

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: P551186

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-94-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: P551186
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-93-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

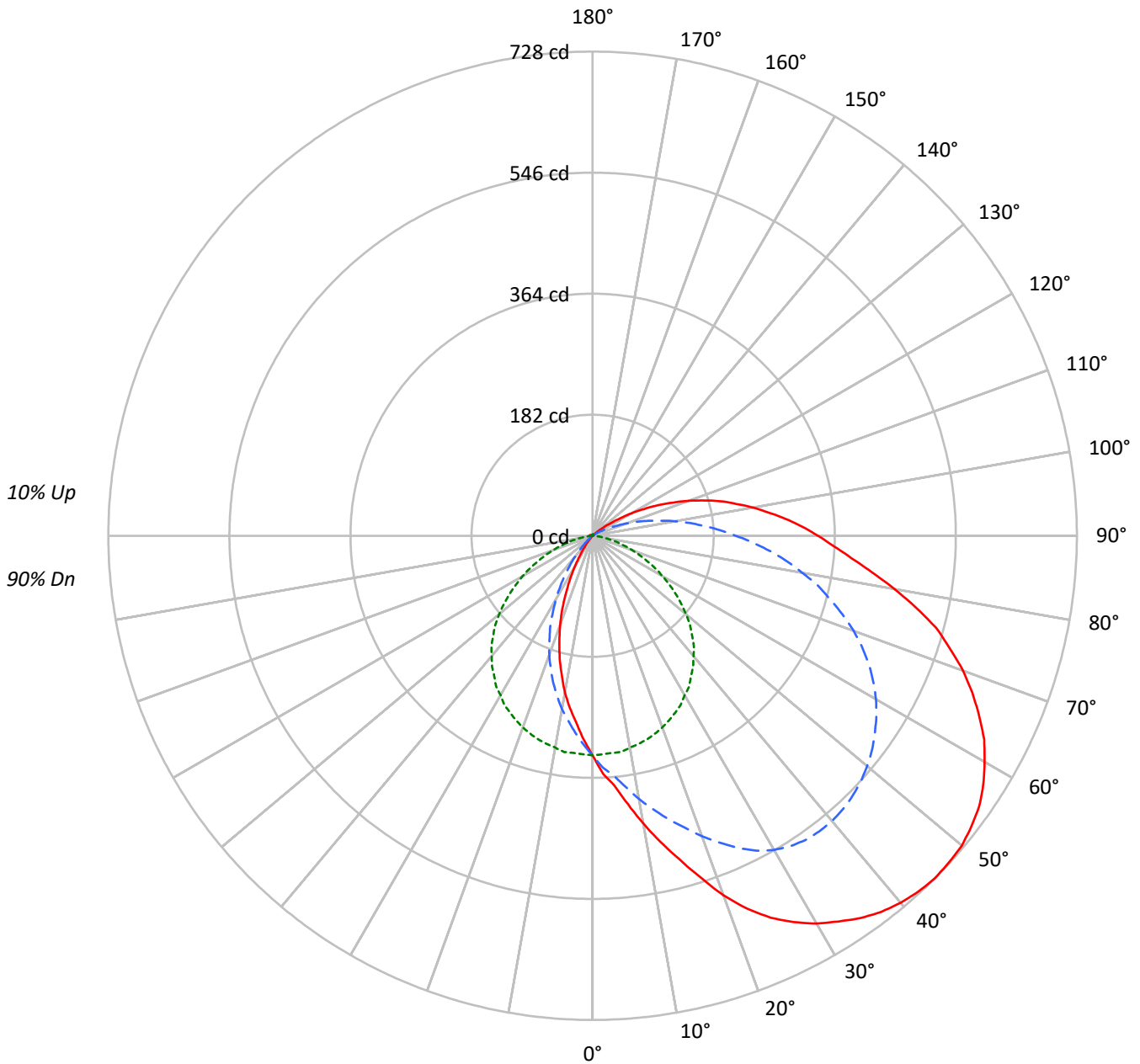
Lumens per Lamp: N/A
Luminaire Lumens: 1632.1 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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				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°	3553	3553	3553
5°	3901	3501	2921
10°	4415	3459	2408
15°	4947	3415	1876
20°	5579	3359	1382
25°	6103	3294	907
30°	6494	3208	511
35°	6831	3115	225
40°	7131	3000	54
45°	7387	2856	0
50°	7603	2666	0
55°	7767	2424	0
60°	7850	2143	0
65°	7882	1824	0
70°	7856	1488	0
75°	7756	1097	6
80°	7442	671	34
85°	7193	320	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	1.9
10°-20°	94.7	5.8
20°-30°	153.3	9.4
30°-40°	197.0	12.1
40°-50°	223.0	13.7
50°-60°	231.0	14.2
60°-70°	217.8	13.3
70°-80°	182.6	11.2
80°-90°	132.3	8.1
90°-100°	87.0	5.3
100°-110°	50.2	3.1
110°-120°	22.2	1.4
120°-130°	6.0	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	279.6	17.1
0°-40°	476.6	29.2
0°-60°	930.5	57.0
0°-90°	1463.2	89.7
90°-120°	159.4	9.8
90°-150°	167.7	10.3
90°-180°	169.0	10.4
0°-180°	1632.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	330	330	330	330	330	
5°	377	362	328	297	282	38
15°	503	441	317	229	191	145
25°	634	518	294	150	94	293
35°	702	558	258	73	23	440
45°	728	553	211	17	0	562
55°	709	518	152	0	0	633
65°	641	458	91	0	0	635
75°	534	370	39	0	0	561
85°	391	268	6	2	2	334
90°	339	215	2	2	3	186
95°	291	168	1	3	4	228
105°	200	87	1	2	3	211
115°	109	29	1	1	2	109
125°	32	4	2	1	2	32
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°	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1	330.1
2.5°	357.9	357.4	356.2	354.1	351.1	346.1	341.9	338.1	333.1	328.9	320.9
5°	376.8	374.7	373.0	370.9	364.2	359.6	352.0	343.6	335.6	327.6	311.6
7.5°	407.1	403.7	401.2	395.3	386.0	375.5	363.8	355.8	350.3	328.0	300.7
10°	439.5	436.5	431.5	420.9	409.6	394.5	377.6	358.7	341.9	323.4	291.0
12.5°	471.4	467.2	460.1	446.6	430.6	411.7	388.6	366.3	342.3	320.4	279.7
15°	503.4	498.7	491.2	474.8	453.7	428.9	400.8	372.6	344.4	316.7	267.9
17.5°	538.3	532.0	520.6	502.1	475.6	444.9	411.7	377.6	343.6	312.0	255.3
20°	575.7	566.9	554.7	529.9	498.7	462.6	422.6	382.7	343.2	306.6	241.0
22.5°	606.8	598.0	584.5	558.9	521.5	477.3	431.9	386.0	341.5	300.3	227.5
25°	633.7	626.6	611.9	582.4	542.9	492.9	440.7	388.6	338.9	293.5	213.2
27.5°	654.8	648.0	631.6	601.4	561.0	506.7	447.4	389.8	335.6	286.8	198.5
30°	673.3	666.5	646.8	615.7	573.2	517.7	454.2	390.2	331.4	276.7	182.5
32.5°	687.6	681.3	661.1	627.8	581.6	525.2	458.0	389.8	325.9	269.6	165.3
35°	701.9	695.6	672.0	636.7	587.9	528.6	460.9	387.7	319.2	257.8	148.9
37.5°	712.8	705.6	681.7	642.6	590.8	529.4	460.5	384.8	312.0	248.1	132.5
40°	720.4	712.8	687.1	645.9	591.7	528.2	457.1	379.7	303.6	235.9	115.2
42.5°	725.4	717.0	689.7	651.0	590.0	524.8	452.1	373.4	294.4	225.4	98.8
45°	727.9	719.1	690.1	646.8	587.1	518.5	444.5	365.4	284.3	211.1	82.4
47.5°	726.7	717.0	688.0	642.1	581.6	511.8	436.1	355.8	272.1	198.5	66.9
50°	724.6	714.5	683.4	636.3	574.0	503.4	426.8	344.0	259.5	182.9	53.0
52.5°	717.8	707.7	678.3	627.8	565.2	493.7	414.2	331.8	246.0	167.8	40.4
55°	709.4	700.2	669.5	620.3	553.8	481.9	402.4	318.8	233.0	152.2	29.0
57.5°	696.4	688.0	658.5	608.1	542.5	468.9	389.4	304.5	216.6	136.7	20.2
60°	680.4	672.0	643.4	594.2	529.4	454.2	375.1	289.7	201.9	121.1	12.6
62.5°	663.6	655.6	625.7	577.0	513.0	438.6	359.6	275.0	186.3	106.8	7.6
65°	641.3	633.7	606.8	556.4	495.0	421.8	342.3	257.4	170.3	90.8	4.2
67.5°	617.8	611.0	583.7	537.4	473.9	403.3	324.6	240.1	153.5	77.0	2.1
70°	592.5	584.1	558.9	511.8	452.5	382.3	305.3	222.5	137.5	63.5	0.0
72.5°	563.1	556.8	532.4	487.8	427.7	360.0	285.5	203.1	119.9	50.5	0.4
75°	534.5	526.5	504.2	462.2	403.3	336.4	263.7	185.0	102.6	38.7	0.4
77.5°	497.5	495.0	473.9	433.1	380.2	313.7	239.7	163.2	86.2	27.8	0.4
80°	460.5	458.0	441.6	404.1	353.2	286.8	217.4	142.6	70.2	18.5	0.4
82.5°	423.9	420.5	405.0	373.8	325.9	264.1	194.3	122.0	55.5	11.4	0.4
85°	391.1	386.9	370.1	341.5	297.7	238.4	170.3	101.8	41.2	6.3	0.8
87.5°	362.9	360.0	341.5	312.0	269.1	214.5	149.3	82.4	29.0	2.9	1.3
90°	338.9	332.6	316.2	285.1	242.2	188.0	127.0	66.0	19.3	1.7	1.7
92.5°	315.4	309.9	291.8	259.9	218.3	165.3	105.6	50.5	12.2	0.8	2.1
95°	291.0	285.1	267.5	238.0	193.9	142.1	86.6	37.0	6.7	0.8	2.1
97.5°	267.0	261.6	243.1	213.6	172.0	122.0	68.5	26.1	3.4	0.8	1.7
100°	244.7	238.4	221.6	192.2	150.1	101.8	53.0	16.8	2.1	0.8	1.7
102.5°	221.2	216.2	198.9	170.3	127.4	82.8	39.5	10.5	0.8	0.8	1.3
105°	200.2	193.9	177.0	147.6	108.5	65.2	27.8	6.3	0.8	0.8	1.3



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	130.4	125.3	110.6	85.8	55.1	25.7	7.6	1.3	1.3	1.3	1.3
115°	108.9	101.3	88.3	66.4	40.8	16.8	3.8	1.3	1.3	1.3	1.3
117.5°	87.0	80.7	71.5	50.5	26.9	10.9	2.1	1.3	1.3	1.3	1.3
120°	68.1	62.2	51.7	34.9	18.1	6.3	0.8	1.3	1.3	1.3	1.3
122.5°	48.8	44.2	34.9	22.7	10.9	2.9	1.3	1.3	1.7	1.7	1.3
125°	32.4	29.9	23.1	13.9	6.7	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.0	18.9	13.5	8.0	2.9	1.3	1.3	1.7	1.7	1.7	1.3
130°	11.8	10.5	8.0	4.6	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.7	6.3	4.2	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.3	1.3	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	330.1	330.1	330.1
2.5°	314.1	308.2	306.6
5°	297.3	287.6	282.2
7.5°	280.5	267.5	261.1
10°	264.9	246.4	239.7
12.5°	246.4	225.0	214.5
15°	228.8	201.0	190.9
17.5°	209.0	177.9	166.1
20°	190.5	154.8	142.6
22.5°	169.5	132.0	118.6
25°	150.5	109.3	94.2
27.5°	129.5	86.2	73.2
30°	109.8	66.0	53.0
32.5°	90.8	48.4	36.6
35°	73.2	32.8	23.1
37.5°	56.4	20.2	11.8
40°	40.8	10.5	5.5
42.5°	27.3	5.0	2.9
45°	16.8	2.5	0.0
47.5°	9.7	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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	1.3
80°	0.8	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.4	3.4
95°	2.9	3.4	3.8
97.5°	3.4	3.8	3.8
100°	2.9	3.8	4.2
102.5°	2.5	3.8	3.8
105°	2.1	2.9	3.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.3	1.7	2.1
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.8
152.5°	1.3	0.8	0.8
155°	1.3	0.8	0.4
157.5°	1.7	0.8	0.4
160°	1.3	0.8	0.4
162.5°	1.3	0.8	0.4
165°	1.3	0.8	0.0
167.5°	1.3	0.8	0.4
170°	1.3	0.8	0.4
172.5°	1.3	0.8	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	176.6	171.6	154.8	127.0	88.7	49.6	18.5	3.4	0.8	1.3	1.3
110°	153.9	149.7	132.5	105.6	71.5	37.0	12.2	2.1	1.3	1.3	1.3





107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)