

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: P550642

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-81-94-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: P550642
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-50-UNV-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 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

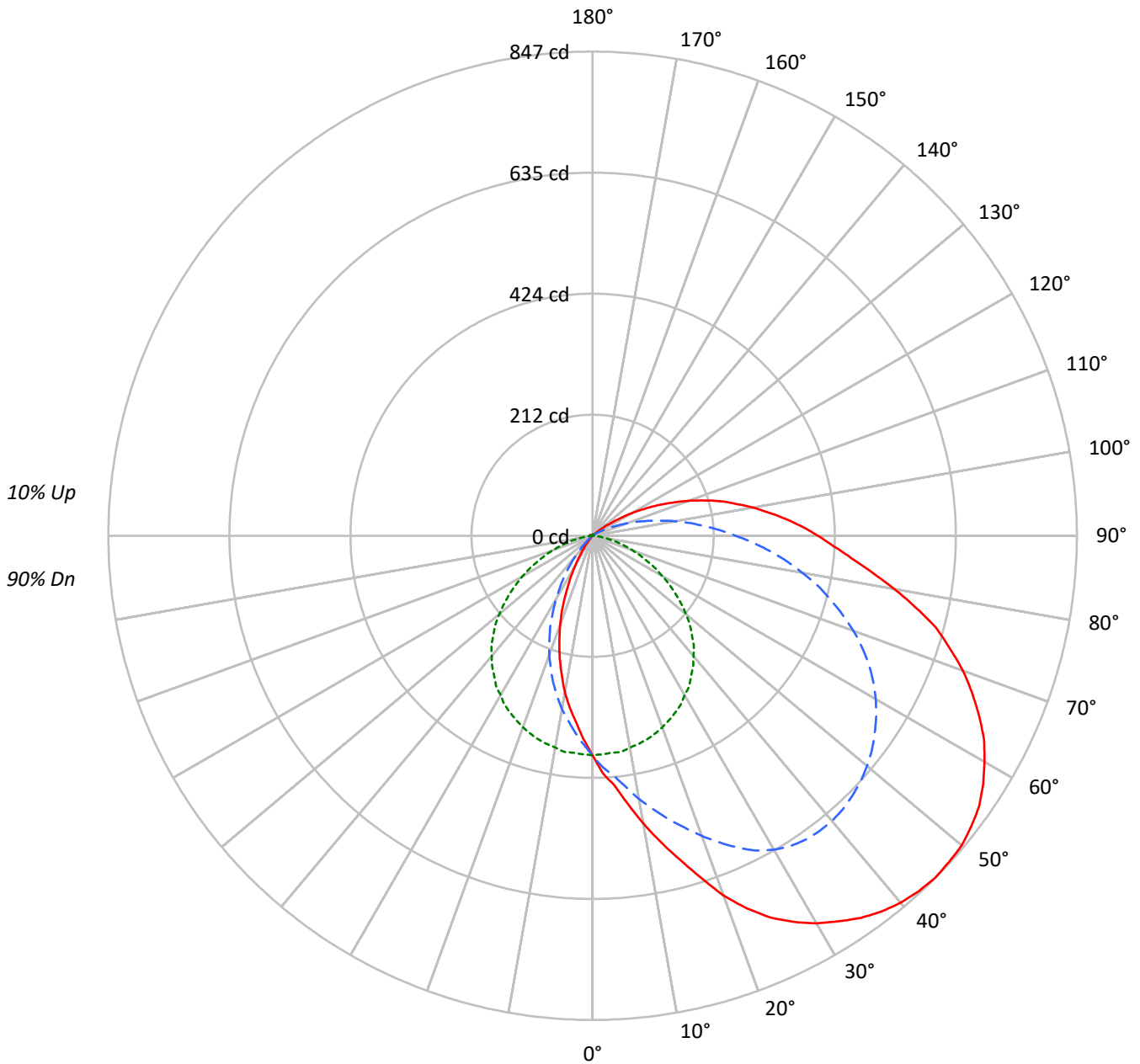
Lumens per Lamp: N/A
Luminaire Lumens: 1898.1 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (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: P550642

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-94-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°	4132	4132	4132
5°	4536	4072	3398
10°	5134	4022	2800
15°	5753	3971	2182
20°	6488	3906	1607
25°	7098	3831	1056
30°	7552	3730	594
35°	7945	3622	262
40°	8293	3490	63
45°	8592	3322	0
50°	8843	3100	0
55°	9033	2818	0
60°	9129	2493	0
65°	9166	2121	0
70°	9136	1729	0
75°	9020	1276	7
80°	8654	780	39
85°	8365	371	53



TEST NUMBER: P550642

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-94-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.8	1.9
10°-20°	110.1	5.8
20°-30°	178.3	9.4
30°-40°	229.1	12.1
40°-50°	259.3	13.7
50°-60°	268.6	14.2
60°-70°	253.3	13.3
70°-80°	212.3	11.2
80°-90°	153.9	8.1
90°-100°	101.1	5.3
100°-110°	58.4	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°	325.2	17.1
0°-40°	554.3	29.2
0°-60°	1082.2	57.0
0°-90°	1701.7	89.7
90°-120°	185.3	9.8
90°-150°	195.0	10.3
90°-180°	196.0	10.3
0°-180°	1898.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	384	384	384	384	384	
5°	438	421	381	346	328	44
15°	585	513	368	266	222	169
25°	737	602	341	175	110	341
35°	816	649	300	85	27	512
45°	847	643	246	20	0	654
55°	825	602	177	0	0	737
65°	746	533	106	0	0	738
75°	622	430	45	0	0	652
85°	455	312	7	2	3	388
90°	394	250	2	3	3	216
95°	338	195	1	3	4	266
105°	233	101	1	2	4	246
115°	127	34	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°	383.9	383.9	383.9	383.9	383.9	383.9	383.9	383.9	383.9	383.9	383.9
2.5°	416.2	415.7	414.2	411.8	408.4	402.5	397.6	393.2	387.3	382.5	373.2
5°	438.2	435.8	433.8	431.4	423.5	418.2	409.4	399.6	390.3	381.0	362.4
7.5°	473.4	469.5	466.6	459.7	449.0	436.7	423.0	413.8	407.4	381.5	349.7
10°	511.1	507.7	501.8	489.6	476.4	458.7	439.2	417.2	397.6	376.1	338.4
12.5°	548.2	543.4	535.0	519.4	500.8	478.8	451.9	426.0	398.1	372.7	325.2
15°	585.4	580.0	571.2	552.2	527.7	498.9	466.1	433.3	400.5	368.3	311.5
17.5°	626.0	618.7	605.5	583.9	553.1	517.4	478.8	439.2	399.6	362.9	296.9
20°	669.5	659.3	645.1	616.2	580.0	538.0	491.5	445.1	399.1	356.5	280.2
22.5°	705.7	695.5	679.8	650.0	606.4	555.1	502.3	449.0	397.1	349.2	264.6
25°	737.0	728.7	711.6	677.4	631.4	573.2	512.5	451.9	394.2	341.4	248.0
27.5°	761.5	753.7	734.6	699.4	652.4	589.3	520.4	453.4	390.3	333.5	230.8
30°	783.0	775.2	752.2	716.0	666.6	602.0	528.2	453.9	385.4	321.8	212.3
32.5°	799.6	792.3	768.8	730.2	676.4	610.8	532.6	453.4	379.0	313.5	192.2
35°	816.3	808.9	781.5	740.5	683.7	614.8	536.0	450.9	371.2	299.8	173.1
37.5°	829.0	820.7	792.8	747.3	687.1	615.7	535.5	447.5	362.9	288.6	154.1
40°	837.8	829.0	799.1	751.2	688.1	614.3	531.6	441.6	353.1	274.4	134.0
42.5°	843.6	833.9	802.1	757.1	686.2	610.4	525.8	434.3	342.3	262.1	114.9
45°	846.6	836.3	802.6	752.2	682.7	603.0	516.9	425.0	330.6	245.5	95.9
47.5°	845.1	833.9	800.1	746.8	676.4	595.2	507.2	413.8	316.4	230.8	77.8
50°	842.7	830.9	794.7	740.0	667.6	585.4	496.4	400.1	301.8	212.7	61.6
52.5°	834.8	823.1	788.9	730.2	657.3	574.2	481.7	385.9	286.1	195.1	47.0
55°	825.1	814.3	778.6	721.4	644.1	560.5	468.0	370.7	270.9	177.0	33.7
57.5°	809.9	800.1	765.9	707.2	630.9	545.3	452.9	354.1	251.9	158.9	23.5
60°	791.3	781.5	748.3	691.1	615.7	528.2	436.3	337.0	234.8	140.9	14.7
62.5°	771.8	762.5	727.7	671.0	596.7	510.1	418.2	319.9	216.7	124.2	8.8
65°	745.8	737.0	705.7	647.0	575.6	490.5	398.1	299.3	198.1	105.6	4.9
67.5°	718.4	710.6	678.8	625.0	551.2	469.0	377.6	279.3	178.5	89.5	2.4
70°	689.1	679.3	650.0	595.2	526.2	444.6	355.1	258.7	159.9	73.8	0.0
72.5°	654.9	647.5	619.2	567.3	497.4	418.6	332.1	236.2	139.4	58.7	0.5
75°	621.6	612.3	586.4	537.5	469.0	391.3	306.6	215.2	119.3	45.0	0.5
77.5°	578.6	575.6	551.2	503.7	442.1	364.8	278.8	189.8	100.3	32.3	0.5
80°	535.5	532.6	513.5	470.0	410.8	333.5	252.8	165.8	81.7	21.5	0.5
82.5°	493.0	489.1	471.0	434.8	379.0	307.1	226.0	141.8	64.6	13.2	0.5
85°	454.8	449.9	430.4	397.1	346.3	277.3	198.1	118.4	47.9	7.3	1.0
87.5°	422.1	418.6	397.1	362.9	313.0	249.4	173.6	95.9	33.7	3.4	1.5
90°	394.2	386.9	367.8	331.6	281.7	218.6	147.7	76.8	22.5	2.0	2.0
92.5°	366.8	360.4	339.4	302.2	253.8	192.2	122.8	58.7	14.2	1.0	2.4
95°	338.4	331.6	311.0	276.8	225.5	165.3	100.7	43.0	7.8	1.0	2.4
97.5°	310.6	304.2	282.7	248.4	200.0	141.8	79.7	30.3	3.9	1.0	2.0
100°	284.6	277.3	257.7	223.5	174.6	118.4	61.6	19.6	2.4	1.0	2.0
102.5°	257.3	251.4	231.3	198.1	148.2	96.3	46.0	12.2	1.0	1.0	1.5
105°	232.8	225.5	205.9	171.7	126.2	75.8	32.3	7.3	1.0	1.0	1.5



TEST NUMBER: P550642

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	151.6	145.7	128.6	99.8	64.1	29.8	8.8	1.5	1.5	1.5	1.5
115°	126.7	117.9	102.7	77.3	47.4	19.6	4.4	1.5	1.5	1.5	1.5
117.5°	101.2	93.9	83.1	58.7	31.3	12.7	2.4	1.5	1.5	1.5	1.5
120°	79.2	72.4	60.2	40.6	21.0	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.7	51.4	40.6	26.4	12.7	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.7	34.7	26.9	16.1	7.8	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.5	22.0	15.7	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



TEST NUMBER: P550642

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	383.9	383.9	383.9
2.5°	365.3	358.5	356.5
5°	345.8	334.5	328.2
7.5°	326.2	311.0	303.7
10°	308.1	286.6	278.8
12.5°	286.6	261.7	249.4
15°	266.1	233.8	222.0
17.5°	243.1	206.9	193.2
20°	221.5	180.0	165.8
22.5°	197.1	153.6	137.9
25°	175.1	127.2	109.6
27.5°	150.6	100.3	85.1
30°	127.6	76.8	61.6
32.5°	105.6	56.2	42.5
35°	85.1	38.1	26.9
37.5°	65.5	23.5	13.7
40°	47.4	12.2	6.4
42.5°	31.8	5.9	3.4
45°	19.6	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



TEST NUMBER: P550642

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-94-ED1D

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°	205.4	199.5	180.0	147.7	103.2	57.7	21.5	3.9	1.0	1.5	1.5
110°	179.0	174.1	154.1	122.8	83.1	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)