

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: P551106

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-82-94-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: P551106
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-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

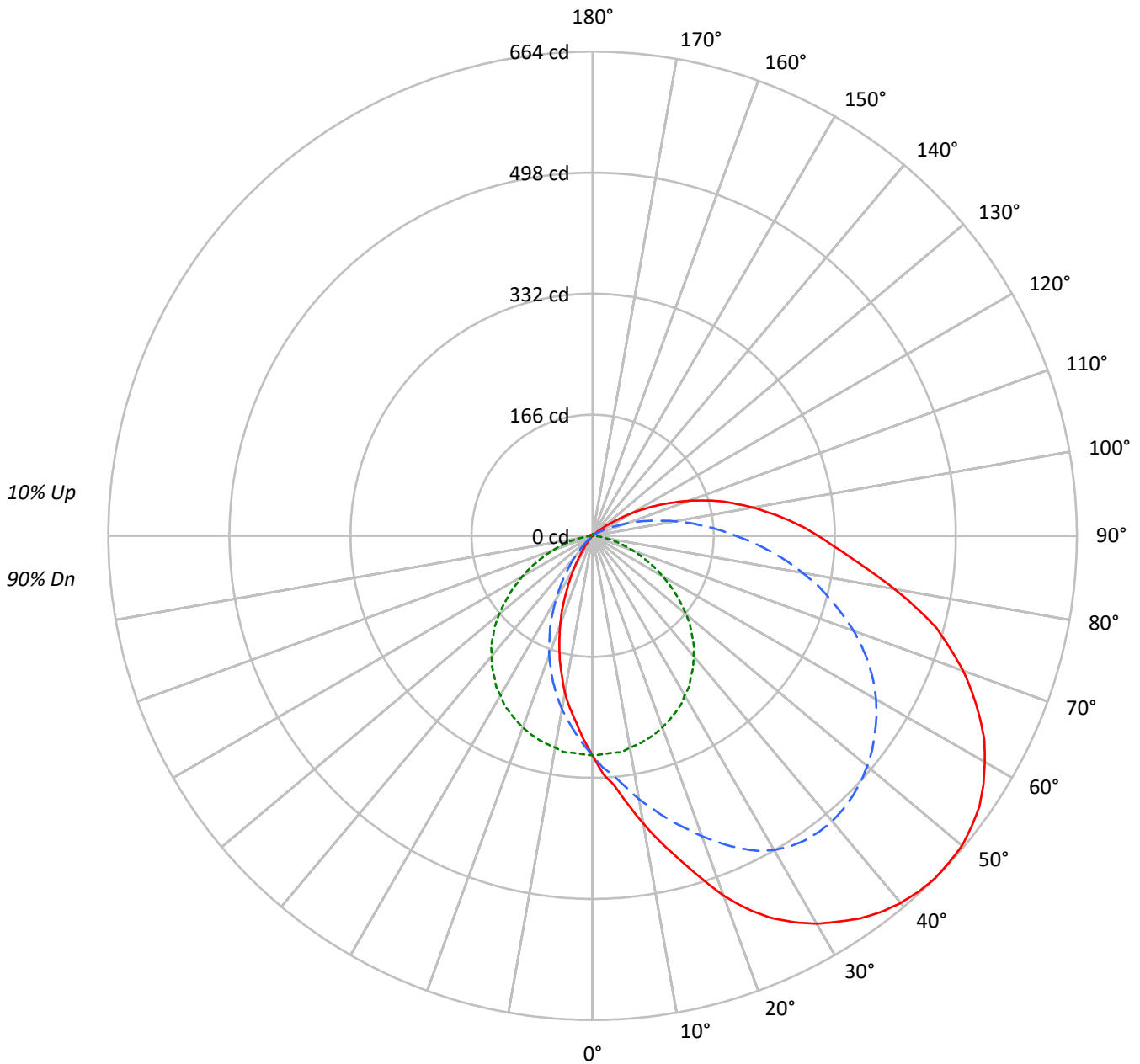
Lumens per Lamp: N/A
Luminaire Lumens: 1489.1 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	3242	3242	3242
5°	3559	3195	2665
10°	4027	3156	2197
15°	4514	3115	1712
20°	5091	3064	1261
25°	5569	3005	827
30°	5925	2927	466
35°	6233	2842	205
40°	6505	2737	49
45°	6741	2606	0
50°	6937	2432	0
55°	7087	2212	0
60°	7162	1955	0
65°	7191	1665	0
70°	7167	1356	0
75°	7077	1001	6
80°	6789	613	31
85°	6562	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	1.9
10°-20°	86.4	5.8
20°-30°	139.9	9.4
30°-40°	179.7	12.1
40°-50°	203.4	13.7
50°-60°	210.7	14.2
60°-70°	198.7	13.3
70°-80°	166.6	11.2
80°-90°	120.7	8.1
90°-100°	79.4	5.3
100°-110°	45.8	3.1
110°-120°	20.2	1.4
120°-130°	5.5	0.4
130°-140°	1.3	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°	255.1	17.1
0°-40°	434.8	29.2
0°-60°	849.0	57.0
0°-90°	1335.0	89.7
90°-120°	145.4	9.8
90°-150°	153.0	10.3
90°-180°	154.0	10.3
0°-180°	1489.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	301	301	301	301	301	
5°	344	330	299	271	257	35
15°	459	403	289	209	174	132
25°	578	472	268	137	86	267
35°	640	509	235	67	21	402
45°	664	504	193	15	0	513
55°	647	472	139	0	0	578
65°	585	418	83	0	0	579
75°	488	337	35	0	0	511
85°	357	245	6	2	2	305
90°	309	196	2	2	3	170
95°	266	153	1	3	4	208
105°	183	79	1	2	3	193
115°	99	26	1	1	2	100
125°	30	4	2	1	2	30
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2	301.2
2.5°	326.5	326.1	325.0	323.1	320.4	315.8	311.9	308.5	303.9	300.0	292.7
5°	343.8	341.9	340.3	338.4	332.3	328.0	321.1	313.5	306.2	298.9	284.3
7.5°	371.4	368.3	366.0	360.7	352.2	342.6	331.9	324.6	319.6	299.3	274.3
10°	400.9	398.3	393.7	384.1	373.7	359.9	344.5	327.3	311.9	295.1	265.5
12.5°	430.1	426.3	419.7	407.5	392.9	375.6	354.5	334.2	312.3	292.4	255.1
15°	459.3	455.0	448.1	433.2	414.0	391.4	365.6	339.9	314.2	288.9	244.4
17.5°	491.1	485.4	475.0	458.1	433.9	405.9	375.6	344.5	313.5	284.7	232.9
20°	525.3	517.2	506.1	483.4	455.0	422.0	385.6	349.1	313.1	279.7	219.8
22.5°	553.7	545.6	533.3	509.9	475.8	435.5	394.0	352.2	311.5	273.9	207.6
25°	578.2	571.7	558.3	531.4	495.3	449.7	402.1	354.5	309.2	267.8	194.5
27.5°	597.4	591.3	576.3	548.7	511.8	462.3	408.2	355.7	306.2	261.7	181.1
30°	614.3	608.1	590.1	561.7	523.0	472.3	414.4	356.1	302.3	252.5	166.5
32.5°	627.3	621.6	603.1	572.8	530.6	479.2	417.8	355.7	297.4	245.9	150.8
35°	640.4	634.6	613.1	580.9	536.4	482.3	420.5	353.8	291.2	235.2	135.8
37.5°	650.3	643.8	621.9	586.3	539.1	483.1	420.1	351.1	284.7	226.4	120.9
40°	657.2	650.3	626.9	589.3	539.8	481.9	417.1	346.5	277.0	215.2	105.1
42.5°	661.8	654.2	629.2	593.9	538.3	478.8	412.5	340.7	268.6	205.7	90.2
45°	664.2	656.1	629.6	590.1	535.6	473.1	405.5	333.4	259.4	192.6	75.2
47.5°	663.0	654.2	627.7	585.9	530.6	466.9	397.9	324.6	248.2	181.1	61.0
50°	661.1	651.9	623.5	580.5	523.7	459.3	389.4	313.9	236.7	166.9	48.3
52.5°	654.9	645.7	618.9	572.8	515.7	450.4	377.9	302.7	224.5	153.1	36.8
55°	647.3	638.8	610.8	565.9	505.3	439.7	367.2	290.8	212.6	138.9	26.5
57.5°	635.4	627.7	600.8	554.8	494.9	427.8	355.3	277.8	197.6	124.7	18.4
60°	620.8	613.1	587.0	542.1	483.1	414.4	342.2	264.4	184.2	110.5	11.5
62.5°	605.4	598.2	570.9	526.4	468.1	400.2	328.0	250.9	170.0	97.5	6.9
65°	585.1	578.2	553.7	507.6	451.6	384.8	312.3	234.8	155.4	82.9	3.8
67.5°	563.6	557.5	532.5	490.3	432.4	367.9	296.2	219.1	140.0	70.2	1.9
70°	540.6	532.9	509.9	466.9	412.8	348.8	278.6	203.0	125.5	57.9	0.0
72.5°	513.7	508.0	485.7	445.1	390.2	328.4	260.5	185.3	109.3	46.0	0.4
75°	487.7	480.4	460.0	421.7	367.9	306.9	240.6	168.8	93.6	35.3	0.4
77.5°	453.9	451.6	432.4	395.2	346.8	286.2	218.7	148.9	78.7	25.3	0.4
80°	420.1	417.8	402.9	368.7	322.3	261.7	198.4	130.1	64.1	16.9	0.4
82.5°	386.7	383.7	369.5	341.1	297.4	241.0	177.3	111.3	50.6	10.4	0.4
85°	356.8	353.0	337.6	311.5	271.6	217.5	155.4	92.9	37.6	5.8	0.8
87.5°	331.1	328.4	311.5	284.7	245.6	195.7	136.2	75.2	26.5	2.7	1.2
90°	309.2	303.5	288.5	260.1	221.0	171.5	115.9	60.2	17.6	1.5	1.5
92.5°	287.8	282.8	266.3	237.1	199.1	150.8	96.3	46.0	11.1	0.8	1.9
95°	265.5	260.1	244.0	217.2	176.9	129.7	79.0	33.8	6.1	0.8	1.9
97.5°	243.6	238.6	221.8	194.9	156.9	111.3	62.5	23.8	3.1	0.8	1.5
100°	223.3	217.5	202.2	175.3	137.0	92.9	48.3	15.3	1.9	0.8	1.5
102.5°	201.8	197.2	181.5	155.4	116.3	75.6	36.1	9.6	0.8	0.8	1.2
105°	182.6	176.9	161.5	134.7	99.0	59.5	25.3	5.8	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	118.9	114.3	100.9	78.3	50.3	23.4	6.9	1.2	1.2	1.2	1.2
115°	99.4	92.5	80.6	60.6	37.2	15.3	3.5	1.2	1.2	1.2	1.2
117.5°	79.4	73.7	65.2	46.0	24.6	10.0	1.9	1.2	1.2	1.2	1.2
120°	62.2	56.8	47.2	31.8	16.5	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.5	40.3	31.8	20.7	10.0	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.5	27.2	21.1	12.7	6.1	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.2	17.3	12.3	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.7	9.6	7.3	4.2	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.1	5.8	3.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	301.2	301.2	301.2
2.5°	286.6	281.2	279.7
5°	271.3	262.4	257.4
7.5°	255.9	244.0	238.3
10°	241.7	224.8	218.7
12.5°	224.8	205.3	195.7
15°	208.7	183.4	174.2
17.5°	190.7	162.3	151.6
20°	173.8	141.2	130.1
22.5°	154.6	120.5	108.2
25°	137.4	99.8	85.9
27.5°	118.2	78.7	66.8
30°	100.1	60.2	48.3
32.5°	82.9	44.1	33.4
35°	66.8	29.9	21.1
37.5°	51.4	18.4	10.7
40°	37.2	9.6	5.0
42.5°	24.9	4.6	2.7
45°	15.3	2.3	0.0
47.5°	8.8	0.0	0.0
50°	4.6	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	1.2
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	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.8
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	161.1	156.5	141.2	115.9	81.0	45.3	16.9	3.1	0.8	1.2	1.2
110°	140.4	136.6	120.9	96.3	65.2	33.8	11.1	1.9	1.2	1.2	1.2





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)