

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: P550731

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-93-86-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: P550731
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-30-UNV-93-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

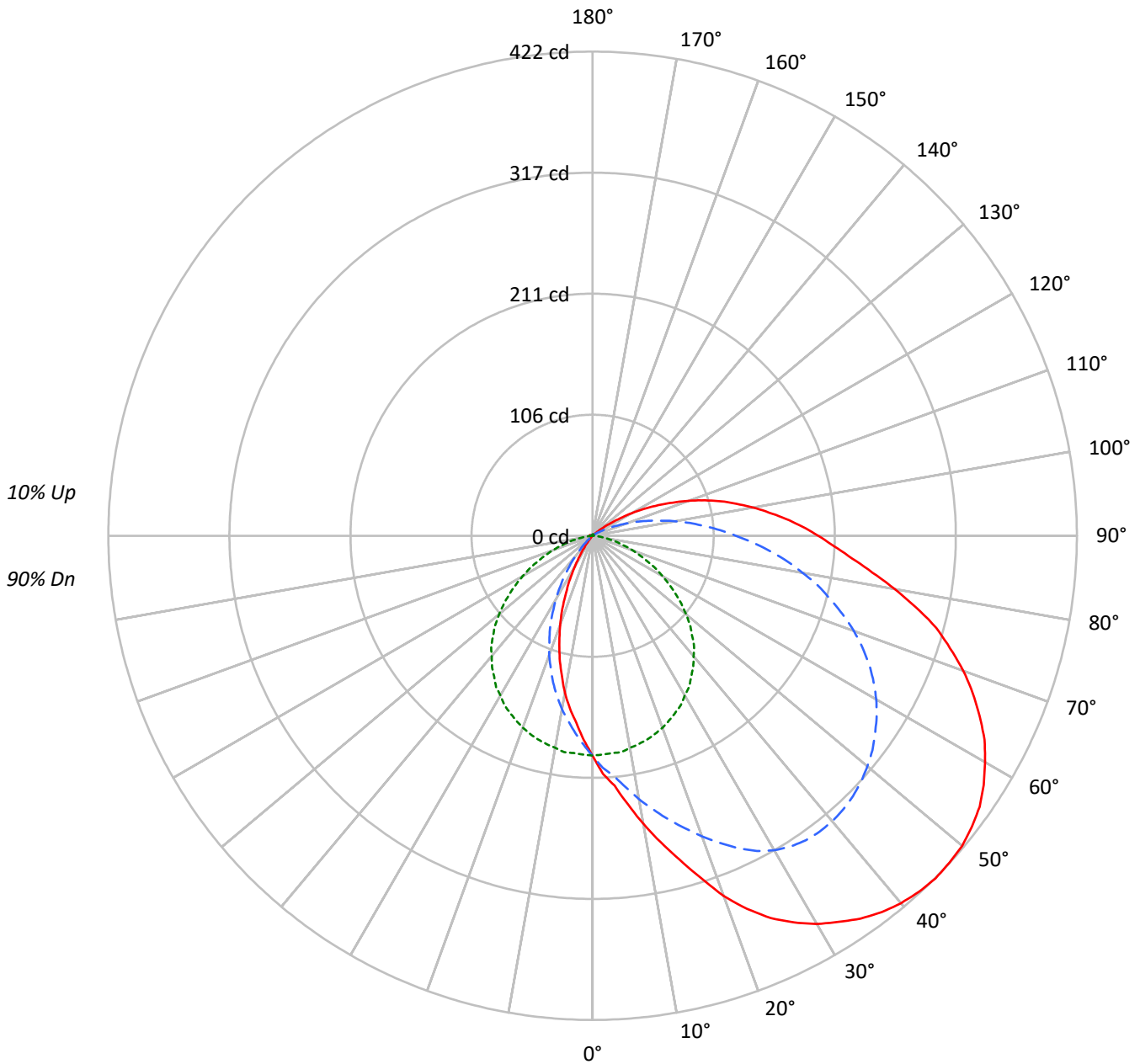
Lumens per Lamp: N/A
Luminaire Lumens: 947.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550731

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-93-86-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°	2062	2062	2062
5°	2263	2032	1695
10°	2561	2007	1397
15°	2870	1981	1089
20°	3238	1949	801
25°	3541	1911	527
30°	3768	1862	296
35°	3964	1808	130
40°	4138	1741	32
45°	4287	1658	0
50°	4411	1546	0
55°	4507	1406	0
60°	4555	1244	0
65°	4573	1059	0
70°	4558	862	0
75°	4500	635	3
80°	4318	388	19
85°	4173	188	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.3	1.9
10°-20°	54.9	5.8
20°-30°	89.0	9.4
30°-40°	114.3	12.1
40°-50°	129.4	13.7
50°-60°	134.0	14.2
60°-70°	126.4	13.3
70°-80°	105.9	11.2
80°-90°	76.8	8.1
90°-100°	50.5	5.3
100°-110°	29.1	3.1
110°-120°	12.9	1.4
120°-130°	3.5	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°	162.3	17.1
0°-40°	276.5	29.2
0°-60°	539.9	57.0
0°-90°	849.0	89.7
90°-120°	92.5	9.8
90°-150°	97.3	10.3
90°-180°	98.0	10.3
0°-180°	947.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	192	192	192	192	192	
5°	219	210	190	172	164	22
15°	292	256	184	133	111	84
25°	368	300	170	87	55	170
35°	407	324	150	42	13	255
45°	422	321	122	10	0	326
55°	412	300	88	0	0	368
65°	372	266	53	0	0	368
75°	310	215	22	0	0	325
85°	227	156	4	1	2	194
90°	197	125	1	2	2	108
95°	169	98	0	2	2	132
105°	116	50	0	1	2	123
115°	63	17	1	1	1	63
125°	19	2	1	1	1	19
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°	191.6	191.6	191.6	191.6	191.6	191.6	191.6	191.6	191.6	191.6	191.6
2.5°	207.7	207.4	206.7	205.5	203.8	200.8	198.4	196.2	193.3	190.8	186.2
5°	218.6	217.4	216.4	215.2	211.3	208.6	204.2	199.4	194.7	190.1	180.8
7.5°	236.2	234.3	232.8	229.4	224.0	217.9	211.1	206.4	203.3	190.3	174.5
10°	255.0	253.3	250.4	244.3	237.7	228.9	219.1	208.1	198.4	187.7	168.9
12.5°	273.5	271.1	267.0	259.1	249.9	238.9	225.5	212.5	198.6	185.9	162.3
15°	292.1	289.4	285.0	275.5	263.3	248.9	232.6	216.2	199.9	183.7	155.4
17.5°	312.3	308.7	302.1	291.4	276.0	258.2	238.9	219.1	199.4	181.1	148.1
20°	334.1	328.9	321.9	307.5	289.4	268.4	245.2	222.1	199.1	177.9	139.8
22.5°	352.1	347.0	339.2	324.3	302.6	277.0	250.6	224.0	198.1	174.2	132.0
25°	367.7	363.6	355.0	338.0	315.0	286.0	255.7	225.5	196.7	170.3	123.7
27.5°	379.9	376.0	366.5	348.9	325.5	294.0	259.6	226.2	194.7	166.4	115.2
30°	390.7	386.8	375.3	357.2	332.6	300.4	263.5	226.5	192.3	160.6	105.9
32.5°	399.0	395.3	383.6	364.3	337.5	304.8	265.7	226.2	189.1	156.4	95.9
35°	407.3	403.6	389.9	369.4	341.1	306.7	267.4	225.0	185.2	149.6	86.4
37.5°	413.6	409.5	395.6	372.9	342.8	307.2	267.2	223.3	181.1	144.0	76.9
40°	418.0	413.6	398.7	374.8	343.3	306.5	265.2	220.3	176.2	136.9	66.9
42.5°	420.9	416.1	400.2	377.7	342.4	304.5	262.3	216.7	170.8	130.8	57.3
45°	422.4	417.3	400.4	375.3	340.7	300.9	257.9	212.1	165.0	122.5	47.8
47.5°	421.7	416.1	399.2	372.6	337.5	297.0	253.0	206.4	157.9	115.2	38.8
50°	420.4	414.6	396.5	369.2	333.1	292.1	247.7	199.6	150.6	106.1	30.7
52.5°	416.5	410.7	393.6	364.3	328.0	286.5	240.4	192.5	142.8	97.4	23.4
55°	411.7	406.3	388.5	359.9	321.4	279.6	233.5	185.0	135.2	88.3	16.8
57.5°	404.1	399.2	382.1	352.9	314.8	272.1	226.0	176.7	125.7	79.3	11.7
60°	394.8	389.9	373.3	344.8	307.2	263.5	217.7	168.1	117.1	70.3	7.3
62.5°	385.1	380.4	363.1	334.8	297.7	254.5	208.6	159.6	108.1	62.0	4.4
65°	372.1	367.7	352.1	322.8	287.2	244.8	198.6	149.3	98.8	52.7	2.4
67.5°	358.5	354.6	338.7	311.9	275.0	234.0	188.4	139.3	89.1	44.7	1.2
70°	343.8	338.9	324.3	297.0	262.6	221.8	177.2	129.1	79.8	36.8	0.0
72.5°	326.7	323.1	308.9	283.1	248.2	208.9	165.7	117.9	69.5	29.3	0.2
75°	310.1	305.5	292.6	268.2	234.0	195.2	153.0	107.4	59.5	22.4	0.2
77.5°	288.7	287.2	275.0	251.3	220.6	182.0	139.1	94.7	50.0	16.1	0.2
80°	267.2	265.7	256.2	234.5	205.0	166.4	126.2	82.7	40.8	10.7	0.2
82.5°	246.0	244.0	235.0	216.9	189.1	153.2	112.7	70.8	32.2	6.6	0.2
85°	226.9	224.5	214.7	198.1	172.8	138.4	98.8	59.1	23.9	3.7	0.5
87.5°	210.6	208.9	198.1	181.1	156.2	124.4	86.6	47.8	16.8	1.7	0.7
90°	196.7	193.0	183.5	165.4	140.6	109.1	73.7	38.3	11.2	1.0	1.0
92.5°	183.0	179.8	169.3	150.8	126.6	95.9	61.2	29.3	7.1	0.5	1.2
95°	168.9	165.4	155.2	138.1	112.5	82.5	50.3	21.5	3.9	0.5	1.2
97.5°	155.0	151.8	141.0	124.0	99.8	70.8	39.8	15.1	2.0	0.5	1.0
100°	142.0	138.4	128.6	111.5	87.1	59.1	30.7	9.8	1.2	0.5	1.0
102.5°	128.4	125.4	115.4	98.8	73.9	48.1	22.9	6.1	0.5	0.5	0.7
105°	116.2	112.5	102.7	85.7	63.0	37.8	16.1	3.7	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°	75.6	72.7	64.2	49.8	32.0	14.9	4.4	0.7	0.7	0.7	0.7
115°	63.2	58.8	51.2	38.6	23.7	9.8	2.2	0.7	0.7	0.7	0.7
117.5°	50.5	46.9	41.5	29.3	15.6	6.3	1.2	0.7	0.7	0.7	0.7
120°	39.5	36.1	30.0	20.3	10.5	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.3	25.6	20.3	13.2	6.3	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.8	17.3	13.4	8.1	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.2	11.0	7.8	4.6	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.8	6.1	4.6	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.7	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°	191.6	191.6	191.6
2.5°	182.3	178.9	177.9
5°	172.5	166.9	163.7
7.5°	162.8	155.2	151.5
10°	153.7	143.0	139.1
12.5°	143.0	130.6	124.4
15°	132.7	116.6	110.8
17.5°	121.3	103.2	96.4
20°	110.5	89.8	82.7
22.5°	98.3	76.6	68.8
25°	87.4	63.4	54.7
27.5°	75.2	50.0	42.5
30°	63.7	38.3	30.7
32.5°	52.7	28.1	21.2
35°	42.5	19.0	13.4
37.5°	32.7	11.7	6.8
40°	23.7	6.1	3.2
42.5°	15.9	2.9	1.7
45°	9.8	1.5	0.0
47.5°	5.6	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	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	2.0	2.0
95°	1.7	2.0	2.2
97.5°	2.0	2.2	2.2
100°	1.7	2.2	2.4
102.5°	1.5	2.2	2.2
105°	1.2	1.7	2.0



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-93-86-ED1D-90

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°	102.5	99.6	89.8	73.7	51.5	28.8	10.7	2.0	0.5	0.7	0.7
110°	89.3	86.9	76.9	61.2	41.5	21.5	7.1	1.2	0.7	0.7	0.7





107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)