

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: P551021

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-81-87-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: P551021
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-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

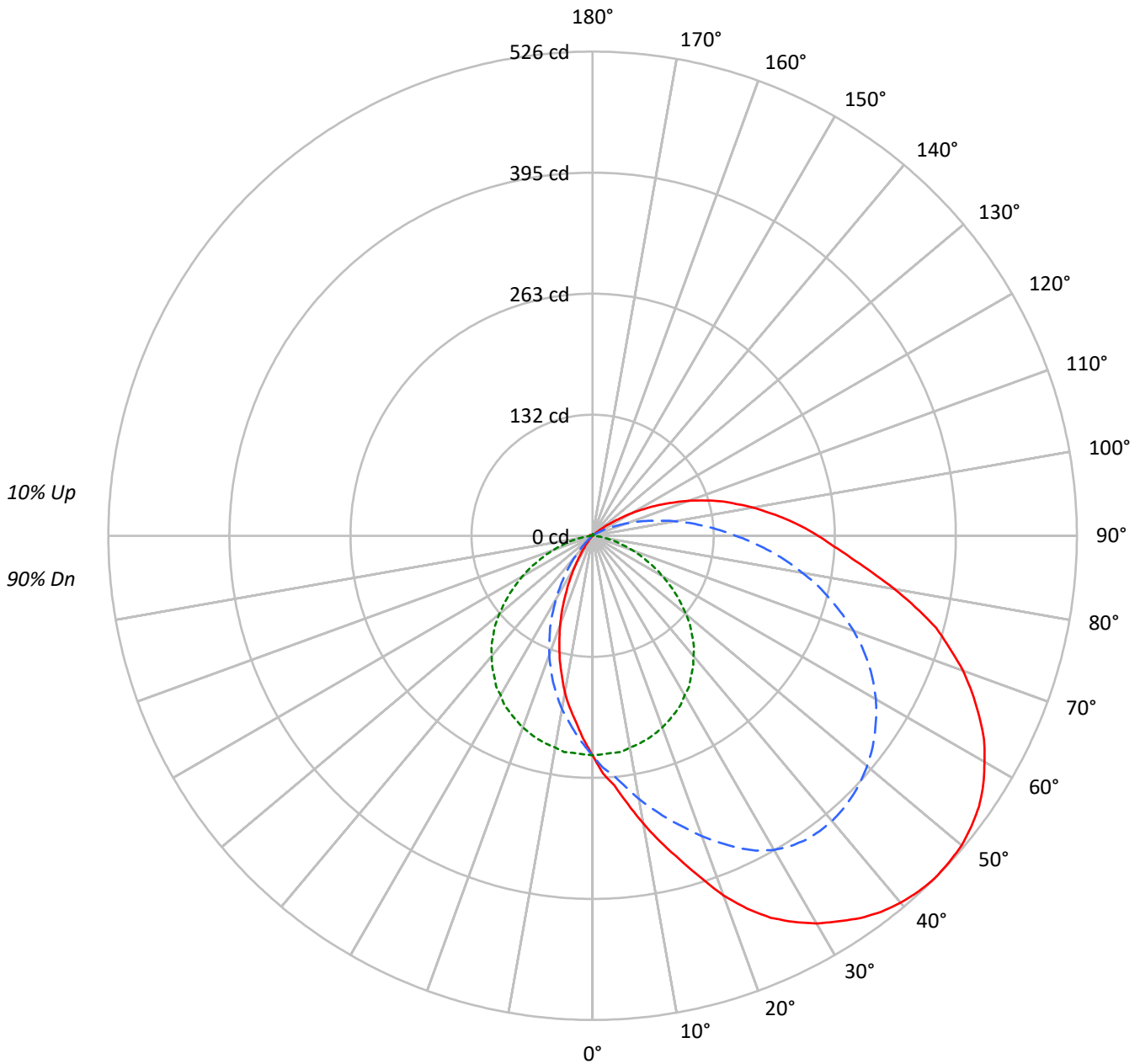
Lumens per Lamp: N/A
Luminaire Lumens: 1178.9 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2567	2567	2567
5°	2818	2530	2111
10°	3189	2498	1740
15°	3573	2467	1355
20°	4031	2427	998
25°	4409	2380	656
30°	4691	2317	369
35°	4935	2250	163
40°	5151	2167	39
45°	5337	2063	0
50°	5492	1927	0
55°	5611	1752	0
60°	5670	1548	0
65°	5694	1318	0
70°	5676	1075	0
75°	5603	791	4
80°	5377	486	24
85°	5196	234	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.8	1.9
10°-20°	68.4	5.8
20°-30°	110.8	9.4
30°-40°	142.3	12.1
40°-50°	161.1	13.7
50°-60°	166.9	14.2
60°-70°	157.4	13.3
70°-80°	131.9	11.2
80°-90°	95.6	8.1
90°-100°	62.8	5.3
100°-110°	36.3	3.1
110°-120°	16.0	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	202.0	17.1
0°-40°	344.3	29.2
0°-60°	672.2	57.0
0°-90°	1057.1	89.7
90°-120°	115.1	9.8
90°-150°	121.1	10.3
90°-180°	122.0	10.3
0°-180°	1178.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	238	238	238	238	238	
5°	272	261	237	215	204	27
15°	364	319	229	165	138	105
25°	458	374	212	109	68	212
35°	507	403	186	53	17	318
45°	526	399	152	12	0	406
55°	512	374	110	0	0	458
65°	463	331	66	0	0	458
75°	386	267	28	0	0	405
85°	282	194	5	1	2	241
90°	245	155	1	2	2	134
95°	210	121	1	2	3	165
105°	145	63	1	2	2	153
115°	79	21	1	1	2	79
125°	23	3	1	1	1	23
135°	1	1	2	1	1	2
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°	238.5	238.5	238.5	238.5	238.5	238.5	238.5	238.5	238.5	238.5	238.5
2.5°	258.5	258.2	257.3	255.8	253.7	250.0	247.0	244.3	240.6	237.6	231.8
5°	272.2	270.7	269.5	268.0	263.1	259.7	254.3	248.2	242.4	236.7	225.1
7.5°	294.1	291.6	289.8	285.6	278.9	271.3	262.8	257.0	253.1	237.0	217.2
10°	317.5	315.3	311.7	304.1	295.9	285.0	272.8	259.1	247.0	233.6	210.2
12.5°	340.6	337.5	332.4	322.6	311.1	297.4	280.7	264.6	247.3	231.5	202.0
15°	363.6	360.3	354.8	343.0	327.8	309.9	289.5	269.2	248.8	228.8	193.5
17.5°	388.9	384.3	376.1	362.7	343.6	321.4	297.4	272.8	248.2	225.4	184.4
20°	415.9	409.5	400.7	382.8	360.3	334.2	305.3	276.5	247.9	221.5	174.1
22.5°	438.4	432.0	422.3	403.8	376.7	344.8	312.0	278.9	246.7	216.9	164.4
25°	457.8	452.7	442.0	420.8	392.2	356.1	318.4	280.7	244.9	212.1	154.0
27.5°	473.0	468.2	456.3	434.4	405.3	366.1	323.2	281.6	242.4	207.2	143.4
30°	486.4	481.5	467.2	444.8	414.1	374.0	328.1	281.9	239.4	199.9	131.8
32.5°	496.7	492.2	477.6	453.6	420.2	379.4	330.8	281.6	235.4	194.7	119.4
35°	507.0	502.5	485.5	460.0	424.7	381.9	333.0	280.1	230.6	186.2	107.5
37.5°	514.9	509.8	492.5	464.2	426.8	382.5	332.7	278.0	225.4	179.2	95.7
40°	520.4	514.9	496.4	466.6	427.4	381.6	330.2	274.3	219.3	170.4	83.2
42.5°	524.1	518.0	498.2	470.3	426.2	379.1	326.6	269.8	212.7	162.8	71.4
45°	525.9	519.5	498.5	467.2	424.1	374.6	321.1	264.0	205.4	152.5	59.5
47.5°	525.0	518.0	497.0	463.9	420.2	369.7	315.0	257.0	196.6	143.4	48.3
50°	523.4	516.2	493.7	459.7	414.7	363.6	308.4	248.5	187.4	132.2	38.3
52.5°	518.6	511.3	490.0	453.6	408.3	356.7	299.2	239.7	177.7	121.2	29.2
55°	512.5	505.8	483.7	448.1	400.1	348.2	290.7	230.3	168.3	110.0	21.0
57.5°	503.1	497.0	475.8	439.3	391.9	338.7	281.3	220.0	156.5	98.7	14.6
60°	491.5	485.5	464.8	429.3	382.5	328.1	271.0	209.3	145.8	87.5	9.1
62.5°	479.4	473.6	452.1	416.8	370.6	316.9	259.7	198.7	134.6	77.2	5.5
65°	463.3	457.8	438.4	401.9	357.6	304.7	247.3	185.9	123.0	65.6	3.0
67.5°	446.3	441.4	421.7	388.3	342.4	291.3	234.5	173.5	110.9	55.6	1.5
70°	428.1	422.0	403.8	369.7	326.9	276.2	220.6	160.7	99.3	45.9	0.0
72.5°	406.8	402.2	384.6	352.4	309.0	260.1	206.3	146.7	86.6	36.5	0.3
75°	386.1	380.4	364.3	333.9	291.3	243.0	190.5	133.7	74.1	27.9	0.3
77.5°	359.4	357.6	342.4	312.9	274.6	226.6	173.2	117.9	62.3	20.1	0.3
80°	332.7	330.8	319.0	292.0	255.2	207.2	157.1	103.0	50.7	13.4	0.3
82.5°	306.2	303.8	292.6	270.1	235.4	190.8	140.4	88.1	40.1	8.2	0.3
85°	282.5	279.5	267.3	246.7	215.1	172.3	123.0	73.5	29.8	4.6	0.6
87.5°	262.2	260.1	246.7	225.4	194.4	154.9	107.8	59.5	21.0	2.1	0.9
90°	244.9	240.3	228.5	206.0	175.0	135.8	91.7	47.7	14.0	1.2	1.2
92.5°	227.9	223.9	210.8	187.7	157.7	119.4	76.3	36.5	8.8	0.6	1.5
95°	210.2	206.0	193.2	172.0	140.1	102.7	62.6	26.7	4.9	0.6	1.5
97.5°	192.9	189.0	175.6	154.3	124.3	88.1	49.5	18.8	2.4	0.6	1.2
100°	176.8	172.3	160.1	138.8	108.5	73.5	38.3	12.2	1.5	0.6	1.2
102.5°	159.8	156.2	143.7	123.0	92.1	59.8	28.6	7.6	0.6	0.6	0.9
105°	144.6	140.1	127.9	106.6	78.4	47.1	20.1	4.6	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	94.2	90.5	79.9	62.0	39.8	18.5	5.5	0.9	0.9	0.9	0.9
115°	78.7	73.2	63.8	48.0	29.5	12.2	2.7	0.9	0.9	0.9	0.9
117.5°	62.9	58.3	51.6	36.5	19.4	7.9	1.5	0.9	0.9	0.9	0.9
120°	49.2	45.0	37.4	25.2	13.1	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.2	31.9	25.2	16.4	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.4	21.6	16.7	10.0	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.2	13.7	9.7	5.8	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.5	7.6	5.8	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.9	4.6	3.0	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	238.5	238.5	238.5
2.5°	226.9	222.7	221.5
5°	214.8	207.8	203.9
7.5°	202.6	193.2	188.7
10°	191.4	178.0	173.2
12.5°	178.0	162.5	154.9
15°	165.3	145.2	137.9
17.5°	151.0	128.5	120.0
20°	137.6	111.8	103.0
22.5°	122.4	95.4	85.7
25°	108.8	79.0	68.1
27.5°	93.6	62.3	52.9
30°	79.3	47.7	38.3
32.5°	65.6	34.9	26.4
35°	52.9	23.7	16.7
37.5°	40.7	14.6	8.5
40°	29.5	7.6	3.9
42.5°	19.7	3.6	2.1
45°	12.2	1.8	0.0
47.5°	7.0	0.0	0.0
50°	3.6	0.0	0.0
52.5°	1.5	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	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	127.6	124.0	111.8	91.7	64.1	35.8	13.4	2.4	0.6	0.9	0.9
110°	111.2	108.2	95.7	76.3	51.6	26.7	8.8	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)