

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: P551301

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-82-97-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: P551301
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-LD4-2HI-35-UNV-82-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

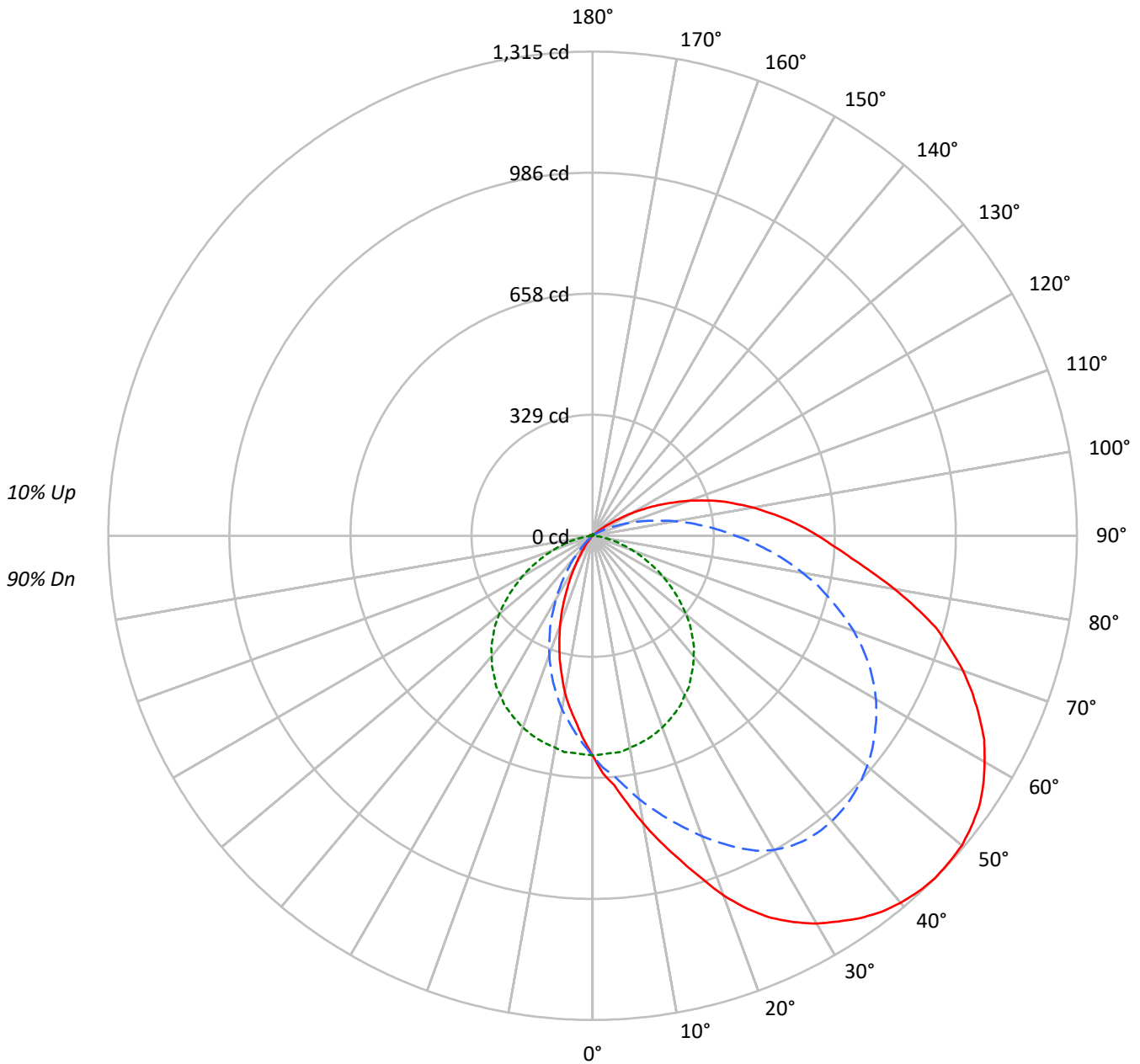
Lumens per Lamp: N/A
Luminaire Lumens: 2948.0 lumens
Efficiency: N/A
Efficacy: 68.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
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°	6419	6419	6419
5°	7046	6325	5277
10°	7973	6248	4349
15°	8936	6168	3389
20°	10078	6068	2495
25°	11026	5950	1639
30°	11730	5794	923
35°	12339	5627	407
40°	12880	5420	98
45°	13344	5159	0
50°	13733	4815	0
55°	14030	4379	0
60°	14180	3872	0
65°	14238	3296	0
70°	14190	2687	0
75°	14010	1982	12
80°	13443	1212	61
85°	12994	580	85



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	1.9
10°-20°	171.0	5.8
20°-30°	277.0	9.4
30°-40°	355.8	12.1
40°-50°	402.7	13.7
50°-60°	417.2	14.2
60°-70°	393.5	13.3
70°-80°	329.8	11.2
80°-90°	239.0	8.1
90°-100°	157.1	5.3
100°-110°	90.7	3.1
110°-120°	40.0	1.4
120°-130°	10.8	0.4
130°-140°	2.5	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	505.1	17.1
0°-40°	860.9	29.2
0°-60°	1680.9	57.0
0°-90°	2643.1	89.7
90°-120°	287.9	9.8
90°-150°	302.8	10.3
90°-180°	305.0	10.3
0°-180°	2948.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	596	596	596	596	596	
5°	681	654	592	537	510	69
15°	909	797	572	413	345	262
25°	1145	936	530	272	170	529
35°	1268	1008	466	132	42	795
45°	1315	998	381	30	0	1015
55°	1282	935	275	0	0	1144
65°	1158	828	164	0	0	1146
75°	966	668	70	1	1	1013
85°	706	484	11	3	5	603
90°	612	389	3	5	5	336
95°	526	304	2	5	7	412
105°	362	157	2	4	6	382
115°	197	52	2	2	4	197
125°	58	7	3	2	3	58
135°	3	2	4	3	2	5
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.3
2.5°	646.4	645.7	643.4	639.6	634.3	625.2	617.6	610.7	601.6	594.0	579.6
5°	680.6	676.8	673.8	670.0	657.8	649.5	635.8	620.6	606.2	591.8	562.9
7.5°	735.3	729.2	724.7	714.1	697.3	678.3	657.1	642.6	632.8	592.5	543.1
10°	793.8	788.5	779.4	760.4	739.9	712.5	682.1	648.0	617.6	584.2	525.7
12.5°	851.5	843.9	831.0	806.7	777.9	743.7	701.9	661.6	618.3	578.8	505.2
15°	909.3	900.9	887.2	857.6	819.6	774.8	723.9	673.0	622.1	572.0	483.9
17.5°	972.3	960.9	940.4	907.0	859.1	803.7	743.7	682.1	620.6	563.6	461.1
20°	1039.9	1024.0	1002.0	957.1	900.9	835.6	763.4	691.3	619.9	553.8	435.3
22.5°	1096.1	1080.2	1055.9	1009.5	941.9	862.2	780.1	697.3	616.8	542.4	411.0
25°	1144.8	1131.8	1105.3	1052.1	980.7	890.3	796.1	701.9	612.3	530.2	385.1
27.5°	1182.7	1170.6	1141.0	1086.3	1013.3	915.4	808.2	704.2	606.2	518.1	358.5
30°	1216.2	1204.0	1168.3	1112.1	1035.4	935.1	820.4	704.9	598.6	499.8	329.7
32.5°	1242.0	1230.6	1194.1	1134.1	1050.6	948.8	827.2	704.2	588.7	486.9	298.5
35°	1267.8	1256.4	1213.9	1150.1	1062.0	954.9	832.6	700.4	576.6	465.7	268.9
37.5°	1287.6	1274.7	1231.4	1160.7	1067.3	956.4	831.8	695.1	563.6	448.2	239.3
40°	1301.2	1287.6	1241.2	1166.8	1068.8	954.1	825.7	685.9	548.5	426.2	208.1
42.5°	1310.4	1295.2	1245.8	1175.9	1065.8	948.0	816.6	674.6	531.7	407.2	178.5
45°	1314.9	1299.0	1246.6	1168.3	1060.4	936.6	802.9	660.1	513.5	381.3	148.9
47.5°	1312.6	1295.2	1242.8	1160.0	1050.6	924.5	787.7	642.6	491.5	358.5	120.8
50°	1308.8	1290.6	1234.4	1149.3	1036.9	909.3	771.0	621.4	468.7	330.4	95.7
52.5°	1296.7	1278.5	1225.3	1134.1	1020.9	891.8	748.2	599.3	444.4	303.1	72.9
55°	1281.5	1264.8	1209.3	1120.5	1000.4	870.5	727.0	575.8	420.8	275.0	52.4
57.5°	1257.9	1242.8	1189.6	1098.4	979.9	847.0	703.4	550.0	391.2	246.9	36.5
60°	1229.1	1213.9	1162.2	1073.4	956.4	820.4	677.6	523.4	364.6	218.8	22.8
62.5°	1198.7	1184.3	1130.3	1042.2	926.7	792.3	649.5	496.8	336.5	192.9	13.7
65°	1158.4	1144.8	1096.1	1005.0	894.1	761.9	618.3	464.9	307.7	164.1	7.6
67.5°	1115.9	1103.7	1054.4	970.8	856.1	728.5	586.4	433.7	277.3	139.0	3.8
70°	1070.3	1055.1	1009.5	924.5	817.4	690.5	551.5	401.8	248.4	114.7	0.0
72.5°	1017.1	1005.8	961.7	881.2	772.5	650.2	515.8	366.9	216.5	91.2	0.8
75°	965.5	951.1	910.8	834.8	728.5	607.7	476.3	334.2	185.3	69.9	0.8
77.5°	898.6	894.1	856.1	782.4	686.7	566.7	433.0	294.7	155.7	50.1	0.8
80°	831.8	827.2	797.6	730.0	638.1	518.1	392.7	257.5	126.9	33.4	0.8
82.5°	765.7	759.6	731.5	675.3	588.7	477.0	350.9	220.3	100.3	20.5	0.8
85°	706.5	698.9	668.5	616.8	537.8	430.7	307.7	183.8	74.4	11.4	1.5
87.5°	655.6	650.2	616.8	563.6	486.2	387.4	269.7	148.9	52.4	5.3	2.3
90°	612.3	600.9	571.2	515.0	437.5	339.6	229.4	119.3	34.9	3.0	3.0
92.5°	569.7	559.8	527.2	469.5	394.2	298.5	190.7	91.2	22.0	1.5	3.8
95°	525.7	515.0	483.1	430.0	350.2	256.8	156.5	66.8	12.2	1.5	3.8
97.5°	482.4	472.5	439.1	385.9	310.7	220.3	123.8	47.1	6.1	1.5	3.0
100°	442.1	430.7	400.3	347.2	271.2	183.8	95.7	30.4	3.8	1.5	3.0
102.5°	399.6	390.4	359.3	307.7	230.2	149.6	71.4	19.0	1.5	1.5	2.3
105°	361.6	350.2	319.8	266.6	196.0	117.7	50.1	11.4	1.5	1.5	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	235.5	226.4	199.8	155.0	99.5	46.3	13.7	2.3	2.3	2.3	2.3
115°	196.7	183.1	159.5	120.0	73.7	30.4	6.8	2.3	2.3	2.3	2.3
117.5°	157.2	145.8	129.1	91.2	48.6	19.8	3.8	2.3	2.3	2.3	2.3
120°	123.1	112.4	93.4	63.0	32.7	11.4	1.5	2.3	2.3	2.3	2.3
122.5°	88.1	79.8	63.0	41.0	19.8	5.3	2.3	2.3	3.0	3.0	2.3
125°	58.5	53.9	41.8	25.1	12.2	2.3	2.3	2.3	3.0	3.0	2.3
127.5°	38.0	34.2	24.3	14.4	5.3	2.3	2.3	3.0	3.0	3.0	2.3
130°	21.3	19.0	14.4	8.4	2.3	2.3	2.3	3.0	3.0	3.0	2.3
132.5°	12.2	11.4	7.6	1.5	2.3	2.3	2.3	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.0	3.8	3.8	3.8	3.0
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.0	3.8	3.8	3.8	3.0
142.5°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0	3.0
145°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0	3.0
150°	0.8	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.0
152.5°	0.8	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.8
157.5°	1.5	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.8
160°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.3	2.3	2.3	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.3	2.3	2.3	3.0	3.8	3.8	3.8	3.8
172.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.8
175°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.8
177.5°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.0
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	596.3	596.3	596.3
2.5°	567.4	556.8	553.8
5°	537.1	519.6	509.7
7.5°	506.7	483.1	471.7
10°	478.6	445.1	433.0
12.5°	445.1	406.4	387.4
15°	413.2	363.1	344.9
17.5°	377.5	321.3	300.1
20°	344.1	279.5	257.5
22.5°	306.1	238.5	214.2
25°	271.9	197.5	170.2
27.5°	234.0	155.7	132.2
30°	198.3	119.3	95.7
32.5°	164.1	87.4	66.1
35°	132.2	59.3	41.8
37.5°	101.8	36.5	21.3
40°	73.7	19.0	9.9
42.5°	49.4	9.1	5.3
45°	30.4	4.6	0.0
47.5°	17.5	0.0	0.0
50°	9.1	0.0	0.0
52.5°	3.8	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°	0.8	0.8	0.8
77.5°	0.8	1.5	2.3
80°	1.5	3.0	3.8
82.5°	3.0	3.8	3.8
85°	3.0	3.8	4.6
87.5°	3.8	4.6	5.3
90°	4.6	5.3	5.3
92.5°	4.6	6.1	6.1
95°	5.3	6.1	6.8
97.5°	6.1	6.8	6.8
100°	5.3	6.8	7.6
102.5°	4.6	6.8	6.8
105°	3.8	5.3	6.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.0	3.8	3.8
115°	2.3	3.0	3.8
117.5°	2.3	3.0	3.0
120°	2.3	2.3	3.0
122.5°	2.3	2.3	3.0
125°	2.3	2.3	3.0
127.5°	3.0	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.0	2.3	2.3
135°	3.0	2.3	2.3
137.5°	3.0	2.3	2.3
140°	3.0	2.3	2.3
142.5°	3.0	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.5
152.5°	2.3	1.5	1.5
155°	2.3	1.5	0.8
157.5°	3.0	1.5	0.8
160°	2.3	1.5	0.8
162.5°	2.3	1.5	0.8
165°	2.3	1.5	0.0
167.5°	2.3	1.5	0.8
170°	2.3	1.5	0.8
172.5°	2.3	1.5	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	319.0	309.9	279.5	229.4	160.3	89.6	33.4	6.1	1.5	2.3	2.3
110°	278.0	270.4	239.3	190.7	129.1	66.8	22.0	3.8	2.3	2.3	2.3





107.5°	3.0	4.6	5.3
110°	3.0	3.8	4.6



(END OF REPORT)