

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: P551629

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-93-87-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: P551629
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-40-UNV-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

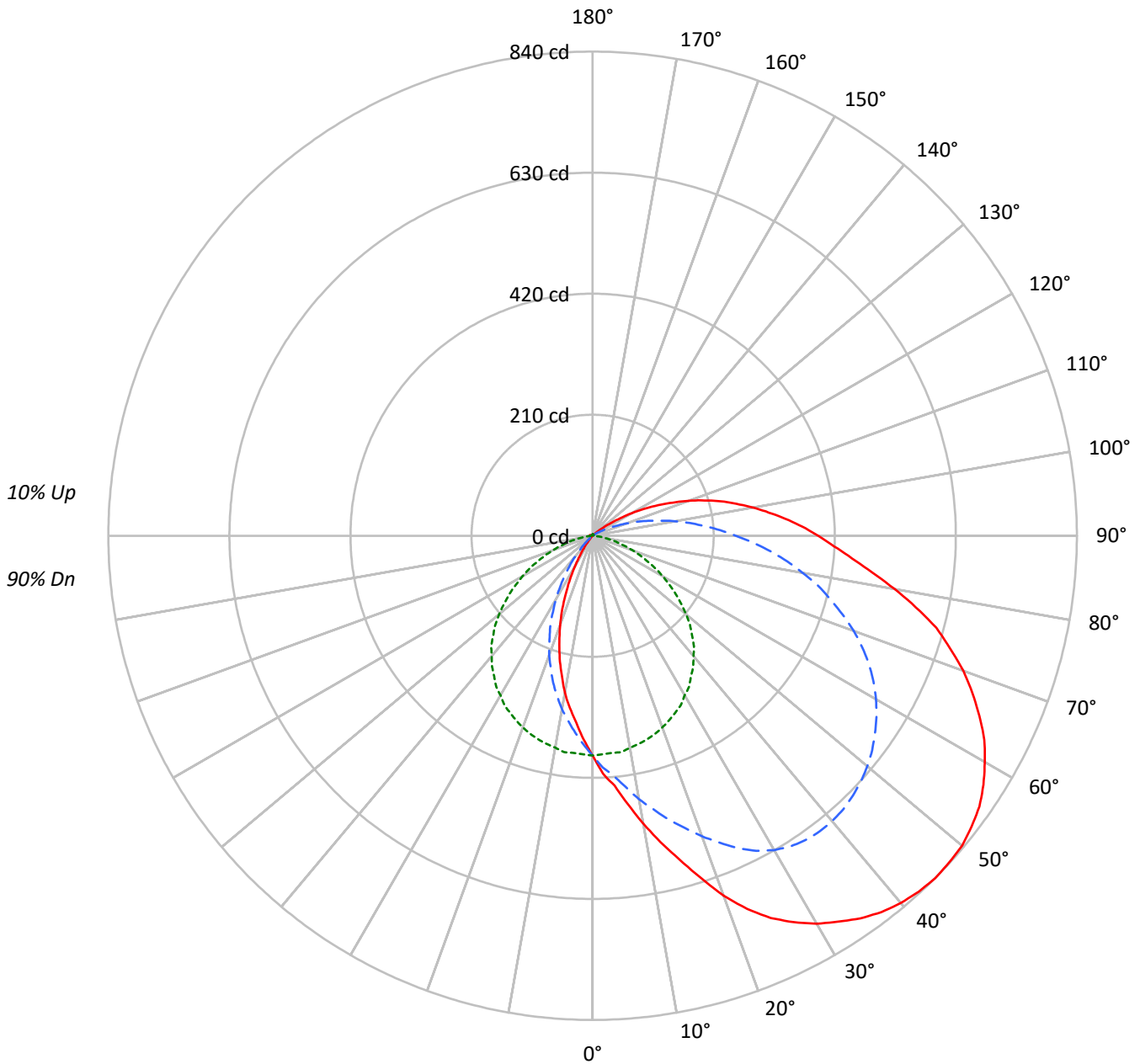
Lumens per Lamp: N/A
Luminaire Lumens: 1884.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551629

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-87-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°	4102	4102	4102
5°	4503	4042	3372
10°	5096	3992	2779
15°	5710	3942	2166
20°	6441	3877	1595
25°	7046	3803	1047
30°	7496	3703	590
35°	7886	3596	260
40°	8232	3463	62
45°	8528	3298	0
50°	8777	3078	0
55°	8967	2798	0
60°	9062	2474	0
65°	9099	2107	0
70°	9069	1717	0
75°	8953	1268	7
80°	8591	776	39
85°	8304	371	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.5	1.9
10°-20°	109.3	5.8
20°-30°	177.0	9.4
30°-40°	227.4	12.1
40°-50°	257.4	13.7
50°-60°	266.6	14.2
60°-70°	251.5	13.3
70°-80°	210.8	11.2
80°-90°	152.8	8.1
90°-100°	100.4	5.3
100°-110°	58.0	3.1
110°-120°	25.6	1.4
120°-130°	6.9	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	322.8	17.1
0°-40°	550.2	29.2
0°-60°	1074.2	57.0
0°-90°	1689.2	89.7
90°-120°	184.0	9.8
90°-150°	193.6	10.3
90°-180°	195.0	10.4
0°-180°	1884.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	381	381	381	381	381	
5°	435	418	378	343	326	44
15°	581	510	366	264	220	168
25°	732	598	339	174	109	338
35°	810	644	298	84	27	508
45°	840	638	244	19	0	649
55°	819	598	176	0	0	731
65°	740	529	105	0	0	732
75°	617	427	45	0	0	647
85°	452	310	7	2	3	386
90°	391	248	2	3	3	215
95°	336	194	1	3	4	264
105°	231	100	1	2	4	244
115°	126	33	2	2	2	126
125°	37	5	2	2	2	37
135°	2	2	2	2	2	3
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1	381.1
2.5°	413.1	412.6	411.2	408.8	405.4	399.5	394.7	390.3	384.5	379.6	370.4
5°	435.0	432.5	430.6	428.2	420.4	415.1	406.3	396.6	387.4	378.2	359.7
7.5°	469.9	466.0	463.1	456.3	445.7	433.5	419.9	410.7	404.4	378.7	347.1
10°	507.3	503.9	498.1	485.9	472.8	455.4	435.9	414.1	394.7	373.3	335.9
12.5°	544.2	539.3	531.1	515.6	497.1	475.3	448.6	422.8	395.2	369.9	322.8
15°	581.1	575.8	567.0	548.1	523.8	495.2	462.6	430.1	397.6	365.6	309.2
17.5°	621.4	614.1	601.0	579.6	549.1	513.6	475.3	435.9	396.6	360.2	294.7
20°	664.6	654.4	640.3	611.7	575.8	534.0	487.9	441.8	396.1	353.9	278.2
22.5°	700.5	690.3	674.8	645.2	602.0	551.0	498.6	445.7	394.2	346.6	262.6
25°	731.6	723.3	706.3	672.4	626.7	569.0	508.8	448.6	391.3	338.9	246.1
27.5°	755.9	748.1	729.2	694.2	647.6	585.0	516.5	450.0	387.4	331.1	229.1
30°	777.2	769.5	746.6	710.7	661.7	597.6	524.3	450.5	382.5	319.4	210.7
32.5°	793.7	786.4	763.1	724.8	671.4	606.3	528.7	450.0	376.2	311.2	190.8
35°	810.2	803.0	775.8	735.0	678.7	610.2	532.1	447.6	368.5	297.6	171.9
37.5°	822.9	814.6	786.9	741.8	682.1	611.2	531.6	444.2	360.2	286.4	152.9
40°	831.6	822.9	793.2	745.7	683.0	609.7	527.7	438.4	350.5	272.3	133.0
42.5°	837.4	827.7	796.2	751.5	681.1	605.9	521.9	431.1	339.8	260.2	114.1
45°	840.3	830.1	796.6	746.6	677.7	598.6	513.1	421.9	328.2	243.7	95.2
47.5°	838.9	827.7	794.2	741.3	671.4	590.8	503.4	410.7	314.1	229.1	77.2
50°	836.5	824.8	788.9	734.5	662.7	581.1	492.7	397.1	299.5	211.2	61.2
52.5°	828.7	817.0	783.1	724.8	652.5	569.9	478.2	383.0	284.0	193.7	46.6
55°	819.0	808.3	772.9	716.1	639.4	556.3	464.6	368.0	268.9	175.7	33.5
57.5°	803.9	794.2	760.2	702.0	626.2	541.3	449.5	351.5	250.0	157.8	23.3
60°	785.5	775.8	742.8	686.0	611.2	524.3	433.0	334.5	233.0	139.8	14.6
62.5°	766.1	756.8	722.4	666.1	592.3	506.3	415.1	317.5	215.1	123.3	8.7
65°	740.3	731.6	700.5	642.3	571.4	486.9	395.2	297.1	196.6	104.9	4.9
67.5°	713.1	705.4	673.8	620.4	547.1	465.6	374.8	277.2	177.2	88.8	2.4
70°	684.0	674.3	645.2	590.8	522.4	441.3	352.4	256.8	158.7	73.3	0.0
72.5°	650.0	642.8	614.6	563.1	493.7	415.6	329.6	234.5	138.4	58.3	0.5
75°	617.0	607.8	582.1	533.5	465.6	388.4	304.4	213.6	118.5	44.7	0.5
77.5°	574.3	571.4	547.1	500.0	438.9	362.2	276.7	188.4	99.5	32.0	0.5
80°	531.6	528.7	509.7	466.5	407.8	331.1	251.0	164.6	81.1	21.4	0.5
82.5°	489.3	485.5	467.5	431.6	376.2	304.9	224.3	140.8	64.1	13.1	0.5
85°	451.5	446.6	427.2	394.2	343.7	275.3	196.6	117.5	47.6	7.3	1.0
87.5°	419.0	415.6	394.2	360.2	310.7	247.6	172.3	95.2	33.5	3.4	1.5
90°	391.3	384.0	365.1	329.1	279.6	217.0	146.6	76.2	22.3	1.9	1.9
92.5°	364.1	357.8	336.9	300.0	252.0	190.8	121.9	58.3	14.1	1.0	2.4
95°	335.9	329.1	308.8	274.8	223.8	164.1	100.0	42.7	7.8	1.0	2.4
97.5°	308.3	302.0	280.6	246.6	198.6	140.8	79.1	30.1	3.9	1.0	1.9
100°	282.5	275.3	255.8	221.9	173.3	117.5	61.2	19.4	2.4	1.0	1.9
102.5°	255.4	249.5	229.6	196.6	147.1	95.6	45.6	12.1	1.0	1.0	1.5
105°	231.1	223.8	204.4	170.4	125.2	75.2	32.0	7.3	1.0	1.0	1.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	150.5	144.7	127.7	99.0	63.6	29.6	8.7	1.5	1.5	1.5	1.5
115°	125.7	117.0	101.9	76.7	47.1	19.4	4.4	1.5	1.5	1.5	1.5
117.5°	100.5	93.2	82.5	58.3	31.1	12.6	2.4	1.5	1.5	1.5	1.5
120°	78.6	71.8	59.7	40.3	20.9	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.3	51.0	40.3	26.2	12.6	3.4	1.5	1.5	1.9	1.9	1.5
125°	37.4	34.5	26.7	16.0	7.8	1.5	1.5	1.5	1.9	1.9	1.5
127.5°	24.3	21.8	15.5	9.2	3.4	1.5	1.5	1.9	1.9	1.9	1.5
130°	13.6	12.1	9.2	5.3	1.5	1.5	1.5	1.9	1.9	1.9	1.5
132.5°	7.8	7.3	4.9	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	381.1	381.1	381.1
2.5°	362.6	355.8	353.9
5°	343.2	332.1	325.7
7.5°	323.8	308.8	301.5
10°	305.8	284.5	276.7
12.5°	284.5	259.7	247.6
15°	264.1	232.1	220.4
17.5°	241.3	205.4	191.8
20°	219.9	178.7	164.6
22.5°	195.6	152.4	136.9
25°	173.8	126.2	108.7
27.5°	149.5	99.5	84.5
30°	126.7	76.2	61.2
32.5°	104.9	55.8	42.2
35°	84.5	37.9	26.7
37.5°	65.1	23.3	13.6
40°	47.1	12.1	6.3
42.5°	31.6	5.8	3.4
45°	19.4	2.9	0.0
47.5°	11.2	0.0	0.0
50°	5.8	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	1.0	1.5
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-93-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.5	1.9	2.4
117.5°	1.5	1.9	1.9
120°	1.5	1.5	1.9
122.5°	1.5	1.5	1.9
125°	1.5	1.5	1.9
127.5°	1.9	1.5	1.5
130°	1.5	1.5	1.5
132.5°	1.9	1.5	1.5
135°	1.9	1.5	1.5
137.5°	1.9	1.5	1.5
140°	1.9	1.5	1.5
142.5°	1.9	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	203.9	198.1	178.7	146.6	102.4	57.3	21.4	3.9	1.0	1.5	1.5
110°	177.7	172.8	152.9	121.9	82.5	42.7	14.1	2.4	1.5	1.5	1.5





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)