

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: P551490

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-94-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: P551490
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-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

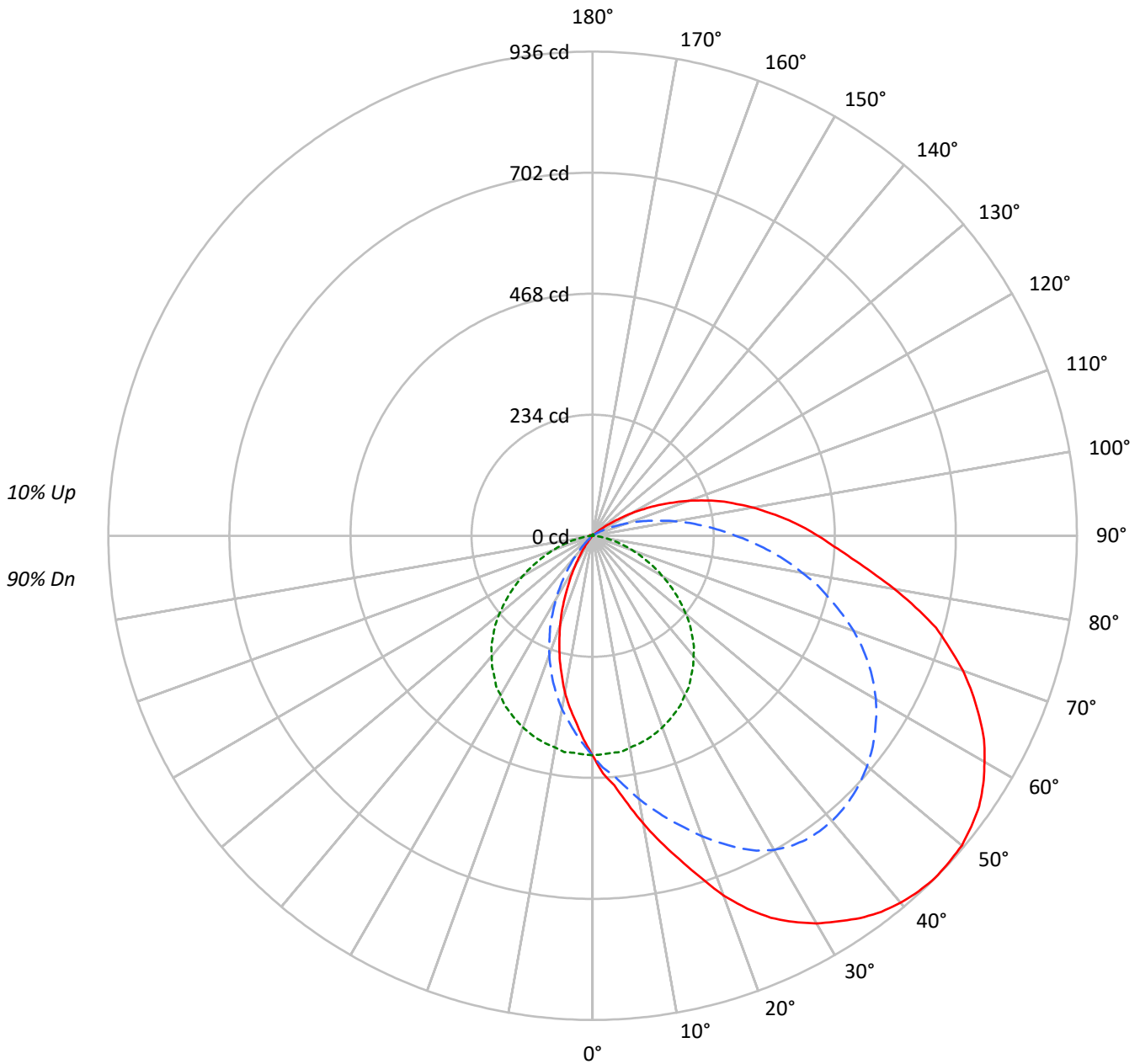
Lumens per Lamp: N/A
Luminaire Lumens: 2098.0 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P551490

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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°	4568	4568	4568
5°	5015	4501	3755
10°	5674	4446	3095
15°	6359	4390	2412
20°	7172	4318	1776
25°	7846	4234	1166
30°	8348	4123	657
35°	8782	4004	289
40°	9167	3857	69
45°	9497	3672	0
50°	9774	3428	0
55°	9985	3116	0
60°	10091	2755	0
65°	10133	2346	0
70°	10099	1912	0
75°	9970	1409	7
80°	9567	863	44
85°	9247	412	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	1.9
10°-20°	121.7	5.8
20°-30°	197.1	9.4
30°-40°	253.2	12.1
40°-50°	286.6	13.7
50°-60°	296.9	14.2
60°-70°	280.0	13.3
70°-80°	234.7	11.2
80°-90°	170.1	8.1
90°-100°	111.8	5.3
100°-110°	64.6	3.1
110°-120°	28.5	1.4
120°-130°	7.7	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	359.5	17.1
0°-40°	612.7	29.2
0°-60°	1196.2	57.0
0°-90°	1881.0	89.7
90°-120°	204.9	9.8
90°-150°	215.5	10.3
90°-180°	217.0	10.3
0°-180°	2098.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	424	424	424	424	424	
5°	484	465	421	382	363	49
15°	647	567	407	294	245	187
25°	815	666	377	194	121	377
35°	902	718	331	94	30	566
45°	936	711	271	22	0	722
55°	912	666	196	0	0	814
65°	824	589	117	0	0	816
75°	687	475	50	0	0	721
85°	503	345	8	2	3	429
90°	436	277	2	3	4	239
95°	374	216	1	4	5	294
105°	257	112	1	3	4	272
115°	140	37	2	2	3	140
125°	42	5	2	2	2	42
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	0
180°	2	2	2	2	2	



TEST NUMBER: P551490

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	424.4	424.4	424.4	424.4	424.4	424.4	424.4	424.4	424.4	424.4	424.4
2.5°	460.1	459.5	457.9	455.2	451.4	444.9	439.5	434.6	428.2	422.8	412.5
5°	484.4	481.7	479.5	476.8	468.2	462.2	452.5	441.7	431.4	421.1	400.6
7.5°	523.3	519.0	515.7	508.2	496.3	482.8	467.6	457.4	450.3	421.7	386.5
10°	564.9	561.1	554.7	541.1	526.5	507.1	485.5	461.1	439.5	415.7	374.1
12.5°	606.0	600.6	591.4	574.1	553.6	529.3	499.5	470.9	440.1	411.9	359.5
15°	647.1	641.2	631.4	610.3	583.3	551.4	515.2	479.0	442.8	407.1	344.4
17.5°	692.0	683.9	669.3	645.5	611.4	572.0	529.3	485.5	441.7	401.1	328.1
20°	740.1	728.7	713.1	681.2	641.2	594.7	543.3	492.0	441.1	394.1	309.8
22.5°	780.1	768.7	751.4	718.5	670.4	613.6	555.2	496.3	439.0	386.0	292.5
25°	814.7	805.5	786.6	748.7	697.9	633.6	566.6	499.5	435.7	377.3	274.1
27.5°	841.7	833.1	812.0	773.1	721.2	651.4	575.2	501.1	431.4	368.7	255.2
30°	865.5	856.9	831.5	791.4	736.8	665.5	583.9	501.7	426.0	355.7	234.6
32.5°	883.9	875.8	849.8	807.1	747.7	675.2	588.7	501.1	419.0	346.5	212.5
35°	902.3	894.2	863.9	818.5	755.8	679.5	592.5	498.4	410.3	331.4	191.4
37.5°	916.3	907.1	876.3	826.0	759.6	680.6	592.0	494.7	401.1	319.0	170.3
40°	926.1	916.3	883.3	830.4	760.6	679.0	587.6	488.2	390.3	303.3	148.1
42.5°	932.5	921.7	886.6	836.9	758.5	674.7	581.2	480.1	378.4	289.8	127.0
45°	935.8	924.4	887.1	831.5	754.7	666.6	571.4	469.8	365.4	271.4	106.0
47.5°	934.2	921.7	884.4	825.5	747.7	657.9	560.6	457.4	349.8	255.2	86.0
50°	931.5	918.5	878.5	817.9	737.9	647.1	548.7	442.2	333.6	235.2	68.1
52.5°	922.8	909.8	872.0	807.1	726.6	634.7	532.5	426.5	316.3	215.7	51.9
55°	912.0	900.1	860.6	797.4	712.0	619.5	517.4	409.8	299.5	195.7	37.3
57.5°	895.2	884.4	846.6	781.7	697.4	602.8	500.6	391.4	278.4	175.7	25.9
60°	874.7	863.9	827.1	763.9	680.6	583.9	482.2	372.5	259.5	155.7	16.2
62.5°	853.1	842.8	804.4	741.7	659.5	563.9	462.2	353.6	239.5	137.3	9.7
65°	824.4	814.7	780.1	715.2	636.3	542.2	440.1	330.9	218.9	116.8	5.4
67.5°	794.1	785.5	750.4	690.9	609.3	518.4	417.3	308.7	197.3	98.9	2.7
70°	761.7	750.9	718.5	657.9	581.7	491.4	392.5	286.0	176.8	81.6	0.0
72.5°	723.9	715.8	684.4	627.1	549.8	462.8	367.1	261.1	154.1	64.9	0.5
75°	687.1	676.8	648.2	594.1	518.4	432.5	339.0	237.9	131.9	49.7	0.5
77.5°	639.5	636.3	609.3	556.8	488.7	403.3	308.1	209.8	110.8	35.7	0.5
80°	592.0	588.7	567.6	519.5	454.1	368.7	279.5	183.3	90.3	23.8	0.5
82.5°	544.9	540.6	520.6	480.6	419.0	339.5	249.8	156.8	71.4	14.6	0.5
85°	502.8	497.4	475.7	439.0	382.7	306.5	218.9	130.8	53.0	8.1	1.1
87.5°	466.5	462.8	439.0	401.1	346.0	275.7	191.9	106.0	37.3	3.8	1.6
90°	435.7	427.6	406.5	366.5	311.4	241.7	163.3	84.9	24.9	2.2	2.2
92.5°	405.5	398.4	375.2	334.1	280.6	212.5	135.7	64.9	15.7	1.1	2.7
95°	374.1	366.5	343.8	306.0	249.2	182.7	111.4	47.6	8.6	1.1	2.7
97.5°	343.3	336.3	312.5	274.6	221.1	156.8	88.1	33.5	4.3	1.1	2.2
100°	314.6	306.5	284.9	247.1	193.0	130.8	68.1	21.6	2.7	1.1	2.2
102.5°	284.4	277.9	255.7	218.9	163.8	106.5	50.8	13.5	1.1	1.1	1.6
105°	257.3	249.2	227.6	189.8	139.5	83.8	35.7	8.1	1.1	1.1	1.6



TEST NUMBER: P551490

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	167.6	161.1	142.2	110.3	70.8	33.0	9.7	1.6	1.6	1.6	1.6
115°	140.0	130.3	113.5	85.4	52.4	21.6	4.9	1.6	1.6	1.6	1.6
117.5°	111.9	103.8	91.9	64.9	34.6	14.1	2.7	1.6	1.6	1.6	1.6
120°	87.6	80.0	66.5	44.9	23.2	8.1	1.1	1.6	1.6	1.6	1.6
122.5°	62.7	56.8	44.9	29.2	14.1	3.8	1.6	1.6	2.2	2.2	1.6
125°	41.6	38.4	29.7	17.8	8.6	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.0	24.3	17.3	10.3	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.1	13.5	10.3	5.9	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.6	8.1	5.4	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.7	2.7	2.7	2.2
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.2
142.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
145°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
150°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
152.5°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
157.5°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.2
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



TEST NUMBER: P551490

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	424.4	424.4	424.4
2.5°	403.8	396.3	394.1
5°	382.2	369.8	362.7
7.5°	360.6	343.8	335.7
10°	340.6	316.8	308.1
12.5°	316.8	289.2	275.7
15°	294.1	258.4	245.4
17.5°	268.7	228.7	213.5
20°	244.9	198.9	183.3
22.5°	217.9	169.8	152.5
25°	193.5	140.6	121.1
27.5°	166.5	110.8	94.1
30°	141.1	84.9	68.1
32.5°	116.8	62.2	47.0
35°	94.1	42.2	29.7
37.5°	72.4	25.9	15.1
40°	52.4	13.5	7.0
42.5°	35.1	6.5	3.8
45°	21.6	3.2	0.0
47.5°	12.4	0.0	0.0
50°	6.5	0.0	0.0
52.5°	2.7	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	1.1	1.6
80°	1.1	2.2	2.7
82.5°	2.2	2.7	2.7
85°	2.2	2.7	3.2
87.5°	2.7	3.2	3.8
90°	3.2	3.8	3.8
92.5°	3.2	4.3	4.3
95°	3.8	4.3	4.9
97.5°	4.3	4.9	4.9
100°	3.8	4.9	5.4
102.5°	3.2	4.9	4.9
105°	2.7	3.8	4.3



TEST NUMBER: P551490

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.7	2.7
115°	1.6	2.2	2.7
117.5°	1.6	2.2	2.2
120°	1.6	1.6	2.2
122.5°	1.6	1.6	2.2
125°	1.6	1.6	2.2
127.5°	2.2	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.2	1.6	1.6
135°	2.2	1.6	1.6
137.5°	2.2	1.6	1.6
140°	2.2	1.6	1.6
142.5°	2.2	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.2	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	227.1	220.6	198.9	163.3	114.1	63.8	23.8	4.3	1.1	1.6	1.6
110°	197.9	192.5	170.3	135.7	91.9	47.6	15.7	2.7	1.6	1.6	1.6





107.5°	2.2	3.2	3.8
110°	2.2	2.7	3.2



(END OF REPORT)