

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: P551170

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-94-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: P551170
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-50-UNV-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

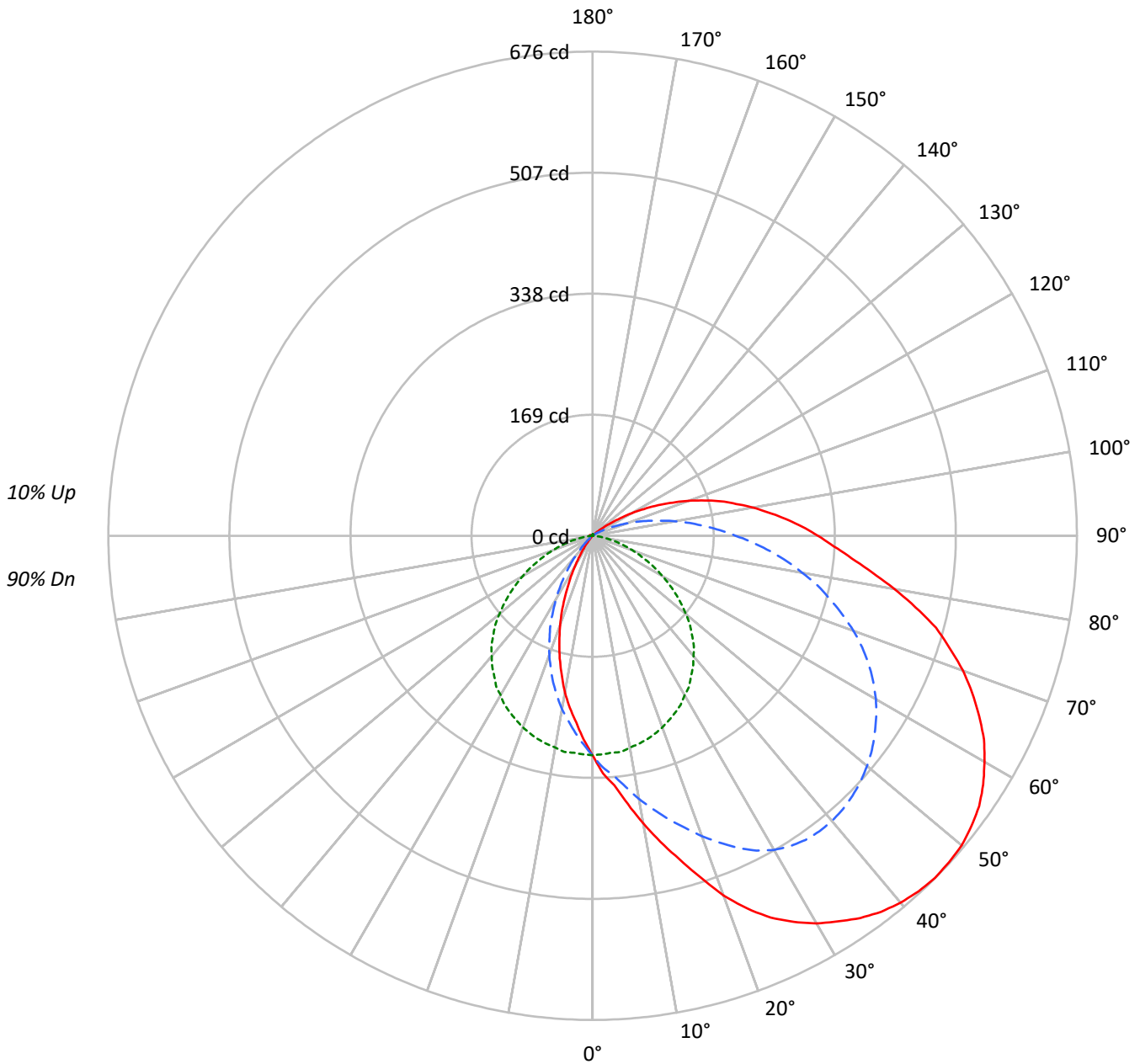
Lumens per Lamp: N/A
Luminaire Lumens: 1515.1 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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

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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-94-ED1D

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°	3298	3298	3298
5°	3621	3250	2711
10°	4097	3210	2235
15°	4592	3170	1741
20°	5179	3118	1282
25°	5666	3058	842
30°	6028	2978	475
35°	6341	2891	209
40°	6619	2785	50
45°	6857	2652	0
50°	7058	2475	0
55°	7211	2250	0
60°	7287	1989	0
65°	7317	1693	0
70°	7292	1380	0
75°	7200	1018	6
80°	6909	624	32
85°	6678	300	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.4	1.9
10°-20°	87.9	5.8
20°-30°	142.3	9.4
30°-40°	182.8	12.1
40°-50°	207.0	13.7
50°-60°	214.4	14.2
60°-70°	202.2	13.3
70°-80°	169.5	11.2
80°-90°	122.8	8.1
90°-100°	80.7	5.3
100°-110°	46.6	3.1
110°-120°	20.6	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	259.6	17.1
0°-40°	442.4	29.2
0°-60°	863.8	57.0
0°-90°	1358.3	89.7
90°-120°	148.0	9.8
90°-150°	155.7	10.3
90°-180°	157.0	10.4
0°-180°	1515.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	306	306	306	306	306	
5°	350	336	304	276	262	35
15°	467	410	294	212	177	135
25°	588	481	272	140	87	272
35°	652	518	239	68	22	409
45°	676	513	196	16	0	522
55°	659	481	141	0	0	588
65°	595	426	84	0	0	589
75°	496	343	36	0	0	520
85°	363	249	6	2	2	310
90°	315	200	2	2	3	173
95°	270	156	1	3	4	212
105°	186	81	1	2	3	196
115°	101	27	1	1	2	101
125°	30	4	2	1	2	30
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	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°	306.4	306.4	306.4	306.4	306.4	306.4	306.4	306.4	306.4	306.4	306.4
2.5°	332.2	331.8	330.7	328.7	326.0	321.3	317.4	313.9	309.2	305.3	297.9
5°	349.8	347.8	346.3	344.3	338.1	333.8	326.7	318.9	311.5	304.1	289.3
7.5°	377.9	374.8	372.4	367.0	358.4	348.6	337.7	330.3	325.2	304.5	279.1
10°	407.9	405.2	400.5	390.8	380.2	366.2	350.6	333.0	317.4	300.2	270.1
12.5°	437.6	433.7	427.1	414.6	399.7	382.2	360.7	340.0	317.8	297.5	259.6
15°	467.3	463.0	456.0	440.7	421.2	398.2	372.0	345.9	319.7	294.0	248.7
17.5°	499.7	493.8	483.3	466.1	441.5	413.0	382.2	350.6	318.9	289.7	237.0
20°	534.4	526.2	514.9	491.9	463.0	429.4	392.3	355.2	318.5	284.6	223.7
22.5°	563.3	555.1	542.6	518.8	484.1	443.1	400.9	358.4	317.0	278.7	211.2
25°	588.3	581.7	568.0	540.7	504.0	457.5	409.1	360.7	314.6	272.5	197.9
27.5°	607.8	601.6	586.4	558.2	520.8	470.4	415.4	361.9	311.5	266.2	184.3
30°	625.0	618.8	600.4	571.5	532.1	480.6	421.6	362.3	307.6	256.9	169.4
32.5°	638.3	632.4	613.7	582.8	539.9	487.6	425.1	361.9	302.5	250.2	153.4
35°	651.5	645.7	623.8	591.0	545.8	490.7	427.9	359.9	296.3	239.3	138.2
37.5°	661.7	655.1	632.8	596.5	548.5	491.5	427.5	357.2	289.7	230.3	123.0
40°	668.7	661.7	637.9	599.6	549.3	490.3	424.3	352.5	281.9	219.0	107.0
42.5°	673.4	665.6	640.2	604.3	547.7	487.2	419.7	346.7	273.3	209.2	91.7
45°	675.7	667.5	640.6	600.4	545.0	481.3	412.6	339.2	263.9	196.0	76.5
47.5°	674.6	665.6	638.7	596.1	539.9	475.1	404.8	330.3	252.6	184.3	62.1
50°	672.6	663.3	634.4	590.6	532.9	467.3	396.2	319.3	240.9	169.8	49.2
52.5°	666.4	657.0	629.7	582.8	524.7	458.3	384.5	308.0	228.4	155.8	37.5
55°	658.6	650.0	621.5	575.8	514.1	447.4	373.6	295.9	216.3	141.3	26.9
57.5°	646.5	638.7	611.3	564.5	503.6	435.3	361.5	282.6	201.0	126.9	18.7
60°	631.6	623.8	597.3	551.6	491.5	421.6	348.2	269.0	187.4	112.4	11.7
62.5°	616.0	608.6	580.9	535.6	476.3	407.2	333.8	255.3	172.9	99.2	7.0
65°	595.3	588.3	563.3	516.5	459.5	391.6	317.8	238.9	158.1	84.3	3.9
67.5°	573.5	567.2	541.8	498.9	440.0	374.4	301.4	222.9	142.5	71.4	2.0
70°	550.0	542.2	518.8	475.1	420.0	354.9	283.4	206.5	127.7	58.9	0.0
72.5°	522.7	516.9	494.2	452.8	397.0	334.2	265.1	188.6	111.3	46.8	0.4
75°	496.2	488.8	468.1	429.0	374.4	312.3	244.8	171.8	95.3	35.9	0.4
77.5°	461.8	459.5	440.0	402.1	352.9	291.2	222.5	151.5	80.0	25.8	0.4
80°	427.5	425.1	409.9	375.2	327.9	266.2	201.8	132.3	65.2	17.2	0.4
82.5°	393.5	390.4	375.9	347.0	302.5	245.2	180.4	113.2	51.5	10.5	0.4
85°	363.1	359.1	343.5	317.0	276.4	221.3	158.1	94.5	38.3	5.9	0.8
87.5°	336.9	334.2	317.0	289.7	249.8	199.1	138.6	76.5	26.9	2.7	1.2
90°	314.6	308.8	293.6	264.7	224.9	174.5	117.9	61.3	18.0	1.6	1.6
92.5°	292.8	287.7	270.9	241.3	202.6	153.4	98.0	46.8	11.3	0.8	2.0
95°	270.1	264.7	248.3	221.0	180.0	131.9	80.4	34.4	6.2	0.8	2.0
97.5°	247.9	242.8	225.6	198.3	159.7	113.2	63.6	24.2	3.1	0.8	1.6
100°	227.2	221.3	205.7	178.4	139.4	94.5	49.2	15.6	2.0	0.8	1.6
102.5°	205.3	200.7	184.6	158.1	118.3	76.9	36.7	9.8	0.8	0.8	1.2
105°	185.8	180.0	164.3	137.0	100.7	60.5	25.8	5.9	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	121.0	116.3	102.7	79.6	51.1	23.8	7.0	1.2	1.2	1.2	1.2
115°	101.1	94.1	82.0	61.7	37.9	15.6	3.5	1.2	1.2	1.2	1.2
117.5°	80.8	75.0	66.4	46.8	25.0	10.1	2.0	1.2	1.2	1.2	1.2
120°	63.2	57.8	48.0	32.4	16.8	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.3	41.0	32.4	21.1	10.1	2.7	1.2	1.2	1.6	1.6	1.2
125°	30.1	27.7	21.5	12.9	6.2	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.5	17.6	12.5	7.4	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	10.9	9.8	7.4	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.2	5.9	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	306.4	306.4	306.4
2.5°	291.6	286.1	284.6
5°	276.0	267.0	261.9
7.5°	260.4	248.3	242.4
10°	245.9	228.8	222.5
12.5°	228.8	208.9	199.1
15°	212.4	186.6	177.2
17.5°	194.0	165.1	154.2
20°	176.8	143.7	132.3
22.5°	157.3	122.6	110.1
25°	139.8	101.5	87.4
27.5°	120.2	80.0	67.9
30°	101.9	61.3	49.2
32.5°	84.3	44.9	34.0
35°	67.9	30.4	21.5
37.5°	52.3	18.7	10.9
40°	37.9	9.8	5.1
42.5°	25.4	4.7	2.7
45°	15.6	2.3	0.0
47.5°	9.0	0.0	0.0
50°	4.7	0.0	0.0
52.5°	2.0	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.3
87.5°	2.0	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	2.0	2.7	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	164.0	159.3	143.7	117.9	82.4	46.1	17.2	3.1	0.8	1.2	1.2
110°	142.9	139.0	123.0	98.0	66.4	34.4	11.3	2.0	1.2	1.2	1.2





107.5°	1.6	2.3	2.7
110°	1.6	2.0	2.3



(END OF REPORT)