

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: P550900

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-81-96-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: P550900
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-81-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

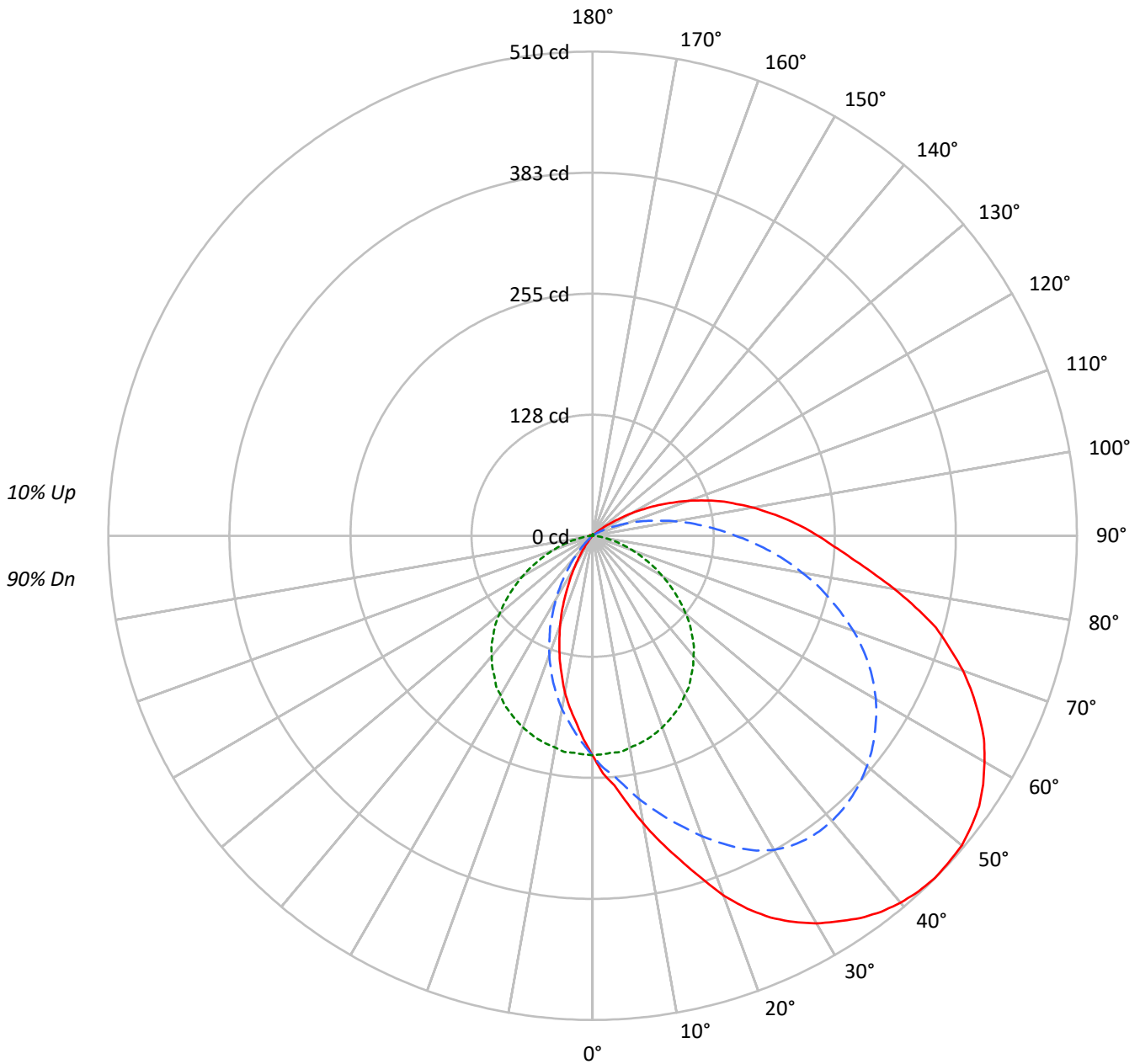
Lumens per Lamp: N/A
Luminaire Lumens: 1143.1 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				
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°	2489	2489	2489
5°	2732	2452	2046
10°	3092	2422	1686
15°	3464	2392	1314
20°	3907	2352	967
25°	4274	2307	636
30°	4548	2247	358
35°	4785	2181	158
40°	4994	2101	38
45°	5174	2001	0
50°	5325	1867	0
55°	5440	1697	0
60°	5497	1501	0
65°	5520	1277	0
70°	5502	1042	0
75°	5431	769	4
80°	5212	472	24
85°	5038	224	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.1	1.9
10°-20°	66.3	5.8
20°-30°	107.4	9.4
30°-40°	137.9	12.1
40°-50°	156.1	13.7
50°-60°	161.8	14.2
60°-70°	152.6	13.3
70°-80°	127.9	11.2
80°-90°	92.7	8.1
90°-100°	60.9	5.3
100°-110°	35.2	3.1
110°-120°	15.5	1.4
120°-130°	4.2	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	195.8	17.1
0°-40°	333.8	29.2
0°-60°	651.7	57.0
0°-90°	1024.8	89.7
90°-120°	111.7	9.8
90°-150°	117.5	10.3
90°-180°	118.0	10.3
0°-180°	1143.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	231	231	231	231	231	
5°	264	253	229	208	198	27
15°	352	309	222	160	134	102
25°	444	363	206	105	66	205
35°	492	391	180	51	16	308
45°	510	387	148	12	0	394
55°	497	363	107	0	0	444
65°	449	321	64	0	0	444
75°	374	259	27	0	0	393
85°	274	188	4	1	2	234
90°	237	151	1	2	2	130
95°	204	118	1	2	3	160
105°	140	61	1	2	2	148
115°	76	20	1	1	2	76
125°	23	3	1	1	1	23
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	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°	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2	231.2
2.5°	250.6	250.3	249.5	248.0	245.9	242.4	239.4	236.8	233.3	230.3	224.7
5°	263.9	262.4	261.2	259.8	255.1	251.8	246.5	240.6	235.0	229.4	218.2
7.5°	285.1	282.7	281.0	276.9	270.4	263.0	254.8	249.2	245.3	229.7	210.6
10°	307.8	305.7	302.2	294.8	286.9	276.3	264.5	251.2	239.4	226.5	203.8
12.5°	330.2	327.2	322.2	312.8	301.6	288.3	272.1	256.5	239.7	224.4	195.9
15°	352.5	349.3	344.0	332.5	317.8	300.4	280.7	260.9	241.2	221.8	187.6
17.5°	377.0	372.6	364.6	351.7	333.1	311.6	288.3	264.5	240.6	218.5	178.8
20°	403.2	397.0	388.5	371.1	349.3	324.0	296.0	268.0	240.3	214.7	168.8
22.5°	425.0	418.8	409.4	391.4	365.2	334.3	302.5	270.4	239.2	210.3	159.3
25°	443.8	438.8	428.5	407.9	380.2	345.2	308.7	272.1	237.4	205.6	149.3
27.5°	458.6	453.9	442.4	421.2	392.9	354.9	313.4	273.0	235.0	200.9	139.0
30°	471.5	466.8	453.0	431.2	401.4	362.6	318.1	273.3	232.1	193.8	127.8
32.5°	481.5	477.1	463.0	439.7	407.3	367.9	320.7	273.0	228.3	188.8	115.7
35°	491.6	487.1	470.6	445.9	411.7	370.2	322.8	271.6	223.5	180.5	104.3
37.5°	499.2	494.2	477.4	450.0	413.8	370.8	322.5	269.5	218.5	173.8	92.8
40°	504.5	499.2	481.3	452.4	414.4	369.9	320.1	266.0	212.6	165.2	80.7
42.5°	508.1	502.2	483.0	455.9	413.2	367.6	316.6	261.5	206.2	157.9	69.2
45°	509.8	503.6	483.3	453.0	411.2	363.1	311.3	255.9	199.1	147.9	57.7
47.5°	508.9	502.2	481.8	449.7	407.3	358.4	305.4	249.2	190.6	139.0	46.8
50°	507.5	500.4	478.6	445.6	402.0	352.5	298.9	240.9	181.7	128.1	37.1
52.5°	502.8	495.7	475.1	439.7	395.8	345.8	290.1	232.4	172.3	117.5	28.3
55°	496.9	490.4	468.9	434.4	387.9	337.5	281.9	223.2	163.2	106.6	20.3
57.5°	487.7	481.8	461.2	425.9	379.9	328.4	272.7	213.2	151.7	95.7	14.1
60°	476.5	470.6	450.6	416.2	370.8	318.1	262.7	202.9	141.4	84.8	8.8
62.5°	464.8	459.2	438.3	404.1	359.3	307.2	251.8	192.6	130.5	74.8	5.3
65°	449.1	443.8	425.0	389.7	346.7	295.4	239.7	180.2	119.3	63.6	2.9
67.5°	432.7	427.9	408.8	376.4	331.9	282.4	227.4	168.2	107.5	53.9	1.5
70°	415.0	409.1	391.4	358.4	316.9	267.7	213.8	155.8	96.3	44.5	0.0
72.5°	394.4	389.9	372.9	341.6	299.5	252.1	200.0	142.3	83.9	35.3	0.3
75°	374.3	368.7	353.1	323.7	282.4	235.6	184.7	129.6	71.9	27.1	0.3
77.5°	348.4	346.7	331.9	303.4	266.2	219.7	167.9	114.3	60.4	19.4	0.3
80°	322.5	320.7	309.3	283.0	247.4	200.9	152.3	99.8	49.2	13.0	0.3
82.5°	296.9	294.5	283.6	261.8	228.3	185.0	136.1	85.4	38.9	8.0	0.3
85°	273.9	271.0	259.2	239.2	208.5	167.0	119.3	71.3	28.9	4.4	0.6
87.5°	254.2	252.1	239.2	218.5	188.5	150.2	104.6	57.7	20.3	2.1	0.9
90°	237.4	233.0	221.5	199.7	169.6	131.7	88.9	46.2	13.5	1.2	1.2
92.5°	220.9	217.1	204.4	182.0	152.9	115.7	73.9	35.3	8.5	0.6	1.5
95°	203.8	199.7	187.3	166.7	135.8	99.5	60.7	25.9	4.7	0.6	1.5
97.5°	187.0	183.2	170.2	149.6	120.5	85.4	48.0	18.3	2.4	0.6	1.2
100°	171.4	167.0	155.2	134.6	105.1	71.3	37.1	11.8	1.5	0.6	1.2
102.5°	154.9	151.4	139.3	119.3	89.2	58.0	27.7	7.4	0.6	0.6	0.9
105°	140.2	135.8	124.0	103.4	76.0	45.7	19.4	4.4	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	91.3	87.8	77.5	60.1	38.6	18.0	5.3	0.9	0.9	0.9	0.9
115°	76.3	71.0	61.9	46.5	28.6	11.8	2.7	0.9	0.9	0.9	0.9
117.5°	61.0	56.5	50.1	35.3	18.8	7.7	1.5	0.9	0.9	0.9	0.9
120°	47.7	43.6	36.2	24.4	12.7	4.4	0.6	0.9	0.9	0.9	0.9
122.5°	34.2	30.9	24.4	15.9	7.7	2.1	0.9	0.9	1.2	1.2	0.9
125°	22.7	20.9	16.2	9.7	4.7	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.7	13.3	9.4	5.6	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.2	7.4	5.6	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.7	4.4	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	231.2	231.2	231.2
2.5°	220.0	215.9	214.7
5°	208.2	201.5	197.6
7.5°	196.4	187.3	182.9
10°	185.6	172.6	167.9
12.5°	172.6	157.6	150.2
15°	160.2	140.8	133.7
17.5°	146.4	124.6	116.3
20°	133.4	108.4	99.8
22.5°	118.7	92.5	83.1
25°	105.4	76.6	66.0
27.5°	90.7	60.4	51.2
30°	76.9	46.2	37.1
32.5°	63.6	33.9	25.6
35°	51.2	23.0	16.2
37.5°	39.5	14.1	8.2
40°	28.6	7.4	3.8
42.5°	19.1	3.5	2.1
45°	11.8	1.8	0.0
47.5°	6.8	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.5	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	2.9
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



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— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	123.7	120.2	108.4	88.9	62.1	34.8	13.0	2.4	0.6	0.9	0.9
110°	107.8	104.9	92.8	73.9	50.1	25.9	8.5	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)