

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: P550457

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-85-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: P550457
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

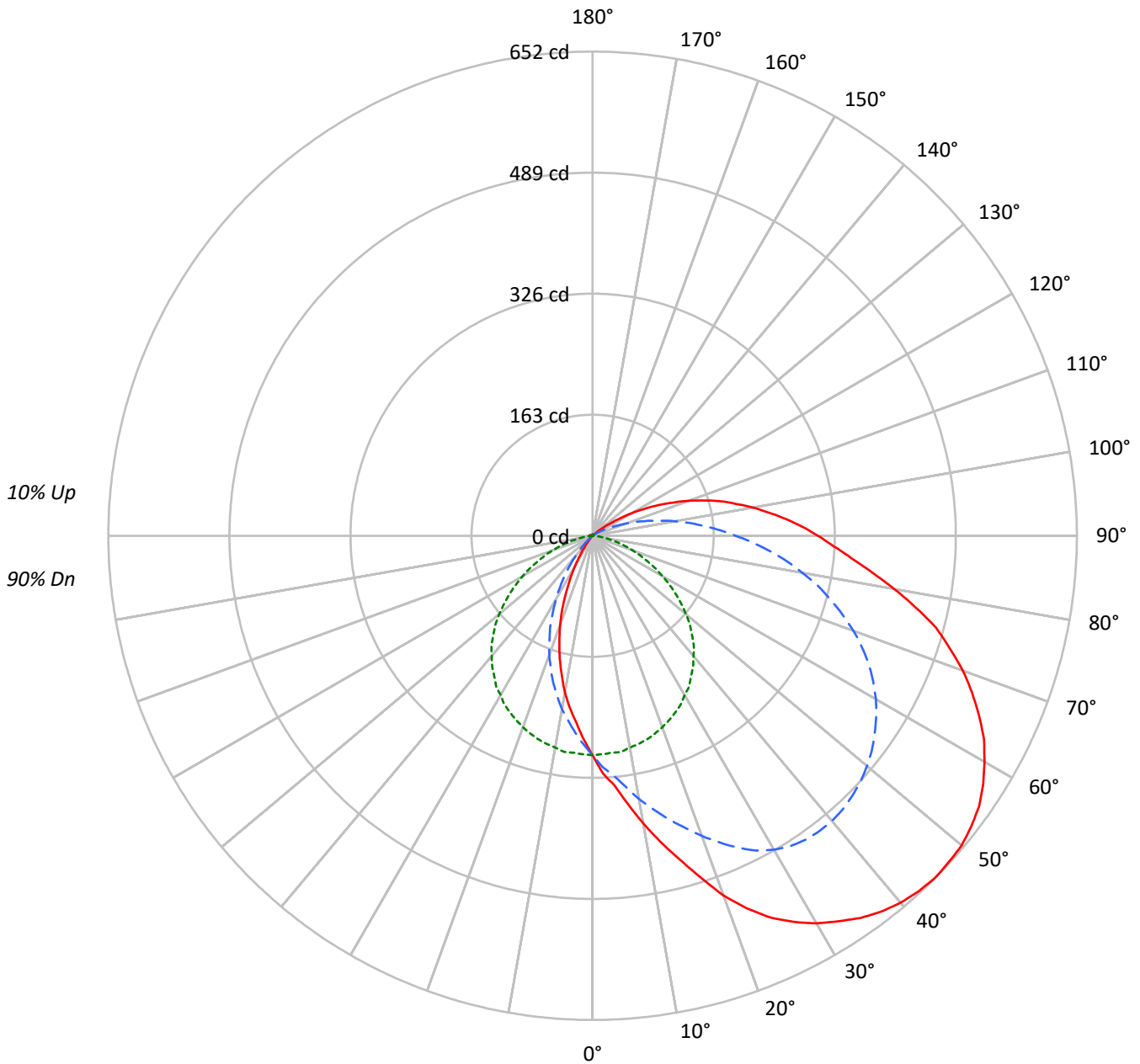
Lumens per Lamp: N/A
Luminaire Lumens: 1461.0 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3181	3181	3181
5°	3492	3135	2615
10°	3951	3096	2156
15°	4428	3057	1679
20°	4995	3006	1237
25°	5464	2949	812
30°	5813	2871	457
35°	6115	2789	201
40°	6383	2686	49
45°	6614	2557	0
50°	6806	2387	0
55°	6953	2170	0
60°	7027	1918	0
65°	7056	1633	0
70°	7032	1331	0
75°	6943	981	6
80°	6661	602	31
85°	6439	285	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.3	1.9
10°-20°	84.8	5.8
20°-30°	137.3	9.4
30°-40°	176.3	12.1
40°-50°	199.6	13.7
50°-60°	206.8	14.2
60°-70°	195.0	13.3
70°-80°	163.4	11.2
80°-90°	118.5	8.1
90°-100°	77.9	5.3
100°-110°	45.0	3.1
110°-120°	19.8	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°	250.3	17.1
0°-40°	426.6	29.2
0°-60°	833.0	57.0
0°-90°	1309.9	89.7
90°-120°	142.7	9.8
90°-150°	150.0	10.3
90°-180°	151.0	10.3
0°-180°	1461.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	337	324	293	266	253	34
15°	451	395	284	205	171	130
25°	567	464	263	135	84	262
35°	628	500	231	66	21	394
45°	652	495	189	15	0	503
55°	635	464	136	0	0	567
65°	574	410	81	0	0	568
75°	478	331	35	0	0	502
85°	350	240	6	2	2	299
90°	303	193	2	2	3	166
95°	260	150	1	3	3	204
105°	179	78	1	2	3	189
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°	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5	295.5
2.5°	320.4	320.0	318.9	317.0	314.3	309.8	306.1	302.7	298.2	294.4	287.2
5°	337.3	335.4	333.9	332.0	326.0	321.9	315.1	307.6	300.4	293.3	279.0
7.5°	364.4	361.4	359.1	353.9	345.6	336.2	325.6	318.5	313.6	293.6	269.2
10°	393.4	390.8	386.3	376.8	366.7	353.1	338.1	321.1	306.1	289.5	260.5
12.5°	422.0	418.3	411.9	399.8	385.5	368.6	347.9	327.9	306.4	286.9	250.3
15°	450.6	446.5	439.7	425.0	406.2	384.0	358.8	333.5	308.3	283.5	239.8
17.5°	481.9	476.2	466.1	449.5	425.8	398.3	368.6	338.1	307.6	279.3	228.5
20°	515.4	507.5	496.6	474.3	446.5	414.1	378.3	342.6	307.2	274.4	215.7
22.5°	543.2	535.3	523.3	500.3	466.8	427.3	386.6	345.6	305.7	268.8	203.7
25°	567.3	560.9	547.8	521.4	486.0	441.2	394.5	347.9	303.4	262.8	190.9
27.5°	586.2	580.1	565.5	538.3	502.2	453.6	400.6	349.0	300.4	256.7	177.7
30°	602.7	596.7	579.0	551.1	513.1	463.4	406.6	349.4	296.7	247.7	163.4
32.5°	615.5	609.9	591.8	562.1	520.7	470.2	410.0	349.0	291.8	241.3	148.0
35°	628.3	622.7	601.6	570.0	526.3	473.2	412.6	347.1	285.7	230.8	133.3
37.5°	638.1	631.7	610.3	575.2	528.9	474.0	412.2	344.5	279.3	222.1	118.6
40°	644.9	638.1	615.1	578.3	529.7	472.8	409.2	339.9	271.8	211.2	103.2
42.5°	649.4	641.9	617.4	582.8	528.2	469.8	404.7	334.3	263.5	201.8	88.5
45°	651.7	643.8	617.8	579.0	525.5	464.2	397.9	327.1	254.5	189.0	73.8
47.5°	650.5	641.9	615.9	574.9	520.7	458.2	390.4	318.5	243.6	177.7	59.9
50°	648.6	639.6	611.8	569.6	513.9	450.6	382.1	307.9	232.3	163.8	47.4
52.5°	642.6	633.6	607.2	562.1	506.0	442.0	370.8	297.0	220.2	150.2	36.1
55°	635.1	626.8	599.3	555.3	495.8	431.4	360.3	285.4	208.6	136.3	26.0
57.5°	623.4	615.9	589.5	544.4	485.6	419.8	348.6	272.6	193.9	122.4	18.1
60°	609.1	601.6	576.0	531.9	474.0	406.6	335.8	259.4	180.7	108.4	11.3
62.5°	594.1	586.9	560.2	516.5	459.3	392.7	321.9	246.2	166.8	95.6	6.8
65°	574.1	567.3	543.2	498.1	443.1	377.6	306.4	230.4	152.5	81.3	3.8
67.5°	553.0	547.0	522.5	481.1	424.3	361.0	290.6	215.0	137.4	68.9	1.9
70°	530.4	522.9	500.3	458.2	405.1	342.2	273.3	199.2	123.1	56.8	0.0
72.5°	504.1	498.4	476.6	436.7	382.9	322.3	255.6	181.8	107.3	45.2	0.4
75°	478.5	471.3	451.4	413.7	361.0	301.2	236.0	165.6	91.9	34.6	0.4
77.5°	445.4	443.1	424.3	387.8	340.3	280.8	214.6	146.1	77.2	24.8	0.4
80°	412.2	410.0	395.3	361.8	316.2	256.7	194.6	127.6	62.9	16.6	0.4
82.5°	379.5	376.5	362.5	334.7	291.8	236.4	173.9	109.2	49.7	10.2	0.4
85°	350.1	346.3	331.3	305.7	266.5	213.5	152.5	91.1	36.9	5.6	0.8
87.5°	324.9	322.3	305.7	279.3	240.9	192.0	133.6	73.8	26.0	2.6	1.1
90°	303.4	297.8	283.1	255.2	216.8	168.3	113.7	59.1	17.3	1.5	1.5
92.5°	282.3	277.5	261.3	232.7	195.4	148.0	94.5	45.2	10.9	0.8	1.9
95°	260.5	255.2	239.4	213.1	173.6	127.2	77.6	33.1	6.0	0.8	1.9
97.5°	239.1	234.2	217.6	191.2	154.0	109.2	61.4	23.3	3.0	0.8	1.5
100°	219.1	213.5	198.4	172.0	134.4	91.1	47.4	15.1	1.9	0.8	1.5
102.5°	198.0	193.5	178.1	152.5	114.1	74.2	35.4	9.4	0.8	0.8	1.1
105°	179.2	173.6	158.5	132.1	97.1	58.4	24.8	5.6	0.8	0.8	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.7	112.2	99.0	76.8	49.3	23.0	6.8	1.1	1.1	1.1	1.1
115°	97.5	90.7	79.1	59.5	36.5	15.1	3.4	1.1	1.1	1.1	1.1
117.5°	77.9	72.3	64.0	45.2	24.1	9.8	1.9	1.1	1.1	1.1	1.1
120°	61.0	55.7	46.3	31.2	16.2	5.6	0.8	1.1	1.1	1.1	1.1
122.5°	43.7	39.5	31.2	20.3	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	29.0	26.7	20.7	12.4	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.8	16.9	12.0	7.2	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.5	9.4	7.2	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.6	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°	295.5	295.5	295.5
2.5°	281.2	275.9	274.4
5°	266.2	257.5	252.6
7.5°	251.1	239.4	233.8
10°	237.2	220.6	214.6
12.5°	220.6	201.4	192.0
15°	204.8	180.0	170.9
17.5°	187.1	159.2	148.7
20°	170.5	138.5	127.6
22.5°	151.7	118.2	106.2
25°	134.8	97.9	84.3
27.5°	116.0	77.2	65.5
30°	98.3	59.1	47.4
32.5°	81.3	43.3	32.8
35°	65.5	29.4	20.7
37.5°	50.4	18.1	10.5
40°	36.5	9.4	4.9
42.5°	24.5	4.5	2.6
45°	15.1	2.3	0.0
47.5°	8.7	0.0	0.0
50°	4.5	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	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.6	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°	158.1	153.6	138.5	113.7	79.4	44.4	16.6	3.0	0.8	1.1	1.1
110°	137.8	134.0	118.6	94.5	64.0	33.1	10.9	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)