

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: P550701

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-87-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: P550701
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-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

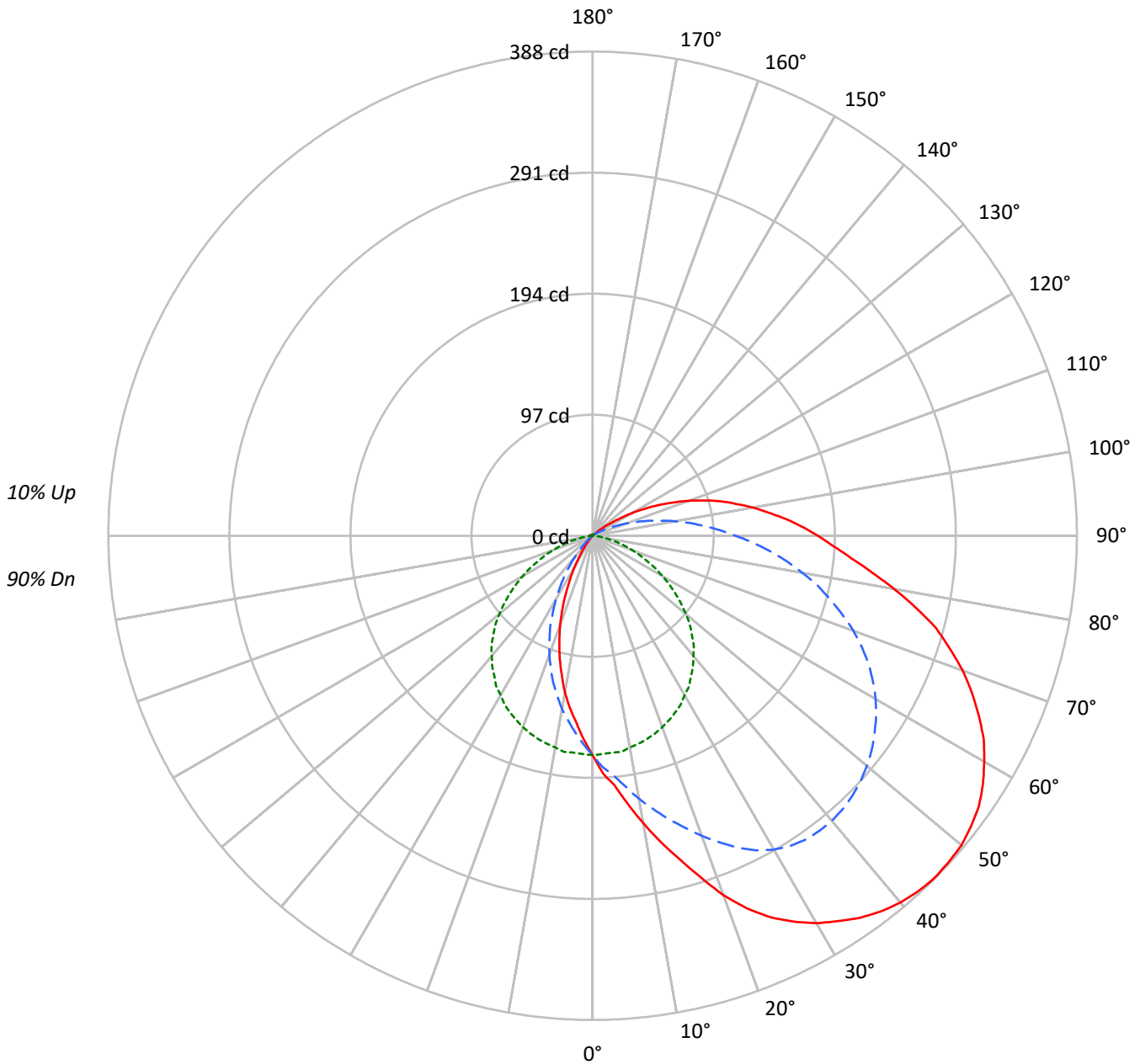
Lumens per Lamp: N/A
Luminaire Lumens: 869.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-30-UNV-81-87-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°	1892	1892	1892
5°	2077	1864	1556
10°	2350	1842	1282
15°	2634	1818	999
20°	2970	1788	736
25°	3250	1754	483
30°	3458	1708	272
35°	3637	1659	120
40°	3797	1597	29
45°	3933	1521	0
50°	4048	1420	0
55°	4136	1291	0
60°	4180	1141	0
65°	4197	972	0
70°	4183	792	0
75°	4130	584	3
80°	3963	359	18
85°	3829	173	24



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.8	1.9
10°-20°	50.4	5.8
20°-30°	81.6	9.4
30°-40°	104.9	12.1
40°-50°	118.7	13.7
50°-60°	123.0	14.2
60°-70°	116.0	13.3
70°-80°	97.2	11.2
80°-90°	70.5	8.1
90°-100°	46.3	5.3
100°-110°	26.7	3.1
110°-120°	11.8	1.4
120°-130°	3.2	0.4
130°-140°	0.7	0.1
140°-150°	0.5	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	148.9	17.1
0°-40°	253.8	29.2
0°-60°	495.5	57.0
0°-90°	779.1	89.7
90°-120°	84.9	9.8
90°-150°	89.3	10.3
90°-180°	90.0	10.4
0°-180°	869.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	176	176	176	176	176	
5°	201	193	174	158	150	20
15°	268	235	169	122	102	77
25°	337	276	156	80	50	156
35°	374	297	137	39	12	234
45°	388	294	112	9	0	299
55°	378	276	81	0	0	337
65°	342	244	48	0	0	338
75°	285	197	21	0	0	298
85°	208	143	3	1	1	178
90°	180	115	1	1	2	99
95°	155	89	0	2	2	122
105°	107	46	0	1	2	112
115°	58	15	1	1	1	58
125°	17	2	1	1	1	17
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°	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8	175.8
2.5°	190.6	190.3	189.7	188.5	187.0	184.3	182.0	180.0	177.3	175.1	170.9
5°	200.6	199.5	198.6	197.5	193.9	191.5	187.4	182.9	178.7	174.4	165.9
7.5°	216.8	215.0	213.6	210.5	205.6	200.0	193.7	189.4	186.5	174.7	160.1
10°	234.0	232.4	229.7	224.1	218.1	210.0	201.1	191.0	182.0	172.2	155.0
12.5°	251.0	248.8	245.0	237.8	229.3	219.2	206.9	195.0	182.3	170.6	148.9
15°	268.0	265.6	261.5	252.8	241.6	228.4	213.4	198.4	183.4	168.6	142.6
17.5°	286.6	283.3	277.2	267.4	253.3	236.9	219.2	201.1	182.9	166.1	135.9
20°	306.5	301.8	295.4	282.1	265.6	246.3	225.0	203.8	182.7	163.2	128.3
22.5°	323.1	318.4	311.2	297.6	277.7	254.2	230.0	205.6	181.8	159.9	121.1
25°	337.4	333.6	325.8	310.1	289.1	262.4	234.7	206.9	180.5	156.3	113.5
27.5°	348.6	345.1	336.3	320.2	298.7	269.8	238.3	207.6	178.7	152.7	105.7
30°	358.5	354.9	344.4	327.8	305.2	275.6	241.8	207.8	176.4	147.3	97.2
32.5°	366.1	362.8	352.0	334.3	309.7	279.7	243.8	207.6	173.5	143.5	88.0
35°	373.7	370.4	357.8	339.0	313.0	281.5	245.4	206.5	170.0	137.3	79.3
37.5°	379.5	375.7	363.0	342.2	314.6	281.9	245.2	204.9	166.1	132.1	70.5
40°	383.6	379.5	365.9	343.9	315.1	281.2	243.4	202.2	161.7	125.6	61.4
42.5°	386.3	381.8	367.2	346.6	314.2	279.5	240.7	198.8	156.7	120.0	52.6
45°	387.6	382.9	367.5	344.4	312.6	276.1	236.7	194.6	151.4	112.4	43.9
47.5°	386.9	381.8	366.3	341.9	309.7	272.5	232.2	189.4	144.9	105.7	35.6
50°	385.8	380.4	363.9	338.8	305.7	268.0	227.3	183.2	138.2	97.4	28.2
52.5°	382.2	376.9	361.2	334.3	300.9	262.9	220.6	176.7	131.0	89.3	21.5
55°	377.8	372.8	356.5	330.3	294.9	256.6	214.3	169.7	124.1	81.1	15.5
57.5°	370.8	366.3	350.7	323.8	288.9	249.7	207.4	162.1	115.3	72.8	10.7
60°	362.3	357.8	342.6	316.4	281.9	241.8	199.7	154.3	107.5	64.5	6.7
62.5°	353.3	349.1	333.2	307.2	273.2	233.5	191.5	146.4	99.2	56.9	4.0
65°	341.5	337.4	323.1	296.2	263.6	224.6	182.3	137.0	90.7	48.4	2.2
67.5°	328.9	325.4	310.8	286.2	252.4	214.7	172.9	127.9	81.7	41.0	1.1
70°	315.5	311.0	297.6	272.5	240.9	203.5	162.6	118.5	73.2	33.8	0.0
72.5°	299.8	296.5	283.5	259.7	227.7	191.7	152.0	108.2	63.8	26.9	0.2
75°	284.6	280.3	268.5	246.1	214.7	179.1	140.4	98.5	54.6	20.6	0.2
77.5°	264.9	263.6	252.4	230.6	202.4	167.0	127.6	86.9	45.9	14.8	0.2
80°	245.2	243.8	235.1	215.2	188.1	152.7	115.8	75.9	37.4	9.9	0.2
82.5°	225.7	223.9	215.6	199.1	173.5	140.6	103.5	64.9	29.6	6.0	0.2
85°	208.2	206.0	197.1	181.8	158.5	127.0	90.7	54.2	21.9	3.4	0.4
87.5°	193.2	191.7	181.8	166.1	143.3	114.2	79.5	43.9	15.5	1.6	0.7
90°	180.5	177.1	168.4	151.8	129.0	100.1	67.6	35.2	10.3	0.9	0.9
92.5°	167.9	165.0	155.4	138.4	116.2	88.0	56.2	26.9	6.5	0.4	1.1
95°	155.0	151.8	142.4	126.7	103.2	75.7	46.1	19.7	3.6	0.4	1.1
97.5°	142.2	139.3	129.4	113.8	91.6	64.9	36.5	13.9	1.8	0.4	0.9
100°	130.3	127.0	118.0	102.3	79.9	54.2	28.2	9.0	1.1	0.4	0.9
102.5°	117.8	115.1	105.9	90.7	67.8	44.1	21.0	5.6	0.4	0.4	0.7
105°	106.6	103.2	94.3	78.6	57.8	34.7	14.8	3.4	0.4	0.4	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	69.4	66.7	58.9	45.7	29.3	13.7	4.0	0.7	0.7	0.7	0.7
115°	58.0	54.0	47.0	35.4	21.7	9.0	2.0	0.7	0.7	0.7	0.7
117.5°	46.4	43.0	38.1	26.9	14.3	5.8	1.1	0.7	0.7	0.7	0.7
120°	36.3	33.1	27.5	18.6	9.6	3.4	0.4	0.7	0.7	0.7	0.7
122.5°	26.0	23.5	18.6	12.1	5.8	1.6	0.7	0.7	0.9	0.9	0.7
125°	17.2	15.9	12.3	7.4	3.6	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.2	10.1	7.2	4.3	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.3	5.6	4.3	2.5	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.6	3.4	2.2	0.4	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9
137.5°	0.2	0.2	0.4	0.4	0.7	0.7	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.4	0.7	0.7	0.7	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.4	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.4	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
160°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.4	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.4	0.4	0.4	0.7	0.7	0.7	0.9	1.1	1.1	1.1	1.1
172.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	0.9
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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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	175.8	175.8	175.8
2.5°	167.3	164.1	163.2
5°	158.3	153.2	150.3
7.5°	149.4	142.4	139.1
10°	141.1	131.2	127.6
12.5°	131.2	119.8	114.2
15°	121.8	107.0	101.7
17.5°	111.3	94.7	88.4
20°	101.4	82.4	75.9
22.5°	90.2	70.3	63.1
25°	80.2	58.2	50.2
27.5°	69.0	45.9	39.0
30°	58.4	35.2	28.2
32.5°	48.4	25.8	19.5
35°	39.0	17.5	12.3
37.5°	30.0	10.7	6.3
40°	21.7	5.6	2.9
42.5°	14.6	2.7	1.6
45°	9.0	1.3	0.0
47.5°	5.2	0.0	0.0
50°	2.7	0.0	0.0
52.5°	1.1	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	0.4	0.7
80°	0.4	0.9	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.3
87.5°	1.1	1.3	1.6
90°	1.3	1.6	1.6
92.5°	1.3	1.8	1.8
95°	1.6	1.8	2.0
97.5°	1.8	2.0	2.0
100°	1.6	2.0	2.2
102.5°	1.3	2.0	2.0
105°	1.1	1.6	1.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.1	1.1
115°	0.7	0.9	1.1
117.5°	0.7	0.9	0.9
120°	0.7	0.7	0.9
122.5°	0.7	0.7	0.9
125°	0.7	0.7	0.9
127.5°	0.9	0.7	0.7
130°	0.7	0.7	0.7
132.5°	0.9	0.7	0.7
135°	0.9	0.7	0.7
137.5°	0.9	0.7	0.7
140°	0.9	0.7	0.7
142.5°	0.9	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.4
152.5°	0.7	0.4	0.4
155°	0.7	0.4	0.2
157.5°	0.9	0.4	0.2
160°	0.7	0.4	0.2
162.5°	0.7	0.4	0.2
165°	0.7	0.4	0.0
167.5°	0.7	0.4	0.2
170°	0.7	0.4	0.2
172.5°	0.7	0.4	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°	94.0	91.4	82.4	67.6	47.2	26.4	9.9	1.8	0.4	0.7	0.7
110°	82.0	79.7	70.5	56.2	38.1	19.7	6.5	1.1	0.7	0.7	0.7





107.5°	0.9	1.3	1.6
110°	0.9	1.1	1.3



(END OF REPORT)