

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: P550790

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-82-97-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: P550790
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-82-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

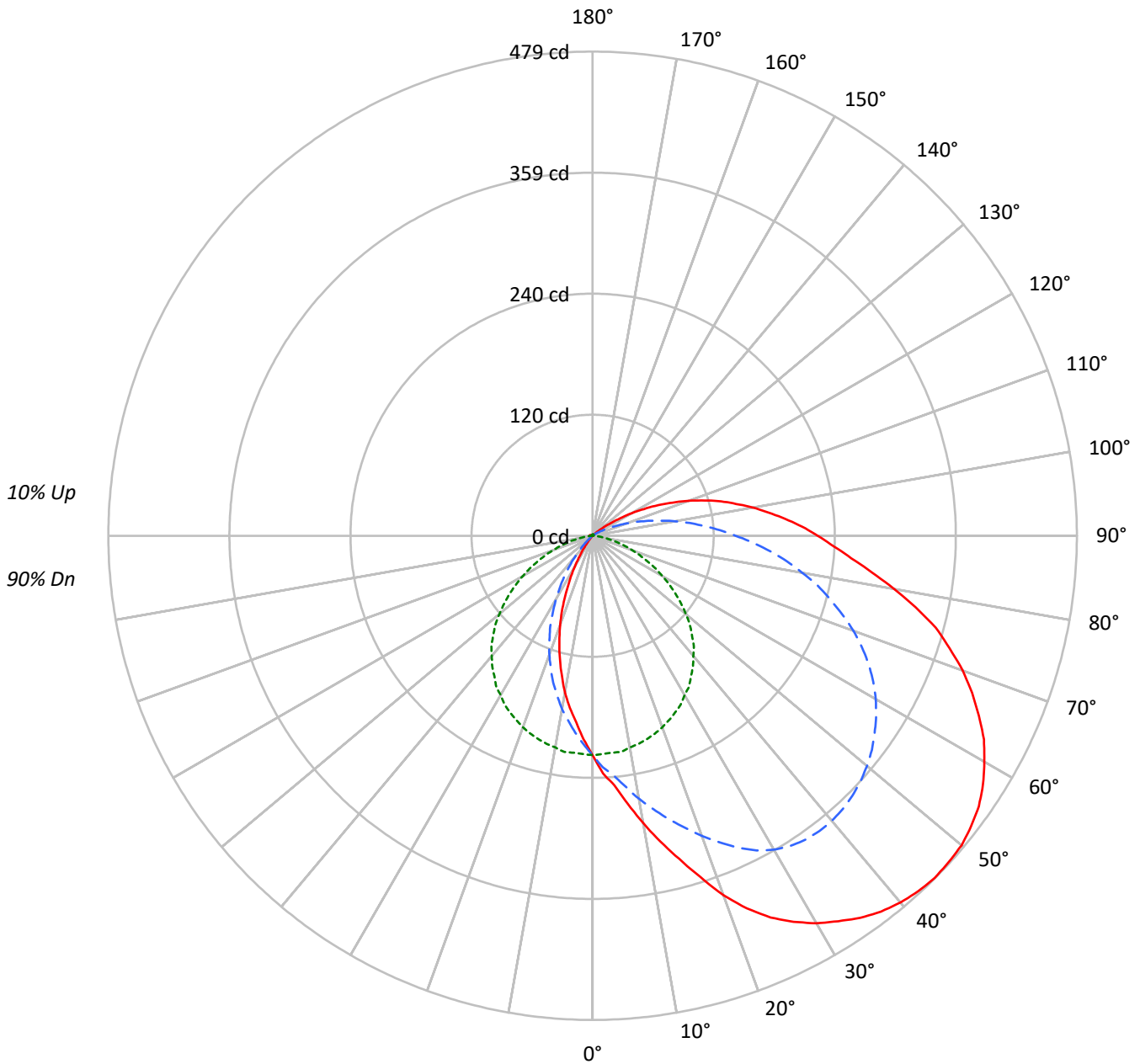
Lumens per Lamp: N/A
Luminaire Lumens: 1073.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				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°	2336	2336	2336
5°	2564	2302	1920
10°	2902	2274	1583
15°	3253	2245	1233
20°	3668	2209	908
25°	4013	2166	596
30°	4270	2109	336
35°	4492	2048	148
40°	4688	1972	36
45°	4857	1878	0
50°	4999	1753	0
55°	5106	1594	0
60°	5162	1409	0
65°	5182	1199	0
70°	5165	977	0
75°	5099	720	4
80°	4893	443	23
85°	4729	208	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.8	1.9
10°-20°	62.2	5.8
20°-30°	100.8	9.4
30°-40°	129.5	12.1
40°-50°	146.6	13.7
50°-60°	151.9	14.2
60°-70°	143.2	13.3
70°-80°	120.0	11.2
80°-90°	87.0	8.1
90°-100°	57.2	5.3
100°-110°	33.0	3.1
110°-120°	14.6	1.4
120°-130°	3.9	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°	183.8	17.1
0°-40°	313.3	29.2
0°-60°	611.8	57.0
0°-90°	962.1	89.7
90°-120°	104.8	9.8
90°-150°	110.2	10.3
90°-180°	111.0	10.3
0°-180°	1073.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	217	217	217	217	217	
5°	248	238	215	196	186	25
15°	331	290	208	150	126	95
25°	417	340	193	99	62	193
35°	462	367	170	48	15	289
45°	479	363	139	11	0	369
55°	466	340	100	0	0	417
65°	422	301	60	0	0	417
75°	351	243	25	0	0	369
85°	257	176	4	1	2	220
90°	223	141	1	2	2	122
95°	191	110	1	2	2	150
105°	132	57	1	1	2	139
115°	72	19	1	1	1	72
125°	21	3	1	1	1	21
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°	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0	217.0
2.5°	235.3	235.0	234.2	232.8	230.9	227.5	224.8	222.3	219.0	216.2	211.0
5°	247.7	246.3	245.2	243.9	239.4	236.4	231.4	225.9	220.6	215.4	204.9
7.5°	267.6	265.4	263.8	259.9	253.8	246.9	239.2	233.9	230.3	215.7	197.7
10°	288.9	287.0	283.7	276.8	269.3	259.3	248.3	235.8	224.8	212.6	191.3
12.5°	309.9	307.2	302.5	293.6	283.1	270.7	255.5	240.8	225.1	210.7	183.9
15°	331.0	327.9	322.9	312.2	298.3	282.0	263.5	245.0	226.4	208.2	176.1
17.5°	353.9	349.8	342.3	330.1	312.7	292.5	270.7	248.3	225.9	205.2	167.8
20°	378.5	372.7	364.7	348.4	327.9	304.1	277.9	251.6	225.6	201.6	158.4
22.5°	399.0	393.2	384.3	367.5	342.8	313.8	284.0	253.8	224.5	197.4	149.6
25°	416.7	412.0	402.3	382.9	356.9	324.0	289.8	255.5	222.8	193.0	140.2
27.5°	430.5	426.1	415.3	395.4	368.8	333.2	294.2	256.3	220.6	188.6	130.5
30°	442.7	438.2	425.2	404.8	376.9	340.4	298.6	256.6	217.9	181.9	120.0
32.5°	452.1	447.9	434.6	412.8	382.4	345.3	301.1	256.3	214.3	177.2	108.7
35°	461.5	457.3	441.8	418.6	386.5	347.5	303.0	254.9	209.9	169.5	97.9
37.5°	468.6	463.9	448.2	422.5	388.5	348.1	302.8	253.0	205.2	163.1	87.1
40°	473.6	468.6	451.8	424.7	389.0	347.3	300.5	249.7	199.6	155.1	75.8
42.5°	476.9	471.4	453.4	428.0	387.9	345.1	297.2	245.5	193.5	148.2	65.0
45°	478.6	472.8	453.7	425.2	386.0	340.9	292.2	240.3	186.9	138.8	54.2
47.5°	477.8	471.4	452.3	422.2	382.4	336.5	286.7	233.9	178.9	130.5	44.0
50°	476.4	469.8	449.3	418.3	377.4	331.0	280.6	226.2	170.6	120.3	34.8
52.5°	472.0	465.3	446.0	412.8	371.6	324.6	272.3	218.1	161.7	110.3	26.5
55°	466.4	460.4	440.2	407.8	364.1	316.9	264.6	209.6	153.2	100.1	19.1
57.5°	457.9	452.3	433.0	399.8	356.7	308.3	256.0	200.2	142.4	89.9	13.3
60°	447.4	441.8	423.0	390.7	348.1	298.6	246.6	190.5	132.7	79.6	8.3
62.5°	436.3	431.0	411.4	379.3	337.3	288.4	236.4	180.8	122.5	70.2	5.0
65°	421.6	416.7	399.0	365.8	325.4	277.3	225.1	169.2	112.0	59.7	2.8
67.5°	406.2	401.7	383.8	353.4	311.6	265.2	213.4	157.9	100.9	50.6	1.4
70°	389.6	384.0	367.5	336.5	297.5	251.3	200.7	146.3	90.4	41.7	0.0
72.5°	370.2	366.1	350.0	320.7	281.2	236.7	187.7	133.5	78.8	33.2	0.3
75°	351.4	346.2	331.5	303.9	265.2	221.2	173.4	121.7	67.5	25.4	0.3
77.5°	327.1	325.4	311.6	284.8	249.9	206.3	157.6	107.3	56.7	18.2	0.3
80°	302.8	301.1	290.3	265.7	232.2	188.6	142.9	93.7	46.2	12.2	0.3
82.5°	278.7	276.5	266.3	245.8	214.3	173.6	127.7	80.2	36.5	7.5	0.3
85°	257.1	254.4	243.3	224.5	195.8	156.8	112.0	66.9	27.1	4.1	0.6
87.5°	238.6	236.7	224.5	205.2	177.0	141.0	98.2	54.2	19.1	1.9	0.8
90°	222.8	218.7	207.9	187.5	159.3	123.6	83.5	43.4	12.7	1.1	1.1
92.5°	207.4	203.8	191.9	170.9	143.5	108.7	69.4	33.2	8.0	0.6	1.4
95°	191.3	187.5	175.8	156.5	127.5	93.5	57.0	24.3	4.4	0.6	1.4
97.5°	175.6	172.0	159.8	140.5	113.1	80.2	45.1	17.1	2.2	0.6	1.1
100°	160.9	156.8	145.7	126.4	98.7	66.9	34.8	11.1	1.4	0.6	1.1
102.5°	145.4	142.1	130.8	112.0	83.8	54.5	26.0	6.9	0.6	0.6	0.8
105°	131.6	127.5	116.4	97.0	71.3	42.9	18.2	4.1	0.6	0.6	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-82-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	85.7	82.4	72.7	56.4	36.2	16.9	5.0	0.8	0.8	0.8	0.8
115°	71.6	66.6	58.1	43.7	26.8	11.1	2.5	0.8	0.8	0.8	0.8
117.5°	57.2	53.1	47.0	33.2	17.7	7.2	1.4	0.8	0.8	0.8	0.8
120°	44.8	40.9	34.0	22.9	11.9	4.1	0.6	0.8	0.8	0.8	0.8
122.5°	32.1	29.0	22.9	14.9	7.2	1.9	0.8	0.8	1.1	1.1	0.8
125°	21.3	19.6	15.2	9.1	4.4	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.8	12.4	8.8	5.3	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.7	6.9	5.3	3.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.4	4.1	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°	217.0	217.0	217.0
2.5°	206.5	202.7	201.6
5°	195.5	189.1	185.5
7.5°	184.4	175.8	171.7
10°	174.2	162.0	157.6
12.5°	162.0	147.9	141.0
15°	150.4	132.2	125.5
17.5°	137.4	117.0	109.2
20°	125.2	101.7	93.7
22.5°	111.4	86.8	78.0
25°	99.0	71.9	61.9
27.5°	85.2	56.7	48.1
30°	72.2	43.4	34.8
32.5°	59.7	31.8	24.1
35°	48.1	21.6	15.2
37.5°	37.0	13.3	7.7
40°	26.8	6.9	3.6
42.5°	18.0	3.3	1.9
45°	11.1	1.7	0.0
47.5°	6.4	0.0	0.0
50°	3.3	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	1.9
90°	1.7	1.9	1.9
92.5°	1.7	2.2	2.2
95°	1.9	2.2	2.5
97.5°	2.2	2.5	2.5
100°	1.9	2.5	2.8
102.5°	1.7	2.5	2.5
105°	1.4	1.9	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°	116.1	112.8	101.7	83.5	58.3	32.6	12.2	2.2	0.6	0.8	0.8
110°	101.2	98.4	87.1	69.4	47.0	24.3	8.0	1.4	0.8	0.8	0.8





107.5°	1.1	1.7	1.9
110°	1.1	1.4	1.7



(END OF REPORT)