

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: P551037

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D-90**

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: P551037
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-LD4-1STD-35-UNV-82-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

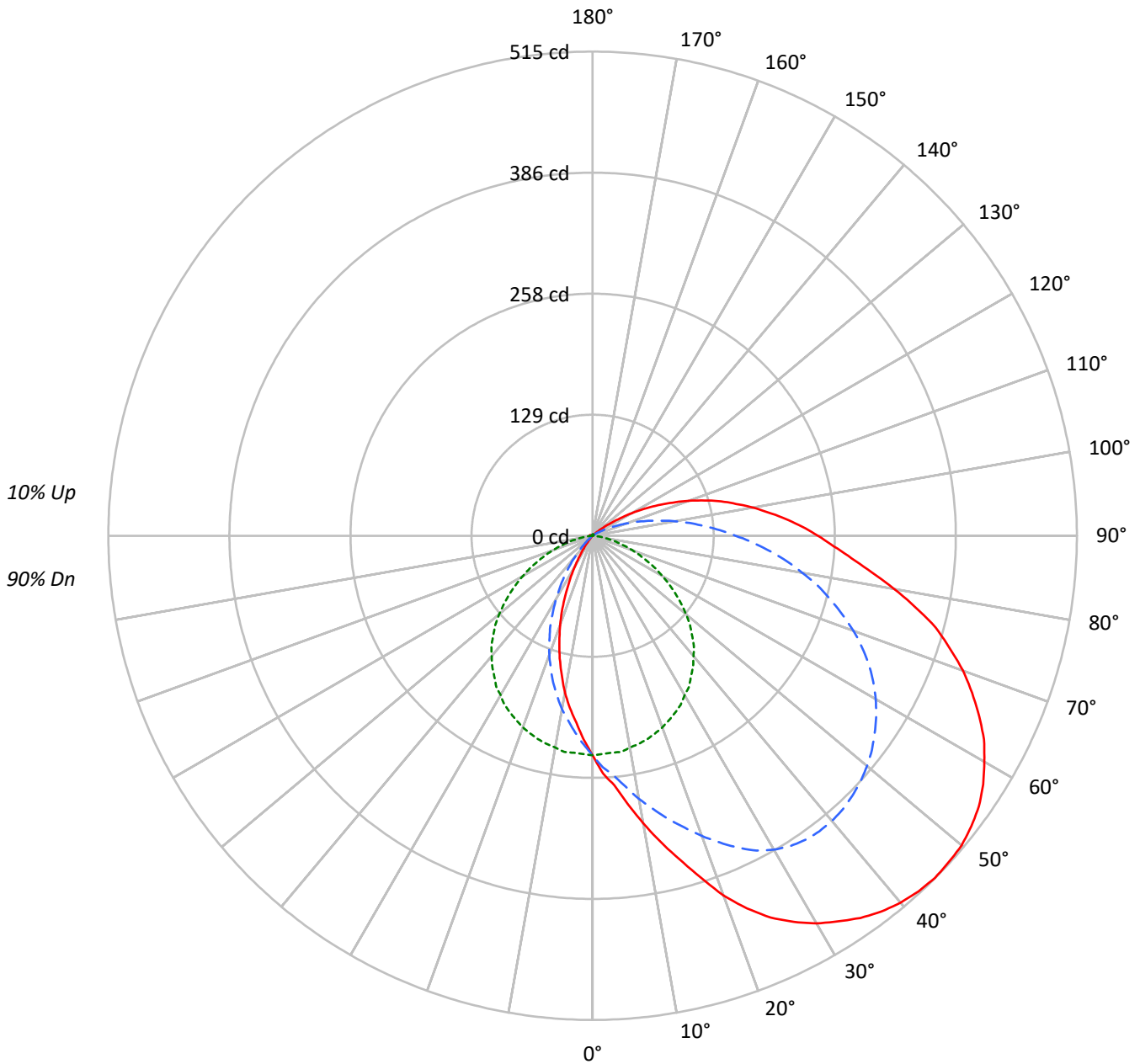
Lumens per Lamp: N/A
Luminaire Lumens: 1154.1 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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

TEST NUMBER: P551037

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D-90

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°	2512	2512	2512
5°	2758	2475	2065
10°	3121	2446	1703
15°	3497	2414	1327
20°	3945	2375	977
25°	4316	2330	641
30°	4592	2269	362
35°	4830	2203	160
40°	5042	2121	39
45°	5223	2020	0
50°	5376	1886	0
55°	5492	1713	0
60°	5550	1515	0
65°	5574	1289	0
70°	5555	1052	0
75°	5484	777	4
80°	5262	475	24
85°	5085	229	33



TEST NUMBER: P551037

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.4	1.9
10°-20°	66.9	5.8
20°-30°	108.4	9.4
30°-40°	139.3	12.1
40°-50°	157.7	13.7
50°-60°	163.3	14.2
60°-70°	154.0	13.3
70°-80°	129.1	11.2
80°-90°	93.6	8.1
90°-100°	61.5	5.3
100°-110°	35.5	3.1
110°-120°	15.7	1.4
120°-130°	4.3	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°	197.7	17.1
0°-40°	337.0	29.2
0°-60°	658.0	57.0
0°-90°	1034.7	89.7
90°-120°	112.7	9.8
90°-150°	118.6	10.3
90°-180°	119.0	10.3
0°-180°	1154.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	233	233	233	233	233	
5°	266	256	232	210	200	27
15°	356	312	224	162	135	103
25°	448	366	208	106	67	207
35°	496	395	182	52	16	311
45°	515	391	149	12	0	397
55°	502	366	108	0	0	448
65°	454	324	64	0	0	449
75°	378	262	27	0	0	396
85°	276	190	4	1	2	236
90°	240	152	1	2	2	131
95°	206	119	1	2	3	161
105°	142	61	1	2	2	149
115°	77	20	1	1	2	77
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	



TEST NUMBER: P551037

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	233.4	233.4	233.4	233.4	233.4	233.4	233.4	233.4	233.4	233.4	233.4
2.5°	253.1	252.8	251.9	250.4	248.3	244.7	241.8	239.1	235.5	232.5	226.9
5°	266.4	264.9	263.8	262.3	257.5	254.2	248.9	242.9	237.3	231.6	220.3
7.5°	287.8	285.5	283.7	279.5	273.0	265.5	257.2	251.6	247.7	231.9	212.6
10°	310.7	308.7	305.1	297.7	289.6	278.9	267.0	253.6	241.8	228.7	205.8
12.5°	333.3	330.4	325.3	315.8	304.5	291.1	274.8	259.0	242.0	226.6	197.7
15°	355.9	352.7	347.3	335.7	320.8	303.3	283.4	263.5	243.5	223.9	189.4
17.5°	380.6	376.2	368.1	355.0	336.3	314.6	291.1	267.0	242.9	220.6	180.5
20°	407.1	400.8	392.2	374.7	352.7	327.1	298.8	270.6	242.6	216.8	170.4
22.5°	429.1	422.8	413.3	395.2	368.7	337.5	305.4	273.0	241.5	212.3	160.9
25°	448.1	443.1	432.7	411.8	383.9	348.5	311.6	274.8	239.7	207.6	150.8
27.5°	463.0	458.2	446.6	425.2	396.7	358.3	316.4	275.7	237.3	202.8	140.4
30°	476.1	471.3	457.3	435.3	405.3	366.0	321.1	275.9	234.3	195.7	129.1
32.5°	486.2	481.7	467.4	444.0	411.2	371.4	323.8	275.7	230.5	190.6	116.9
35°	496.3	491.8	475.2	450.2	415.7	373.8	325.9	274.2	225.7	182.3	105.3
37.5°	504.0	499.0	482.0	454.4	417.8	374.4	325.6	272.1	220.6	175.4	93.7
40°	509.4	504.0	485.9	456.7	418.4	373.5	323.2	268.5	214.7	166.8	81.5
42.5°	512.9	507.0	487.7	460.3	417.2	371.1	319.7	264.1	208.2	159.4	69.9
45°	514.7	508.5	488.0	457.3	415.1	366.6	314.3	258.4	201.0	149.3	58.3
47.5°	513.8	507.0	486.5	454.1	411.2	361.9	308.4	251.6	192.4	140.4	47.3
50°	512.3	505.2	483.2	449.9	405.9	355.9	301.8	243.2	183.5	129.4	37.5
52.5°	507.6	500.5	479.6	444.0	399.6	349.1	292.9	234.6	174.0	118.6	28.5
55°	501.6	495.1	473.4	438.6	391.6	340.8	284.6	225.4	164.7	107.6	20.5
57.5°	492.4	486.5	465.7	430.0	383.6	331.6	275.4	215.3	153.1	96.6	14.3
60°	481.1	475.2	455.0	420.2	374.4	321.1	265.2	204.9	142.7	85.6	8.9
62.5°	469.2	463.6	442.5	408.0	362.8	310.1	254.2	194.5	131.7	75.5	5.4
65°	453.5	448.1	429.1	393.4	350.0	298.3	242.0	182.0	120.4	64.2	3.0
67.5°	436.8	432.1	412.7	380.0	335.1	285.2	229.6	169.8	108.5	54.4	1.5
70°	419.0	413.0	395.2	361.9	320.0	270.3	215.9	157.3	97.2	44.9	0.0
72.5°	398.2	393.7	376.5	344.9	302.4	254.5	201.9	143.6	84.7	35.7	0.3
75°	377.9	372.3	356.5	326.8	285.2	237.9	186.4	130.8	72.6	27.4	0.3
77.5°	351.8	350.0	335.1	306.3	268.8	221.8	169.5	115.4	61.0	19.6	0.3
80°	325.6	323.8	312.2	285.8	249.8	202.8	153.7	100.8	49.7	13.1	0.3
82.5°	299.7	297.4	286.4	264.4	230.5	186.7	137.4	86.2	39.3	8.0	0.3
85°	276.5	273.6	261.7	241.5	210.5	168.6	120.4	72.0	29.1	4.5	0.6
87.5°	256.6	254.5	241.5	220.6	190.3	151.7	105.6	58.3	20.5	2.1	0.9
90°	239.7	235.2	223.6	201.6	171.3	132.9	89.8	46.7	13.7	1.2	1.2
92.5°	223.0	219.2	206.4	183.8	154.3	116.9	74.6	35.7	8.6	0.6	1.5
95°	205.8	201.6	189.1	168.3	137.1	100.5	61.3	26.2	4.8	0.6	1.5
97.5°	188.8	185.0	171.9	151.1	121.6	86.2	48.5	18.4	2.4	0.6	1.2
100°	173.1	168.6	156.7	135.9	106.2	72.0	37.5	11.9	1.5	0.6	1.2
102.5°	156.4	152.8	140.7	120.4	90.1	58.6	28.0	7.4	0.6	0.6	0.9
105°	141.5	137.1	125.2	104.4	76.7	46.1	19.6	4.5	0.6	0.6	0.9



TEST NUMBER: P551037

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	92.2	88.6	78.2	60.7	39.0	18.1	5.4	0.9	0.9	0.9	0.9
115°	77.0	71.7	62.4	47.0	28.8	11.9	2.7	0.9	0.9	0.9	0.9
117.5°	61.6	57.1	50.6	35.7	19.0	7.7	1.5	0.9	0.9	0.9	0.9
120°	48.2	44.0	36.6	24.7	12.8	4.5	0.6	0.9	0.9	0.9	0.9
122.5°	34.5	31.2	24.7	16.1	7.7	2.1	0.9	0.9	1.2	1.2	0.9
125°	22.9	21.1	16.4	9.8	4.8	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.9	13.4	9.5	5.6	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.3	7.4	5.6	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.8	4.5	3.0	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



TEST NUMBER: P551037

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	233.4	233.4	233.4
2.5°	222.1	218.0	216.8
5°	210.2	203.4	199.5
7.5°	198.3	189.1	184.7
10°	187.3	174.3	169.5
12.5°	174.3	159.1	151.7
15°	161.8	142.1	135.0
17.5°	147.8	125.8	117.5
20°	134.7	109.4	100.8
22.5°	119.8	93.4	83.9
25°	106.5	77.3	66.6
27.5°	91.6	61.0	51.7
30°	77.6	46.7	37.5
32.5°	64.2	34.2	25.9
35°	51.7	23.2	16.4
37.5°	39.8	14.3	8.3
40°	28.8	7.4	3.9
42.5°	19.3	3.6	2.1
45°	11.9	1.8	0.0
47.5°	6.8	0.0	0.0
50°	3.6	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	3.0
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



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	124.9	121.3	109.4	89.8	62.7	35.1	13.1	2.4	0.6	0.9	0.9
110°	108.8	105.9	93.7	74.6	50.6	26.2	8.6	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)