

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: P551026

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-81-94-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: P551026
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-35-UNV-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

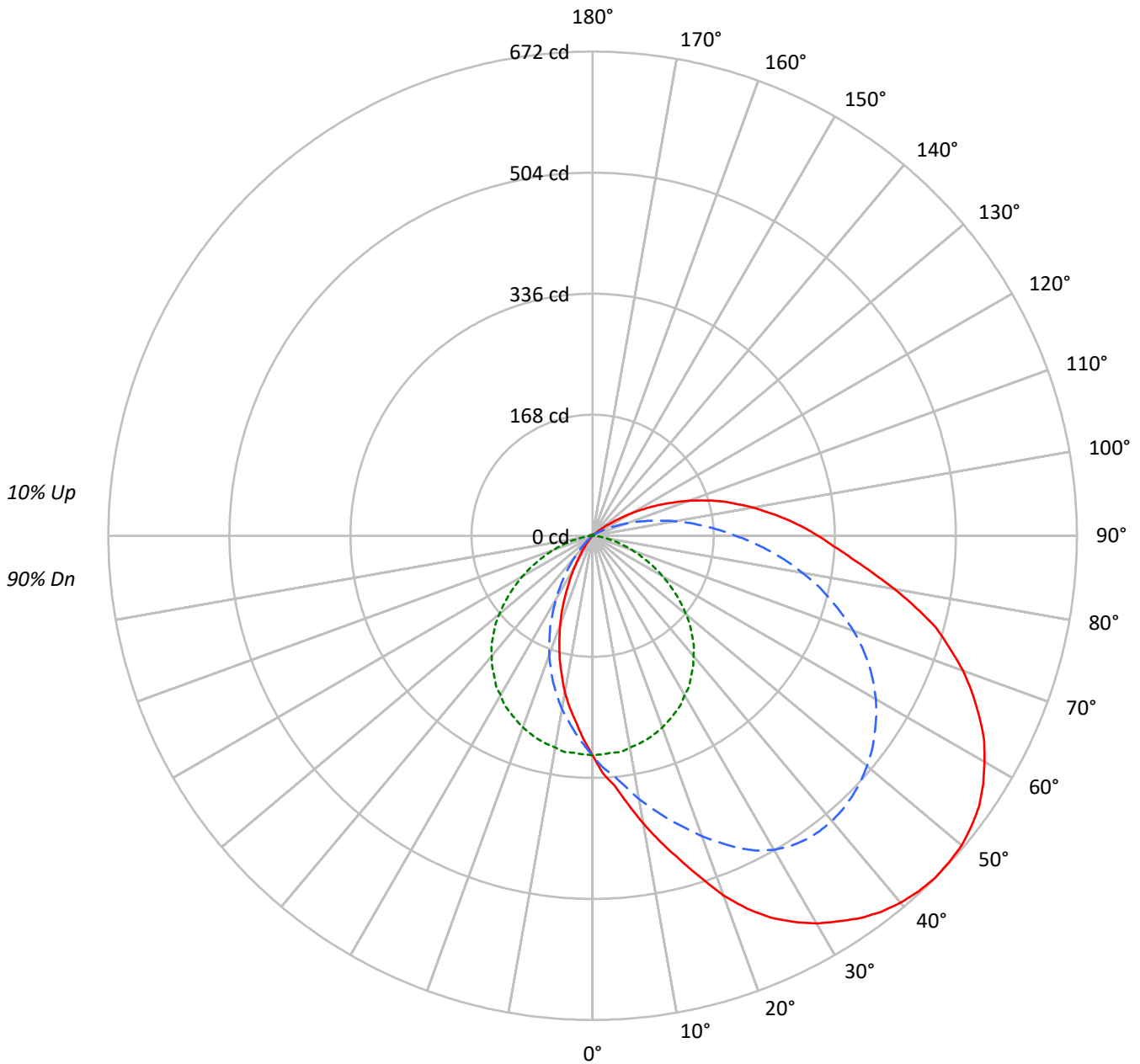
Lumens per Lamp: N/A
Luminaire Lumens: 1506.1 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): 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-LD4-1STD-35-UNV-81-94-ED1D

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°	3279	3279	3279
5°	3599	3231	2696
10°	4073	3191	2222
15°	4565	3151	1732
20°	5149	3100	1275
25°	5632	3040	837
30°	5992	2960	472
35°	6304	2874	207
40°	6579	2769	49
45°	6817	2636	0
50°	7016	2460	0
55°	7168	2237	0
60°	7244	1978	0
65°	7274	1683	0
70°	7250	1373	0
75°	7157	1012	6
80°	6867	620	31
85°	6638	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.2	1.9
10°-20°	87.4	5.8
20°-30°	141.5	9.4
30°-40°	181.7	12.1
40°-50°	205.7	13.7
50°-60°	213.1	14.2
60°-70°	201.0	13.3
70°-80°	168.5	11.2
80°-90°	122.1	8.1
90°-100°	80.3	5.3
100°-110°	46.4	3.1
110°-120°	20.5	1.4
120°-130°	5.6	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°	258.0	17.1
0°-40°	439.8	29.2
0°-60°	858.7	57.0
0°-90°	1350.3	89.7
90°-120°	147.1	9.8
90°-150°	154.8	10.3
90°-180°	156.0	10.4
0°-180°	1506.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	305	305	305	305	305	
5°	348	334	302	274	260	35
15°	464	407	292	211	176	134
25°	585	478	271	139	87	270
35°	648	515	238	68	21	406
45°	672	510	195	16	0	519
55°	655	478	140	0	0	585
65°	592	423	84	0	0	586
75°	493	341	36	0	0	517
85°	361	247	6	2	2	308
90°	313	198	2	2	3	171
95°	268	155	1	3	4	211
105°	185	80	1	2	3	195
115°	100	27	1	1	2	101
125°	30	4	2	1	2	30
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°	304.6	304.6	304.6	304.6	304.6	304.6	304.6	304.6	304.6	304.6	304.6
2.5°	330.2	329.9	328.7	326.7	324.0	319.4	315.5	312.0	307.3	303.5	296.1
5°	347.7	345.8	344.2	342.3	336.1	331.8	324.8	317.0	309.7	302.3	287.6
7.5°	375.6	372.5	370.2	364.8	356.2	346.5	335.7	328.3	323.3	302.7	277.5
10°	405.5	402.8	398.2	388.4	378.0	364.0	348.5	331.0	315.5	298.4	268.5
12.5°	435.0	431.1	424.5	412.1	397.4	379.9	358.6	338.0	315.9	295.7	258.1
15°	464.5	460.2	453.3	438.1	418.7	395.8	369.8	343.8	317.8	292.2	247.2
17.5°	496.7	490.9	480.4	463.3	438.9	410.6	379.9	348.5	317.0	287.9	235.6
20°	531.3	523.1	511.9	489.0	460.2	426.9	390.0	353.1	316.7	282.9	222.4
22.5°	560.0	551.8	539.4	515.7	481.2	440.4	398.5	356.2	315.1	277.1	209.9
25°	584.8	578.2	564.6	537.5	501.0	454.8	406.7	358.6	312.8	270.9	196.7
27.5°	604.2	598.0	582.9	554.9	517.7	467.6	412.9	359.7	309.7	264.7	183.2
30°	621.3	615.1	596.8	568.1	528.9	477.7	419.1	360.1	305.8	255.3	168.4
32.5°	634.5	628.7	610.0	579.4	536.7	484.7	422.6	359.7	300.7	248.7	152.5
35°	647.7	641.9	620.1	587.5	542.5	487.8	425.3	357.8	294.5	237.9	137.4
37.5°	657.8	651.2	629.0	593.0	545.2	488.6	424.9	355.1	287.9	229.0	122.2
40°	664.7	657.8	634.1	596.1	546.0	487.4	421.8	350.4	280.2	217.7	106.3
42.5°	669.4	661.6	636.4	600.7	544.4	484.3	417.2	344.6	271.6	208.0	91.2
45°	671.7	663.6	636.8	596.8	541.7	478.5	410.2	337.2	262.3	194.8	76.1
47.5°	670.6	661.6	634.9	592.6	536.7	472.3	402.4	328.3	251.1	183.2	61.7
50°	668.6	659.3	630.6	587.1	529.7	464.5	393.9	317.4	239.4	168.8	48.9
52.5°	662.4	653.1	625.9	579.4	521.6	455.6	382.2	306.2	227.0	154.8	37.3
55°	654.7	646.1	617.8	572.4	511.1	444.7	371.4	294.1	215.0	140.5	26.8
57.5°	642.6	634.9	607.7	561.1	500.6	432.7	359.3	281.0	199.9	126.1	18.6
60°	627.9	620.1	593.7	548.3	488.6	419.1	346.2	267.4	186.3	111.8	11.6
62.5°	612.4	605.0	577.4	532.4	473.4	404.7	331.8	253.8	171.9	98.6	7.0
65°	591.8	584.8	560.0	513.4	456.7	389.2	315.9	237.5	157.2	83.8	3.9
67.5°	570.1	563.9	538.6	495.9	437.3	372.2	299.6	221.6	141.6	71.0	1.9
70°	546.8	539.0	515.7	472.3	417.6	352.7	281.7	205.3	126.9	58.6	0.0
72.5°	519.6	513.8	491.3	450.2	394.7	332.2	263.5	187.4	110.6	46.6	0.4
75°	493.2	485.9	465.3	426.5	372.2	310.4	243.3	170.7	94.7	35.7	0.4
77.5°	459.1	456.7	437.3	399.7	350.8	289.5	221.2	150.6	79.6	25.6	0.4
80°	424.9	422.6	407.5	372.9	326.0	264.7	200.6	131.6	64.8	17.1	0.4
82.5°	391.2	388.1	373.7	345.0	300.7	243.7	179.3	112.5	51.2	10.5	0.4
85°	360.9	357.0	341.5	315.1	274.7	220.0	157.2	93.9	38.0	5.8	0.8
87.5°	334.9	332.2	315.1	287.9	248.4	197.9	137.8	76.1	26.8	2.7	1.2
90°	312.8	307.0	291.8	263.1	223.5	173.5	117.2	60.9	17.9	1.6	1.6
92.5°	291.0	286.0	269.3	239.8	201.4	152.5	97.4	46.6	11.3	0.8	1.9
95°	268.5	263.1	246.8	219.6	178.9	131.2	79.9	34.1	6.2	0.8	1.9
97.5°	246.4	241.4	224.3	197.1	158.7	112.5	63.3	24.1	3.1	0.8	1.6
100°	225.9	220.0	204.5	177.3	138.5	93.9	48.9	15.5	1.9	0.8	1.6
102.5°	204.1	199.5	183.6	157.2	117.6	76.4	36.5	9.7	0.8	0.8	1.2
105°	184.7	178.9	163.4	136.2	100.1	60.1	25.6	5.8	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	120.3	115.6	102.1	79.2	50.8	23.7	7.0	1.2	1.2	1.2	1.2
115°	100.5	93.5	81.5	61.3	37.6	15.5	3.5	1.2	1.2	1.2	1.2
117.5°	80.3	74.5	66.0	46.6	24.8	10.1	1.9	1.2	1.2	1.2	1.2
120°	62.9	57.4	47.7	32.2	16.7	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	45.0	40.7	32.2	21.0	10.1	2.7	1.2	1.2	1.6	1.6	1.2
125°	29.9	27.6	21.3	12.8	6.2	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.4	17.5	12.4	7.4	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	10.9	9.7	7.4	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.2	5.8	3.9	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	1.9	1.9	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	1.9	1.9	1.9	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	1.9	1.9	1.9	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
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	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	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°	304.6	304.6	304.6
2.5°	289.9	284.4	282.9
5°	274.4	265.4	260.4
7.5°	258.8	246.8	241.0
10°	244.5	227.4	221.2
12.5°	227.4	207.6	197.9
15°	211.1	185.5	176.2
17.5°	192.9	164.1	153.3
20°	175.8	142.8	131.6
22.5°	156.4	121.9	109.4
25°	138.9	100.9	86.9
27.5°	119.5	79.6	67.5
30°	101.3	60.9	48.9
32.5°	83.8	44.6	33.8
35°	67.5	30.3	21.3
37.5°	52.0	18.6	10.9
40°	37.6	9.7	5.0
42.5°	25.2	4.7	2.7
45°	15.5	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.7	0.0	0.0
52.5°	1.9	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	1.9
82.5°	1.6	1.9	1.9
85°	1.6	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	1.9	1.9
115°	1.2	1.6	1.9
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°	163.0	158.3	142.8	117.2	81.9	45.8	17.1	3.1	0.8	1.2	1.2
110°	142.0	138.1	122.2	97.4	66.0	34.1	11.3	1.9	1.2	1.2	1.2





107.5°	1.6	2.3	2.7
110°	1.6	1.9	2.3



(END OF REPORT)