

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: P550442

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-81-85-ED1D**

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: P550442
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-81-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

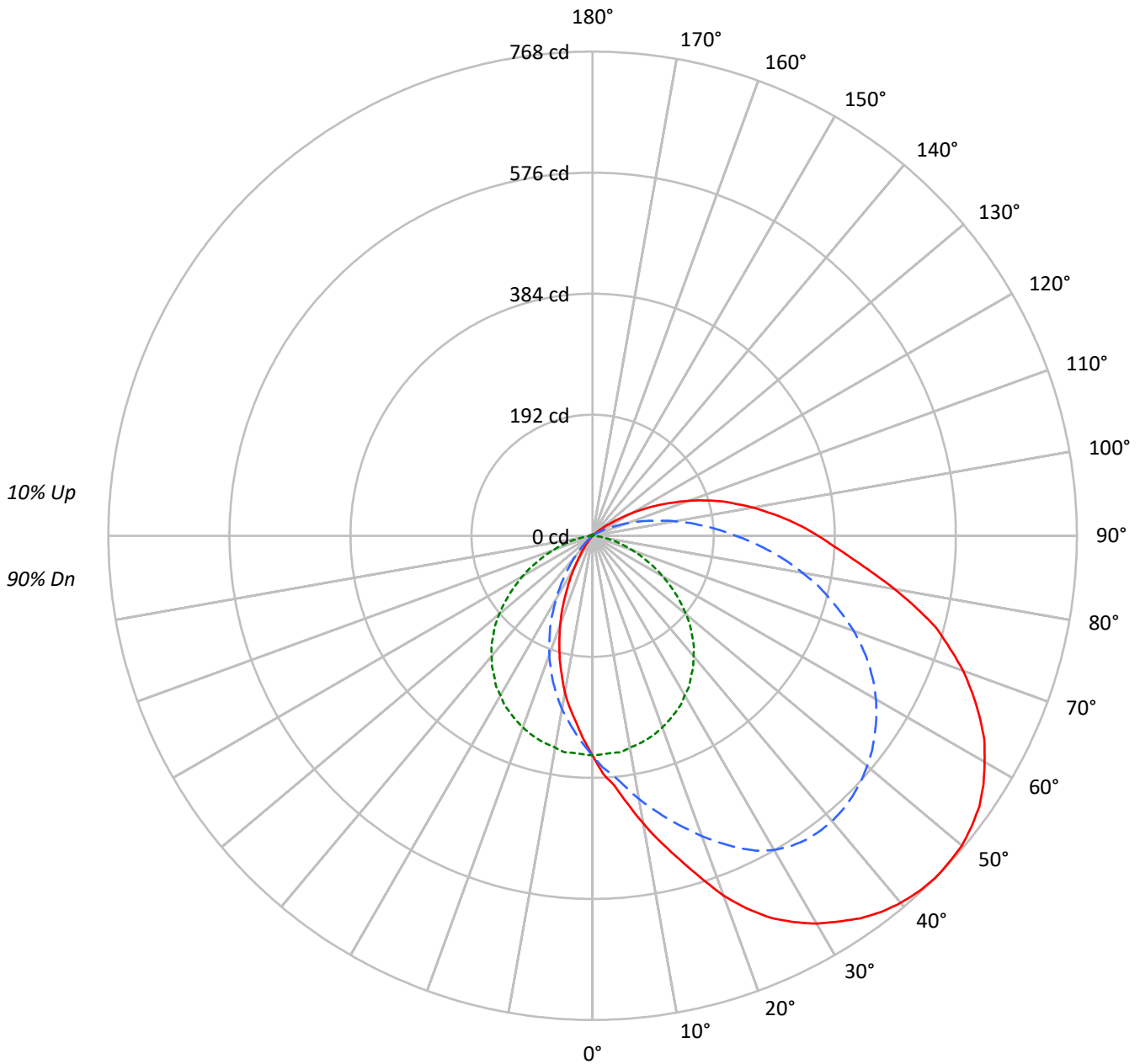
Lumens per Lamp: N/A
Luminaire Lumens: 1722.0 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550442

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-85-ED1D

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°	3749	3749	3749
5°	4116	3695	3082
10°	4658	3649	2540
15°	5219	3602	1979
20°	5887	3544	1458
25°	6440	3476	957
30°	6852	3385	539
35°	7208	3287	237
40°	7524	3165	57
45°	7795	3013	0
50°	8022	2813	0
55°	8196	2557	0
60°	8282	2262	0
65°	8317	1924	0
70°	8289	1570	0
75°	8184	1157	6
80°	7853	707	36
85°	7590	341	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.4	1.9
10°-20°	99.9	5.8
20°-30°	161.8	9.4
30°-40°	207.8	12.1
40°-50°	235.2	13.7
50°-60°	243.7	14.2
60°-70°	229.9	13.3
70°-80°	192.6	11.2
80°-90°	139.6	8.1
90°-100°	91.8	5.3
100°-110°	53.0	3.1
110°-120°	23.4	1.4
120°-130°	6.3	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	295.0	17.1
0°-40°	502.9	29.2
0°-60°	981.8	57.0
0°-90°	1543.9	89.7
90°-120°	168.1	9.8
90°-150°	176.9	10.3
90°-180°	178.0	10.3
0°-180°	1722.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	398	382	346	314	298	40
15°	531	466	334	241	201	153
25°	669	546	310	159	99	309
35°	741	589	272	77	24	464
45°	768	583	223	18	0	593
55°	749	546	161	0	0	668
65°	677	484	96	0	0	669
75°	564	390	41	0	0	592
85°	413	283	7	2	3	352
90°	358	227	2	3	3	196
95°	307	177	1	3	4	241
105°	211	92	1	2	4	223
115°	115	30	1	1	2	115
125°	34	4	2	1	2	34
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3	348.3
2.5°	377.6	377.2	375.8	373.6	370.5	365.2	360.7	356.7	351.4	347.0	338.6
5°	397.6	395.4	393.6	391.4	384.3	379.4	371.4	362.5	354.1	345.7	328.8
7.5°	429.5	426.0	423.3	417.1	407.3	396.2	383.8	375.4	369.6	346.1	317.3
10°	463.7	460.6	455.3	444.2	432.2	416.2	398.5	378.5	360.7	341.2	307.1
12.5°	497.4	493.0	485.4	471.2	454.4	434.4	410.0	386.5	361.2	338.1	295.1
15°	531.1	526.3	518.3	501.0	478.8	452.6	422.9	393.1	363.4	334.1	282.6
17.5°	568.0	561.3	549.3	529.8	501.8	469.5	434.4	398.5	362.5	329.2	269.3
20°	607.5	598.1	585.3	559.1	526.3	488.1	445.9	403.8	362.1	323.5	254.3
22.5°	640.3	631.0	616.8	589.7	550.2	503.6	455.7	407.3	360.3	316.8	240.1
25°	668.7	661.1	645.6	614.6	572.8	520.0	465.0	410.0	357.6	309.7	225.0
27.5°	690.9	683.8	666.5	634.5	591.9	534.7	472.1	411.3	354.1	302.6	209.4
30°	710.4	703.3	682.4	649.6	604.8	546.2	479.2	411.8	349.7	292.0	192.6
32.5°	725.5	718.8	697.5	662.5	613.7	554.2	483.2	411.3	343.9	284.4	174.4
35°	740.6	733.9	709.1	671.8	620.3	557.8	486.3	409.1	336.8	272.0	157.1
37.5°	752.1	744.6	719.3	678.0	623.4	558.6	485.9	406.0	329.2	261.8	139.8
40°	760.1	752.1	725.0	681.6	624.3	557.3	482.3	400.7	320.4	248.9	121.6
42.5°	765.4	756.5	727.7	686.9	622.5	553.8	477.0	394.0	310.6	237.8	104.3
45°	768.1	758.8	728.1	682.4	619.4	547.1	469.0	385.6	300.0	222.7	87.0
47.5°	766.7	756.5	725.9	677.6	613.7	540.0	460.1	375.4	287.1	209.4	70.6
50°	764.5	753.9	721.0	671.3	605.7	531.1	450.4	363.0	273.8	193.0	55.9
52.5°	757.4	746.8	715.7	662.5	596.4	520.9	437.1	350.1	259.6	177.0	42.6
55°	748.6	738.8	706.4	654.5	584.4	508.5	424.6	336.3	245.8	160.6	30.6
57.5°	734.8	725.9	694.9	641.6	572.4	494.7	410.9	321.3	228.5	144.2	21.3
60°	717.9	709.1	678.9	627.0	558.6	479.2	395.8	305.7	213.0	127.8	13.3
62.5°	700.2	691.8	660.3	608.8	541.3	462.8	379.4	290.2	196.6	112.7	8.0
65°	676.7	668.7	640.3	587.0	522.3	445.0	361.2	271.6	179.7	95.8	4.4
67.5°	651.8	644.7	615.9	567.1	500.1	425.5	342.6	253.4	162.0	81.2	2.2
70°	625.2	616.3	589.7	540.0	477.4	403.3	322.1	234.7	145.1	67.0	0.0
72.5°	594.1	587.5	561.7	514.7	451.3	379.8	301.3	214.3	126.5	53.2	0.4
75°	564.0	555.5	532.0	487.6	425.5	355.0	278.2	195.2	108.3	40.8	0.4
77.5°	524.9	522.3	500.1	457.0	401.1	331.0	252.9	172.2	91.0	29.3	0.4
80°	485.9	483.2	465.9	426.4	372.7	302.6	229.4	150.4	74.1	19.5	0.4
82.5°	447.3	443.7	427.3	394.5	343.9	278.7	205.0	128.7	58.6	12.0	0.4
85°	412.7	408.2	390.5	360.3	314.2	251.6	179.7	107.4	43.5	6.7	0.9
87.5°	382.9	379.8	360.3	329.2	284.0	226.3	157.5	87.0	30.6	3.1	1.3
90°	357.6	351.0	333.7	300.8	255.6	198.3	134.0	69.7	20.4	1.8	1.8
92.5°	332.8	327.0	307.9	274.2	230.3	174.4	111.4	53.2	12.9	0.9	2.2
95°	307.1	300.8	282.2	251.1	204.6	150.0	91.4	39.0	7.1	0.9	2.2
97.5°	281.8	276.0	256.5	225.4	181.5	128.7	72.3	27.5	3.5	0.9	1.8
100°	258.2	251.6	233.8	202.8	158.4	107.4	55.9	17.7	2.2	0.9	1.8
102.5°	233.4	228.1	209.9	179.7	134.4	87.4	41.7	11.1	0.9	0.9	1.3
105°	211.2	204.6	186.8	155.7	114.5	68.8	29.3	6.7	0.9	0.9	1.3



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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	137.6	132.2	116.7	90.5	58.1	27.1	8.0	1.3	1.3	1.3	1.3
115°	114.9	106.9	93.2	70.1	43.0	17.7	4.0	1.3	1.3	1.3	1.3
117.5°	91.8	85.2	75.4	53.2	28.4	11.5	2.2	1.3	1.3	1.3	1.3
120°	71.9	65.7	54.6	36.8	19.1	6.7	0.9	1.3	1.3	1.3	1.3
122.5°	51.5	46.6	36.8	24.0	11.5	3.1	1.3	1.3	1.8	1.8	1.3
125°	34.2	31.5	24.4	14.6	7.1	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	22.2	20.0	14.2	8.4	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.4	11.1	8.4	4.9	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.1	6.7	4.4	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	348.3	348.3	348.3
2.5°	331.5	325.2	323.5
5°	313.7	303.5	297.7
7.5°	296.0	282.2	275.5
10°	279.5	260.0	252.9
12.5°	260.0	237.4	226.3
15°	241.4	212.1	201.4
17.5°	220.5	187.7	175.3
20°	201.0	163.3	150.4
22.5°	178.8	139.3	125.1
25°	158.9	115.4	99.4
27.5°	136.7	91.0	77.2
30°	115.8	69.7	55.9
32.5°	95.8	51.0	38.6
35°	77.2	34.6	24.4
37.5°	59.5	21.3	12.4
40°	43.0	11.1	5.8
42.5°	28.8	5.3	3.1
45°	17.7	2.7	0.0
47.5°	10.2	0.0	0.0
50°	5.3	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.7
87.5°	2.2	2.7	3.1
90°	2.7	3.1	3.1
92.5°	2.7	3.5	3.5
95°	3.1	3.5	4.0
97.5°	3.5	4.0	4.0
100°	3.1	4.0	4.4
102.5°	2.7	4.0	4.0
105°	2.2	3.1	3.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	186.4	181.0	163.3	134.0	93.6	52.4	19.5	3.5	0.9	1.3	1.3
110°	162.4	158.0	139.8	111.4	75.4	39.0	12.9	2.2	1.3	1.3	1.3





107.5°	1.8	2.7	3.1
110°	1.8	2.2	2.7



(END OF REPORT)