

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: P551036

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-86-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: P551036
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-82-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

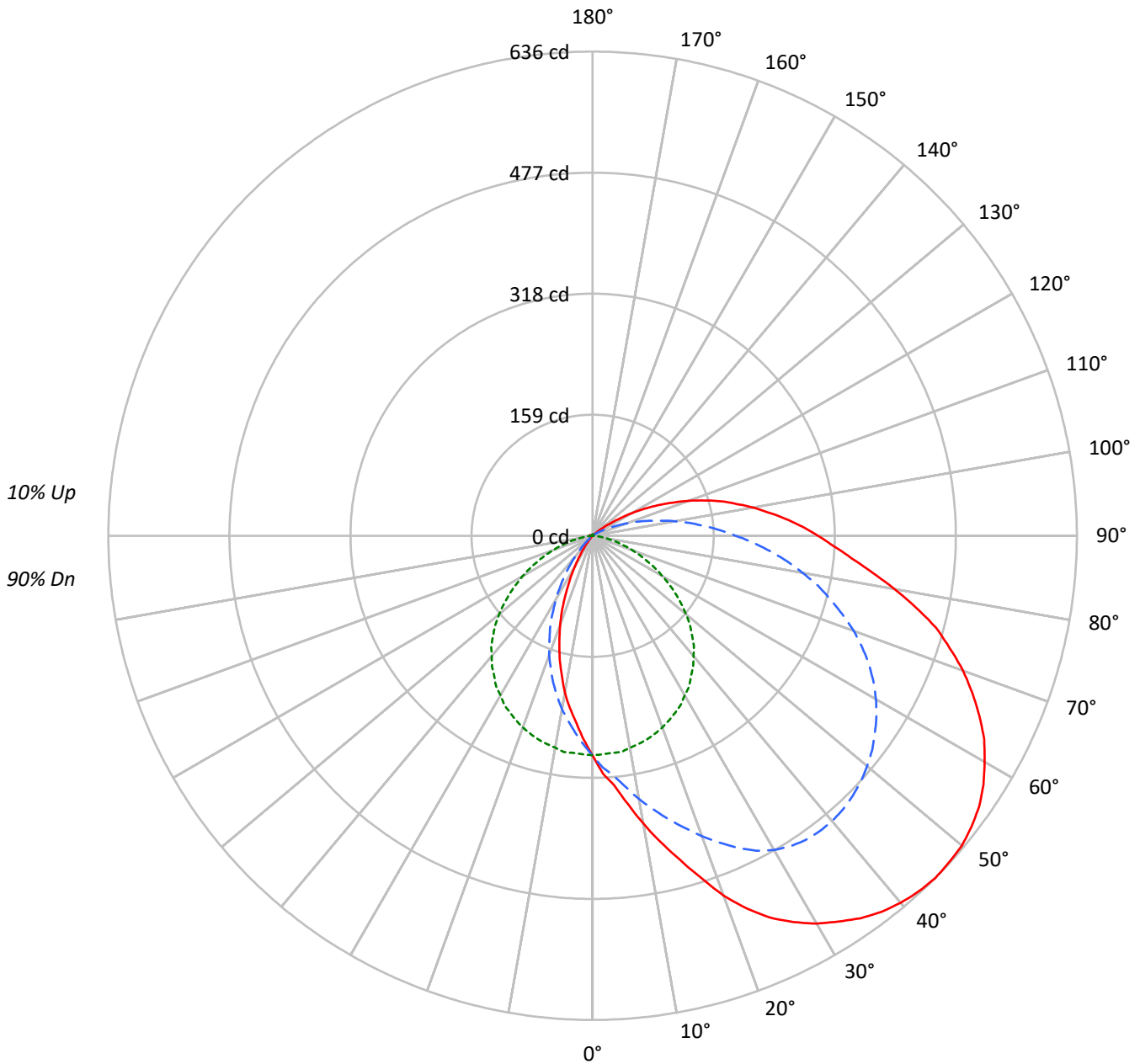
Lumens per Lamp: N/A
Luminaire Lumens: 1426.0 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3104	3104	3104
5°	3408	3059	2553
10°	3857	3022	2103
15°	4322	2984	1639
20°	4875	2935	1208
25°	5333	2879	793
30°	5674	2803	447
35°	5969	2721	197
40°	6230	2621	48
45°	6455	2496	0
50°	6643	2329	0
55°	6787	2118	0
60°	6859	1872	0
65°	6888	1595	0
70°	6864	1300	0
75°	6777	959	6
80°	6503	588	29
85°	6285	280	40



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.6	1.9
10°-20°	82.7	5.8
20°-30°	134.0	9.4
30°-40°	172.1	12.1
40°-50°	194.8	13.7
50°-60°	201.8	14.2
60°-70°	190.3	13.3
70°-80°	159.5	11.2
80°-90°	115.6	8.1
90°-100°	76.0	5.3
100°-110°	43.9	3.1
110°-120°	19.4	1.4
120°-130°	5.2	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°	244.3	17.1
0°-40°	416.4	29.2
0°-60°	813.0	57.0
0°-90°	1278.5	89.7
90°-120°	139.2	9.8
90°-150°	146.5	10.3
90°-180°	147.0	10.3
0°-180°	1426.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	288	288	288	288	288	
5°	329	316	286	260	247	33
15°	440	386	277	200	167	127
25°	554	452	256	132	82	256
35°	613	488	225	64	20	385
45°	636	483	184	15	0	491
55°	620	452	133	0	0	554
65°	560	400	79	0	0	554
75°	467	323	34	0	0	490
85°	342	234	6	2	2	292
90°	296	188	2	2	3	162
95°	254	147	1	3	3	199
105°	175	76	1	2	3	185
115°	95	25	1	1	2	95
125°	28	4	2	1	2	28
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°	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4
2.5°	312.7	312.3	311.2	309.4	306.8	302.4	298.7	295.4	291.0	287.3	280.4
5°	329.2	327.4	325.9	324.1	318.2	314.2	307.6	300.2	293.2	286.2	272.3
7.5°	355.7	352.7	350.5	345.4	337.3	328.1	317.8	310.9	306.1	286.6	262.7
10°	384.0	381.4	377.0	367.8	357.9	344.7	330.0	313.4	298.7	282.6	254.3
12.5°	411.9	408.2	402.0	390.2	376.3	359.7	339.5	320.0	299.1	280.0	244.4
15°	439.8	435.8	429.2	414.8	396.5	374.8	350.2	325.6	300.9	276.7	234.1
17.5°	470.3	464.8	454.9	438.7	415.6	388.8	359.7	330.0	300.2	272.6	223.0
20°	503.0	495.3	484.7	463.0	435.8	404.2	369.3	334.4	299.8	267.9	210.5
22.5°	530.2	522.5	510.8	488.3	455.6	417.1	377.4	337.3	298.4	262.4	198.8
25°	553.7	547.5	534.6	508.9	474.4	430.6	385.1	339.5	296.2	256.5	186.3
27.5°	572.1	566.2	551.9	525.4	490.2	442.8	391.0	340.6	293.2	250.6	173.4
30°	588.3	582.4	565.1	537.9	500.8	452.3	396.8	341.0	289.5	241.8	159.5
32.5°	600.8	595.3	577.6	548.6	508.2	458.9	400.1	340.6	284.8	235.5	144.4
35°	613.3	607.8	587.2	556.3	513.7	461.9	402.7	338.8	278.9	225.2	130.1
37.5°	622.8	616.6	595.6	561.5	516.3	462.6	402.4	336.2	272.6	216.8	115.7
40°	629.4	622.8	600.4	564.4	517.0	461.5	399.4	331.8	265.3	206.1	100.7
42.5°	633.8	626.5	602.6	568.8	515.5	458.6	395.0	326.3	257.2	197.0	86.3
45°	636.1	628.3	603.0	565.1	513.0	453.1	388.4	319.3	248.4	184.5	72.0
47.5°	634.9	626.5	601.1	561.1	508.2	447.2	381.0	310.9	237.7	173.4	58.4
50°	633.1	624.3	597.1	555.9	501.6	439.8	373.0	300.6	226.7	159.8	46.3
52.5°	627.2	618.4	592.7	548.6	493.8	431.4	361.9	289.9	215.0	146.6	35.3
55°	619.9	611.8	585.0	542.0	483.9	421.1	351.6	278.5	203.6	133.0	25.4
57.5°	608.5	601.1	575.4	531.3	474.0	409.7	340.3	266.0	189.2	119.4	17.6
60°	594.5	587.2	562.2	519.2	462.6	396.8	327.8	253.2	176.4	105.8	11.0
62.5°	579.8	572.8	546.8	504.1	448.3	383.2	314.2	240.3	162.8	93.3	6.6
65°	560.4	553.7	530.2	486.1	432.5	368.5	299.1	224.9	148.8	79.4	3.7
67.5°	539.8	533.9	510.0	469.6	414.1	352.4	283.7	209.8	134.1	67.2	1.8
70°	517.7	510.4	488.3	447.2	395.4	334.0	266.8	194.4	120.2	55.5	0.0
72.5°	492.0	486.5	465.2	426.2	373.7	314.5	249.5	177.5	104.7	44.1	0.4
75°	467.0	460.0	440.6	403.8	352.4	294.0	230.4	161.7	89.7	33.8	0.4
77.5°	434.7	432.5	414.1	378.5	332.2	274.1	209.4	142.6	75.3	24.3	0.4
80°	402.4	400.1	385.8	353.1	308.7	250.6	190.0	124.6	61.4	16.2	0.4
82.5°	370.4	367.4	353.9	326.7	284.8	230.8	169.8	106.6	48.5	9.9	0.4
85°	341.7	338.1	323.4	298.4	260.2	208.3	148.8	88.9	36.0	5.5	0.7
87.5°	317.1	314.5	298.4	272.6	235.2	187.4	130.4	72.0	25.4	2.6	1.1
90°	296.2	290.7	276.3	249.1	211.6	164.2	111.0	57.7	16.9	1.5	1.5
92.5°	275.6	270.8	255.0	227.1	190.7	144.4	92.2	44.1	10.7	0.7	1.8
95°	254.3	249.1	233.7	208.0	169.4	124.2	75.7	32.3	5.9	0.7	1.8
97.5°	233.3	228.6	212.4	186.7	150.3	106.6	59.9	22.8	2.9	0.7	1.5
100°	213.9	208.3	193.6	167.9	131.2	88.9	46.3	14.7	1.8	0.7	1.5
102.5°	193.3	188.9	173.8	148.8	111.3	72.4	34.5	9.2	0.7	0.7	1.1
105°	174.9	169.4	154.7	129.0	94.8	57.0	24.3	5.5	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	113.9	109.5	96.6	75.0	48.1	22.4	6.6	1.1	1.1	1.1	1.1
115°	95.2	88.6	77.2	58.1	35.6	14.7	3.3	1.1	1.1	1.1	1.1
117.5°	76.1	70.5	62.5	44.1	23.5	9.6	1.8	1.1	1.1	1.1	1.1
120°	59.5	54.4	45.2	30.5	15.8	5.5	0.7	1.1	1.1	1.1	1.1
122.5°	42.6	38.6	30.5	19.8	9.6	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.3	26.1	20.2	12.1	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.4	16.5	11.8	7.0	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.3	9.2	7.0	4.0	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.5	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	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°	288.4	288.4	288.4
2.5°	274.5	269.3	267.9
5°	259.8	251.3	246.6
7.5°	245.1	233.7	228.2
10°	231.5	215.3	209.4
12.5°	215.3	196.6	187.4
15°	199.9	175.6	166.8
17.5°	182.6	155.4	145.1
20°	166.5	135.2	124.6
22.5°	148.1	115.4	103.6
25°	131.5	95.5	82.3
27.5°	113.2	75.3	63.9
30°	95.9	57.7	46.3
32.5°	79.4	42.3	32.0
35°	63.9	28.7	20.2
37.5°	49.2	17.6	10.3
40°	35.6	9.2	4.8
42.5°	23.9	4.4	2.6
45°	14.7	2.2	0.0
47.5°	8.5	0.0	0.0
50°	4.4	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	2.9	2.9
95°	2.6	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.8	2.6	2.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
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	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	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°	154.3	149.9	135.2	111.0	77.5	43.4	16.2	2.9	0.7	1.1	1.1
110°	134.5	130.8	115.7	92.2	62.5	32.3	10.7	1.8	1.1	1.1	1.1





107.5°	1.5	2.2	2.6
110°	1.5	1.8	2.2



(END OF REPORT)