

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: P551107

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-82-96-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: P551107
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-40-UNV-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

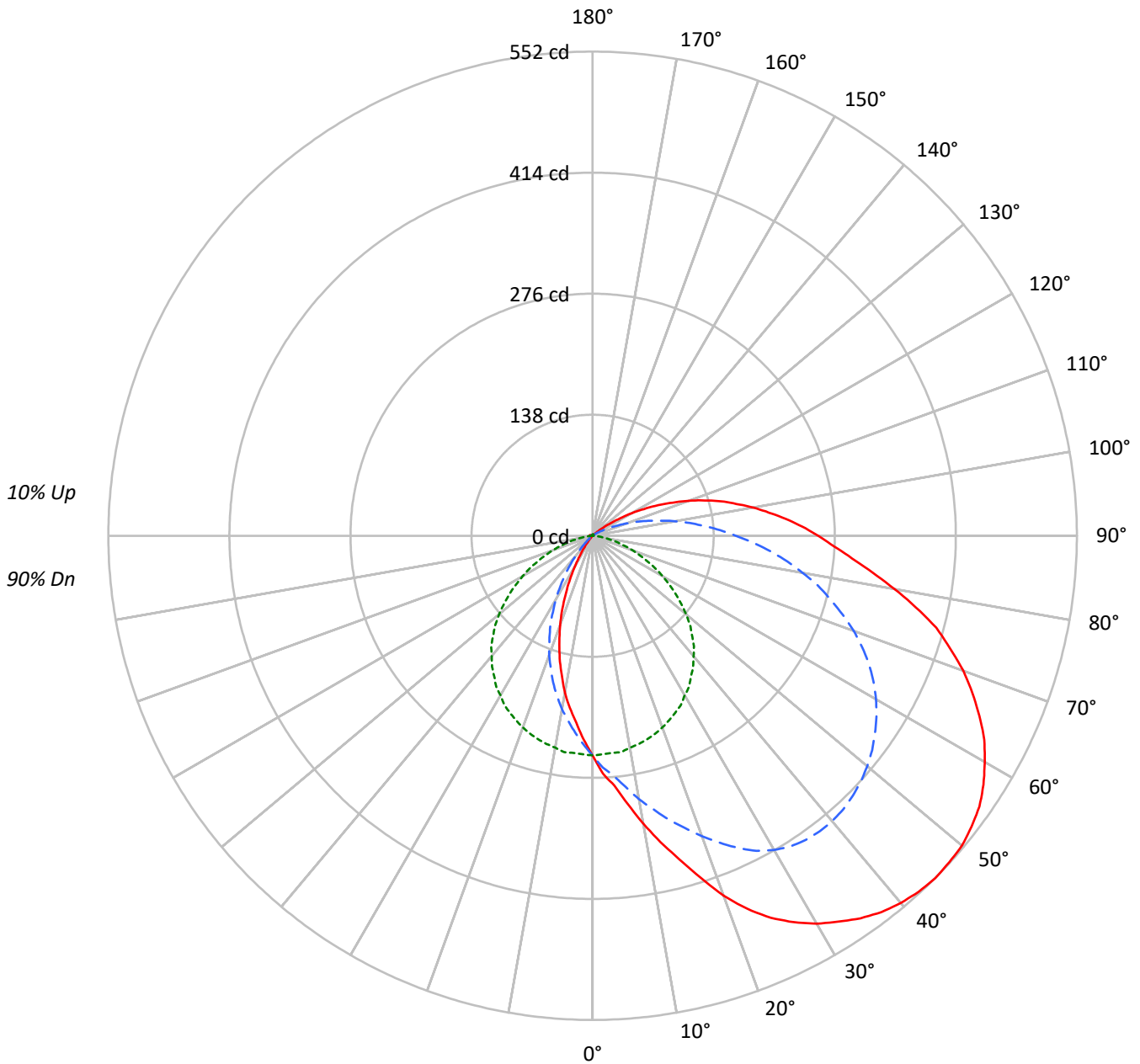
Lumens per Lamp: N/A
Luminaire Lumens: 1238.1 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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°	2695	2695	2695
5°	2959	2656	2216
10°	3349	2623	1826
15°	3752	2590	1423
20°	4232	2548	1048
25°	4630	2499	689
30°	4926	2433	388
35°	5182	2362	170
40°	5409	2276	41
45°	5604	2166	0
50°	5767	2023	0
55°	5892	1839	0
60°	5954	1626	0
65°	5979	1384	0
70°	5960	1129	0
75°	5884	831	4
80°	5645	508	26
85°	5457	244	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	1.9
10°-20°	71.8	5.8
20°-30°	116.3	9.4
30°-40°	149.4	12.1
40°-50°	169.1	13.7
50°-60°	175.2	14.2
60°-70°	165.2	13.3
70°-80°	138.5	11.2
80°-90°	100.4	8.1
90°-100°	66.0	5.3
100°-110°	38.1	3.1
110°-120°	16.8	1.4
120°-130°	4.6	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	212.1	17.1
0°-40°	361.5	29.2
0°-60°	705.9	57.0
0°-90°	1110.0	89.7
90°-120°	120.9	9.8
90°-150°	127.3	10.3
90°-180°	128.0	10.3
0°-180°	1238.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	250	250	250	250	250	
5°	286	274	248	226	214	29
15°	382	335	240	174	145	110
25°	481	393	223	114	72	222
35°	532	424	196	56	18	334
45°	552	419	160	13	0	426
55°	538	393	116	0	0	481
65°	486	348	69	0	0	481
75°	406	281	29	0	0	425
85°	297	203	5	1	2	253
90°	257	163	1	2	2	141
95°	221	127	1	2	3	173
105°	152	66	1	2	3	160
115°	83	22	1	1	2	83
125°	25	3	1	1	1	25
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°	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4
2.5°	271.5	271.2	270.2	268.6	266.4	262.5	259.3	256.5	252.7	249.5	243.4
5°	285.8	284.2	283.0	281.4	276.3	272.7	267.0	260.6	254.6	248.5	236.4
7.5°	308.8	306.2	304.3	299.9	292.8	284.9	275.9	269.9	265.7	248.8	228.1
10°	333.4	331.1	327.3	319.3	310.7	299.2	286.5	272.1	259.3	245.3	220.8
12.5°	357.6	354.4	349.0	338.8	326.7	312.3	294.8	277.9	259.7	243.1	212.1
15°	381.8	378.3	372.6	360.2	344.2	325.4	304.0	282.6	261.3	240.2	203.2
17.5°	408.3	403.5	394.9	380.9	360.8	337.5	312.3	286.5	260.6	236.7	193.6
20°	436.7	430.0	420.8	401.9	378.3	350.9	320.6	290.3	260.3	232.6	182.8
22.5°	460.3	453.6	443.4	424.0	395.6	362.1	327.6	292.8	259.0	227.8	172.6
25°	480.7	475.3	464.1	441.8	411.8	373.9	334.3	294.8	257.1	222.7	161.7
27.5°	496.7	491.6	479.1	456.2	425.6	384.4	339.4	295.7	254.6	217.6	150.6
30°	510.7	505.6	490.6	467.0	434.8	392.7	344.5	296.0	251.4	209.9	138.4
32.5°	521.6	516.8	501.5	476.3	441.2	398.4	347.4	295.7	247.2	204.5	125.4
35°	532.4	527.6	509.8	483.0	446.0	401.0	349.6	294.1	242.1	195.5	112.9
37.5°	540.7	535.3	517.1	487.4	448.2	401.6	349.3	291.9	236.7	188.2	100.5
40°	546.5	540.7	521.3	490.0	448.8	400.7	346.8	288.1	230.3	179.0	87.4
42.5°	550.3	543.9	523.2	493.8	447.6	398.1	342.9	283.3	223.3	171.0	75.0
45°	552.2	545.5	523.5	490.6	445.3	393.3	337.2	277.2	215.6	160.1	62.5
47.5°	551.2	543.9	521.9	487.1	441.2	388.2	330.8	269.9	206.4	150.6	50.7
50°	549.6	542.0	518.4	482.7	435.4	381.8	323.8	260.9	196.8	138.8	40.2
52.5°	544.5	536.9	514.6	476.3	428.7	374.5	314.2	251.7	186.6	127.3	30.6
55°	538.2	531.1	507.9	470.5	420.1	365.6	305.3	241.8	176.7	115.5	22.0
57.5°	528.3	521.9	499.6	461.3	411.5	355.7	295.4	231.0	164.3	103.7	15.3
60°	516.1	509.8	488.1	450.8	401.6	344.5	284.6	219.8	153.1	91.9	9.6
62.5°	503.4	497.3	474.7	437.7	389.2	332.7	272.7	208.6	141.3	81.0	5.7
65°	486.5	480.7	460.3	422.0	375.5	320.0	259.7	195.2	129.2	68.9	3.2
67.5°	468.6	463.5	442.8	407.7	359.5	305.9	246.3	182.2	116.4	58.4	1.6
70°	449.5	443.1	424.0	388.2	343.2	290.0	231.6	168.8	104.3	48.2	0.0
72.5°	427.1	422.4	403.9	370.0	324.4	273.1	216.6	154.1	90.9	38.3	0.3
75°	405.5	399.4	382.5	350.6	305.9	255.2	200.0	140.4	77.8	29.3	0.3
77.5°	377.4	375.5	359.5	328.6	288.4	238.0	181.8	123.8	65.4	21.1	0.3
80°	349.3	347.4	335.0	306.6	268.0	217.6	164.9	108.1	53.3	14.0	0.3
82.5°	321.6	319.0	307.2	283.6	247.2	200.3	147.4	92.5	42.1	8.6	0.3
85°	296.7	293.5	280.7	259.0	225.9	180.9	129.2	77.2	31.3	4.8	0.6
87.5°	275.3	273.1	259.0	236.7	204.2	162.7	113.2	62.5	22.0	2.2	1.0
90°	257.1	252.3	239.9	216.3	183.7	142.6	96.3	50.1	14.7	1.3	1.3
92.5°	239.3	235.1	221.4	197.1	165.6	125.4	80.1	38.3	9.3	0.6	1.6
95°	220.8	216.3	202.9	180.6	147.1	107.8	65.7	28.1	5.1	0.6	1.6
97.5°	202.6	198.4	184.4	162.1	130.5	92.5	52.0	19.8	2.6	0.6	1.3
100°	185.7	180.9	168.1	145.8	113.9	77.2	40.2	12.8	1.6	0.6	1.3
102.5°	167.8	164.0	150.9	129.2	96.7	62.8	30.0	8.0	0.6	0.6	1.0
105°	151.8	147.1	134.3	112.0	82.3	49.4	21.1	4.8	0.6	0.6	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	98.9	95.1	83.9	65.1	41.8	19.5	5.7	1.0	1.0	1.0	1.0
115°	82.6	76.9	67.0	50.4	30.9	12.8	2.9	1.0	1.0	1.0	1.0
117.5°	66.0	61.2	54.2	38.3	20.4	8.3	1.6	1.0	1.0	1.0	1.0
120°	51.7	47.2	39.2	26.5	13.7	4.8	0.6	1.0	1.0	1.0	1.0
122.5°	37.0	33.5	26.5	17.2	8.3	2.2	1.0	1.0	1.3	1.3	1.0
125°	24.6	22.6	17.5	10.5	5.1	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.0	14.4	10.2	6.1	2.2	1.0	1.0	1.3	1.3	1.3	1.0
130°	8.9	8.0	6.1	3.5	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.1	4.8	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	250.4	250.4	250.4
2.5°	238.3	233.8	232.6
5°	225.5	218.2	214.1
7.5°	212.8	202.9	198.1
10°	201.0	186.9	181.8
12.5°	186.9	170.7	162.7
15°	173.5	152.5	144.8
17.5°	158.5	134.9	126.0
20°	144.5	117.4	108.1
22.5°	128.6	100.2	90.0
25°	114.2	82.9	71.5
27.5°	98.3	65.4	55.5
30°	83.3	50.1	40.2
32.5°	68.9	36.7	27.8
35°	55.5	24.9	17.5
37.5°	42.7	15.3	8.9
40°	30.9	8.0	4.1
42.5°	20.7	3.8	2.2
45°	12.8	1.9	0.0
47.5°	7.3	0.0	0.0
50°	3.8	0.0	0.0
52.5°	1.6	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	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.6	2.6
95°	2.2	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.2	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.2	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	134.0	130.2	117.4	96.3	67.3	37.6	14.0	2.6	0.6	1.0	1.0
110°	116.8	113.6	100.5	80.1	54.2	28.1	9.3	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.2
110°	1.3	1.6	1.9



(END OF REPORT)