

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: P550869

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-97-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: P550869
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-40-UNV-93-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

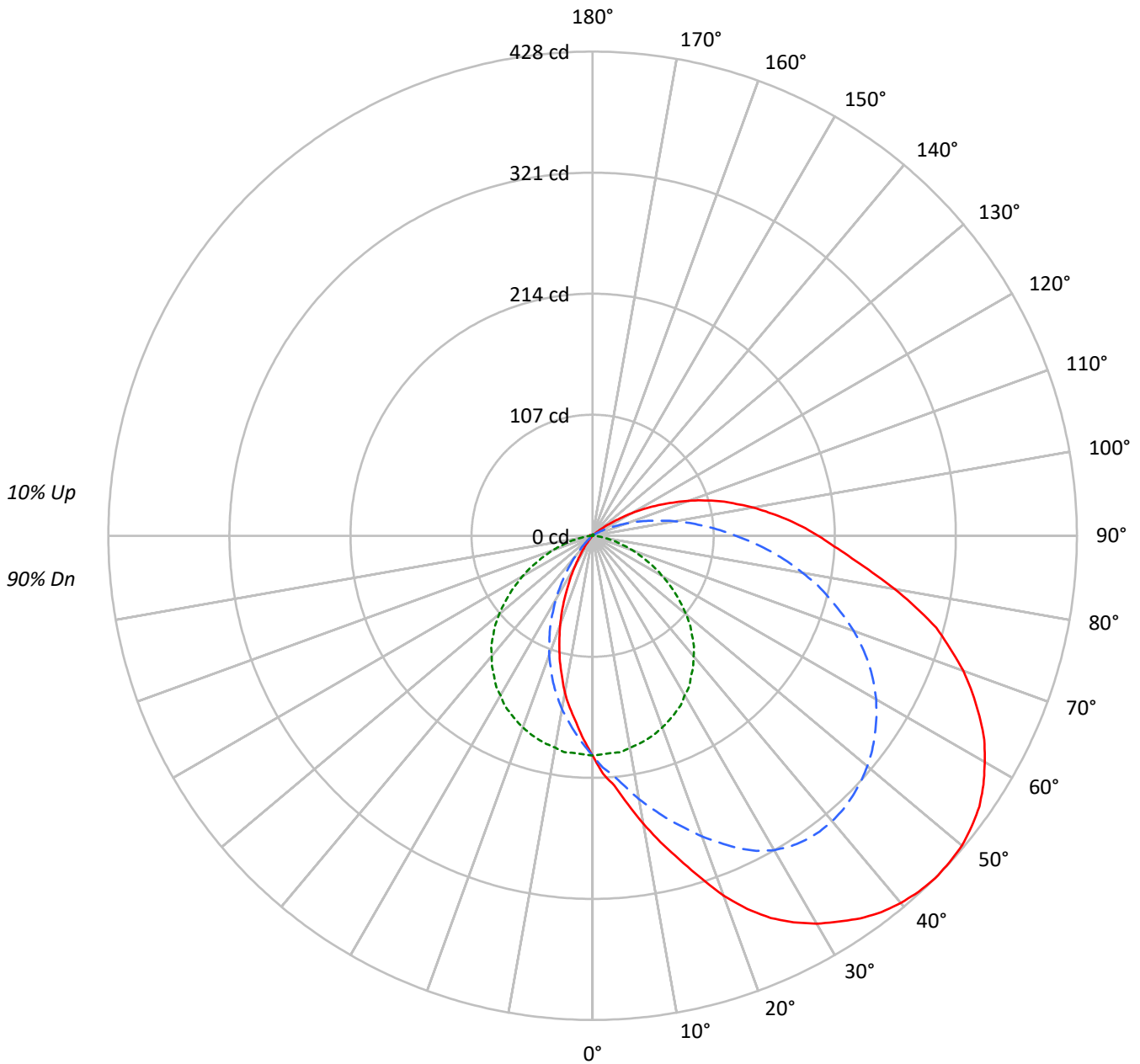
Lumens per Lamp: N/A
Luminaire Lumens: 959.9 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2090	2090	2090
5°	2294	2060	1718
10°	2596	2034	1416
15°	2910	2009	1104
20°	3281	1975	813
25°	3590	1938	534
30°	3819	1887	301
35°	4019	1832	132
40°	4194	1765	32
45°	4346	1681	0
50°	4472	1568	0
55°	4569	1425	0
60°	4617	1260	0
65°	4636	1073	0
70°	4620	876	0
75°	4562	647	3
80°	4378	395	19
85°	4232	188	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.6	1.9
10°-20°	55.7	5.8
20°-30°	90.2	9.4
30°-40°	115.9	12.1
40°-50°	131.2	13.7
50°-60°	135.9	14.2
60°-70°	128.1	13.3
70°-80°	107.4	11.2
80°-90°	77.8	8.1
90°-100°	51.2	5.3
100°-110°	29.5	3.1
110°-120°	13.0	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°	164.5	17.1
0°-40°	280.3	29.2
0°-60°	547.4	57.0
0°-90°	860.7	89.7
90°-120°	93.7	9.8
90°-150°	98.5	10.3
90°-180°	99.0	10.3
0°-180°	959.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	194	194	194	194	194	
5°	222	213	193	175	166	22
15°	296	260	186	135	112	85
25°	373	305	173	89	55	172
35°	413	328	152	43	14	259
45°	428	325	124	10	0	331
55°	417	305	90	0	0	373
65°	377	270	53	0	0	373
75°	314	218	23	0	0	330
85°	230	158	4	1	2	196
90°	199	127	1	2	2	109
95°	171	99	0	2	2	134
105°	118	51	0	1	2	124
115°	64	17	1	1	1	64
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°	194.2	194.2	194.2	194.2	194.2	194.2	194.2	194.2	194.2	194.2	194.2
2.5°	210.5	210.3	209.5	208.3	206.6	203.6	201.1	198.9	195.9	193.4	188.7
5°	221.6	220.4	219.4	218.2	214.2	211.5	207.0	202.1	197.4	192.7	183.3
7.5°	239.5	237.5	236.0	232.5	227.1	220.9	214.0	209.3	206.1	192.9	176.9
10°	258.5	256.8	253.8	247.6	240.9	232.0	222.1	211.0	201.1	190.2	171.2
12.5°	277.3	274.8	270.6	262.7	253.3	242.2	228.6	215.5	201.4	188.5	164.5
15°	296.1	293.4	288.9	279.3	266.9	252.3	235.7	219.2	202.6	186.3	157.6
17.5°	316.6	312.9	306.2	295.4	279.8	261.7	242.2	222.1	202.1	183.5	150.2
20°	338.6	333.5	326.3	311.7	293.4	272.1	248.6	225.1	201.9	180.3	141.7
22.5°	357.0	351.8	343.8	328.8	306.7	280.8	254.0	227.1	200.9	176.6	133.8
25°	372.8	368.6	359.9	342.6	319.4	289.9	259.2	228.6	199.4	172.7	125.4
27.5°	385.2	381.2	371.5	353.7	330.0	298.1	263.2	229.3	197.4	168.7	116.8
30°	396.0	392.1	380.5	362.1	337.2	304.5	267.2	229.6	194.9	162.8	107.4
32.5°	404.4	400.7	388.9	369.3	342.1	309.0	269.4	229.3	191.7	158.6	97.2
35°	412.9	409.1	395.3	374.5	345.8	310.9	271.1	228.1	187.8	151.6	87.6
37.5°	419.3	415.1	401.0	378.0	347.6	311.4	270.9	226.3	183.5	145.9	77.9
40°	423.7	419.3	404.2	380.0	348.0	310.7	268.9	223.4	178.6	138.8	67.8
42.5°	426.7	421.8	405.7	382.9	347.1	308.7	265.9	219.7	173.2	132.6	58.1
45°	428.2	423.0	405.9	380.5	345.3	305.0	261.5	215.0	167.2	124.2	48.5
47.5°	427.5	421.8	404.7	377.7	342.1	301.0	256.5	209.3	160.0	116.8	39.3
50°	426.2	420.3	402.0	374.3	337.7	296.1	251.1	202.3	152.6	107.6	31.2
52.5°	422.3	416.3	399.0	369.3	332.5	290.4	243.7	195.2	144.7	98.7	23.7
55°	417.3	411.9	393.8	364.9	325.8	283.5	236.7	187.5	137.0	89.5	17.1
57.5°	409.6	404.7	387.4	357.7	319.1	275.8	229.1	179.1	127.4	80.4	11.9
60°	400.2	395.3	378.5	349.5	311.4	267.2	220.7	170.4	118.7	71.2	7.4
62.5°	390.3	385.6	368.1	339.4	301.8	258.0	211.5	161.8	109.6	62.8	4.5
65°	377.2	372.8	357.0	327.3	291.2	248.1	201.4	151.4	100.2	53.4	2.5
67.5°	363.4	359.4	343.3	316.1	278.8	237.2	191.0	141.2	90.3	45.3	1.2
70°	348.5	343.6	328.8	301.0	266.2	224.9	179.6	130.9	80.9	37.4	0.0
72.5°	331.2	327.5	313.2	286.9	251.6	211.7	168.0	119.5	70.5	29.7	0.2
75°	314.4	309.7	296.6	271.9	237.2	197.9	155.1	108.8	60.4	22.8	0.2
77.5°	292.6	291.2	278.8	254.8	223.6	184.5	141.0	96.0	50.7	16.3	0.2
80°	270.9	269.4	259.7	237.7	207.8	168.7	127.9	83.9	41.3	10.9	0.2
82.5°	249.3	247.4	238.2	219.9	191.7	155.3	114.3	71.7	32.7	6.7	0.2
85°	230.1	227.6	217.7	200.9	175.1	140.3	100.2	59.9	24.2	3.7	0.5
87.5°	213.5	211.7	200.9	183.5	158.3	126.2	87.8	48.5	17.1	1.7	0.7
90°	199.4	195.7	186.0	167.7	142.5	110.6	74.7	38.8	11.4	1.0	1.0
92.5°	185.5	182.3	171.7	152.9	128.4	97.2	62.1	29.7	7.2	0.5	1.2
95°	171.2	167.7	157.3	140.0	114.0	83.6	51.0	21.8	4.0	0.5	1.2
97.5°	157.1	153.9	143.0	125.7	101.2	71.7	40.3	15.3	2.0	0.5	1.0
100°	144.0	140.3	130.4	113.0	88.3	59.9	31.2	9.9	1.2	0.5	1.0
102.5°	130.1	127.1	117.0	100.2	75.0	48.7	23.3	6.2	0.5	0.5	0.7
105°	117.7	114.0	104.1	86.8	63.8	38.3	16.3	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°	76.7	73.7	65.1	50.5	32.4	15.1	4.5	0.7	0.7	0.7	0.7
115°	64.1	59.6	51.9	39.1	24.0	9.9	2.2	0.7	0.7	0.7	0.7
117.5°	51.2	47.5	42.1	29.7	15.8	6.4	1.2	0.7	0.7	0.7	0.7
120°	40.1	36.6	30.4	20.5	10.6	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.7	26.0	20.5	13.4	6.4	1.7	0.7	0.7	1.0	1.0	0.7
125°	19.0	17.6	13.6	8.2	4.0	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.4	11.1	7.9	4.7	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.9	6.2	4.7	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	4.0	3.7	2.5	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°	194.2	194.2	194.2
2.5°	184.8	181.3	180.3
5°	174.9	169.2	166.0
7.5°	165.0	157.3	153.6
10°	155.8	145.0	141.0
12.5°	145.0	132.3	126.2
15°	134.6	118.2	112.3
17.5°	122.9	104.6	97.7
20°	112.1	91.0	83.9
22.5°	99.7	77.7	69.8
25°	88.6	64.3	55.4
27.5°	76.2	50.7	43.0
30°	64.6	38.8	31.2
32.5°	53.4	28.4	21.5
35°	43.0	19.3	13.6
37.5°	33.1	11.9	6.9
40°	24.0	6.2	3.2
42.5°	16.1	3.0	1.7
45°	9.9	1.5	0.0
47.5°	5.7	0.0	0.0
50°	3.0	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	2.5
102.5°	1.5	2.2	2.2
105°	1.2	1.7	2.0



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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°	103.9	100.9	91.0	74.7	52.2	29.2	10.9	2.0	0.5	0.7	0.7
110°	90.5	88.1	77.9	62.1	42.1	21.8	7.2	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)