

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: P551098

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-82-85-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: P551098
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-LD4-1STD-40-UNV-82-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

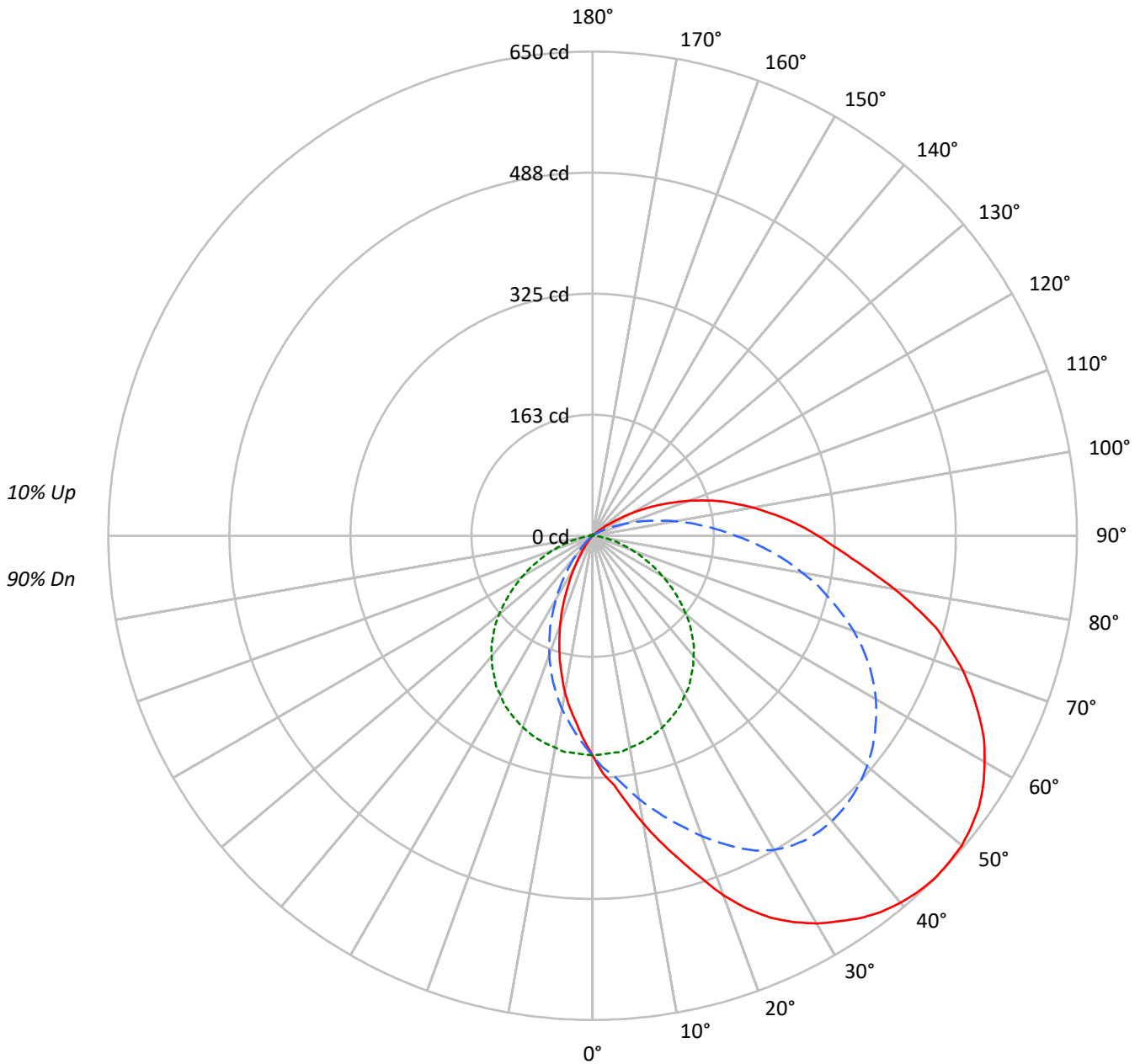
Lumens per Lamp: N/A
Luminaire Lumens: 1457.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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: P551098

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-85-ED1D

Luminous Intensity Polar Plot





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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°	3172	3172	3172
5°	3482	3126	2608
10°	3940	3087	2150
15°	4416	3048	1675
20°	4981	2999	1234
25°	5449	2941	810
30°	5798	2863	456
35°	6099	2780	200
40°	6366	2678	49
45°	6595	2551	0
50°	6788	2380	0
55°	6935	2164	0
60°	7009	1913	0
65°	7036	1629	0
70°	7014	1328	0
75°	6925	978	6
80°	6644	599	31
85°	6422	285	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.2	1.9
10°-20°	84.5	5.8
20°-30°	136.9	9.4
30°-40°	175.8	12.1
40°-50°	199.0	13.7
50°-60°	206.2	14.2
60°-70°	194.5	13.3
70°-80°	163.0	11.2
80°-90°	118.1	8.1
90°-100°	77.7	5.3
100°-110°	44.9	3.1
110°-120°	19.8	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°	249.6	17.1
0°-40°	425.5	29.2
0°-60°	830.7	57.0
0°-90°	1306.4	89.7
90°-120°	142.3	9.8
90°-150°	149.7	10.3
90°-180°	151.0	10.4
0°-180°	1457.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	295	295	295	295	295	
5°	336	323	292	265	252	34
15°	449	394	283	204	170	130
25°	566	462	262	134	84	262
35°	627	498	230	65	21	393
45°	650	494	188	15	0	502
55°	633	462	136	0	0	566
65°	572	409	81	0	0	566
75°	477	330	34	0	0	500
85°	349	239	6	2	2	298
90°	303	192	2	2	3	166
95°	260	150	1	3	3	204
105°	179	78	1	2	3	189
115°	97	26	1	1	2	97
125°	29	4	2	1	2	29
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: P551098

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7
2.5°	319.5	319.1	318.0	316.1	313.5	309.0	305.2	301.8	297.3	293.6	286.5
5°	336.4	334.5	333.0	331.1	325.1	321.0	314.2	306.7	299.6	292.5	278.2
7.5°	363.4	360.4	358.2	352.9	344.6	335.3	324.8	317.6	312.7	292.8	268.4
10°	392.3	389.7	385.2	375.8	365.7	352.2	337.1	320.2	305.2	288.7	259.8
12.5°	420.9	417.1	410.7	398.7	384.4	367.6	346.9	327.0	305.6	286.1	249.7
15°	449.4	445.3	438.5	423.9	405.1	382.9	357.8	332.6	307.5	282.7	239.2
17.5°	480.6	474.9	464.8	448.3	424.6	397.2	367.6	337.1	306.7	278.6	227.9
20°	514.0	506.1	495.2	473.0	445.3	413.0	377.3	341.6	306.4	273.7	215.1
22.5°	541.8	533.9	521.9	499.0	465.5	426.1	385.6	344.6	304.9	268.1	203.1
25°	565.8	559.4	546.3	520.0	484.7	440.0	393.5	346.9	302.6	262.1	190.3
27.5°	584.6	578.5	563.9	536.9	500.8	452.4	399.5	348.0	299.6	256.0	177.2
30°	601.1	595.1	577.4	549.6	511.7	462.2	405.5	348.4	295.8	247.0	162.9
32.5°	613.8	608.2	590.2	560.5	519.2	468.9	408.8	348.0	291.0	240.7	147.5
35°	626.6	621.0	599.9	568.4	524.9	471.9	411.5	346.2	285.0	230.1	132.9
37.5°	636.4	630.0	608.6	573.7	527.5	472.7	411.1	343.5	278.6	221.5	118.3
40°	643.1	636.4	613.5	576.7	528.2	471.5	408.1	339.0	271.1	210.6	102.9
42.5°	647.6	640.1	615.7	581.2	526.7	468.5	403.6	333.4	262.8	201.2	88.2
45°	649.9	642.0	616.1	577.4	524.1	462.9	396.8	326.3	253.8	188.5	73.6
47.5°	648.8	640.1	614.2	573.3	519.2	456.9	389.3	317.6	242.9	177.2	59.7
50°	646.9	637.9	610.1	568.0	512.5	449.4	381.1	307.1	231.6	163.3	47.3
52.5°	640.9	631.9	605.6	560.5	504.6	440.8	369.8	296.2	219.6	149.8	36.0
55°	633.4	625.1	597.7	553.8	494.4	430.2	359.3	284.6	208.0	135.9	25.9
57.5°	621.7	614.2	587.9	542.9	484.3	418.6	347.7	271.8	193.3	122.0	18.0
60°	607.5	599.9	574.4	530.5	472.7	405.5	334.9	258.7	180.2	108.1	11.3
62.5°	592.4	585.3	558.6	515.1	458.0	391.6	321.0	245.5	166.3	95.4	6.8
65°	572.5	565.8	541.8	496.7	441.9	376.6	305.6	229.8	152.1	81.1	3.8
67.5°	551.5	545.5	521.1	479.8	423.1	360.0	289.8	214.4	137.0	68.7	1.9
70°	529.0	521.5	499.0	456.9	404.0	341.3	272.6	198.6	122.8	56.7	0.0
72.5°	502.7	497.1	475.3	435.5	381.8	321.4	254.9	181.3	107.0	45.1	0.4
75°	477.2	470.0	450.1	412.6	360.0	300.3	235.4	165.2	91.6	34.5	0.4
77.5°	444.1	441.9	423.1	386.7	339.4	280.1	214.0	145.7	77.0	24.8	0.4
80°	411.1	408.8	394.2	360.8	315.4	256.0	194.1	127.3	62.7	16.5	0.4
82.5°	378.4	375.4	361.5	333.8	291.0	235.8	173.5	108.9	49.6	10.1	0.4
85°	349.2	345.4	330.4	304.9	265.8	212.9	152.1	90.9	36.8	5.6	0.8
87.5°	324.0	321.4	304.9	278.6	240.3	191.5	133.3	73.6	25.9	2.6	1.1
90°	302.6	297.0	282.3	254.5	216.3	167.8	113.4	58.9	17.3	1.5	1.5
92.5°	281.6	276.7	260.6	232.0	194.9	147.5	94.2	45.1	10.9	0.8	1.9
95°	259.8	254.5	238.8	212.5	173.1	126.9	77.3	33.0	6.0	0.8	1.9
97.5°	238.4	233.5	217.0	190.7	153.6	108.9	61.2	23.3	3.0	0.8	1.5
100°	218.5	212.9	197.9	171.6	134.0	90.9	47.3	15.0	1.9	0.8	1.5
102.5°	197.5	193.0	177.6	152.1	113.8	74.0	35.3	9.4	0.8	0.8	1.1
105°	178.7	173.1	158.1	131.8	96.9	58.2	24.8	5.6	0.8	0.8	1.1



TEST NUMBER: P551098

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.4	111.9	98.7	76.6	49.2	22.9	6.8	1.1	1.1	1.1	1.1
115°	97.2	90.5	78.8	59.3	36.4	15.0	3.4	1.1	1.1	1.1	1.1
117.5°	77.7	72.1	63.8	45.1	24.0	9.8	1.9	1.1	1.1	1.1	1.1
120°	60.8	55.6	46.2	31.2	16.1	5.6	0.8	1.1	1.1	1.1	1.1
122.5°	43.6	39.4	31.2	20.3	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.9	26.7	20.6	12.4	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.8	16.9	12.0	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.5	9.4	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.6	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	294.7	294.7	294.7
2.5°	280.4	275.2	273.7
5°	265.4	256.8	251.9
7.5°	250.4	238.8	233.1
10°	236.5	220.0	214.0
12.5°	220.0	200.9	191.5
15°	204.2	179.5	170.4
17.5°	186.6	158.8	148.3
20°	170.1	138.2	127.3
22.5°	151.3	117.9	105.9
25°	134.4	97.6	84.1
27.5°	115.6	77.0	65.3
30°	98.0	58.9	47.3
32.5°	81.1	43.2	32.7
35°	65.3	29.3	20.6
37.5°	50.3	18.0	10.5
40°	36.4	9.4	4.9
42.5°	24.4	4.5	2.6
45°	15.0	2.3	0.0
47.5°	8.6	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.6	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
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	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	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°	157.7	153.2	138.2	113.4	79.2	44.3	16.5	3.0	0.8	1.1	1.1
110°	137.4	133.7	118.3	94.2	63.8	33.0	10.9	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)