

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: P551481

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-85-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: P551481
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

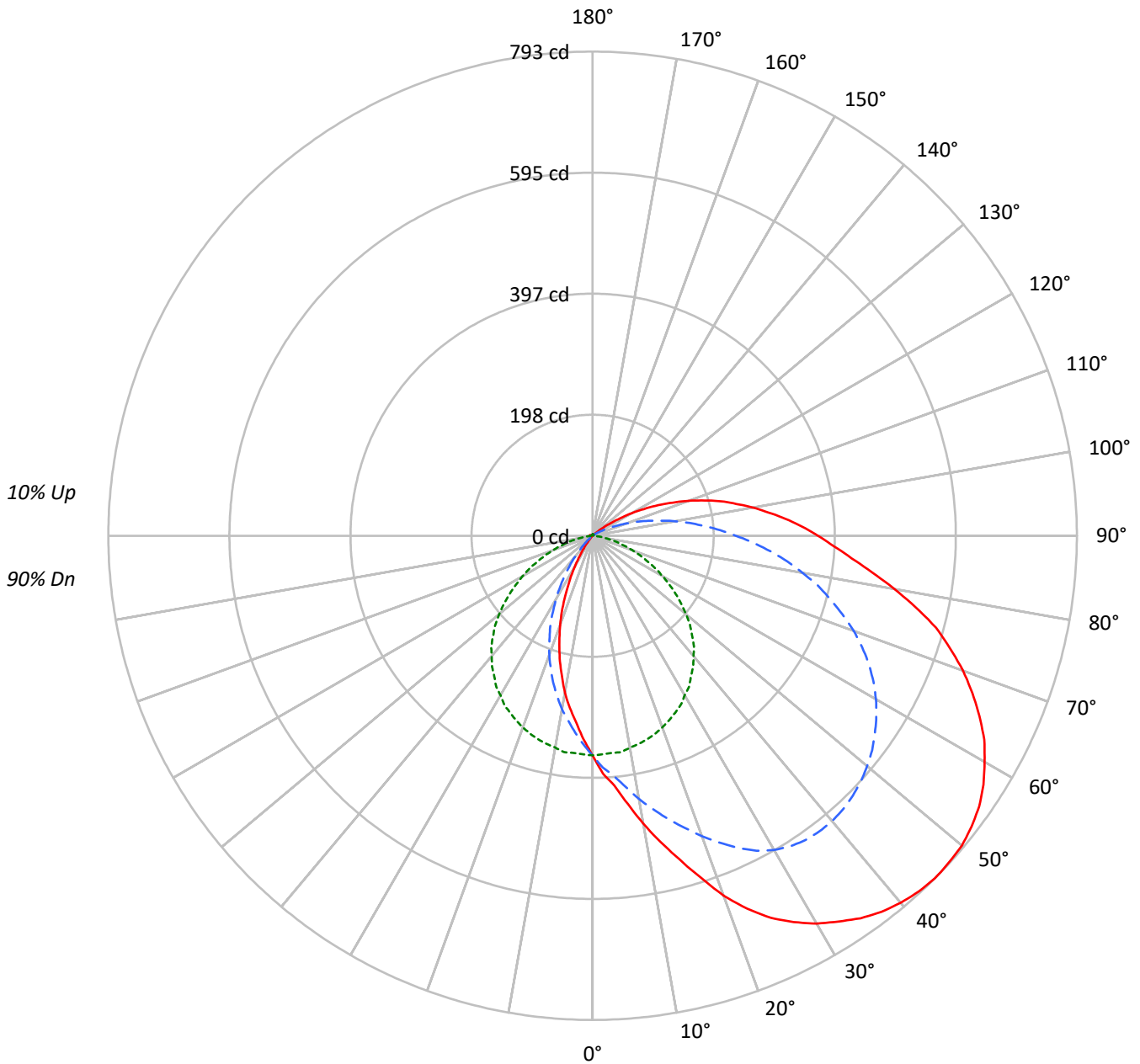
Lumens per Lamp: N/A
Luminaire Lumens: 1778.0 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-82-85-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°	3871	3871	3871
5°	4250	3815	3182
10°	4809	3768	2623
15°	5389	3720	2044
20°	6078	3659	1505
25°	6649	3589	988
30°	7075	3495	557
35°	7443	3393	245
40°	7768	3268	59
45°	8049	3112	0
50°	8283	2905	0
55°	8462	2640	0
60°	8552	2334	0
65°	8588	1988	0
70°	8558	1621	0
75°	8450	1194	7
80°	8108	733	37
85°	7837	351	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.4	1.9
10°-20°	103.1	5.8
20°-30°	167.0	9.4
30°-40°	214.6	12.1
40°-50°	242.9	13.7
50°-60°	251.6	14.2
60°-70°	237.3	13.3
70°-80°	198.9	11.2
80°-90°	144.2	8.1
90°-100°	94.8	5.3
100°-110°	54.7	3.1
110°-120°	24.2	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°	304.6	17.1
0°-40°	519.2	29.2
0°-60°	1013.7	57.0
0°-90°	1594.1	89.7
90°-120°	173.6	9.8
90°-150°	182.6	10.3
90°-180°	184.0	10.3
0°-180°	1778.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	360	360	360	360	360	
5°	410	394	357	324	307	41
15°	548	481	345	249	208	158
25°	690	564	320	164	103	319
35°	765	608	281	80	25	480
45°	793	602	230	18	0	612
55°	773	564	166	0	0	690
65°	699	499	99	0	0	691
75°	582	403	42	0	0	611
85°	426	292	7	2	3	364
90°	369	234	2	3	3	202
95°	317	183	1	3	4	249
105°	218	95	1	2	4	230
115°	119	31	1	1	2	119
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°	359.6	359.6	359.6	359.6	359.6	359.6	359.6	359.6	359.6	359.6	359.6
2.5°	389.9	389.4	388.1	385.8	382.6	377.1	372.5	368.4	362.9	358.3	349.6
5°	410.5	408.2	406.4	404.1	396.8	391.7	383.5	374.3	365.6	356.9	339.5
7.5°	443.5	439.8	437.1	430.7	420.6	409.1	396.3	387.6	381.6	357.4	327.6
10°	478.8	475.6	470.1	458.6	446.2	429.7	411.4	390.8	372.5	352.3	317.0
12.5°	513.6	509.0	501.2	486.6	469.1	448.5	423.3	399.0	372.9	349.1	304.7
15°	548.4	543.4	535.1	517.2	494.3	467.3	436.6	405.9	375.2	345.0	291.8
17.5°	586.4	579.6	567.2	547.0	518.2	484.7	448.5	411.4	374.3	339.9	278.1
20°	627.2	617.6	604.3	577.3	543.4	504.0	460.4	416.9	373.8	334.0	262.5
22.5°	661.1	651.5	636.8	608.9	568.1	520.0	470.5	420.6	372.0	327.1	247.9
25°	690.4	682.6	666.6	634.5	591.5	537.0	480.1	423.3	369.3	319.8	232.3
27.5°	713.3	706.0	688.1	655.2	611.2	552.1	487.5	424.7	365.6	312.5	216.2
30°	733.5	726.2	704.6	670.7	624.5	564.0	494.8	425.2	361.0	301.5	198.8
32.5°	749.1	742.2	720.2	684.0	633.6	572.2	498.9	424.7	355.1	293.7	180.1
35°	764.7	757.8	732.1	693.6	640.5	575.9	502.1	422.4	347.7	280.8	162.2
37.5°	776.6	768.8	742.7	700.1	643.7	576.8	501.7	419.2	339.9	270.3	144.3
40°	784.8	776.6	748.6	703.7	644.6	575.4	498.0	413.7	330.8	257.0	125.5
42.5°	790.3	781.1	751.4	709.2	642.8	571.8	492.5	406.8	320.7	245.6	107.7
45°	793.1	783.4	751.8	704.6	639.6	564.9	484.3	398.1	309.7	230.0	89.8
47.5°	791.7	781.1	749.5	699.6	633.6	557.6	475.1	387.6	296.4	216.2	72.8
50°	789.4	778.4	744.5	693.2	625.4	548.4	465.0	374.8	282.7	199.3	57.7
52.5°	782.1	771.1	739.0	684.0	615.8	537.9	451.3	361.5	268.0	182.8	44.0
55°	772.9	762.8	729.4	675.8	603.4	525.0	438.4	347.3	253.8	165.8	31.6
57.5°	758.7	749.5	717.5	662.5	591.0	510.8	424.2	331.7	235.9	148.9	22.0
60°	741.3	732.1	701.0	647.4	576.8	494.8	408.7	315.7	219.9	131.9	13.7
62.5°	723.0	714.3	681.7	628.6	558.9	477.8	391.7	299.6	203.0	116.4	8.2
65°	698.7	690.4	661.1	606.1	539.2	459.5	372.9	280.4	185.6	99.0	4.6
67.5°	673.0	665.7	635.9	585.5	516.3	439.4	353.7	261.6	167.2	83.8	2.3
70°	645.5	636.4	608.9	557.6	493.0	416.5	332.6	242.4	149.8	69.2	0.0
72.5°	613.5	606.6	580.0	531.5	465.9	392.2	311.1	221.3	130.6	55.0	0.5
75°	582.3	573.6	549.3	503.5	439.4	366.5	287.3	201.6	111.8	42.1	0.5
77.5°	542.0	539.2	516.3	471.9	414.2	341.8	261.1	177.8	93.9	30.2	0.5
80°	501.7	498.9	481.1	440.3	384.8	312.5	236.9	155.3	76.5	20.2	0.5
82.5°	461.8	458.1	441.2	407.3	355.1	287.7	211.7	132.9	60.5	12.4	0.5
85°	426.1	421.5	403.2	372.0	324.4	259.8	185.6	110.9	44.9	6.9	0.9
87.5°	395.4	392.2	372.0	339.9	293.2	233.7	162.6	89.8	31.6	3.2	1.4
90°	369.3	362.4	344.5	310.6	263.9	204.8	138.4	71.9	21.1	1.8	1.8
92.5°	343.6	337.7	318.0	283.1	237.8	180.1	115.0	55.0	13.3	0.9	2.3
95°	317.0	310.6	291.4	259.3	211.2	154.9	94.4	40.3	7.3	0.9	2.3
97.5°	290.9	285.0	264.8	232.7	187.4	132.9	74.7	28.4	3.7	0.9	1.8
100°	266.6	259.8	241.4	209.4	163.6	110.9	57.7	18.3	2.3	0.9	1.8
102.5°	241.0	235.5	216.7	185.6	138.8	90.3	43.1	11.5	0.9	0.9	1.4
105°	218.1	211.2	192.9	160.8	118.2	71.0	30.2	6.9	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	142.0	136.5	120.5	93.5	60.0	27.9	8.2	1.4	1.4	1.4	1.4
115°	118.7	110.4	96.2	72.4	44.4	18.3	4.1	1.4	1.4	1.4	1.4
117.5°	94.8	88.0	77.9	55.0	29.3	11.9	2.3	1.4	1.4	1.4	1.4
120°	74.2	67.8	56.4	38.0	19.7	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.1	48.1	38.0	24.7	11.9	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.3	32.5	25.2	15.1	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.9	20.6	14.7	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.8	11.5	8.7	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.9	4.6	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°	359.6	359.6	359.6
2.5°	342.2	335.8	334.0
5°	323.9	313.4	307.4
7.5°	305.6	291.4	284.5
10°	288.6	268.5	261.1
12.5°	268.5	245.1	233.7
15°	249.2	219.0	208.0
17.5°	227.7	193.8	181.0
20°	207.5	168.6	155.3
22.5°	184.6	143.9	129.2
25°	164.0	119.1	102.6
27.5°	141.1	93.9	79.7
30°	119.6	71.9	57.7
32.5°	99.0	52.7	39.9
35°	79.7	35.7	25.2
37.5°	61.4	22.0	12.8
40°	44.4	11.5	6.0
42.5°	29.8	5.5	3.2
45°	18.3	2.7	0.0
47.5°	10.5	0.0	0.0
50°	5.5	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	3.7	3.7
95°	3.2	3.7	4.1
97.5°	3.7	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-85-ED1D-90

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°	192.4	186.9	168.6	138.4	96.7	54.1	20.2	3.7	0.9	1.4	1.4
110°	167.7	163.1	144.3	115.0	77.9	40.3	13.3	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)