

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: P551070

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-87-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: P551070
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-80-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

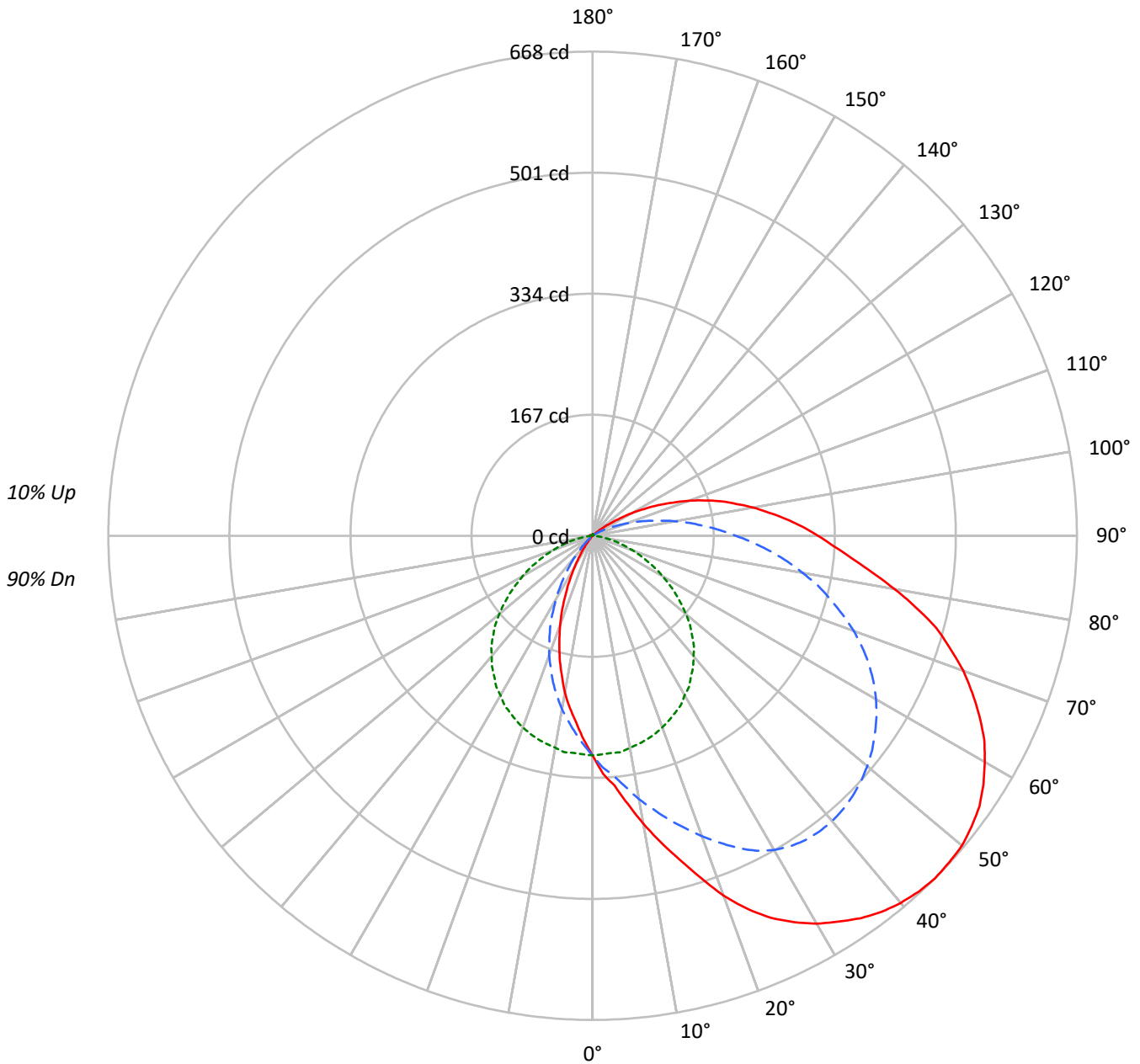
Lumens per Lamp: N/A
Luminaire Lumens: 1498.0 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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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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°	3261	3261	3261
5°	3581	3214	2681
10°	4052	3174	2210
15°	4540	3134	1722
20°	5121	3083	1269
25°	5602	3023	833
30°	5961	2944	469
35°	6270	2859	206
40°	6545	2753	49
45°	6781	2622	0
50°	6979	2447	0
55°	7130	2225	0
60°	7205	1968	0
65°	7234	1675	0
70°	7211	1366	0
75°	7119	1007	6
80°	6831	617	31
85°	6603	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	1.9
10°-20°	86.9	5.8
20°-30°	140.7	9.4
30°-40°	180.8	12.1
40°-50°	204.6	13.7
50°-60°	212.0	14.2
60°-70°	200.0	13.3
70°-80°	167.6	11.2
80°-90°	121.5	8.1
90°-100°	79.8	5.3
100°-110°	46.1	3.1
110°-120°	20.3	1.4
120°-130°	5.5	0.4
130°-140°	1.3	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	256.7	17.1
0°-40°	437.4	29.2
0°-60°	854.1	57.0
0°-90°	1343.1	89.7
90°-120°	146.3	9.8
90°-150°	153.9	10.3
90°-180°	155.0	10.3
0°-180°	1498.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	303	303	303	303	303	
5°	346	332	301	273	259	35
15°	462	405	291	210	175	133
25°	582	475	269	138	86	269
35°	644	512	237	67	21	404
45°	668	507	194	15	0	516
55°	651	475	140	0	0	581
65°	589	421	83	0	0	582
75°	491	340	36	0	0	515
85°	359	246	6	2	2	307
90°	311	197	2	2	3	171
95°	267	154	1	3	4	210
105°	184	80	1	2	3	194
115°	100	26	1	1	2	100
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°	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0
2.5°	328.5	328.1	326.9	325.0	322.3	317.7	313.8	310.3	305.7	301.9	294.5
5°	345.9	343.9	342.4	340.5	334.3	330.0	323.1	315.4	308.0	300.7	286.0
7.5°	373.6	370.6	368.2	362.8	354.3	344.7	333.9	326.6	321.5	301.1	276.0
10°	403.4	400.7	396.0	386.4	376.0	362.1	346.6	329.3	313.8	296.8	267.1
12.5°	432.7	428.8	422.3	409.9	395.3	377.9	356.7	336.2	314.2	294.1	256.7
15°	462.0	457.8	450.8	435.8	416.5	393.7	367.9	342.0	316.1	290.7	245.9
17.5°	494.1	488.3	477.9	460.9	436.6	408.4	377.9	346.6	315.4	286.4	234.3
20°	528.4	520.3	509.1	486.4	457.8	424.6	387.9	351.3	315.0	281.4	221.2
22.5°	557.0	548.9	536.5	513.0	478.6	438.1	396.4	354.3	313.4	275.6	208.8
25°	581.7	575.1	561.6	534.6	498.3	452.4	404.5	356.7	311.1	269.4	195.7
27.5°	601.0	594.8	579.8	552.0	514.9	465.1	410.7	357.8	308.0	263.3	182.2
30°	618.0	611.8	593.7	565.1	526.1	475.2	416.9	358.2	304.2	254.0	167.5
32.5°	631.1	625.3	606.8	576.3	533.8	482.1	420.4	357.8	299.1	247.4	151.7
35°	644.2	638.4	616.8	584.4	539.6	485.2	423.1	355.9	293.0	236.6	136.6
37.5°	654.3	647.7	625.7	589.8	542.3	486.0	422.7	353.2	286.4	227.7	121.6
40°	661.2	654.3	630.7	592.9	543.1	484.8	419.6	348.6	278.7	216.5	105.8
42.5°	665.8	658.1	633.0	597.5	541.6	481.7	414.9	342.8	270.2	206.9	90.7
45°	668.2	660.1	633.4	593.7	538.9	475.9	408.0	335.4	260.9	193.8	75.7
47.5°	667.0	658.1	631.5	589.4	533.8	469.8	400.3	326.6	249.7	182.2	61.4
50°	665.1	655.8	627.2	584.0	526.9	462.0	391.8	315.7	238.2	167.9	48.6
52.5°	658.9	649.6	622.6	576.3	518.8	453.2	380.2	304.6	225.8	154.0	37.1
55°	651.2	642.7	614.5	569.3	508.4	442.4	369.4	292.6	213.8	139.7	26.6
57.5°	639.2	631.5	604.5	558.2	497.9	430.4	357.4	279.5	198.8	125.4	18.5
60°	624.5	616.8	590.6	545.4	486.0	416.9	344.3	266.0	185.3	111.2	11.6
62.5°	609.1	601.8	574.4	529.6	470.9	402.6	330.0	252.4	171.0	98.0	6.9
65°	588.6	581.7	557.0	510.7	454.3	387.2	314.2	236.2	156.3	83.4	3.9
67.5°	567.0	560.9	535.8	493.3	435.0	370.2	298.0	220.4	140.9	70.6	1.9
70°	543.9	536.2	513.0	469.8	415.3	350.9	280.2	204.2	126.2	58.3	0.0
72.5°	516.9	511.1	488.7	447.8	392.6	330.4	262.1	186.4	110.0	46.3	0.4
75°	490.6	483.3	462.8	424.2	370.2	308.8	242.0	169.8	94.2	35.5	0.4
77.5°	456.6	454.3	435.0	397.6	348.9	288.0	220.0	149.8	79.1	25.5	0.4
80°	422.7	420.4	405.3	370.9	324.2	263.3	199.6	130.9	64.5	17.0	0.4
82.5°	389.1	386.0	371.7	343.2	299.1	242.4	178.3	111.9	51.0	10.4	0.4
85°	359.0	355.1	339.7	313.4	273.3	218.9	156.3	93.4	37.8	5.8	0.8
87.5°	333.1	330.4	313.4	286.4	247.0	196.9	137.0	75.7	26.6	2.7	1.2
90°	311.1	305.3	290.3	261.7	222.3	172.5	116.6	60.6	17.8	1.5	1.5
92.5°	289.5	284.5	267.9	238.5	200.3	151.7	96.9	46.3	11.2	0.8	1.9
95°	267.1	261.7	245.5	218.5	177.9	130.5	79.5	34.0	6.2	0.8	1.9
97.5°	245.1	240.1	223.1	196.1	157.9	111.9	62.9	23.9	3.1	0.8	1.5
100°	224.7	218.9	203.4	176.4	137.8	93.4	48.6	15.4	1.9	0.8	1.5
102.5°	203.0	198.4	182.6	156.3	117.0	76.0	36.3	9.6	0.8	0.8	1.2
105°	183.7	177.9	162.5	135.5	99.6	59.8	25.5	5.8	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	119.7	115.0	101.5	78.7	50.6	23.5	6.9	1.2	1.2	1.2	1.2
115°	100.0	93.0	81.1	61.0	37.4	15.4	3.5	1.2	1.2	1.2	1.2
117.5°	79.9	74.1	65.6	46.3	24.7	10.0	1.9	1.2	1.2	1.2	1.2
120°	62.5	57.1	47.5	32.0	16.6	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.8	40.5	32.0	20.8	10.0	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.7	27.4	21.2	12.7	6.2	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.3	17.4	12.4	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.6	7.3	4.2	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
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°	303.0	303.0	303.0
2.5°	288.3	282.9	281.4
5°	272.9	264.0	259.0
7.5°	257.5	245.5	239.7
10°	243.2	226.2	220.0
12.5°	226.2	206.5	196.9
15°	210.0	184.5	175.2
17.5°	191.8	163.3	152.5
20°	174.9	142.0	130.9
22.5°	155.6	121.2	108.9
25°	138.2	100.4	86.5
27.5°	118.9	79.1	67.2
30°	100.7	60.6	48.6
32.5°	83.4	44.4	33.6
35°	67.2	30.1	21.2
37.5°	51.7	18.5	10.8
40°	37.4	9.6	5.0
42.5°	25.1	4.6	2.7
45°	15.4	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.6	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	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	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-40-UNV-80-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	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°	1.5	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°	162.1	157.5	142.0	116.6	81.4	45.5	17.0	3.1	0.8	1.2	1.2
110°	141.3	137.4	121.6	96.9	65.6	34.0	11.2	1.9	1.2	1.2	1.2





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)