

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: P551483

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-86-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: P551483
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-LD4-2LO-30-UNV-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

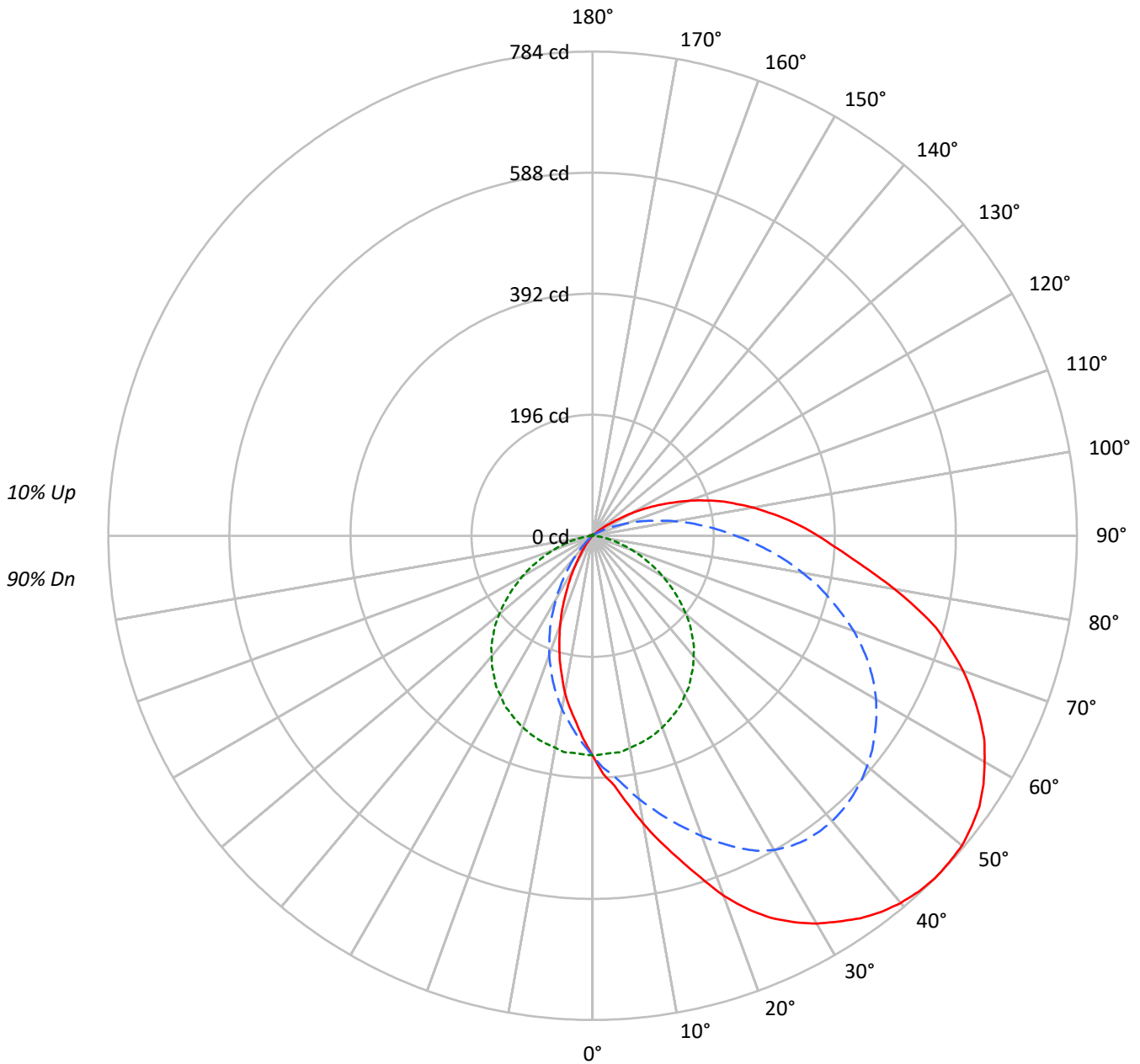
Lumens per Lamp: N/A
Luminaire Lumens: 1758.1 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-86-ED1D-90

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°	3828	3828	3828
5°	4202	3772	3147
10°	4755	3726	2593
15°	5328	3678	2021
20°	6010	3618	1489
25°	6575	3549	978
30°	6994	3456	551
35°	7358	3355	242
40°	7681	3231	58
45°	7957	3077	0
50°	8190	2873	0
55°	8367	2611	0
60°	8455	2309	0
65°	8490	1964	0
70°	8463	1602	0
75°	8355	1183	7
80°	8016	722	37
85°	7749	346	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	1.9
10°-20°	102.0	5.8
20°-30°	165.2	9.4
30°-40°	212.2	12.1
40°-50°	240.2	13.7
50°-60°	248.8	14.2
60°-70°	234.7	13.3
70°-80°	196.7	11.2
80°-90°	142.5	8.1
90°-100°	93.7	5.3
100°-110°	54.1	3.1
110°-120°	23.9	1.4
120°-130°	6.5	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	301.2	17.1
0°-40°	513.4	29.2
0°-60°	1002.4	57.0
0°-90°	1576.2	89.7
90°-120°	171.7	9.8
90°-150°	180.6	10.3
90°-180°	182.0	10.4
0°-180°	1758.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	356	356	356	356	356	
5°	406	390	353	320	304	41
15°	542	475	341	246	206	156
25°	683	558	316	162	102	316
35°	756	601	278	79	25	474
45°	784	595	227	18	0	605
55°	764	558	164	0	0	682
65°	691	494	98	0	0	683
75°	576	398	42	0	0	604
85°	421	289	7	2	3	360
90°	365	232	2	3	3	200
95°	314	181	1	3	4	246
105°	216	94	1	2	4	228
115°	117	31	1	1	2	117
125°	35	4	2	1	2	35
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6	355.6
2.5°	385.5	385.0	383.7	381.4	378.3	372.8	368.3	364.2	358.8	354.2	345.6
5°	405.9	403.6	401.8	399.5	392.3	387.3	379.2	370.1	361.5	352.9	335.7
7.5°	438.5	434.9	432.2	425.8	415.8	404.5	391.8	383.2	377.3	353.3	323.9
10°	473.4	470.2	464.8	453.4	441.2	424.9	406.8	386.4	368.3	348.4	313.5
12.5°	507.8	503.3	495.6	481.1	463.9	443.5	418.6	394.6	368.7	345.2	301.2
15°	542.2	537.3	529.1	511.4	488.8	462.1	431.7	401.4	371.0	341.1	288.6
17.5°	579.8	573.0	560.8	540.9	512.3	479.3	443.5	406.8	370.1	336.1	275.0
20°	620.2	610.6	597.5	570.8	537.3	498.3	455.3	412.2	369.6	330.2	259.6
22.5°	653.7	644.2	629.7	602.0	561.7	514.1	465.2	415.8	367.8	323.4	245.1
25°	682.7	675.0	659.1	627.4	584.8	530.9	474.7	418.6	365.1	316.2	229.7
27.5°	705.3	698.1	680.4	647.8	604.3	545.9	482.0	419.9	361.5	308.9	213.8
30°	725.2	718.0	696.7	663.2	617.4	557.6	489.2	420.4	357.0	298.1	196.6
32.5°	740.6	733.9	712.1	676.3	626.5	565.8	493.3	419.9	351.1	290.4	178.0
35°	756.0	749.3	723.9	685.8	633.3	569.4	496.5	417.7	343.8	277.7	160.4
37.5°	767.8	760.1	734.3	692.2	636.5	570.3	496.0	414.5	336.1	267.3	142.7
40°	776.0	767.8	740.2	695.8	637.4	569.0	492.4	409.1	327.1	254.1	124.1
42.5°	781.4	772.4	742.9	701.2	635.6	565.3	487.0	402.3	317.1	242.8	106.5
45°	784.1	774.6	743.4	696.7	632.4	558.5	478.8	393.7	306.2	227.4	88.8
47.5°	782.8	772.4	741.1	691.7	626.5	551.3	469.8	383.2	293.1	213.8	72.0
50°	780.5	769.6	736.1	685.4	618.3	542.2	459.8	370.6	279.5	197.1	57.1
52.5°	773.3	762.4	730.7	676.3	608.8	531.8	446.2	357.4	265.0	180.7	43.5
55°	764.2	754.2	721.2	668.2	596.6	519.1	433.5	343.4	251.0	164.0	31.3
57.5°	750.2	741.1	709.4	655.0	584.4	505.1	419.5	328.0	233.3	147.2	21.7
60°	732.9	723.9	693.1	640.1	570.3	489.2	404.1	312.1	217.4	130.5	13.6
62.5°	714.8	706.2	674.1	621.5	552.7	472.5	387.3	296.3	200.7	115.1	8.2
65°	690.8	682.7	653.7	599.3	533.2	454.4	368.7	277.2	183.5	97.8	4.5
67.5°	665.4	658.2	628.8	578.9	510.5	434.4	349.7	258.7	165.3	82.9	2.3
70°	638.3	629.2	602.0	551.3	487.4	411.8	328.9	239.6	148.1	68.4	0.0
72.5°	606.6	599.8	573.5	525.5	460.7	387.8	307.6	218.8	129.1	54.4	0.5
75°	575.8	567.1	543.1	497.8	434.4	362.4	284.0	199.3	110.5	41.7	0.5
77.5°	535.9	533.2	510.5	466.6	409.5	337.9	258.2	175.8	92.9	29.9	0.5
80°	496.0	493.3	475.6	435.3	380.5	308.9	234.2	153.6	75.7	19.9	0.5
82.5°	456.6	453.0	436.2	402.7	351.1	284.5	209.3	131.4	59.8	12.2	0.5
85°	421.3	416.8	398.6	367.8	320.7	256.8	183.5	109.6	44.4	6.8	0.9
87.5°	390.9	387.8	367.8	336.1	289.9	231.0	160.8	88.8	31.3	3.2	1.4
90°	365.1	358.3	340.7	307.1	260.9	202.5	136.8	71.1	20.8	1.8	1.8
92.5°	339.7	333.9	314.4	280.0	235.1	178.0	113.7	54.4	13.1	0.9	2.3
95°	313.5	307.1	288.1	256.4	208.8	153.1	93.3	39.9	7.2	0.9	2.3
97.5°	287.7	281.8	261.8	230.1	185.3	131.4	73.8	28.1	3.6	0.9	1.8
100°	263.6	256.8	238.7	207.0	161.7	109.6	57.1	18.1	2.3	0.9	1.8
102.5°	238.3	232.8	214.3	183.5	137.3	89.2	42.6	11.3	0.9	0.9	1.4
105°	215.6	208.8	190.7	159.0	116.9	70.2	29.9	6.8	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	140.4	135.0	119.1	92.4	59.3	27.6	8.2	1.4	1.4	1.4	1.4
115°	117.3	109.2	95.1	71.6	43.9	18.1	4.1	1.4	1.4	1.4	1.4
117.5°	93.8	87.0	77.0	54.4	29.0	11.8	2.3	1.4	1.4	1.4	1.4
120°	73.4	67.0	55.7	37.6	19.5	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.5	47.6	37.6	24.5	11.8	3.2	1.4	1.4	1.8	1.8	1.4
125°	34.9	32.2	24.9	14.9	7.2	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.6	20.4	14.5	8.6	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.7	11.3	8.6	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.2	6.8	4.5	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	355.6	355.6	355.6
2.5°	338.4	332.0	330.2
5°	320.3	309.8	304.0
7.5°	302.1	288.1	281.3
10°	285.4	265.5	258.2
12.5°	265.5	242.4	231.0
15°	246.4	216.5	205.7
17.5°	225.1	191.6	178.9
20°	205.2	166.7	153.6
22.5°	182.6	142.2	127.7
25°	162.2	117.8	101.5
27.5°	139.5	92.9	78.8
30°	118.2	71.1	57.1
32.5°	97.8	52.1	39.4
35°	78.8	35.3	24.9
37.5°	60.7	21.7	12.7
40°	43.9	11.3	5.9
42.5°	29.4	5.4	3.2
45°	18.1	2.7	0.0
47.5°	10.4	0.0	0.0
50°	5.4	0.0	0.0
52.5°	2.3	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.7
87.5°	2.3	2.7	3.2
90°	2.7	3.2	3.2
92.5°	2.7	3.6	3.6
95°	3.2	3.6	4.1
97.5°	3.6	4.1	4.1
100°	3.2	4.1	4.5
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.8	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	190.3	184.8	166.7	136.8	95.6	53.5	19.9	3.6	0.9	1.4	1.4
110°	165.8	161.3	142.7	113.7	77.0	39.9	13.1	2.3	1.4	1.4	1.4





107.5°	1.8	2.7	3.2
110°	1.8	2.3	2.7



(END OF REPORT)