

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: P551076

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-96-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: P551076
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-40-UNV-80-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

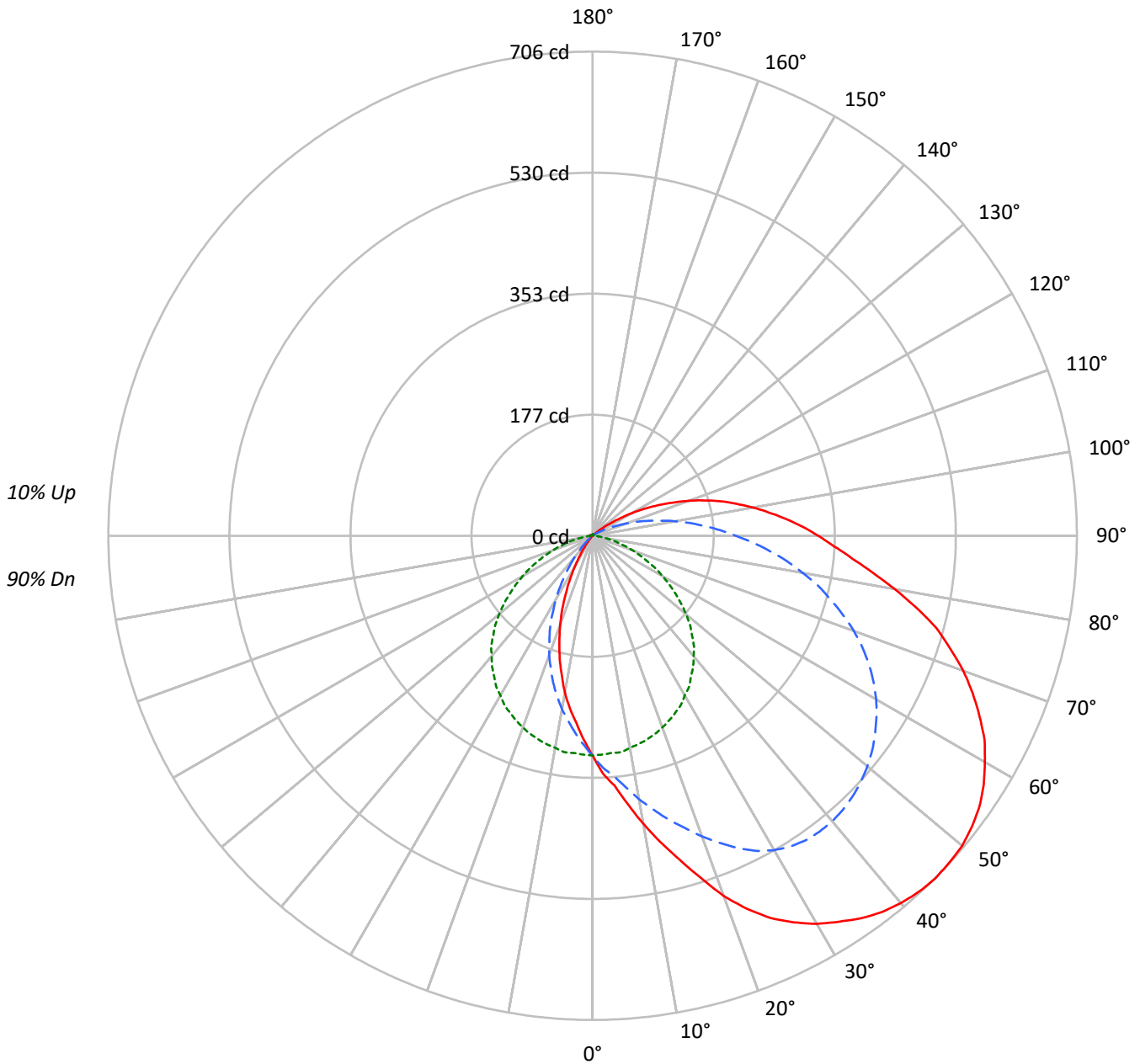
Lumens per Lamp: N/A
Luminaire Lumens: 1583.9 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3449	3449	3449
5°	3786	3399	2835
10°	4284	3357	2337
15°	4801	3313	1821
20°	5415	3259	1341
25°	5924	3197	880
30°	6303	3114	496
35°	6630	3023	218
40°	6921	2912	52
45°	7170	2773	0
50°	7380	2587	0
55°	7539	2354	0
60°	7619	2079	0
65°	7650	1772	0
70°	7625	1443	0
75°	7528	1066	6
80°	7222	653	32
85°	6982	310	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	1.9
10°-20°	91.9	5.8
20°-30°	148.8	9.4
30°-40°	191.2	12.1
40°-50°	216.4	13.7
50°-60°	224.2	14.2
60°-70°	211.4	13.3
70°-80°	177.2	11.2
80°-90°	128.4	8.1
90°-100°	84.4	5.3
100°-110°	48.7	3.1
110°-120°	21.5	1.4
120°-130°	5.8	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°	271.4	17.1
0°-40°	462.6	29.2
0°-60°	903.1	57.0
0°-90°	1420.2	89.7
90°-120°	154.6	9.8
90°-150°	162.6	10.3
90°-180°	164.0	10.4
0°-180°	1583.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	320	320	320	320	320	
5°	366	351	318	289	274	37
15°	489	428	307	222	185	141
25°	615	503	285	146	91	284
35°	681	542	250	71	22	427
45°	706	537	205	16	0	545
55°	689	503	148	0	0	615
65°	622	445	88	0	0	616
75°	519	359	38	0	0	544
85°	380	260	6	2	2	324
90°	329	209	2	2	3	180
95°	282	163	1	3	4	222
105°	194	84	1	2	3	205
115°	106	28	1	1	2	106
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°	320.4	320.4	320.4	320.4	320.4	320.4	320.4	320.4	320.4	320.4	320.4
2.5°	347.3	346.9	345.7	343.7	340.8	335.9	331.8	328.2	323.3	319.2	311.4
5°	365.7	363.7	362.0	360.0	353.5	349.0	341.6	333.5	325.7	318.0	302.4
7.5°	395.1	391.8	389.4	383.7	374.7	364.5	353.1	345.3	340.0	318.4	291.8
10°	426.5	423.7	418.8	408.6	397.5	382.9	366.5	348.2	331.8	313.9	282.4
12.5°	457.5	453.5	446.5	433.5	418.0	399.6	377.1	355.5	332.2	311.0	271.4
15°	488.6	484.1	476.7	460.8	440.4	416.3	389.0	361.6	334.3	307.3	260.0
17.5°	522.4	516.3	505.3	487.3	461.6	431.8	399.6	366.5	333.5	302.9	247.8
20°	558.8	550.2	538.4	514.3	484.1	449.0	410.2	371.4	333.1	297.5	233.9
22.5°	589.0	580.4	567.3	542.4	506.1	463.3	419.2	374.7	331.4	291.4	220.8
25°	615.1	608.2	593.9	565.3	526.9	478.4	427.8	377.1	329.0	284.9	206.9
27.5°	635.5	629.0	613.1	583.7	544.5	491.8	434.3	378.4	325.7	278.4	192.7
30°	653.5	646.9	627.7	597.5	556.3	502.4	440.8	378.8	321.6	268.6	177.1
32.5°	667.3	661.2	641.6	609.4	564.5	509.8	444.5	378.4	316.3	261.6	160.4
35°	681.2	675.1	652.2	618.0	570.6	513.1	447.3	376.3	309.8	250.2	144.5
37.5°	691.8	684.9	661.6	623.7	573.5	513.9	446.9	373.5	302.9	240.8	128.6
40°	699.2	691.8	666.9	626.9	574.3	512.6	443.7	368.6	294.7	229.0	111.8
42.5°	704.1	695.9	669.4	631.8	572.6	509.4	438.8	362.4	285.7	218.8	95.9
45°	706.5	698.0	669.8	627.7	569.8	503.3	431.4	354.7	275.9	204.9	80.0
47.5°	705.3	695.9	667.7	623.3	564.5	496.7	423.3	345.3	264.1	192.7	64.9
50°	703.3	693.5	663.3	617.5	557.1	488.6	414.3	333.9	251.8	177.5	51.4
52.5°	696.7	686.9	658.4	609.4	548.6	479.2	402.0	322.0	238.8	162.9	39.2
55°	688.6	679.6	649.8	602.0	537.5	467.8	390.6	309.4	226.1	147.8	28.2
57.5°	675.9	667.7	639.2	590.2	526.5	455.1	378.0	295.5	210.2	132.7	19.6
60°	660.4	652.2	624.5	576.7	513.9	440.8	364.1	281.2	195.9	117.5	12.2
62.5°	644.1	636.3	607.3	560.0	498.0	425.7	349.0	266.9	180.8	103.7	7.3
65°	622.4	615.1	589.0	540.0	480.4	409.4	332.2	249.8	165.3	88.2	4.1
67.5°	599.6	593.1	566.5	521.6	460.0	391.4	315.1	233.1	149.0	74.7	2.0
70°	575.1	566.9	542.4	496.7	439.2	371.0	296.3	215.9	133.5	61.6	0.0
72.5°	546.5	540.4	516.7	473.5	415.1	349.4	277.1	197.1	116.3	49.0	0.4
75°	518.8	511.0	489.4	448.6	391.4	326.5	255.9	179.6	99.6	37.6	0.4
77.5°	482.9	480.4	460.0	420.4	369.0	304.5	232.7	158.4	83.7	26.9	0.4
80°	446.9	444.5	428.6	392.2	342.9	278.4	211.0	138.4	68.2	18.0	0.4
82.5°	411.4	408.2	393.1	362.9	316.3	256.3	188.6	118.4	53.9	11.0	0.4
85°	379.6	375.5	359.2	331.4	289.0	231.4	165.3	98.8	40.0	6.1	0.8
87.5°	352.2	349.4	331.4	302.9	261.2	208.2	144.9	80.0	28.2	2.9	1.2
90°	329.0	322.9	306.9	276.7	235.1	182.4	123.3	64.1	18.8	1.6	1.6
92.5°	306.1	300.8	283.3	252.2	211.8	160.4	102.4	49.0	11.8	0.8	2.0
95°	282.4	276.7	259.6	231.0	188.2	138.0	84.1	35.9	6.5	0.8	2.0
97.5°	259.2	253.9	235.9	207.3	166.9	118.4	66.5	25.3	3.3	0.8	1.6
100°	237.5	231.4	215.1	186.5	145.7	98.8	51.4	16.3	2.0	0.8	1.6
102.5°	214.7	209.8	193.1	165.3	123.7	80.4	38.4	10.2	0.8	0.8	1.2
105°	194.3	188.2	171.8	143.3	105.3	63.3	26.9	6.1	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	126.5	121.6	107.3	83.3	53.5	24.9	7.3	1.2	1.2	1.2	1.2
115°	105.7	98.4	85.7	64.5	39.6	16.3	3.7	1.2	1.2	1.2	1.2
117.5°	84.5	78.4	69.4	49.0	26.1	10.6	2.0	1.2	1.2	1.2	1.2
120°	66.1	60.4	50.2	33.9	17.6	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.3	42.9	33.9	22.0	10.6	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.4	29.0	22.4	13.5	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.4	18.4	13.1	7.8	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.4	10.2	7.8	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	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°	320.4	320.4	320.4
2.5°	304.9	299.2	297.5
5°	288.6	279.2	273.9
7.5°	272.2	259.6	253.5
10°	257.1	239.2	232.7
12.5°	239.2	218.4	208.2
15°	222.0	195.1	185.3
17.5°	202.9	172.7	161.2
20°	184.9	150.2	138.4
22.5°	164.5	128.2	115.1
25°	146.1	106.1	91.4
27.5°	125.7	83.7	71.0
30°	106.5	64.1	51.4
32.5°	88.2	46.9	35.5
35°	71.0	31.8	22.4
37.5°	54.7	19.6	11.4
40°	39.6	10.2	5.3
42.5°	26.5	4.9	2.9
45°	16.3	2.4	0.0
47.5°	9.4	0.0	0.0
50°	4.9	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	2.9
90°	2.4	2.9	2.9
92.5°	2.4	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.1
102.5°	2.4	3.7	3.7
105°	2.0	2.9	3.3



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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°	171.4	166.5	150.2	123.3	86.1	48.2	18.0	3.3	0.8	1.2	1.2
110°	149.4	145.3	128.6	102.4	69.4	35.9	11.8	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.9
110°	1.6	2.0	2.4



(END OF REPORT)