

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: P551467

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-81-86-ED1D-90**

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: P551467
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-LD4-2LO-30-UNV-81-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

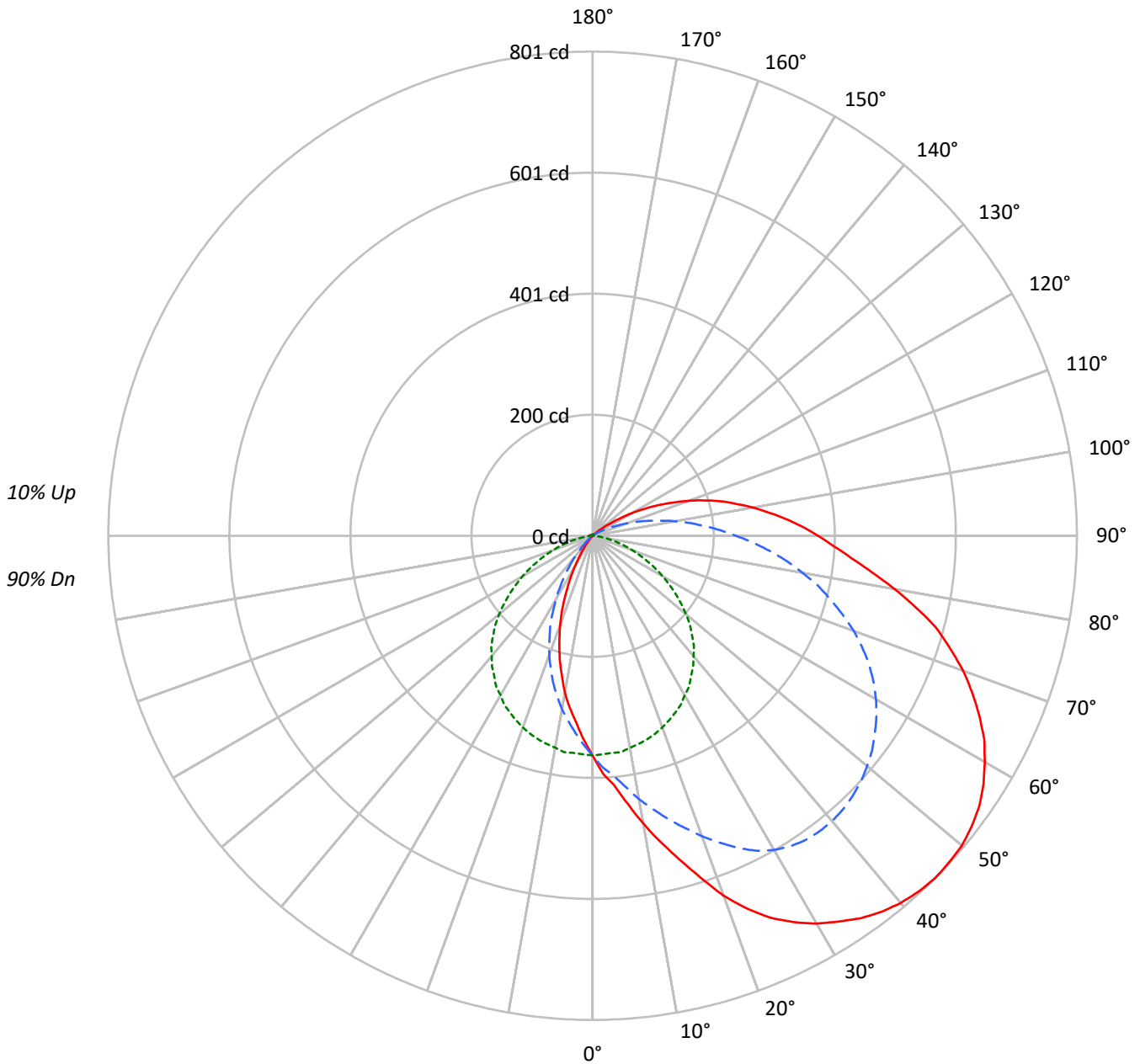
Lumens per Lamp: N/A
Luminaire Lumens: 1796.1 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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									
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°	3911	3911	3911
5°	4293	3853	3214
10°	4857	3806	2650
15°	5444	3758	2065
20°	6140	3697	1521
25°	6717	3625	999
30°	7146	3530	562
35°	7518	3428	248
40°	7847	3301	59
45°	8130	3143	0
50°	8367	2934	0
55°	8547	2667	0
60°	8639	2359	0
65°	8674	2009	0
70°	8646	1637	0
75°	8535	1208	7
80°	8190	740	37
85°	7916	351	51



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	1.9
10°-20°	104.2	5.8
20°-30°	168.7	9.4
30°-40°	216.7	12.1
40°-50°	245.4	13.7
50°-60°	254.2	14.2
60°-70°	239.7	13.3
70°-80°	200.9	11.2
80°-90°	145.6	8.1
90°-100°	95.7	5.3
100°-110°	55.3	3.1
110°-120°	24.4	1.4
120°-130°	6.6	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	307.7	17.1
0°-40°	524.5	29.2
0°-60°	1024.0	57.0
0°-90°	1610.3	89.7
90°-120°	175.4	9.8
90°-150°	184.5	10.3
90°-180°	186.0	10.4
0°-180°	1796.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	363	363	363	363	363	
5°	415	398	360	327	310	42
15°	554	486	348	252	210	160
25°	697	570	323	166	104	322
35°	772	614	284	80	26	484
45°	801	608	232	18	0	618
55°	781	570	168	0	0	697
65°	706	504	100	0	0	698
75°	588	407	43	0	0	617
85°	430	295	7	2	3	368
90°	373	237	2	3	3	205
95°	320	185	1	3	4	251
105°	220	96	1	2	4	232
115°	120	32	1	1	2	120
125°	36	4	2	1	2	36
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3	363.3
2.5°	393.8	393.4	392.0	389.7	386.4	380.9	376.2	372.1	366.5	361.9	353.1
5°	414.7	412.3	410.5	408.2	400.8	395.7	387.4	378.1	369.3	360.5	342.9
7.5°	448.0	444.3	441.5	435.0	424.8	413.3	400.3	391.5	385.5	361.0	330.9
10°	483.6	480.4	474.8	463.2	450.8	434.1	415.6	394.8	376.2	355.9	320.2
12.5°	518.8	514.2	506.3	491.5	473.9	453.1	427.6	403.1	376.7	352.6	307.8
15°	554.0	548.9	540.5	522.5	499.3	472.0	441.0	410.0	379.0	348.5	294.8
17.5°	592.4	585.4	572.9	552.6	523.4	489.6	453.1	415.6	378.1	343.4	280.9
20°	633.6	623.8	610.4	583.1	548.9	509.1	465.1	421.1	377.6	337.4	265.2
22.5°	667.8	658.1	643.3	615.0	573.9	525.3	475.3	424.8	375.8	330.4	250.4
25°	697.4	689.6	673.4	641.0	597.5	542.4	485.0	427.6	373.0	323.0	234.6
27.5°	720.6	713.2	695.1	661.8	617.4	557.7	492.4	429.0	369.3	315.6	218.4
30°	740.9	733.5	711.8	677.5	630.8	569.7	499.8	429.5	364.7	304.5	200.8
32.5°	756.7	749.7	727.5	690.9	640.0	578.0	504.0	429.0	358.7	296.6	181.9
35°	772.4	765.4	739.5	700.7	647.0	581.7	507.2	426.7	351.3	283.7	163.8
37.5°	784.4	776.6	750.2	707.1	650.2	582.6	506.8	423.4	343.4	273.0	145.8
40°	792.8	784.4	756.2	710.8	651.1	581.3	503.0	417.9	334.1	259.6	126.8
42.5°	798.3	789.1	759.0	716.4	649.3	577.6	497.5	411.0	324.0	248.1	108.8
45°	801.1	791.4	759.4	711.8	646.1	570.6	489.2	402.2	312.8	232.3	90.7
47.5°	799.7	789.1	757.1	706.7	640.0	563.2	479.9	391.5	299.4	218.4	73.6
50°	797.4	786.3	752.0	700.2	631.7	554.0	469.7	378.6	285.5	201.3	58.3
52.5°	790.0	778.9	746.5	690.9	622.0	543.3	455.8	365.1	270.7	184.7	44.4
55°	780.7	770.5	736.8	682.6	609.5	530.4	442.9	350.8	256.4	167.5	31.9
57.5°	766.4	757.1	724.7	669.2	597.0	516.0	428.5	335.1	238.3	150.4	22.2
60°	748.8	739.5	708.1	653.9	582.6	499.8	412.8	318.9	222.1	133.3	13.9
62.5°	730.3	721.5	688.6	634.9	564.6	482.7	395.7	302.7	205.0	117.5	8.3
65°	705.7	697.4	667.8	612.3	544.7	464.2	376.7	283.2	187.4	100.0	4.6
67.5°	679.8	672.4	642.3	591.4	521.6	443.8	357.3	264.3	168.9	84.7	2.3
70°	652.1	642.8	615.0	563.2	498.0	420.7	336.0	244.8	151.3	69.9	0.0
72.5°	619.7	612.7	585.9	536.8	470.7	396.1	314.2	223.5	131.9	55.5	0.5
75°	588.2	579.4	554.9	508.6	443.8	370.2	290.2	203.6	112.9	42.6	0.5
77.5°	547.5	544.7	521.6	476.7	418.4	345.2	263.8	179.6	94.9	30.5	0.5
80°	506.8	504.0	485.9	444.7	388.7	315.6	239.3	156.9	77.3	20.4	0.5
82.5°	466.5	462.8	445.7	411.4	358.7	290.6	213.8	134.2	61.1	12.5	0.5
85°	430.4	425.8	407.3	375.8	327.7	262.4	187.4	112.0	45.4	6.9	0.9
87.5°	399.4	396.1	375.8	343.4	296.2	236.0	164.3	90.7	31.9	3.2	1.4
90°	373.0	366.1	348.0	313.8	266.6	206.9	139.8	72.7	21.3	1.9	1.9
92.5°	347.1	341.1	321.2	286.0	240.2	181.9	116.2	55.5	13.4	0.9	2.3
95°	320.2	313.8	294.3	261.9	213.3	156.4	95.3	40.7	7.4	0.9	2.3
97.5°	293.9	287.9	267.5	235.1	189.3	134.2	75.4	28.7	3.7	0.9	1.9
100°	269.3	262.4	243.9	211.5	165.2	112.0	58.3	18.5	2.3	0.9	1.9
102.5°	243.4	237.9	218.9	187.4	140.2	91.2	43.5	11.6	0.9	0.9	1.4
105°	220.3	213.3	194.8	162.4	119.4	71.7	30.5	6.9	0.9	0.9	1.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	143.5	137.9	121.7	94.4	60.6	28.2	8.3	1.4	1.4	1.4	1.4
115°	119.9	111.5	97.2	73.1	44.9	18.5	4.2	1.4	1.4	1.4	1.4
117.5°	95.8	88.9	78.7	55.5	29.6	12.0	2.3	1.4	1.4	1.4	1.4
120°	75.0	68.5	56.9	38.4	19.9	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.7	48.6	38.4	25.0	12.0	3.2	1.4	1.4	1.9	1.9	1.4
125°	35.6	32.9	25.5	15.3	7.4	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.1	20.8	14.8	8.8	3.2	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.0	11.6	8.8	5.1	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.4	6.9	4.6	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	363.3	363.3	363.3
2.5°	345.7	339.2	337.4
5°	327.2	316.5	310.5
7.5°	308.7	294.3	287.4
10°	291.6	271.2	263.8
12.5°	271.2	247.6	236.0
15°	251.8	221.2	210.1
17.5°	230.0	195.8	182.8
20°	209.6	170.3	156.9
22.5°	186.5	145.3	130.5
25°	165.7	120.3	103.7
27.5°	142.5	94.9	80.5
30°	120.8	72.7	58.3
32.5°	100.0	53.2	40.3
35°	80.5	36.1	25.5
37.5°	62.0	22.2	13.0
40°	44.9	11.6	6.0
42.5°	30.1	5.6	3.2
45°	18.5	2.8	0.0
47.5°	10.6	0.0	0.0
50°	5.6	0.0	0.0
52.5°	2.3	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.2
90°	2.8	3.2	3.2
92.5°	2.8	3.7	3.7
95°	3.2	3.7	4.2
97.5°	3.7	4.2	4.2
100°	3.2	4.2	4.6
102.5°	2.8	4.2	4.2
105°	2.3	3.2	3.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	194.4	188.8	170.3	139.8	97.6	54.6	20.4	3.7	0.9	1.4	1.4
110°	169.4	164.8	145.8	116.2	78.7	40.7	13.4	2.3	1.4	1.4	1.4





107.5°	1.9	2.8	3.2
110°	1.9	2.3	2.8



(END OF REPORT)