	400.7	373.1	336.6	295.2	250.3	201.7	152.1	107.3	31.1
52.5°	420.9	415.0	397.8	368.2	331.4	289.5	242.9	194.6	144.3	98.4	23.7
55°	416.0	410.6	392.6	363.7	324.8	282.6	236.0	186.9	136.6	89.3	17.0
57.5°	408.4	403.4	386.2	356.6	318.1	275.0	228.3	178.5	127.0	80.1	11.8
60°	399.0	394.1	377.3	348.4	310.5	266.3	220.0	169.9	118.4	71.0	7.4
62.5°	389.1	384.4	366.9	338.3	300.8	257.2	210.8	161.3	109.2	62.6	4.4
65°	376.1	371.6	355.8	326.2	290.2	247.3	200.7	150.9	99.9	53.3	2.5
67.5°	362.3	358.3	342.3	315.2	277.9	236.5	190.4	140.8	90.0	45.1	1.2
70°	347.5	342.5	327.7	300.1	265.3	224.2	179.0	130.4	80.6	37.2	0.0
72.5°	330.2	326.5	312.2	286.1	250.8	211.1	167.4	119.1	70.3	29.6	0.2
75°	313.4	308.7	295.7	271.0	236.5	197.3	154.6	108.5	60.2	22.7	0.2
77.5°	291.7	290.2	277.9	254.0	222.9	184.0	140.6	95.7	50.6	16.3	0.2
80°	270.0	268.5	258.9	237.0	207.1	168.2	127.5	83.6	41.2	10.9	0.2
82.5°	248.6	246.6	237.5	219.2	191.1	154.9	113.9	71.5	32.6	6.7	0.2
85°	229.3	226.9	217.0	200.2	174.6	139.8	99.9	59.7	24.2	3.7	0.5
87.5°	212.8	211.1	200.2	183.0	157.8	125.8	87.5	48.3	17.0	1.7	0.7
90°	198.8	195.1	185.4	167.2	142.0	110.2	74.5	38.7	11.3	1.0	1.0
92.5°	184.9	181.7	171.1	152.4	128.0	96.9	61.9	29.6	7.2	0.5	1.2
95°	170.6	167.2	156.8	139.6	113.7	83.3	50.8	21.7	3.9	0.5	1.2
97.5°	156.6	153.4	142.5	125.3	100.9	71.5	40.2	15.3	2.0	0.5	1.0
100°	143.5	139.8	130.0	112.7	88.0	59.7	31.1	9.9	1.2	0.5	1.0
102.5°	129.7	126.8	116.6	99.9	74.7	48.6	23.2	6.2	0.5	0.5	0.7
105°	117.4	113.7	103.8	86.6	63.6	38.2	16.3	3.7	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°	76.4	73.5	64.9	50.3	32.3	15.0	4.4	0.7	0.7	0.7	0.7
115°	63.9	59.4	51.8	39.0	23.9	9.9	2.2	0.7	0.7	0.7	0.7
117.5°	51.0	47.3	41.9	29.6	15.8	6.4	1.2	0.7	0.7	0.7	0.7
120°	39.9	36.5	30.3	20.5	10.6	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.6	25.9	20.5	13.3	6.4	1.7	0.7	0.7	1.0	1.0	0.7
125°	19.0	17.5	13.6	8.1	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.3	11.1	7.9	4.7	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.9	6.2	4.7	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.7	2.5	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°	193.6	193.6	193.6
2.5°	184.2	180.8	179.8
5°	174.3	168.7	165.5
7.5°	164.5	156.8	153.1
10°	155.4	144.5	140.6
12.5°	144.5	131.9	125.8
15°	134.1	117.9	112.0
17.5°	122.6	104.3	97.4
20°	111.7	90.7	83.6
22.5°	99.4	77.4	69.5
25°	88.3	64.1	55.2
27.5°	76.0	50.6	42.9
30°	64.4	38.7	31.1
32.5°	53.3	28.4	21.5
35°	42.9	19.2	13.6
37.5°	33.0	11.8	6.9
40°	23.9	6.2	3.2
42.5°	16.0	3.0	1.7
45°	9.9	1.5	0.0
47.5°	5.7	0.0	0.0
50°	3.0	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	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	2.0	2.0
95°	1.7	2.0	2.2
97.5°	2.0	2.2	2.2
100°	1.7	2.2	2.5
102.5°	1.5	2.2	2.2
105°	1.2	1.7	2.0



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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°	103.6	100.6	90.7	74.5	52.0	29.1	10.9	2.0	0.5	0.7	0.7
110°	90.3	87.8	77.7	61.9	41.9	21.7	7.2	1.2	0.7	0.7	0.7





107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)