

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: P550981

Luminaire Tested: **FCC-X-2-LD4-1STD-30-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: P550981
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-82-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

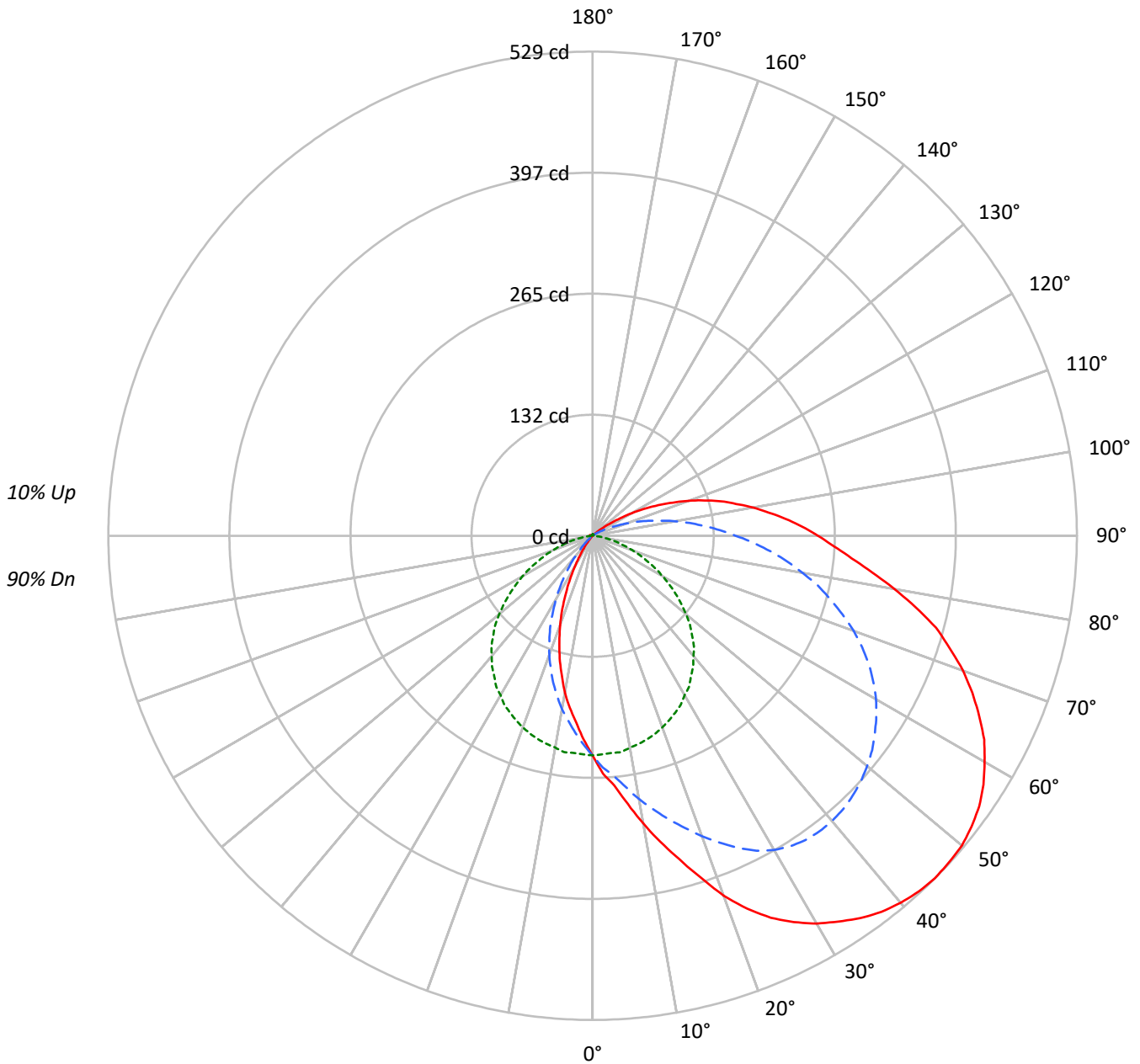
Lumens per Lamp: N/A
Luminaire Lumens: 1185.9 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2582	2582	2582
5°	2834	2545	2123
10°	3208	2513	1750
15°	3595	2481	1363
20°	4055	2441	1004
25°	4435	2394	660
30°	4719	2331	371
35°	4965	2263	164
40°	5182	2180	40
45°	5368	2076	0
50°	5526	1937	0
55°	5645	1761	0
60°	5705	1557	0
65°	5727	1326	0
70°	5709	1080	0
75°	5636	797	4
80°	5407	486	24
85°	5227	234	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	1.9
10°-20°	68.8	5.8
20°-30°	111.4	9.4
30°-40°	143.1	12.1
40°-50°	162.0	13.7
50°-60°	167.9	14.2
60°-70°	158.3	13.3
70°-80°	132.7	11.2
80°-90°	96.2	8.1
90°-100°	63.2	5.3
100°-110°	36.5	3.1
110°-120°	16.1	1.4
120°-130°	4.3	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°	203.2	17.1
0°-40°	346.3	29.2
0°-60°	676.2	57.0
0°-90°	1063.3	89.7
90°-120°	115.8	9.8
90°-150°	121.8	10.3
90°-180°	123.0	10.4
0°-180°	1185.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	240	240	240	240	240	
5°	274	263	238	216	205	28
15°	366	321	230	166	139	105
25°	460	376	213	109	68	213
35°	510	406	187	53	17	320
45°	529	402	153	12	0	408
55°	516	376	111	0	0	460
65°	466	333	66	0	0	461
75°	388	269	28	0	0	407
85°	284	195	5	1	2	243
90°	246	156	1	2	2	135
95°	212	122	1	2	3	166
105°	146	63	1	2	2	154
115°	79	21	1	1	2	79
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°	239.9	239.9	239.9	239.9	239.9	239.9	239.9	239.9	239.9	239.9	239.9
2.5°	260.1	259.8	258.8	257.3	255.2	251.5	248.5	245.7	242.0	239.0	233.2
5°	273.8	272.3	271.1	269.5	264.7	261.3	255.8	249.7	243.9	238.1	226.5
7.5°	295.8	293.4	291.5	287.3	280.5	272.9	264.3	258.5	254.6	238.4	218.5
10°	319.4	317.2	313.5	305.9	297.7	286.7	274.4	260.7	248.5	235.0	211.5
12.5°	342.6	339.5	334.3	324.6	312.9	299.2	282.4	266.2	248.8	232.9	203.2
15°	365.8	362.4	356.9	345.0	329.7	311.7	291.2	270.8	250.3	230.1	194.7
17.5°	391.2	386.6	378.3	364.9	345.6	323.3	299.2	274.4	249.7	226.8	185.5
20°	418.4	412.0	403.1	385.1	362.4	336.2	307.1	278.1	249.4	222.8	175.1
22.5°	441.0	434.6	424.8	406.1	378.9	346.9	313.9	280.5	248.2	218.2	165.3
25°	460.5	455.4	444.7	423.3	394.5	358.2	320.3	282.4	246.3	213.3	154.9
27.5°	475.8	470.9	459.0	437.0	407.7	368.3	325.2	283.3	243.9	208.4	144.2
30°	489.3	484.4	470.0	447.4	416.5	376.2	330.1	283.6	240.8	201.1	132.6
32.5°	499.7	495.1	480.4	456.3	422.7	381.7	332.8	283.3	236.8	195.9	120.1
35°	510.1	505.5	488.4	462.7	427.2	384.1	334.9	281.8	232.0	187.3	108.2
37.5°	518.0	512.8	495.4	467.0	429.4	384.8	334.6	279.6	226.8	180.3	96.3
40°	523.5	518.0	499.4	469.4	430.0	383.8	332.2	276.0	220.6	171.4	83.7
42.5°	527.2	521.1	501.2	473.1	428.8	381.4	328.5	271.4	213.9	163.8	71.8
45°	529.0	522.6	501.5	470.0	426.6	376.8	323.0	265.6	206.6	153.4	59.9
47.5°	528.1	521.1	500.0	466.7	422.7	371.9	316.9	258.5	197.7	144.2	48.6
50°	526.6	519.2	496.6	462.4	417.1	365.8	310.2	250.0	188.6	132.9	38.5
52.5°	521.7	514.3	492.9	456.3	410.7	358.8	301.0	241.1	178.8	121.9	29.3
55°	515.6	508.8	486.5	450.8	402.5	350.2	292.5	231.6	169.3	110.6	21.1
57.5°	506.1	500.0	478.6	441.9	394.2	340.7	283.0	221.3	157.4	99.3	14.7
60°	494.5	488.4	467.6	431.8	384.8	330.1	272.6	210.6	146.7	88.0	9.2
62.5°	482.2	476.4	454.7	419.3	372.8	318.7	261.3	199.9	135.4	77.6	5.5
65°	466.0	460.5	441.0	404.3	359.7	306.5	248.8	187.0	123.8	66.0	3.1
67.5°	448.9	444.0	424.2	390.6	344.4	293.1	235.9	174.5	111.5	55.9	1.5
70°	430.6	424.5	406.1	371.9	328.8	277.8	221.9	161.7	99.9	46.1	0.0
72.5°	409.2	404.6	386.9	354.5	310.8	261.6	207.5	147.6	87.1	36.7	0.3
75°	388.4	382.6	366.4	335.9	293.1	244.5	191.6	134.5	74.6	28.1	0.3
77.5°	361.5	359.7	344.4	314.8	276.3	228.0	174.2	118.6	62.6	20.2	0.3
80°	334.6	332.8	320.9	293.7	256.7	208.4	158.0	103.6	51.0	13.4	0.3
82.5°	308.0	305.6	294.3	271.7	236.8	191.9	141.2	88.6	40.3	8.3	0.3
85°	284.2	281.2	268.9	248.2	216.4	173.3	123.8	74.0	29.9	4.6	0.6
87.5°	263.7	261.6	248.2	226.8	195.6	155.9	108.5	59.9	21.1	2.1	0.9
90°	246.3	241.7	229.8	207.2	176.0	136.6	92.3	48.0	14.1	1.2	1.2
92.5°	229.2	225.2	212.1	188.9	158.6	120.1	76.7	36.7	8.9	0.6	1.5
95°	211.5	207.2	194.4	173.0	140.9	103.3	63.0	26.9	4.9	0.6	1.5
97.5°	194.1	190.1	176.6	155.2	125.0	88.6	49.8	18.9	2.4	0.6	1.2
100°	177.9	173.3	161.1	139.7	109.1	74.0	38.5	12.2	1.5	0.6	1.2
102.5°	160.7	157.1	144.6	123.8	92.6	60.2	28.7	7.6	0.6	0.6	0.9
105°	145.5	140.9	128.7	107.3	78.8	47.4	20.2	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°	94.7	91.1	80.4	62.3	40.0	18.6	5.5	0.9	0.9	0.9	0.9
115°	79.2	73.7	64.2	48.3	29.6	12.2	2.8	0.9	0.9	0.9	0.9
117.5°	63.3	58.7	52.0	36.7	19.6	7.9	1.5	0.9	0.9	0.9	0.9
120°	49.5	45.2	37.6	25.4	13.1	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.5	32.1	25.4	16.5	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.5	21.7	16.8	10.1	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.3	13.8	9.8	5.8	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.6	7.6	5.8	3.4	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.9	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°	239.9	239.9	239.9
2.5°	228.3	224.0	222.8
5°	216.1	209.0	205.1
7.5°	203.8	194.4	189.8
10°	192.5	179.1	174.2
12.5°	179.1	163.5	155.9
15°	166.2	146.1	138.7
17.5°	151.9	129.3	120.7
20°	138.4	112.5	103.6
22.5°	123.2	96.0	86.2
25°	109.4	79.5	68.5
27.5°	94.1	62.6	53.2
30°	79.8	48.0	38.5
32.5°	66.0	35.1	26.6
35°	53.2	23.8	16.8
37.5°	41.0	14.7	8.6
40°	29.6	7.6	4.0
42.5°	19.9	3.7	2.1
45°	12.2	1.8	0.0
47.5°	7.0	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	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.8
97.5°	2.4	2.8	2.8
100°	2.1	2.8	3.1
102.5°	1.8	2.8	2.8
105°	1.5	2.1	2.4



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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°	128.4	124.7	112.5	92.3	64.5	36.1	13.4	2.4	0.6	0.9	0.9
110°	111.9	108.8	96.3	76.7	52.0	26.9	8.9	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)