

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: P550769

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-81-94-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: P550769
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-LD4-1LO-35-UNV-81-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

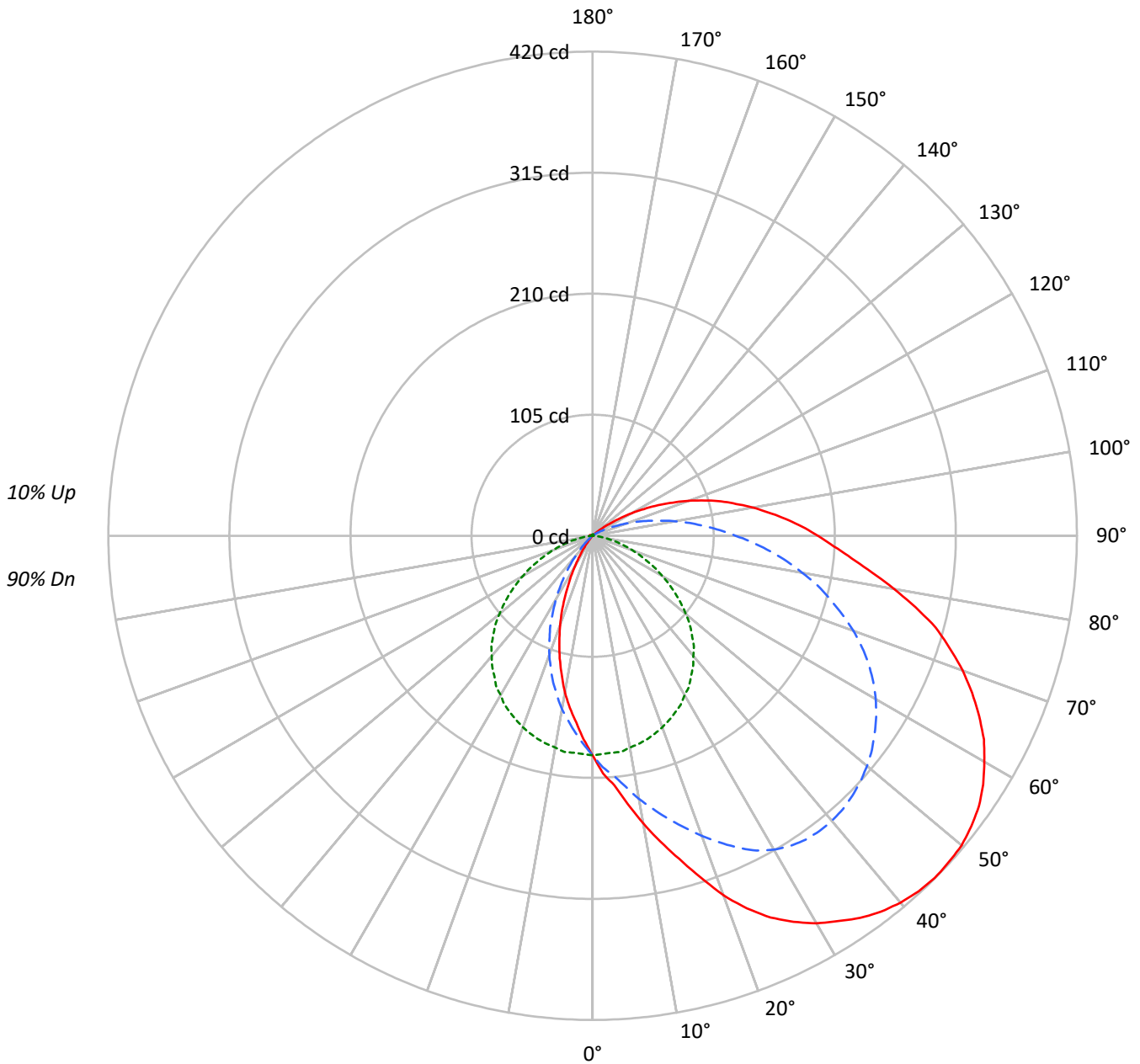
Lumens per Lamp: N/A
Luminaire Lumens: 941.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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°	2048	2048	2048
5°	2250	2019	1684
10°	2545	1994	1388
15°	2852	1969	1082
20°	3216	1937	797
25°	3519	1899	523
30°	3744	1849	295
35°	3939	1795	129
40°	4112	1730	32
45°	4259	1647	0
50°	4384	1538	0
55°	4479	1398	0
60°	4526	1235	0
65°	4545	1052	0
70°	4529	857	0
75°	4472	632	3
80°	4291	388	19
85°	4147	183	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.2	1.9
10°-20°	54.6	5.8
20°-30°	88.4	9.4
30°-40°	113.6	12.1
40°-50°	128.6	13.7
50°-60°	133.2	14.2
60°-70°	125.6	13.3
70°-80°	105.3	11.2
80°-90°	76.3	8.1
90°-100°	50.1	5.3
100°-110°	29.0	3.1
110°-120°	12.8	1.4
120°-130°	3.5	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	161.2	17.1
0°-40°	274.8	29.2
0°-60°	536.5	57.0
0°-90°	843.7	89.7
90°-120°	91.9	9.8
90°-150°	96.7	10.3
90°-180°	97.0	10.3
0°-180°	941.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	190	190	190	190	190	
5°	217	209	189	171	163	22
15°	290	254	183	132	110	84
25°	365	299	169	87	54	169
35°	405	322	149	42	13	254
45°	420	319	122	10	0	324
55°	409	299	88	0	0	365
65°	370	264	52	0	0	366
75°	308	213	22	0	0	323
85°	226	155	4	1	2	193
90°	195	124	1	2	2	107
95°	168	97	0	2	2	132
105°	115	50	0	1	2	122
115°	63	17	1	1	1	63
125°	19	2	1	1	1	19
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°	190.3	190.3	190.3	190.3	190.3	190.3	190.3	190.3	190.3	190.3	190.3
2.5°	206.3	206.1	205.4	204.2	202.5	199.6	197.1	194.9	192.0	189.6	185.0
5°	217.3	216.0	215.1	213.9	210.0	207.3	203.0	198.1	193.5	188.9	179.7
7.5°	234.7	232.8	231.3	227.9	222.6	216.5	209.7	205.1	202.0	189.1	173.4
10°	253.4	251.7	248.8	242.7	236.2	227.4	217.7	206.8	197.1	186.5	167.8
12.5°	271.8	269.4	265.3	257.5	248.3	237.4	224.0	211.2	197.4	184.8	161.2
15°	290.2	287.6	283.2	273.8	261.6	247.3	231.1	214.8	198.6	182.6	154.5
17.5°	310.4	306.7	300.2	289.5	274.2	256.5	237.4	217.7	198.1	179.9	147.2
20°	331.9	326.9	319.8	305.5	287.6	266.7	243.7	220.7	197.9	176.8	138.9
22.5°	349.9	344.8	337.0	322.2	300.7	275.2	249.0	222.6	196.9	173.1	131.2
25°	365.4	361.3	352.8	335.8	313.0	284.2	254.1	224.0	195.4	169.2	122.9
27.5°	377.5	373.7	364.2	346.7	323.5	292.2	258.0	224.8	193.5	165.4	114.4
30°	388.2	384.3	372.9	355.0	330.5	298.5	261.9	225.0	191.1	159.5	105.2
32.5°	396.4	392.8	381.2	362.0	335.3	302.8	264.1	224.8	187.9	155.4	95.3
35°	404.7	401.1	387.5	367.1	339.0	304.8	265.8	223.6	184.0	148.6	85.8
37.5°	411.0	406.9	393.0	370.5	340.7	305.3	265.5	221.9	179.9	143.1	76.4
40°	415.4	411.0	396.2	372.4	341.2	304.5	263.6	219.0	175.1	136.0	66.4
42.5°	418.3	413.4	397.7	375.3	340.2	302.6	260.7	215.3	169.7	130.0	57.0
45°	419.7	414.6	397.9	372.9	338.5	299.0	256.3	210.7	163.9	121.7	47.5
47.5°	419.0	413.4	396.7	370.3	335.3	295.1	251.4	205.1	156.9	114.4	38.6
50°	417.8	412.0	394.0	366.9	331.0	290.2	246.1	198.3	149.6	105.5	30.6
52.5°	413.9	408.1	391.1	362.0	325.9	284.7	238.8	191.3	141.8	96.7	23.3
55°	409.1	403.7	386.0	357.6	319.3	277.9	232.0	183.8	134.3	87.8	16.7
57.5°	401.5	396.7	379.7	350.6	312.8	270.4	224.5	175.6	124.9	78.8	11.6
60°	392.3	387.5	371.0	342.6	305.3	261.9	216.3	167.1	116.4	69.8	7.3
62.5°	382.6	378.0	360.8	332.7	295.8	252.9	207.3	158.6	107.4	61.6	4.4
65°	369.8	365.4	349.9	320.8	285.4	243.2	197.4	148.4	98.2	52.4	2.4
67.5°	356.2	352.3	336.6	309.9	273.3	232.5	187.2	138.5	88.5	44.4	1.2
70°	341.6	336.8	322.2	295.1	260.9	220.4	176.0	128.3	79.3	36.6	0.0
72.5°	324.7	321.0	307.0	281.3	246.6	207.6	164.6	117.1	69.1	29.1	0.2
75°	308.2	303.6	290.7	266.5	232.5	194.0	152.0	106.7	59.2	22.3	0.2
77.5°	286.8	285.4	273.3	249.7	219.2	180.9	138.2	94.1	49.7	16.0	0.2
80°	265.5	264.1	254.6	233.0	203.7	165.4	125.4	82.2	40.5	10.7	0.2
82.5°	244.4	242.5	233.5	215.6	187.9	152.3	112.0	70.3	32.0	6.5	0.2
85°	225.5	223.1	213.4	196.9	171.7	137.5	98.2	58.7	23.8	3.6	0.5
87.5°	209.3	207.6	196.9	179.9	155.2	123.7	86.1	47.5	16.7	1.7	0.7
90°	195.4	191.8	182.3	164.4	139.7	108.4	73.2	38.1	11.2	1.0	1.0
92.5°	181.9	178.7	168.3	149.8	125.8	95.3	60.9	29.1	7.0	0.5	1.2
95°	167.8	164.4	154.2	137.2	111.8	82.0	49.9	21.3	3.9	0.5	1.2
97.5°	154.0	150.8	140.1	123.2	99.2	70.3	39.5	15.0	1.9	0.5	1.0
100°	141.1	137.5	127.8	110.8	86.6	58.7	30.6	9.7	1.2	0.5	1.0
102.5°	127.5	124.6	114.7	98.2	73.5	47.8	22.8	6.1	0.5	0.5	0.7
105°	115.4	111.8	102.1	85.1	62.6	37.6	16.0	3.6	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	75.2	72.3	63.8	49.5	31.8	14.8	4.4	0.7	0.7	0.7	0.7
115°	62.8	58.4	50.9	38.3	23.5	9.7	2.2	0.7	0.7	0.7	0.7
117.5°	50.2	46.6	41.2	29.1	15.5	6.3	1.2	0.7	0.7	0.7	0.7
120°	39.3	35.9	29.8	20.1	10.4	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	28.1	25.5	20.1	13.1	6.3	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.7	17.2	13.3	8.0	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.1	10.9	7.8	4.6	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.8	6.1	4.6	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.6	2.4	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	190.3	190.3	190.3
2.5°	181.1	177.7	176.8
5°	171.4	165.9	162.7
7.5°	161.7	154.2	150.6
10°	152.8	142.1	138.2
12.5°	142.1	129.7	123.7
15°	131.9	115.9	110.1
17.5°	120.5	102.6	95.8
20°	109.8	89.2	82.2
22.5°	97.7	76.1	68.4
25°	86.8	63.0	54.3
27.5°	74.7	49.7	42.2
30°	63.3	38.1	30.6
32.5°	52.4	27.9	21.1
35°	42.2	18.9	13.3
37.5°	32.5	11.6	6.8
40°	23.5	6.1	3.2
42.5°	15.8	2.9	1.7
45°	9.7	1.5	0.0
47.5°	5.6	0.0	0.0
50°	2.9	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	1.9	1.9
95°	1.7	1.9	2.2
97.5°	1.9	2.2	2.2
100°	1.7	2.2	2.4
102.5°	1.5	2.2	2.2
105°	1.2	1.7	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	1.0	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	101.8	98.9	89.2	73.2	51.2	28.6	10.7	1.9	0.5	0.7	0.7
110°	88.7	86.3	76.4	60.9	41.2	21.3	7.0	1.2	0.7	0.7	0.7





107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)