

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: P550857

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-85-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: P550857
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-93-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

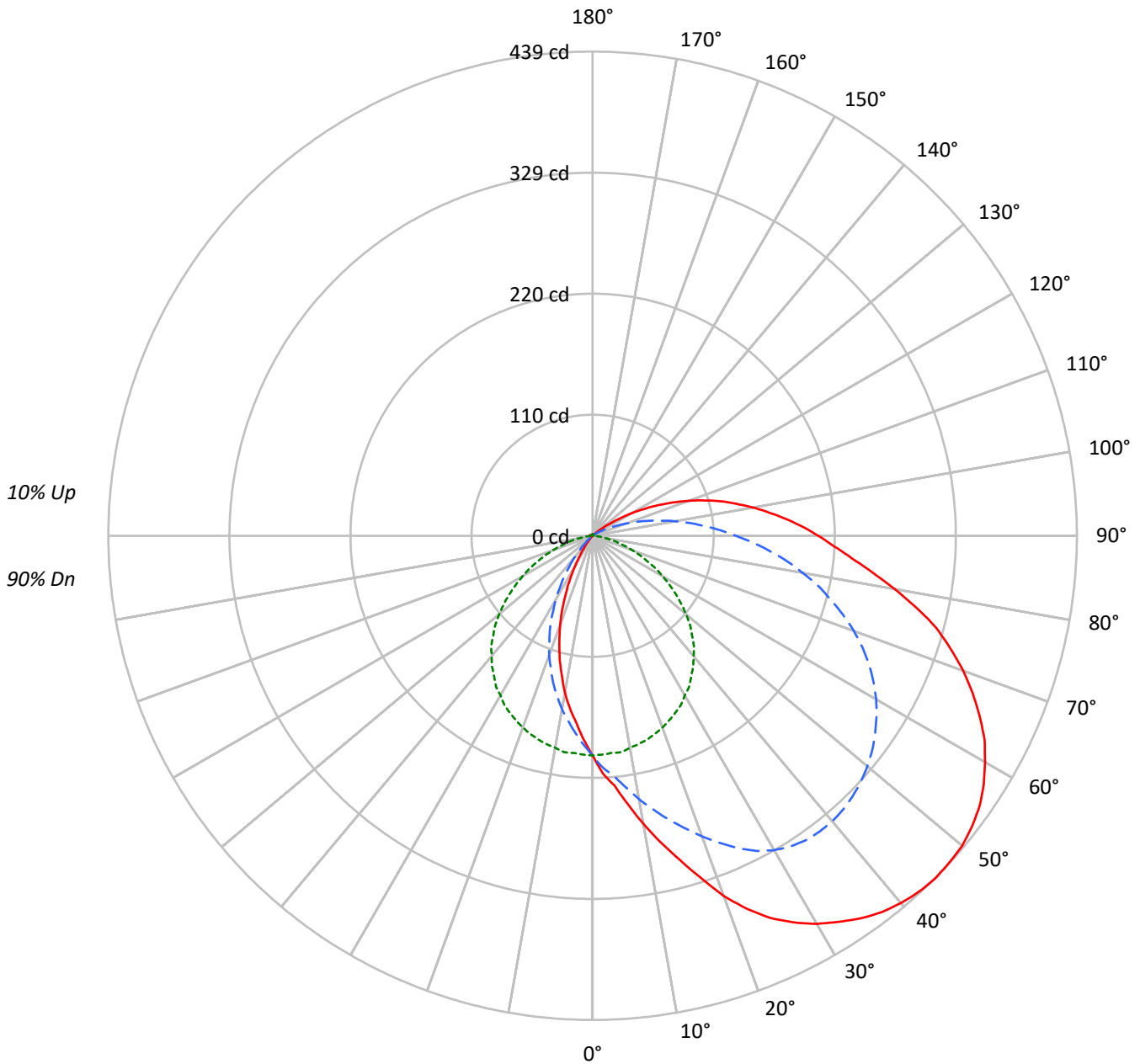
Lumens per Lamp: N/A
Luminaire Lumens: 985.1 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2144	2144	2144
5°	2354	2113	1763
10°	2664	2088	1453
15°	2985	2061	1132
20°	3368	2027	833
25°	3684	1989	548
30°	3920	1936	309
35°	4123	1880	136
40°	4304	1811	33
45°	4458	1724	0
50°	4589	1609	0
55°	4688	1463	0
60°	4738	1294	0
65°	4758	1101	0
70°	4741	897	0
75°	4681	664	4
80°	4491	406	21
85°	4340	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.1	1.9
10°-20°	57.1	5.8
20°-30°	92.5	9.4
30°-40°	118.9	12.1
40°-50°	134.6	13.7
50°-60°	139.4	14.2
60°-70°	131.5	13.3
70°-80°	110.2	11.2
80°-90°	79.9	8.1
90°-100°	52.5	5.3
100°-110°	30.3	3.1
110°-120°	13.4	1.4
120°-130°	3.6	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°	168.8	17.1
0°-40°	287.6	29.2
0°-60°	561.6	57.0
0°-90°	883.1	89.7
90°-120°	96.2	9.8
90°-150°	101.2	10.3
90°-180°	102.0	10.4
0°-180°	985.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	199	199	199	199	199	
5°	227	218	198	179	170	23
15°	304	266	191	138	115	88
25°	382	313	177	91	57	177
35°	424	337	156	44	14	266
45°	439	334	127	10	0	339
55°	428	313	92	0	0	382
65°	387	277	55	0	0	383
75°	323	223	23	0	0	338
85°	236	162	4	1	2	202
90°	205	130	1	2	2	112
95°	176	101	0	2	2	138
105°	121	52	0	1	2	127
115°	66	17	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°	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2
2.5°	216.0	215.7	215.0	213.7	211.9	208.9	206.3	204.1	201.0	198.5	193.7
5°	227.4	226.1	225.1	223.9	219.8	217.0	212.4	207.4	202.5	197.7	188.1
7.5°	245.7	243.7	242.1	238.6	233.0	226.7	219.5	214.7	211.4	198.0	181.5
10°	265.2	263.5	260.4	254.1	247.2	238.1	227.9	216.5	206.3	195.2	175.6
12.5°	284.5	282.0	277.7	269.5	259.9	248.5	234.5	221.1	206.6	193.4	168.8
15°	303.8	301.0	296.5	286.6	273.9	258.9	241.9	224.9	207.9	191.1	161.7
17.5°	324.9	321.1	314.2	303.1	287.1	268.5	248.5	227.9	207.4	188.3	154.1
20°	347.5	342.1	334.8	319.8	301.0	279.2	255.1	231.0	207.1	185.0	145.4
22.5°	366.2	360.9	352.8	337.3	314.7	288.1	260.7	233.0	206.1	181.2	137.3
25°	382.5	378.2	369.3	351.5	327.7	297.5	266.0	234.5	204.6	177.2	128.7
27.5°	395.2	391.1	381.2	363.0	338.6	305.8	270.1	235.3	202.5	173.1	119.8
30°	406.4	402.3	390.4	371.6	345.9	312.4	274.1	235.5	200.0	167.0	110.2
32.5°	415.0	411.2	399.0	378.9	351.0	317.0	276.4	235.3	196.7	162.7	99.7
35°	423.6	419.8	405.6	384.3	354.8	319.0	278.2	234.0	192.6	155.6	89.8
37.5°	430.2	425.9	411.4	387.8	356.6	319.5	277.9	232.2	188.3	149.7	80.0
40°	434.8	430.2	414.7	389.9	357.1	318.8	275.9	229.2	183.3	142.4	69.5
42.5°	437.8	432.7	416.3	392.9	356.1	316.8	272.8	225.4	177.7	136.0	59.6
45°	439.3	434.0	416.5	390.4	354.3	312.9	268.3	220.6	171.6	127.4	49.7
47.5°	438.6	432.7	415.2	387.6	351.0	308.9	263.2	214.7	164.2	119.8	40.4
50°	437.3	431.2	412.4	384.0	346.5	303.8	257.6	207.6	156.6	110.4	32.0
52.5°	433.3	427.2	409.4	378.9	341.1	298.0	250.0	200.3	148.5	101.3	24.4
55°	428.2	422.6	404.1	374.4	334.3	290.9	242.9	192.4	140.6	91.9	17.5
57.5°	420.3	415.2	397.5	367.0	327.4	283.0	235.0	183.8	130.7	82.5	12.2
60°	410.7	405.6	388.3	358.6	319.5	274.1	226.4	174.9	121.8	73.1	7.6
62.5°	400.5	395.7	377.7	348.2	309.6	264.7	217.0	166.0	112.4	64.5	4.6
65°	387.1	382.5	366.2	335.8	298.7	254.6	206.6	155.3	102.8	54.8	2.5
67.5°	372.8	368.8	352.3	324.4	286.0	243.4	195.9	144.9	92.6	46.4	1.3
70°	357.6	352.5	337.3	308.9	273.1	230.7	184.3	134.3	83.0	38.3	0.0
72.5°	339.9	336.0	321.3	294.4	258.1	217.3	172.3	122.6	72.3	30.5	0.3
75°	322.6	317.8	304.3	278.9	243.4	203.0	159.1	111.7	61.9	23.4	0.3
77.5°	300.3	298.7	286.0	261.4	229.4	189.3	144.7	98.5	52.0	16.8	0.3
80°	277.9	276.4	266.5	243.9	213.2	173.1	131.2	86.0	42.4	11.2	0.3
82.5°	255.8	253.8	244.4	225.6	196.7	159.4	117.3	73.6	33.5	6.9	0.3
85°	236.0	233.5	223.4	206.1	179.7	143.9	102.8	61.4	24.9	3.8	0.5
87.5°	219.0	217.3	206.1	188.3	162.4	129.4	90.1	49.7	17.5	1.8	0.8
90°	204.6	200.8	190.9	172.1	146.2	113.5	76.7	39.8	11.7	1.0	1.0
92.5°	190.4	187.1	176.1	156.9	131.7	99.7	63.7	30.5	7.4	0.5	1.3
95°	175.6	172.1	161.4	143.7	117.0	85.8	52.3	22.3	4.1	0.5	1.3
97.5°	161.2	157.9	146.7	128.9	103.8	73.6	41.4	15.7	2.0	0.5	1.0
100°	147.7	143.9	133.8	116.0	90.6	61.4	32.0	10.2	1.3	0.5	1.0
102.5°	133.5	130.5	120.1	102.8	76.9	50.0	23.9	6.3	0.5	0.5	0.8
105°	120.8	117.0	106.9	89.1	65.5	39.3	16.8	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°	78.7	75.6	66.8	51.8	33.2	15.5	4.6	0.8	0.8	0.8	0.8
115°	65.7	61.2	53.3	40.1	24.6	10.2	2.3	0.8	0.8	0.8	0.8
117.5°	52.5	48.7	43.1	30.5	16.2	6.6	1.3	0.8	0.8	0.8	0.8
120°	41.1	37.6	31.2	21.1	10.9	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.4	26.7	21.1	13.7	6.6	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.5	18.0	14.0	8.4	4.1	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.7	11.4	8.1	4.8	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.1	6.3	4.8	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.1	3.8	2.5	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°	199.2	199.2	199.2
2.5°	189.6	186.0	185.0
5°	179.4	173.6	170.3
7.5°	169.3	161.4	157.6
10°	159.9	148.7	144.7
12.5°	148.7	135.8	129.4
15°	138.1	121.3	115.2
17.5°	126.1	107.4	100.3
20°	115.0	93.4	86.0
22.5°	102.3	79.7	71.6
25°	90.9	66.0	56.9
27.5°	78.2	52.0	44.2
30°	66.2	39.8	32.0
32.5°	54.8	29.2	22.1
35°	44.2	19.8	14.0
37.5°	34.0	12.2	7.1
40°	24.6	6.3	3.3
42.5°	16.5	3.0	1.8
45°	10.2	1.5	0.0
47.5°	5.8	0.0	0.0
50°	3.0	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	2.5
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°	106.6	103.6	93.4	76.7	53.6	29.9	11.2	2.0	0.5	0.8	0.8
110°	92.9	90.4	80.0	63.7	43.1	22.3	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)