

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: P550959

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-81-88-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: P550959
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-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

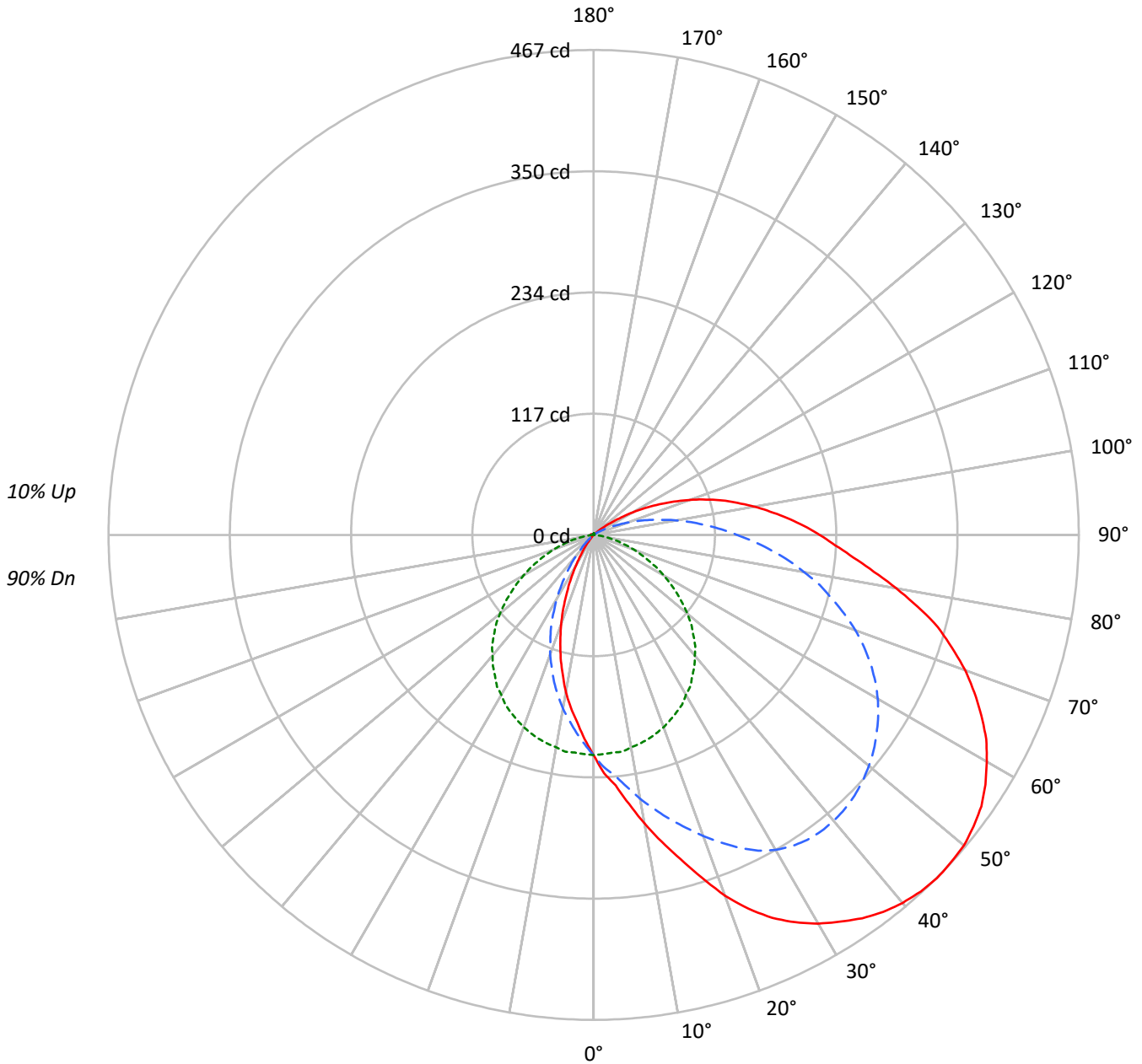
Lumens per Lamp: N/A
Luminaire Lumens: 1048.0 lumens
Efficiency: N/A
Efficacy: 62.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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

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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°	2282	2282	2282
5°	2505	2249	1876
10°	2835	2221	1546
15°	3176	2192	1205
20°	3583	2157	887
25°	3920	2115	583
30°	4169	2060	328
35°	4387	2000	145
40°	4579	1927	35
45°	4743	1835	0
50°	4882	1713	0
55°	4988	1557	0
60°	5040	1377	0
65°	5061	1171	0
70°	5045	956	0
75°	4980	703	4
80°	4779	432	23
85°	4618	208	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.3	1.9
10°-20°	60.8	5.8
20°-30°	98.5	9.4
30°-40°	126.5	12.1
40°-50°	143.2	13.7
50°-60°	148.3	14.2
60°-70°	139.9	13.3
70°-80°	117.2	11.2
80°-90°	85.0	8.1
90°-100°	55.9	5.3
100°-110°	32.3	3.1
110°-120°	14.2	1.4
120°-130°	3.9	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
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0°-30°	179.6	17.1
0°-40°	306.0	29.2
0°-60°	597.5	57.0
0°-90°	939.6	89.7
90°-120°	102.3	9.8
90°-150°	107.7	10.3
90°-180°	108.0	10.3
0°-180°	1048.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	212	212	212	212	212	
5°	242	232	210	191	181	24
15°	323	283	203	147	123	93
25°	407	333	188	97	60	188
35°	451	358	166	47	15	283
45°	467	355	136	11	0	361
55°	456	333	98	0	0	407
65°	412	294	58	0	0	407
75°	343	238	25	0	0	360
85°	251	172	4	1	2	214
90°	218	138	1	2	2	119
95°	187	108	0	2	2	147
105°	128	56	0	1	2	136
115°	70	18	1	1	1	70
125°	21	3	1	1	1	21
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	212.0	212.0	212.0	212.0	212.0	212.0	212.0	212.0	212.0	212.0	212.0
2.5°	229.8	229.5	228.7	227.4	225.5	222.2	219.5	217.1	213.9	211.2	206.0
5°	242.0	240.6	239.5	238.2	233.9	230.9	226.0	220.6	215.5	210.4	200.1
7.5°	261.4	259.2	257.6	253.8	247.9	241.2	233.6	228.5	224.9	210.6	193.1
10°	282.2	280.3	277.1	270.3	263.0	253.3	242.5	230.3	219.5	207.7	186.9
12.5°	302.7	300.0	295.4	286.8	276.5	264.4	249.5	235.2	219.8	205.8	179.6
15°	323.2	320.3	315.4	304.9	291.4	275.4	257.4	239.3	221.2	203.3	172.0
17.5°	345.7	341.6	334.3	322.4	305.4	285.7	264.4	242.5	220.6	200.4	163.9
20°	369.7	364.0	356.2	340.3	320.3	297.0	271.4	245.7	220.4	196.9	154.7
22.5°	389.7	384.0	375.4	358.9	334.9	306.5	277.3	247.9	219.3	192.8	146.1
25°	407.0	402.4	392.9	374.0	348.6	316.5	283.0	249.5	217.7	188.5	136.9
27.5°	420.5	416.1	405.6	386.2	360.2	325.4	287.3	250.3	215.5	184.2	127.5
30°	432.3	428.0	415.3	395.3	368.1	332.4	291.6	250.6	212.8	177.7	117.2
32.5°	441.5	437.5	424.5	403.2	373.5	337.3	294.1	250.3	209.3	173.1	106.1
35°	450.7	446.7	431.5	408.8	377.5	339.4	296.0	249.0	205.0	165.5	95.6
37.5°	457.7	453.1	437.7	412.6	379.4	340.0	295.7	247.1	200.4	159.3	85.1
40°	462.6	457.7	441.3	414.8	380.0	339.2	293.5	243.9	195.0	151.5	74.0
42.5°	465.8	460.4	442.9	418.0	378.9	337.0	290.3	239.8	189.0	144.7	63.5
45°	467.4	461.8	443.1	415.3	377.0	333.0	285.4	234.7	182.6	135.6	52.9
47.5°	466.6	460.4	441.8	412.4	373.5	328.6	280.0	228.5	174.7	127.5	42.9
50°	465.3	458.8	438.8	408.6	368.6	323.2	274.1	220.9	166.6	117.5	34.0
52.5°	461.0	454.5	435.6	403.2	362.9	317.0	266.0	213.1	158.0	107.7	25.9
55°	455.6	449.6	429.9	398.3	355.6	309.5	258.4	204.7	149.6	97.8	18.6
57.5°	447.2	441.8	422.9	390.5	348.4	301.1	250.1	195.5	139.1	87.8	13.0
60°	436.9	431.5	413.2	381.6	340.0	291.6	240.9	186.1	129.6	77.8	8.1
62.5°	426.1	421.0	401.8	370.5	329.5	281.7	230.9	176.6	119.6	68.6	4.9
65°	411.8	407.0	389.7	357.3	317.8	270.9	219.8	165.3	109.4	58.3	2.7
67.5°	396.7	392.4	374.8	345.1	304.3	259.0	208.5	154.2	98.6	49.4	1.4
70°	380.5	375.1	358.9	328.6	290.6	245.5	196.1	142.9	88.3	40.8	0.0
72.5°	361.6	357.5	341.9	313.3	274.6	231.2	183.4	130.4	77.0	32.4	0.3
75°	343.2	338.1	323.8	296.8	259.0	216.0	169.3	118.8	65.9	24.8	0.3
77.5°	319.5	317.8	304.3	278.1	244.1	201.5	153.9	104.8	55.4	17.8	0.3
80°	295.7	294.1	283.5	259.5	226.8	184.2	139.6	91.5	45.1	11.9	0.3
82.5°	272.2	270.0	260.1	240.1	209.3	169.6	124.8	78.3	35.6	7.3	0.3
85°	251.1	248.4	237.6	219.3	191.2	153.1	109.4	65.4	26.5	4.1	0.5
87.5°	233.0	231.2	219.3	200.4	172.8	137.7	95.9	52.9	18.6	1.9	0.8
90°	217.7	213.6	203.1	183.1	155.5	120.7	81.6	42.4	12.4	1.1	1.1
92.5°	202.5	199.0	187.4	166.9	140.2	106.1	67.8	32.4	7.8	0.5	1.4
95°	186.9	183.1	171.7	152.8	124.5	91.3	55.6	23.8	4.3	0.5	1.4
97.5°	171.5	168.0	156.1	137.2	110.4	78.3	44.0	16.7	2.2	0.5	1.1
100°	157.2	153.1	142.3	123.4	96.4	65.4	34.0	10.8	1.4	0.5	1.1
102.5°	142.0	138.8	127.7	109.4	81.8	53.2	25.4	6.8	0.5	0.5	0.8
105°	128.5	124.5	113.7	94.8	69.7	41.9	17.8	4.1	0.5	0.5	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	83.7	80.5	71.0	55.1	35.4	16.5	4.9	0.8	0.8	0.8	0.8
115°	69.9	65.1	56.7	42.7	26.2	10.8	2.4	0.8	0.8	0.8	0.8
117.5°	55.9	51.8	45.9	32.4	17.3	7.0	1.4	0.8	0.8	0.8	0.8
120°	43.7	40.0	33.2	22.4	11.6	4.1	0.5	0.8	0.8	0.8	0.8
122.5°	31.3	28.4	22.4	14.6	7.0	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.8	19.2	14.9	8.9	4.3	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.5	12.2	8.6	5.1	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.6	6.8	5.1	3.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.3	4.1	2.7	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	212.0	212.0	212.0
2.5°	201.7	197.9	196.9
5°	190.9	184.7	181.2
7.5°	180.1	171.7	167.7
10°	170.1	158.2	153.9
12.5°	158.2	144.5	137.7
15°	146.9	129.1	122.6
17.5°	134.2	114.2	106.7
20°	122.3	99.4	91.5
22.5°	108.8	84.8	76.2
25°	96.7	70.2	60.5
27.5°	83.2	55.4	47.0
30°	70.5	42.4	34.0
32.5°	58.3	31.1	23.5
35°	47.0	21.1	14.9
37.5°	36.2	13.0	7.6
40°	26.2	6.8	3.5
42.5°	17.6	3.2	1.9
45°	10.8	1.6	0.0
47.5°	6.2	0.0	0.0
50°	3.2	0.0	0.0
52.5°	1.4	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°	0.3	0.3	0.3
77.5°	0.3	0.5	0.8
80°	0.5	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.6
87.5°	1.4	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.2	2.2
95°	1.9	2.2	2.4
97.5°	2.2	2.4	2.4
100°	1.9	2.4	2.7
102.5°	1.6	2.4	2.4
105°	1.4	1.9	2.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.1	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	113.4	110.2	99.4	81.6	57.0	31.9	11.9	2.2	0.5	0.8	0.8
110°	98.8	96.1	85.1	67.8	45.9	23.8	7.8	1.4	0.8	0.8	0.8





107.5°	1.1	1.6	1.9
110°	1.1	1.4	1.6



(END OF REPORT)