

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: P550512

Luminaire Tested: **FCC-X-2-LD4-1HI-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: P550512
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-LD4-1HI-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

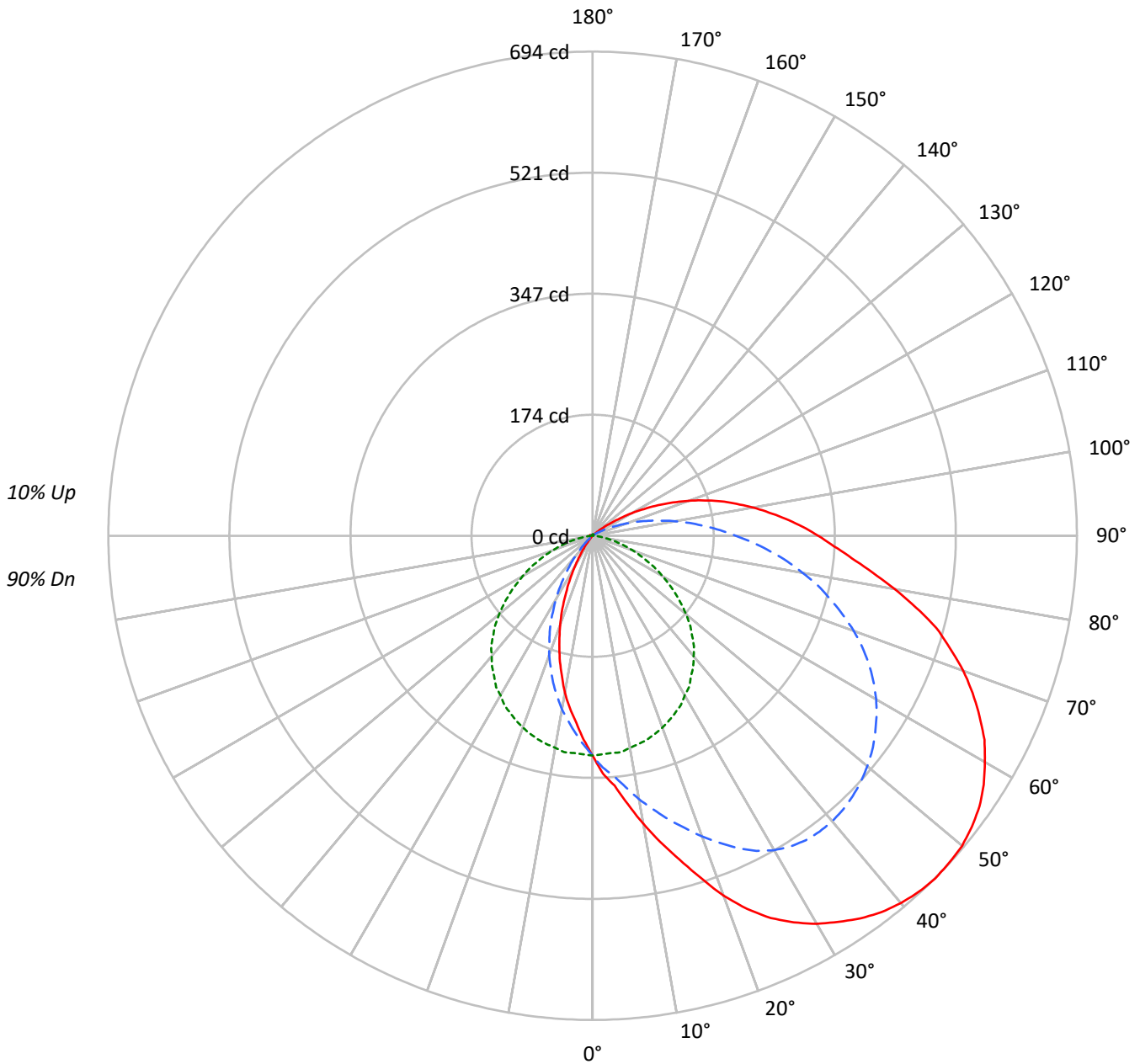
Lumens per Lamp: N/A
Luminaire Lumens: 1557.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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°	3390	3390	3390
5°	3722	3340	2787
10°	4212	3299	2297
15°	4719	3257	1790
20°	5322	3205	1318
25°	5823	3142	866
30°	6195	3060	488
35°	6517	2971	215
40°	6803	2863	51
45°	7048	2725	0
50°	7254	2543	0
55°	7410	2312	0
60°	7488	2044	0
65°	7519	1741	0
70°	7495	1420	0
75°	7399	1046	6
80°	7099	642	32
85°	6862	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	1.9
10°-20°	90.3	5.8
20°-30°	146.3	9.4
30°-40°	187.9	12.1
40°-50°	212.7	13.7
50°-60°	220.4	14.2
60°-70°	207.8	13.3
70°-80°	174.2	11.2
80°-90°	126.2	8.1
90°-100°	83.0	5.3
100°-110°	47.9	3.1
110°-120°	21.1	1.4
120°-130°	5.7	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°	266.8	17.1
0°-40°	454.7	29.2
0°-60°	887.7	57.0
0°-90°	1396.0	89.7
90°-120°	152.0	9.8
90°-150°	159.9	10.3
90°-180°	161.0	10.3
0°-180°	1557.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	315	315	315	315	315	
5°	360	345	312	284	269	36
15°	480	421	302	218	182	138
25°	605	494	280	144	90	279
35°	670	533	246	70	22	420
45°	694	527	201	16	0	536
55°	677	494	145	0	0	604
65°	612	437	87	0	0	605
75°	510	353	37	0	0	535
85°	373	256	6	2	2	319
90°	323	205	2	2	3	177
95°	278	160	1	3	4	218
105°	191	83	1	2	3	202
115°	104	27	1	1	2	104
125°	31	4	2	1	2	31
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°	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9
2.5°	341.4	341.0	339.8	337.8	335.0	330.2	326.2	322.6	317.8	313.7	306.1
5°	359.5	357.5	355.9	353.9	347.4	343.0	335.8	327.8	320.2	312.5	297.3
7.5°	388.4	385.2	382.7	377.1	368.3	358.3	347.0	339.4	334.2	312.9	286.9
10°	419.3	416.4	411.6	401.6	390.8	376.3	360.3	342.2	326.2	308.5	277.6
12.5°	449.7	445.7	438.9	426.1	410.8	392.8	370.7	349.4	326.6	305.7	266.8
15°	480.2	475.8	468.6	453.0	432.9	409.2	382.3	355.5	328.6	302.1	255.6
17.5°	513.5	507.5	496.7	479.0	453.8	424.5	392.8	360.3	327.8	297.7	243.5
20°	549.2	540.8	529.2	505.5	475.8	441.3	403.2	365.1	327.4	292.5	229.9
22.5°	578.9	570.5	557.7	533.2	497.5	455.4	412.0	368.3	325.8	286.5	217.1
25°	604.6	597.8	583.7	555.7	518.0	470.2	420.5	370.7	323.4	280.0	203.4
27.5°	624.7	618.3	602.6	573.7	535.2	483.4	426.9	371.9	320.2	273.6	189.4
30°	642.3	635.9	617.0	587.4	546.8	493.9	433.3	372.3	316.1	264.0	174.1
32.5°	656.0	649.9	630.7	599.0	554.9	501.1	436.9	371.9	310.9	257.2	157.7
35°	669.6	663.6	641.1	607.4	560.9	504.3	439.7	369.9	304.5	245.9	142.0
37.5°	680.0	673.2	650.3	613.0	563.7	505.1	439.3	367.1	297.7	236.7	126.4
40°	687.3	680.0	655.6	616.2	564.5	503.9	436.1	362.3	289.7	225.1	109.9
42.5°	692.1	684.0	658.0	621.1	562.9	500.7	431.3	356.3	280.8	215.0	94.3
45°	694.5	686.1	658.4	617.0	560.1	494.7	424.1	348.6	271.2	201.4	78.6
47.5°	693.3	684.0	656.4	612.6	554.9	488.3	416.0	339.4	259.6	189.4	63.8
50°	691.3	681.6	652.0	607.0	547.6	480.2	407.2	328.2	247.5	174.5	50.6
52.5°	684.9	675.2	647.1	599.0	539.2	471.0	395.2	316.5	234.7	160.1	38.5
55°	676.8	668.0	638.7	591.8	528.4	459.8	384.0	304.1	222.3	145.2	27.7
57.5°	664.4	656.4	628.3	580.1	517.6	447.3	371.5	290.5	206.6	130.4	19.3
60°	649.1	641.1	613.8	566.9	505.1	433.3	357.9	276.4	192.6	115.5	12.0
62.5°	633.1	625.5	597.0	550.4	489.5	418.5	343.0	262.4	177.7	101.9	7.2
65°	611.8	604.6	578.9	530.8	472.2	402.4	326.6	245.5	162.5	86.7	4.0
67.5°	589.4	582.9	556.9	512.7	452.2	384.8	309.7	229.1	146.4	73.4	2.0
70°	565.3	557.3	533.2	488.3	431.7	364.7	291.3	212.2	131.2	60.6	0.0
72.5°	537.2	531.2	507.9	465.4	408.0	343.4	272.4	193.8	114.3	48.1	0.4
75°	509.9	502.3	481.0	440.9	384.8	321.0	251.6	176.5	97.9	36.9	0.4
77.5°	474.6	472.2	452.2	413.2	362.7	299.3	228.7	155.7	82.2	26.5	0.4
80°	439.3	436.9	421.3	385.6	337.0	273.6	207.4	136.0	67.0	17.7	0.4
82.5°	404.4	401.2	386.4	356.7	310.9	252.0	185.4	116.3	53.0	10.8	0.4
85°	373.1	369.1	353.1	325.8	284.1	227.5	162.5	97.1	39.3	6.0	0.8
87.5°	346.2	343.4	325.8	297.7	256.8	204.6	142.4	78.6	27.7	2.8	1.2
90°	323.4	317.4	301.7	272.0	231.1	179.3	121.2	63.0	18.5	1.6	1.6
92.5°	300.9	295.7	278.4	247.9	208.2	157.7	100.7	48.1	11.6	0.8	2.0
95°	277.6	272.0	255.2	227.1	185.0	135.6	82.6	35.3	6.4	0.8	2.0
97.5°	254.8	249.5	231.9	203.8	164.1	116.3	65.4	24.9	3.2	0.8	1.6
100°	233.5	227.5	211.4	183.3	143.2	97.1	50.6	16.0	2.0	0.8	1.6
102.5°	211.0	206.2	189.8	162.5	121.6	79.0	37.7	10.0	0.8	0.8	1.2
105°	191.0	185.0	168.9	140.8	103.5	62.2	26.5	6.0	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1HI-35-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	124.4	119.6	105.5	81.8	52.6	24.5	7.2	1.2	1.2	1.2	1.2
115°	103.9	96.7	84.3	63.4	38.9	16.0	3.6	1.2	1.2	1.2	1.2
117.5°	83.0	77.0	68.2	48.1	25.7	10.4	2.0	1.2	1.2	1.2	1.2
120°	65.0	59.4	49.3	33.3	17.3	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.5	42.1	33.3	21.7	10.4	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.9	28.5	22.1	13.2	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.1	18.1	12.8	7.6	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.2	10.0	7.6	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.4	6.0	4.0	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°	314.9	314.9	314.9
2.5°	299.7	294.1	292.5
5°	283.6	274.4	269.2
7.5°	267.6	255.2	249.1
10°	252.8	235.1	228.7
12.5°	235.1	214.6	204.6
15°	218.3	191.8	182.1
17.5°	199.4	169.7	158.5
20°	181.7	147.6	136.0
22.5°	161.7	126.0	113.1
25°	143.6	104.3	89.9
27.5°	123.6	82.2	69.8
30°	104.7	63.0	50.6
32.5°	86.7	46.1	34.9
35°	69.8	31.3	22.1
37.5°	53.8	19.3	11.2
40°	38.9	10.0	5.2
42.5°	26.1	4.8	2.8
45°	16.0	2.4	0.0
47.5°	9.2	0.0	0.0
50°	4.8	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	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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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°	168.5	163.7	147.6	121.2	84.7	47.3	17.7	3.2	0.8	1.2	1.2
110°	146.8	142.8	126.4	100.7	68.2	35.3	11.6	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)