

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: P550961

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-81-94-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: P550961
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-30-UNV-81-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

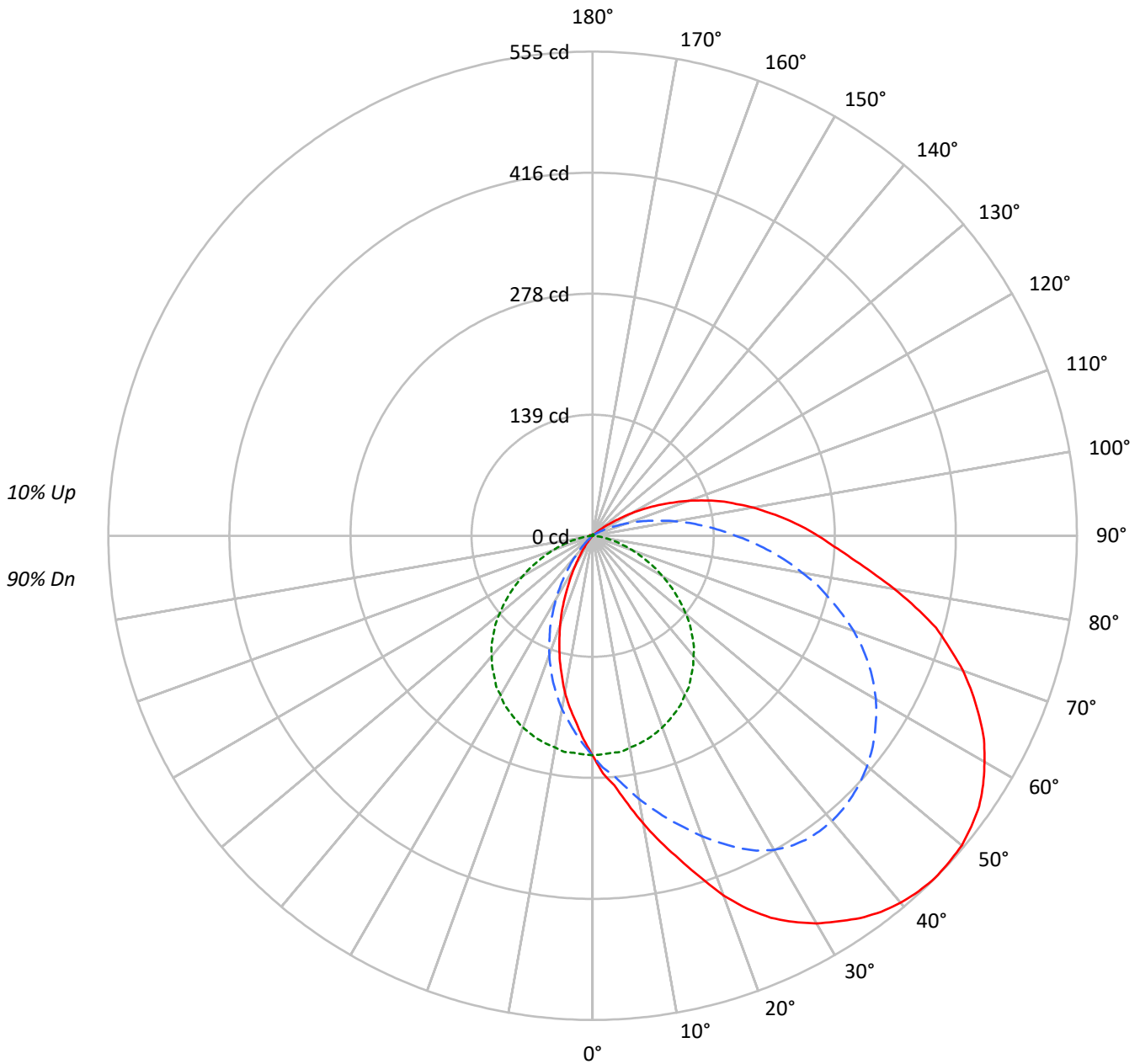
Lumens per Lamp: N/A
Luminaire Lumens: 1244.0 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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

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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°	2708	2708	2708
5°	2973	2669	2227
10°	3365	2636	1835
15°	3771	2603	1430
20°	4252	2560	1053
25°	4653	2510	692
30°	4950	2445	390
35°	5207	2374	171
40°	5435	2287	42
45°	5631	2177	0
50°	5795	2032	0
55°	5921	1847	0
60°	5983	1633	0
65°	6008	1390	0
70°	5989	1134	0
75°	5912	837	4
80°	5672	511	26
85°	5483	244	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.1	1.9
10°-20°	72.2	5.8
20°-30°	116.9	9.4
30°-40°	150.1	12.1
40°-50°	169.9	13.7
50°-60°	176.1	14.2
60°-70°	166.0	13.3
70°-80°	139.1	11.2
80°-90°	100.9	8.1
90°-100°	66.3	5.3
100°-110°	38.3	3.1
110°-120°	16.9	1.4
120°-130°	4.6	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	213.1	17.1
0°-40°	363.3	29.2
0°-60°	709.3	57.0
0°-90°	1115.3	89.7
90°-120°	121.5	9.8
90°-150°	127.8	10.3
90°-180°	129.0	10.4
0°-180°	1244.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	252	252	252	252	252	
5°	287	276	250	227	215	29
15°	384	336	241	174	146	111
25°	483	395	224	115	72	223
35°	535	426	196	56	18	336
45°	555	421	161	13	0	428
55°	541	395	116	0	0	483
65°	489	349	69	0	0	484
75°	407	282	30	0	0	427
85°	298	204	5	1	2	255
90°	258	164	1	2	2	142
95°	222	128	1	2	3	174
105°	153	66	1	2	3	161
115°	83	22	1	1	2	83
125°	25	3	1	1	1	25
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6
2.5°	272.8	272.5	271.5	269.9	267.7	263.8	260.6	257.7	253.9	250.7	244.6
5°	287.2	285.6	284.3	282.7	277.6	274.1	268.3	261.9	255.8	249.7	237.5
7.5°	310.3	307.7	305.8	301.3	294.3	286.3	277.3	271.2	267.0	250.0	229.2
10°	335.0	332.7	328.9	320.9	312.2	300.7	287.9	273.4	260.6	246.5	221.8
12.5°	359.3	356.1	350.7	340.4	328.2	313.8	296.2	279.2	260.9	244.3	213.2
15°	383.7	380.2	374.4	361.9	345.9	327.0	305.5	284.0	262.5	241.4	204.2
17.5°	410.3	405.5	396.8	382.7	362.5	339.1	313.8	287.9	261.9	237.8	194.6
20°	438.8	432.1	422.8	403.9	380.2	352.6	322.2	291.7	261.6	233.7	183.7
22.5°	462.6	455.8	445.6	426.0	397.5	363.8	329.2	294.3	260.3	228.9	173.4
25°	483.1	477.6	466.4	444.0	413.8	375.7	335.9	296.2	258.4	223.7	162.5
27.5°	499.1	494.0	481.5	458.4	427.6	386.3	341.1	297.1	255.8	218.6	151.3
30°	513.2	508.1	493.0	469.3	436.9	394.6	346.2	297.5	252.6	210.9	139.1
32.5°	524.1	519.3	503.9	478.6	443.3	400.4	349.1	297.1	248.4	205.5	126.0
35°	535.0	530.2	512.2	485.3	448.1	402.9	351.3	295.5	243.3	196.5	113.5
37.5°	543.3	537.9	519.6	489.8	450.4	403.6	351.0	293.3	237.8	189.1	101.0
40°	549.1	543.3	523.8	492.4	451.0	402.6	348.4	289.5	231.4	179.8	87.8
42.5°	552.9	546.5	525.7	496.2	449.7	400.0	344.6	284.6	224.4	171.8	75.3
45°	554.9	548.1	526.0	493.0	447.5	395.2	338.8	278.6	216.7	160.9	62.8
47.5°	553.9	546.5	524.4	489.5	443.3	390.1	332.4	271.2	207.4	151.3	51.0
50°	552.3	544.6	520.9	485.0	437.6	383.7	325.4	262.2	197.8	139.4	40.4
52.5°	547.2	539.5	517.0	478.6	430.8	376.3	315.7	252.9	187.5	127.9	30.8
55°	540.8	533.7	510.3	472.8	422.2	367.3	306.8	243.0	177.6	116.0	22.1
57.5°	530.8	524.4	502.0	463.5	413.5	357.4	296.8	232.1	165.1	104.2	15.4
60°	518.6	512.2	490.4	452.9	403.6	346.2	285.9	220.9	153.9	92.3	9.6
62.5°	505.8	499.7	477.0	439.8	391.1	334.3	274.1	209.6	142.0	81.4	5.8
65°	488.8	483.1	462.6	424.1	377.3	321.5	260.9	196.2	129.8	69.2	3.2
67.5°	470.9	465.8	444.9	409.7	361.3	307.4	247.5	183.0	117.0	58.7	1.6
70°	451.7	445.2	426.0	390.1	344.9	291.4	232.7	169.6	104.8	48.4	0.0
72.5°	429.2	424.4	405.8	371.8	326.0	274.4	217.7	154.8	91.4	38.5	0.3
75°	407.4	401.3	384.3	352.3	307.4	256.4	201.0	141.0	78.2	29.5	0.3
77.5°	379.2	377.3	361.3	330.2	289.8	239.1	182.7	124.4	65.7	21.2	0.3
80°	351.0	349.1	336.6	308.0	269.3	218.6	165.7	108.7	53.5	14.1	0.3
82.5°	323.1	320.5	308.7	285.0	248.4	201.3	148.1	93.0	42.3	8.7	0.3
85°	298.1	294.9	282.1	260.3	226.9	181.8	129.8	77.6	31.4	4.8	0.6
87.5°	276.6	274.4	260.3	237.8	205.2	163.5	113.8	62.8	22.1	2.2	1.0
90°	258.4	253.6	241.1	217.3	184.6	143.3	96.8	50.3	14.7	1.3	1.3
92.5°	240.4	236.2	222.5	198.1	166.4	126.0	80.5	38.5	9.3	0.6	1.6
95°	221.8	217.3	203.9	181.4	147.8	108.3	66.0	28.2	5.1	0.6	1.6
97.5°	203.5	199.4	185.3	162.8	131.1	93.0	52.2	19.9	2.6	0.6	1.3
100°	186.6	181.8	168.9	146.5	114.4	77.6	40.4	12.8	1.6	0.6	1.3
102.5°	168.6	164.8	151.6	129.8	97.1	63.1	30.1	8.0	0.6	0.6	1.0
105°	152.6	147.8	135.0	112.5	82.7	49.7	21.2	4.8	0.6	0.6	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	99.4	95.5	84.3	65.4	42.0	19.6	5.8	1.0	1.0	1.0	1.0
115°	83.0	77.3	67.3	50.6	31.1	12.8	2.9	1.0	1.0	1.0	1.0
117.5°	66.4	61.5	54.5	38.5	20.5	8.3	1.6	1.0	1.0	1.0	1.0
120°	51.9	47.4	39.4	26.6	13.8	4.8	0.6	1.0	1.0	1.0	1.0
122.5°	37.2	33.7	26.6	17.3	8.3	2.2	1.0	1.0	1.3	1.3	1.0
125°	24.7	22.8	17.6	10.6	5.1	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.0	14.4	10.3	6.1	2.2	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.0	8.0	6.1	3.5	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.1	4.8	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	251.6	251.6	251.6
2.5°	239.5	235.0	233.7
5°	226.6	219.3	215.1
7.5°	213.8	203.9	199.1
10°	201.9	187.8	182.7
12.5°	187.8	171.5	163.5
15°	174.4	153.2	145.5
17.5°	159.3	135.6	126.6
20°	145.2	118.0	108.7
22.5°	129.2	100.7	90.4
25°	114.8	83.3	71.8
27.5°	98.7	65.7	55.8
30°	83.7	50.3	40.4
32.5°	69.2	36.9	27.9
35°	55.8	25.0	17.6
37.5°	43.0	15.4	9.0
40°	31.1	8.0	4.2
42.5°	20.8	3.8	2.2
45°	12.8	1.9	0.0
47.5°	7.4	0.0	0.0
50°	3.8	0.0	0.0
52.5°	1.6	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°	0.3	0.3	0.3
77.5°	0.3	0.6	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.6	2.6
95°	2.2	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.2	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.2	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	134.6	130.8	118.0	96.8	67.6	37.8	14.1	2.6	0.6	1.0	1.0
110°	117.3	114.1	101.0	80.5	54.5	28.2	9.3	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.2
110°	1.3	1.6	1.9



(END OF REPORT)