

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: P550764

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-81-86-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: P550764
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-35-UNV-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

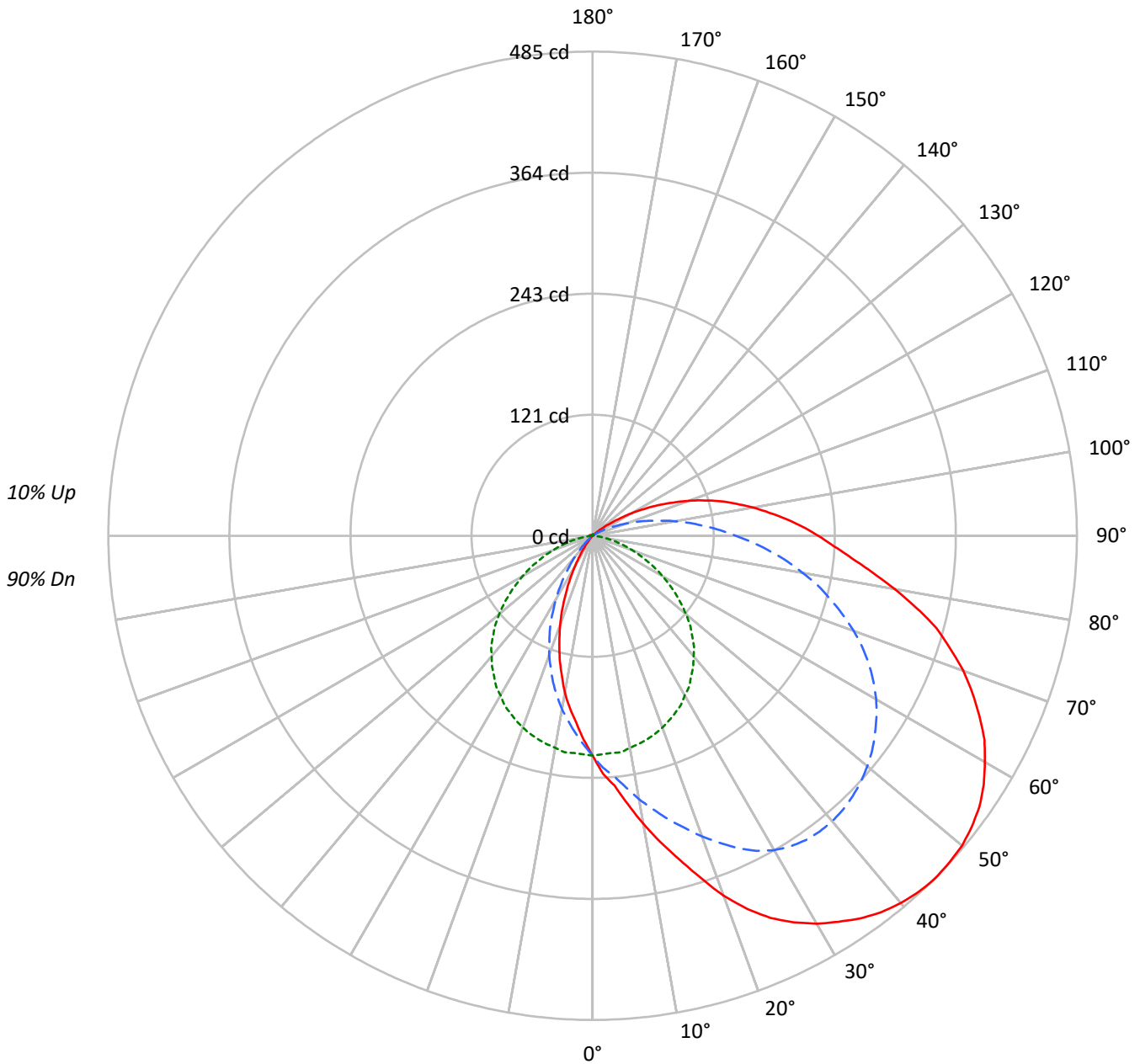
Lumens per Lamp: N/A
Luminaire Lumens: 1087.9 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (Ain): 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				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°	2369	2369	2369
5°	2600	2334	1947
10°	2943	2306	1605
15°	3298	2276	1251
20°	3719	2239	921
25°	4069	2196	605
30°	4329	2139	340
35°	4554	2077	150
40°	4753	2000	36
45°	4925	1904	0
50°	5068	1778	0
55°	5179	1616	0
60°	5233	1428	0
65°	5254	1217	0
70°	5237	991	0
75°	5170	732	4
80°	4961	446	23
85°	4795	214	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.1	1.9
10°-20°	63.1	5.8
20°-30°	102.2	9.4
30°-40°	131.3	12.1
40°-50°	148.6	13.7
50°-60°	154.0	14.2
60°-70°	145.2	13.3
70°-80°	121.7	11.2
80°-90°	88.2	8.1
90°-100°	58.0	5.3
100°-110°	33.5	3.1
110°-120°	14.8	1.4
120°-130°	4.0	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	186.4	17.1
0°-40°	317.7	29.2
0°-60°	620.3	57.0
0°-90°	975.5	89.7
90°-120°	106.2	9.8
90°-150°	111.7	10.3
90°-180°	112.0	10.3
0°-180°	1087.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	220	220	220	220	220	
5°	251	241	218	198	188	25
15°	336	294	211	152	127	97
25°	422	345	196	100	63	195
35°	468	372	172	49	15	293
45°	485	369	141	11	0	375
55°	473	345	102	0	0	422
65°	428	306	61	0	0	423
75°	356	247	26	0	0	374
85°	261	179	4	1	2	223
90°	226	143	1	2	2	124
95°	194	112	1	2	2	152
105°	133	58	1	1	2	141
115°	73	19	1	1	1	73
125°	22	3	1	1	1	22
135°	1	1	1	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	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°	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1	220.1
2.5°	238.6	238.3	237.5	236.1	234.1	230.7	227.9	225.4	222.0	219.2	213.9
5°	251.2	249.8	248.7	247.3	242.8	239.7	234.7	229.0	223.7	218.4	207.7
7.5°	271.4	269.1	267.5	263.5	257.4	250.4	242.5	237.2	233.5	218.7	200.5
10°	293.0	291.0	287.6	280.6	273.1	263.0	251.8	239.1	227.9	215.6	194.0
12.5°	314.3	311.5	306.7	297.7	287.1	274.5	259.0	244.2	228.2	213.6	186.4
15°	335.6	332.5	327.5	316.5	302.5	286.0	267.2	248.4	229.6	211.1	178.6
17.5°	358.9	354.6	347.1	334.7	317.1	296.6	274.5	251.8	229.0	208.0	170.2
20°	383.8	377.9	369.8	353.2	332.5	308.4	281.8	255.1	228.8	204.4	160.6
22.5°	404.5	398.7	389.7	372.6	347.6	318.2	287.9	257.4	227.6	200.2	151.7
25°	422.5	417.7	407.9	388.3	361.9	328.6	293.8	259.0	226.0	195.7	142.1
27.5°	436.5	432.0	421.1	400.9	374.0	337.8	298.3	259.9	223.7	191.2	132.3
30°	448.8	444.4	431.2	410.4	382.1	345.1	302.8	260.2	220.9	184.5	121.7
32.5°	458.4	454.2	440.7	418.6	387.7	350.2	305.3	259.9	217.3	179.7	110.2
35°	467.9	463.7	448.0	424.5	391.9	352.4	307.3	258.5	212.8	171.9	99.2
37.5°	475.2	470.4	454.5	428.4	393.9	353.0	307.0	256.5	208.0	165.4	88.3
40°	480.2	475.2	458.1	430.6	394.5	352.1	304.7	253.2	202.4	157.3	76.8
42.5°	483.6	478.0	459.8	434.0	393.3	349.9	301.4	249.0	196.2	150.3	65.9
45°	485.3	479.4	460.1	431.2	391.4	345.7	296.3	243.6	189.5	140.7	54.9
47.5°	484.4	478.0	458.7	428.1	387.7	341.2	290.7	237.2	181.4	132.3	44.6
50°	483.0	476.3	455.6	424.2	382.7	335.6	284.6	229.3	173.0	122.0	35.3
52.5°	478.6	471.8	452.2	418.6	376.8	329.1	276.1	221.2	164.0	111.9	26.9
55°	473.0	466.8	446.3	413.5	369.2	321.3	268.3	212.5	155.3	101.5	19.3
57.5°	464.3	458.7	439.0	405.4	361.7	312.6	259.6	203.0	144.4	91.1	13.5
60°	453.6	448.0	428.9	396.1	353.0	302.8	250.1	193.2	134.6	80.7	8.4
62.5°	442.4	437.1	417.2	384.6	342.0	292.4	239.7	183.4	124.2	71.2	5.0
65°	427.5	422.5	404.5	370.9	330.0	281.2	228.2	171.6	113.5	60.6	2.8
67.5°	411.8	407.4	389.1	358.3	316.0	268.9	216.4	160.1	102.3	51.3	1.4
70°	395.0	389.4	372.6	341.2	301.7	254.8	203.5	148.3	91.7	42.3	0.0
72.5°	375.4	371.2	354.9	325.2	285.1	240.0	190.4	135.4	79.9	33.6	0.3
75°	356.3	351.0	336.1	308.1	268.9	224.3	175.8	123.4	68.4	25.8	0.3
77.5°	331.7	330.0	316.0	288.8	253.4	209.1	159.8	108.8	57.5	18.5	0.3
80°	307.0	305.3	294.4	269.4	235.5	191.2	144.9	95.0	46.8	12.3	0.3
82.5°	282.6	280.4	270.0	249.2	217.3	176.1	129.5	81.3	37.0	7.6	0.3
85°	260.7	257.9	246.7	227.6	198.5	159.0	113.5	67.8	27.5	4.2	0.6
87.5°	241.9	240.0	227.6	208.0	179.4	143.0	99.5	54.9	19.3	2.0	0.8
90°	226.0	221.8	210.8	190.1	161.5	125.3	84.7	44.0	12.9	1.1	1.1
92.5°	210.3	206.6	194.6	173.3	145.5	110.2	70.4	33.6	8.1	0.6	1.4
95°	194.0	190.1	178.3	158.7	129.2	94.8	57.8	24.7	4.5	0.6	1.4
97.5°	178.0	174.4	162.0	142.4	114.7	81.3	45.7	17.4	2.2	0.6	1.1
100°	163.2	159.0	147.7	128.1	100.1	67.8	35.3	11.2	1.4	0.6	1.1
102.5°	147.5	144.1	132.6	113.5	84.9	55.2	26.4	7.0	0.6	0.6	0.8
105°	133.4	129.2	118.0	98.4	72.3	43.5	18.5	4.2	0.6	0.6	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	86.9	83.5	73.7	57.2	36.7	17.1	5.0	0.8	0.8	0.8	0.8
115°	72.6	67.6	58.9	44.3	27.2	11.2	2.5	0.8	0.8	0.8	0.8
117.5°	58.0	53.8	47.7	33.6	17.9	7.3	1.4	0.8	0.8	0.8	0.8
120°	45.4	41.5	34.5	23.3	12.1	4.2	0.6	0.8	0.8	0.8	0.8
122.5°	32.5	29.4	23.3	15.1	7.3	2.0	0.8	0.8	1.1	1.1	0.8
125°	21.6	19.9	15.4	9.3	4.5	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	14.0	12.6	9.0	5.3	2.0	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.8	7.0	5.3	3.1	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.5	4.2	2.8	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	220.1	220.1	220.1
2.5°	209.4	205.5	204.4
5°	198.2	191.8	188.1
7.5°	187.0	178.3	174.1
10°	176.6	164.3	159.8
12.5°	164.3	150.0	143.0
15°	152.5	134.0	127.3
17.5°	139.3	118.6	110.7
20°	127.0	103.2	95.0
22.5°	113.0	88.0	79.1
25°	100.4	72.9	62.8
27.5°	86.3	57.5	48.8
30°	73.2	44.0	35.3
32.5°	60.6	32.2	24.4
35°	48.8	21.9	15.4
37.5°	37.6	13.5	7.8
40°	27.2	7.0	3.6
42.5°	18.2	3.4	2.0
45°	11.2	1.7	0.0
47.5°	6.4	0.0	0.0
50°	3.4	0.0	0.0
52.5°	1.4	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	0.8
80°	0.6	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.2	2.2
95°	2.0	2.2	2.5
97.5°	2.2	2.5	2.5
100°	2.0	2.5	2.8
102.5°	1.7	2.5	2.5
105°	1.4	2.0	2.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.6
152.5°	0.8	0.6	0.6
155°	0.8	0.6	0.3
157.5°	1.1	0.6	0.3
160°	0.8	0.6	0.3
162.5°	0.8	0.6	0.3
165°	0.8	0.6	0.0
167.5°	0.8	0.6	0.3
170°	0.8	0.6	0.3
172.5°	0.8	0.6	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	117.7	114.4	103.2	84.7	59.2	33.1	12.3	2.2	0.6	0.8	0.8
110°	102.6	99.8	88.3	70.4	47.7	24.7	8.1	1.4	0.8	0.8	0.8





107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)