

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: P551536

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-81-88-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: P551536
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-LD4-2LO-35-UNV-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

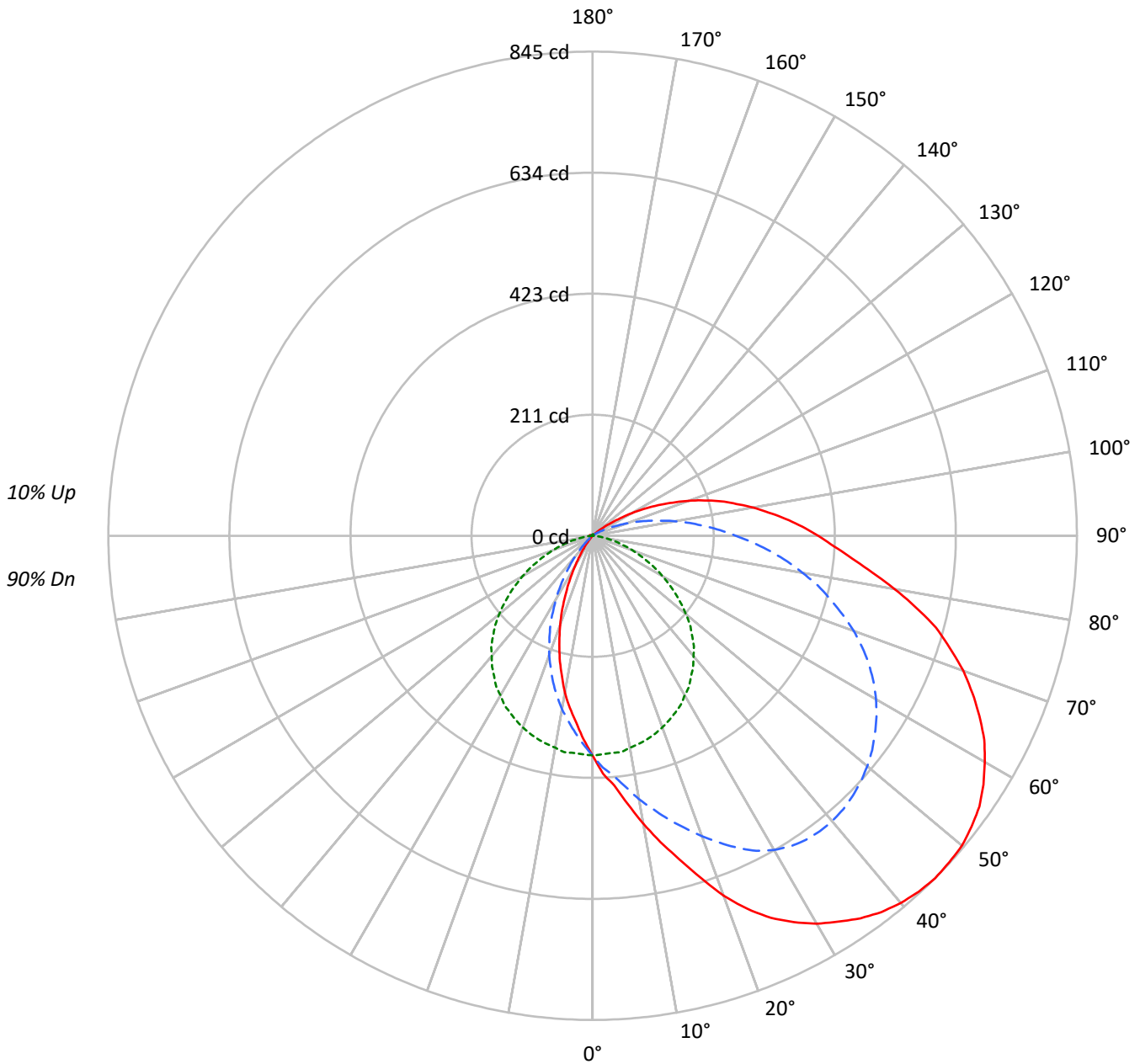
Lumens per Lamp: N/A
Luminaire Lumens: 1895.1 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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°	4126	4126	4126
5°	4529	4066	3391
10°	5126	4016	2795
15°	5744	3965	2179
20°	6478	3900	1604
25°	7088	3825	1054
30°	7540	3725	593
35°	7932	3616	262
40°	8280	3483	62
45°	8577	3316	0
50°	8828	3096	0
55°	9019	2815	0
60°	9115	2488	0
65°	9153	2119	0
70°	9122	1727	0
75°	9005	1273	7
80°	8641	780	39
85°	8352	371	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	1.9
10°-20°	109.9	5.8
20°-30°	178.0	9.4
30°-40°	228.7	12.1
40°-50°	258.9	13.7
50°-60°	268.2	14.2
60°-70°	252.9	13.3
70°-80°	212.0	11.2
80°-90°	153.7	8.1
90°-100°	101.0	5.3
100°-110°	58.3	3.1
110°-120°	25.8	1.4
120°-130°	7.0	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	324.7	17.1
0°-40°	553.4	29.2
0°-60°	1080.5	57.0
0°-90°	1699.0	89.7
90°-120°	185.1	9.8
90°-150°	194.8	10.3
90°-180°	196.0	10.3
0°-180°	1895.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	383	383	383	383	383	
5°	438	420	380	345	328	44
15°	584	512	368	266	222	169
25°	736	601	341	175	109	340
35°	815	648	299	85	27	511
45°	845	642	245	20	0	653
55°	824	601	177	0	0	736
65°	745	532	106	0	0	737
75°	621	429	45	0	0	651
85°	454	311	7	2	3	388
90°	394	250	2	3	3	216
95°	338	195	1	3	4	265
105°	232	101	1	2	4	245
115°	126	33	2	2	2	127
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	383.3	383.3	383.3	383.3	383.3	383.3	383.3	383.3	383.3	383.3	383.3
2.5°	415.5	415.1	413.6	411.1	407.7	401.9	397.0	392.6	386.7	381.8	372.6
5°	437.5	435.1	433.1	430.7	422.9	417.5	408.7	398.9	389.7	380.4	361.8
7.5°	472.7	468.8	465.8	459.0	448.3	436.0	422.4	413.1	406.8	380.9	349.1
10°	510.3	506.9	501.0	488.8	475.6	458.0	438.5	416.5	397.0	375.5	337.9
12.5°	547.4	542.5	534.2	518.6	500.0	478.0	451.2	425.3	397.5	372.1	324.7
15°	584.5	579.1	570.3	551.3	526.9	498.1	465.3	432.6	399.9	367.7	311.0
17.5°	625.0	617.7	604.5	583.0	552.3	516.6	478.0	438.5	398.9	362.3	296.4
20°	668.5	658.2	644.1	615.3	579.1	537.1	490.7	444.4	398.5	356.0	279.8
22.5°	704.6	694.4	678.7	648.9	605.5	554.2	501.5	448.3	396.5	348.6	264.2
25°	735.9	727.6	710.5	676.3	630.4	572.3	511.7	451.2	393.6	340.8	247.6
27.5°	760.3	752.5	733.4	698.3	651.4	588.4	519.5	452.7	389.7	333.0	230.5
30°	781.8	774.0	751.0	714.9	665.5	601.1	527.4	453.1	384.8	321.3	211.9
32.5°	798.4	791.0	767.6	729.0	675.3	609.9	531.8	452.7	378.4	313.0	191.9
35°	815.0	807.6	780.3	739.3	682.6	613.8	535.2	450.2	370.6	299.3	172.9
37.5°	827.7	819.4	791.5	746.1	686.1	614.8	534.7	446.8	362.3	288.1	153.8
40°	836.5	827.7	797.9	750.0	687.0	613.3	530.8	440.9	352.6	273.9	133.8
42.5°	842.3	832.5	800.8	755.9	685.1	609.4	524.9	433.6	341.8	261.7	114.7
45°	845.2	835.0	801.3	751.0	681.7	602.1	516.1	424.3	330.1	245.1	95.7
47.5°	843.8	832.5	798.9	745.6	675.3	594.3	506.4	413.1	315.9	230.5	77.6
50°	841.3	829.6	793.5	738.8	666.5	584.5	495.6	399.4	301.3	212.4	61.5
52.5°	833.5	821.8	787.6	729.0	656.3	573.3	481.0	385.3	285.7	194.8	46.9
55°	823.8	813.0	777.4	720.2	643.1	559.6	467.3	370.1	270.5	176.8	33.7
57.5°	808.6	798.9	764.7	706.1	629.9	544.5	452.2	353.5	251.5	158.7	23.4
60°	790.1	780.3	747.1	690.0	614.8	527.4	435.6	336.4	234.4	140.6	14.6
62.5°	770.5	761.3	726.6	669.9	595.7	509.3	417.5	319.3	216.3	124.0	8.8
65°	744.7	735.9	704.6	646.0	574.7	489.8	397.5	298.8	197.8	105.5	4.9
67.5°	717.3	709.5	677.8	624.0	550.3	468.3	377.0	278.8	178.2	89.4	2.4
70°	688.0	678.2	648.9	594.3	525.4	443.9	354.5	258.3	159.7	73.7	0.0
72.5°	653.8	646.5	618.2	566.4	496.6	418.0	331.6	235.8	139.2	58.6	0.5
75°	620.6	611.3	585.5	536.6	468.3	390.6	306.2	214.9	119.1	44.9	0.5
77.5°	577.7	574.7	550.3	502.9	441.4	364.3	278.3	189.5	100.1	32.2	0.5
80°	534.7	531.8	512.7	469.3	410.2	333.0	252.4	165.5	81.5	21.5	0.5
82.5°	492.2	488.3	470.2	434.1	378.4	306.7	225.6	141.6	64.5	13.2	0.5
85°	454.1	449.2	429.7	396.5	345.7	276.9	197.8	118.2	47.9	7.3	1.0
87.5°	421.4	418.0	396.5	362.3	312.5	249.0	173.3	95.7	33.7	3.4	1.5
90°	393.6	386.2	367.2	331.1	281.3	218.3	147.5	76.7	22.5	2.0	2.0
92.5°	366.2	359.9	338.9	301.8	253.4	191.9	122.6	58.6	14.2	1.0	2.4
95°	337.9	331.1	310.6	276.4	225.1	165.0	100.6	43.0	7.8	1.0	2.4
97.5°	310.1	303.7	282.2	248.1	199.7	141.6	79.6	30.3	3.9	1.0	2.0
100°	284.2	276.9	257.3	223.2	174.3	118.2	61.5	19.5	2.4	1.0	2.0
102.5°	256.8	251.0	231.0	197.8	148.0	96.2	45.9	12.2	1.0	1.0	1.5
105°	232.4	225.1	205.6	171.4	126.0	75.7	32.2	7.3	1.0	1.0	1.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	151.4	145.5	128.4	99.6	64.0	29.8	8.8	1.5	1.5	1.5	1.5
115°	126.5	117.7	102.5	77.2	47.4	19.5	4.4	1.5	1.5	1.5	1.5
117.5°	101.1	93.8	83.0	58.6	31.3	12.7	2.4	1.5	1.5	1.5	1.5
120°	79.1	72.3	60.1	40.5	21.0	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.6	51.3	40.5	26.4	12.7	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.6	34.7	26.9	16.1	7.8	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.4	22.0	15.6	9.3	3.4	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.7	12.2	9.3	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.8	7.3	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.4	2.4	2.4	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.4	2.4	2.4	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.4
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.4
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	383.3	383.3	383.3
2.5°	364.8	357.9	356.0
5°	345.2	334.0	327.6
7.5°	325.7	310.6	303.2
10°	307.6	286.1	278.3
12.5°	286.1	261.2	249.0
15°	265.6	233.4	221.7
17.5°	242.7	206.5	192.9
20°	221.2	179.7	165.5
22.5°	196.8	153.3	137.7
25°	174.8	127.0	109.4
27.5°	150.4	100.1	85.0
30°	127.4	76.7	61.5
32.5°	105.5	56.2	42.5
35°	85.0	38.1	26.9
37.5°	65.4	23.4	13.7
40°	47.4	12.2	6.3
42.5°	31.7	5.9	3.4
45°	19.5	2.9	0.0
47.5°	11.2	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.4	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.4
82.5°	2.0	2.4	2.4
85°	2.0	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.4	2.4
115°	1.5	2.0	2.4
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	205.1	199.2	179.7	147.5	103.0	57.6	21.5	3.9	1.0	1.5	1.5
110°	178.7	173.8	153.8	122.6	83.0	43.0	14.2	2.4	1.5	1.5	1.5





107.5°	2.0	2.9	3.4
110°	2.0	2.4	2.9



(END OF REPORT)