

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: P550978

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-82-94-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: P550978
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-30-UNV-82-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

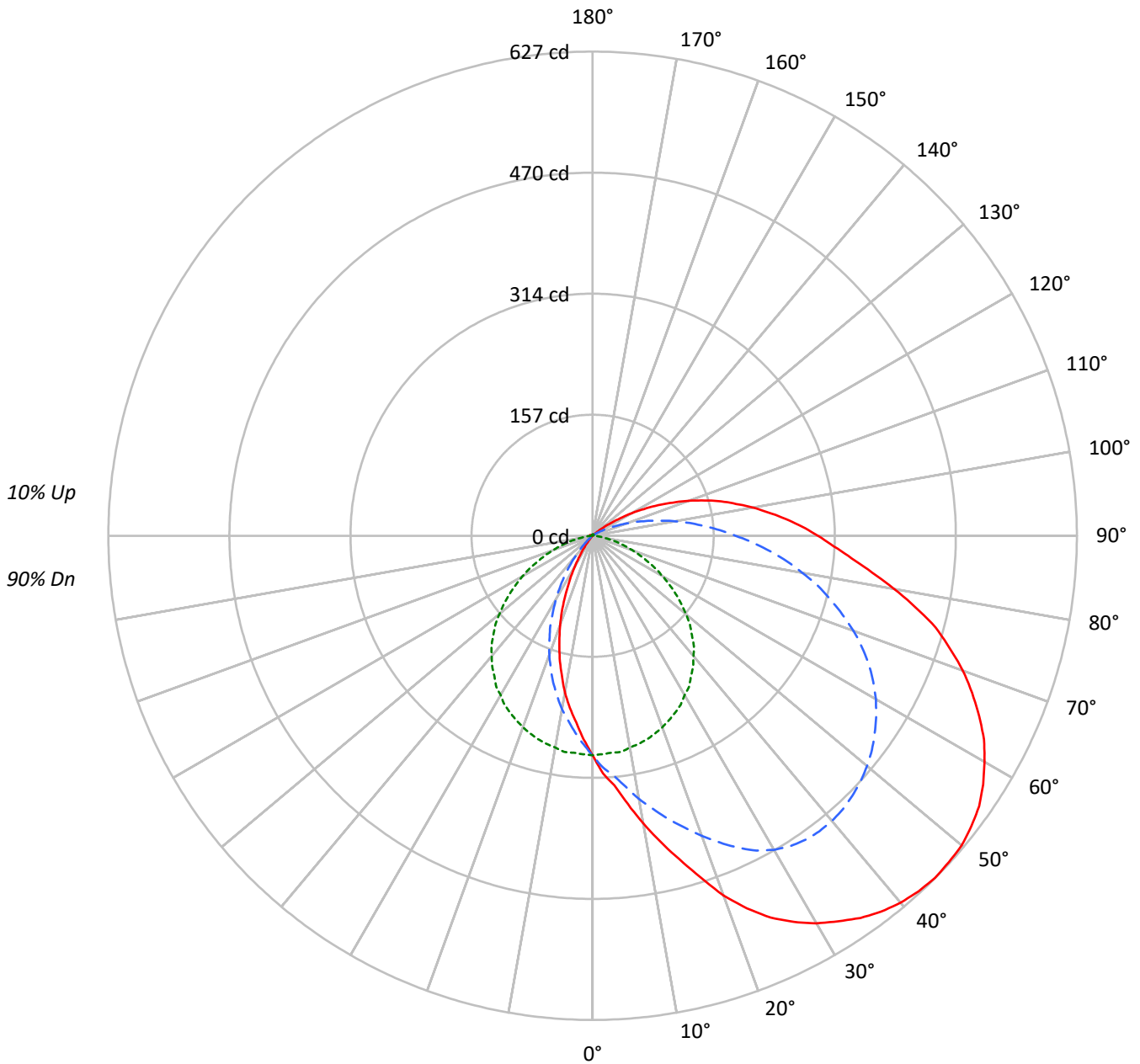
Lumens per Lamp: N/A
Luminaire Lumens: 1405.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3059	3059	3059
5°	3358	3014	2515
10°	3800	2977	2073
15°	4259	2939	1616
20°	4803	2891	1189
25°	5255	2836	781
30°	5590	2761	440
35°	5881	2681	194
40°	6139	2583	47
45°	6360	2459	0
50°	6546	2295	0
55°	6687	2088	0
60°	6758	1846	0
65°	6786	1571	0
70°	6763	1281	0
75°	6676	944	6
80°	6406	577	29
85°	6193	275	40



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.2	1.9
10°-20°	81.5	5.8
20°-30°	132.0	9.4
30°-40°	169.6	12.1
40°-50°	191.9	13.7
50°-60°	198.9	14.2
60°-70°	187.5	13.3
70°-80°	157.2	11.2
80°-90°	113.9	8.1
90°-100°	74.9	5.3
100°-110°	43.2	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°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	240.7	17.1
0°-40°	410.3	29.2
0°-60°	801.1	57.0
0°-90°	1259.7	89.7
90°-120°	137.2	9.8
90°-150°	144.3	10.3
90°-180°	145.0	10.3
0°-180°	1405.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	284	284	284	284	284	
5°	324	312	282	256	243	33
15°	433	380	273	197	164	125
25°	546	446	253	130	81	252
35°	604	481	222	63	20	379
45°	627	476	182	14	0	484
55°	611	446	131	0	0	545
65°	552	395	78	0	0	546
75°	460	318	33	0	0	483
85°	337	231	5	1	2	288
90°	292	185	1	2	2	160
95°	250	145	1	2	3	197
105°	172	75	1	2	3	182
115°	94	25	1	1	2	94
125°	28	3	1	1	1	28
135°	1	1	2	1	1	3
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°	284.2	284.2	284.2	284.2	284.2	284.2	284.2	284.2	284.2	284.2	284.2
2.5°	308.1	307.7	306.6	304.8	302.3	298.0	294.3	291.1	286.7	283.1	276.2
5°	324.4	322.6	321.1	319.3	313.5	309.5	303.0	295.8	288.9	282.0	268.3
7.5°	350.5	347.6	345.4	340.3	332.3	323.3	313.2	306.3	301.6	282.4	258.9
10°	378.3	375.8	371.4	362.4	352.6	339.6	325.1	308.8	294.3	278.4	250.5
12.5°	405.8	402.2	396.1	384.5	370.7	354.4	334.5	315.3	294.7	275.9	240.8
15°	433.4	429.4	422.9	408.7	390.6	369.3	345.0	320.8	296.5	272.6	230.6
17.5°	463.4	458.0	448.2	432.3	409.5	383.0	354.4	325.1	295.8	268.6	219.8
20°	495.6	488.0	477.5	456.2	429.4	398.2	363.8	329.5	295.4	263.9	207.4
22.5°	522.4	514.8	503.2	481.1	448.9	410.9	371.8	332.3	294.0	258.5	195.9
25°	545.6	539.4	526.8	501.4	467.4	424.3	379.4	334.5	291.8	252.7	183.6
27.5°	563.7	557.9	543.8	517.7	483.0	436.3	385.2	335.6	288.9	246.9	170.9
30°	579.6	573.8	556.8	530.0	493.5	445.7	391.0	336.0	285.3	238.2	157.1
32.5°	591.9	586.5	569.1	540.5	500.7	452.2	394.3	335.6	280.6	232.1	142.3
35°	604.2	598.8	578.5	548.1	506.1	455.1	396.8	333.8	274.8	221.9	128.2
37.5°	613.6	607.5	586.9	553.2	508.7	455.8	396.4	331.3	268.6	213.6	114.0
40°	620.2	613.6	591.6	556.1	509.4	454.7	393.5	326.9	261.4	203.1	99.2
42.5°	624.5	617.3	593.7	560.4	507.9	451.8	389.2	321.5	253.4	194.1	85.1
45°	626.7	619.1	594.1	556.8	505.4	446.4	382.7	314.6	244.7	181.7	71.0
47.5°	625.6	617.3	592.3	552.8	500.7	440.6	375.4	306.3	234.2	170.9	57.6
50°	623.8	615.1	588.3	547.8	494.2	433.4	367.5	296.1	223.4	157.5	45.6
52.5°	618.0	609.3	584.0	540.5	486.6	425.0	356.6	285.6	211.8	144.5	34.8
55°	610.8	602.8	576.4	534.0	476.8	414.9	346.5	274.4	200.6	131.1	25.0
57.5°	599.5	592.3	566.9	523.5	467.0	403.7	335.2	262.1	186.4	117.7	17.4
60°	585.8	578.5	553.9	511.6	455.8	391.0	322.9	249.4	173.8	104.3	10.9
62.5°	571.3	564.4	538.7	496.7	441.7	377.6	309.5	236.8	160.4	92.0	6.5
65°	552.1	545.6	522.4	479.0	426.1	363.1	294.7	221.6	146.6	78.2	3.6
67.5°	531.8	526.0	502.5	462.7	408.0	347.2	279.5	206.7	132.1	66.3	1.8
70°	510.1	502.9	481.1	440.6	389.6	329.1	262.8	191.5	118.4	54.7	0.0
72.5°	484.8	479.3	458.3	420.0	368.2	309.9	245.8	174.9	103.2	43.4	0.4
75°	460.1	453.3	434.1	397.9	347.2	289.6	227.0	159.3	88.3	33.3	0.4
77.5°	428.3	426.1	408.0	372.9	327.3	270.1	206.4	140.5	74.2	23.9	0.4
80°	396.4	394.3	380.1	347.9	304.1	246.9	187.2	122.7	60.5	15.9	0.4
82.5°	364.9	362.0	348.6	321.8	280.6	227.4	167.3	105.0	47.8	9.8	0.4
85°	336.7	333.1	318.6	294.0	256.3	205.3	146.6	87.6	35.5	5.4	0.7
87.5°	312.4	309.9	294.0	268.6	231.7	184.6	128.5	71.0	25.0	2.5	1.1
90°	291.8	286.4	272.3	245.5	208.5	161.8	109.3	56.8	16.7	1.4	1.4
92.5°	271.5	266.8	251.3	223.7	187.9	142.3	90.9	43.4	10.5	0.7	1.8
95°	250.5	245.5	230.3	204.9	166.9	122.4	74.6	31.9	5.8	0.7	1.8
97.5°	229.9	225.2	209.3	183.9	148.1	105.0	59.0	22.4	2.9	0.7	1.4
100°	210.7	205.3	190.8	165.5	129.2	87.6	45.6	14.5	1.8	0.7	1.4
102.5°	190.4	186.1	171.2	146.6	109.7	71.3	34.0	9.1	0.7	0.7	1.1
105°	172.3	166.9	152.4	127.1	93.4	56.1	23.9	5.4	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-82-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	112.2	107.9	95.2	73.9	47.4	22.1	6.5	1.1	1.1	1.1	1.1
115°	93.8	87.3	76.0	57.2	35.1	14.5	3.3	1.1	1.1	1.1	1.1
117.5°	74.9	69.5	61.5	43.4	23.2	9.4	1.8	1.1	1.1	1.1	1.1
120°	58.6	53.6	44.5	30.0	15.6	5.4	0.7	1.1	1.1	1.1	1.1
122.5°	42.0	38.0	30.0	19.5	9.4	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.9	25.7	19.9	11.9	5.8	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	18.1	16.3	11.6	6.9	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	10.1	9.1	6.9	4.0	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.8	5.4	3.6	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	284.2	284.2	284.2
2.5°	270.4	265.4	263.9
5°	256.0	247.6	242.9
7.5°	241.5	230.3	224.8
10°	228.1	212.2	206.4
12.5°	212.2	193.7	184.6
15°	196.9	173.1	164.4
17.5°	179.9	153.1	143.0
20°	164.0	133.2	122.7
22.5°	145.9	113.7	102.1
25°	129.6	94.1	81.1
27.5°	111.5	74.2	63.0
30°	94.5	56.8	45.6
32.5°	78.2	41.6	31.5
35°	63.0	28.2	19.9
37.5°	48.5	17.4	10.1
40°	35.1	9.1	4.7
42.5°	23.5	4.3	2.5
45°	14.5	2.2	0.0
47.5°	8.3	0.0	0.0
50°	4.3	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	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	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°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	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°	1.4	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°	152.1	147.7	133.2	109.3	76.4	42.7	15.9	2.9	0.7	1.1	1.1
110°	132.5	128.9	114.0	90.9	61.5	31.9	10.5	1.8	1.1	1.1	1.1





107.5°	1.4	2.2	2.5
110°	1.4	1.8	2.2



(END OF REPORT)