

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: P550443

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-81-86-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: P550443
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-30-UNV-81-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

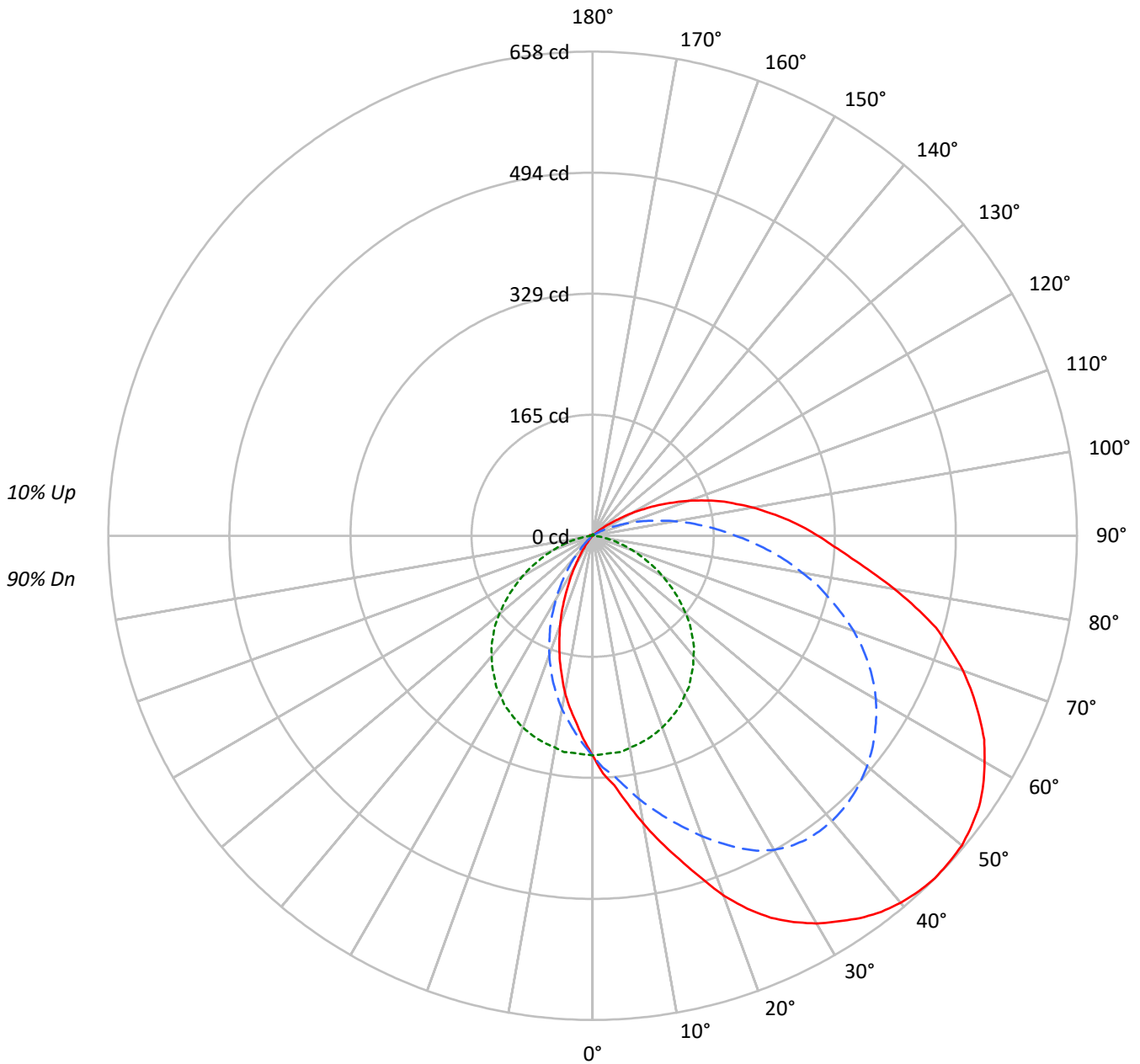
Lumens per Lamp: N/A
Luminaire Lumens: 1474.9 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-86-ED1D-90

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°	3212	3212	3212
5°	3525	3165	2640
10°	3990	3126	2176
15°	4470	3086	1696
20°	5042	3036	1248
25°	5517	2977	820
30°	5869	2899	462
35°	6174	2815	203
40°	6445	2711	49
45°	6677	2582	0
50°	6872	2409	0
55°	7020	2191	0
60°	7095	1938	0
65°	7124	1649	0
70°	7100	1345	0
75°	7010	993	6
80°	6726	606	31
85°	6502	290	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.6	1.9
10°-20°	85.6	5.8
20°-30°	138.6	9.4
30°-40°	178.0	12.1
40°-50°	201.5	13.7
50°-60°	208.8	14.2
60°-70°	196.9	13.3
70°-80°	165.0	11.2
80°-90°	119.6	8.1
90°-100°	78.6	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°	252.7	17.1
0°-40°	430.7	29.2
0°-60°	841.0	57.0
0°-90°	1322.5	89.7
90°-120°	144.0	9.8
90°-150°	151.4	10.3
90°-180°	152.0	10.3
0°-180°	1474.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	298	298	298	298	298	
5°	340	327	296	269	255	34
15°	455	399	286	207	173	131
25°	573	468	265	136	85	265
35°	634	505	233	66	21	398
45°	658	500	191	15	0	508
55°	641	468	138	0	0	573
65°	580	414	82	0	0	573
75°	483	334	35	0	0	507
85°	354	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	99
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°	298.4	298.4	298.4	298.4	298.4	298.4	298.4	298.4	298.4	298.4	298.4
2.5°	323.4	323.1	321.9	320.0	317.4	312.8	309.0	305.6	301.0	297.2	290.0
5°	340.5	338.6	337.1	335.2	329.1	325.0	318.1	310.5	303.3	296.1	281.6
7.5°	367.9	364.9	362.6	357.3	348.9	339.4	328.8	321.5	316.6	296.5	271.8
10°	397.2	394.5	390.0	380.5	370.2	356.5	341.3	324.2	309.0	292.3	263.0
12.5°	426.1	422.3	415.8	403.6	389.2	372.1	351.2	331.0	309.4	289.6	252.7
15°	454.9	450.8	443.9	429.1	410.1	387.7	362.2	336.7	311.3	286.2	242.1
17.5°	486.5	480.8	470.5	453.8	429.9	402.1	372.1	341.3	310.5	282.0	230.7
20°	520.3	512.3	501.3	478.9	450.8	418.1	382.0	345.9	310.1	277.1	217.8
22.5°	548.4	540.5	528.3	505.1	471.3	431.4	390.3	348.9	308.6	271.4	205.6
25°	572.8	566.3	553.0	526.4	490.7	445.4	398.3	351.2	306.3	265.3	192.7
27.5°	591.8	585.7	570.9	543.5	507.0	458.0	404.4	352.3	303.3	259.2	179.4
30°	608.5	602.4	584.6	556.4	518.0	467.9	410.5	352.7	299.5	250.1	165.0
32.5°	621.4	615.7	597.5	567.4	525.6	474.7	413.9	352.3	294.6	243.6	149.4
35°	634.3	628.6	607.4	575.4	531.3	477.8	416.6	350.4	288.5	233.0	134.5
37.5°	644.2	637.8	616.1	580.8	534.0	478.5	416.2	347.8	282.0	224.2	119.7
40°	651.1	644.2	621.0	583.8	534.8	477.4	413.1	343.2	274.4	213.2	104.1
42.5°	655.6	648.0	623.3	588.4	533.2	474.3	408.6	337.5	266.1	203.7	89.3
45°	657.9	649.9	623.7	584.6	530.6	468.6	401.7	330.3	256.9	190.8	74.5
47.5°	656.8	648.0	621.8	580.4	525.6	462.5	394.1	321.5	245.9	179.4	60.4
50°	654.9	645.7	617.6	575.1	518.8	454.9	385.8	310.9	234.5	165.3	47.9
52.5°	648.8	639.7	613.1	567.4	510.8	446.2	374.4	299.9	222.3	151.6	36.5
55°	641.2	632.8	605.1	560.6	500.6	435.6	363.7	288.1	210.6	137.6	26.2
57.5°	629.4	621.8	595.2	549.6	490.3	423.8	351.9	275.2	195.7	123.5	18.2
60°	615.0	607.4	581.5	537.0	478.5	410.5	339.0	261.9	182.4	109.5	11.4
62.5°	599.8	592.5	565.5	521.5	463.7	396.4	325.0	248.6	168.4	96.5	6.8
65°	579.6	572.8	548.4	502.8	447.3	381.2	309.4	232.6	153.9	82.1	3.8
67.5°	558.3	552.2	527.5	485.7	428.3	364.5	293.4	217.0	138.7	69.6	1.9
70°	535.5	527.9	505.1	462.5	409.0	345.5	275.9	201.1	124.3	57.4	0.0
72.5°	508.9	503.2	481.2	440.9	386.5	325.3	258.1	183.6	108.3	45.6	0.4
75°	483.1	475.9	455.7	417.7	364.5	304.1	238.3	167.2	92.7	35.0	0.4
77.5°	449.6	447.3	428.3	391.5	343.6	283.5	216.6	147.5	77.9	25.1	0.4
80°	416.2	413.9	399.1	365.2	319.3	259.2	196.5	128.8	63.5	16.7	0.4
82.5°	383.1	380.1	366.0	337.9	294.6	238.7	175.6	110.2	50.2	10.3	0.4
85°	353.5	349.7	334.5	308.6	269.1	215.5	153.9	92.0	37.2	5.7	0.8
87.5°	328.0	325.3	308.6	282.0	243.2	193.8	134.9	74.5	26.2	2.7	1.1
90°	306.3	300.6	285.8	257.7	218.9	169.9	114.8	59.7	17.5	1.5	1.5
92.5°	285.1	280.1	263.8	234.9	197.3	149.4	95.4	45.6	11.0	0.8	1.9
95°	263.0	257.7	241.7	215.1	175.2	128.5	78.3	33.4	6.1	0.8	1.9
97.5°	241.3	236.4	219.7	193.1	155.4	110.2	62.0	23.6	3.0	0.8	1.5
100°	221.2	215.5	200.3	173.7	135.7	92.0	47.9	15.2	1.9	0.8	1.5
102.5°	199.9	195.4	179.8	153.9	115.2	74.9	35.7	9.5	0.8	0.8	1.1
105°	180.9	175.2	160.0	133.4	98.1	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°	117.8	113.3	100.0	77.5	49.8	23.2	6.8	1.1	1.1	1.1	1.1
115°	98.4	91.6	79.8	60.1	36.9	15.2	3.4	1.1	1.1	1.1	1.1
117.5°	78.7	73.0	64.6	45.6	24.3	9.9	1.9	1.1	1.1	1.1	1.1
120°	61.6	56.3	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°	29.3	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°	298.4	298.4	298.4
2.5°	283.9	278.6	277.1
5°	268.7	260.0	255.0
7.5°	253.5	241.7	236.0
10°	239.4	222.7	216.6
12.5°	222.7	203.3	193.8
15°	206.8	181.7	172.6
17.5°	188.9	160.8	150.1
20°	172.2	139.9	128.8
22.5°	153.2	119.3	107.2
25°	136.1	98.8	85.1
27.5°	117.1	77.9	66.1
30°	99.2	59.7	47.9
32.5°	82.1	43.7	33.1
35°	66.1	29.6	20.9
37.5°	50.9	18.2	10.6
40°	36.9	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°	159.6	155.1	139.9	114.8	80.2	44.8	16.7	3.0	0.8	1.1	1.1
110°	139.1	135.3	119.7	95.4	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)