

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: P551027

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-81-96-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: P551027
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-81-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

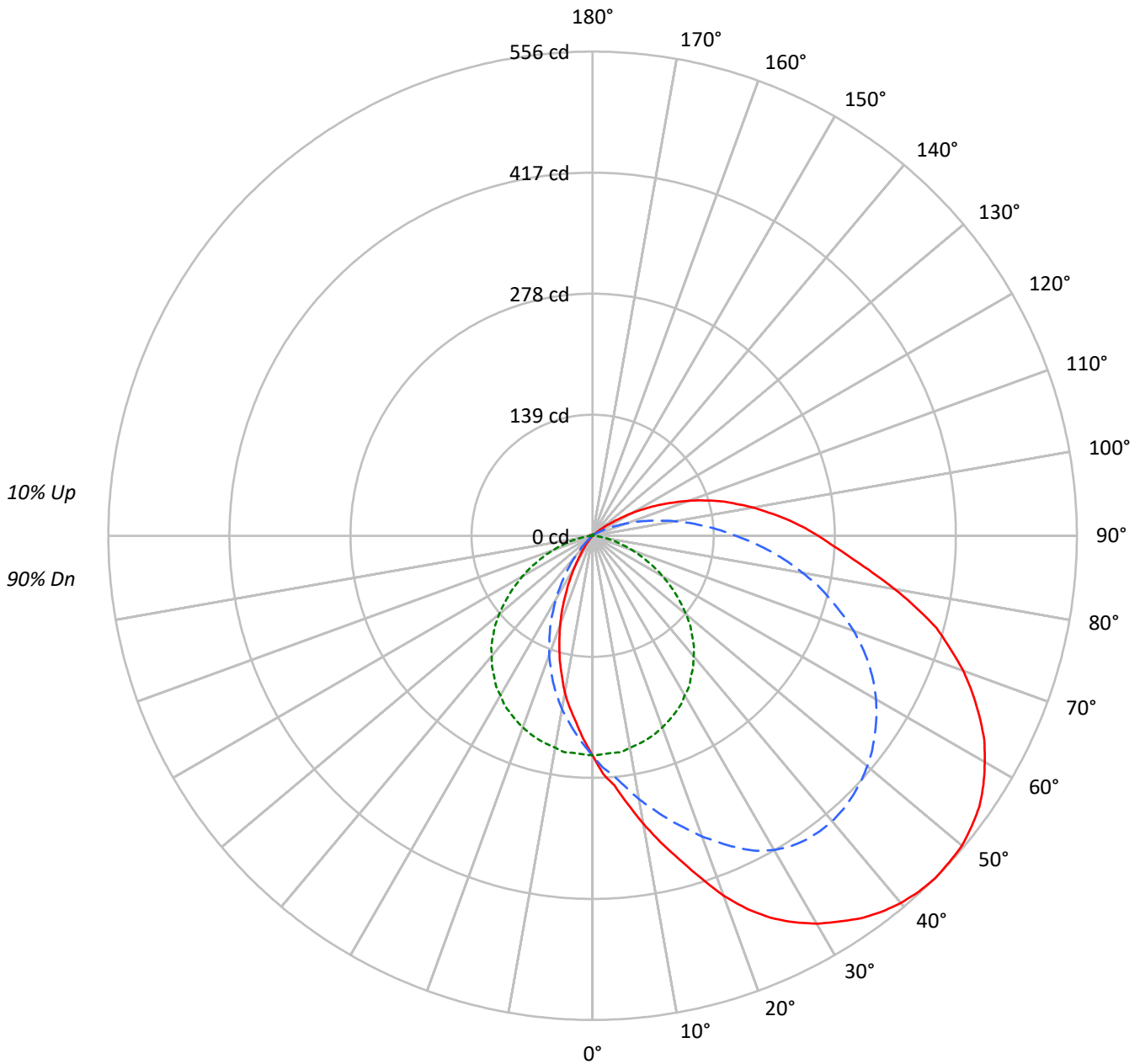
Lumens per Lamp: N/A
Luminaire Lumens: 1247.0 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2715	2715	2715
5°	2980	2675	2232
10°	3373	2643	1840
15°	3779	2609	1434
20°	4263	2566	1055
25°	4663	2517	693
30°	4961	2451	391
35°	5220	2380	172
40°	5448	2293	42
45°	5644	2183	0
50°	5809	2038	0
55°	5935	1852	0
60°	5998	1637	0
65°	6022	1394	0
70°	6002	1136	0
75°	5926	839	4
80°	5685	511	26
85°	5495	244	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	1.9
10°-20°	72.3	5.8
20°-30°	117.2	9.4
30°-40°	150.5	12.1
40°-50°	170.4	13.7
50°-60°	176.5	14.2
60°-70°	166.4	13.3
70°-80°	139.5	11.2
80°-90°	101.1	8.1
90°-100°	66.5	5.3
100°-110°	38.4	3.1
110°-120°	17.0	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°	213.7	17.1
0°-40°	364.1	29.2
0°-60°	711.0	57.0
0°-90°	1118.0	89.7
90°-120°	121.8	9.8
90°-150°	128.1	10.3
90°-180°	129.0	10.3
0°-180°	1247.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	252	252	252	252	252	
5°	288	276	250	227	216	29
15°	385	337	242	175	146	111
25°	484	396	224	115	72	224
35°	536	427	197	56	18	336
45°	556	422	161	13	0	429
55°	542	396	116	0	0	484
65°	490	350	69	0	0	485
75°	408	283	30	0	0	428
85°	299	205	5	1	2	255
90°	259	164	1	2	2	142
95°	222	128	1	2	3	174
105°	153	66	1	2	3	161
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°	252.2	252.2	252.2	252.2	252.2	252.2	252.2	252.2	252.2	252.2	252.2
2.5°	273.4	273.1	272.2	270.6	268.3	264.4	261.2	258.3	254.5	251.3	245.2
5°	287.9	286.3	285.0	283.4	278.3	274.7	268.9	262.5	256.4	250.3	238.1
7.5°	311.0	308.5	306.5	302.0	295.0	286.9	277.9	271.8	267.7	250.6	229.7
10°	335.8	333.5	329.7	321.6	313.0	301.4	288.5	274.1	261.2	247.1	222.4
12.5°	360.2	357.0	351.5	341.2	329.0	314.6	296.9	279.9	261.6	244.8	213.7
15°	384.6	381.1	375.3	362.8	346.7	327.7	306.2	284.7	263.2	242.0	204.7
17.5°	411.3	406.5	397.8	383.7	363.4	340.0	314.6	288.5	262.5	238.4	195.0
20°	439.9	433.1	423.8	404.9	381.1	353.5	322.9	292.4	262.2	234.2	184.1
22.5°	463.7	456.9	446.6	427.0	398.4	364.7	330.0	295.0	260.9	229.4	173.8
25°	484.2	478.8	467.5	445.0	414.8	376.6	336.7	296.9	259.0	224.3	162.9
27.5°	500.3	495.2	482.6	459.5	428.6	387.2	341.9	297.9	256.4	219.1	151.7
30°	514.4	509.3	494.2	470.4	438.0	395.5	347.0	298.2	253.2	211.4	139.5
32.5°	525.4	520.5	505.1	479.7	444.4	401.3	349.9	297.9	249.0	206.0	126.3
35°	536.3	531.5	513.5	486.5	449.2	403.9	352.2	296.3	243.9	197.0	113.7
37.5°	544.6	539.2	520.9	491.0	451.5	404.5	351.8	294.0	238.4	189.6	101.2
40°	550.4	544.6	525.0	493.6	452.1	403.6	349.3	290.2	232.0	180.3	88.0
42.5°	554.3	547.9	527.0	497.4	450.8	401.0	345.4	285.3	224.9	172.2	75.5
45°	556.2	549.5	527.3	494.2	448.6	396.2	339.6	279.2	217.2	161.3	63.0
47.5°	555.2	547.9	525.7	490.7	444.4	391.0	333.2	271.8	207.9	151.7	51.1
50°	553.6	545.9	522.1	486.2	438.6	384.6	326.1	262.8	198.3	139.8	40.5
52.5°	548.5	540.8	518.3	479.7	431.9	377.2	316.5	253.5	188.0	128.2	30.8
55°	542.1	535.0	511.5	474.0	423.2	368.2	307.5	243.6	178.0	116.3	22.2
57.5°	532.1	525.7	503.2	464.6	414.5	358.3	297.5	232.6	165.5	104.4	15.4
60°	519.9	513.5	491.6	454.0	404.5	347.0	286.6	221.4	154.2	92.5	9.6
62.5°	507.0	500.9	478.1	440.9	392.0	335.1	274.7	210.1	142.3	81.6	5.8
65°	490.0	484.2	463.7	425.1	378.2	322.3	261.6	196.6	130.1	69.4	3.2
67.5°	472.0	466.9	446.0	410.7	362.1	308.1	248.1	183.5	117.3	58.8	1.6
70°	452.7	446.3	427.0	391.0	345.7	292.1	233.3	170.0	105.1	48.5	0.0
72.5°	430.3	425.4	406.8	372.7	326.8	275.1	218.2	155.2	91.6	38.6	0.3
75°	408.4	402.3	385.3	353.1	308.1	257.1	201.5	141.4	78.4	29.6	0.3
77.5°	380.1	378.2	362.1	331.0	290.5	239.7	183.2	124.7	65.9	21.2	0.3
80°	351.8	349.9	337.4	308.8	269.9	219.1	166.1	108.9	53.7	14.1	0.3
82.5°	323.9	321.3	309.4	285.7	249.0	201.8	148.5	93.2	42.4	8.7	0.3
85°	298.8	295.6	282.8	260.9	227.5	182.2	130.1	77.8	31.5	4.8	0.6
87.5°	277.3	275.1	260.9	238.4	205.6	163.9	114.1	63.0	22.2	2.2	1.0
90°	259.0	254.2	241.6	217.9	185.1	143.6	97.0	50.4	14.8	1.3	1.3
92.5°	241.0	236.8	223.0	198.6	166.8	126.3	80.7	38.6	9.3	0.6	1.6
95°	222.4	217.9	204.4	181.9	148.1	108.6	66.2	28.3	5.1	0.6	1.6
97.5°	204.0	199.9	185.7	163.2	131.4	93.2	52.4	19.9	2.6	0.6	1.3
100°	187.0	182.2	169.3	146.8	114.7	77.8	40.5	12.9	1.6	0.6	1.3
102.5°	169.0	165.2	152.0	130.1	97.4	63.3	30.2	8.0	0.6	0.6	1.0
105°	152.9	148.1	135.3	112.8	82.9	49.8	21.2	4.8	0.6	0.6	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	99.6	95.8	84.5	65.5	42.1	19.6	5.8	1.0	1.0	1.0	1.0
115°	83.2	77.4	67.5	50.8	31.2	12.9	2.9	1.0	1.0	1.0	1.0
117.5°	66.5	61.7	54.6	38.6	20.6	8.4	1.6	1.0	1.0	1.0	1.0
120°	52.1	47.6	39.5	26.7	13.8	4.8	0.6	1.0	1.0	1.0	1.0
122.5°	37.3	33.7	26.7	17.4	8.4	2.2	1.0	1.0	1.3	1.3	1.0
125°	24.7	22.8	17.7	10.6	5.1	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.1	14.5	10.3	6.1	2.2	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.0	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°	252.2	252.2	252.2
2.5°	240.0	235.5	234.2
5°	227.2	219.8	215.6
7.5°	214.3	204.4	199.5
10°	202.4	188.3	183.2
12.5°	188.3	171.9	163.9
15°	174.8	153.6	145.9
17.5°	159.7	135.9	126.9
20°	145.6	118.2	108.9
22.5°	129.5	100.9	90.6
25°	115.0	83.5	72.0
27.5°	99.0	65.9	55.9
30°	83.9	50.4	40.5
32.5°	69.4	37.0	28.0
35°	55.9	25.1	17.7
37.5°	43.1	15.4	9.0
40°	31.2	8.0	4.2
42.5°	20.9	3.9	2.2
45°	12.9	1.9	0.0
47.5°	7.4	0.0	0.0
50°	3.9	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°	135.0	131.1	118.2	97.0	67.8	37.9	14.1	2.6	0.6	1.0	1.0
110°	117.6	114.4	101.2	80.7	54.6	28.3	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)