

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: P551663

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-81-88-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: P551663
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-50-UNV-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

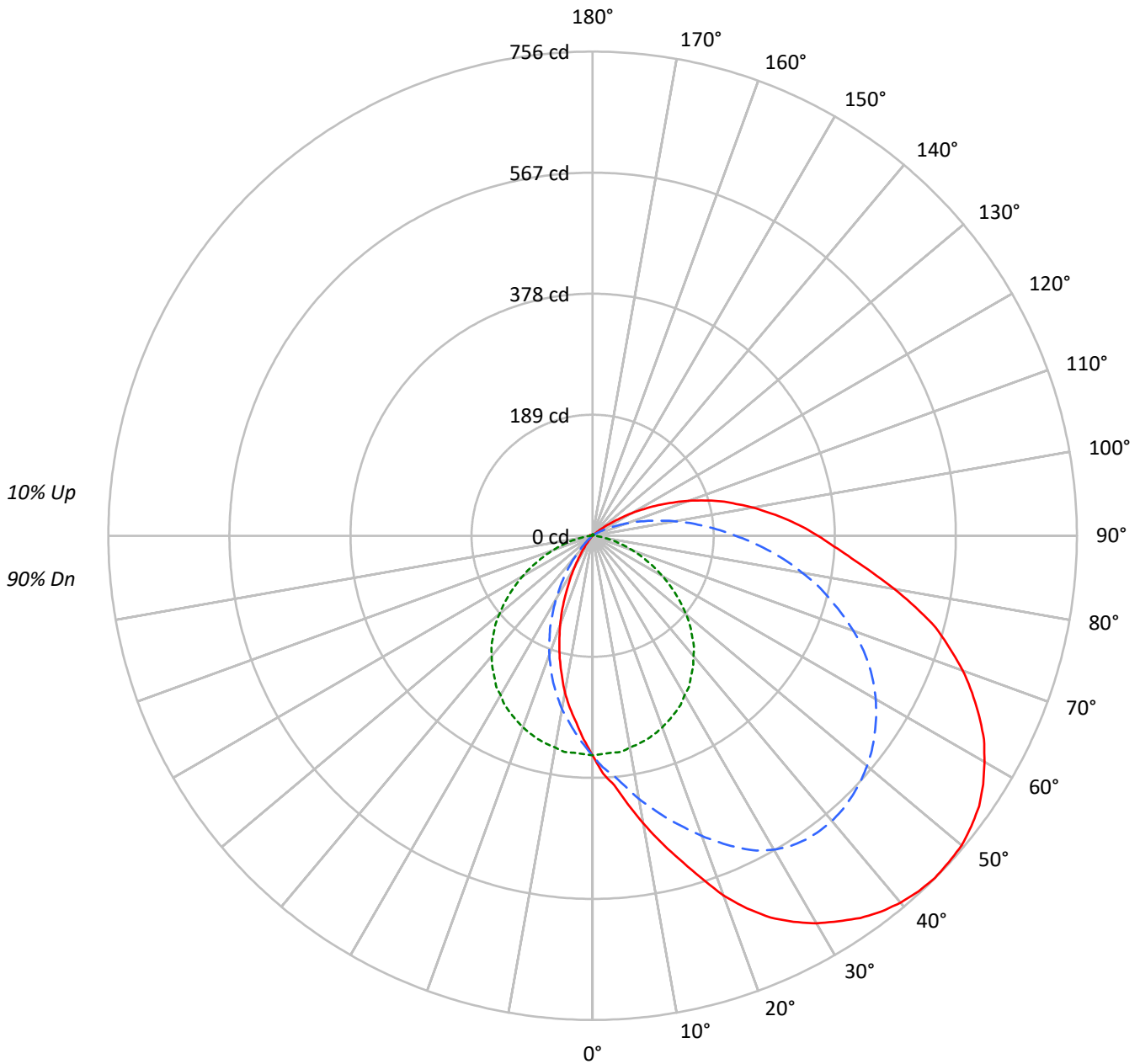
Lumens per Lamp: N/A
Luminaire Lumens: 1693.9 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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: P551663

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-88-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551663

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-88-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°	3689	3689	3689
5°	4049	3634	3032
10°	4581	3590	2499
15°	5135	3544	1948
20°	5791	3486	1434
25°	6335	3420	942
30°	6740	3329	530
35°	7090	3233	234
40°	7401	3114	56
45°	7668	2965	0
50°	7892	2768	0
55°	8062	2516	0
60°	8148	2224	0
65°	8182	1894	0
70°	8154	1544	0
75°	8051	1140	6
80°	7725	696	36
85°	7465	331	48



TEST NUMBER: P551663

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-88-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	1.9
10°-20°	98.3	5.8
20°-30°	159.1	9.4
30°-40°	204.4	12.1
40°-50°	231.4	13.7
50°-60°	239.8	14.2
60°-70°	226.1	13.3
70°-80°	189.5	11.2
80°-90°	137.4	8.1
90°-100°	90.3	5.3
100°-110°	52.1	3.1
110°-120°	23.0	1.4
120°-130°	6.2	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	290.2	17.1
0°-40°	494.7	29.2
0°-60°	965.9	57.0
0°-90°	1518.8	89.7
90°-120°	165.4	9.8
90°-150°	174.0	10.3
90°-180°	175.0	10.3
0°-180°	1693.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	343	343	343	343	343	
5°	391	376	340	309	293	39
15°	522	458	329	238	198	151
25°	658	538	305	156	98	304
35°	728	579	268	76	24	457
45°	756	574	219	18	0	583
55°	736	538	158	0	0	658
65°	666	476	94	0	0	659
75°	555	384	40	0	0	582
85°	406	278	6	2	3	347
90°	352	223	2	3	3	193
95°	302	174	1	3	4	237
105°	208	90	1	2	4	219
115°	113	30	1	1	2	113
125°	34	4	2	1	2	34
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551663

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-88-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	342.7	342.7	342.7	342.7	342.7	342.7	342.7	342.7	342.7	342.7	342.7
2.5°	371.5	371.0	369.7	367.5	364.5	359.2	354.9	350.9	345.7	341.3	333.1
5°	391.1	388.9	387.2	385.0	378.0	373.2	365.4	356.6	348.3	340.0	323.4
7.5°	422.5	419.0	416.4	410.3	400.7	389.8	377.6	369.3	363.6	340.5	312.1
10°	456.1	453.1	447.9	436.9	425.2	409.4	392.0	372.3	354.9	335.7	302.1
12.5°	489.3	485.0	477.5	463.6	447.0	427.3	403.3	380.2	355.3	332.6	290.3
15°	522.5	517.7	509.8	492.8	471.0	445.2	416.0	386.7	357.5	328.7	278.1
17.5°	558.7	552.2	540.4	521.2	493.7	461.8	427.3	392.0	356.6	323.9	265.0
20°	597.6	588.4	575.7	550.0	517.7	480.2	438.7	397.2	356.2	318.2	250.1
22.5°	629.9	620.7	606.7	580.1	541.3	495.4	448.3	400.7	354.4	311.7	236.1
25°	657.8	650.4	635.1	604.6	563.5	511.6	457.5	403.3	351.8	304.7	221.3
27.5°	679.6	672.7	655.6	624.2	582.3	526.0	464.4	404.6	348.3	297.7	206.0
30°	698.8	691.9	671.3	639.0	595.0	537.3	471.4	405.1	344.0	287.2	189.4
32.5°	713.7	707.1	686.2	651.7	603.7	545.2	475.4	404.6	338.3	279.8	171.5
35°	728.5	722.0	697.5	660.9	610.2	548.7	478.4	402.5	331.3	267.6	154.5
37.5°	739.9	732.5	707.6	667.0	613.3	549.6	478.0	399.4	323.9	257.5	137.5
40°	747.7	739.9	713.2	670.5	614.2	548.2	474.5	394.2	315.2	244.9	119.6
42.5°	753.0	744.2	715.9	675.7	612.4	544.8	469.2	387.6	305.6	234.0	102.6
45°	755.6	746.4	716.3	671.3	609.4	538.2	461.4	379.3	295.1	219.1	85.6
47.5°	754.3	744.2	714.1	666.5	603.7	531.2	452.7	369.3	282.4	206.0	69.4
50°	752.1	741.6	709.3	660.4	595.8	522.5	443.1	357.1	269.3	189.9	55.0
52.5°	745.1	734.6	704.1	651.7	586.7	512.5	430.0	344.4	255.4	174.2	41.9
55°	736.4	726.8	694.9	643.8	574.9	500.2	417.7	330.9	241.8	158.0	30.1
57.5°	722.9	714.1	683.6	631.2	563.1	486.7	404.2	316.0	224.8	141.9	21.0
60°	706.3	697.5	667.9	616.8	549.6	471.4	389.4	300.8	209.5	125.7	13.1
62.5°	688.8	680.5	649.5	598.9	532.5	455.3	373.2	285.5	193.4	110.9	7.9
65°	665.7	657.8	629.9	577.5	513.8	437.8	355.3	267.1	176.8	94.3	4.4
67.5°	641.2	634.2	605.9	557.9	491.9	418.6	337.0	249.2	159.3	79.9	2.2
70°	615.0	606.3	580.1	531.2	469.7	396.8	316.9	230.9	142.7	65.9	0.0
72.5°	584.5	577.9	552.6	506.3	443.9	373.6	296.4	210.8	124.4	52.4	0.4
75°	554.8	546.5	523.4	479.7	418.6	349.2	273.7	192.1	106.5	40.2	0.4
77.5°	516.4	513.8	491.9	449.6	394.6	325.6	248.8	169.4	89.5	28.8	0.4
80°	478.0	475.4	458.3	419.5	366.7	297.7	225.7	148.0	72.9	19.2	0.4
82.5°	440.0	436.5	420.4	388.1	338.3	274.1	201.7	126.6	57.6	11.8	0.4
85°	405.9	401.6	384.1	354.4	309.0	247.5	176.8	105.6	42.8	6.5	0.9
87.5°	376.7	373.6	354.4	323.9	279.4	222.6	155.0	85.6	30.1	3.1	1.3
90°	351.8	345.3	328.3	295.9	251.4	195.1	131.8	68.5	20.1	1.7	1.7
92.5°	327.4	321.7	302.9	269.8	226.5	171.5	109.6	52.4	12.7	0.9	2.2
95°	302.1	295.9	277.6	247.1	201.2	147.5	89.9	38.4	7.0	0.9	2.2
97.5°	277.2	271.5	252.3	221.7	178.5	126.6	71.2	27.1	3.5	0.9	1.7
100°	254.0	247.5	230.0	199.5	155.8	105.6	55.0	17.5	2.2	0.9	1.7
102.5°	229.6	224.4	206.5	176.8	132.3	86.0	41.0	10.9	0.9	0.9	1.3
105°	207.8	201.2	183.8	153.2	112.6	67.7	28.8	6.5	0.9	0.9	1.3



TEST NUMBER: P551663

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	135.3	130.1	114.8	89.0	57.2	26.6	7.9	1.3	1.3	1.3	1.3
115°	113.1	105.2	91.7	69.0	42.3	17.5	3.9	1.3	1.3	1.3	1.3
117.5°	90.4	83.8	74.2	52.4	27.9	11.3	2.2	1.3	1.3	1.3	1.3
120°	70.7	64.6	53.7	36.2	18.8	6.5	0.9	1.3	1.3	1.3	1.3
122.5°	50.6	45.8	36.2	23.6	11.3	3.1	1.3	1.3	1.7	1.7	1.3
125°	33.6	31.0	24.0	14.4	7.0	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.8	19.6	14.0	8.3	3.1	1.3	1.3	1.7	1.7	1.7	1.3
130°	12.2	10.9	8.3	4.8	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	7.0	6.5	4.4	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.7	2.2	2.2	2.2	1.7
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	1.7
142.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
145°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	1.7	1.7	1.7
147.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	1.7	1.7
150°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
152.5°	0.4	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	1.7
155°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
157.5°	0.9	0.9	0.9	1.3	1.7	1.7	1.7	2.2	1.7	1.7	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.7	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.7	1.7	2.2	2.2	2.2	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P551663

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	342.7	342.7	342.7
2.5°	326.1	320.0	318.2
5°	308.6	298.6	292.9
7.5°	291.1	277.6	271.1
10°	275.0	255.8	248.8
12.5°	255.8	233.5	222.6
15°	237.5	208.6	198.2
17.5°	216.9	184.6	172.4
20°	197.7	160.6	148.0
22.5°	175.9	137.1	123.1
25°	156.3	113.5	97.8
27.5°	134.4	89.5	76.0
30°	113.9	68.5	55.0
32.5°	94.3	50.2	38.0
35°	76.0	34.0	24.0
37.5°	58.5	21.0	12.2
40°	42.3	10.9	5.7
42.5°	28.4	5.2	3.1
45°	17.5	2.6	0.0
47.5°	10.0	0.0	0.0
50°	5.2	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.7	2.2
82.5°	1.7	2.2	2.2
85°	1.7	2.2	2.6
87.5°	2.2	2.6	3.1
90°	2.6	3.1	3.1
92.5°	2.6	3.5	3.5
95°	3.1	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.1	3.9	4.4
102.5°	2.6	3.9	3.9
105°	2.2	3.1	3.5



TEST NUMBER: P551663

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.2	2.2
115°	1.3	1.7	2.2
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.7	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	183.3	178.1	160.6	131.8	92.1	51.5	19.2	3.5	0.9	1.3	1.3
110°	159.8	155.4	137.5	109.6	74.2	38.4	12.7	2.2	1.3	1.3	1.3





107.5°	1.7	2.6	3.1
110°	1.7	2.2	2.6



(END OF REPORT)