

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: P550617

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-80-85-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: P550617
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-50-UNV-80-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

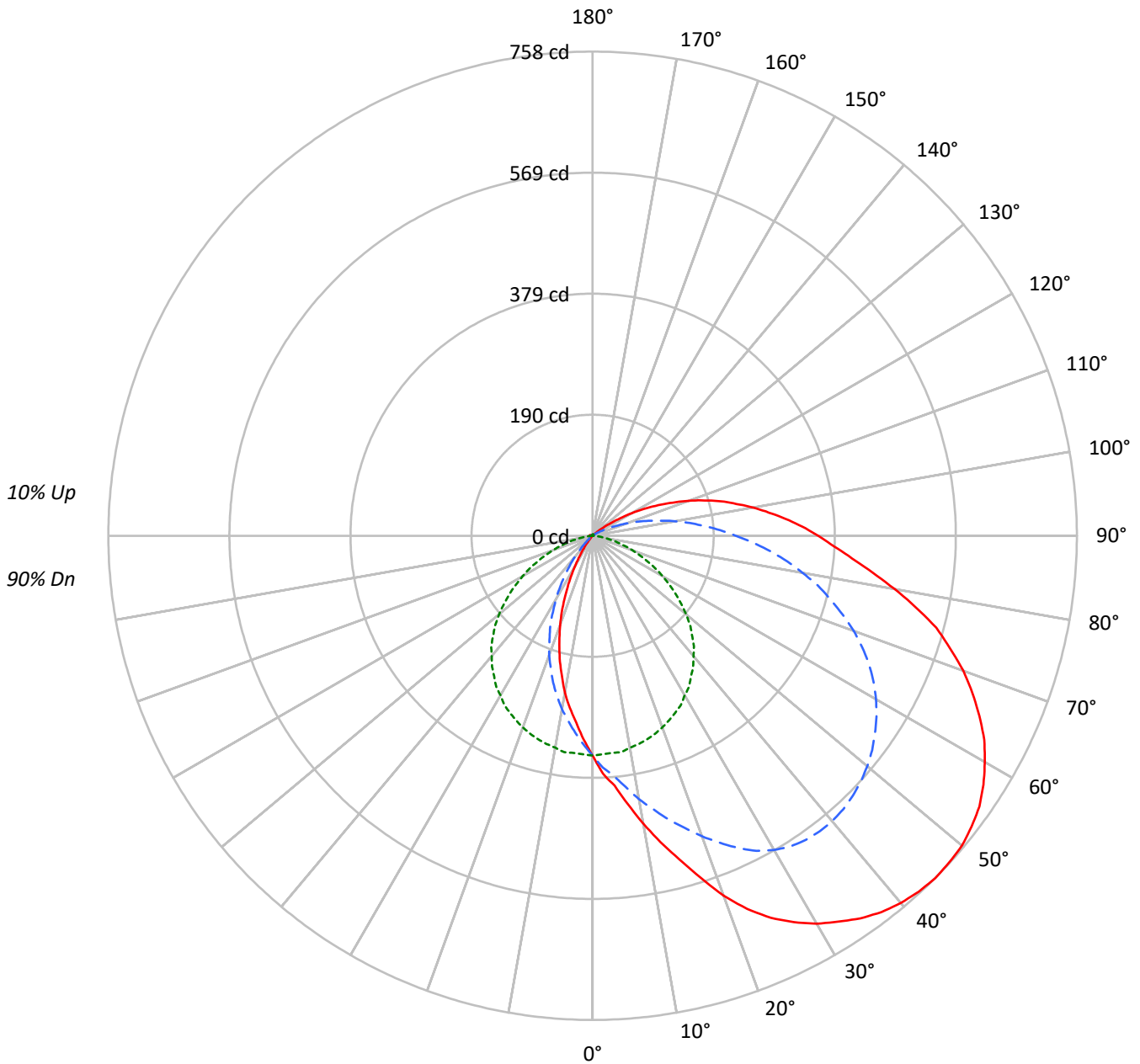
Lumens per Lamp: N/A
Luminaire Lumens: 1700.1 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (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°	3702	3702	3702
5°	4063	3647	3043
10°	4598	3603	2508
15°	5152	3557	1955
20°	5812	3498	1439
25°	6358	3432	945
30°	6764	3341	532
35°	7116	3244	235
40°	7428	3125	56
45°	7695	2975	0
50°	7920	2778	0
55°	8091	2525	0
60°	8177	2233	0
65°	8210	1900	0
70°	8183	1548	0
75°	8080	1143	6
80°	7752	700	36
85°	7493	336	48



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.9	1.9
10°-20°	98.6	5.8
20°-30°	159.7	9.4
30°-40°	205.2	12.1
40°-50°	232.2	13.7
50°-60°	240.6	14.2
60°-70°	226.9	13.3
70°-80°	190.2	11.2
80°-90°	137.8	8.1
90°-100°	90.6	5.3
100°-110°	52.3	3.1
110°-120°	23.1	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°	291.3	17.1
0°-40°	496.4	29.2
0°-60°	969.3	57.0
0°-90°	1524.2	89.7
90°-120°	166.0	9.8
90°-150°	174.7	10.3
90°-180°	176.0	10.4
0°-180°	1700.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	344	344	344	344	344	
5°	392	377	341	310	294	40
15°	524	460	330	238	199	151
25°	660	539	306	157	98	305
35°	731	582	268	76	24	459
45°	758	576	220	18	0	585
55°	739	539	159	0	0	660
65°	668	478	95	0	0	661
75°	557	385	40	0	0	584
85°	407	279	7	2	3	348
90°	353	224	2	3	3	194
95°	303	175	1	3	4	238
105°	208	90	1	2	4	220
115°	114	30	1	1	2	114
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°	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9
2.5°	372.8	372.3	371.0	368.8	365.8	360.5	356.1	352.2	346.9	342.6	334.2
5°	392.5	390.3	388.6	386.4	379.4	374.5	366.6	357.9	349.6	341.2	324.6
7.5°	424.0	420.5	417.9	411.8	402.1	391.2	378.9	370.6	364.9	341.7	313.2
10°	457.8	454.7	449.4	438.5	426.7	410.9	393.4	373.7	356.1	336.9	303.1
12.5°	491.1	486.7	479.2	465.2	448.6	428.9	404.8	381.5	356.6	333.8	291.3
15°	524.3	519.5	511.6	494.6	472.7	446.8	417.5	388.1	358.8	329.9	279.0
17.5°	560.7	554.1	542.3	523.0	495.4	463.5	428.9	393.4	357.9	325.0	265.9
20°	599.7	590.5	577.8	551.9	519.5	481.9	440.2	398.6	357.4	319.3	251.0
22.5°	632.1	622.9	608.9	582.2	543.2	497.2	449.9	402.1	355.7	312.8	237.0
25°	660.1	652.7	637.4	606.7	565.5	513.4	459.1	404.8	353.1	305.8	222.1
27.5°	682.0	675.0	658.0	626.4	584.4	527.9	466.1	406.1	349.6	298.8	206.8
30°	701.3	694.3	673.7	641.3	597.1	539.2	473.1	406.5	345.2	288.2	190.1
32.5°	716.2	709.6	688.6	654.0	605.8	547.1	477.0	406.1	339.5	280.8	172.2
35°	731.1	724.5	700.0	663.2	612.4	550.6	480.1	403.9	332.5	268.5	155.1
37.5°	742.5	735.0	710.1	669.3	615.5	551.5	479.7	400.8	325.0	258.4	138.0
40°	750.4	742.5	715.8	672.8	616.3	550.2	476.2	395.6	316.3	245.7	120.0
42.5°	755.6	746.9	718.4	678.1	614.6	546.7	470.9	389.0	306.6	234.8	102.9
45°	758.3	749.1	718.8	673.7	611.5	540.1	463.0	380.7	296.1	219.9	85.9
47.5°	757.0	746.9	716.6	668.9	605.8	533.1	454.3	370.6	283.4	206.8	69.6
50°	754.8	744.2	711.8	662.8	597.9	524.3	444.6	358.3	270.3	190.6	55.2
52.5°	747.8	737.2	706.6	654.0	588.7	514.3	431.5	345.6	256.3	174.8	42.1
55°	739.0	729.4	697.4	646.1	576.9	502.0	419.2	332.0	242.7	158.6	30.2
57.5°	725.4	716.6	686.0	633.4	565.1	488.4	405.6	317.1	225.6	142.4	21.0
60°	708.8	700.0	670.2	619.0	551.5	473.1	390.7	301.8	210.3	126.2	13.1
62.5°	691.2	682.9	651.8	601.0	534.4	456.9	374.5	286.5	194.1	111.3	7.9
65°	668.0	660.1	632.1	579.5	515.6	439.4	356.6	268.1	177.4	94.6	4.4
67.5°	643.5	636.5	608.0	559.8	493.7	420.1	338.2	250.1	159.9	80.2	2.2
70°	617.2	608.5	582.2	533.1	471.3	398.2	318.0	231.7	143.2	66.1	0.0
72.5°	586.5	580.0	554.6	508.1	445.5	375.0	297.4	211.6	124.8	52.6	0.4
75°	556.8	548.4	525.2	481.4	420.1	350.4	274.7	192.7	106.9	40.3	0.4
77.5°	518.2	515.6	493.7	451.2	396.0	326.8	249.7	170.0	89.8	28.9	0.4
80°	479.7	477.0	460.0	421.0	368.0	298.8	226.5	148.5	73.2	19.3	0.4
82.5°	441.6	438.0	421.8	389.4	339.5	275.1	202.4	127.0	57.8	11.8	0.4
85°	407.4	403.0	385.5	355.7	310.1	248.4	177.4	106.0	42.9	6.6	0.9
87.5°	378.0	375.0	355.7	325.0	280.4	223.4	155.5	85.9	30.2	3.1	1.3
90°	353.1	346.5	329.4	297.0	252.3	195.8	132.3	68.8	20.2	1.8	1.8
92.5°	328.5	322.8	304.0	270.7	227.3	172.2	110.0	52.6	12.7	0.9	2.2
95°	303.1	297.0	278.6	247.9	201.9	148.1	90.2	38.5	7.0	0.9	2.2
97.5°	278.2	272.5	253.2	222.5	179.2	127.0	71.4	27.2	3.5	0.9	1.8
100°	254.9	248.4	230.9	200.2	156.4	106.0	55.2	17.5	2.2	0.9	1.8
102.5°	230.4	225.2	207.2	177.4	132.7	86.3	41.2	11.0	0.9	0.9	1.3
105°	208.5	201.9	184.4	153.8	113.0	67.9	28.9	6.6	0.9	0.9	1.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	135.8	130.5	115.2	89.4	57.4	26.7	7.9	1.3	1.3	1.3	1.3
115°	113.5	105.6	92.0	69.2	42.5	17.5	3.9	1.3	1.3	1.3	1.3
117.5°	90.7	84.1	74.5	52.6	28.0	11.4	2.2	1.3	1.3	1.3	1.3
120°	71.0	64.8	53.9	36.4	18.8	6.6	0.9	1.3	1.3	1.3	1.3
122.5°	50.8	46.0	36.4	23.7	11.4	3.1	1.3	1.3	1.8	1.8	1.3
125°	33.7	31.1	24.1	14.5	7.0	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	21.9	19.7	14.0	8.3	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.3	11.0	8.3	4.8	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.0	6.6	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°	343.9	343.9	343.9
2.5°	327.2	321.1	319.3
5°	309.7	299.6	293.9
7.5°	292.2	278.6	272.0
10°	276.0	256.7	249.7
12.5°	256.7	234.4	223.4
15°	238.3	209.4	198.9
17.5°	217.7	185.3	173.0
20°	198.4	161.2	148.5
22.5°	176.5	137.5	123.5
25°	156.8	113.9	98.1
27.5°	134.9	89.8	76.2
30°	114.3	68.8	55.2
32.5°	94.6	50.4	38.1
35°	76.2	34.2	24.1
37.5°	58.7	21.0	12.3
40°	42.5	11.0	5.7
42.5°	28.5	5.3	3.1
45°	17.5	2.6	0.0
47.5°	10.1	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	2.6
87.5°	2.2	2.6	3.1
90°	2.6	3.1	3.1
92.5°	2.6	3.5	3.5
95°	3.1	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.1	3.9	4.4
102.5°	2.6	3.9	3.9
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°	184.0	178.7	161.2	132.3	92.4	51.7	19.3	3.5	0.9	1.3	1.3
110°	160.3	155.9	138.0	110.0	74.5	38.5	12.7	2.2	1.3	1.3	1.3





107.5°	1.8	2.6	3.1
110°	1.8	2.2	2.6



(END OF REPORT)