

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: P551095

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-82-84-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: P551095
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-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

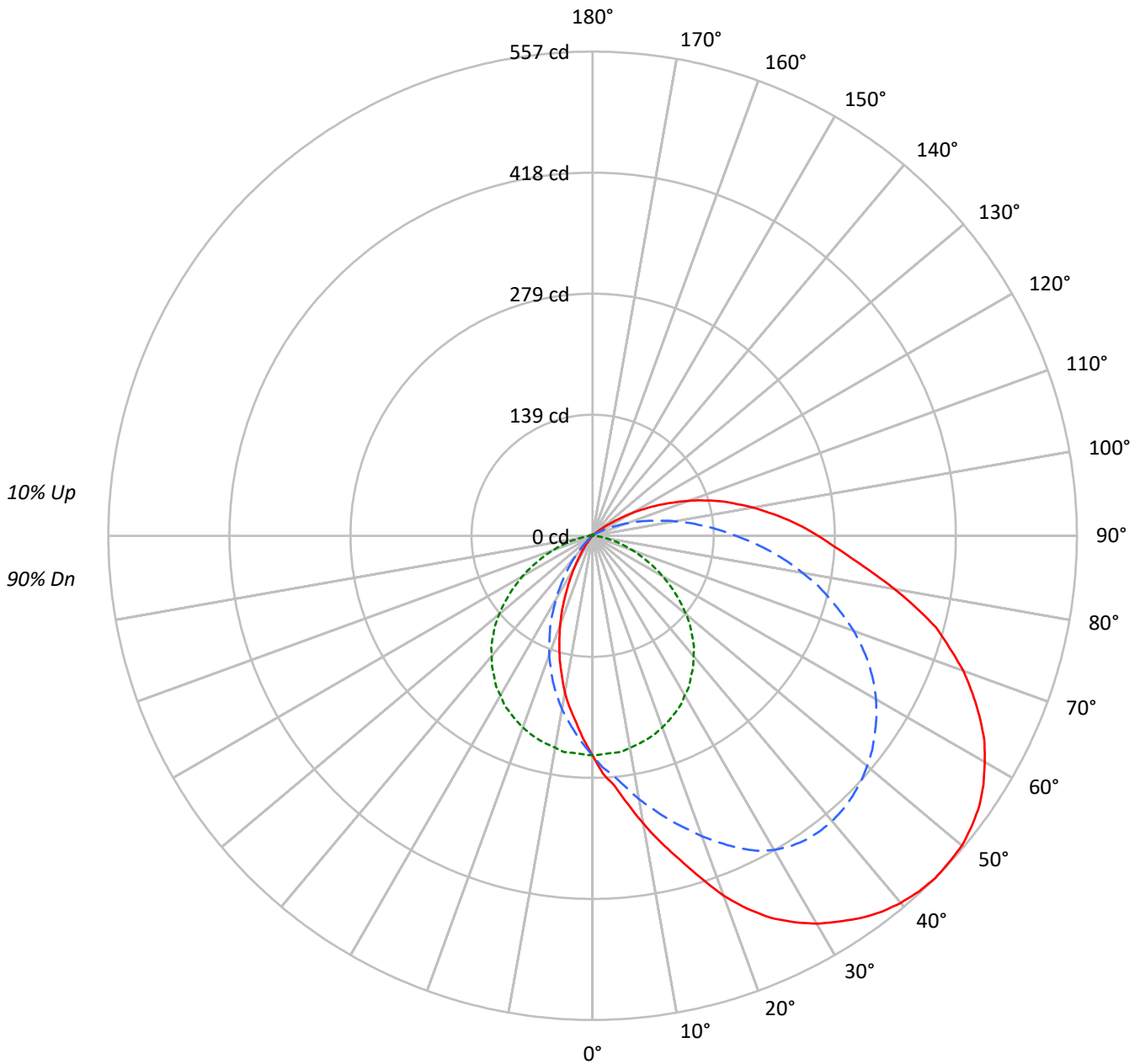
Lumens per Lamp: N/A
Luminaire Lumens: 1249.0 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2719	2719	2719
5°	2986	2680	2236
10°	3378	2647	1842
15°	3785	2613	1436
20°	4270	2570	1057
25°	4671	2521	694
30°	4970	2455	392
35°	5227	2384	172
40°	5457	2297	42
45°	5654	2187	0
50°	5818	2040	0
55°	5944	1855	0
60°	6007	1640	0
65°	6032	1396	0
70°	6013	1139	0
75°	5936	839	4
80°	5695	515	26
85°	5505	244	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	1.9
10°-20°	72.5	5.8
20°-30°	117.3	9.4
30°-40°	150.7	12.1
40°-50°	170.6	13.7
50°-60°	176.8	14.2
60°-70°	166.7	13.3
70°-80°	139.7	11.2
80°-90°	101.3	8.1
90°-100°	66.6	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°	214.0	17.1
0°-40°	364.7	29.2
0°-60°	712.1	57.0
0°-90°	1119.8	89.7
90°-120°	122.0	9.8
90°-150°	128.4	10.3
90°-180°	129.0	10.3
0°-180°	1249.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	253	253	253	253	253	
5°	288	277	251	228	216	29
15°	385	338	242	175	146	111
25°	485	396	225	115	72	224
35°	537	427	197	56	18	337
45°	557	423	162	13	0	430
55°	543	396	116	0	0	485
65°	491	351	70	0	0	486
75°	409	283	30	0	0	429
85°	299	205	5	1	2	256
90°	259	165	1	2	2	142
95°	223	129	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°	252.6	252.6	252.6	252.6	252.6	252.6	252.6	252.6	252.6	252.6	252.6
2.5°	273.9	273.6	272.6	271.0	268.7	264.9	261.7	258.8	254.9	251.7	245.6
5°	288.4	286.8	285.5	283.9	278.7	275.2	269.4	262.9	256.8	250.7	238.5
7.5°	311.5	309.0	307.0	302.5	295.4	287.4	278.4	272.3	268.1	251.0	230.1
10°	336.3	334.1	330.2	322.2	313.5	301.9	289.0	274.5	261.7	247.5	222.7
12.5°	360.8	357.6	352.1	341.8	329.6	315.1	297.4	280.3	262.0	245.2	214.0
15°	385.2	381.7	375.9	363.4	347.3	328.3	306.7	285.1	263.6	242.3	205.0
17.5°	412.0	407.1	398.4	384.3	364.0	340.5	315.1	289.0	262.9	238.8	195.4
20°	440.6	433.8	424.5	405.5	381.7	354.0	323.4	292.9	262.6	234.6	184.4
22.5°	464.4	457.7	447.4	427.7	399.1	365.3	330.5	295.4	261.3	229.8	174.1
25°	485.0	479.5	468.3	445.7	415.5	377.2	337.3	297.4	259.4	224.6	163.2
27.5°	501.1	496.0	483.4	460.2	429.3	387.8	342.4	298.3	256.8	219.5	151.9
30°	515.3	510.1	495.0	471.2	438.7	396.2	347.6	298.7	253.6	211.8	139.7
32.5°	526.2	521.4	505.9	480.5	445.1	402.0	350.5	298.3	249.4	206.3	126.5
35°	537.1	532.3	514.3	487.3	449.9	404.6	352.7	296.7	244.3	197.3	113.9
37.5°	545.5	540.0	521.7	491.8	452.2	405.2	352.4	294.5	238.8	189.9	101.4
40°	551.3	545.5	525.9	494.3	452.8	404.2	349.8	290.6	232.4	180.6	88.2
42.5°	555.2	548.7	527.8	498.2	451.5	401.7	346.0	285.8	225.3	172.5	75.6
45°	557.1	550.3	528.1	495.0	449.3	396.8	340.2	279.7	217.6	161.6	63.1
47.5°	556.1	548.7	526.5	491.4	445.1	391.7	333.7	272.3	208.2	151.9	51.2
50°	554.5	546.8	523.0	486.9	439.3	385.2	326.7	263.3	198.6	140.0	40.6
52.5°	549.4	541.7	519.1	480.5	432.6	377.8	317.0	253.9	188.3	128.4	30.9
55°	542.9	535.9	512.4	474.7	423.9	368.8	308.0	244.0	178.3	116.5	22.2
57.5°	533.0	526.5	504.0	465.4	415.2	358.8	298.0	233.0	165.7	104.6	15.4
60°	520.7	514.3	492.4	454.8	405.2	347.6	287.1	221.7	154.5	92.7	9.7
62.5°	507.9	501.7	478.9	441.6	392.6	335.7	275.2	210.5	142.6	81.7	5.8
65°	490.8	485.0	464.4	425.8	378.8	322.8	262.0	197.0	130.3	69.5	3.2
67.5°	472.8	467.6	446.7	411.3	362.7	308.6	248.5	183.8	117.5	58.9	1.6
70°	453.5	447.0	427.7	391.7	346.3	292.6	233.7	170.3	105.2	48.6	0.0
72.5°	430.9	426.1	407.4	373.3	327.3	275.5	218.5	155.4	91.7	38.6	0.3
75°	409.1	402.9	385.9	353.7	308.6	257.5	201.8	141.6	78.5	29.6	0.3
77.5°	380.7	378.8	362.7	331.5	290.9	240.1	183.4	124.9	66.0	21.2	0.3
80°	352.4	350.5	337.9	309.3	270.3	219.5	166.4	109.1	53.7	14.2	0.3
82.5°	324.4	321.8	309.9	286.1	249.4	202.1	148.7	93.3	42.5	8.7	0.3
85°	299.3	296.1	283.2	261.3	227.9	182.5	130.3	77.9	31.5	4.8	0.6
87.5°	277.7	275.5	261.3	238.8	206.0	164.1	114.3	63.1	22.2	2.3	1.0
90°	259.4	254.6	242.0	218.2	185.4	143.9	97.2	50.5	14.8	1.3	1.3
92.5°	241.4	237.2	223.4	198.9	167.0	126.5	80.8	38.6	9.3	0.6	1.6
95°	222.7	218.2	204.7	182.2	148.4	108.8	66.3	28.3	5.1	0.6	1.6
97.5°	204.4	200.2	186.0	163.5	131.6	93.3	52.5	20.0	2.6	0.6	1.3
100°	187.3	182.5	169.6	147.1	114.9	77.9	40.6	12.9	1.6	0.6	1.3
102.5°	169.3	165.4	152.2	130.3	97.5	63.4	30.3	8.0	0.6	0.6	1.0
105°	153.2	148.4	135.5	113.0	83.0	49.9	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°	99.8	95.9	84.6	65.7	42.2	19.6	5.8	1.0	1.0	1.0	1.0
115°	83.4	77.6	67.6	50.9	31.2	12.9	2.9	1.0	1.0	1.0	1.0
117.5°	66.6	61.8	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	22.9	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°	252.6	252.6	252.6
2.5°	240.4	235.9	234.6
5°	227.5	220.1	216.0
7.5°	214.7	204.7	199.9
10°	202.8	188.6	183.4
12.5°	188.6	172.2	164.1
15°	175.1	153.8	146.1
17.5°	160.0	136.1	127.1
20°	145.8	118.4	109.1
22.5°	129.7	101.1	90.8
25°	115.2	83.7	72.1
27.5°	99.1	66.0	56.0
30°	84.0	50.5	40.6
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°	135.2	131.3	118.4	97.2	67.9	38.0	14.2	2.6	0.6	1.0	1.0
110°	117.8	114.6	101.4	80.8	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)