

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: P551077

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-97-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: P551077
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-80-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

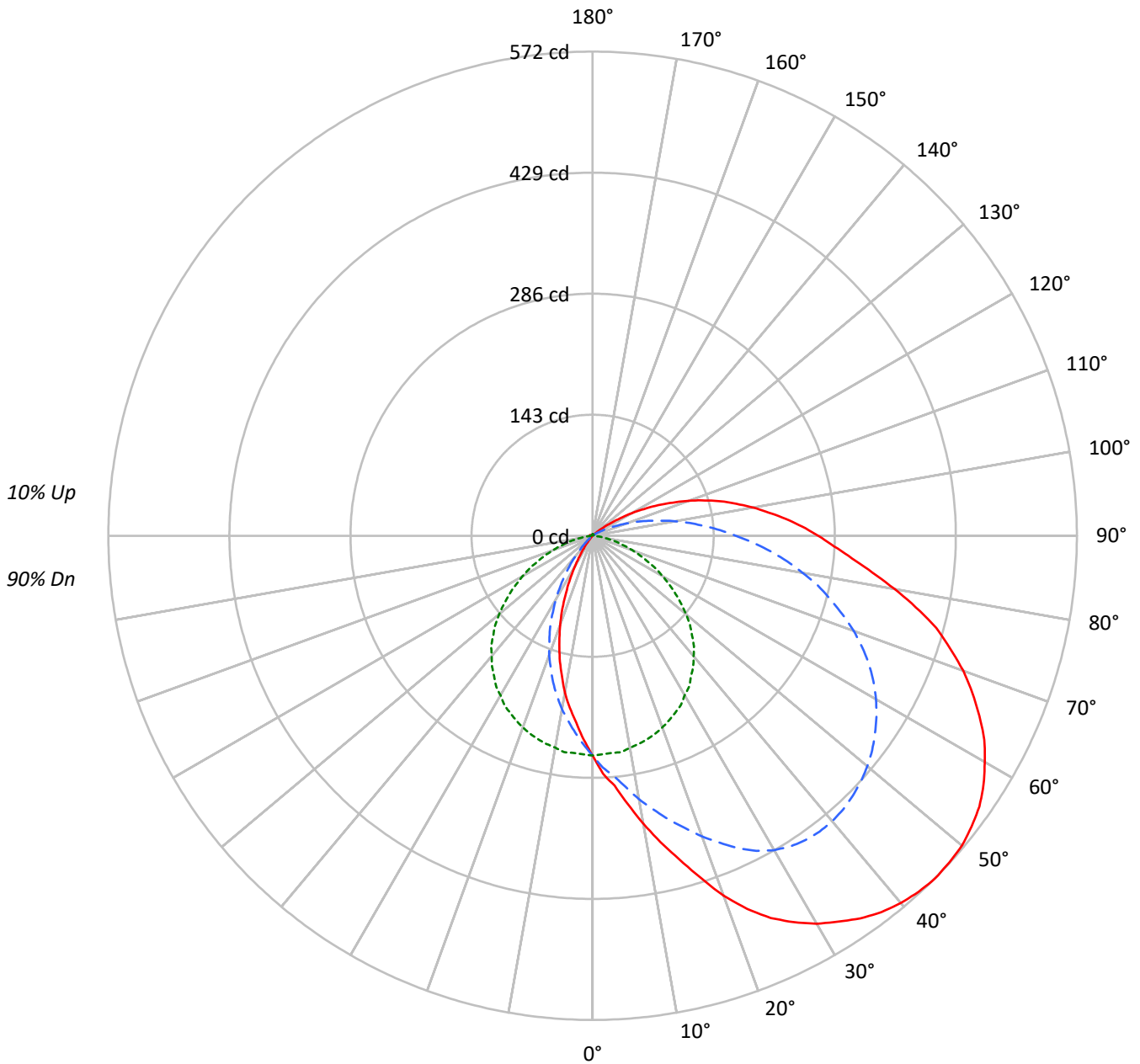
Lumens per Lamp: N/A
Luminaire Lumens: 1283.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2793	2793	2793
5°	3066	2752	2296
10°	3470	2718	1892
15°	3889	2684	1475
20°	4386	2640	1086
25°	4798	2590	714
30°	5105	2521	402
35°	5371	2449	177
40°	5605	2359	43
45°	5808	2246	0
50°	5977	2096	0
55°	6106	1906	0
60°	6171	1685	0
65°	6197	1434	0
70°	6176	1169	0
75°	6097	862	4
80°	5850	526	27
85°	5656	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	1.9
10°-20°	74.4	5.8
20°-30°	120.5	9.4
30°-40°	154.8	12.1
40°-50°	175.3	13.7
50°-60°	181.6	14.2
60°-70°	171.3	13.3
70°-80°	143.5	11.2
80°-90°	104.0	8.1
90°-100°	68.4	5.3
100°-110°	39.5	3.1
110°-120°	17.4	1.4
120°-130°	4.7	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°	219.8	17.1
0°-40°	374.7	29.2
0°-60°	731.5	57.0
0°-90°	1150.3	89.7
90°-120°	125.3	9.8
90°-150°	131.8	10.3
90°-180°	133.0	10.4
0°-180°	1283.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	260	260	260	260	260	
5°	296	284	258	234	222	30
15°	396	347	249	180	150	114
25°	498	407	231	118	74	230
35°	552	439	203	58	18	346
45°	572	435	166	13	0	442
55°	558	407	120	0	0	498
65°	504	360	71	0	0	499
75°	420	291	30	0	0	441
85°	308	211	5	1	2	263
90°	266	169	1	2	2	146
95°	229	132	1	2	3	179
105°	157	68	1	2	3	166
115°	86	23	1	1	2	86
125°	26	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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	259.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5
2.5°	281.3	281.0	280.0	278.4	276.1	272.1	268.8	265.8	261.8	258.5	252.2
5°	296.2	294.6	293.2	291.6	286.3	282.7	276.7	270.1	263.8	257.5	245.0
7.5°	320.0	317.4	315.4	310.8	303.5	295.2	286.0	279.7	275.4	257.9	236.4
10°	345.5	343.2	339.2	330.9	322.0	310.1	296.9	282.0	268.8	254.2	228.8
12.5°	370.6	367.3	361.7	351.1	338.5	323.7	305.5	288.0	269.1	251.9	219.8
15°	395.7	392.1	386.1	373.2	356.7	337.2	315.1	292.9	270.8	248.9	210.6
17.5°	423.2	418.2	409.3	394.7	373.9	349.8	323.7	296.9	270.1	245.3	200.7
20°	452.6	445.6	436.1	416.6	392.1	363.7	332.3	300.8	269.8	241.0	189.4
22.5°	477.1	470.1	459.5	439.4	409.9	375.2	339.5	303.5	268.4	236.0	178.9
25°	498.2	492.6	481.0	457.9	426.8	387.5	346.5	305.5	266.5	230.8	167.6
27.5°	514.7	509.5	496.6	472.8	441.0	398.4	351.8	306.5	263.8	225.5	156.0
30°	529.3	524.0	508.5	484.0	450.6	407.0	357.0	306.8	260.5	217.5	143.5
32.5°	540.5	535.6	519.7	493.6	457.2	412.9	360.0	306.5	256.2	211.9	129.9
35°	551.8	546.8	528.3	500.5	462.2	415.6	362.3	304.8	250.9	202.7	117.0
37.5°	560.4	554.7	535.9	505.2	464.5	416.2	362.0	302.5	245.3	195.1	104.1
40°	566.3	560.4	540.2	507.8	465.2	415.2	359.4	298.5	238.7	185.5	90.6
42.5°	570.3	563.7	542.2	511.8	463.8	412.6	355.4	293.6	231.4	177.2	77.7
45°	572.3	565.3	542.5	508.5	461.5	407.6	349.4	287.3	223.5	166.0	64.8
47.5°	571.3	563.7	540.9	504.8	457.2	402.3	342.8	279.7	213.9	156.0	52.6
50°	569.6	561.7	537.2	500.2	451.3	395.7	335.6	270.4	204.0	143.8	41.7
52.5°	564.3	556.4	533.3	493.6	444.3	388.1	325.6	260.8	193.4	131.9	31.7
55°	557.7	550.4	526.3	487.6	435.4	378.9	316.4	250.6	183.2	119.7	22.8
57.5°	547.5	540.9	517.7	478.0	426.5	368.6	306.1	239.4	170.3	107.4	15.9
60°	534.9	528.3	505.8	467.1	416.2	357.0	294.9	227.8	158.7	95.2	9.9
62.5°	521.7	515.4	491.9	453.6	403.3	344.8	282.7	216.2	146.5	84.0	6.0
65°	504.2	498.2	477.1	437.4	389.1	331.6	269.1	202.3	133.9	71.4	3.3
67.5°	485.6	480.4	458.9	422.5	372.6	317.0	255.2	188.8	120.7	60.5	1.7
70°	465.8	459.2	439.4	402.3	355.7	300.5	240.0	174.9	108.1	49.9	0.0
72.5°	442.7	437.7	418.5	383.5	336.2	283.0	224.5	159.7	94.2	39.7	0.3
75°	420.2	413.9	396.4	363.3	317.0	264.5	207.3	145.5	80.7	30.4	0.3
77.5°	391.1	389.1	372.6	340.5	298.9	246.6	188.4	128.3	67.8	21.8	0.3
80°	362.0	360.0	347.1	317.7	277.7	225.5	170.9	112.1	55.2	14.5	0.3
82.5°	333.2	330.6	318.4	293.9	256.2	207.6	152.7	95.9	43.6	8.9	0.3
85°	307.5	304.2	290.9	268.4	234.1	187.4	133.9	80.0	32.4	5.0	0.7
87.5°	285.3	283.0	268.4	245.3	211.6	168.6	117.4	64.8	22.8	2.3	1.0
90°	266.5	261.5	248.6	224.1	190.4	147.8	99.8	51.9	15.2	1.3	1.3
92.5°	247.9	243.7	229.4	204.3	171.6	129.9	83.0	39.7	9.6	0.7	1.7
95°	228.8	224.1	210.3	187.1	152.4	111.7	68.1	29.1	5.3	0.7	1.7
97.5°	209.9	205.6	191.1	167.9	135.2	95.9	53.9	20.5	2.6	0.7	1.3
100°	192.4	187.4	174.2	151.1	118.0	80.0	41.7	13.2	1.7	0.7	1.3
102.5°	173.9	169.9	156.4	133.9	100.2	65.1	31.1	8.3	0.7	0.7	1.0
105°	157.4	152.4	139.2	116.0	85.3	51.2	21.8	5.0	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	102.5	98.5	86.9	67.4	43.3	20.2	6.0	1.0	1.0	1.0	1.0
115°	85.6	79.7	69.4	52.2	32.1	13.2	3.0	1.0	1.0	1.0	1.0
117.5°	68.4	63.5	56.2	39.7	21.2	8.6	1.7	1.0	1.0	1.0	1.0
120°	53.6	48.9	40.7	27.4	14.2	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.3	34.7	27.4	17.9	8.6	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.5	23.5	18.2	10.9	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.5	14.9	10.6	6.3	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.3	8.3	6.3	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	5.0	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	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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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	259.5	259.5	259.5
2.5°	247.0	242.3	241.0
5°	233.7	226.1	221.8
7.5°	220.5	210.3	205.3
10°	208.3	193.7	188.4
12.5°	193.7	176.9	168.6
15°	179.8	158.0	150.1
17.5°	164.3	139.8	130.6
20°	149.8	121.7	112.1
22.5°	133.2	103.8	93.2
25°	118.4	86.0	74.1
27.5°	101.8	67.8	57.5
30°	86.3	51.9	41.7
32.5°	71.4	38.0	28.8
35°	57.5	25.8	18.2
37.5°	44.3	15.9	9.3
40°	32.1	8.3	4.3
42.5°	21.5	4.0	2.3
45°	13.2	2.0	0.0
47.5°	7.6	0.0	0.0
50°	4.0	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	3.0
97.5°	2.6	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
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	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	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°	138.9	134.9	121.7	99.8	69.8	39.0	14.5	2.6	0.7	1.0	1.0
110°	121.0	117.7	104.1	83.0	56.2	29.1	9.6	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)