

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: P551068

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-86-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: P551068
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-80-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

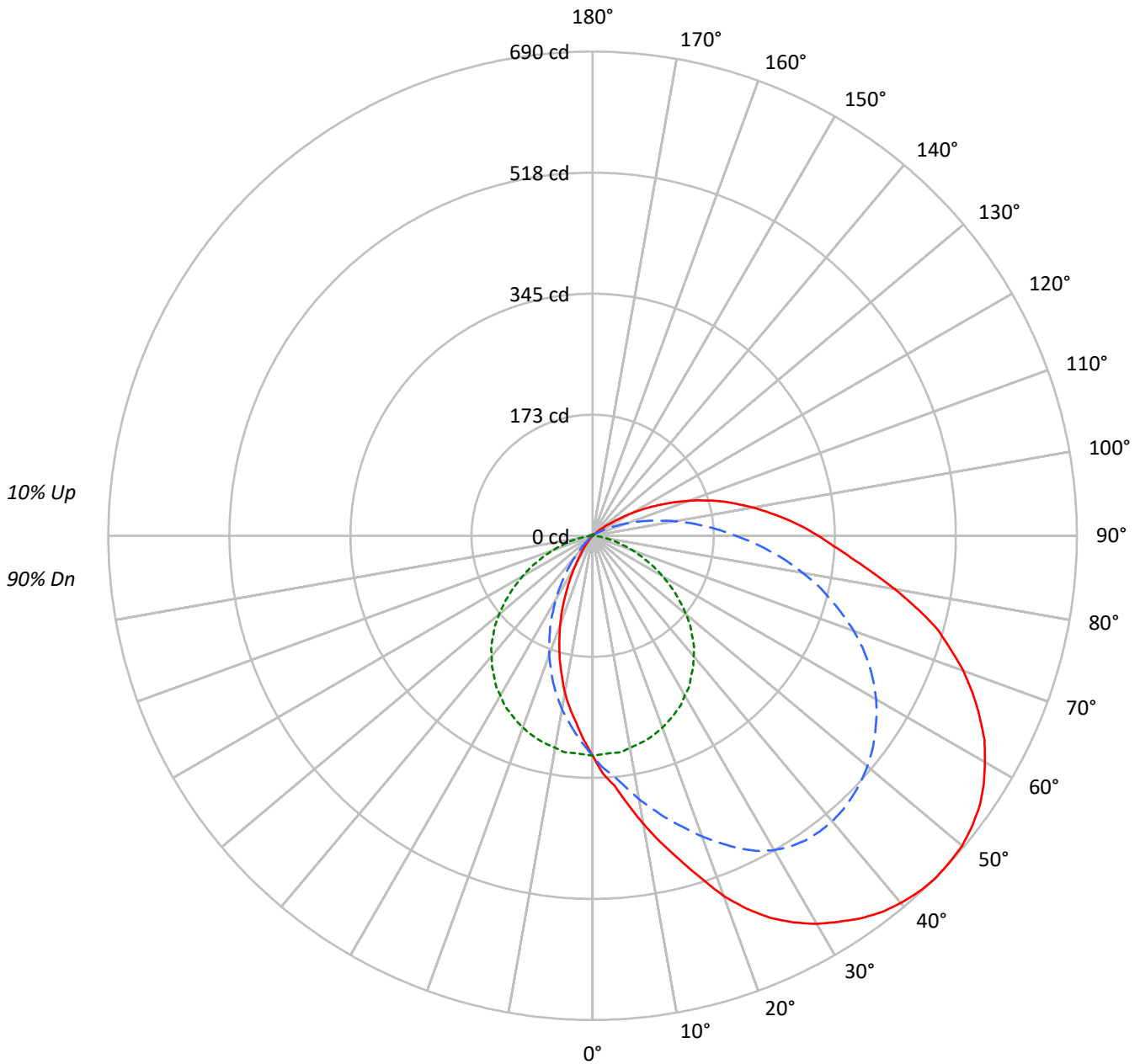
Lumens per Lamp: N/A
Luminaire Lumens: 1548.0 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				
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°	3370	3370	3370
5°	3700	3321	2771
10°	4187	3280	2284
15°	4692	3239	1780
20°	5292	3186	1310
25°	5789	3124	860
30°	6159	3043	485
35°	6479	2954	213
40°	6764	2846	51
45°	7007	2709	0
50°	7212	2529	0
55°	7367	2299	0
60°	7446	2033	0
65°	7476	1731	0
70°	7451	1410	0
75°	7357	1041	6
80°	7059	638	32
85°	6823	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	1.9
10°-20°	89.8	5.8
20°-30°	145.4	9.4
30°-40°	186.8	12.1
40°-50°	211.5	13.7
50°-60°	219.1	14.2
60°-70°	206.6	13.3
70°-80°	173.2	11.2
80°-90°	125.5	8.1
90°-100°	82.5	5.3
100°-110°	47.6	3.1
110°-120°	21.0	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°	265.2	17.1
0°-40°	452.1	29.2
0°-60°	882.6	57.0
0°-90°	1387.9	89.7
90°-120°	151.2	9.8
90°-150°	159.0	10.3
90°-180°	160.0	10.3
0°-180°	1548.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	313	313	313	313	313	
5°	357	343	311	282	268	36
15°	478	419	300	217	181	138
25°	601	491	278	143	89	278
35°	666	530	244	69	22	418
45°	690	524	200	16	0	533
55°	673	491	144	0	0	601
65°	608	435	86	0	0	602
75°	507	351	37	0	0	532
85°	371	254	6	2	2	317
90°	322	204	2	2	3	176
95°	276	159	1	3	4	217
105°	190	82	1	2	3	200
115°	103	27	1	1	2	103
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°	313.1	313.1	313.1	313.1	313.1	313.1	313.1	313.1	313.1	313.1	313.1
2.5°	339.4	339.1	337.9	335.9	333.1	328.3	324.3	320.7	315.9	311.9	304.3
5°	357.4	355.4	353.8	351.8	345.4	341.0	333.9	325.9	318.3	310.7	295.6
7.5°	386.1	382.9	380.5	375.0	366.2	356.2	345.0	337.5	332.3	311.1	285.2
10°	416.8	414.0	409.3	399.3	388.5	374.2	358.2	340.2	324.3	306.7	276.0
12.5°	447.1	443.2	436.4	423.6	408.5	390.5	368.6	347.4	324.7	303.9	265.3
15°	477.5	473.1	465.9	450.3	430.4	406.9	380.1	353.4	326.7	300.4	254.1
17.5°	510.6	504.6	493.8	476.3	451.1	422.0	390.5	358.2	325.9	296.0	242.1
20°	546.1	537.7	526.1	502.6	473.1	438.8	400.9	363.0	325.5	290.8	228.6
22.5°	575.6	567.2	554.4	530.1	494.6	452.7	409.7	366.2	323.9	284.8	215.8
25°	601.1	594.3	580.4	552.5	515.0	467.5	418.0	368.6	321.5	278.4	202.2
27.5°	621.1	614.7	599.1	570.4	532.1	480.7	424.4	369.8	318.3	272.0	188.3
30°	638.6	632.2	613.5	584.0	543.7	491.0	430.8	370.2	314.3	262.5	173.1
32.5°	652.2	646.2	627.0	595.5	551.7	498.2	434.4	369.8	309.1	255.7	156.8
35°	665.7	659.8	637.4	603.9	557.6	501.4	437.2	367.8	302.8	244.5	141.2
37.5°	676.1	669.3	646.6	609.5	560.4	502.2	436.8	365.0	296.0	235.3	125.6
40°	683.3	676.1	651.8	612.7	561.2	501.0	433.6	360.2	288.0	223.8	109.3
42.5°	688.1	680.1	654.2	617.5	559.6	497.8	428.8	354.2	279.2	213.8	93.7
45°	690.5	682.1	654.6	613.5	556.8	491.8	421.6	346.6	269.6	200.2	78.2
47.5°	689.3	680.1	652.6	609.1	551.7	485.4	413.6	337.5	258.1	188.3	63.4
50°	687.3	677.7	648.2	603.5	544.5	477.5	404.9	326.3	246.1	173.5	50.3
52.5°	680.9	671.3	643.4	595.5	536.1	468.3	392.9	314.7	233.3	159.2	38.3
55°	672.9	664.1	635.0	588.4	525.3	457.1	381.7	302.4	221.0	144.4	27.5
57.5°	660.6	652.6	624.7	576.8	514.6	444.8	369.4	288.8	205.4	129.6	19.1
60°	645.4	637.4	610.3	563.6	502.2	430.8	355.8	274.8	191.5	114.9	12.0
62.5°	629.4	621.9	593.5	547.3	486.6	416.0	341.0	260.9	176.7	101.3	7.2
65°	608.3	601.1	575.6	527.7	469.5	400.1	324.7	244.1	161.5	86.2	4.0
67.5°	586.0	579.6	553.6	509.8	449.5	382.5	307.9	227.8	145.6	73.0	2.0
70°	562.0	554.0	530.1	485.4	429.2	362.6	289.6	211.0	130.4	60.2	0.0
72.5°	534.1	528.1	505.0	462.7	405.7	341.4	270.8	192.7	113.7	47.9	0.4
75°	507.0	499.4	478.3	438.4	382.5	319.1	250.1	175.5	97.3	36.7	0.4
77.5°	471.9	469.5	449.5	410.8	360.6	297.6	227.4	154.8	81.8	26.3	0.4
80°	436.8	434.4	418.8	383.3	335.1	272.0	206.2	135.2	66.6	17.6	0.4
82.5°	402.1	398.9	384.1	354.6	309.1	250.5	184.3	115.7	52.7	10.8	0.4
85°	371.0	367.0	351.0	323.9	282.4	226.2	161.5	96.5	39.1	6.0	0.8
87.5°	344.2	341.4	323.9	296.0	255.3	203.4	141.6	78.2	27.5	2.8	1.2
90°	321.5	315.5	300.0	270.4	229.8	178.3	120.5	62.6	18.3	1.6	1.6
92.5°	299.2	294.0	276.8	246.5	207.0	156.8	100.1	47.9	11.6	0.8	2.0
95°	276.0	270.4	253.7	225.8	183.9	134.8	82.2	35.1	6.4	0.8	2.0
97.5°	253.3	248.1	230.6	202.6	163.1	115.7	65.0	24.7	3.2	0.8	1.6
100°	232.1	226.2	210.2	182.3	142.4	96.5	50.3	16.0	2.0	0.8	1.6
102.5°	209.8	205.0	188.7	161.5	120.9	78.6	37.5	10.0	0.8	0.8	1.2
105°	189.9	183.9	167.9	140.0	102.9	61.8	26.3	6.0	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°	123.7	118.9	104.9	81.4	52.3	24.3	7.2	1.2	1.2	1.2	1.2
115°	103.3	96.1	83.8	63.0	38.7	16.0	3.6	1.2	1.2	1.2	1.2
117.5°	82.6	76.6	67.8	47.9	25.5	10.4	2.0	1.2	1.2	1.2	1.2
120°	64.6	59.0	49.1	33.1	17.2	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.3	41.9	33.1	21.5	10.4	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.7	28.3	21.9	13.2	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.9	17.9	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°	313.1	313.1	313.1
2.5°	298.0	292.4	290.8
5°	282.0	272.8	267.7
7.5°	266.1	253.7	247.7
10°	251.3	233.7	227.4
12.5°	233.7	213.4	203.4
15°	217.0	190.7	181.1
17.5°	198.2	168.7	157.6
20°	180.7	146.8	135.2
22.5°	160.7	125.2	112.5
25°	142.8	103.7	89.3
27.5°	122.9	81.8	69.4
30°	104.1	62.6	50.3
32.5°	86.2	45.9	34.7
35°	69.4	31.1	21.9
37.5°	53.5	19.1	11.2
40°	38.7	10.0	5.2
42.5°	25.9	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



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







107.5°	167.5	162.7	146.8	120.5	84.2	47.1	17.6	3.2	0.8	1.2	1.2
110°	146.0	142.0	125.6	100.1	67.8	35.1	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)