

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: P551004

Luminaire Tested: **FCC-X-2-LD4-1STD-35-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: P551004
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-80-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

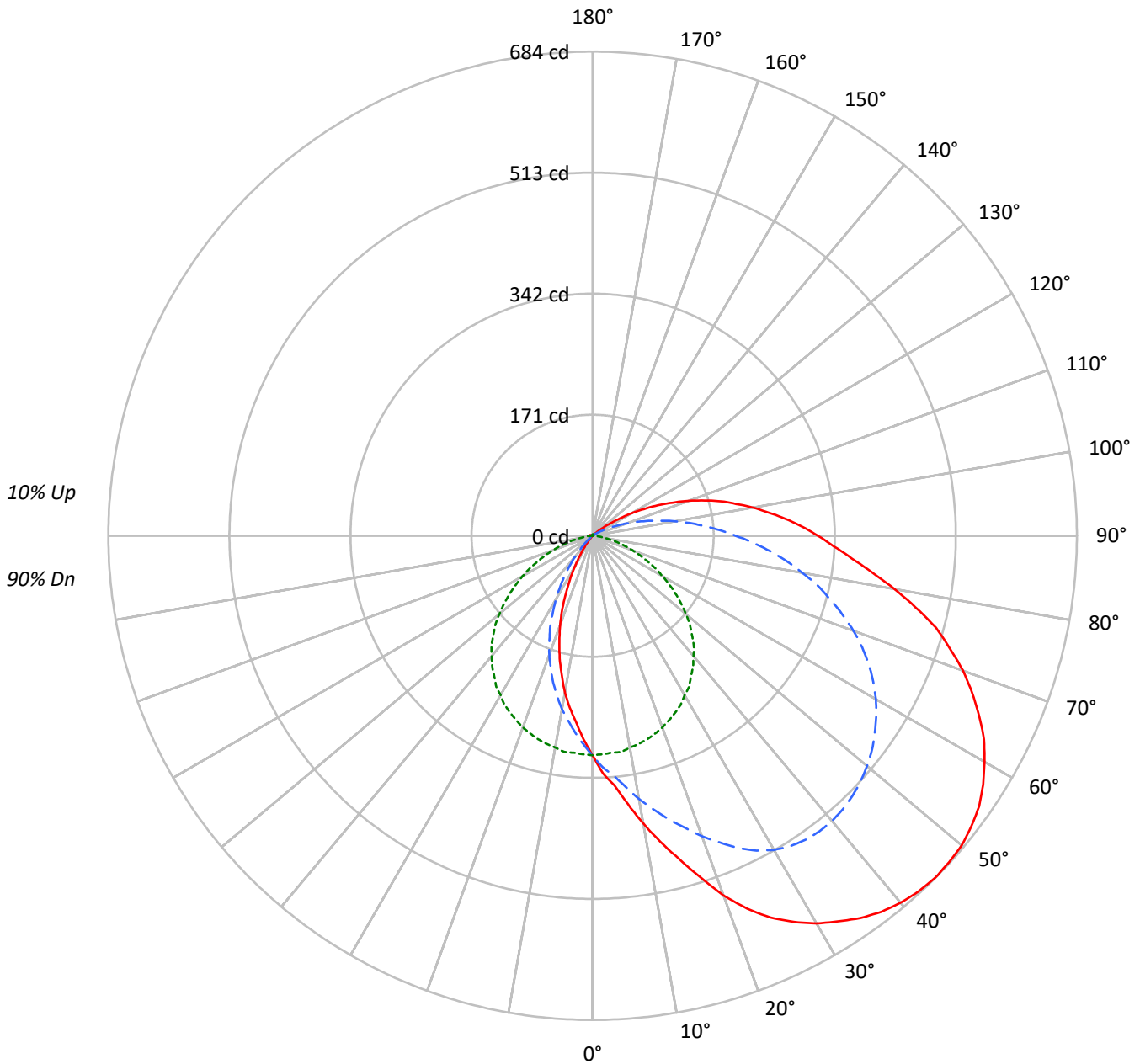
Lumens per Lamp: N/A
Luminaire Lumens: 1533.1 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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°	3338	3338	3338
5°	3664	3289	2744
10°	4146	3249	2262
15°	4646	3207	1762
20°	5241	3155	1298
25°	5733	3094	852
30°	6099	3013	480
35°	6417	2925	211
40°	6698	2818	50
45°	6939	2683	0
50°	7142	2504	0
55°	7296	2277	0
60°	7373	2014	0
65°	7404	1713	0
70°	7380	1396	0
75°	7286	1029	6
80°	6990	631	32
85°	6757	300	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	1.9
10°-20°	88.9	5.8
20°-30°	144.0	9.4
30°-40°	185.0	12.1
40°-50°	209.4	13.7
50°-60°	217.0	14.2
60°-70°	204.6	13.3
70°-80°	171.5	11.2
80°-90°	124.3	8.1
90°-100°	81.7	5.3
100°-110°	47.2	3.1
110°-120°	20.8	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°	262.7	17.1
0°-40°	447.7	29.2
0°-60°	874.1	57.0
0°-90°	1374.5	89.7
90°-120°	149.7	9.8
90°-150°	157.6	10.3
90°-180°	159.0	10.4
0°-180°	1533.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	310	310	310	310	310	
5°	354	340	308	279	265	36
15°	473	415	297	215	179	136
25°	595	486	276	141	88	275
35°	659	524	242	69	22	413
45°	684	519	198	16	0	528
55°	666	486	143	0	0	595
65°	602	431	85	0	0	596
75°	502	347	36	0	0	527
85°	367	252	6	2	2	314
90°	318	202	2	2	3	175
95°	273	158	1	3	4	214
105°	188	82	1	2	3	198
115°	102	27	1	1	2	102
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°	310.1	310.1	310.1	310.1	310.1	310.1	310.1	310.1	310.1	310.1	310.1
2.5°	336.2	335.8	334.6	332.6	329.8	325.1	321.1	317.6	312.9	308.9	301.4
5°	353.9	352.0	350.4	348.4	342.1	337.7	330.6	322.7	315.2	307.7	292.7
7.5°	382.4	379.2	376.8	371.3	362.6	352.8	341.7	334.2	329.0	308.1	282.4
10°	412.8	410.0	405.3	395.4	384.7	370.5	354.7	337.0	321.1	303.8	273.4
12.5°	442.8	438.9	432.1	419.5	404.5	386.7	365.0	344.1	321.5	301.0	262.7
15°	472.8	468.5	461.4	446.0	426.2	402.9	376.5	350.0	323.5	297.4	251.6
17.5°	505.6	499.7	489.0	471.7	446.8	417.9	386.7	354.7	322.7	293.1	239.8
20°	540.8	532.5	521.0	497.7	468.5	434.5	397.0	359.5	322.3	288.0	226.3
22.5°	570.0	561.7	549.1	525.0	489.8	448.3	405.7	362.6	320.8	282.0	213.7
25°	595.3	588.6	574.8	547.1	510.0	463.0	414.0	365.0	318.4	275.7	200.3
27.5°	615.0	608.7	593.3	564.9	527.0	476.0	420.3	366.2	315.2	269.4	186.4
30°	632.4	626.1	607.5	578.3	538.4	486.3	426.6	366.6	311.3	259.9	171.4
32.5°	645.9	639.9	621.0	589.8	546.3	493.4	430.2	366.2	306.1	253.2	155.2
35°	659.3	653.4	631.2	598.1	552.2	496.5	432.9	364.2	299.8	242.1	139.8
37.5°	669.6	662.8	640.3	603.6	555.0	497.3	432.5	361.4	293.1	233.1	124.4
40°	676.7	669.6	645.5	606.7	555.8	496.1	429.4	356.7	285.2	221.6	108.2
42.5°	681.4	673.5	647.8	611.5	554.2	493.0	424.6	350.8	276.5	211.7	92.8
45°	683.8	675.5	648.2	607.5	551.4	487.1	417.5	343.3	267.0	198.3	77.4
47.5°	682.6	673.5	646.2	603.2	546.3	480.7	409.6	334.2	255.6	186.4	62.8
50°	680.6	671.1	641.9	597.7	539.2	472.8	400.9	323.1	243.7	171.8	49.8
52.5°	674.3	664.8	637.2	589.8	530.9	463.8	389.1	311.7	231.1	157.6	37.9
55°	666.4	657.7	628.9	582.7	520.2	452.7	378.0	299.4	218.8	143.0	27.3
57.5°	654.1	646.2	618.6	571.2	509.6	440.4	365.8	286.0	203.4	128.4	19.0
60°	639.1	631.2	604.4	558.2	497.3	426.6	352.4	272.2	189.6	113.8	11.9
62.5°	623.3	615.8	587.8	542.0	481.9	412.0	337.7	258.3	175.0	100.3	7.1
65°	602.4	595.3	570.0	522.6	464.9	396.2	321.5	241.8	160.0	85.3	4.0
67.5°	580.3	574.0	548.3	504.8	445.2	378.8	305.0	225.6	144.2	72.3	2.0
70°	556.6	548.7	525.0	480.7	425.0	359.1	286.8	209.0	129.2	59.6	0.0
72.5°	528.9	523.0	500.1	458.2	401.7	338.1	268.2	190.8	112.6	47.4	0.4
75°	502.1	494.6	473.6	434.1	378.8	316.0	247.7	173.8	96.4	36.3	0.4
77.5°	467.3	464.9	445.2	406.9	357.1	294.7	225.2	153.3	81.0	26.1	0.4
80°	432.5	430.2	414.8	379.6	331.8	269.4	204.2	133.9	66.0	17.4	0.4
82.5°	398.2	395.0	380.4	351.2	306.1	248.1	182.5	114.6	52.1	10.7	0.4
85°	367.4	363.4	347.6	320.8	279.7	224.0	160.0	95.6	38.7	5.9	0.8
87.5°	340.9	338.1	320.8	293.1	252.8	201.5	140.2	77.4	27.3	2.8	1.2
90°	318.4	312.5	297.1	267.8	227.5	176.6	119.3	62.0	18.2	1.6	1.6
92.5°	296.3	291.1	274.1	244.1	205.0	155.2	99.1	47.4	11.5	0.8	2.0
95°	273.4	267.8	251.2	223.6	182.1	133.5	81.4	34.8	6.3	0.8	2.0
97.5°	250.8	245.7	228.3	200.7	161.6	114.6	64.4	24.5	3.2	0.8	1.6
100°	229.9	224.0	208.2	180.5	141.0	95.6	49.8	15.8	2.0	0.8	1.6
102.5°	207.8	203.0	186.8	160.0	119.7	77.8	37.1	9.9	0.8	0.8	1.2
105°	188.0	182.1	166.3	138.7	101.9	61.2	26.1	5.9	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°	122.5	117.7	103.9	80.6	51.7	24.1	7.1	1.2	1.2	1.2	1.2
115°	102.3	95.2	83.0	62.4	38.3	15.8	3.6	1.2	1.2	1.2	1.2
117.5°	81.8	75.8	67.2	47.4	25.3	10.3	2.0	1.2	1.2	1.2	1.2
120°	64.0	58.5	48.6	32.8	17.0	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.8	41.5	32.8	21.3	10.3	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.4	28.0	21.7	13.0	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.8	17.8	12.6	7.5	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.1	9.9	7.5	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	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°	310.1	310.1	310.1
2.5°	295.1	289.5	288.0
5°	279.3	270.2	265.1
7.5°	263.5	251.2	245.3
10°	248.9	231.5	225.2
12.5°	231.5	211.3	201.5
15°	214.9	188.8	179.3
17.5°	196.3	167.1	156.0
20°	178.9	145.4	133.9
22.5°	159.2	124.0	111.4
25°	141.4	102.7	88.5
27.5°	121.7	81.0	68.7
30°	103.1	62.0	49.8
32.5°	85.3	45.4	34.4
35°	68.7	30.8	21.7
37.5°	52.9	19.0	11.1
40°	38.3	9.9	5.1
42.5°	25.7	4.7	2.8
45°	15.8	2.4	0.0
47.5°	9.1	0.0	0.0
50°	4.7	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°	165.9	161.2	145.4	119.3	83.3	46.6	17.4	3.2	0.8	1.2	1.2
110°	144.6	140.6	124.4	99.1	67.2	34.8	11.5	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)