

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: P550727

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-93-84-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: P550727
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-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

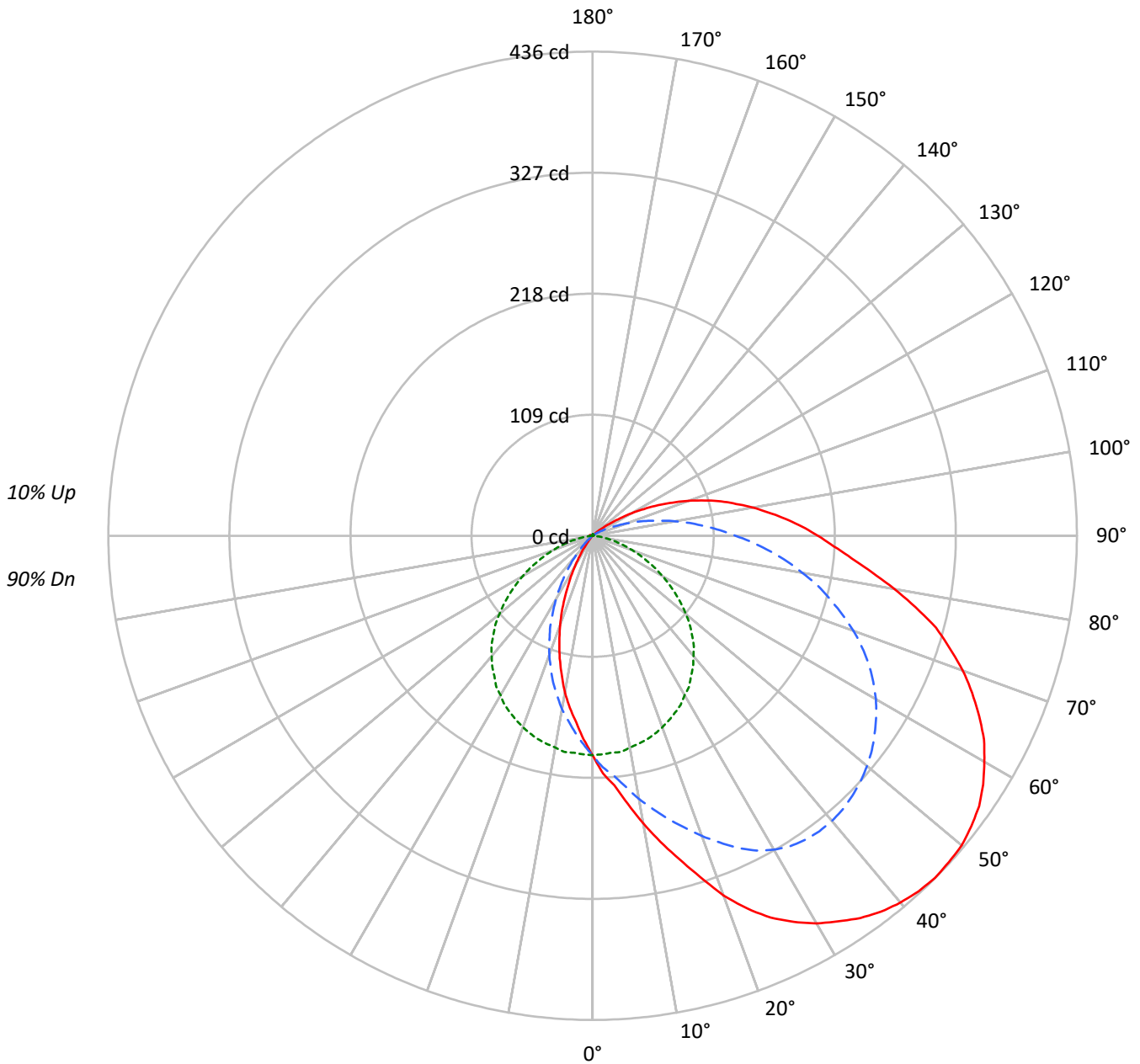
Lumens per Lamp: N/A
Luminaire Lumens: 977.1 lumens
Efficiency: N/A
Efficacy: 83.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2127	2127	2127
5°	2335	2096	1748
10°	2643	2070	1441
15°	2961	2044	1123
20°	3340	2010	827
25°	3654	1972	543
30°	3888	1921	306
35°	4090	1864	134
40°	4268	1796	33
45°	4423	1710	0
50°	4552	1596	0
55°	4650	1451	0
60°	4699	1283	0
65°	4718	1093	0
70°	4703	890	0
75°	4643	658	4
80°	4456	403	21
85°	4306	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.9	1.9
10°-20°	56.7	5.8
20°-30°	91.8	9.4
30°-40°	117.9	12.1
40°-50°	133.5	13.7
50°-60°	138.3	14.2
60°-70°	130.4	13.3
70°-80°	109.3	11.2
80°-90°	79.2	8.1
90°-100°	52.1	5.3
100°-110°	30.1	3.1
110°-120°	13.3	1.4
120°-130°	3.6	0.4
130°-140°	0.8	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°	167.4	17.1
0°-40°	285.3	29.2
0°-60°	557.1	57.0
0°-90°	876.0	89.6
90°-120°	95.4	9.8
90°-150°	100.4	10.3
90°-180°	101.0	10.3
0°-180°	977.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	198	198	198	198	198	
5°	226	217	196	178	169	23
15°	301	264	190	137	114	87
25°	379	310	176	90	56	175
35°	420	334	154	44	14	264
45°	436	331	126	10	0	336
55°	425	310	91	0	0	379
65°	384	274	54	0	0	380
75°	320	221	23	0	0	336
85°	234	160	4	1	2	200
90°	203	129	1	2	2	111
95°	174	101	0	2	2	137
105°	120	52	0	1	2	126
115°	65	17	1	1	1	65
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°	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6
2.5°	214.2	214.0	213.2	212.0	210.2	207.2	204.7	202.4	199.4	196.9	192.1
5°	225.6	224.3	223.3	222.0	218.0	215.2	210.7	205.7	200.9	196.1	186.5
7.5°	243.7	241.7	240.2	236.6	231.1	224.8	217.8	213.0	209.7	196.4	180.0
10°	263.1	261.3	258.3	252.0	245.2	236.1	226.1	214.7	204.7	193.6	174.2
12.5°	282.2	279.7	275.4	267.4	257.8	246.5	232.6	219.3	204.9	191.8	167.4
15°	301.3	298.6	294.0	284.2	271.6	256.8	239.9	223.1	206.2	189.6	160.4
17.5°	322.2	318.5	311.7	300.6	284.7	266.4	246.5	226.1	205.7	186.8	152.8
20°	344.6	339.4	332.1	317.2	298.6	276.9	253.0	229.1	205.4	183.5	144.3
22.5°	363.3	358.0	349.9	334.6	312.2	285.7	258.5	231.1	204.4	179.7	136.2
25°	379.4	375.1	366.3	348.7	325.0	295.1	263.8	232.6	202.9	175.7	127.6
27.5°	392.0	387.9	378.1	360.0	335.8	303.4	267.9	233.4	200.9	171.7	118.8
30°	403.1	399.0	387.2	368.6	343.1	309.9	271.9	233.6	198.4	165.7	109.3
32.5°	411.6	407.8	395.8	375.9	348.2	314.4	274.2	233.4	195.1	161.4	98.9
35°	420.2	416.4	402.3	381.1	351.9	316.4	275.9	232.1	191.1	154.3	89.1
37.5°	426.7	422.4	408.1	384.7	353.7	317.0	275.7	230.4	186.8	148.5	79.3
40°	431.2	426.7	411.4	386.7	354.2	316.2	273.7	227.3	181.8	141.2	69.0
42.5°	434.3	429.2	412.9	389.7	353.2	314.2	270.6	223.6	176.2	134.9	59.2
45°	435.8	430.5	413.1	387.2	351.4	310.4	266.1	218.8	170.2	126.4	49.3
47.5°	435.0	429.2	411.9	384.4	348.2	306.4	261.1	213.0	162.9	118.8	40.0
50°	433.8	427.7	409.1	380.9	343.6	301.3	255.5	205.9	155.3	109.5	31.7
52.5°	429.7	423.7	406.1	375.9	338.4	295.6	248.0	198.6	147.3	100.4	24.2
55°	424.7	419.2	400.8	371.3	331.6	288.5	240.9	190.8	139.5	91.1	17.4
57.5°	416.9	411.9	394.2	364.0	324.8	280.7	233.1	182.3	129.7	81.8	12.1
60°	407.3	402.3	385.2	355.7	317.0	271.9	224.6	173.5	120.8	72.5	7.6
62.5°	397.3	392.5	374.6	345.4	307.1	262.6	215.2	164.6	111.5	63.9	4.5
65°	383.9	379.4	363.3	333.1	296.3	252.5	204.9	154.1	102.0	54.4	2.5
67.5°	369.8	365.8	349.4	321.7	283.7	241.4	194.4	143.7	91.9	46.1	1.3
70°	354.7	349.7	334.6	306.4	270.9	228.8	182.8	133.2	82.3	38.0	0.0
72.5°	337.1	333.3	318.7	292.0	256.0	215.5	170.9	121.6	71.7	30.2	0.3
75°	320.0	315.2	301.8	276.7	241.4	201.4	157.8	110.8	61.4	23.2	0.3
77.5°	297.8	296.3	283.7	259.3	227.6	187.8	143.5	97.7	51.6	16.6	0.3
80°	275.7	274.2	264.3	241.9	211.5	171.7	130.2	85.3	42.0	11.1	0.3
82.5°	253.8	251.7	242.4	223.8	195.1	158.1	116.3	73.0	33.2	6.8	0.3
85°	234.1	231.6	221.5	204.4	178.2	142.7	102.0	60.9	24.7	3.8	0.5
87.5°	217.3	215.5	204.4	186.8	161.1	128.4	89.4	49.3	17.4	1.8	0.8
90°	202.9	199.1	189.3	170.7	145.0	112.5	76.0	39.5	11.6	1.0	1.0
92.5°	188.8	185.5	174.7	155.6	130.7	98.9	63.2	30.2	7.3	0.5	1.3
95°	174.2	170.7	160.1	142.5	116.1	85.1	51.9	22.2	4.0	0.5	1.3
97.5°	159.9	156.6	145.5	127.9	103.0	73.0	41.0	15.6	2.0	0.5	1.0
100°	146.5	142.7	132.7	115.0	89.9	60.9	31.7	10.1	1.3	0.5	1.0
102.5°	132.4	129.4	119.1	102.0	76.3	49.6	23.7	6.3	0.5	0.5	0.8
105°	119.8	116.1	106.0	88.4	65.0	39.0	16.6	3.8	0.5	0.5	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	78.0	75.0	66.2	51.4	33.0	15.4	4.5	0.8	0.8	0.8	0.8
115°	65.2	60.7	52.9	39.8	24.4	10.1	2.3	0.8	0.8	0.8	0.8
117.5°	52.1	48.3	42.8	30.2	16.1	6.5	1.3	0.8	0.8	0.8	0.8
120°	40.8	37.3	31.0	20.9	10.8	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.2	26.4	20.9	13.6	6.5	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.4	17.9	13.8	8.3	4.0	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.6	11.3	8.1	4.8	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.0	6.3	4.8	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.0	3.8	2.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
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°	197.6	197.6	197.6
2.5°	188.1	184.5	183.5
5°	178.0	172.2	168.9
7.5°	167.9	160.1	156.3
10°	158.6	147.5	143.5
12.5°	147.5	134.7	128.4
15°	137.0	120.3	114.3
17.5°	125.1	106.5	99.4
20°	114.0	92.6	85.3
22.5°	101.5	79.0	71.0
25°	90.1	65.5	56.4
27.5°	77.5	51.6	43.8
30°	65.7	39.5	31.7
32.5°	54.4	29.0	21.9
35°	43.8	19.6	13.8
37.5°	33.7	12.1	7.0
40°	24.4	6.3	3.3
42.5°	16.4	3.0	1.8
45°	10.1	1.5	0.0
47.5°	5.8	0.0	0.0
50°	3.0	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	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.0	2.0
95°	1.8	2.0	2.3
97.5°	2.0	2.3	2.3
100°	1.8	2.3	2.5
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	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°	1.0	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°	105.7	102.7	92.6	76.0	53.1	29.7	11.1	2.0	0.5	0.8	0.8
110°	92.1	89.6	79.3	63.2	42.8	22.2	7.3	1.3	0.8	0.8	0.8





107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)