

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: P550912

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-82-88-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: P550912
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-50-UNV-82-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

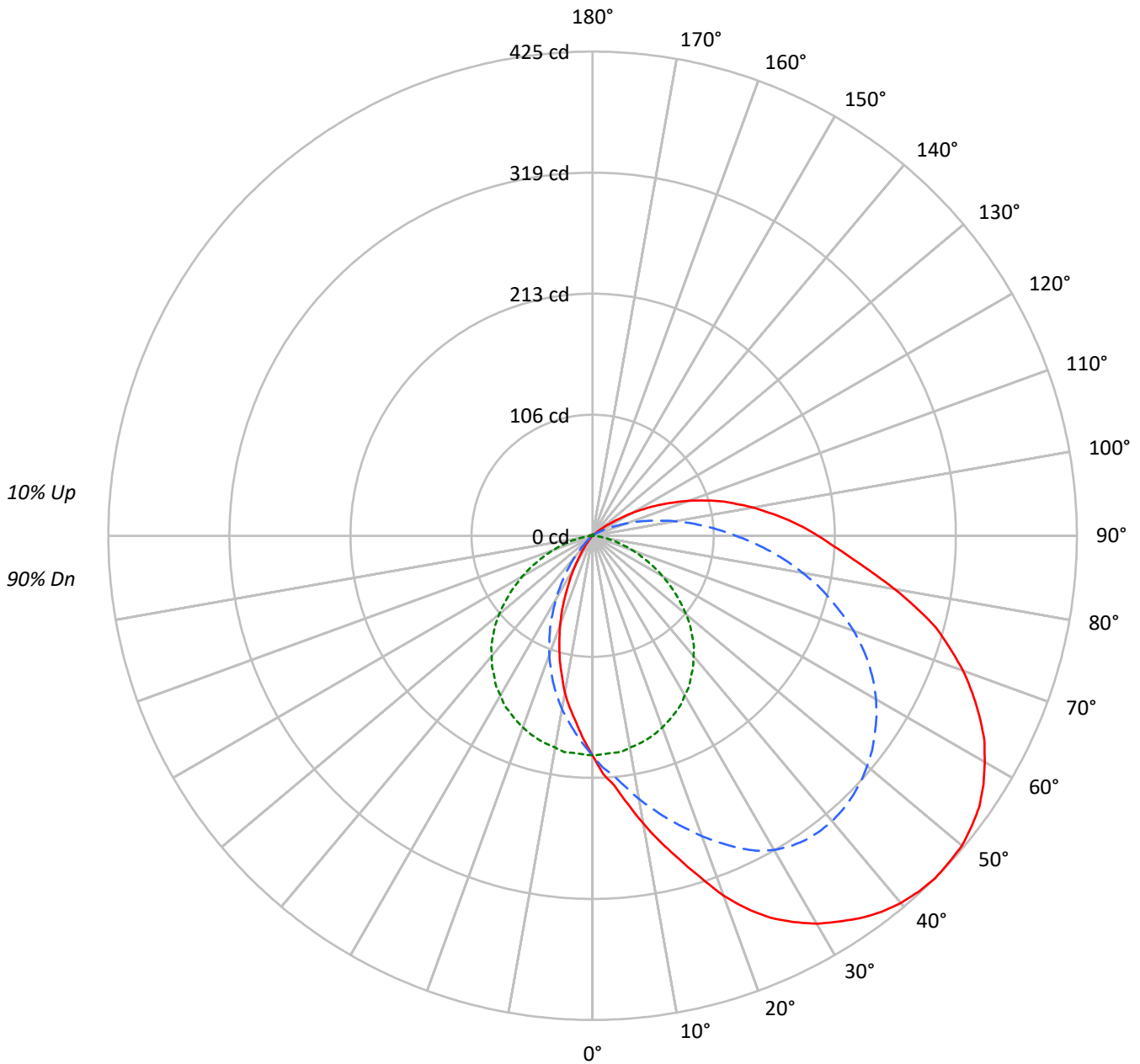
Lumens per Lamp: N/A
Luminaire Lumens: 952.9 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D

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°	2075	2075	2075
5°	2277	2045	1706
10°	2577	2019	1406
15°	2888	1994	1096
20°	3258	1961	806
25°	3564	1924	530
30°	3792	1873	298
35°	3989	1818	131
40°	4164	1752	32
45°	4314	1668	0
50°	4440	1557	0
55°	4536	1416	0
60°	4584	1251	0
65°	4603	1065	0
70°	4587	869	0
75°	4529	641	3
80°	4346	392	19
85°	4201	188	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.5	1.9
10°-20°	55.3	5.8
20°-30°	89.5	9.4
30°-40°	115.0	12.1
40°-50°	130.2	13.7
50°-60°	134.9	14.2
60°-70°	127.2	13.3
70°-80°	106.6	11.2
80°-90°	77.3	8.1
90°-100°	50.8	5.3
100°-110°	29.3	3.1
110°-120°	12.9	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°	163.3	17.1
0°-40°	278.3	29.2
0°-60°	543.4	57.0
0°-90°	854.4	89.7
90°-120°	93.0	9.8
90°-150°	97.9	10.3
90°-180°	99.0	10.4
0°-180°	952.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	193	193	193	193	193	
5°	220	211	191	174	165	22
15°	294	258	185	134	112	85
25°	370	302	171	88	55	171
35°	410	326	150	43	14	257
45°	425	323	123	10	0	328
55°	414	302	89	0	0	370
65°	374	268	53	0	0	371
75°	312	216	23	0	0	327
85°	228	157	4	1	2	195
90°	198	126	1	2	2	109
95°	170	98	0	2	2	133
105°	117	51	0	1	2	123
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°	192.8	192.8	192.8	192.8	192.8	192.8	192.8	192.8	192.8	192.8	192.8
2.5°	209.0	208.7	208.0	206.8	205.0	202.1	199.6	197.4	194.5	192.0	187.4
5°	220.0	218.8	217.8	216.6	212.7	210.0	205.5	200.6	196.0	191.3	182.0
7.5°	237.7	235.7	234.3	230.8	225.4	219.3	212.4	207.7	204.6	191.5	175.6
10°	256.6	254.9	252.0	245.8	239.2	230.3	220.5	209.5	199.6	188.8	169.9
12.5°	275.3	272.8	268.6	260.8	251.5	240.4	226.9	213.9	199.9	187.1	163.3
15°	293.9	291.2	286.8	277.2	265.0	250.5	234.0	217.6	201.1	184.9	156.4
17.5°	314.3	310.6	304.0	293.2	277.7	259.8	240.4	220.5	200.6	182.2	149.1
20°	336.2	331.0	323.9	309.4	291.2	270.1	246.8	223.5	200.4	179.0	140.7
22.5°	354.4	349.2	341.3	326.4	304.5	278.7	252.2	225.4	199.4	175.3	132.9
25°	370.1	365.9	357.3	340.1	317.0	287.8	257.4	226.9	197.9	171.4	124.5
27.5°	382.3	378.4	368.8	351.2	327.6	295.9	261.3	227.6	196.0	167.5	115.9
30°	393.2	389.2	377.7	359.5	334.7	302.3	265.2	227.9	193.5	161.6	106.6
32.5°	401.5	397.8	386.0	366.6	339.6	306.7	267.4	227.6	190.3	157.4	96.5
35°	409.8	406.2	392.4	371.8	343.3	308.7	269.1	226.4	186.4	150.5	86.9
37.5°	416.2	412.1	398.1	375.2	345.0	309.2	268.9	224.7	182.2	144.9	77.4
40°	420.7	416.2	401.3	377.2	345.5	308.4	266.9	221.7	177.3	137.8	67.3
42.5°	423.6	418.7	402.7	380.1	344.5	306.5	264.0	218.1	171.9	131.6	57.7
45°	425.1	419.9	403.0	377.7	342.8	302.8	259.6	213.4	166.0	123.3	48.1
47.5°	424.3	418.7	401.7	375.0	339.6	298.9	254.7	207.7	158.9	115.9	39.0
50°	423.1	417.2	399.0	371.5	335.2	293.9	249.2	200.9	151.5	106.8	30.9
52.5°	419.2	413.3	396.1	366.6	330.0	288.3	241.9	193.8	143.7	98.0	23.6
55°	414.3	408.9	390.9	362.2	323.4	281.4	235.0	186.1	136.0	88.9	16.9
57.5°	406.7	401.7	384.6	355.1	316.8	273.8	227.4	177.8	126.5	79.8	11.8
60°	397.3	392.4	375.7	347.0	309.2	265.2	219.0	169.2	117.9	70.7	7.4
62.5°	387.5	382.8	365.4	336.9	299.6	256.1	210.0	160.6	108.8	62.4	4.4
65°	374.5	370.1	354.4	324.9	289.0	246.3	199.9	150.3	99.5	53.0	2.5
67.5°	360.7	356.8	340.8	313.8	276.8	235.5	189.6	140.2	89.6	44.9	1.2
70°	346.0	341.1	326.4	298.9	264.2	223.2	178.3	129.9	80.3	37.1	0.0
72.5°	328.8	325.1	310.9	284.9	249.7	210.2	166.7	118.6	70.0	29.5	0.2
75°	312.1	307.4	294.4	269.9	235.5	196.5	154.0	108.0	59.9	22.6	0.2
77.5°	290.5	289.0	276.8	252.9	222.0	183.2	140.0	95.3	50.3	16.2	0.2
80°	268.9	267.4	257.8	236.0	206.3	167.5	127.0	83.2	41.0	10.8	0.2
82.5°	247.5	245.6	236.5	218.3	190.3	154.2	113.5	71.2	32.4	6.6	0.2
85°	228.4	225.9	216.1	199.4	173.9	139.2	99.5	59.4	24.1	3.7	0.5
87.5°	211.9	210.2	199.4	182.2	157.2	125.2	87.2	48.1	16.9	1.7	0.7
90°	197.9	194.2	184.7	166.5	141.4	109.8	74.2	38.6	11.3	1.0	1.0
92.5°	184.2	181.0	170.4	151.8	127.4	96.5	61.6	29.5	7.1	0.5	1.2
95°	169.9	166.5	156.2	139.0	113.2	83.0	50.6	21.6	3.9	0.5	1.2
97.5°	155.9	152.7	141.9	124.7	100.4	71.2	40.0	15.2	2.0	0.5	1.0
100°	142.9	139.2	129.4	112.2	87.7	59.4	30.9	9.8	1.2	0.5	1.0
102.5°	129.2	126.2	116.2	99.5	74.4	48.4	23.1	6.1	0.5	0.5	0.7
105°	116.9	113.2	103.4	86.2	63.4	38.1	16.2	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°	76.1	73.2	64.6	50.1	32.2	15.0	4.4	0.7	0.7	0.7	0.7
115°	63.6	59.2	51.6	38.8	23.8	9.8	2.2	0.7	0.7	0.7	0.7
117.5°	50.8	47.1	41.7	29.5	15.7	6.4	1.2	0.7	0.7	0.7	0.7
120°	39.8	36.3	30.2	20.4	10.6	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.5	25.8	20.4	13.3	6.4	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.9	17.4	13.5	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	6.1	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°	192.8	192.8	192.8
2.5°	183.4	180.0	179.0
5°	173.6	168.0	164.8
7.5°	163.8	156.2	152.5
10°	154.7	143.9	140.0
12.5°	143.9	131.4	125.2
15°	133.6	117.4	111.5
17.5°	122.0	103.9	97.0
20°	111.2	90.4	83.2
22.5°	99.0	77.1	69.2
25°	87.9	63.8	55.0
27.5°	75.6	50.3	42.7
30°	64.1	38.6	30.9
32.5°	53.0	28.2	21.4
35°	42.7	19.2	13.5
37.5°	32.9	11.8	6.9
40°	23.8	6.1	3.2
42.5°	16.0	2.9	1.7
45°	9.8	1.5	0.0
47.5°	5.6	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	1.5
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°	103.1	100.2	90.4	74.2	51.8	29.0	10.8	2.0	0.5	0.7	0.7
110°	89.9	87.4	77.4	61.6	41.7	21.6	7.1	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)