

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: P550919

Luminaire Tested: **FCC-X-2-LD4-1LO-50-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: P550919
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-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

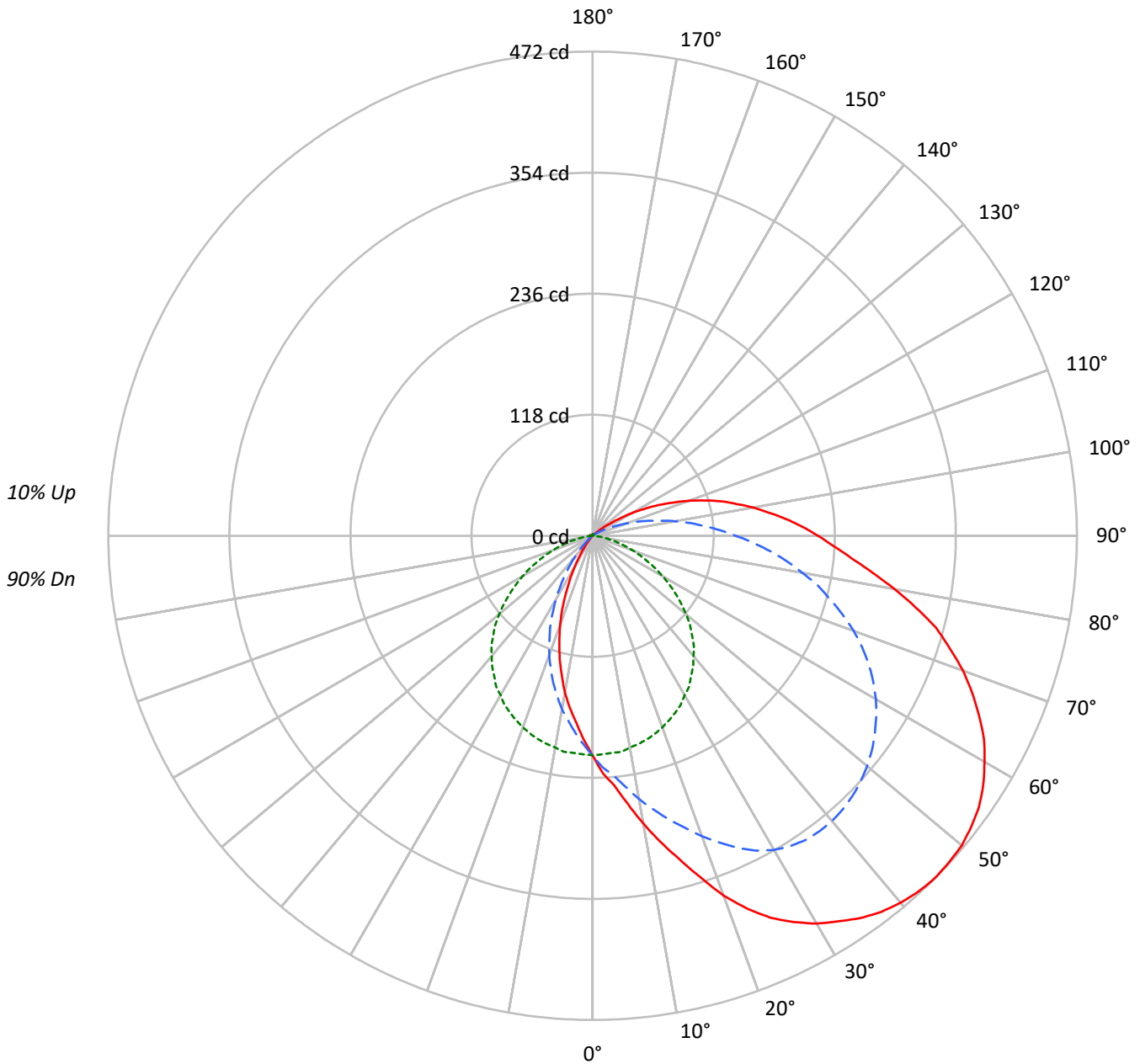
Lumens per Lamp: N/A
Luminaire Lumens: 1058.0 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2303	2303	2303
5°	2529	2270	1893
10°	2862	2242	1561
15°	3207	2214	1217
20°	3617	2177	895
25°	3956	2136	588
30°	4210	2080	332
35°	4428	2019	146
40°	4623	1944	35
45°	4789	1852	0
50°	4929	1729	0
55°	5035	1572	0
60°	5089	1389	0
65°	5109	1183	0
70°	5092	965	0
75°	5028	712	4
80°	4824	435	23
85°	4662	208	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.5	1.9
10°-20°	61.4	5.8
20°-30°	99.4	9.4
30°-40°	127.7	12.1
40°-50°	144.5	13.7
50°-60°	149.7	14.2
60°-70°	141.2	13.3
70°-80°	118.4	11.2
80°-90°	85.8	8.1
90°-100°	56.4	5.3
100°-110°	32.6	3.1
110°-120°	14.4	1.4
120°-130°	3.9	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°	181.3	17.1
0°-40°	309.0	29.2
0°-60°	603.2	57.0
0°-90°	948.6	89.7
90°-120°	103.3	9.8
90°-150°	108.7	10.3
90°-180°	109.0	10.3
0°-180°	1058.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	214	214	214	214	214	
5°	244	235	212	193	183	25
15°	326	286	205	148	124	94
25°	411	336	190	98	61	190
35°	455	362	167	47	15	285
45°	472	358	137	11	0	364
55°	460	336	99	0	0	411
65°	416	297	59	0	0	411
75°	346	240	25	0	0	363
85°	254	174	4	1	2	217
90°	220	139	1	2	2	120
95°	189	109	0	2	2	148
105°	130	56	0	1	2	137
115°	71	19	1	1	1	71
125°	21	3	1	1	1	21
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°	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0	214.0
2.5°	232.0	231.7	230.9	229.5	227.6	224.4	221.6	219.2	215.9	213.2	208.0
5°	244.3	242.9	241.8	240.5	236.1	233.1	228.2	222.7	217.6	212.4	202.0
7.5°	263.9	261.7	260.1	256.3	250.3	243.5	235.8	230.6	227.1	212.6	194.9
10°	284.9	283.0	279.7	272.9	265.5	255.7	244.8	232.5	221.6	209.6	188.7
12.5°	305.6	302.9	298.2	289.5	279.2	266.9	251.9	237.5	221.9	207.7	181.3
15°	326.3	323.3	318.4	307.8	294.2	278.1	259.8	241.5	223.3	205.3	173.7
17.5°	349.0	344.9	337.5	325.5	308.3	288.4	266.9	244.8	222.7	202.3	165.5
20°	373.2	367.5	359.6	343.5	323.3	299.9	274.0	248.1	222.5	198.7	156.2
22.5°	393.4	387.7	378.9	362.3	338.1	309.4	280.0	250.3	221.4	194.7	147.5
25°	410.8	406.2	396.7	377.6	352.0	319.5	285.7	251.9	219.7	190.3	138.2
27.5°	424.5	420.1	409.5	389.8	363.7	328.5	290.1	252.7	217.6	185.9	128.7
30°	436.5	432.1	419.3	399.1	371.6	335.6	294.4	253.0	214.8	179.4	118.3
32.5°	445.7	441.6	428.6	407.0	377.0	340.5	296.9	252.7	211.3	174.8	107.1
35°	455.0	450.9	435.6	412.7	381.1	342.7	298.8	251.4	206.9	167.1	96.5
37.5°	462.1	457.5	441.9	416.6	383.0	343.2	298.5	249.4	202.3	160.8	85.9
40°	467.0	462.1	445.5	418.7	383.6	342.4	296.3	246.2	196.8	152.9	74.7
42.5°	470.3	464.8	447.1	422.0	382.5	340.2	293.1	242.1	190.8	146.1	64.1
45°	471.9	466.2	447.4	419.3	380.6	336.1	288.2	236.9	184.3	136.9	53.4
47.5°	471.1	464.8	446.0	416.3	377.0	331.8	282.7	230.6	176.4	128.7	43.3
50°	469.7	463.2	443.0	412.5	372.1	326.3	276.7	223.0	168.2	118.6	34.4
52.5°	465.4	458.8	439.7	407.0	366.4	320.1	268.5	215.1	159.5	108.8	26.2
55°	459.9	453.9	434.0	402.1	359.0	312.4	260.9	206.6	151.0	98.7	18.8
57.5°	451.5	446.0	426.9	394.2	351.7	304.0	252.4	197.4	140.4	88.6	13.1
60°	441.1	435.6	417.1	385.2	343.2	294.4	243.2	187.8	130.9	78.5	8.2
62.5°	430.2	425.0	405.7	374.0	332.6	284.3	233.1	178.3	120.8	69.2	4.9
65°	415.7	410.8	393.4	360.7	320.9	273.4	221.9	166.8	110.4	58.9	2.7
67.5°	400.5	396.1	378.4	348.4	307.2	261.4	210.5	155.7	99.5	49.9	1.4
70°	384.1	378.7	362.3	331.8	293.3	247.8	197.9	144.2	89.1	41.2	0.0
72.5°	365.0	361.0	345.1	316.2	277.3	233.4	185.1	131.7	77.7	32.7	0.3
75°	346.5	341.3	326.9	299.6	261.4	218.1	170.9	120.0	66.5	25.1	0.3
77.5°	322.5	320.9	307.2	280.8	246.4	203.4	155.4	105.8	55.9	18.0	0.3
80°	298.5	296.9	286.3	262.0	229.0	185.9	140.9	92.4	45.5	12.0	0.3
82.5°	274.8	272.6	262.5	242.4	211.3	171.2	126.0	79.1	36.0	7.4	0.3
85°	253.5	250.8	239.9	221.4	193.0	154.6	110.4	66.0	26.7	4.1	0.5
87.5°	235.3	233.4	221.4	202.3	174.5	139.0	96.8	53.4	18.8	1.9	0.8
90°	219.7	215.6	205.0	184.8	157.0	121.9	82.3	42.8	12.5	1.1	1.1
92.5°	204.5	200.9	189.2	168.5	141.5	107.1	68.4	32.7	7.9	0.5	1.4
95°	188.7	184.8	173.4	154.3	125.7	92.1	56.2	24.0	4.4	0.5	1.4
97.5°	173.1	169.6	157.6	138.5	111.5	79.1	44.4	16.9	2.2	0.5	1.1
100°	158.7	154.6	143.7	124.6	97.3	66.0	34.4	10.9	1.4	0.5	1.1
102.5°	143.4	140.1	129.0	110.4	82.6	53.7	25.6	6.8	0.5	0.5	0.8
105°	129.8	125.7	114.8	95.7	70.3	42.3	18.0	4.1	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°	84.5	81.2	71.7	55.6	35.7	16.6	4.9	0.8	0.8	0.8	0.8
115°	70.6	65.7	57.3	43.1	26.4	10.9	2.5	0.8	0.8	0.8	0.8
117.5°	56.4	52.3	46.3	32.7	17.4	7.1	1.4	0.8	0.8	0.8	0.8
120°	44.2	40.3	33.5	22.6	11.7	4.1	0.5	0.8	0.8	0.8	0.8
122.5°	31.6	28.6	22.6	14.7	7.1	1.9	0.8	0.8	1.1	1.1	0.8
125°	21.0	19.4	15.0	9.0	4.4	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.6	12.3	8.7	5.2	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.6	6.8	5.2	3.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.4	4.1	2.7	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	1.4	1.4	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
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	1.4	1.4	1.4	1.4
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	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°	214.0	214.0	214.0
2.5°	203.6	199.8	198.7
5°	192.7	186.5	182.9
7.5°	181.8	173.4	169.3
10°	171.8	159.8	155.4
12.5°	159.8	145.9	139.0
15°	148.3	130.3	123.8
17.5°	135.5	115.3	107.7
20°	123.5	100.3	92.4
22.5°	109.9	85.6	76.9
25°	97.6	70.9	61.1
27.5°	84.0	55.9	47.4
30°	71.2	42.8	34.4
32.5°	58.9	31.4	23.7
35°	47.4	21.3	15.0
37.5°	36.5	13.1	7.6
40°	26.4	6.8	3.5
42.5°	17.7	3.3	1.9
45°	10.9	1.6	0.0
47.5°	6.3	0.0	0.0
50°	3.3	0.0	0.0
52.5°	1.4	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	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.6
87.5°	1.4	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.2	2.2
95°	1.9	2.2	2.5
97.5°	2.2	2.5	2.5
100°	1.9	2.5	2.7
102.5°	1.6	2.5	2.5
105°	1.4	1.9	2.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
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°	114.5	111.2	100.3	82.3	57.5	32.2	12.0	2.2	0.5	0.8	0.8
110°	99.8	97.1	85.9	68.4	46.3	24.0	7.9	1.4	0.8	0.8	0.8





107.5°	1.1	1.6	1.9
110°	1.1	1.4	1.6



(END OF REPORT)