

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: P551190

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-97-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: P551190
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-50-UNV-93-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

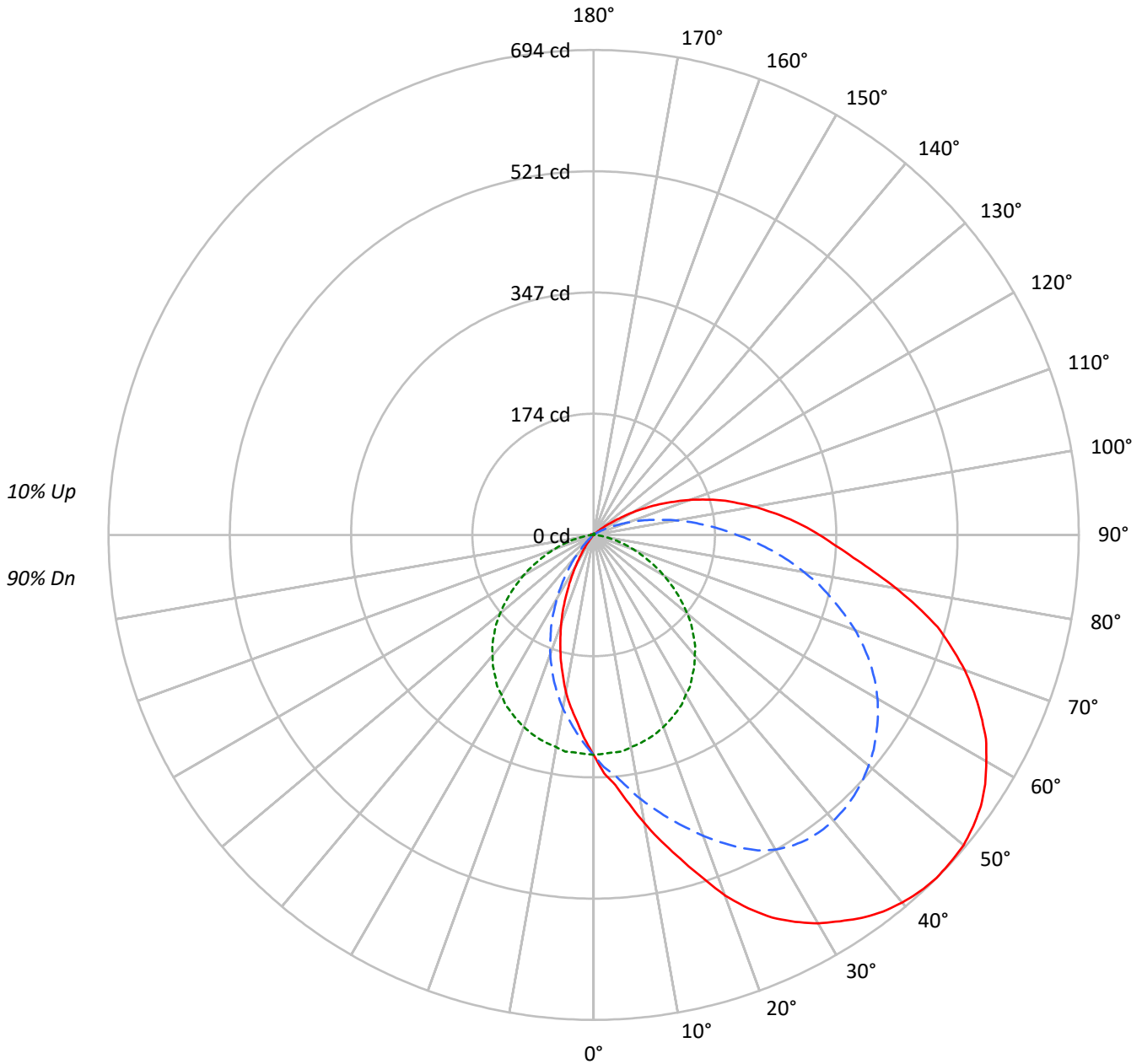
Lumens per Lamp: N/A
Luminaire Lumens: 1556.0 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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

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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°	3387	3387	3387
5°	3719	3338	2785
10°	4209	3297	2295
15°	4716	3255	1789
20°	5319	3203	1317
25°	5819	3141	865
30°	6191	3058	487
35°	6513	2970	215
40°	6798	2860	51
45°	7043	2724	0
50°	7249	2542	0
55°	7405	2311	0
60°	7484	2044	0
65°	7515	1739	0
70°	7490	1417	0
75°	7395	1046	6
80°	7095	638	32
85°	6858	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	1.9
10°-20°	90.3	5.8
20°-30°	146.2	9.4
30°-40°	187.8	12.1
40°-50°	212.6	13.7
50°-60°	220.2	14.2
60°-70°	207.7	13.3
70°-80°	174.1	11.2
80°-90°	126.2	8.1
90°-100°	82.9	5.3
100°-110°	47.9	3.1
110°-120°	21.1	1.4
120°-130°	5.7	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	266.6	17.1
0°-40°	454.4	29.2
0°-60°	887.2	57.0
0°-90°	1395.1	89.7
90°-120°	151.9	9.8
90°-150°	159.8	10.3
90°-180°	161.0	10.3
0°-180°	1556.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	315	315	315	315	315	
5°	359	345	312	284	269	36
15°	480	421	302	218	182	138
25°	604	494	280	144	90	279
35°	669	532	246	70	22	420
45°	694	527	201	16	0	536
55°	676	494	145	0	0	604
65°	611	437	87	0	0	605
75°	510	353	37	0	0	534
85°	373	256	6	2	2	318
90°	323	205	2	2	3	177
95°	278	160	1	3	4	218
105°	191	83	1	2	3	201
115°	104	27	1	1	2	104
125°	31	4	2	1	2	31
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	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°	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7	314.7
2.5°	341.2	340.8	339.6	337.6	334.8	330.0	326.0	322.4	317.5	313.5	305.9
5°	359.2	357.2	355.6	353.6	347.2	342.8	335.6	327.6	320.0	312.3	297.1
7.5°	388.1	384.9	382.5	376.9	368.1	358.0	346.8	339.2	334.0	312.7	286.7
10°	419.0	416.2	411.4	401.3	390.5	376.1	360.0	342.0	326.0	308.3	277.5
12.5°	449.5	445.4	438.6	425.8	410.6	392.5	370.5	349.2	326.4	305.5	266.6
15°	479.9	475.5	468.3	452.7	432.6	409.0	382.1	355.2	328.4	301.9	255.4
17.5°	513.2	507.2	496.4	478.7	453.5	424.2	392.5	360.0	327.6	297.5	243.4
20°	548.9	540.5	528.8	505.2	475.5	441.0	402.9	364.9	327.2	292.3	229.7
22.5°	578.6	570.1	557.3	532.9	497.2	455.1	411.8	368.1	325.6	286.3	216.9
25°	604.2	597.4	583.4	555.3	517.6	469.9	420.2	370.5	323.2	279.9	203.3
27.5°	624.3	617.9	602.2	573.4	534.9	483.1	426.6	371.7	320.0	273.4	189.2
30°	641.9	635.5	616.7	587.0	546.5	493.6	433.0	372.1	315.9	263.8	174.0
32.5°	655.5	649.5	630.3	598.6	554.5	500.8	436.6	371.7	310.7	257.0	157.6
35°	669.2	663.2	640.7	607.0	560.5	504.0	439.4	369.7	304.3	245.8	141.9
37.5°	679.6	672.8	649.9	612.6	563.3	504.8	439.0	366.9	297.5	236.6	126.3
40°	686.8	679.6	655.1	615.9	564.1	503.6	435.8	362.1	289.5	224.9	109.9
42.5°	691.6	683.6	657.5	620.7	562.5	500.4	431.0	356.0	280.7	214.9	94.2
45°	694.0	685.6	657.9	616.7	559.7	494.4	423.8	348.4	271.0	201.3	78.6
47.5°	692.8	683.6	655.9	612.2	554.5	487.9	415.8	339.2	259.4	189.2	63.8
50°	690.8	681.2	651.5	606.6	547.3	479.9	407.0	328.0	247.4	174.4	50.5
52.5°	684.4	674.8	646.7	598.6	538.9	470.7	394.9	316.3	234.6	160.0	38.5
55°	676.4	667.6	638.3	591.4	528.0	459.5	383.7	303.9	222.1	145.1	27.7
57.5°	664.0	655.9	627.9	579.8	517.2	447.1	371.3	290.3	206.5	130.3	19.2
60°	648.7	640.7	613.4	566.5	504.8	433.0	357.6	276.3	192.5	115.5	12.0
62.5°	632.7	625.1	596.6	550.1	489.2	418.2	342.8	262.2	177.6	101.8	7.2
65°	611.4	604.2	578.6	530.4	471.9	402.1	326.4	245.4	162.4	86.6	4.0
67.5°	589.0	582.6	556.5	512.4	451.9	384.5	309.5	228.9	146.3	73.4	2.0
70°	564.9	556.9	532.9	487.9	431.4	364.5	291.1	212.1	131.1	60.5	0.0
72.5°	536.9	530.9	507.6	465.1	407.8	343.2	272.2	193.7	114.3	48.1	0.4
75°	509.6	502.0	480.7	440.6	384.5	320.8	251.4	176.4	97.8	36.9	0.4
77.5°	474.3	471.9	451.9	413.0	362.5	299.1	228.5	155.6	82.2	26.5	0.4
80°	439.0	436.6	421.0	385.3	336.8	273.4	207.3	135.9	67.0	17.6	0.4
82.5°	404.2	400.9	386.1	356.4	310.7	251.8	185.2	116.3	52.9	10.8	0.4
85°	372.9	368.9	352.8	325.6	283.9	227.3	162.4	97.0	39.3	6.0	0.8
87.5°	346.0	343.2	325.6	297.5	256.6	204.5	142.3	78.6	27.7	2.8	1.2
90°	323.2	317.1	301.5	271.8	230.9	179.2	121.1	62.9	18.4	1.6	1.6
92.5°	300.7	295.5	278.3	247.8	208.1	157.6	100.6	48.1	11.6	0.8	2.0
95°	277.5	271.8	255.0	226.9	184.8	135.5	82.6	35.3	6.4	0.8	2.0
97.5°	254.6	249.4	231.7	203.7	164.0	116.3	65.4	24.9	3.2	0.8	1.6
100°	233.3	227.3	211.3	183.2	143.1	97.0	50.5	16.0	2.0	0.8	1.6
102.5°	210.9	206.1	189.6	162.4	121.5	79.0	37.7	10.0	0.8	0.8	1.2
105°	190.8	184.8	168.8	140.7	103.4	62.1	26.5	6.0	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	124.3	119.5	105.4	81.8	52.5	24.5	7.2	1.2	1.2	1.2	1.2
115°	103.8	96.6	84.2	63.3	38.9	16.0	3.6	1.2	1.2	1.2	1.2
117.5°	83.0	77.0	68.2	48.1	25.7	10.4	2.0	1.2	1.2	1.2	1.2
120°	65.0	59.3	49.3	33.3	17.2	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.5	42.1	33.3	21.7	10.4	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.9	28.5	22.1	13.2	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.0	18.0	12.8	7.6	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.2	10.0	7.6	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.4	6.0	4.0	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	314.7	314.7	314.7
2.5°	299.5	293.9	292.3
5°	283.5	274.2	269.0
7.5°	267.4	255.0	249.0
10°	252.6	235.0	228.5
12.5°	235.0	214.5	204.5
15°	218.1	191.7	182.0
17.5°	199.3	169.6	158.4
20°	181.6	147.5	135.9
22.5°	161.6	125.9	113.1
25°	143.5	104.2	89.8
27.5°	123.5	82.2	69.8
30°	104.6	62.9	50.5
32.5°	86.6	46.1	34.9
35°	69.8	31.3	22.1
37.5°	53.7	19.2	11.2
40°	38.9	10.0	5.2
42.5°	26.1	4.8	2.8
45°	16.0	2.4	0.0
47.5°	9.2	0.0	0.0
50°	4.8	0.0	0.0
52.5°	2.0	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	168.4	163.6	147.5	121.1	84.6	47.3	17.6	3.2	0.8	1.2	1.2
110°	146.7	142.7	126.3	100.6	68.2	35.3	11.6	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)