

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: P550814

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-80-87-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: P550814
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-LD4-1LO-40-UNV-80-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

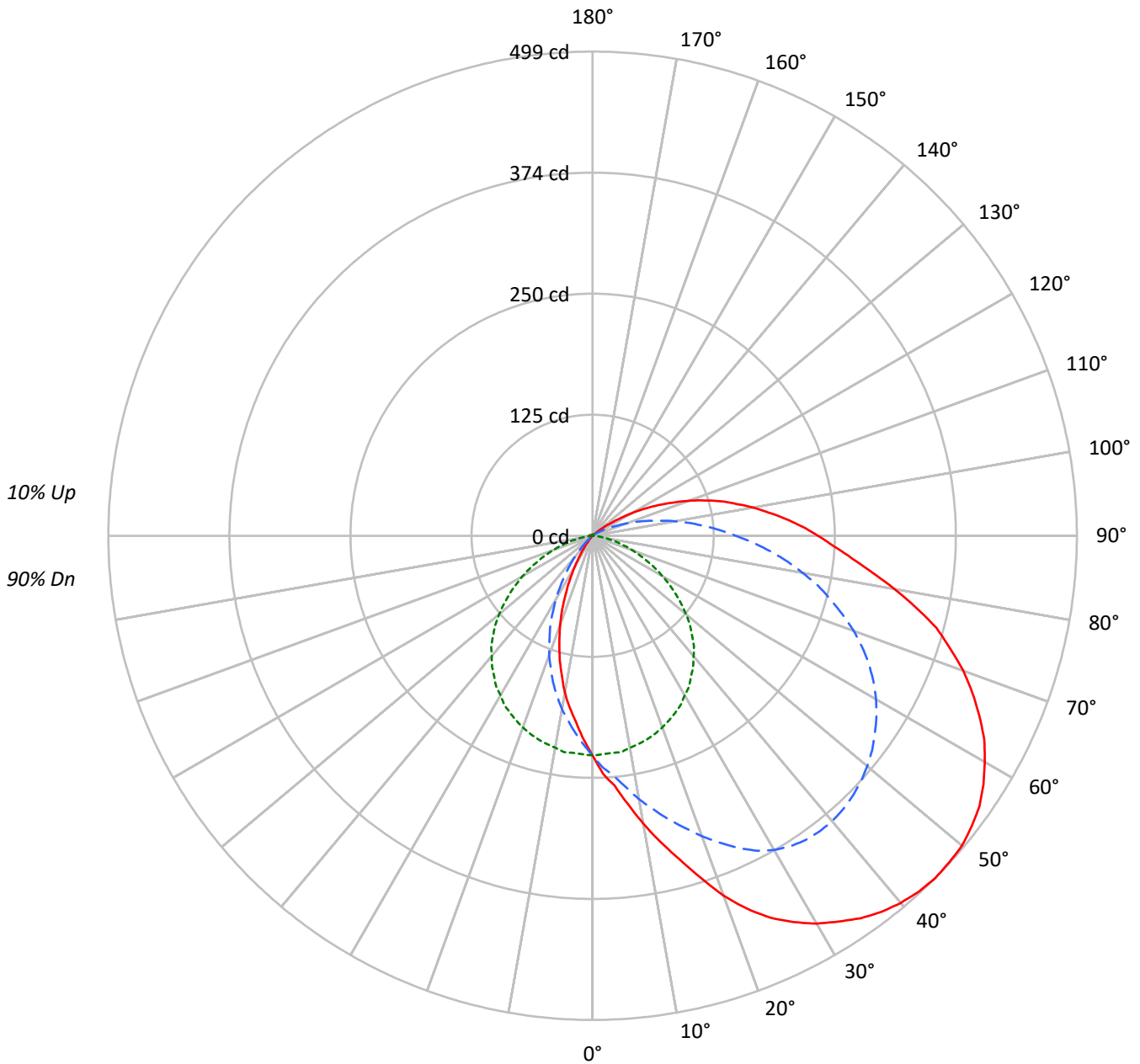
Lumens per Lamp: N/A
Luminaire Lumens: 1119.1 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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°	2436	2436	2436
5°	2675	2401	2003
10°	3026	2371	1651
15°	3391	2341	1286
20°	3825	2303	947
25°	4185	2259	622
30°	4452	2199	350
35°	4683	2136	155
40°	4889	2058	37
45°	5065	1958	0
50°	5213	1828	0
55°	5325	1662	0
60°	5382	1469	0
65°	5404	1251	0
70°	5387	1019	0
75°	5318	752	4
80°	5102	461	23
85°	4933	219	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	1.9
10°-20°	64.9	5.8
20°-30°	105.1	9.4
30°-40°	135.0	12.1
40°-50°	152.9	13.7
50°-60°	158.4	14.2
60°-70°	149.4	13.3
70°-80°	125.2	11.2
80°-90°	90.7	8.1
90°-100°	59.6	5.3
100°-110°	34.4	3.1
110°-120°	15.2	1.4
120°-130°	4.1	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	191.7	17.1
0°-40°	326.8	29.2
0°-60°	638.0	57.0
0°-90°	1003.3	89.6
90°-120°	109.3	9.8
90°-150°	115.0	10.3
90°-180°	116.0	10.4
0°-180°	1119.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	226	226	226	226	226	
5°	258	248	225	204	194	26
15°	345	303	217	157	131	100
25°	434	355	201	103	65	201
35°	481	383	177	50	16	302
45°	499	379	145	12	0	385
55°	486	355	104	0	0	434
65°	440	314	62	0	0	435
75°	366	254	26	0	0	384
85°	268	184	4	1	2	229
90°	232	148	1	2	2	127
95°	200	115	1	2	3	157
105°	137	60	1	1	2	145
115°	75	20	1	1	1	75
125°	22	3	1	1	1	22
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	1	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°	226.3	226.3	226.3	226.3	226.3	226.3	226.3	226.3	226.3	226.3	226.3
2.5°	245.4	245.1	244.2	242.8	240.8	237.3	234.4	231.8	228.4	225.5	220.0
5°	258.4	256.9	255.8	254.3	249.7	246.5	241.3	235.6	230.1	224.6	213.7
7.5°	279.1	276.8	275.1	271.0	264.7	257.5	249.4	243.9	240.2	224.9	206.2
10°	301.3	299.3	295.8	288.6	280.8	270.5	258.9	246.0	234.4	221.7	199.5
12.5°	323.2	320.3	315.4	306.2	295.3	282.3	266.4	251.1	234.7	219.7	191.7
15°	345.1	342.0	336.8	325.5	311.1	294.1	274.8	255.5	236.2	217.1	183.7
17.5°	369.1	364.7	357.0	344.3	326.1	305.1	282.3	258.9	235.6	213.9	175.0
20°	394.7	388.7	380.3	363.3	342.0	317.2	289.8	262.4	235.3	210.2	165.2
22.5°	416.1	410.0	400.8	383.2	357.5	327.3	296.1	264.7	234.1	205.9	156.0
25°	434.5	429.6	419.5	399.4	372.2	337.9	302.2	266.4	232.4	201.3	146.2
27.5°	448.9	444.3	433.1	412.3	384.6	347.4	306.8	267.3	230.1	196.6	136.1
30°	461.6	457.0	443.5	422.1	393.0	354.9	311.4	267.6	227.2	189.7	125.1
32.5°	471.4	467.1	453.3	430.5	398.8	360.1	314.0	267.3	223.5	184.8	113.3
35°	481.2	476.9	460.8	436.5	403.1	362.4	316.0	265.8	218.8	176.8	102.1
37.5°	488.7	483.8	467.4	440.6	405.1	363.0	315.7	263.8	213.9	170.1	90.8
40°	493.9	488.7	471.1	442.9	405.7	362.2	313.4	260.4	208.2	161.8	79.0
42.5°	497.4	491.6	472.9	446.4	404.5	359.8	310.0	256.0	201.8	154.6	67.8
45°	499.1	493.1	473.2	443.5	402.5	355.5	304.8	250.6	194.9	144.7	56.5
47.5°	498.3	491.6	471.7	440.3	398.8	350.9	299.0	243.9	186.6	136.1	45.8
50°	496.8	489.9	468.6	436.3	393.6	345.1	292.7	235.9	177.9	125.4	36.3
52.5°	492.2	485.3	465.1	430.5	387.5	338.5	284.0	227.5	168.7	115.0	27.7
55°	486.4	480.1	459.0	425.3	379.7	330.4	275.9	218.6	159.7	104.4	19.9
57.5°	477.5	471.7	451.5	416.9	372.0	321.5	267.0	208.8	148.5	93.7	13.8
60°	466.5	460.8	441.2	407.4	363.0	311.4	257.2	198.7	138.4	83.0	8.7
62.5°	455.0	449.5	429.0	395.6	351.8	300.7	246.5	188.6	127.7	73.2	5.2
65°	439.7	434.5	416.1	381.5	339.4	289.2	234.7	176.5	116.8	62.3	2.9
67.5°	423.6	419.0	400.2	368.5	325.0	276.5	222.6	164.6	105.2	52.8	1.4
70°	406.3	400.5	383.2	350.9	310.3	262.1	209.3	152.5	94.3	43.5	0.0
72.5°	386.1	381.8	365.0	334.5	293.2	246.8	195.8	139.3	82.2	34.6	0.3
75°	366.5	361.0	345.7	316.9	276.5	230.7	180.8	126.9	70.4	26.5	0.3
77.5°	341.1	339.4	325.0	297.0	260.7	215.1	164.4	111.9	59.1	19.0	0.3
80°	315.7	314.0	302.8	277.1	242.2	196.6	149.1	97.7	48.2	12.7	0.3
82.5°	290.6	288.3	277.7	256.3	223.5	181.1	133.2	83.6	38.1	7.8	0.3
85°	268.2	265.3	253.7	234.1	204.1	163.5	116.8	69.8	28.3	4.3	0.6
87.5°	248.8	246.8	234.1	213.9	184.5	147.1	102.4	56.5	19.9	2.0	0.9
90°	232.4	228.1	216.8	195.5	166.1	128.9	87.1	45.3	13.3	1.2	1.2
92.5°	216.3	212.5	200.1	178.2	149.6	113.3	72.4	34.6	8.4	0.6	1.4
95°	199.5	195.5	183.4	163.2	132.9	97.5	59.4	25.4	4.6	0.6	1.4
97.5°	183.1	179.3	166.7	146.5	117.9	83.6	47.0	17.9	2.3	0.6	1.2
100°	167.8	163.5	152.0	131.8	102.9	69.8	36.3	11.5	1.4	0.6	1.2
102.5°	151.7	148.2	136.4	116.8	87.4	56.8	27.1	7.2	0.6	0.6	0.9
105°	137.2	132.9	121.4	101.2	74.4	44.7	19.0	4.3	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	89.4	85.9	75.8	58.8	37.8	17.6	5.2	0.9	0.9	0.9	0.9
115°	74.7	69.5	60.6	45.6	28.0	11.5	2.6	0.9	0.9	0.9	0.9
117.5°	59.7	55.4	49.0	34.6	18.5	7.5	1.4	0.9	0.9	0.9	0.9
120°	46.7	42.7	35.5	23.9	12.4	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.4	30.3	23.9	15.6	7.5	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.2	20.5	15.9	9.5	4.6	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.4	13.0	9.2	5.5	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.1	7.2	5.5	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.6	4.3	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.4	1.4	1.4	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	226.3	226.3	226.3
2.5°	215.4	211.4	210.2
5°	203.9	197.2	193.5
7.5°	192.3	183.4	179.1
10°	181.7	169.0	164.4
12.5°	169.0	154.3	147.1
15°	156.9	137.8	130.9
17.5°	143.3	122.0	113.9
20°	130.6	106.1	97.7
22.5°	116.2	90.5	81.3
25°	103.2	75.0	64.6
27.5°	88.8	59.1	50.2
30°	75.3	45.3	36.3
32.5°	62.3	33.2	25.1
35°	50.2	22.5	15.9
37.5°	38.6	13.8	8.1
40°	28.0	7.2	3.7
42.5°	18.7	3.5	2.0
45°	11.5	1.7	0.0
47.5°	6.6	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.4	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.4
82.5°	1.2	1.4	1.4
85°	1.2	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.9
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.4	1.4
115°	0.9	1.2	1.4
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	121.1	117.6	106.1	87.1	60.8	34.0	12.7	2.3	0.6	0.9	0.9
110°	105.5	102.6	90.8	72.4	49.0	25.4	8.4	1.4	0.9	0.9	0.9





107.5°	1.2	1.7	2.0
110°	1.2	1.4	1.7



(END OF REPORT)