

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: P550928

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-88-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: P550928
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-50-UNV-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

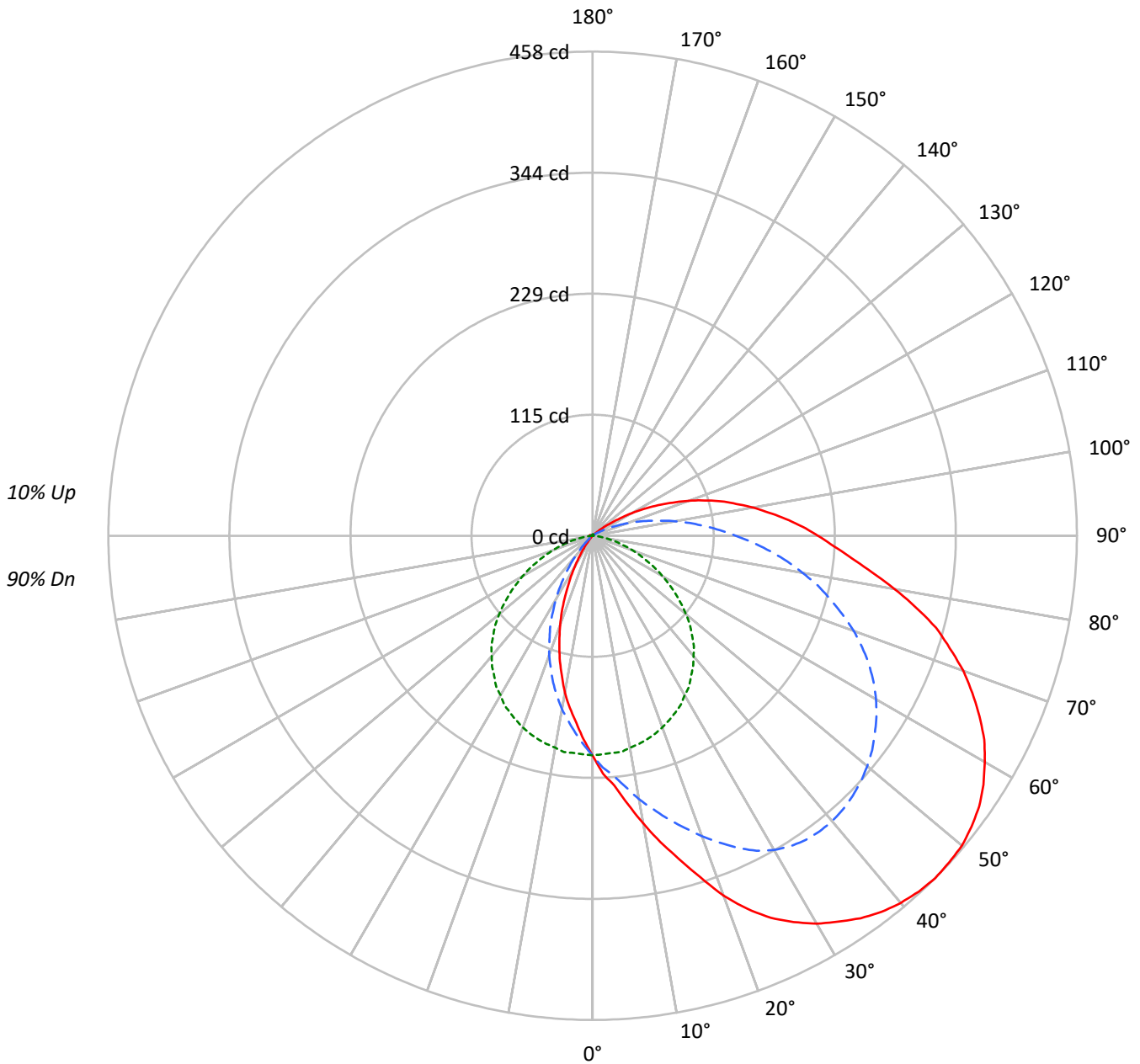
Lumens per Lamp: N/A
Luminaire Lumens: 1027.1 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2236	2236	2236
5°	2455	2203	1839
10°	2777	2176	1515
15°	3113	2149	1180
20°	3511	2113	869
25°	3841	2073	571
30°	4087	2018	321
35°	4299	1960	142
40°	4487	1889	34
45°	4649	1797	0
50°	4785	1678	0
55°	4887	1525	0
60°	4940	1348	0
65°	4961	1149	0
70°	4944	937	0
75°	4880	689	4
80°	4683	421	21
85°	4526	203	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.9	1.9
10°-20°	59.6	5.8
20°-30°	96.5	9.4
30°-40°	123.9	12.1
40°-50°	140.3	13.7
50°-60°	145.4	14.2
60°-70°	137.1	13.3
70°-80°	114.9	11.2
80°-90°	83.3	8.1
90°-100°	54.7	5.3
100°-110°	31.6	3.1
110°-120°	14.0	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°	176.0	17.1
0°-40°	299.9	29.2
0°-60°	585.6	57.0
0°-90°	920.8	89.7
90°-120°	100.3	9.8
90°-150°	105.5	10.3
90°-180°	106.0	10.3
0°-180°	1027.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	208	208	208	208	208	
5°	237	228	206	187	178	24
15°	317	278	199	144	120	91
25°	399	326	185	95	59	184
35°	442	351	162	46	15	277
45°	458	348	133	11	0	354
55°	446	326	96	0	0	399
65°	404	288	57	0	0	399
75°	336	233	24	0	0	353
85°	246	169	4	1	2	210
90°	213	135	1	2	2	117
95°	183	106	0	2	2	144
105°	126	55	0	1	2	133
115°	68	18	1	1	1	69
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°	207.7	207.7	207.7	207.7	207.7	207.7	207.7	207.7	207.7	207.7	207.7
2.5°	225.2	224.9	224.1	222.8	221.0	217.8	215.1	212.8	209.6	206.9	201.9
5°	237.1	235.8	234.7	233.4	229.2	226.3	221.5	216.2	211.2	206.1	196.1
7.5°	256.2	254.0	252.5	248.8	242.9	236.3	228.9	223.9	220.4	206.4	189.2
10°	276.5	274.7	271.5	264.9	257.8	248.2	237.6	225.7	215.1	203.5	183.1
12.5°	296.7	294.0	289.5	281.0	271.0	259.1	244.5	230.5	215.4	201.7	176.0
15°	316.8	313.9	309.1	298.8	285.5	269.9	252.2	234.5	216.7	199.3	168.6
17.5°	338.7	334.8	327.6	316.0	299.3	280.0	259.1	237.6	216.2	196.4	160.6
20°	362.3	356.7	349.1	333.4	313.9	291.1	266.0	240.8	215.9	192.9	151.6
22.5°	381.9	376.3	367.8	351.7	328.1	300.4	271.8	242.9	214.9	188.9	143.2
25°	398.8	394.3	385.0	366.5	341.6	310.2	277.3	244.5	213.3	184.7	134.2
27.5°	412.0	407.8	397.5	378.4	353.0	318.9	281.6	245.3	211.2	180.5	124.9
30°	423.7	419.4	407.0	387.4	360.7	325.8	285.8	245.6	208.5	174.1	114.9
32.5°	432.7	428.7	416.0	395.1	366.0	330.5	288.2	245.3	205.1	169.6	104.0
35°	441.7	437.7	422.9	400.7	370.0	332.6	290.0	244.0	200.9	162.2	93.7
37.5°	448.6	444.1	429.0	404.4	371.8	333.2	289.8	242.1	196.4	156.1	83.4
40°	453.3	448.6	432.4	406.5	372.3	332.4	287.7	239.0	191.1	148.5	72.5
42.5°	456.5	451.2	434.0	409.7	371.3	330.3	284.5	235.0	185.2	141.8	62.2
45°	458.1	452.5	434.3	407.0	369.4	326.3	279.7	230.0	178.9	132.8	51.9
47.5°	457.3	451.2	432.9	404.1	366.0	322.1	274.4	223.9	171.2	124.9	42.1
50°	456.0	449.6	430.0	400.4	361.2	316.8	268.6	216.5	163.3	115.1	33.3
52.5°	451.7	445.4	426.9	395.1	355.7	310.7	260.7	208.8	154.8	105.6	25.4
55°	446.4	440.6	421.3	390.3	348.5	303.3	253.3	200.6	146.6	95.8	18.3
57.5°	438.2	432.9	414.4	382.7	341.4	295.1	245.1	191.6	136.3	86.0	12.7
60°	428.2	422.9	404.9	373.9	333.2	285.8	236.1	182.3	127.0	76.2	7.9
62.5°	417.6	412.6	393.8	363.1	322.9	276.0	226.3	173.1	117.2	67.2	4.8
65°	403.6	398.8	381.9	350.1	311.5	265.4	215.4	162.0	107.2	57.2	2.6
67.5°	388.7	384.5	367.3	338.2	298.2	253.8	204.3	151.1	96.6	48.4	1.3
70°	372.9	367.6	351.7	322.1	284.7	240.6	192.1	140.0	86.5	40.0	0.0
72.5°	354.3	350.4	335.0	307.0	269.1	226.5	179.7	127.8	75.4	31.8	0.3
75°	336.3	331.3	317.3	290.8	253.8	211.7	165.9	116.4	64.6	24.3	0.3
77.5°	313.1	311.5	298.2	272.6	239.2	197.4	150.8	102.7	54.2	17.5	0.3
80°	289.8	288.2	277.9	254.3	222.3	180.5	136.8	89.7	44.2	11.6	0.3
82.5°	266.8	264.6	254.8	235.3	205.1	166.2	122.3	76.7	34.9	7.1	0.3
85°	246.1	243.5	232.9	214.9	187.4	150.0	107.2	64.0	25.9	4.0	0.5
87.5°	228.4	226.5	214.9	196.4	169.4	135.0	93.9	51.9	18.3	1.9	0.8
90°	213.3	209.3	199.0	179.4	152.4	118.3	79.9	41.5	12.2	1.1	1.1
92.5°	198.5	195.0	183.7	163.5	137.3	104.0	66.4	31.8	7.7	0.5	1.3
95°	183.1	179.4	168.3	149.8	122.0	89.4	54.5	23.3	4.2	0.5	1.3
97.5°	168.0	164.6	153.0	134.4	108.2	76.7	43.1	16.4	2.1	0.5	1.1
100°	154.0	150.0	139.5	120.9	94.5	64.0	33.3	10.6	1.3	0.5	1.1
102.5°	139.2	136.0	125.2	107.2	80.2	52.1	24.9	6.6	0.5	0.5	0.8
105°	126.0	122.0	111.4	92.9	68.3	41.0	17.5	4.0	0.5	0.5	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	82.0	78.9	69.6	54.0	34.7	16.1	4.8	0.8	0.8	0.8	0.8
115°	68.5	63.8	55.6	41.8	25.7	10.6	2.4	0.8	0.8	0.8	0.8
117.5°	54.8	50.8	45.0	31.8	16.9	6.9	1.3	0.8	0.8	0.8	0.8
120°	42.9	39.2	32.5	22.0	11.4	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	30.7	27.8	22.0	14.3	6.9	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.4	18.8	14.6	8.7	4.2	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.2	11.9	8.5	5.0	1.9	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°	207.7	207.7	207.7
2.5°	197.7	194.0	192.9
5°	187.1	181.0	177.6
7.5°	176.5	168.3	164.3
10°	166.7	155.1	150.8
12.5°	155.1	141.6	135.0
15°	144.0	126.5	120.1
17.5°	131.5	111.9	104.5
20°	119.9	97.4	89.7
22.5°	106.6	83.1	74.6
25°	94.7	68.8	59.3
27.5°	81.5	54.2	46.0
30°	69.1	41.5	33.3
32.5°	57.2	30.4	23.0
35°	46.0	20.6	14.6
37.5°	35.5	12.7	7.4
40°	25.7	6.6	3.4
42.5°	17.2	3.2	1.9
45°	10.6	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	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.1	2.1
95°	1.9	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.9	2.4	2.6
102.5°	1.6	2.4	2.4
105°	1.3	1.9	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°	111.1	108.0	97.4	79.9	55.8	31.2	11.6	2.1	0.5	0.8	0.8
110°	96.9	94.2	83.4	66.4	45.0	23.3	7.7	1.3	0.8	0.8	0.8





107.5°	1.1	1.6	1.9
110°	1.1	1.3	1.6



(END OF REPORT)