

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: P551045

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-97-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: P551045
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-35-UNV-82-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

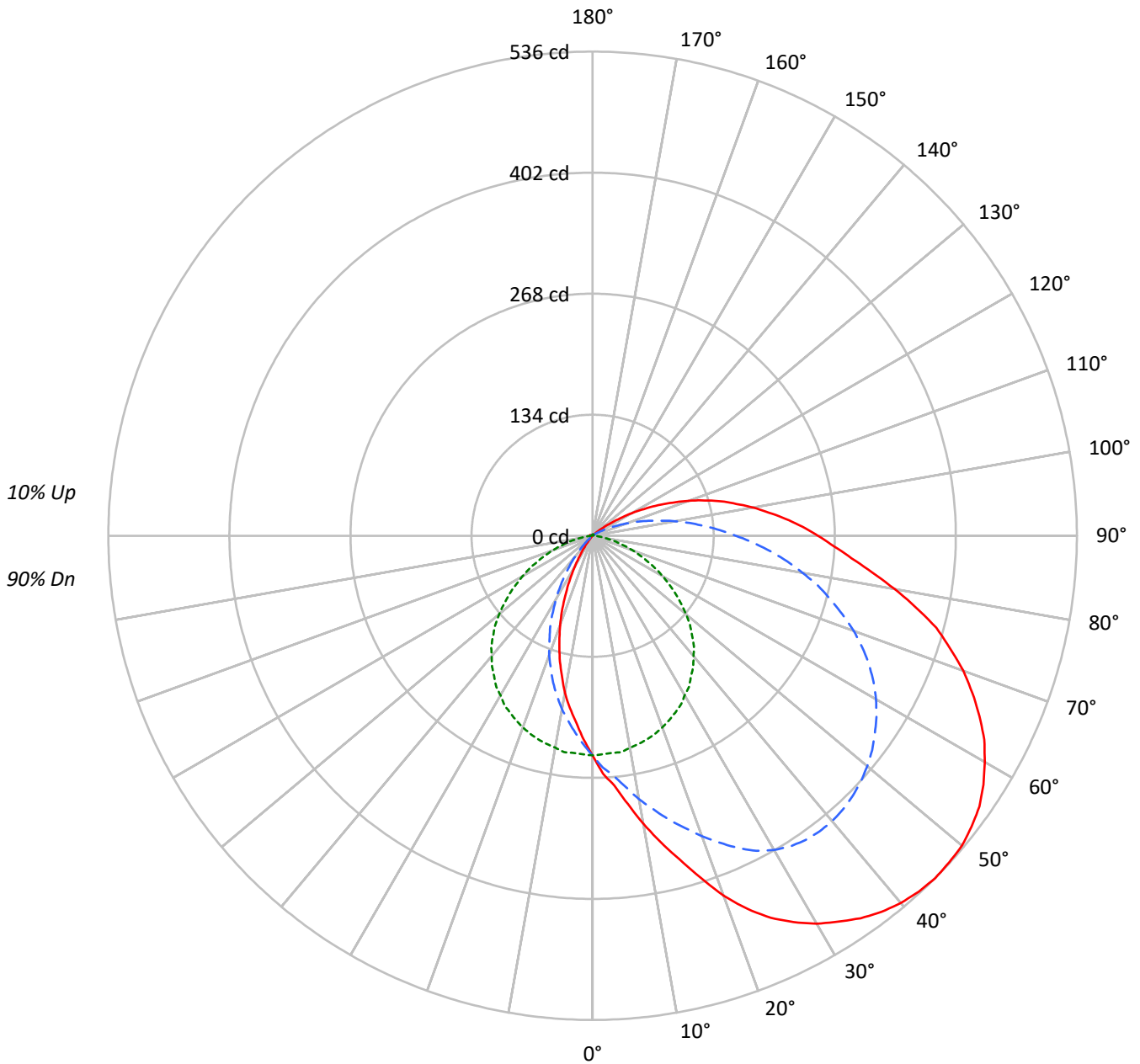
Lumens per Lamp: N/A
Luminaire Lumens: 1201.9 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2617	2617	2617
5°	2873	2579	2151
10°	3251	2547	1773
15°	3643	2514	1382
20°	4109	2474	1018
25°	4496	2426	668
30°	4783	2363	376
35°	5031	2295	165
40°	5252	2210	40
45°	5441	2104	0
50°	5600	1963	0
55°	5721	1785	0
60°	5781	1579	0
65°	5805	1344	0
70°	5786	1096	0
75°	5713	808	4
80°	5482	493	24
85°	5297	234	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	1.9
10°-20°	69.7	5.8
20°-30°	112.9	9.4
30°-40°	145.1	12.1
40°-50°	164.2	13.7
50°-60°	170.1	14.2
60°-70°	160.4	13.3
70°-80°	134.5	11.2
80°-90°	97.4	8.1
90°-100°	64.1	5.3
100°-110°	37.0	3.1
110°-120°	16.3	1.4
120°-130°	4.4	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	205.9	17.1
0°-40°	351.0	29.2
0°-60°	685.3	57.0
0°-90°	1077.7	89.7
90°-120°	117.3	9.8
90°-150°	123.4	10.3
90°-180°	124.0	10.3
0°-180°	1201.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	243	243	243	243	243	
5°	278	266	241	219	208	28
15°	371	325	233	168	141	107
25°	467	381	216	111	69	216
35°	517	411	190	54	17	324
45°	536	407	156	12	0	414
55°	522	381	112	0	0	467
65°	472	338	67	0	0	467
75°	394	272	28	0	0	413
85°	288	197	5	1	2	246
90°	250	158	1	2	2	137
95°	214	124	1	2	3	168
105°	147	64	1	2	2	156
115°	80	21	1	1	2	80
125°	24	3	1	1	1	24
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°	243.1	243.1	243.1	243.1	243.1	243.1	243.1	243.1	243.1	243.1	243.1
2.5°	263.6	263.3	262.3	260.8	258.6	254.9	251.8	249.0	245.3	242.2	236.3
5°	277.5	276.0	274.7	273.2	268.2	264.8	259.2	253.0	247.2	241.3	229.5
7.5°	299.8	297.3	295.5	291.1	284.3	276.6	267.9	262.0	258.0	241.6	221.5
10°	323.7	321.5	317.8	310.0	301.7	290.5	278.1	264.2	251.8	238.2	214.3
12.5°	347.2	344.1	338.8	328.9	317.2	303.2	286.2	269.8	252.1	236.0	206.0
15°	370.7	367.3	361.8	349.7	334.2	315.9	295.2	274.4	253.7	233.2	197.3
17.5°	396.5	391.8	383.4	369.8	350.3	327.7	303.2	278.1	253.0	229.8	188.0
20°	424.0	417.5	408.5	390.3	367.3	340.7	311.3	281.9	252.7	225.8	177.5
22.5°	446.9	440.4	430.5	411.6	384.1	351.5	318.1	284.3	251.5	221.1	167.6
25°	466.8	461.5	450.7	429.0	399.9	363.0	324.6	286.2	249.6	216.2	157.0
27.5°	482.2	477.3	465.2	442.9	413.2	373.2	329.5	287.1	247.2	211.2	146.2
30°	495.9	490.9	476.4	453.4	422.2	381.3	334.5	287.4	244.1	203.8	134.4
32.5°	506.4	501.8	486.9	462.4	428.4	386.8	337.3	287.1	240.0	198.5	121.7
35°	516.9	512.3	494.9	468.9	433.0	389.3	339.5	285.6	235.1	189.9	109.6
37.5°	525.0	519.7	502.1	473.3	435.2	389.9	339.2	283.4	229.8	182.7	97.6
40°	530.6	525.0	506.1	475.7	435.8	389.0	336.7	279.7	223.6	173.8	84.9
42.5°	534.3	528.1	508.0	479.5	434.5	386.5	333.0	275.0	216.8	166.0	72.8
45°	536.1	529.6	508.3	476.4	432.4	381.9	327.4	269.2	209.4	155.5	60.7
47.5°	535.2	528.1	506.7	473.0	428.4	376.9	321.2	262.0	200.4	146.2	49.2
50°	533.7	526.2	503.3	468.6	422.8	370.7	314.4	253.4	191.1	134.7	39.0
52.5°	528.7	521.3	499.6	462.4	416.3	363.6	305.1	244.4	181.2	123.6	29.7
55°	522.5	515.7	493.1	456.8	407.9	354.9	296.4	234.8	171.6	112.1	21.4
57.5°	512.9	506.7	485.0	447.9	399.5	345.3	286.8	224.2	159.5	100.7	14.9
60°	501.1	494.9	473.9	437.6	389.9	334.5	276.3	213.4	148.7	89.2	9.3
62.5°	488.7	482.9	460.9	424.9	377.9	323.0	264.8	202.6	137.2	78.7	5.6
65°	472.3	466.8	446.9	409.8	364.5	310.7	252.1	189.6	125.4	66.9	3.1
67.5°	455.0	450.0	429.9	395.8	349.1	297.0	239.1	176.9	113.1	56.7	1.5
70°	436.4	430.2	411.6	376.9	333.3	281.5	224.9	163.8	101.3	46.8	0.0
72.5°	414.7	410.1	392.1	359.3	315.0	265.1	210.3	149.6	88.3	37.2	0.3
75°	393.7	387.8	371.4	340.4	297.0	247.8	194.2	136.3	75.6	28.5	0.3
77.5°	366.4	364.5	349.1	319.0	280.0	231.1	176.5	120.2	63.5	20.4	0.3
80°	339.2	337.3	325.2	297.6	260.2	211.2	160.1	105.0	51.7	13.6	0.3
82.5°	312.2	309.7	298.3	275.3	240.0	194.5	143.1	89.8	40.9	8.4	0.3
85°	288.0	284.9	272.6	251.5	219.3	175.6	125.4	75.0	30.4	4.6	0.6
87.5°	267.3	265.1	251.5	229.8	198.2	158.0	110.0	60.7	21.4	2.2	0.9
90°	249.6	245.0	232.9	210.0	178.4	138.4	93.5	48.6	14.2	1.2	1.2
92.5°	232.3	228.3	215.0	191.4	160.7	121.7	77.7	37.2	9.0	0.6	1.5
95°	214.3	210.0	197.0	175.3	142.8	104.7	63.8	27.3	5.0	0.6	1.5
97.5°	196.7	192.7	179.0	157.3	126.7	89.8	50.5	19.2	2.5	0.6	1.2
100°	180.3	175.6	163.2	141.5	110.6	75.0	39.0	12.4	1.5	0.6	1.2
102.5°	162.9	159.2	146.5	125.4	93.8	61.0	29.1	7.7	0.6	0.6	0.9
105°	147.4	142.8	130.4	108.7	79.9	48.0	20.4	4.6	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	96.0	92.3	81.5	63.2	40.6	18.9	5.6	0.9	0.9	0.9	0.9
115°	80.2	74.6	65.0	48.9	30.0	12.4	2.8	0.9	0.9	0.9	0.9
117.5°	64.1	59.5	52.7	37.2	19.8	8.1	1.5	0.9	0.9	0.9	0.9
120°	50.2	45.8	38.1	25.7	13.3	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.9	32.5	25.7	16.7	8.1	2.2	0.9	0.9	1.2	1.2	0.9
125°	23.8	22.0	17.0	10.2	5.0	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.5	13.9	9.9	5.9	2.2	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.7	7.7	5.9	3.4	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	5.0	4.6	3.1	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	243.1	243.1	243.1
2.5°	231.4	227.0	225.8
5°	219.0	211.9	207.8
7.5°	206.6	197.0	192.3
10°	195.1	181.5	176.5
12.5°	181.5	165.7	158.0
15°	168.5	148.0	140.6
17.5°	153.9	131.0	122.3
20°	140.3	114.0	105.0
22.5°	124.8	97.3	87.3
25°	110.9	80.5	69.4
27.5°	95.4	63.5	53.9
30°	80.8	48.6	39.0
32.5°	66.9	35.6	26.9
35°	53.9	24.2	17.0
37.5°	41.5	14.9	8.7
40°	30.0	7.7	4.0
42.5°	20.1	3.7	2.2
45°	12.4	1.9	0.0
47.5°	7.1	0.0	0.0
50°	3.7	0.0	0.0
52.5°	1.5	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.9
87.5°	1.5	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.1
102.5°	1.9	2.8	2.8
105°	1.5	2.2	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	130.1	126.4	114.0	93.5	65.4	36.5	13.6	2.5	0.6	0.9	0.9
110°	113.4	110.3	97.6	77.7	52.7	27.3	9.0	1.5	0.9	0.9	0.9





107.5°	1.2	1.9	2.2
110°	1.2	1.5	1.9



(END OF REPORT)