

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: P551022

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-81-87-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: P551022
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-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

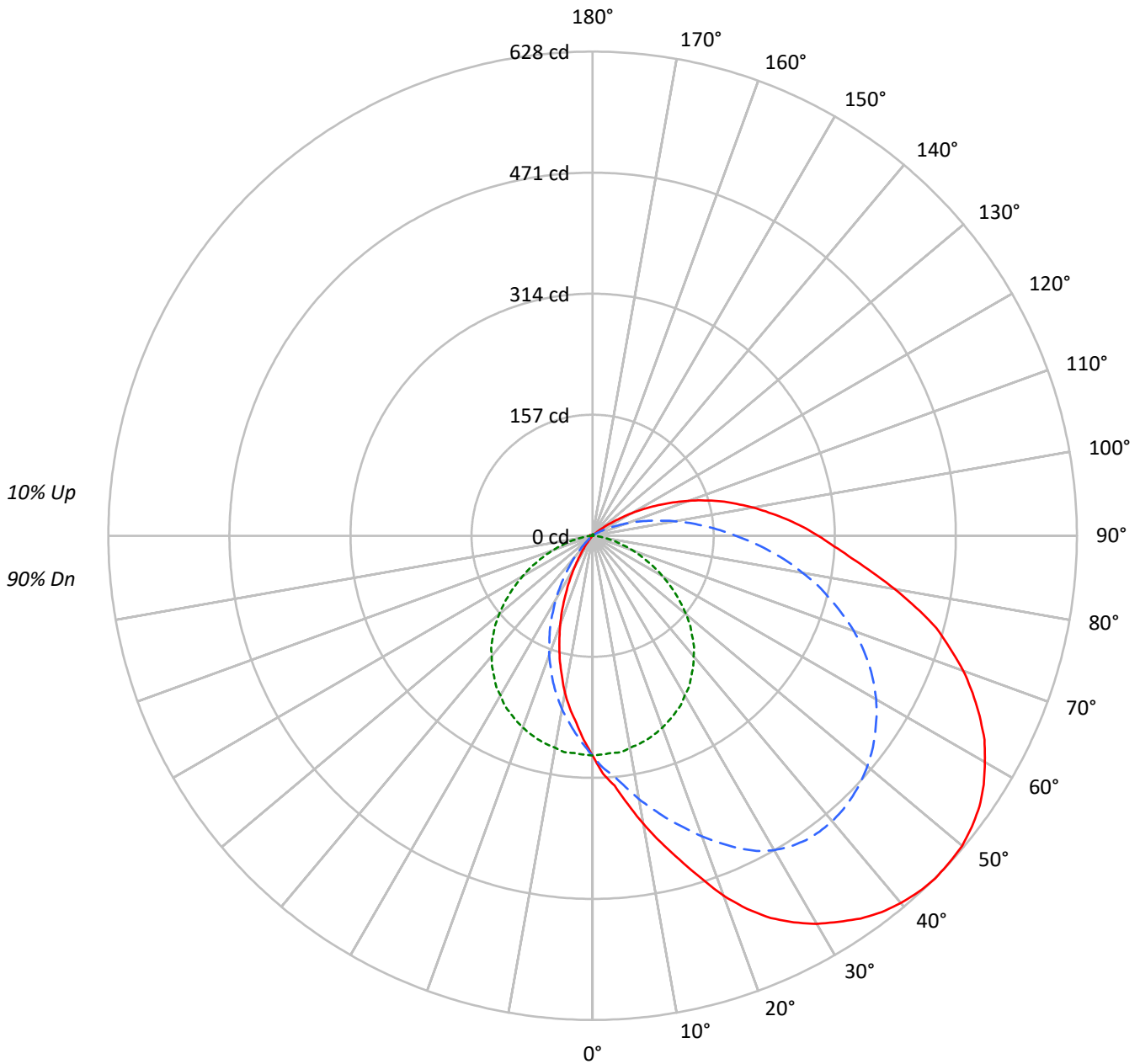
Lumens per Lamp: N/A
Luminaire Lumens: 1409.1 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551022

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-87-ED1D

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°	3068	3068	3068
5°	3368	3023	2522
10°	3811	2986	2078
15°	4271	2948	1619
20°	4816	2900	1193
25°	5269	2844	783
30°	5607	2769	441
35°	5898	2690	195
40°	6156	2591	47
45°	6378	2467	0
50°	6564	2301	0
55°	6706	2092	0
60°	6777	1851	0
65°	6805	1575	0
70°	6783	1284	0
75°	6697	947	6
80°	6426	580	29
85°	6211	275	40



TEST NUMBER: P551022

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.3	1.9
10°-20°	81.7	5.8
20°-30°	132.4	9.4
30°-40°	170.0	12.1
40°-50°	192.5	13.7
50°-60°	199.4	14.2
60°-70°	188.1	13.3
70°-80°	157.6	11.2
80°-90°	114.3	8.1
90°-100°	75.1	5.3
100°-110°	43.4	3.1
110°-120°	19.1	1.4
120°-130°	5.2	0.4
130°-140°	1.2	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°	241.4	17.1
0°-40°	411.5	29.2
0°-60°	803.4	57.0
0°-90°	1263.3	89.7
90°-120°	137.6	9.8
90°-150°	144.8	10.3
90°-180°	146.0	10.4
0°-180°	1409.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	285	285	285	285	285	
5°	325	312	283	257	244	33
15°	435	381	273	198	165	125
25°	547	447	253	130	81	253
35°	606	482	223	63	20	380
45°	628	477	182	14	0	485
55°	612	447	131	0	0	547
65°	554	396	78	0	0	548
75°	462	319	33	0	0	484
85°	338	232	5	2	2	288
90°	293	186	2	2	2	160
95°	251	145	1	2	3	197
105°	173	75	1	2	3	182
115°	94	25	1	1	2	94
125°	28	3	2	1	2	28
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	



TEST NUMBER: P551022

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0
2.5°	309.0	308.6	307.5	305.7	303.2	298.8	295.2	291.9	287.5	283.9	277.0
5°	325.3	323.5	322.0	320.2	314.4	310.4	303.9	296.6	289.7	282.8	269.0
7.5°	351.4	348.5	346.4	341.3	333.3	324.2	314.1	307.2	302.4	283.2	259.6
10°	379.4	376.9	372.5	363.4	353.6	340.6	326.0	309.7	295.2	279.2	251.2
12.5°	407.0	403.4	397.2	385.6	371.8	355.4	335.5	316.2	295.5	276.7	241.4
15°	434.6	430.6	424.1	409.9	391.7	370.3	346.0	321.7	297.4	273.4	231.3
17.5°	464.7	459.3	449.5	433.5	410.6	384.1	355.4	326.0	296.6	269.4	220.4
20°	497.0	489.4	478.9	457.5	430.6	399.4	364.9	330.4	296.3	264.7	208.0
22.5°	523.9	516.3	504.7	482.5	450.2	412.1	372.9	333.3	294.8	259.2	196.4
25°	547.1	541.0	528.3	502.8	468.7	425.5	380.5	335.5	292.6	253.4	184.1
27.5°	565.3	559.5	545.3	519.2	484.3	437.5	386.3	336.6	289.7	247.6	171.4
30°	581.3	575.5	558.4	531.5	494.9	446.9	392.1	336.9	286.1	238.9	157.6
32.5°	593.6	588.2	570.7	542.1	502.1	453.5	395.4	336.6	281.4	232.7	142.7
35°	606.0	600.5	580.2	549.7	507.6	456.4	397.9	334.7	275.6	222.6	128.5
37.5°	615.4	609.2	588.5	554.8	510.1	457.1	397.6	332.2	269.4	214.2	114.4
40°	621.9	615.4	593.2	557.7	510.8	456.0	394.7	327.8	262.1	203.7	99.5
42.5°	626.3	619.0	595.4	562.0	509.4	453.1	390.3	322.4	254.1	194.6	85.3
45°	628.5	620.8	595.8	558.4	506.8	447.7	383.8	315.5	245.4	182.3	71.2
47.5°	627.4	619.0	594.0	554.4	502.1	441.9	376.5	307.2	234.9	171.4	57.7
50°	625.6	616.8	590.0	549.3	495.6	434.6	368.5	297.0	224.0	157.9	45.7
52.5°	619.8	611.0	585.6	542.1	488.0	426.2	357.6	286.5	212.4	144.9	34.9
55°	612.5	604.5	578.0	535.5	478.2	416.1	347.5	275.2	201.1	131.4	25.1
57.5°	601.2	594.0	568.6	525.0	468.4	404.8	336.2	262.9	187.0	118.0	17.4
60°	587.4	580.2	555.5	513.0	457.1	392.1	323.9	250.2	174.3	104.6	10.9
62.5°	572.9	566.0	540.2	498.1	442.9	378.7	310.4	237.4	160.8	92.2	6.5
65°	553.7	547.1	523.9	480.3	427.3	364.2	295.5	222.2	147.0	78.4	3.6
67.5°	533.3	527.5	503.9	464.0	409.2	348.2	280.3	207.3	132.5	66.4	1.8
70°	511.6	504.3	482.5	441.9	390.7	330.0	263.6	192.1	118.7	54.8	0.0
72.5°	486.1	480.7	459.6	421.2	369.2	310.8	246.5	175.4	103.5	43.6	0.4
75°	461.5	454.6	435.3	399.0	348.2	290.5	227.6	159.7	88.6	33.4	0.4
77.5°	429.5	427.3	409.2	374.0	328.2	270.8	206.9	140.9	74.4	24.0	0.4
80°	397.6	395.4	381.2	348.9	305.0	247.6	187.7	123.1	60.6	16.0	0.4
82.5°	366.0	363.1	349.6	322.8	281.4	228.0	167.7	105.3	47.9	9.8	0.4
85°	337.7	334.0	319.5	294.8	257.1	205.9	147.0	87.9	35.6	5.4	0.7
87.5°	313.3	310.8	294.8	269.4	232.4	185.2	128.9	71.2	25.1	2.5	1.1
90°	292.6	287.2	273.0	246.2	209.1	162.3	109.6	57.0	16.7	1.5	1.5
92.5°	272.3	267.6	252.0	224.4	188.4	142.7	91.1	43.6	10.5	0.7	1.8
95°	251.2	246.2	230.9	205.5	167.4	122.7	74.8	31.9	5.8	0.7	1.8
97.5°	230.5	225.8	209.9	184.4	148.5	105.3	59.2	22.5	2.9	0.7	1.5
100°	211.3	205.9	191.3	165.9	129.6	87.9	45.7	14.5	1.8	0.7	1.5
102.5°	191.0	186.6	171.7	147.0	110.0	71.5	34.1	9.1	0.7	0.7	1.1
105°	172.8	167.4	152.9	127.4	93.7	56.3	24.0	5.4	0.7	0.7	1.1



TEST NUMBER: P551022

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	112.6	108.2	95.5	74.1	47.6	22.1	6.5	1.1	1.1	1.1	1.1
115°	94.0	87.5	76.2	57.4	35.2	14.5	3.3	1.1	1.1	1.1	1.1
117.5°	75.2	69.7	61.7	43.6	23.2	9.4	1.8	1.1	1.1	1.1	1.1
120°	58.8	53.7	44.7	30.1	15.6	5.4	0.7	1.1	1.1	1.1	1.1
122.5°	42.1	38.1	30.1	19.6	9.4	2.5	1.1	1.1	1.5	1.5	1.1
125°	28.0	25.8	20.0	12.0	5.8	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.2	16.3	11.6	6.9	2.5	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.2	9.1	6.9	4.0	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.8	5.4	3.6	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P551022

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	285.0	285.0	285.0
2.5°	271.2	266.1	264.7
5°	256.7	248.3	243.6
7.5°	242.2	230.9	225.5
10°	228.7	212.8	206.9
12.5°	212.8	194.2	185.2
15°	197.5	173.5	164.8
17.5°	180.4	153.6	143.4
20°	164.5	133.6	123.1
22.5°	146.3	114.0	102.4
25°	130.0	94.4	81.3
27.5°	111.8	74.4	63.2
30°	94.8	57.0	45.7
32.5°	78.4	41.8	31.6
35°	63.2	28.3	20.0
37.5°	48.7	17.4	10.2
40°	35.2	9.1	4.7
42.5°	23.6	4.4	2.5
45°	14.5	2.2	0.0
47.5°	8.4	0.0	0.0
50°	4.4	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.5
90°	2.2	2.5	2.5
92.5°	2.2	2.9	2.9
95°	2.5	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.5	3.3	3.6
102.5°	2.2	3.3	3.3
105°	1.8	2.5	2.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	152.5	148.1	133.6	109.6	76.6	42.8	16.0	2.9	0.7	1.1	1.1
110°	132.9	129.3	114.4	91.1	61.7	31.9	10.5	1.8	1.1	1.1	1.1





107.5°	1.5	2.2	2.5
110°	1.5	1.8	2.2



(END OF REPORT)