

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: P550593

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-82-94-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: P550593
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-LD4-1HI-40-UNV-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

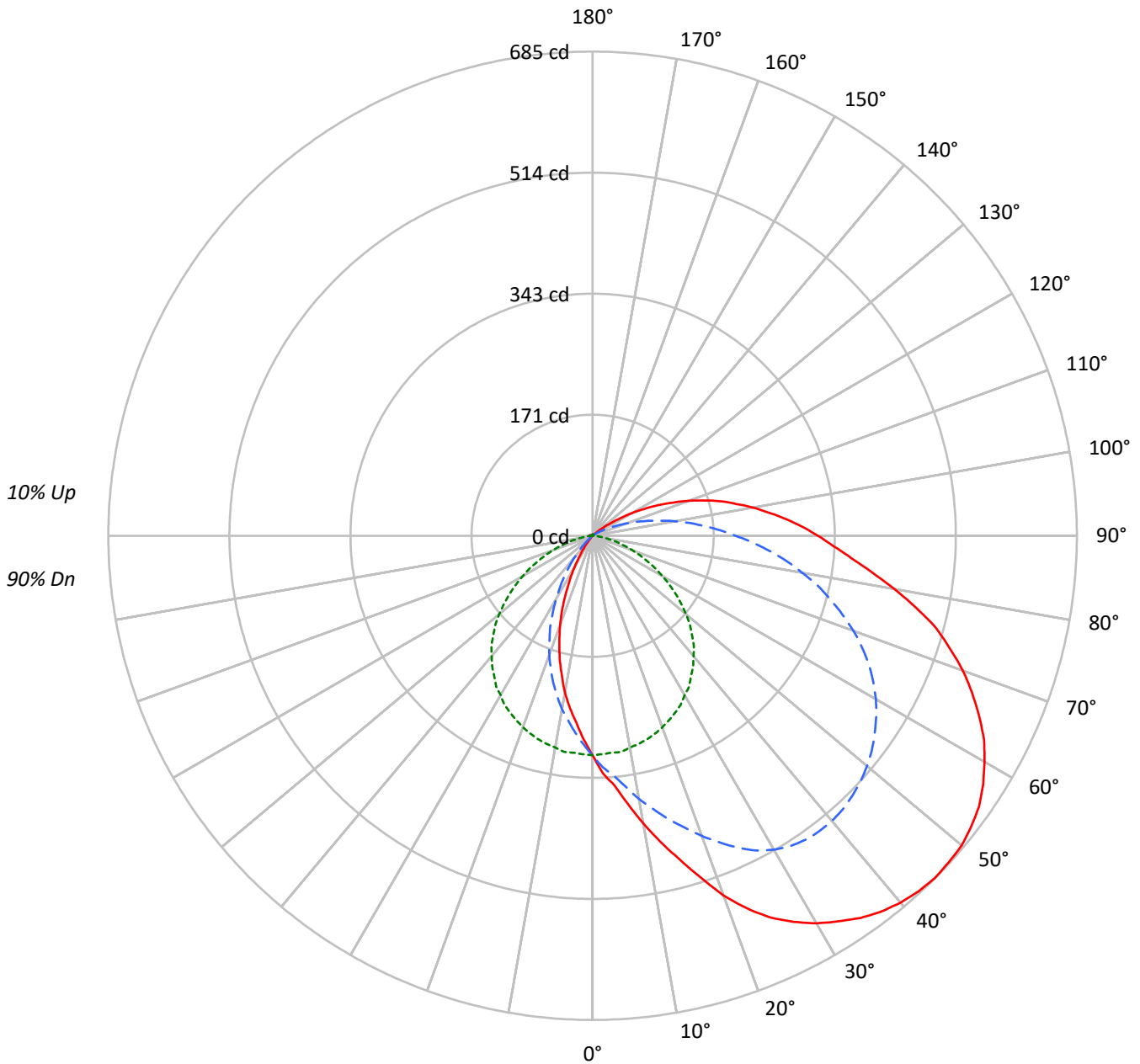
Lumens per Lamp: N/A
Luminaire Lumens: 1535.1 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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°	3342	3342	3342
5°	3669	3293	2747
10°	4151	3253	2265
15°	4653	3211	1765
20°	5248	3159	1300
25°	5741	3099	853
30°	6107	3018	480
35°	6425	2930	212
40°	6706	2822	50
45°	6949	2687	0
50°	7151	2508	0
55°	7306	2280	0
60°	7384	2016	0
65°	7414	1715	0
70°	7389	1399	0
75°	7295	1032	6
80°	6999	631	32
85°	6765	300	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	1.9
10°-20°	89.1	5.8
20°-30°	144.2	9.4
30°-40°	185.3	12.1
40°-50°	209.7	13.7
50°-60°	217.3	14.2
60°-70°	204.9	13.3
70°-80°	171.7	11.2
80°-90°	124.5	8.1
90°-100°	81.8	5.3
100°-110°	47.3	3.1
110°-120°	20.9	1.4
120°-130°	5.7	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	263.0	17.1
0°-40°	448.3	29.2
0°-60°	875.2	57.0
0°-90°	1376.3	89.7
90°-120°	149.9	9.8
90°-150°	157.8	10.3
90°-180°	159.0	10.4
0°-180°	1535.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	310	310	310	310	310	
5°	354	340	308	280	265	36
15°	474	415	298	215	180	137
25°	596	487	276	142	89	275
35°	660	525	242	69	22	414
45°	685	520	199	16	0	529
55°	667	487	143	0	0	596
65°	603	431	85	0	0	597
75°	503	348	36	0	0	527
85°	368	252	6	2	2	314
90°	319	202	2	2	3	175
95°	274	158	1	3	4	215
105°	188	82	1	2	3	199
115°	102	27	1	1	2	103
125°	30	4	2	1	2	30
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	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°	310.5	310.5	310.5	310.5	310.5	310.5	310.5	310.5	310.5	310.5	310.5
2.5°	336.6	336.2	335.0	333.0	330.3	325.5	321.6	318.0	313.3	309.3	301.8
5°	354.4	352.4	350.8	348.9	342.5	338.2	331.1	323.2	315.6	308.1	293.1
7.5°	382.9	379.7	377.3	371.8	363.1	353.2	342.1	334.6	329.5	308.5	282.8
10°	413.3	410.6	405.8	395.9	385.2	371.0	355.2	337.4	321.6	304.2	273.7
12.5°	443.4	439.4	432.7	420.1	405.0	387.2	365.5	344.5	322.0	301.4	263.0
15°	473.5	469.1	462.0	446.6	426.8	403.4	376.9	350.4	323.9	297.8	252.0
17.5°	506.3	500.3	489.7	472.3	447.3	418.5	387.2	355.2	323.2	293.5	240.1
20°	541.5	533.2	521.7	498.4	469.1	435.1	397.5	359.9	322.8	288.3	226.6
22.5°	570.8	562.4	549.8	525.7	490.5	448.9	406.2	363.1	321.2	282.4	214.0
25°	596.1	589.3	575.5	547.8	510.6	463.6	414.5	365.5	318.8	276.1	200.5
27.5°	615.8	609.5	594.1	565.6	527.6	476.6	420.8	366.7	315.6	269.8	186.7
30°	633.2	626.9	608.3	579.1	539.1	486.9	427.2	367.1	311.7	260.3	171.7
32.5°	646.7	640.8	621.8	590.5	547.0	494.0	430.7	366.7	306.5	253.5	155.4
35°	660.1	654.2	632.1	598.8	553.0	497.2	433.5	364.7	300.2	242.5	140.0
37.5°	670.4	663.7	641.2	604.4	555.7	498.0	433.1	361.9	293.5	233.4	124.6
40°	677.5	670.4	646.3	607.5	556.5	496.8	429.9	357.2	285.6	221.9	108.4
42.5°	682.3	674.4	648.7	612.3	554.9	493.6	425.2	351.2	276.9	212.0	93.0
45°	684.7	676.4	649.1	608.3	552.2	487.7	418.1	343.7	267.4	198.6	77.5
47.5°	683.5	674.4	647.1	604.0	547.0	481.4	410.2	334.6	255.9	186.7	62.9
50°	681.5	672.0	642.7	598.4	539.9	473.5	401.5	323.5	244.0	172.1	49.8
52.5°	675.2	665.7	638.0	590.5	531.6	464.4	389.6	312.1	231.4	157.8	38.0
55°	667.3	658.6	629.7	583.4	520.9	453.3	378.5	299.8	219.1	143.2	27.3
57.5°	655.0	647.1	619.4	571.9	510.2	441.0	366.3	286.4	203.7	128.5	19.0
60°	640.0	632.1	605.2	558.9	498.0	427.2	352.8	272.5	189.9	113.9	11.9
62.5°	624.2	616.6	588.6	542.7	482.6	412.5	338.2	258.7	175.2	100.5	7.1
65°	603.2	596.1	570.8	523.3	465.5	396.7	322.0	242.1	160.2	85.4	4.0
67.5°	581.0	574.7	549.0	505.5	445.8	379.3	305.4	225.8	144.4	72.4	2.0
70°	557.3	549.4	525.7	481.4	425.6	359.5	287.2	209.2	129.3	59.7	0.0
72.5°	529.6	523.7	500.7	458.8	402.3	338.6	268.6	191.0	112.7	47.5	0.4
75°	502.7	495.2	474.2	434.7	379.3	316.4	248.0	174.0	96.5	36.4	0.4
77.5°	467.9	465.5	445.8	407.4	357.6	295.1	225.5	153.5	81.1	26.1	0.4
80°	433.1	430.7	415.3	380.1	332.2	269.8	204.5	134.1	66.1	17.4	0.4
82.5°	398.7	395.5	380.9	351.6	306.5	248.4	182.7	114.7	52.2	10.7	0.4
85°	367.8	363.9	348.1	321.2	280.0	224.3	160.2	95.7	38.8	5.9	0.8
87.5°	341.3	338.6	321.2	293.5	253.1	201.7	140.4	77.5	27.3	2.8	1.2
90°	318.8	312.9	297.4	268.2	227.8	176.8	119.5	62.1	18.2	1.6	1.6
92.5°	296.6	291.5	274.5	244.4	205.3	155.4	99.3	47.5	11.5	0.8	2.0
95°	273.7	268.2	251.6	223.9	182.3	133.7	81.5	34.8	6.3	0.8	2.0
97.5°	251.2	246.0	228.6	200.9	161.8	114.7	64.5	24.5	3.2	0.8	1.6
100°	230.2	224.3	208.4	180.8	141.2	95.7	49.8	15.8	2.0	0.8	1.6
102.5°	208.1	203.3	187.1	160.2	119.8	77.9	37.2	9.9	0.8	0.8	1.2
105°	188.3	182.3	166.5	138.8	102.0	61.3	26.1	5.9	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	122.6	117.9	104.0	80.7	51.8	24.1	7.1	1.2	1.2	1.2	1.2
115°	102.4	95.3	83.1	62.5	38.4	15.8	3.6	1.2	1.2	1.2	1.2
117.5°	81.9	75.9	67.2	47.5	25.3	10.3	2.0	1.2	1.2	1.2	1.2
120°	64.1	58.5	48.7	32.8	17.0	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.9	41.5	32.8	21.4	10.3	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.5	28.1	21.8	13.1	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.8	17.8	12.7	7.5	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.1	9.9	7.5	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	4.0	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	310.5	310.5	310.5
2.5°	295.5	289.9	288.3
5°	279.6	270.5	265.4
7.5°	263.8	251.6	245.6
10°	249.2	231.8	225.5
12.5°	231.8	211.6	201.7
15°	215.2	189.1	179.6
17.5°	196.6	167.3	156.2
20°	179.2	145.6	134.1
22.5°	159.4	124.2	111.5
25°	141.6	102.8	88.6
27.5°	121.8	81.1	68.8
30°	103.2	62.1	49.8
32.5°	85.4	45.5	34.4
35°	68.8	30.9	21.8
37.5°	53.0	19.0	11.1
40°	38.4	9.9	5.1
42.5°	25.7	4.7	2.8
45°	15.8	2.4	0.0
47.5°	9.1	0.0	0.0
50°	4.7	0.0	0.0
52.5°	2.0	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	166.1	161.4	145.6	119.5	83.5	46.7	17.4	3.2	0.8	1.2	1.2
110°	144.8	140.8	124.6	99.3	67.2	34.8	11.5	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)