

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: P551487

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-88-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: P551487
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-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

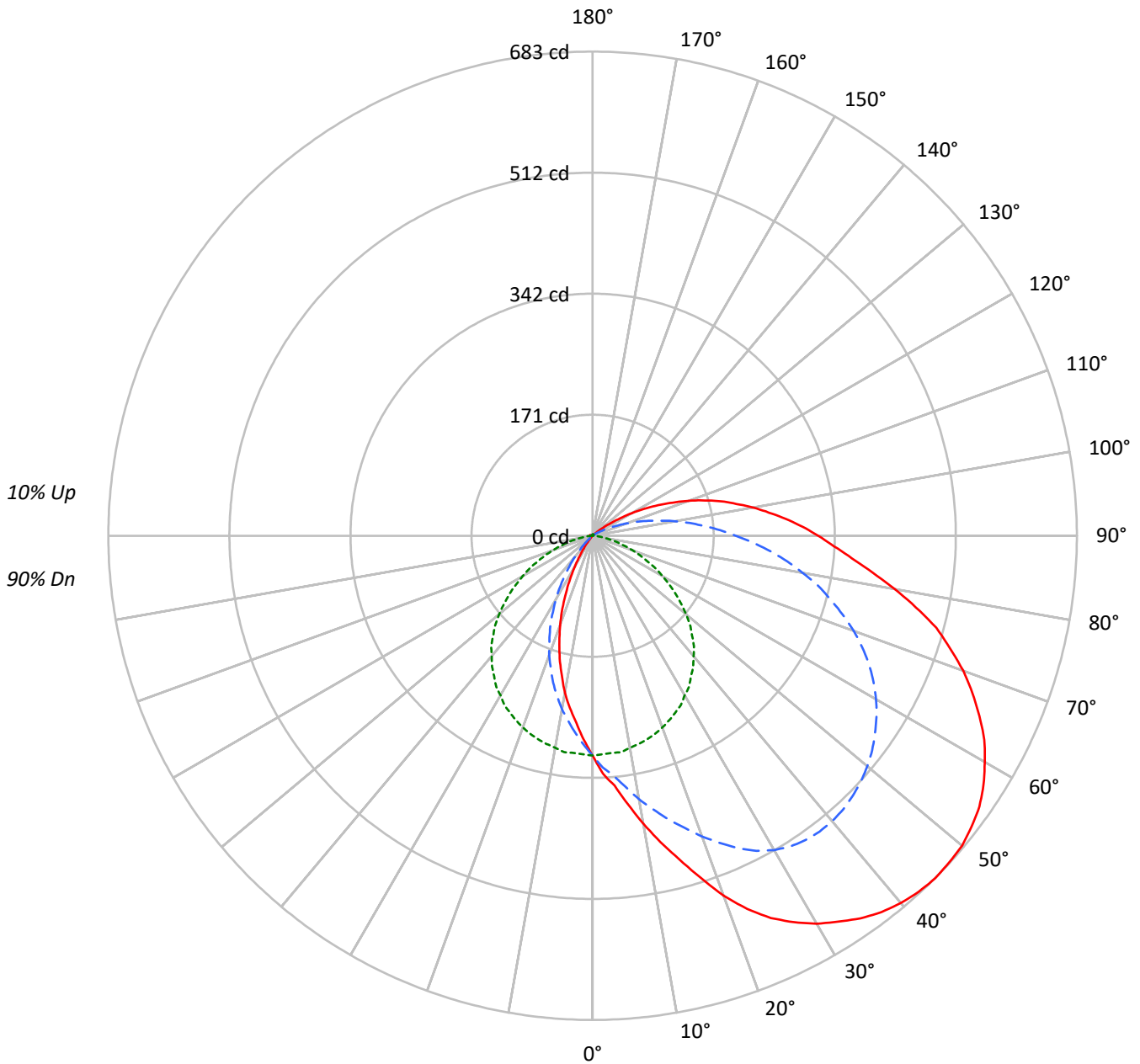
Lumens per Lamp: N/A
Luminaire Lumens: 1532.1 lumens
Efficiency: N/A
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3336	3336	3336
5°	3662	3287	2742
10°	4143	3247	2260
15°	4643	3206	1761
20°	5237	3153	1297
25°	5730	3092	851
30°	6096	3012	479
35°	6413	2924	211
40°	6693	2817	50
45°	6934	2682	0
50°	7137	2502	0
55°	7292	2275	0
60°	7369	2012	0
65°	7399	1713	0
70°	7374	1396	0
75°	7280	1029	6
80°	6986	631	32
85°	6752	300	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	1.9
10°-20°	88.9	5.8
20°-30°	143.9	9.4
30°-40°	184.9	12.1
40°-50°	209.3	13.7
50°-60°	216.8	14.2
60°-70°	204.5	13.3
70°-80°	171.4	11.2
80°-90°	124.2	8.1
90°-100°	81.7	5.3
100°-110°	47.2	3.1
110°-120°	20.8	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	262.5	17.1
0°-40°	447.4	29.2
0°-60°	873.5	57.0
0°-90°	1373.6	89.7
90°-120°	149.6	9.8
90°-150°	157.4	10.3
90°-180°	159.0	10.4
0°-180°	1532.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	310	310	310	310	310	
5°	354	340	308	279	265	36
15°	472	414	297	215	179	136
25°	595	486	276	141	88	275
35°	659	524	242	69	22	413
45°	683	519	198	16	0	528
55°	666	486	143	0	0	595
65°	602	430	85	0	0	596
75°	502	347	36	0	0	526
85°	367	252	6	2	2	314
90°	318	202	2	2	3	174
95°	273	158	1	3	4	214
105°	188	82	1	2	3	198
115°	102	27	1	1	2	102
125°	30	4	2	1	2	30
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°	309.9	309.9	309.9	309.9	309.9	309.9	309.9	309.9	309.9	309.9	309.9
2.5°	335.9	335.5	334.4	332.4	329.6	324.9	320.9	317.4	312.7	308.7	301.2
5°	353.7	351.7	350.2	348.2	341.9	337.5	330.4	322.5	315.0	307.5	292.5
7.5°	382.1	379.0	376.6	371.1	362.4	352.5	341.5	334.0	328.8	307.9	282.3
10°	412.5	409.8	405.0	395.2	384.5	370.3	354.5	336.7	320.9	303.6	273.2
12.5°	442.5	438.6	431.9	419.2	404.2	386.5	364.8	343.8	321.3	300.8	262.5
15°	472.5	468.2	461.1	445.7	425.9	402.7	376.2	349.8	323.3	297.3	251.5
17.5°	505.3	499.4	488.7	471.3	446.5	417.7	386.5	354.5	322.5	292.9	239.6
20°	540.4	532.1	520.7	497.4	468.2	434.2	396.7	359.2	322.1	287.8	226.2
22.5°	569.6	561.3	548.7	524.6	489.5	448.1	405.4	362.4	320.5	281.9	213.6
25°	594.9	588.2	574.4	546.7	509.6	462.7	413.7	364.8	318.2	275.5	200.1
27.5°	614.6	608.3	592.9	564.5	526.6	475.7	420.0	365.9	315.0	269.2	186.3
30°	632.0	625.7	607.1	577.9	538.1	485.9	426.3	366.3	311.1	259.8	171.3
32.5°	645.4	639.5	620.6	589.4	546.0	493.1	429.9	365.9	305.9	253.0	155.1
35°	658.9	652.9	630.8	597.7	551.9	496.2	432.7	364.0	299.6	242.0	139.7
37.5°	669.1	662.4	639.9	603.2	554.6	497.0	432.3	361.2	292.9	232.9	124.3
40°	676.2	669.1	645.0	606.4	555.4	495.8	429.1	356.5	285.0	221.5	108.2
42.5°	681.0	673.1	647.4	611.1	553.8	492.7	424.4	350.5	276.3	211.6	92.8
45°	683.3	675.0	647.8	607.1	551.1	486.7	417.3	343.0	266.9	198.2	77.4
47.5°	682.1	673.1	645.8	602.8	546.0	480.4	409.4	334.0	255.4	186.3	62.8
50°	680.2	670.7	641.5	597.3	538.8	472.5	400.7	322.9	243.6	171.7	49.7
52.5°	673.9	664.4	636.7	589.4	530.6	463.4	388.8	311.5	230.9	157.5	37.9
55°	666.0	657.3	628.5	582.3	519.9	452.4	377.8	299.2	218.7	142.9	27.2
57.5°	653.7	645.8	618.2	570.8	509.2	440.2	365.5	285.8	203.3	128.3	18.9
60°	638.7	630.8	604.0	557.8	497.0	426.3	352.1	272.0	189.5	113.7	11.8
62.5°	622.9	615.4	587.4	541.6	481.6	411.7	337.5	258.2	174.9	100.3	7.1
65°	602.0	594.9	569.6	522.3	464.6	395.9	321.3	241.6	159.9	85.3	3.9
67.5°	579.9	573.6	547.9	504.5	444.9	378.6	304.8	225.4	144.1	72.2	2.0
70°	556.2	548.3	524.6	480.4	424.8	358.8	286.6	208.8	129.1	59.6	0.0
72.5°	528.6	522.7	499.8	457.9	401.5	337.9	268.0	190.7	112.5	47.4	0.4
75°	501.7	494.2	473.3	433.8	378.6	315.8	247.5	173.7	96.3	36.3	0.4
77.5°	467.0	464.6	444.9	406.6	356.9	294.5	225.0	153.2	80.9	26.1	0.4
80°	432.3	429.9	414.5	379.4	331.6	269.2	204.1	133.8	65.9	17.4	0.4
82.5°	397.9	394.8	380.2	350.9	305.9	247.9	182.4	114.5	52.1	10.7	0.4
85°	367.1	363.2	347.4	320.5	279.5	223.8	159.9	95.5	38.7	5.9	0.8
87.5°	340.7	337.9	320.5	292.9	252.6	201.3	140.1	77.4	27.2	2.8	1.2
90°	318.2	312.3	296.9	267.6	227.4	176.5	119.2	62.0	18.2	1.6	1.6
92.5°	296.1	290.9	274.0	244.0	204.9	155.1	99.1	47.4	11.4	0.8	2.0
95°	273.2	267.6	251.1	223.4	182.0	133.4	81.3	34.7	6.3	0.8	2.0
97.5°	250.7	245.5	228.2	200.5	161.5	114.5	64.3	24.5	3.2	0.8	1.6
100°	229.8	223.8	208.0	180.4	140.9	95.5	49.7	15.8	2.0	0.8	1.6
102.5°	207.6	202.9	186.7	159.9	119.6	77.8	37.1	9.9	0.8	0.8	1.2
105°	187.9	182.0	166.2	138.6	101.8	61.2	26.1	5.9	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	122.4	117.6	103.8	80.5	51.7	24.1	7.1	1.2	1.2	1.2	1.2
115°	102.2	95.1	82.9	62.4	38.3	15.8	3.6	1.2	1.2	1.2	1.2
117.5°	81.7	75.8	67.1	47.4	25.3	10.3	2.0	1.2	1.2	1.2	1.2
120°	64.0	58.4	48.6	32.8	17.0	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.8	41.4	32.8	21.3	10.3	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.4	28.0	21.7	13.0	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.7	17.8	12.6	7.5	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.1	9.9	7.5	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	309.9	309.9	309.9
2.5°	294.9	289.4	287.8
5°	279.1	270.0	264.9
7.5°	263.3	251.1	245.1
10°	248.7	231.3	225.0
12.5°	231.3	211.2	201.3
15°	214.7	188.7	179.2
17.5°	196.2	167.0	155.9
20°	178.8	145.3	133.8
22.5°	159.1	124.0	111.3
25°	141.3	102.6	88.4
27.5°	121.6	80.9	68.7
30°	103.0	62.0	49.7
32.5°	85.3	45.4	34.3
35°	68.7	30.8	21.7
37.5°	52.9	18.9	11.1
40°	38.3	9.9	5.1
42.5°	25.7	4.7	2.8
45°	15.8	2.4	0.0
47.5°	9.1	0.0	0.0
50°	4.7	0.0	0.0
52.5°	2.0	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	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	3.9
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	165.8	161.1	145.3	119.2	83.3	46.6	17.4	3.2	0.8	1.2	1.2
110°	144.5	140.5	124.3	99.1	67.1	34.7	11.4	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)