

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: P550997

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-97-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: P550997
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-LD4-1STD-30-UNV-93-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

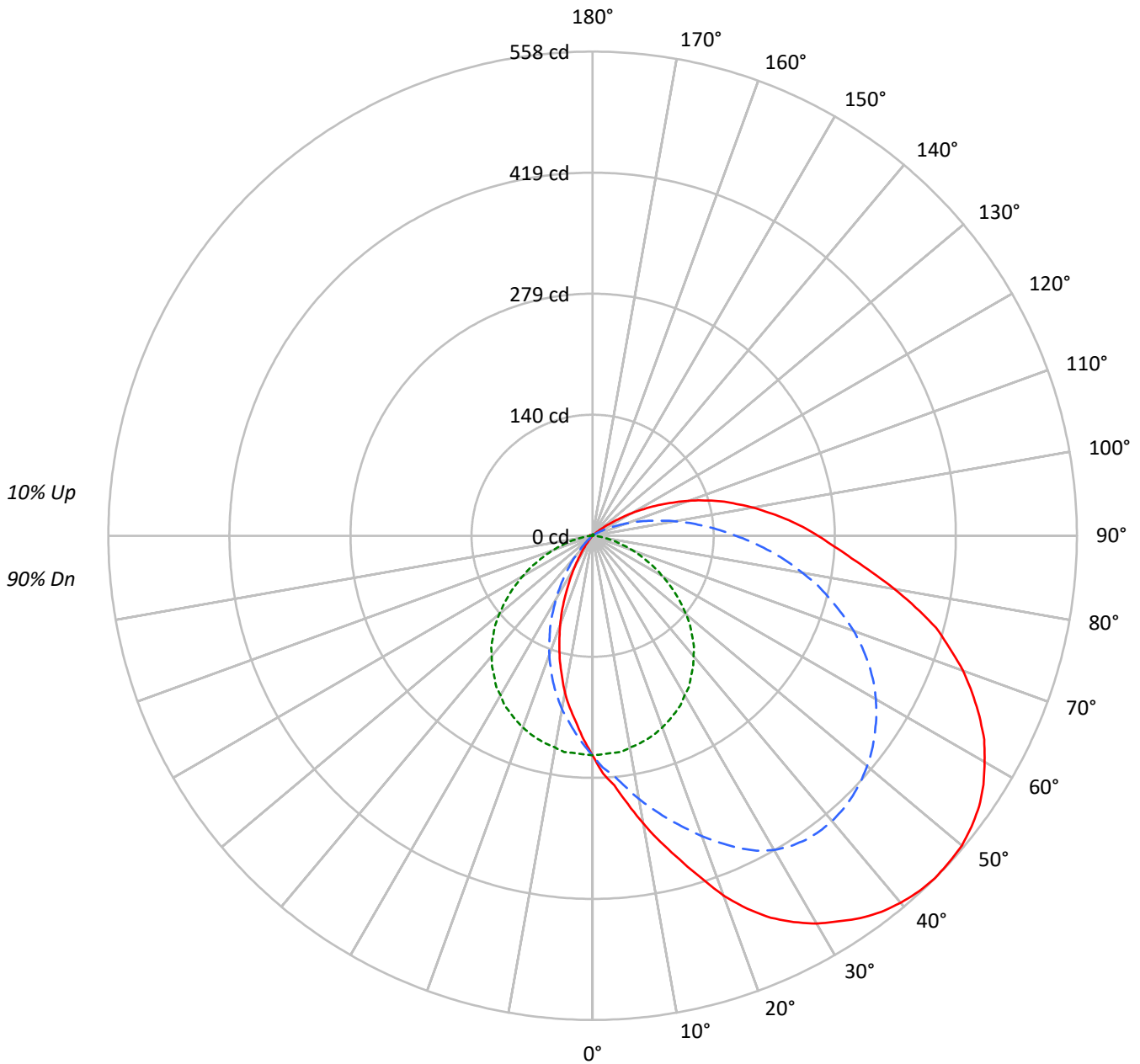
Lumens per Lamp: N/A
Luminaire Lumens: 1251.0 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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: P550997

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-97-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°	2723	2723	2723
5°	2990	2684	2239
10°	3384	2651	1845
15°	3792	2617	1438
20°	4277	2575	1059
25°	4679	2525	695
30°	4978	2459	392
35°	5236	2388	172
40°	5466	2299	42
45°	5663	2189	0
50°	5828	2043	0
55°	5954	1858	0
60°	6018	1642	0
65°	6042	1398	0
70°	6022	1141	0
75°	5945	842	4
80°	5705	515	26
85°	5514	244	35



TEST NUMBER: P550997

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	1.9
10°-20°	72.6	5.8
20°-30°	117.5	9.4
30°-40°	151.0	12.1
40°-50°	170.9	13.7
50°-60°	177.1	14.2
60°-70°	167.0	13.3
70°-80°	139.9	11.2
80°-90°	101.4	8.1
90°-100°	66.7	5.3
100°-110°	38.5	3.1
110°-120°	17.0	1.4
120°-130°	4.6	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	214.3	17.1
0°-40°	365.3	29.2
0°-60°	713.3	57.0
0°-90°	1121.6	89.7
90°-120°	122.2	9.8
90°-150°	128.6	10.3
90°-180°	129.0	10.3
0°-180°	1251.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	253	253	253	253	253	
5°	289	277	251	228	216	29
15°	386	338	243	175	146	111
25°	486	397	225	115	72	225
35°	538	428	198	56	18	337
45°	558	424	162	13	0	431
55°	544	397	117	0	0	486
65°	492	351	70	0	0	486
75°	410	284	30	0	0	430
85°	300	206	5	1	2	256
90°	260	165	1	2	2	142
95°	223	129	1	2	3	175
105°	153	67	1	2	3	162
115°	84	22	1	1	2	84
125°	25	3	1	1	1	25
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550997

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0	253.0
2.5°	274.3	274.0	273.0	271.4	269.2	265.3	262.1	259.2	255.3	252.1	246.0
5°	288.8	287.2	285.9	284.3	279.2	275.6	269.8	263.4	257.2	251.1	238.9
7.5°	312.0	309.5	307.5	303.0	295.9	287.9	278.8	272.7	268.5	251.4	230.5
10°	336.9	334.6	330.7	322.7	314.0	302.4	289.5	275.0	262.1	247.9	223.1
12.5°	361.4	358.1	352.7	342.3	330.1	315.6	297.9	280.8	262.4	245.6	214.4
15°	385.9	382.3	376.5	363.9	347.8	328.8	307.2	285.6	264.0	242.7	205.3
17.5°	412.6	407.8	399.1	384.9	364.6	341.0	315.6	289.5	263.4	239.2	195.7
20°	441.3	434.5	425.2	406.2	382.3	354.6	324.0	293.3	263.0	235.0	184.7
22.5°	465.2	458.4	448.1	428.4	399.7	365.9	331.1	295.9	261.8	230.2	174.4
25°	485.8	480.3	469.0	446.5	416.2	377.8	337.8	297.9	259.8	225.0	163.4
27.5°	501.9	496.7	484.2	461.0	430.0	388.4	343.0	298.8	257.2	219.8	152.2
30°	516.1	510.9	495.8	471.9	439.4	396.8	348.1	299.1	254.0	212.1	139.9
32.5°	527.0	522.2	506.7	481.3	445.8	402.6	351.0	298.8	249.8	206.6	126.7
35°	538.0	533.2	515.1	488.0	450.6	405.2	353.3	297.2	244.7	197.6	114.1
37.5°	546.4	540.9	522.5	492.6	452.9	405.8	353.0	295.0	239.2	190.2	101.5
40°	552.2	546.4	526.7	495.1	453.6	404.9	350.4	291.1	232.7	180.8	88.3
42.5°	556.1	549.6	528.7	499.0	452.3	402.3	346.5	286.2	225.6	172.8	75.8
45°	558.0	551.2	529.0	495.8	450.0	397.5	340.7	280.1	217.9	161.8	63.2
47.5°	557.0	549.6	527.4	492.2	445.8	392.3	334.3	272.7	208.6	152.2	51.3
50°	555.4	547.7	523.8	487.7	440.0	385.9	327.2	263.7	198.9	140.2	40.6
52.5°	550.3	542.5	520.0	481.3	433.2	378.4	317.5	254.3	188.6	128.6	30.9
55°	543.8	536.7	513.2	475.5	424.5	369.4	308.5	244.3	178.6	116.7	22.2
57.5°	533.8	527.4	504.8	466.1	415.8	359.4	298.5	233.4	166.0	104.8	15.5
60°	521.6	515.1	493.2	455.5	405.8	348.1	287.5	222.1	154.7	92.8	9.7
62.5°	508.7	502.5	479.7	442.3	393.3	336.2	275.6	210.8	142.8	81.9	5.8
65°	491.6	485.8	465.2	426.5	379.4	323.3	262.4	197.3	130.6	69.6	3.2
67.5°	473.5	468.4	447.4	412.0	363.3	309.1	248.9	184.1	117.7	59.0	1.6
70°	454.2	447.7	428.4	392.3	346.9	293.0	234.0	170.5	105.4	48.7	0.0
72.5°	431.6	426.8	408.1	373.9	327.8	275.9	218.9	155.7	91.9	38.7	0.3
75°	409.7	403.6	386.5	354.3	309.1	257.9	202.1	141.8	78.7	29.7	0.3
77.5°	381.3	379.4	363.3	332.0	291.4	240.5	183.7	125.1	66.1	21.3	0.3
80°	353.0	351.0	338.5	309.8	270.8	219.8	166.7	109.3	53.8	14.2	0.3
82.5°	324.9	322.4	310.4	286.6	249.8	202.4	148.9	93.5	42.6	8.7	0.3
85°	299.8	296.6	283.7	261.8	228.2	182.8	130.6	78.0	31.6	4.8	0.6
87.5°	278.2	275.9	261.8	239.2	206.3	164.4	114.4	63.2	22.2	2.3	1.0
90°	259.8	255.0	242.4	218.6	185.7	144.1	97.4	50.6	14.8	1.3	1.3
92.5°	241.8	237.6	223.7	199.2	167.3	126.7	80.9	38.7	9.3	0.6	1.6
95°	223.1	218.6	205.0	182.5	148.6	109.0	66.4	28.4	5.2	0.6	1.6
97.5°	204.7	200.5	186.3	163.8	131.8	93.5	52.5	20.0	2.6	0.6	1.3
100°	187.6	182.8	169.9	147.3	115.1	78.0	40.6	12.9	1.6	0.6	1.3
102.5°	169.6	165.7	152.5	130.6	97.7	63.5	30.3	8.1	0.6	0.6	1.0
105°	153.4	148.6	135.7	113.1	83.2	50.0	21.3	4.8	0.6	0.6	1.0



TEST NUMBER: P550997

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	99.9	96.1	84.8	65.8	42.2	19.7	5.8	1.0	1.0	1.0	1.0
115°	83.5	77.7	67.7	50.9	31.3	12.9	2.9	1.0	1.0	1.0	1.0
117.5°	66.7	61.9	54.8	38.7	20.6	8.4	1.6	1.0	1.0	1.0	1.0
120°	52.2	47.7	39.6	26.8	13.9	4.8	0.6	1.0	1.0	1.0	1.0
122.5°	37.4	33.8	26.8	17.4	8.4	2.3	1.0	1.0	1.3	1.3	1.0
125°	24.8	22.9	17.7	10.6	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.1	14.5	10.3	6.1	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.0	8.1	6.1	3.5	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.8	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	253.0	253.0	253.0
2.5°	240.8	236.3	235.0
5°	227.9	220.5	216.3
7.5°	215.0	205.0	200.2
10°	203.1	188.9	183.7
12.5°	188.9	172.5	164.4
15°	175.4	154.1	146.3
17.5°	160.2	136.4	127.3
20°	146.0	118.6	109.3
22.5°	129.9	101.2	90.9
25°	115.4	83.8	72.2
27.5°	99.3	66.1	56.1
30°	84.1	50.6	40.6
32.5°	69.6	37.1	28.0
35°	56.1	25.1	17.7
37.5°	43.2	15.5	9.0
40°	31.3	8.1	4.2
42.5°	21.0	3.9	2.3
45°	12.9	1.9	0.0
47.5°	7.4	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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°	0.3	0.3	0.3
77.5°	0.3	0.6	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.3
90°	1.9	2.3	2.3
92.5°	1.9	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	135.4	131.5	118.6	97.4	68.0	38.0	14.2	2.6	0.6	1.0	1.0
110°	118.0	114.8	101.5	80.9	54.8	28.4	9.3	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.3
110°	1.3	1.6	1.9



(END OF REPORT)