

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: P550533

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-82-97-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: P550533
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-35-UNV-82-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

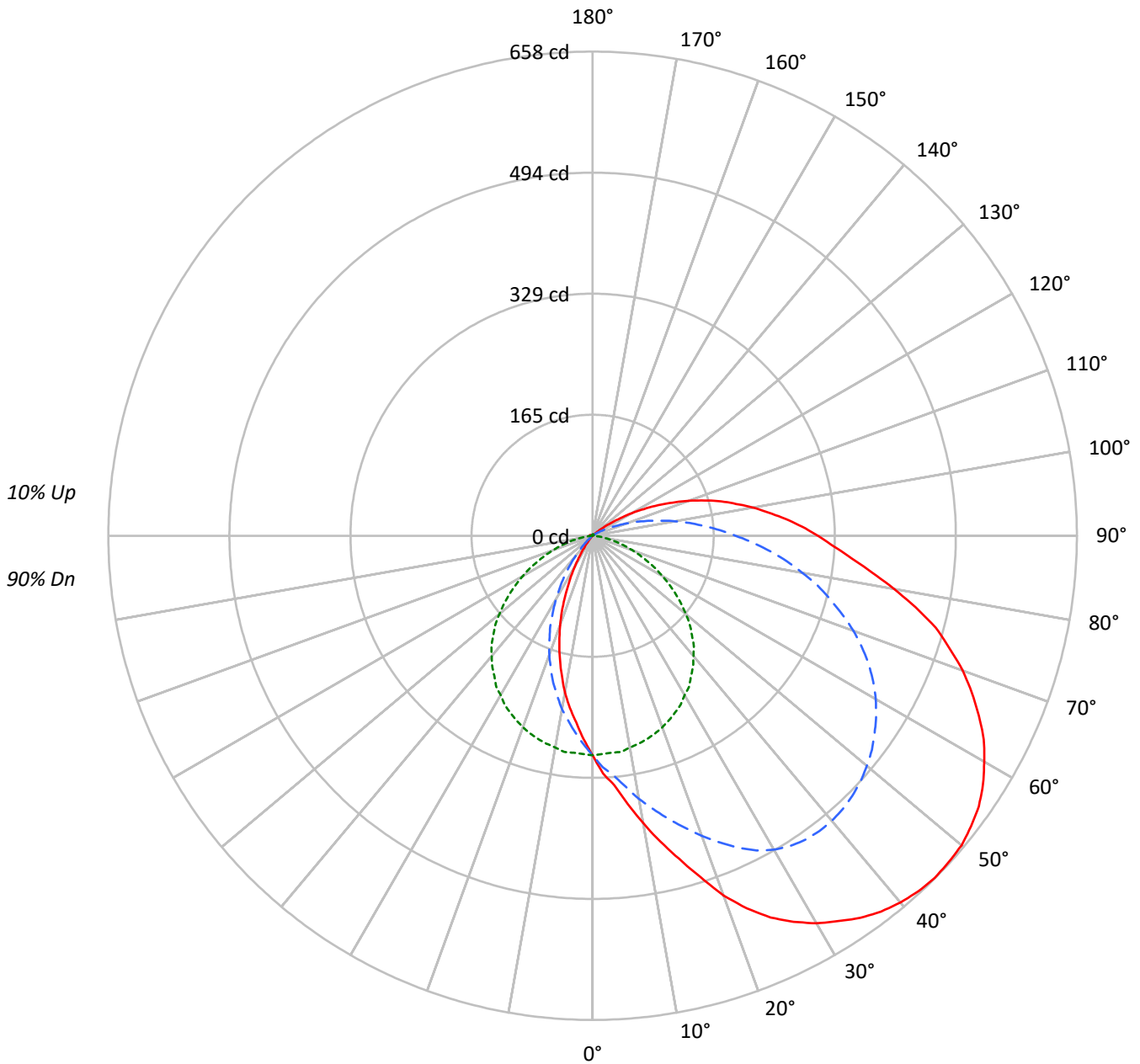
Lumens per Lamp: N/A
Luminaire Lumens: 1473.9 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (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°	3210	3210	3210
5°	3523	3163	2639
10°	3987	3124	2175
15°	4467	3084	1694
20°	5039	3034	1248
25°	5513	2975	820
30°	5865	2897	462
35°	6170	2813	203
40°	6440	2710	49
45°	6673	2580	0
50°	6867	2408	0
55°	7015	2190	0
60°	7089	1936	0
65°	7119	1647	0
70°	7096	1345	0
75°	7004	990	6
80°	6721	606	31
85°	6496	290	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.6	1.9
10°-20°	85.5	5.8
20°-30°	138.5	9.4
30°-40°	177.9	12.1
40°-50°	201.4	13.7
50°-60°	208.6	14.2
60°-70°	196.7	13.3
70°-80°	164.9	11.2
80°-90°	119.5	8.1
90°-100°	78.5	5.3
100°-110°	45.4	3.1
110°-120°	20.0	1.4
120°-130°	5.4	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	252.6	17.1
0°-40°	430.4	29.2
0°-60°	840.4	57.0
0°-90°	1321.6	89.7
90°-120°	143.9	9.8
90°-150°	151.3	10.3
90°-180°	152.0	10.3
0°-180°	1473.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	298	298	298	298	298	
5°	340	327	296	268	255	34
15°	455	399	286	207	172	131
25°	572	468	265	136	85	265
35°	634	504	233	66	21	398
45°	658	499	191	15	0	508
55°	641	468	138	0	0	572
65°	579	414	82	0	0	573
75°	483	334	35	0	0	506
85°	353	242	6	2	2	302
90°	306	194	2	2	3	168
95°	263	152	1	3	3	206
105°	181	78	1	2	3	191
115°	98	26	1	1	2	98
125°	29	4	2	1	2	29
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°	298.2	298.2	298.2	298.2	298.2	298.2	298.2	298.2	298.2	298.2	298.2
2.5°	323.2	322.8	321.7	319.8	317.1	312.6	308.8	305.4	300.8	297.0	289.8
5°	340.3	338.4	336.9	335.0	328.9	324.7	317.9	310.3	303.1	295.9	281.4
7.5°	367.7	364.6	362.3	357.0	348.7	339.2	328.5	321.3	316.4	296.3	271.6
10°	396.9	394.2	389.7	380.2	369.9	356.3	341.1	324.0	308.8	292.1	262.8
12.5°	425.8	422.0	415.5	403.4	388.9	371.8	350.9	330.8	309.2	289.4	252.6
15°	454.6	450.5	443.6	428.8	409.8	387.4	362.0	336.5	311.1	286.0	241.9
17.5°	486.2	480.5	470.2	453.5	429.6	401.8	371.8	341.1	310.3	281.8	230.5
20°	520.0	512.0	501.0	478.6	450.5	417.8	381.7	345.6	309.9	276.9	217.6
22.5°	548.1	540.1	527.9	504.8	471.0	431.1	390.1	348.7	308.4	271.2	205.5
25°	572.4	565.9	552.6	526.0	490.3	445.1	398.0	350.9	306.1	265.1	192.6
27.5°	591.4	585.3	570.5	543.1	506.7	457.7	404.1	352.1	303.1	259.0	179.3
30°	608.1	602.0	584.2	556.0	517.7	467.6	410.2	352.5	299.3	249.9	164.8
32.5°	621.0	615.3	597.1	567.1	525.3	474.4	413.6	352.1	294.4	243.5	149.3
35°	633.9	628.2	606.9	575.0	531.0	477.4	416.3	350.2	288.3	232.8	134.5
37.5°	643.8	637.3	615.7	580.4	533.6	478.2	415.9	347.5	281.8	224.1	119.6
40°	650.6	643.8	620.6	583.4	534.4	477.0	412.9	343.0	274.2	213.1	104.1
42.5°	655.2	647.6	622.9	588.0	532.9	474.0	408.3	337.3	265.9	203.6	89.3
45°	657.5	649.5	623.3	584.2	530.2	468.3	401.5	330.1	256.8	190.7	74.4
47.5°	656.3	647.6	621.4	580.0	525.3	462.2	393.9	321.3	245.7	179.3	60.4
50°	654.4	645.3	617.2	574.7	518.4	454.6	385.5	310.7	234.3	165.2	47.9
52.5°	648.3	639.2	612.6	567.1	510.5	445.9	374.1	299.7	222.2	151.5	36.5
55°	640.7	632.4	604.7	560.2	500.2	435.3	363.5	287.9	210.4	137.5	26.2
57.5°	629.0	621.4	594.8	549.2	490.0	423.5	351.7	275.0	195.6	123.4	18.2
60°	614.5	606.9	581.1	536.7	478.2	410.2	338.8	261.7	182.3	109.4	11.4
62.5°	599.3	592.1	565.2	521.1	463.4	396.1	324.7	248.4	168.3	96.5	6.8
65°	579.2	572.4	548.1	502.5	447.0	381.0	309.2	232.4	153.8	82.0	3.8
67.5°	557.9	551.9	527.2	485.4	428.1	364.2	293.2	216.9	138.6	69.5	1.9
70°	535.2	527.6	504.8	462.2	408.7	345.3	275.7	200.9	124.2	57.4	0.0
72.5°	508.6	502.9	480.8	440.6	386.3	325.1	257.9	183.5	108.2	45.6	0.4
75°	482.7	475.5	455.4	417.4	364.2	303.9	238.1	167.1	92.7	34.9	0.4
77.5°	449.3	447.0	428.1	391.2	343.4	283.3	216.5	147.4	77.9	25.1	0.4
80°	415.9	413.6	398.8	365.0	319.0	259.0	196.4	128.8	63.4	16.7	0.4
82.5°	382.9	379.8	365.8	337.7	294.4	238.5	175.5	110.1	50.1	10.3	0.4
85°	353.2	349.4	334.2	308.4	268.9	215.4	153.8	91.9	37.2	5.7	0.8
87.5°	327.8	325.1	308.4	281.8	243.1	193.7	134.8	74.4	26.2	2.7	1.1
90°	306.1	300.4	285.6	257.5	218.8	169.8	114.7	59.6	17.5	1.5	1.5
92.5°	284.9	279.9	263.6	234.7	197.1	149.3	95.3	45.6	11.0	0.8	1.9
95°	262.8	257.5	241.6	215.0	175.1	128.4	78.2	33.4	6.1	0.8	1.9
97.5°	241.2	236.2	219.5	192.9	155.3	110.1	61.9	23.5	3.0	0.8	1.5
100°	221.1	215.4	200.2	173.6	135.6	91.9	47.9	15.2	1.9	0.8	1.5
102.5°	199.8	195.2	179.7	153.8	115.1	74.8	35.7	9.5	0.8	0.8	1.1
105°	180.8	175.1	159.9	133.3	98.0	58.9	25.1	5.7	0.8	0.8	1.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	117.7	113.2	99.9	77.5	49.8	23.2	6.8	1.1	1.1	1.1	1.1
115°	98.4	91.5	79.8	60.0	36.8	15.2	3.4	1.1	1.1	1.1	1.1
117.5°	78.6	72.9	64.6	45.6	24.3	9.9	1.9	1.1	1.1	1.1	1.1
120°	61.5	56.2	46.7	31.5	16.3	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	44.1	39.9	31.5	20.5	9.9	2.7	1.1	1.1	1.5	1.5	1.1
125°	29.2	27.0	20.9	12.5	6.1	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	19.0	17.1	12.2	7.2	2.7	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.6	9.5	7.2	4.2	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.1	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	298.2	298.2	298.2
2.5°	283.7	278.4	276.9
5°	268.5	259.8	254.9
7.5°	253.3	241.6	235.9
10°	239.3	222.6	216.5
12.5°	222.6	203.2	193.7
15°	206.6	181.6	172.4
17.5°	188.8	160.7	150.0
20°	172.1	139.8	128.8
22.5°	153.1	119.3	107.1
25°	136.0	98.8	85.1
27.5°	117.0	77.9	66.1
30°	99.1	59.6	47.9
32.5°	82.0	43.7	33.0
35°	66.1	29.6	20.9
37.5°	50.9	18.2	10.6
40°	36.8	9.5	4.9
42.5°	24.7	4.6	2.7
45°	15.2	2.3	0.0
47.5°	8.7	0.0	0.0
50°	4.6	0.0	0.0
52.5°	1.9	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	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.0	3.0
95°	2.7	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.7	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.7	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	159.5	155.0	139.8	114.7	80.1	44.8	16.7	3.0	0.8	1.1	1.1
110°	139.0	135.2	119.6	95.3	64.6	33.4	11.0	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)