

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: P550819

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-80-96-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: P550819
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-80-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

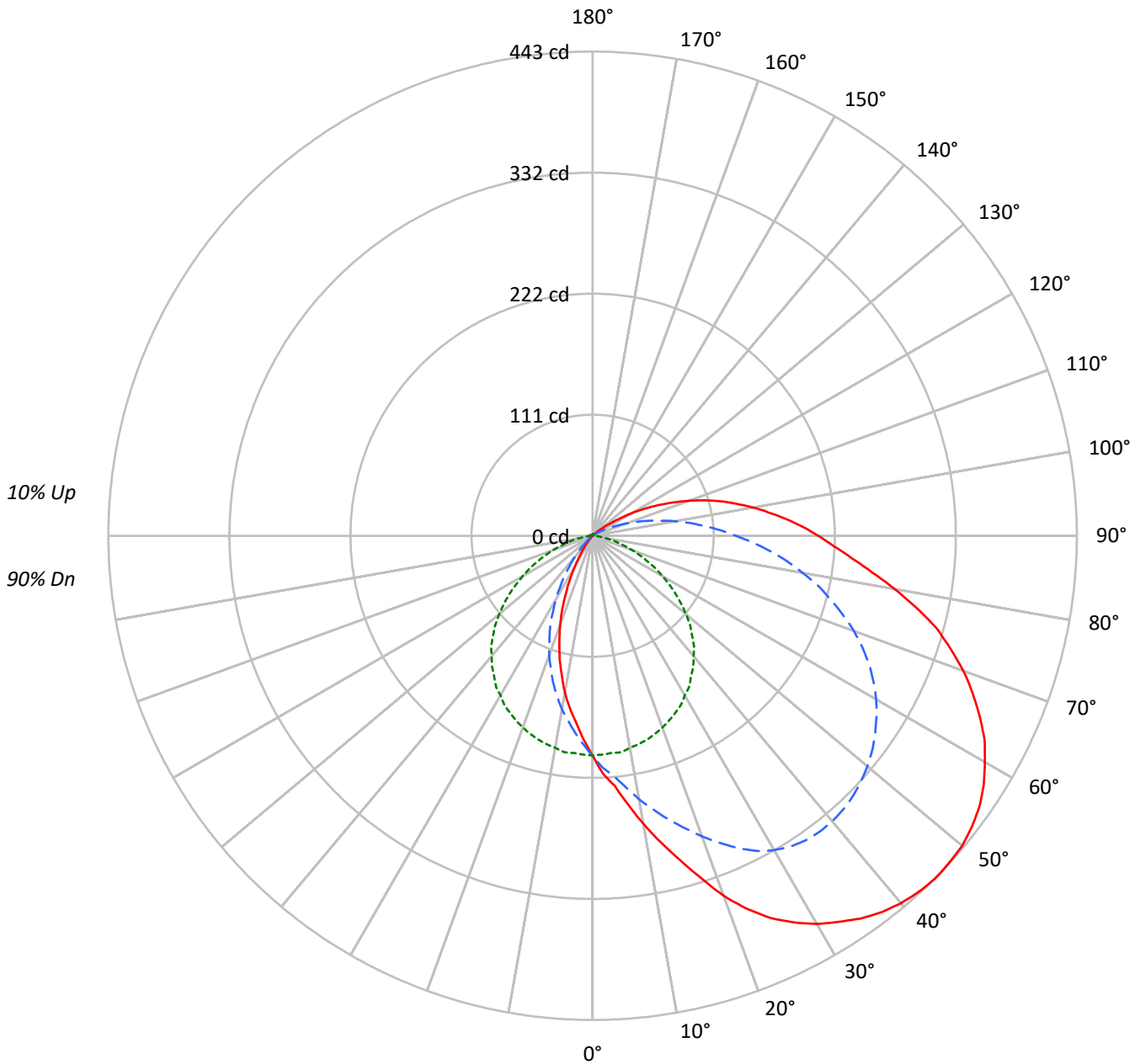
Lumens per Lamp: N/A
Luminaire Lumens: 994.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
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				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2165	2165	2165
5°	2376	2132	1780
10°	2689	2107	1466
15°	3013	2080	1143
20°	3398	2046	841
25°	3718	2007	553
30°	3955	1953	312
35°	4161	1897	137
40°	4343	1827	33
45°	4500	1740	0
50°	4631	1624	0
55°	4731	1476	0
60°	4781	1306	0
65°	4801	1111	0
70°	4785	907	0
75°	4723	669	4
80°	4533	410	21
85°	4381	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.3	1.9
10°-20°	57.7	5.8
20°-30°	93.4	9.4
30°-40°	120.0	12.1
40°-50°	135.8	13.7
50°-60°	140.7	14.2
60°-70°	132.7	13.3
70°-80°	111.2	11.2
80°-90°	80.6	8.1
90°-100°	53.0	5.3
100°-110°	30.6	3.1
110°-120°	13.5	1.4
120°-130°	3.7	0.4
130°-140°	0.8	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	170.3	17.1
0°-40°	290.3	29.2
0°-60°	566.8	57.0
0°-90°	891.2	89.7
90°-120°	97.1	9.8
90°-150°	102.1	10.3
90°-180°	103.0	10.4
0°-180°	994.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	201	201	201	201	201	
5°	230	220	200	181	172	23
15°	307	269	193	139	116	88
25°	386	315	179	92	57	178
35°	428	340	157	45	14	268
45°	443	337	129	10	0	342
55°	432	315	93	0	0	386
65°	391	279	55	0	0	386
75°	326	225	24	0	0	341
85°	238	163	4	1	2	203
90°	206	131	1	2	2	113
95°	177	102	0	2	2	139
105°	122	53	0	1	2	129
115°	66	18	1	1	1	66
125°	20	2	1	1	1	20
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	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°	201.1	201.1	201.1	201.1	201.1	201.1	201.1	201.1	201.1	201.1	201.1
2.5°	218.0	217.7	216.9	215.7	213.9	210.8	208.2	205.9	202.9	200.3	195.4
5°	229.5	228.2	227.2	225.9	221.8	219.0	214.4	209.3	204.4	199.5	189.8
7.5°	247.9	245.9	244.3	240.8	235.1	228.7	221.6	216.7	213.4	199.8	183.1
10°	267.7	265.9	262.8	256.4	249.5	240.3	230.0	218.5	208.2	197.0	177.2
12.5°	287.1	284.6	280.2	272.0	262.3	250.8	236.7	223.1	208.5	195.2	170.3
15°	306.6	303.8	299.2	289.2	276.4	261.3	244.1	226.9	209.8	192.9	163.2
17.5°	327.8	324.0	317.1	305.8	289.7	271.0	250.8	230.0	209.3	190.0	155.5
20°	350.6	345.3	337.8	322.7	303.8	281.7	257.4	233.1	209.0	186.7	146.8
22.5°	369.6	364.2	356.0	340.4	317.6	290.7	263.0	235.1	208.0	182.9	138.6
25°	386.0	381.6	372.7	354.7	330.7	300.2	268.4	236.7	206.4	178.8	129.9
27.5°	398.8	394.7	384.7	366.3	341.7	308.6	272.5	237.4	204.4	174.7	120.9
30°	410.1	406.0	393.9	375.0	349.1	315.3	276.6	237.7	201.8	168.5	111.2
32.5°	418.8	414.9	402.6	382.4	354.2	319.9	278.9	237.4	198.5	164.2	100.7
35°	427.5	423.6	409.3	387.8	358.1	322.0	280.7	236.2	194.4	157.0	90.7
37.5°	434.1	429.8	415.2	391.4	359.9	322.5	280.5	234.4	190.0	151.1	80.7
40°	438.8	434.1	418.5	393.4	360.4	321.7	278.4	231.3	184.9	143.7	70.2
42.5°	441.8	436.7	420.1	396.5	359.4	319.7	275.3	227.4	179.3	137.3	60.2
45°	443.4	438.0	420.3	393.9	357.6	315.8	270.7	222.6	173.1	128.6	50.2
47.5°	442.6	436.7	419.0	391.1	354.2	311.7	265.6	216.7	165.7	120.9	40.7
50°	441.3	435.2	416.2	387.5	349.6	306.6	260.0	209.5	158.0	111.4	32.3
52.5°	437.2	431.1	413.1	382.4	344.2	300.7	252.3	202.1	149.8	102.2	24.6
55°	432.1	426.5	407.8	377.8	337.3	293.5	245.1	194.1	141.9	92.7	17.7
57.5°	424.2	419.0	401.1	370.4	330.4	285.6	237.2	185.4	131.9	83.2	12.3
60°	414.4	409.3	391.9	361.9	322.5	276.6	228.5	176.5	122.9	73.8	7.7
62.5°	404.2	399.3	381.1	351.4	312.5	267.1	219.0	167.5	113.5	65.1	4.6
65°	390.6	386.0	369.6	338.9	301.5	256.9	208.5	156.8	103.7	55.3	2.6
67.5°	376.3	372.2	355.5	327.3	288.7	245.6	197.7	146.3	93.5	46.9	1.3
70°	360.9	355.8	340.4	311.7	275.6	232.8	186.0	135.5	83.8	38.7	0.0
72.5°	343.0	339.1	324.3	297.1	260.5	219.2	173.9	123.7	73.0	30.7	0.3
75°	325.5	320.7	307.1	281.5	245.6	204.9	160.6	112.7	62.5	23.6	0.3
77.5°	303.0	301.5	288.7	263.8	231.5	191.1	146.0	99.4	52.5	16.9	0.3
80°	280.5	278.9	268.9	246.1	215.1	174.7	132.4	86.8	42.8	11.3	0.3
82.5°	258.2	256.1	246.7	227.7	198.5	160.8	118.3	74.3	33.8	6.9	0.3
85°	238.2	235.6	225.4	208.0	181.3	145.2	103.7	62.0	25.1	3.8	0.5
87.5°	221.0	219.2	208.0	190.0	163.9	130.6	90.9	50.2	17.7	1.8	0.8
90°	206.4	202.6	192.6	173.7	147.5	114.5	77.4	40.2	11.8	1.0	1.0
92.5°	192.1	188.8	177.8	158.3	132.9	100.7	64.3	30.7	7.4	0.5	1.3
95°	177.2	173.7	162.9	145.0	118.1	86.6	52.8	22.5	4.1	0.5	1.3
97.5°	162.6	159.3	148.0	130.1	104.8	74.3	41.7	15.9	2.0	0.5	1.0
100°	149.1	145.2	135.0	117.1	91.4	62.0	32.3	10.2	1.3	0.5	1.0
102.5°	134.7	131.7	121.1	103.7	77.6	50.5	24.1	6.4	0.5	0.5	0.8
105°	121.9	118.1	107.8	89.9	66.1	39.7	16.9	3.8	0.5	0.5	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	79.4	76.3	67.4	52.3	33.6	15.6	4.6	0.8	0.8	0.8	0.8
115°	66.3	61.7	53.8	40.5	24.8	10.2	2.3	0.8	0.8	0.8	0.8
117.5°	53.0	49.2	43.5	30.7	16.4	6.7	1.3	0.8	0.8	0.8	0.8
120°	41.5	37.9	31.5	21.3	11.0	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.7	26.9	21.3	13.8	6.7	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.7	18.2	14.1	8.5	4.1	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.8	11.5	8.2	4.9	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.2	6.4	4.9	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.1	3.8	2.6	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	201.1	201.1	201.1
2.5°	191.3	187.7	186.7
5°	181.1	175.2	171.9
7.5°	170.8	162.9	159.1
10°	161.4	150.1	146.0
12.5°	150.1	137.0	130.6
15°	139.3	122.4	116.3
17.5°	127.3	108.3	101.2
20°	116.0	94.3	86.8
22.5°	103.2	80.4	72.2
25°	91.7	66.6	57.4
27.5°	78.9	52.5	44.6
30°	66.9	40.2	32.3
32.5°	55.3	29.5	22.3
35°	44.6	20.0	14.1
37.5°	34.3	12.3	7.2
40°	24.8	6.4	3.3
42.5°	16.6	3.1	1.8
45°	10.2	1.5	0.0
47.5°	5.9	0.0	0.0
50°	3.1	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.0	2.0
95°	1.8	2.0	2.3
97.5°	2.0	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	107.6	104.5	94.3	77.4	54.0	30.2	11.3	2.0	0.5	0.8	0.8
110°	93.7	91.2	80.7	64.3	43.5	22.5	7.4	1.3	0.8	0.8	0.8





107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)