

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: P550797

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-93-87-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: P550797
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-35-UNV-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

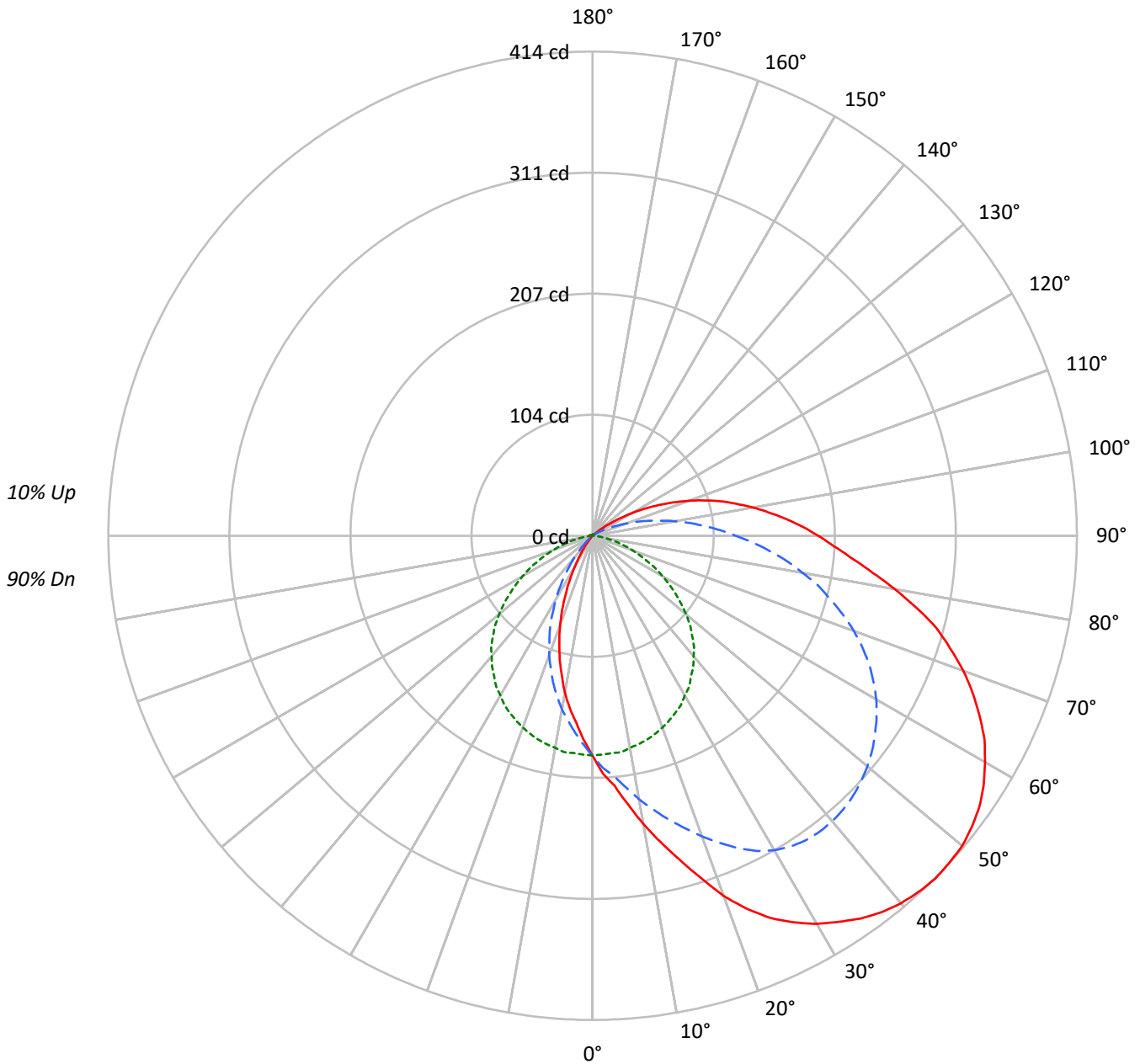
Lumens per Lamp: N/A
Luminaire Lumens: 929.0 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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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CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-87-ED1D-90

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°	2023	2023	2023
5°	2221	1993	1663
10°	2513	1969	1370
15°	2815	1944	1068
20°	3176	1912	787
25°	3474	1875	516
30°	3696	1826	291
35°	3888	1773	128
40°	4059	1708	31
45°	4205	1626	0
50°	4328	1517	0
55°	4421	1381	0
60°	4468	1219	0
65°	4487	1038	0
70°	4472	846	0
75°	4416	624	3
80°	4236	381	19
85°	4094	183	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.0	1.9
10°-20°	53.9	5.8
20°-30°	87.3	9.4
30°-40°	112.1	12.1
40°-50°	126.9	13.7
50°-60°	131.5	14.2
60°-70°	124.0	13.3
70°-80°	103.9	11.2
80°-90°	75.3	8.1
90°-100°	49.5	5.3
100°-110°	28.6	3.1
110°-120°	12.6	1.4
120°-130°	3.4	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	159.2	17.1
0°-40°	271.3	29.2
0°-60°	529.7	57.0
0°-90°	832.9	89.7
90°-120°	90.7	9.8
90°-150°	95.4	10.3
90°-180°	96.0	10.3
0°-180°	929.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	188	188	188	188	188	
5°	214	206	186	169	161	22
15°	286	251	180	130	109	83
25°	361	295	167	86	54	167
35°	400	318	147	42	13	251
45°	414	315	120	10	0	320
55°	404	295	87	0	0	361
65°	365	261	52	0	0	361
75°	304	211	22	0	0	319
85°	223	153	4	1	1	190
90°	193	122	1	1	2	106
95°	166	96	0	2	2	130
105°	114	49	0	1	2	120
115°	62	16	1	1	1	62
125°	18	2	1	1	1	18
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°	187.9	187.9	187.9	187.9	187.9	187.9	187.9	187.9	187.9	187.9	187.9
2.5°	203.7	203.5	202.8	201.6	199.9	197.0	194.6	192.5	189.6	187.2	182.6
5°	214.5	213.3	212.3	211.1	207.3	204.7	200.4	195.6	191.0	186.5	177.4
7.5°	231.7	229.8	228.4	225.0	219.8	213.8	207.1	202.5	199.4	186.7	171.2
10°	250.2	248.5	245.6	239.6	233.2	224.5	215.0	204.2	194.6	184.1	165.7
12.5°	268.3	266.0	261.9	254.2	245.1	234.4	221.2	208.5	194.9	182.4	159.2
15°	286.5	283.9	279.6	270.3	258.3	244.2	228.1	212.1	196.1	180.3	152.5
17.5°	306.4	302.8	296.4	285.8	270.7	253.3	234.4	215.0	195.6	177.6	145.3
20°	327.7	322.7	315.7	301.6	283.9	263.3	240.6	217.8	195.3	174.5	137.2
22.5°	345.4	340.4	332.7	318.1	296.8	271.7	245.8	219.8	194.4	170.9	129.5
25°	360.7	356.7	348.3	331.5	309.0	280.6	250.9	221.2	192.9	167.1	121.4
27.5°	372.7	368.9	359.6	342.3	319.3	288.5	254.7	221.9	191.0	163.3	113.0
30°	383.2	379.4	368.2	350.5	326.3	294.7	258.5	222.1	188.6	157.5	103.9
32.5°	391.4	387.8	376.3	357.4	331.1	299.0	260.7	221.9	185.5	153.4	94.1
35°	399.5	395.9	382.5	362.4	334.7	300.9	262.4	220.7	181.7	146.7	84.7
37.5°	405.8	401.7	388.0	365.8	336.3	301.4	262.1	219.0	177.6	141.2	75.4
40°	410.1	405.8	391.1	367.7	336.8	300.7	260.2	216.2	172.8	134.3	65.6
42.5°	412.9	408.1	392.6	370.6	335.9	298.7	257.3	212.6	167.6	128.3	56.3
45°	414.4	409.3	392.8	368.2	334.2	295.2	253.0	208.0	161.8	120.2	46.9
47.5°	413.7	408.1	391.6	365.5	331.1	291.3	248.2	202.5	154.9	113.0	38.1
50°	412.5	406.7	389.0	362.2	326.8	286.5	243.0	195.8	147.7	104.1	30.2
52.5°	408.6	402.9	386.1	357.4	321.7	281.0	235.8	188.9	140.0	95.5	23.0
55°	403.8	398.6	381.1	353.1	315.3	274.3	229.1	181.5	132.6	86.7	16.5
57.5°	396.4	391.6	374.9	346.1	308.8	266.9	221.7	173.3	123.3	77.8	11.5
60°	387.3	382.5	366.3	338.2	301.4	258.5	213.5	164.9	114.9	68.9	7.2
62.5°	377.7	373.2	356.2	328.4	292.0	249.7	204.7	156.6	106.0	60.8	4.3
65°	365.1	360.7	345.4	316.7	281.8	240.1	194.9	146.5	96.9	51.7	2.4
67.5°	351.7	347.8	332.3	305.9	269.8	229.6	184.8	136.7	87.4	43.8	1.2
70°	337.3	332.5	318.1	291.3	257.6	217.6	173.8	126.6	78.3	36.1	0.0
72.5°	320.5	316.9	303.1	277.7	243.5	204.9	162.5	115.6	68.2	28.7	0.2
75°	304.3	299.7	287.0	263.1	229.6	191.5	150.1	105.3	58.4	22.0	0.2
77.5°	283.2	281.8	269.8	246.6	216.4	178.6	136.4	92.9	49.1	15.8	0.2
80°	262.1	260.7	251.4	230.0	201.1	163.3	123.8	81.2	40.0	10.5	0.2
82.5°	241.3	239.4	230.5	212.8	185.5	150.3	110.6	69.4	31.6	6.5	0.2
85°	222.6	220.2	210.7	194.4	169.5	135.7	96.9	57.9	23.5	3.6	0.5
87.5°	206.6	204.9	194.4	177.6	153.2	122.1	85.0	46.9	16.5	1.7	0.7
90°	192.9	189.4	180.0	162.3	137.9	107.0	72.3	37.6	11.0	1.0	1.0
92.5°	179.5	176.4	166.1	147.9	124.2	94.1	60.1	28.7	6.9	0.5	1.2
95°	165.7	162.3	152.2	135.5	110.4	80.9	49.3	21.1	3.8	0.5	1.2
97.5°	152.0	148.9	138.4	121.6	97.9	69.4	39.0	14.8	1.9	0.5	1.0
100°	139.3	135.7	126.2	109.4	85.5	57.9	30.2	9.6	1.2	0.5	1.0
102.5°	125.9	123.0	113.2	96.9	72.5	47.2	22.5	6.0	0.5	0.5	0.7
105°	113.9	110.4	100.8	84.0	61.8	37.1	15.8	3.6	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	74.2	71.3	63.0	48.8	31.4	14.6	4.3	0.7	0.7	0.7	0.7
115°	62.0	57.7	50.3	37.8	23.2	9.6	2.2	0.7	0.7	0.7	0.7
117.5°	49.6	46.0	40.7	28.7	15.3	6.2	1.2	0.7	0.7	0.7	0.7
120°	38.8	35.4	29.4	19.9	10.3	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	27.8	25.1	19.9	12.9	6.2	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.4	17.0	13.2	7.9	3.8	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.0	10.8	7.7	4.5	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.7	6.0	4.5	2.6	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.8	3.6	2.4	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	187.9	187.9	187.9
2.5°	178.8	175.5	174.5
5°	169.2	163.7	160.6
7.5°	159.7	152.2	148.7
10°	150.8	140.3	136.4
12.5°	140.3	128.1	122.1
15°	130.2	114.4	108.7
17.5°	119.0	101.3	94.6
20°	108.4	88.1	81.2
22.5°	96.5	75.2	67.5
25°	85.7	62.2	53.6
27.5°	73.7	49.1	41.7
30°	62.5	37.6	30.2
32.5°	51.7	27.5	20.8
35°	41.7	18.7	13.2
37.5°	32.1	11.5	6.7
40°	23.2	6.0	3.1
42.5°	15.6	2.9	1.7
45°	9.6	1.4	0.0
47.5°	5.5	0.0	0.0
50°	2.9	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.4
87.5°	1.2	1.4	1.7
90°	1.4	1.7	1.7
92.5°	1.4	1.9	1.9
95°	1.7	1.9	2.2
97.5°	1.9	2.2	2.2
100°	1.7	2.2	2.4
102.5°	1.4	2.2	2.2
105°	1.2	1.7	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	1.0	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	100.5	97.7	88.1	72.3	50.5	28.2	10.5	1.9	0.5	0.7	0.7
110°	87.6	85.2	75.4	60.1	40.7	21.1	6.9	1.2	0.7	0.7	0.7





107.5°	1.0	1.4	1.7
110°	1.0	1.2	1.4



(END OF REPORT)