

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: P550445

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-81-87-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: P550445
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-30-UNV-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

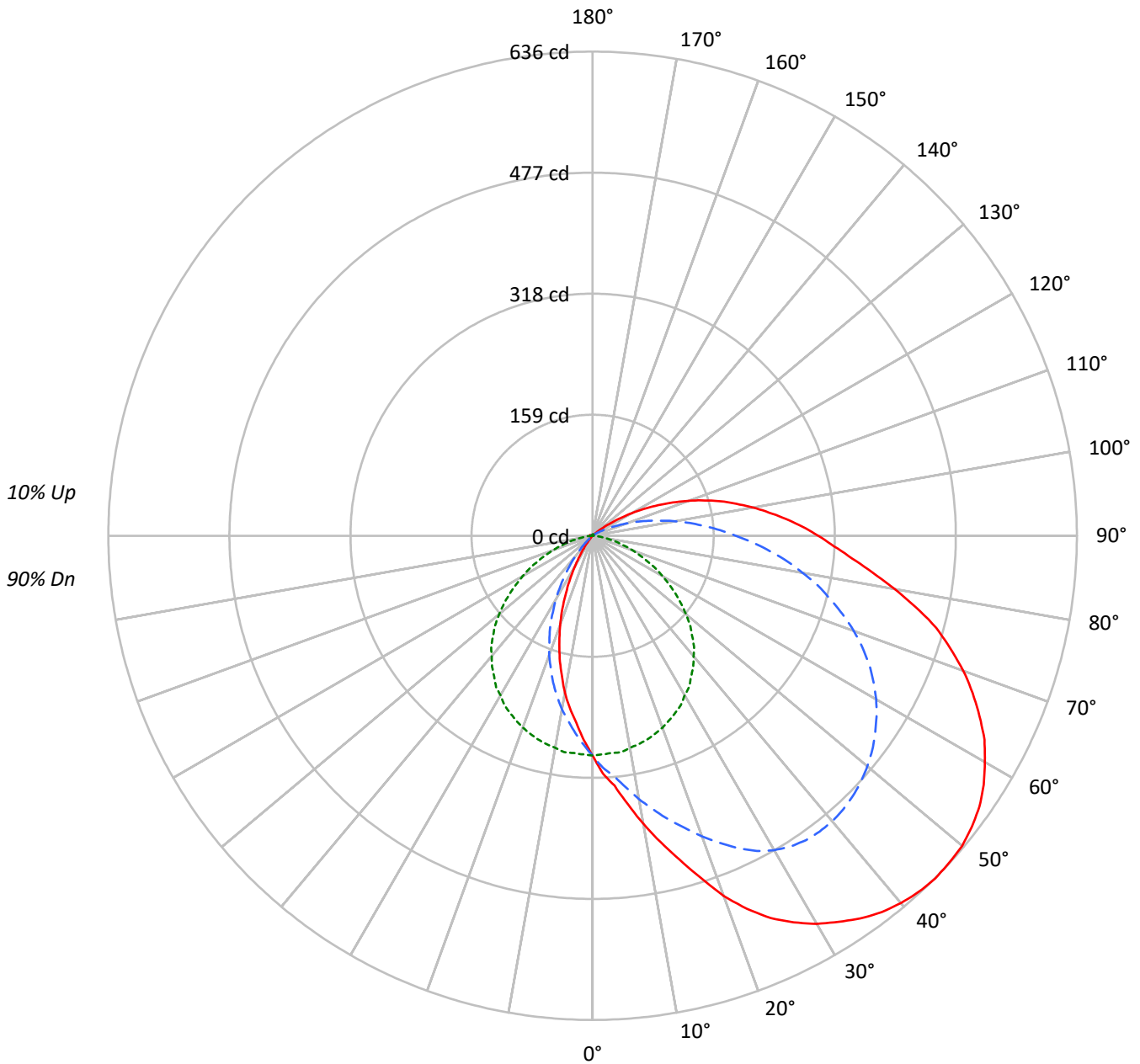
Lumens per Lamp: N/A
Luminaire Lumens: 1427.0 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550445

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-87-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P550445

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-87-ED1D-90

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°	3106	3106	3106
5°	3411	3061	2554
10°	3860	3024	2105
15°	4325	2986	1640
20°	4878	2937	1208
25°	5337	2881	794
30°	5678	2804	447
35°	5973	2723	197
40°	6235	2624	48
45°	6459	2498	0
50°	6648	2332	0
55°	6791	2119	0
60°	6863	1874	0
65°	6891	1595	0
70°	6869	1300	0
75°	6782	959	6
80°	6506	588	29
85°	6290	280	40



TEST NUMBER: P550445

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-87-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.6	1.9
10°-20°	82.8	5.8
20°-30°	134.1	9.4
30°-40°	172.2	12.1
40°-50°	195.0	13.7
50°-60°	202.0	14.2
60°-70°	190.5	13.3
70°-80°	159.6	11.2
80°-90°	115.7	8.1
90°-100°	76.0	5.3
100°-110°	43.9	3.1
110°-120°	19.4	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	244.5	17.1
0°-40°	416.7	29.2
0°-60°	813.6	57.0
0°-90°	1279.4	89.7
90°-120°	139.3	9.8
90°-150°	146.6	10.3
90°-180°	148.0	10.4
0°-180°	1427.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	289	289	289	289	289	
5°	330	316	286	260	247	33
15°	440	386	277	200	167	127
25°	554	453	257	132	82	256
35°	614	488	225	64	20	385
45°	636	483	185	15	0	491
55°	620	453	133	0	0	554
65°	561	401	79	0	0	555
75°	467	323	34	0	0	490
85°	342	234	6	2	2	292
90°	296	188	2	2	3	163
95°	254	147	1	3	3	200
105°	175	76	1	2	3	185
115°	95	25	1	1	2	95
125°	28	4	2	1	2	28
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	



TEST NUMBER: P550445

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	288.6	288.6	288.6	288.6	288.6	288.6	288.6	288.6	288.6	288.6	288.6
2.5°	312.9	312.5	311.4	309.6	307.0	302.6	298.9	295.6	291.2	287.5	280.6
5°	329.5	327.6	326.2	324.3	318.4	314.4	307.8	300.4	293.4	286.4	272.5
7.5°	355.9	353.0	350.8	345.6	337.6	328.4	318.1	311.1	306.3	286.8	262.9
10°	384.3	381.7	377.3	368.1	358.1	344.9	330.2	313.7	298.9	282.8	254.5
12.5°	412.2	408.5	402.3	390.5	376.5	360.0	339.8	320.3	299.3	280.2	244.5
15°	440.1	436.1	429.5	415.1	396.8	375.1	350.4	325.8	301.1	276.9	234.2
17.5°	470.7	465.1	455.2	439.0	415.9	389.0	360.0	330.2	300.4	272.8	223.2
20°	503.4	495.7	485.0	463.3	436.1	404.5	369.5	334.6	300.0	268.1	210.7
22.5°	530.6	522.9	511.1	488.7	456.0	417.3	377.6	337.6	298.6	262.5	198.9
25°	554.1	547.9	535.0	509.3	474.7	430.9	385.4	339.8	296.4	256.7	186.4
27.5°	572.5	566.6	552.3	525.8	490.5	443.1	391.2	340.9	293.4	250.8	173.6
30°	588.7	582.8	565.5	538.3	501.2	452.6	397.1	341.2	289.8	241.9	159.6
32.5°	601.2	595.7	578.0	549.0	508.5	459.3	400.4	340.9	285.0	235.7	144.5
35°	613.7	608.2	587.6	556.7	514.1	462.2	403.0	339.0	279.1	225.4	130.2
37.5°	623.3	617.0	596.0	561.9	516.6	462.9	402.6	336.4	272.8	216.9	115.8
40°	629.9	623.3	600.8	564.8	517.4	461.8	399.7	332.0	265.5	206.3	100.8
42.5°	634.3	626.9	603.0	569.2	515.9	458.9	395.3	326.5	257.4	197.1	86.4
45°	636.5	628.8	603.4	565.5	513.3	453.4	388.7	319.5	248.6	184.6	72.1
47.5°	635.4	626.9	601.6	561.5	508.5	447.5	381.3	311.1	237.9	173.6	58.5
50°	633.6	624.7	597.5	556.3	501.9	440.1	373.2	300.8	226.9	160.0	46.3
52.5°	627.7	618.8	593.1	549.0	494.2	431.7	362.2	290.1	215.1	146.7	35.3
55°	620.3	612.2	585.4	542.4	484.3	421.4	351.9	278.7	203.7	133.1	25.4
57.5°	608.9	601.6	575.8	531.7	474.3	410.0	340.5	266.2	189.4	119.5	17.6
60°	594.9	587.6	562.6	519.6	462.9	397.1	328.0	253.3	176.5	105.9	11.0
62.5°	580.2	573.3	547.1	504.5	448.6	383.5	314.4	240.5	162.9	93.4	6.6
65°	560.7	554.1	530.6	486.5	432.8	368.8	299.3	225.0	148.9	79.4	3.7
67.5°	540.2	534.3	510.4	469.9	414.4	352.6	283.9	210.0	134.2	67.3	1.8
70°	518.1	510.7	488.7	447.5	395.6	334.2	267.0	194.5	120.2	55.5	0.0
72.5°	492.4	486.8	465.5	426.5	374.0	314.8	249.7	177.6	104.8	44.1	0.4
75°	467.4	460.4	440.9	404.1	352.6	294.2	230.6	161.8	89.7	33.8	0.4
77.5°	435.0	432.8	414.4	378.7	332.4	274.3	209.6	142.7	75.4	24.3	0.4
80°	402.6	400.4	386.1	353.4	308.9	250.8	190.1	124.7	61.4	16.2	0.4
82.5°	370.6	367.7	354.1	326.9	285.0	230.9	169.9	106.6	48.5	9.9	0.4
85°	342.0	338.3	323.6	298.6	260.3	208.5	148.9	89.0	36.0	5.5	0.7
87.5°	317.3	314.8	298.6	272.8	235.3	187.5	130.5	72.1	25.4	2.6	1.1
90°	296.4	290.9	276.5	249.3	211.8	164.4	111.0	57.7	16.9	1.5	1.5
92.5°	275.8	271.0	255.2	227.2	190.8	144.5	92.3	44.1	10.7	0.7	1.8
95°	254.5	249.3	233.9	208.1	169.5	124.3	75.7	32.4	5.9	0.7	1.8
97.5°	233.5	228.7	212.5	186.8	150.4	106.6	59.9	22.8	2.9	0.7	1.5
100°	214.0	208.5	193.8	168.0	131.3	89.0	46.3	14.7	1.8	0.7	1.5
102.5°	193.4	189.0	173.9	148.9	111.4	72.4	34.6	9.2	0.7	0.7	1.1
105°	175.0	169.5	154.8	129.1	94.9	57.0	24.3	5.5	0.7	0.7	1.1



TEST NUMBER: P550445

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	114.0	109.6	96.7	75.0	48.2	22.4	6.6	1.1	1.1	1.1	1.1
115°	95.2	88.6	77.2	58.1	35.7	14.7	3.3	1.1	1.1	1.1	1.1
117.5°	76.1	70.6	62.5	44.1	23.5	9.6	1.8	1.1	1.1	1.1	1.1
120°	59.6	54.4	45.2	30.5	15.8	5.5	0.7	1.1	1.1	1.1	1.1
122.5°	42.7	38.6	30.5	19.9	9.6	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.3	26.1	20.2	12.1	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.4	16.5	11.8	7.0	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.3	9.2	7.0	4.0	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.5	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P550445

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	288.6	288.6	288.6
2.5°	274.7	269.5	268.1
5°	260.0	251.5	246.7
7.5°	245.3	233.9	228.3
10°	231.7	215.5	209.6
12.5°	215.5	196.7	187.5
15°	200.0	175.8	166.9
17.5°	182.7	155.5	145.2
20°	166.6	135.3	124.7
22.5°	148.2	115.5	103.7
25°	131.6	95.6	82.4
27.5°	113.3	75.4	64.0
30°	96.0	57.7	46.3
32.5°	79.4	42.3	32.0
35°	64.0	28.7	20.2
37.5°	49.3	17.6	10.3
40°	35.7	9.2	4.8
42.5°	23.9	4.4	2.6
45°	14.7	2.2	0.0
47.5°	8.5	0.0	0.0
50°	4.4	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	2.9	2.9
95°	2.6	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.8	2.6	2.9



TEST NUMBER: P550445

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	154.4	150.0	135.3	111.0	77.6	43.4	16.2	2.9	0.7	1.1	1.1
110°	134.6	130.9	115.8	92.3	62.5	32.4	10.7	1.8	1.1	1.1	1.1





107.5°	1.5	2.2	2.6
110°	1.5	1.8	2.2



(END OF REPORT)