

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: P551683

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-96-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: P551683
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-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

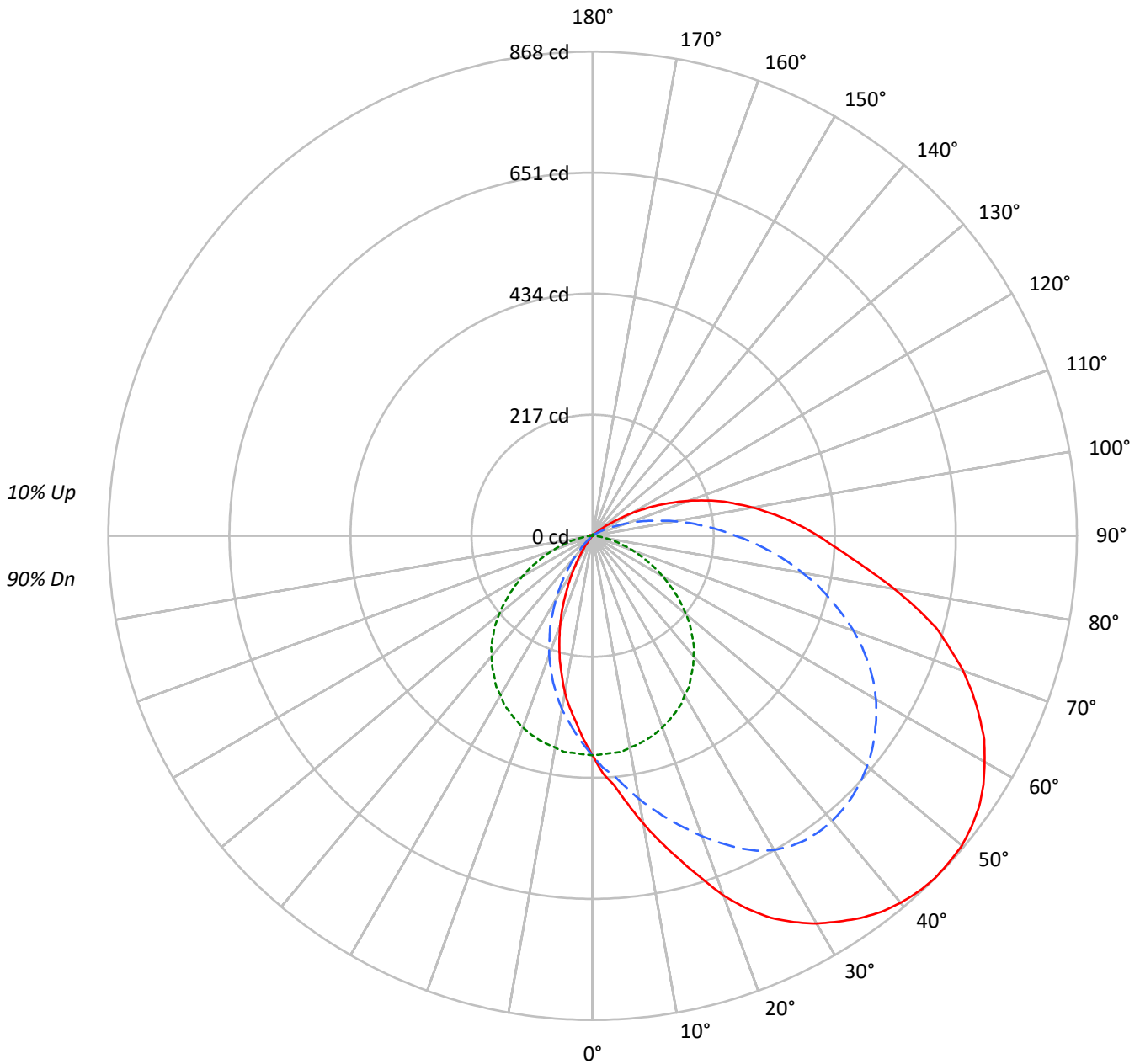
Lumens per Lamp: N/A
Luminaire Lumens: 1946.0 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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: P551683

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551683

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-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°	4237	4237	4237
5°	4651	4175	3484
10°	5263	4124	2871
15°	5898	4071	2238
20°	6653	4005	1647
25°	7278	3928	1082
30°	7743	3824	610
35°	8145	3714	269
40°	8503	3577	64
45°	8809	3406	0
50°	9066	3179	0
55°	9261	2890	0
60°	9360	2555	0
65°	9399	2175	0
70°	9367	1773	0
75°	9248	1307	7
80°	8874	802	40
85°	8576	381	55



TEST NUMBER: P551683

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.7	1.9
10°-20°	112.9	5.8
20°-30°	182.8	9.4
30°-40°	234.9	12.1
40°-50°	265.8	13.7
50°-60°	275.4	14.2
60°-70°	259.7	13.3
70°-80°	217.7	11.2
80°-90°	157.8	8.1
90°-100°	103.7	5.3
100°-110°	59.9	3.1
110°-120°	26.4	1.4
120°-130°	7.2	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°	333.4	17.1
0°-40°	568.3	29.2
0°-60°	1109.5	57.0
0°-90°	1744.8	89.7
90°-120°	190.0	9.8
90°-150°	199.9	10.3
90°-180°	201.0	10.3
0°-180°	1946.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	394	394	394	394	394	
5°	449	431	391	354	336	45
15°	600	526	378	273	228	173
25°	756	618	350	180	112	349
35°	837	666	307	87	28	525
45°	868	659	252	20	0	670
55°	846	618	182	0	0	755
65°	765	547	108	0	0	757
75°	637	441	46	0	0	668
85°	466	320	8	2	3	398
90°	404	256	2	3	4	222
95°	347	200	1	4	4	272
105°	239	104	1	2	4	252
115°	130	34	2	2	2	130
125°	39	5	2	2	2	39
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	



TEST NUMBER: P551683

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6	393.6
2.5°	426.7	426.2	424.7	422.2	418.7	412.7	407.7	403.2	397.1	392.1	382.6
5°	449.3	446.8	444.8	442.3	434.2	428.7	419.7	409.7	400.1	390.6	371.6
7.5°	485.4	481.4	478.4	471.4	460.3	447.8	433.7	424.2	417.7	391.1	358.5
10°	524.0	520.5	514.5	501.9	488.4	470.3	450.3	427.7	407.7	385.6	347.0
12.5°	562.1	557.1	548.6	532.5	513.5	490.9	463.3	436.8	408.2	382.1	333.5
15°	600.2	594.7	585.7	566.1	541.1	511.5	477.9	444.3	410.7	377.6	319.4
17.5°	641.8	634.3	620.8	598.7	567.1	530.5	490.9	450.3	409.7	372.1	304.4
20°	686.5	675.9	661.4	631.8	594.7	551.6	503.9	456.3	409.2	365.5	287.3
22.5°	723.6	713.0	697.0	666.4	621.8	569.1	515.0	460.3	407.2	358.0	271.3
25°	755.7	747.1	729.6	694.5	647.4	587.7	525.5	463.3	404.2	350.0	254.2
27.5°	780.7	772.7	753.2	717.1	668.9	604.2	533.5	464.8	400.1	342.0	236.7
30°	802.8	794.8	771.2	734.1	683.5	617.3	541.6	465.3	395.1	329.9	217.6
32.5°	819.9	812.3	788.3	748.6	693.5	626.3	546.1	464.8	388.6	321.4	197.1
35°	836.9	829.4	801.3	759.2	701.0	630.3	549.6	462.3	380.6	307.4	177.5
37.5°	849.9	841.4	812.8	766.2	704.5	631.3	549.1	458.8	372.1	295.8	158.0
40°	859.0	849.9	819.4	770.2	705.5	629.8	545.1	452.8	362.0	281.3	137.4
42.5°	865.0	855.0	822.4	776.2	703.5	625.8	539.0	445.3	351.0	268.8	117.8
45°	868.0	857.5	822.9	771.2	700.0	618.3	530.0	435.7	339.0	251.7	98.3
47.5°	866.5	855.0	820.4	765.7	693.5	610.3	520.0	424.2	324.4	236.7	79.7
50°	864.0	851.9	814.8	758.7	684.5	600.2	509.0	410.2	309.4	218.1	63.2
52.5°	856.0	843.9	808.8	748.6	673.9	588.7	493.9	395.6	293.3	200.1	48.1
55°	845.9	834.9	798.3	739.6	660.4	574.6	479.9	380.1	277.8	181.5	34.6
57.5°	830.4	820.4	785.3	725.1	646.9	559.1	464.3	363.0	258.2	163.0	24.1
60°	811.3	801.3	767.2	708.5	631.3	541.6	447.3	345.5	240.7	144.4	15.0
62.5°	791.3	781.7	746.1	688.0	611.8	523.0	428.7	327.9	222.1	127.4	9.0
65°	764.7	755.7	723.6	663.4	590.2	502.9	408.2	306.9	203.1	108.3	5.0
67.5°	736.6	728.6	696.0	640.8	565.1	480.9	387.1	286.3	183.0	91.8	2.5
70°	706.5	696.5	666.4	610.3	539.5	455.8	364.0	265.3	164.0	75.7	0.0
72.5°	671.4	663.9	634.8	581.7	510.0	429.2	340.5	242.2	142.9	60.2	0.5
75°	637.3	627.8	601.2	551.1	480.9	401.2	314.4	220.6	122.4	46.1	0.5
77.5°	593.2	590.2	565.1	516.5	453.3	374.1	285.8	194.6	102.8	33.1	0.5
80°	549.1	546.1	526.5	481.9	421.2	342.0	259.2	170.0	83.7	22.1	0.5
82.5°	505.4	501.4	482.9	445.8	388.6	314.9	231.7	145.4	66.2	13.5	0.5
85°	466.3	461.3	441.3	407.2	355.0	284.3	203.1	121.3	49.1	7.5	1.0
87.5°	432.7	429.2	407.2	372.1	320.9	255.7	178.0	98.3	34.6	3.5	1.5
90°	404.2	396.6	377.1	340.0	288.8	224.1	151.4	78.7	23.1	2.0	2.0
92.5°	376.1	369.6	348.0	309.9	260.2	197.1	125.9	60.2	14.5	1.0	2.5
95°	347.0	340.0	318.9	283.8	231.2	169.5	103.3	44.1	8.0	1.0	2.5
97.5°	318.4	311.9	289.8	254.7	205.1	145.4	81.7	31.1	4.0	1.0	2.0
100°	291.8	284.3	264.3	229.2	179.0	121.3	63.2	20.1	2.5	1.0	2.0
102.5°	263.8	257.7	237.2	203.1	151.9	98.8	47.1	12.5	1.0	1.0	1.5
105°	238.7	231.2	211.1	176.0	129.4	77.7	33.1	7.5	1.0	1.0	1.5



TEST NUMBER: P551683

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	155.4	149.4	131.9	102.3	65.7	30.6	9.0	1.5	1.5	1.5	1.5
115°	129.9	120.8	105.3	79.2	48.6	20.1	4.5	1.5	1.5	1.5	1.5
117.5°	103.8	96.3	85.2	60.2	32.1	13.0	2.5	1.5	1.5	1.5	1.5
120°	81.2	74.2	61.7	41.6	21.6	7.5	1.0	1.5	1.5	1.5	1.5
122.5°	58.2	52.7	41.6	27.1	13.0	3.5	1.5	1.5	2.0	2.0	1.5
125°	38.6	35.6	27.6	16.5	8.0	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.1	22.6	16.0	9.5	3.5	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.0	12.5	9.5	5.5	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.0	7.5	5.0	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	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
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	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	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: P551683

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	393.6	393.6	393.6
2.5°	374.6	367.6	365.5
5°	354.5	343.0	336.5
7.5°	334.5	318.9	311.4
10°	315.9	293.8	285.8
12.5°	293.8	268.3	255.7
15°	272.8	239.7	227.7
17.5°	249.2	212.1	198.1
20°	227.2	184.5	170.0
22.5°	202.1	157.5	141.4
25°	179.5	130.4	112.3
27.5°	154.4	102.8	87.3
30°	130.9	78.7	63.2
32.5°	108.3	57.7	43.6
35°	87.3	39.1	27.6
37.5°	67.2	24.1	14.0
40°	48.6	12.5	6.5
42.5°	32.6	6.0	3.5
45°	20.1	3.0	0.0
47.5°	11.5	0.0	0.0
50°	6.0	0.0	0.0
52.5°	2.5	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	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.5
90°	3.0	3.5	3.5
92.5°	3.0	4.0	4.0
95°	3.5	4.0	4.5
97.5°	4.0	4.5	4.5
100°	3.5	4.5	5.0
102.5°	3.0	4.5	4.5
105°	2.5	3.5	4.0



TEST NUMBER: P551683

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
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°	210.6	204.6	184.5	151.4	105.8	59.2	22.1	4.0	1.0	1.5	1.5
110°	183.5	178.5	158.0	125.9	85.2	44.1	14.5	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.5
110°	2.0	2.5	3.0



(END OF REPORT)