

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: P550710

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D**

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: P550710
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-81-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

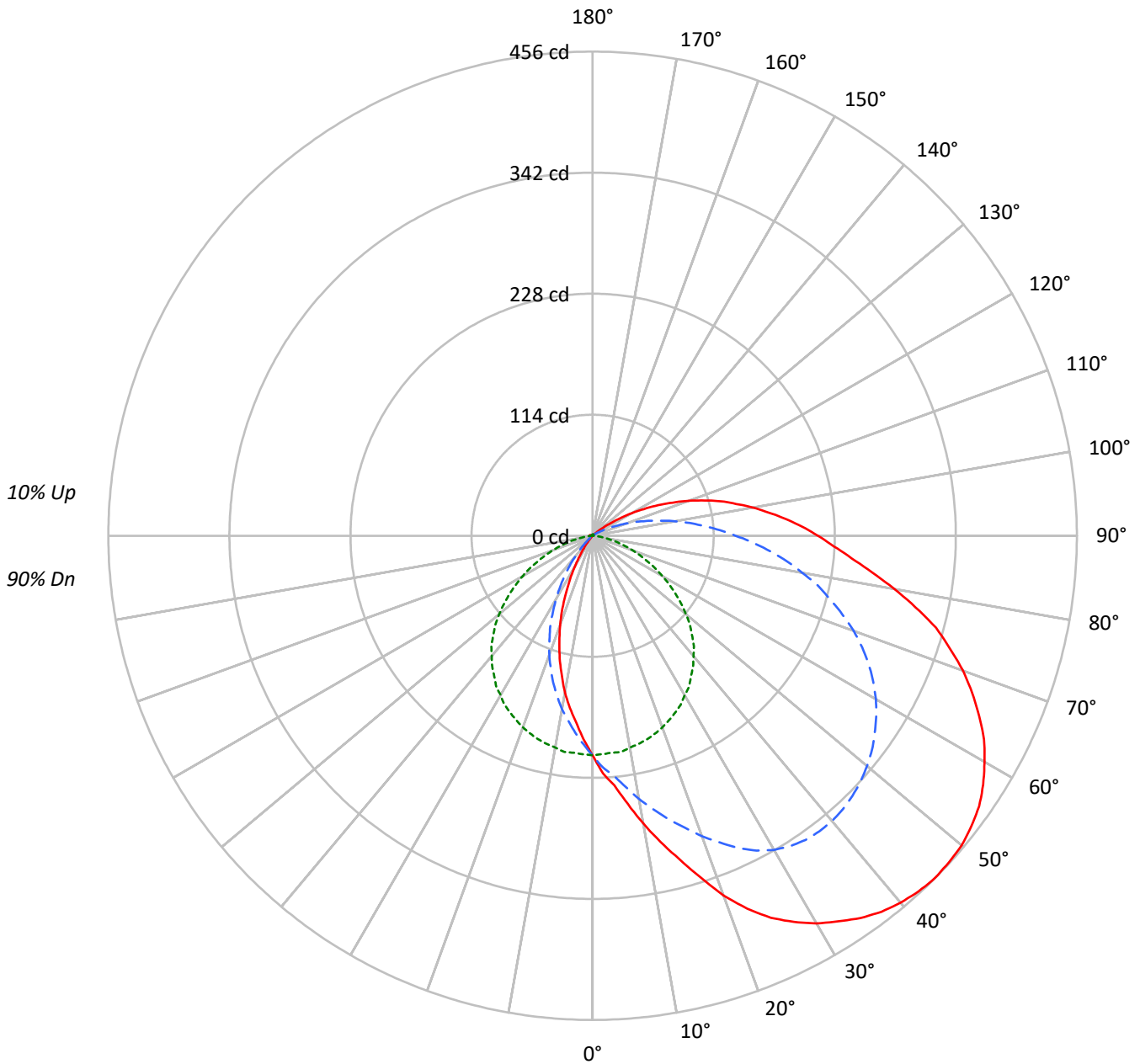
Lumens per Lamp: N/A
Luminaire Lumens: 1022.1 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	2225	2225	2225
5°	2443	2192	1829
10°	2764	2166	1508
15°	3097	2138	1175
20°	3494	2104	865
25°	3823	2063	568
30°	4066	2009	320
35°	4278	1950	141
40°	4465	1878	34
45°	4627	1789	0
50°	4761	1670	0
55°	4864	1518	0
60°	4916	1341	0
65°	4936	1143	0
70°	4920	932	0
75°	4857	686	4
80°	4661	421	21
85°	4504	203	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.8	1.9
10°-20°	59.3	5.8
20°-30°	96.0	9.4
30°-40°	123.3	12.1
40°-50°	139.6	13.7
50°-60°	144.6	14.2
60°-70°	136.4	13.3
70°-80°	114.3	11.2
80°-90°	82.9	8.1
90°-100°	54.5	5.3
100°-110°	31.5	3.1
110°-120°	13.9	1.4
120°-130°	3.8	0.4
130°-140°	0.9	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°	175.1	17.1
0°-40°	298.4	29.2
0°-60°	582.7	57.0
0°-90°	916.3	89.7
90°-120°	99.8	9.8
90°-150°	105.0	10.3
90°-180°	106.0	10.4
0°-180°	1022.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	207	207	207	207	207	
5°	236	227	205	186	177	24
15°	315	276	198	143	120	91
25°	397	324	184	94	59	183
35°	440	350	161	46	14	276
45°	456	346	132	10	0	352
55°	444	324	95	0	0	397
65°	402	287	57	0	0	397
75°	335	232	24	0	0	351
85°	245	168	4	1	2	209
90°	212	135	1	2	2	116
95°	182	105	0	2	2	143
105°	125	54	0	1	2	132
115°	68	18	1	1	1	68
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°	206.7	206.7	206.7	206.7	206.7	206.7	206.7	206.7	206.7	206.7	206.7
2.5°	224.1	223.8	223.1	221.7	219.9	216.7	214.1	211.7	208.6	205.9	200.9
5°	236.0	234.6	233.6	232.3	228.1	225.2	220.4	215.2	210.1	205.1	195.1
7.5°	254.9	252.8	251.2	247.5	241.8	235.2	227.8	222.8	219.4	205.4	188.3
10°	275.2	273.4	270.2	263.6	256.5	247.0	236.5	224.6	214.1	202.5	182.2
12.5°	295.2	292.6	288.1	279.7	269.7	257.8	243.3	229.4	214.4	200.7	175.1
15°	315.2	312.3	307.6	297.3	284.1	268.6	251.0	233.3	215.7	198.3	167.8
17.5°	337.1	333.1	326.0	314.4	297.8	278.6	257.8	236.5	215.2	195.4	159.9
20°	360.5	355.0	347.4	331.8	312.3	289.7	264.7	239.6	214.9	192.0	150.9
22.5°	380.0	374.5	366.0	350.0	326.5	298.9	270.5	241.8	213.8	188.0	142.5
25°	396.9	392.4	383.2	364.7	340.0	308.6	276.0	243.3	212.3	183.8	133.5
27.5°	410.0	405.8	395.5	376.6	351.3	317.3	280.2	244.1	210.1	179.6	124.3
30°	421.6	417.4	405.0	385.5	358.9	324.2	284.4	244.4	207.5	173.3	114.3
32.5°	430.6	426.6	414.0	393.2	364.2	328.9	286.8	244.1	204.1	168.8	103.5
35°	439.5	435.6	420.8	398.7	368.2	331.0	288.6	242.8	199.9	161.4	93.2
37.5°	446.4	441.9	426.9	402.4	370.0	331.6	288.4	241.0	195.4	155.4	83.0
40°	451.1	446.4	430.3	404.5	370.5	330.8	286.3	237.8	190.1	147.7	72.2
42.5°	454.3	449.0	431.9	407.7	369.5	328.7	283.1	233.9	184.3	141.2	61.9
45°	455.9	450.3	432.1	405.0	367.6	324.7	278.4	228.8	178.0	132.2	51.6
47.5°	455.1	449.0	430.8	402.1	364.2	320.5	273.1	222.8	170.4	124.3	41.9
50°	453.7	447.4	427.9	398.4	359.5	315.2	267.3	215.4	162.5	114.6	33.2
52.5°	449.5	443.2	424.8	393.2	353.9	309.2	259.4	207.8	154.1	105.1	25.3
55°	444.3	438.5	419.2	388.4	346.8	301.8	252.0	199.6	145.9	95.3	18.2
57.5°	436.1	430.8	412.4	380.8	339.7	293.6	243.9	190.7	135.6	85.6	12.6
60°	426.1	420.8	402.9	372.1	331.6	284.4	234.9	181.4	126.4	75.8	7.9
62.5°	415.6	410.6	391.9	361.3	321.3	274.7	225.2	172.2	116.7	66.9	4.7
65°	401.6	396.9	380.0	348.4	310.0	264.1	214.4	161.2	106.7	56.9	2.6
67.5°	386.9	382.6	365.5	336.6	296.8	252.5	203.3	150.4	96.1	48.2	1.3
70°	371.1	365.8	350.0	320.5	283.4	239.4	191.2	139.3	86.1	39.8	0.0
72.5°	352.6	348.7	333.4	305.5	267.8	225.4	178.8	127.2	75.1	31.6	0.3
75°	334.7	329.7	315.8	289.4	252.5	210.7	165.1	115.9	64.3	24.2	0.3
77.5°	311.5	310.0	296.8	271.2	238.1	196.5	150.1	102.2	54.0	17.4	0.3
80°	288.4	286.8	276.5	253.1	221.2	179.6	136.1	89.3	44.0	11.6	0.3
82.5°	265.5	263.3	253.6	234.1	204.1	165.4	121.7	76.4	34.8	7.1	0.3
85°	244.9	242.3	231.7	213.8	186.4	149.3	106.7	63.7	25.8	4.0	0.5
87.5°	227.3	225.4	213.8	195.4	168.5	134.3	93.5	51.6	18.2	1.8	0.8
90°	212.3	208.3	198.0	178.5	151.7	117.7	79.5	41.3	12.1	1.1	1.1
92.5°	197.5	194.1	182.8	162.7	136.7	103.5	66.1	31.6	7.6	0.5	1.3
95°	182.2	178.5	167.5	149.1	121.4	89.0	54.2	23.2	4.2	0.5	1.3
97.5°	167.2	163.8	152.2	133.8	107.7	76.4	42.9	16.3	2.1	0.5	1.1
100°	153.3	149.3	138.8	120.3	94.0	63.7	33.2	10.5	1.3	0.5	1.1
102.5°	138.5	135.4	124.6	106.7	79.8	51.9	24.8	6.6	0.5	0.5	0.8
105°	125.4	121.4	110.9	92.4	67.9	40.8	17.4	4.0	0.5	0.5	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	81.6	78.5	69.3	53.7	34.5	16.1	4.7	0.8	0.8	0.8	0.8
115°	68.2	63.5	55.3	41.6	25.5	10.5	2.4	0.8	0.8	0.8	0.8
117.5°	54.5	50.6	44.8	31.6	16.9	6.8	1.3	0.8	0.8	0.8	0.8
120°	42.7	39.0	32.4	21.9	11.3	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	30.5	27.7	21.9	14.2	6.8	1.8	0.8	0.8	1.1	1.1	0.8
125°	20.3	18.7	14.5	8.7	4.2	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.2	11.9	8.4	5.0	1.8	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.4	6.6	5.0	2.9	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.2	4.0	2.6	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.3	1.3	1.3	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.1
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°	206.7	206.7	206.7
2.5°	196.7	193.0	192.0
5°	186.2	180.1	176.7
7.5°	175.7	167.5	163.5
10°	165.9	154.3	150.1
12.5°	154.3	140.9	134.3
15°	143.3	125.9	119.6
17.5°	130.9	111.4	104.0
20°	119.3	96.9	89.3
22.5°	106.1	82.7	74.3
25°	94.3	68.5	59.0
27.5°	81.1	54.0	45.8
30°	68.7	41.3	33.2
32.5°	56.9	30.3	22.9
35°	45.8	20.5	14.5
37.5°	35.3	12.6	7.4
40°	25.5	6.6	3.4
42.5°	17.1	3.2	1.8
45°	10.5	1.6	0.0
47.5°	6.1	0.0	0.0
50°	3.2	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	1.1	1.3
82.5°	1.1	1.3	1.3
85°	1.1	1.3	1.6
87.5°	1.3	1.6	1.8
90°	1.6	1.8	1.8
92.5°	1.6	2.1	2.1
95°	1.8	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.8	2.4	2.6
102.5°	1.6	2.4	2.4
105°	1.3	1.8	2.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.3	1.3
115°	0.8	1.1	1.3
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	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°	1.1	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°	110.6	107.4	96.9	79.5	55.6	31.1	11.6	2.1	0.5	0.8	0.8
110°	96.4	93.8	83.0	66.1	44.8	23.2	7.6	1.3	0.8	0.8	0.8





107.5°	1.1	1.6	1.8
110°	1.1	1.3	1.6



(END OF REPORT)