

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: P551543

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-82-84-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: P551543
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-35-UNV-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

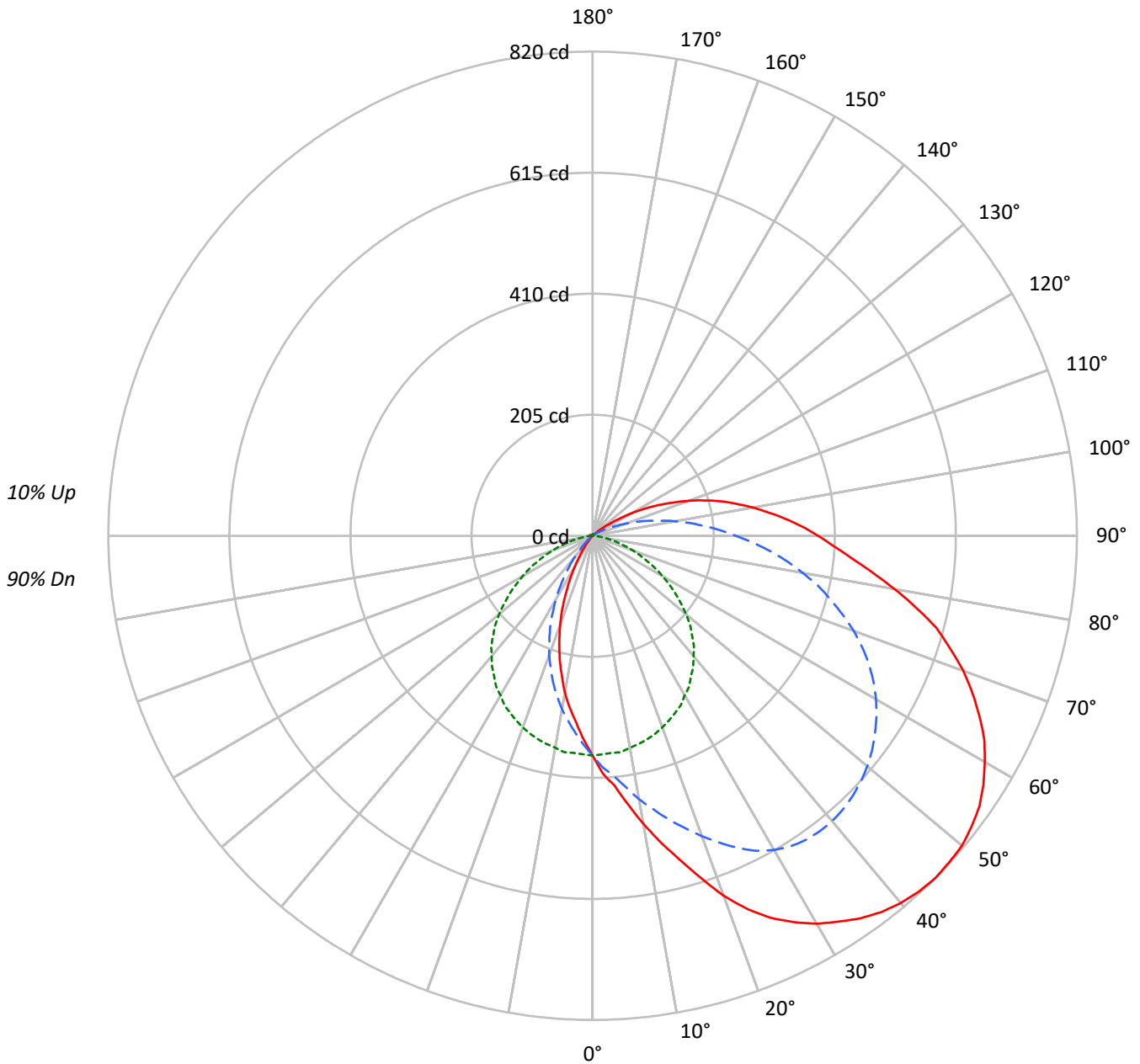
Lumens per Lamp: N/A
Luminaire Lumens: 1839.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	4004	4004	4004
5°	4396	3945	3292
10°	4974	3897	2713
15°	5574	3847	2114
20°	6287	3784	1556
25°	6878	3712	1022
30°	7318	3615	576
35°	7698	3510	254
40°	8035	3380	61
45°	8325	3219	0
50°	8568	3004	0
55°	8752	2731	0
60°	8845	2416	0
65°	8881	2057	0
70°	8853	1677	0
75°	8740	1236	7
80°	8386	758	39
85°	8105	361	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	1.9
10°-20°	106.7	5.8
20°-30°	172.8	9.4
30°-40°	221.9	12.1
40°-50°	251.2	13.7
50°-60°	260.3	14.2
60°-70°	245.5	13.3
70°-80°	205.7	11.2
80°-90°	149.1	8.1
90°-100°	98.0	5.3
100°-110°	56.6	3.1
110°-120°	25.0	1.4
120°-130°	6.8	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°	315.1	17.1
0°-40°	537.0	29.2
0°-60°	1048.5	57.0
0°-90°	1648.8	89.7
90°-120°	179.6	9.8
90°-150°	188.9	10.3
90°-180°	190.0	10.3
0°-180°	1839.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	372	372	372	372	372	
5°	425	408	369	335	318	43
15°	567	497	357	258	215	164
25°	714	584	331	170	106	330
35°	791	629	290	82	26	496
45°	820	623	238	19	0	633
55°	799	584	172	0	0	714
65°	723	516	102	0	0	715
75°	602	417	44	0	0	632
85°	441	302	7	2	3	376
90°	382	242	2	3	3	209
95°	328	189	1	3	4	257
105°	226	98	1	2	4	238
115°	123	32	1	1	2	123
125°	36	4	2	1	2	36
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°	372.0	372.0	372.0	372.0	372.0	372.0	372.0	372.0	372.0	372.0	372.0
2.5°	403.3	402.8	401.4	399.0	395.7	390.0	385.3	381.0	375.3	370.6	361.6
5°	424.6	422.2	420.3	418.0	410.4	405.2	396.6	387.1	378.1	369.1	351.1
7.5°	458.7	454.9	452.1	445.4	435.0	423.2	409.9	400.9	394.7	369.6	338.8
10°	495.2	491.9	486.2	474.3	461.5	444.5	425.5	404.2	385.3	364.4	327.9
12.5°	531.2	526.5	518.4	503.2	485.2	463.9	437.9	412.7	385.7	361.1	315.1
15°	567.2	562.0	553.5	535.0	511.3	483.3	451.6	419.8	388.1	356.8	301.9
17.5°	606.5	599.4	586.6	565.8	535.9	501.4	463.9	425.5	387.1	351.6	287.6
20°	648.7	638.8	625.0	597.1	562.0	521.3	476.2	431.2	386.7	345.4	271.5
22.5°	683.8	673.8	658.7	629.8	587.6	537.8	486.7	435.0	384.8	338.3	256.4
25°	714.1	706.1	689.5	656.3	611.8	555.4	496.6	437.9	381.9	330.8	240.3
27.5°	737.8	730.2	711.7	677.6	632.1	571.0	504.2	439.3	378.1	323.2	223.7
30°	758.7	751.1	728.8	693.7	645.9	583.3	511.8	439.7	373.4	311.8	205.7
32.5°	774.8	767.7	744.9	707.5	655.4	591.9	516.0	439.3	367.2	303.7	186.2
35°	790.9	783.8	757.2	717.4	662.5	595.7	519.4	436.9	359.7	290.5	167.7
37.5°	803.2	795.1	768.1	724.1	665.8	596.6	518.9	433.6	351.6	279.6	149.3
40°	811.7	803.2	774.3	727.9	666.7	595.2	515.1	427.9	342.1	265.8	129.8
42.5°	817.4	807.9	777.1	733.5	664.8	591.4	509.4	420.8	331.7	254.0	111.4
45°	820.3	810.3	777.6	728.8	661.5	584.3	500.9	411.8	320.3	237.9	92.9
47.5°	818.8	807.9	775.2	723.6	655.4	576.7	491.4	400.9	306.6	223.7	75.3
50°	816.5	805.1	770.0	717.0	646.8	567.2	481.0	387.6	292.4	206.1	59.7
52.5°	808.9	797.5	764.3	707.5	636.9	556.3	466.8	373.9	277.2	189.1	45.5
55°	799.4	789.0	754.4	699.0	624.1	543.1	453.5	359.2	262.5	171.5	32.7
57.5°	784.7	775.2	742.1	685.2	611.3	528.4	438.8	343.1	244.0	154.0	22.7
60°	766.7	757.2	725.0	669.6	596.6	511.8	422.7	326.5	227.5	136.5	14.2
62.5°	747.8	738.8	705.1	650.1	578.1	494.2	405.2	309.9	209.9	120.4	8.5
65°	722.6	714.1	683.8	626.9	557.7	475.3	385.7	290.0	191.9	102.4	4.7
67.5°	696.1	688.5	657.7	605.6	534.0	454.4	365.8	270.6	173.0	86.7	2.4
70°	667.7	658.2	629.8	576.7	509.9	430.7	344.0	250.7	155.0	71.6	0.0
72.5°	634.5	627.4	599.9	549.7	481.9	405.6	321.8	228.9	135.1	56.9	0.5
75°	602.3	593.3	568.2	520.8	454.4	379.1	297.1	208.5	115.6	43.6	0.5
77.5°	560.6	557.7	534.0	488.1	428.4	353.5	270.1	183.9	97.1	31.3	0.5
80°	518.9	516.0	497.6	455.4	398.0	323.2	245.0	160.6	79.1	20.9	0.5
82.5°	477.7	473.9	456.3	421.3	367.2	297.6	218.9	137.4	62.6	12.8	0.5
85°	440.7	436.0	417.0	384.8	335.5	268.7	191.9	114.7	46.4	7.1	0.9
87.5°	408.9	405.6	384.8	351.6	303.3	241.7	168.2	92.9	32.7	3.3	1.4
90°	381.9	374.8	356.3	321.3	272.9	211.8	143.1	74.4	21.8	1.9	1.9
92.5°	355.4	349.2	328.9	292.8	245.9	186.2	118.9	56.9	13.7	0.9	2.4
95°	327.9	321.3	301.4	268.2	218.5	160.2	97.6	41.7	7.6	0.9	2.4
97.5°	300.9	294.7	273.9	240.7	193.8	137.4	77.2	29.4	3.8	0.9	1.9
100°	275.8	268.7	249.7	216.6	169.2	114.7	59.7	19.0	2.4	0.9	1.9
102.5°	249.3	243.6	224.1	191.9	143.6	93.4	44.5	11.8	0.9	0.9	1.4
105°	225.6	218.5	199.5	166.3	122.3	73.4	31.3	7.1	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°	146.9	141.2	124.6	96.7	62.1	28.9	8.5	1.4	1.4	1.4	1.4
115°	122.7	114.2	99.5	74.9	46.0	19.0	4.3	1.4	1.4	1.4	1.4
117.5°	98.1	91.0	80.6	56.9	30.3	12.3	2.4	1.4	1.4	1.4	1.4
120°	76.8	70.1	58.3	39.3	20.4	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	55.0	49.8	39.3	25.6	12.3	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.5	33.6	26.1	15.6	7.6	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.7	21.3	15.2	9.0	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.3	11.8	9.0	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.6	7.1	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
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°	372.0	372.0	372.0
2.5°	354.0	347.3	345.4
5°	335.0	324.1	318.0
7.5°	316.1	301.4	294.3
10°	298.5	277.7	270.1
12.5°	277.7	253.5	241.7
15°	257.8	226.5	215.1
17.5°	235.5	200.4	187.2
20°	214.7	174.4	160.6
22.5°	191.0	148.8	133.6
25°	169.6	123.2	106.1
27.5°	146.0	97.1	82.5
30°	123.7	74.4	59.7
32.5°	102.4	54.5	41.2
35°	82.5	37.0	26.1
37.5°	63.5	22.7	13.3
40°	46.0	11.8	6.2
42.5°	30.8	5.7	3.3
45°	19.0	2.8	0.0
47.5°	10.9	0.0	0.0
50°	5.7	0.0	0.0
52.5°	2.4	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	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.7
102.5°	2.8	4.3	4.3
105°	2.4	3.3	3.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	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°	1.9	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°	199.0	193.3	174.4	143.1	100.0	55.9	20.9	3.8	0.9	1.4	1.4
110°	173.4	168.7	149.3	118.9	80.6	41.7	13.7	2.4	1.4	1.4	1.4





107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)