

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: P550949

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-80-97-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: P550949
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-80-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

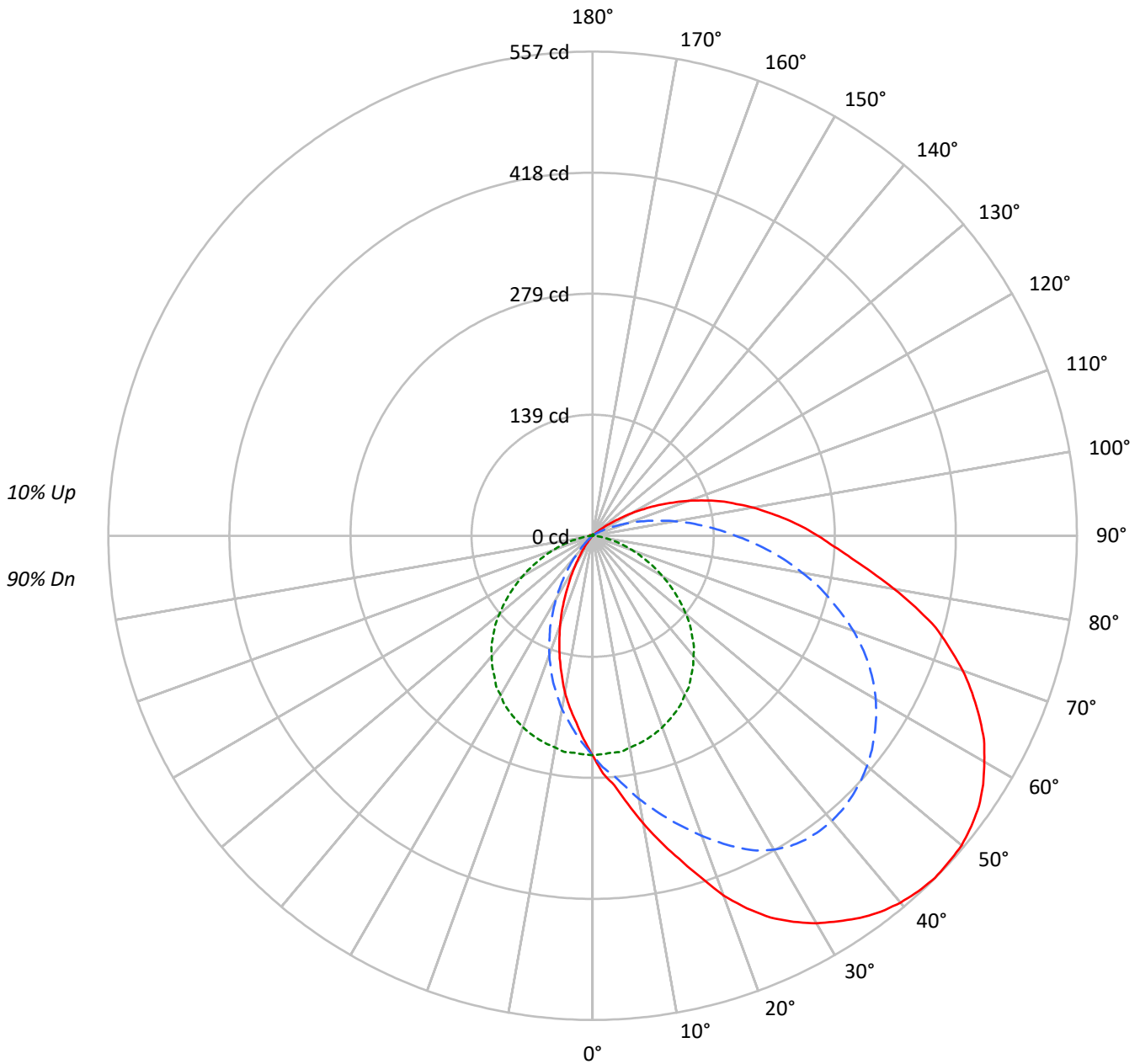
Lumens per Lamp: N/A
Luminaire Lumens: 1248.0 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2717	2717	2717
5°	2982	2677	2234
10°	3376	2645	1841
15°	3782	2610	1435
20°	4266	2568	1056
25°	4667	2519	693
30°	4965	2453	391
35°	5224	2382	172
40°	5453	2294	42
45°	5650	2184	0
50°	5814	2039	0
55°	5939	1854	0
60°	6003	1639	0
65°	6027	1396	0
70°	6007	1139	0
75°	5931	839	4
80°	5690	511	26
85°	5501	244	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	1.9
10°-20°	72.4	5.8
20°-30°	117.2	9.4
30°-40°	150.6	12.1
40°-50°	170.5	13.7
50°-60°	176.6	14.2
60°-70°	166.6	13.3
70°-80°	139.6	11.2
80°-90°	101.2	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°	213.8	17.1
0°-40°	364.4	29.2
0°-60°	711.6	57.0
0°-90°	1118.9	89.7
90°-120°	121.9	9.8
90°-150°	128.2	10.3
90°-180°	129.0	10.3
0°-180°	1248.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	252	252	252	252	252	
5°	288	277	250	227	216	29
15°	385	338	242	175	146	111
25°	485	396	224	115	72	224
35°	537	427	197	56	18	337
45°	557	423	161	13	0	430
55°	542	396	116	0	0	484
65°	490	350	70	0	0	485
75°	409	283	30	0	0	429
85°	299	205	5	1	2	255
90°	259	164	1	2	2	142
95°	222	128	1	2	3	175
105°	153	66	1	2	3	162
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°	252.4	252.4	252.4	252.4	252.4	252.4	252.4	252.4	252.4	252.4	252.4
2.5°	273.7	273.3	272.4	270.8	268.5	264.7	261.4	258.6	254.7	251.5	245.4
5°	288.1	286.5	285.2	283.6	278.5	275.0	269.2	262.7	256.6	250.5	238.3
7.5°	311.3	308.7	306.8	302.3	295.2	287.2	278.2	272.1	267.9	250.8	229.9
10°	336.1	333.8	329.9	321.9	313.2	301.6	288.8	274.3	261.4	247.3	222.5
12.5°	360.5	357.3	351.8	341.5	329.3	314.8	297.1	280.1	261.8	245.0	213.9
15°	384.9	381.4	375.6	363.1	347.0	328.0	306.5	284.9	263.4	242.1	204.8
17.5°	411.6	406.8	398.1	384.0	363.7	340.2	314.8	288.8	262.7	238.6	195.2
20°	440.2	433.5	424.2	405.2	381.4	353.7	323.2	292.6	262.4	234.4	184.3
22.5°	464.0	457.3	447.0	427.4	398.8	365.0	330.3	295.2	261.1	229.6	174.0
25°	484.6	479.2	467.9	445.4	415.2	376.9	337.0	297.1	259.2	224.5	163.0
27.5°	500.7	495.6	483.0	459.9	429.0	387.5	342.2	298.1	256.6	219.3	151.8
30°	514.8	509.7	494.6	470.8	438.3	395.9	347.3	298.4	253.4	211.6	139.6
32.5°	525.8	521.0	505.5	480.1	444.7	401.7	350.2	298.1	249.2	206.1	126.4
35°	536.7	531.9	513.9	486.9	449.6	404.2	352.5	296.5	244.1	197.1	113.8
37.5°	545.1	539.6	521.3	491.4	451.8	404.9	352.1	294.2	238.6	189.7	101.3
40°	550.9	545.1	525.5	493.9	452.5	403.9	349.6	290.4	232.2	180.4	88.1
42.5°	554.7	548.3	527.4	497.8	451.2	401.3	345.7	285.6	225.1	172.4	75.6
45°	556.7	549.9	527.7	494.6	448.9	396.5	339.9	279.5	217.4	161.4	63.0
47.5°	555.7	548.3	526.1	491.1	444.7	391.4	333.5	272.1	208.1	151.8	51.1
50°	554.1	546.4	522.6	486.6	439.0	384.9	326.4	263.1	198.4	139.9	40.5
52.5°	548.9	541.2	518.7	480.1	432.2	377.5	316.8	253.7	188.1	128.3	30.9
55°	542.5	535.4	512.0	474.3	423.5	368.5	307.8	243.8	178.2	116.4	22.2
57.5°	532.5	526.1	503.6	465.0	414.8	358.6	297.8	232.8	165.6	104.5	15.4
60°	520.3	513.9	492.0	454.4	404.9	347.3	286.8	221.6	154.4	92.6	9.6
62.5°	507.5	501.3	478.5	441.2	392.3	335.4	275.0	210.3	142.5	81.7	5.8
65°	490.4	484.6	464.0	425.5	378.5	322.5	261.8	196.8	130.2	69.5	3.2
67.5°	472.4	467.3	446.4	411.0	362.4	308.4	248.3	183.6	117.4	58.8	1.6
70°	453.1	446.7	427.4	391.4	346.0	292.3	233.5	170.1	105.2	48.6	0.0
72.5°	430.6	425.8	407.1	373.0	327.0	275.3	218.4	155.3	91.7	38.6	0.3
75°	408.7	402.6	385.6	353.4	308.4	257.3	201.6	141.5	78.5	29.6	0.3
77.5°	380.4	378.5	362.4	331.2	290.7	239.9	183.3	124.8	65.9	21.2	0.3
80°	352.1	350.2	337.7	309.0	270.1	219.3	166.3	109.0	53.7	14.1	0.3
82.5°	324.2	321.6	309.7	285.9	249.2	202.0	148.6	93.3	42.4	8.7	0.3
85°	299.1	295.9	283.0	261.1	227.7	182.3	130.2	77.8	31.5	4.8	0.6
87.5°	277.5	275.3	261.1	238.6	205.8	164.0	114.2	63.0	22.2	2.3	1.0
90°	259.2	254.4	241.8	218.0	185.2	143.7	97.1	50.5	14.8	1.3	1.3
92.5°	241.2	237.0	223.2	198.7	166.9	126.4	80.7	38.6	9.3	0.6	1.6
95°	222.5	218.0	204.5	182.0	148.2	108.7	66.2	28.3	5.1	0.6	1.6
97.5°	204.2	200.0	185.9	163.4	131.5	93.3	52.4	19.9	2.6	0.6	1.3
100°	187.2	182.3	169.5	147.0	114.8	77.8	40.5	12.9	1.6	0.6	1.3
102.5°	169.2	165.3	152.1	130.2	97.4	63.4	30.2	8.0	0.6	0.6	1.0
105°	153.1	148.2	135.4	112.9	83.0	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°	99.7	95.8	84.6	65.6	42.1	19.6	5.8	1.0	1.0	1.0	1.0
115°	83.3	77.5	67.5	50.8	31.2	12.9	2.9	1.0	1.0	1.0	1.0
117.5°	66.6	61.7	54.7	38.6	20.6	8.4	1.6	1.0	1.0	1.0	1.0
120°	52.1	47.6	39.6	26.7	13.8	4.8	0.6	1.0	1.0	1.0	1.0
122.5°	37.3	33.8	26.7	17.4	8.4	2.3	1.0	1.0	1.3	1.3	1.0
125°	24.8	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	2.3	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°	252.4	252.4	252.4
2.5°	240.2	235.7	234.4
5°	227.4	220.0	215.8
7.5°	214.5	204.5	199.7
10°	202.6	188.4	183.3
12.5°	188.4	172.0	164.0
15°	174.9	153.7	146.0
17.5°	159.8	136.0	127.0
20°	145.7	118.3	109.0
22.5°	129.6	101.0	90.7
25°	115.1	83.6	72.0
27.5°	99.0	65.9	56.0
30°	83.9	50.5	40.5
32.5°	69.5	37.0	28.0
35°	56.0	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	2.3
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	2.3
90°	1.9	2.3	2.3
92.5°	1.9	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.3	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°	135.1	131.2	118.3	97.1	67.9	37.9	14.1	2.6	0.6	1.0	1.0
110°	117.7	114.5	101.3	80.7	54.7	28.3	9.3	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.3
110°	1.3	1.6	1.9



(END OF REPORT)