

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: P551291

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-82-86-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: P551291
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

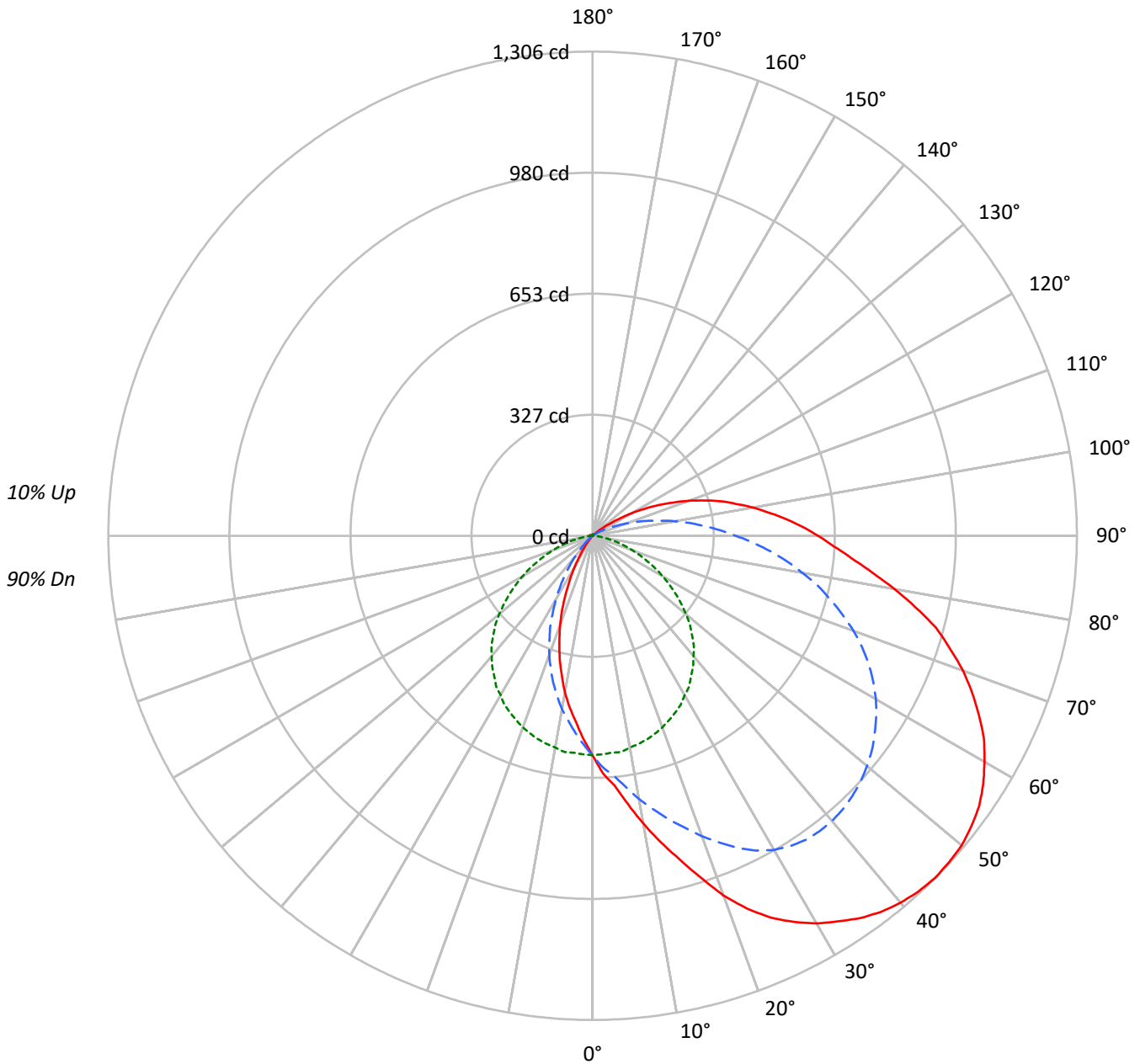
Lumens per Lamp: N/A
Luminaire Lumens: 2927.1 lumens
Efficiency: N/A
Efficacy: 67.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): 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°	6373	6373	6373
5°	6996	6279	5239
10°	7917	6203	4318
15°	8872	6123	3365
20°	10006	6024	2478
25°	10947	5908	1627
30°	11646	5753	916
35°	12252	5586	404
40°	12789	5381	97
45°	13250	5123	0
50°	13636	4782	0
55°	13931	4347	0
60°	14078	3844	0
65°	14137	3272	0
70°	14090	2668	0
75°	13910	1968	12
80°	13347	1204	61
85°	12900	575	83



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.9
10°-20°	169.8	5.8
20°-30°	275.0	9.4
30°-40°	353.2	12.1
40°-50°	399.9	13.7
50°-60°	414.3	14.2
60°-70°	390.7	13.3
70°-80°	327.4	11.2
80°-90°	237.3	8.1
90°-100°	156.0	5.3
100°-110°	90.1	3.1
110°-120°	39.8	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°	501.5	17.1
0°-40°	854.7	29.2
0°-60°	1668.9	57.0
0°-90°	2624.3	89.7
90°-120°	285.8	9.8
90°-150°	300.7	10.3
90°-180°	303.0	10.4
0°-180°	2927.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	592	592	592	592	592	
5°	676	649	588	533	506	68
15°	903	792	568	410	342	260
25°	1137	929	526	270	169	525
35°	1259	1001	462	131	42	789
45°	1306	991	379	30	0	1008
55°	1272	929	273	0	0	1136
65°	1150	822	163	0	0	1138
75°	959	663	69	1	1	1005
85°	701	481	11	3	4	599
90°	608	386	3	4	5	333
95°	522	301	2	5	7	409
105°	359	156	2	4	6	379
115°	195	52	2	2	4	196
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°	592.1	592.1	592.1	592.1	592.1	592.1	592.1	592.1	592.1	592.1	592.1
2.5°	641.8	641.1	638.8	635.1	629.8	620.7	613.2	606.4	597.3	589.8	575.5
5°	675.8	672.0	669.0	665.2	653.2	644.9	631.3	616.2	601.9	587.5	558.9
7.5°	730.1	724.1	719.5	709.0	692.4	673.5	652.4	638.1	628.3	588.3	539.3
10°	788.2	782.9	773.8	755.0	734.6	707.5	677.3	643.3	613.2	580.0	521.9
12.5°	845.5	837.9	825.1	801.0	772.3	738.4	696.9	656.9	613.9	574.7	501.6
15°	902.8	894.5	880.9	851.5	813.8	769.3	718.8	668.2	617.7	567.9	480.4
17.5°	965.4	954.1	933.7	900.5	853.0	798.0	738.4	677.3	616.2	559.6	457.8
20°	1032.5	1016.7	994.8	950.3	894.5	829.6	758.0	686.3	615.4	549.8	432.2
22.5°	1088.3	1072.5	1048.4	1002.4	935.2	856.0	774.6	692.4	612.4	538.5	408.0
25°	1136.6	1123.8	1097.4	1044.6	973.7	883.9	790.4	696.9	607.9	526.4	382.4
27.5°	1174.3	1162.3	1132.8	1078.5	1006.1	908.8	802.5	699.2	601.9	514.4	356.0
30°	1207.5	1195.4	1160.0	1104.2	1028.0	928.4	814.6	699.9	594.3	496.3	327.3
32.5°	1233.1	1221.8	1185.6	1126.0	1043.1	942.0	821.3	699.2	584.5	483.5	296.4
35°	1258.8	1247.5	1205.2	1141.9	1054.4	948.1	826.6	695.4	572.5	462.3	267.0
37.5°	1278.4	1265.6	1222.6	1152.4	1059.7	949.6	825.9	690.1	559.6	445.0	237.6
40°	1292.0	1278.4	1232.4	1158.5	1061.2	947.3	819.8	681.1	544.5	423.1	206.7
42.5°	1301.0	1285.9	1236.9	1167.5	1058.2	941.3	810.8	669.7	528.0	404.3	177.2
45°	1305.6	1289.7	1237.7	1160.0	1052.9	930.0	797.2	655.4	509.9	378.6	147.8
47.5°	1303.3	1285.9	1233.9	1151.7	1043.1	917.9	782.1	638.1	488.0	356.0	119.9
50°	1299.5	1281.4	1225.6	1141.1	1029.5	902.8	765.5	617.0	465.4	328.1	95.0
52.5°	1287.5	1269.4	1216.6	1126.0	1013.7	885.5	742.9	595.1	441.2	300.9	72.4
55°	1272.4	1255.8	1200.7	1112.5	993.3	864.3	721.8	571.7	417.8	273.0	52.0
57.5°	1249.0	1233.9	1181.1	1090.6	972.9	841.0	698.4	546.1	388.4	245.1	36.2
60°	1220.3	1205.2	1154.0	1065.7	949.6	814.6	672.8	519.7	362.0	217.2	22.6
62.5°	1190.2	1175.8	1122.3	1034.8	920.1	786.7	644.9	493.3	334.1	191.6	13.6
65°	1150.2	1136.6	1088.3	997.8	887.7	756.5	613.9	461.6	305.5	162.9	7.5
67.5°	1107.9	1095.9	1046.9	963.9	850.0	723.3	582.3	430.7	275.3	138.0	3.8
70°	1062.7	1047.6	1002.4	917.9	811.5	685.6	547.6	399.0	246.6	113.9	0.0
72.5°	1009.9	998.6	954.8	874.9	767.0	645.6	512.1	364.3	215.0	90.5	0.8
75°	958.6	944.3	904.3	828.9	723.3	603.4	472.9	331.9	184.0	69.4	0.8
77.5°	892.2	887.7	850.0	776.8	681.8	562.6	429.9	292.6	154.6	49.8	0.8
80°	825.9	821.3	791.9	724.8	633.5	514.4	389.9	255.7	126.0	33.2	0.8
82.5°	760.3	754.2	726.3	670.5	584.5	473.6	348.4	218.7	99.6	20.4	0.8
85°	701.4	693.9	663.7	612.4	534.0	427.6	305.5	182.5	73.9	11.3	1.5
87.5°	650.9	645.6	612.4	559.6	482.7	384.7	267.7	147.8	52.0	5.3	2.3
90°	607.9	596.6	567.2	511.4	434.4	337.1	227.8	118.4	34.7	3.0	3.0
92.5°	565.7	555.9	523.4	466.1	391.4	296.4	189.3	90.5	21.9	1.5	3.8
95°	521.9	511.4	479.7	426.9	347.7	254.9	155.4	66.4	12.1	1.5	3.8
97.5°	478.9	469.1	435.9	383.1	308.5	218.7	122.9	46.8	6.0	1.5	3.0
100°	439.0	427.6	397.5	344.7	269.3	182.5	95.0	30.2	3.8	1.5	3.0
102.5°	396.7	387.7	356.7	305.5	228.5	148.6	70.9	18.9	1.5	1.5	2.3
105°	359.0	347.7	317.5	264.7	194.6	116.9	49.8	11.3	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°	233.8	224.8	198.4	153.9	98.8	46.0	13.6	2.3	2.3	2.3	2.3
115°	195.3	181.8	158.4	119.2	73.2	30.2	6.8	2.3	2.3	2.3	2.3
117.5°	156.1	144.8	128.2	90.5	48.3	19.6	3.8	2.3	2.3	2.3	2.3
120°	122.2	111.6	92.8	62.6	32.4	11.3	1.5	2.3	2.3	2.3	2.3
122.5°	87.5	79.2	62.6	40.7	19.6	5.3	2.3	2.3	3.0	3.0	2.3
125°	58.1	53.5	41.5	24.9	12.1	2.3	2.3	2.3	3.0	3.0	2.3
127.5°	37.7	33.9	24.1	14.3	5.3	2.3	2.3	3.0	3.0	3.0	2.3
130°	21.1	18.9	14.3	8.3	2.3	2.3	2.3	3.0	3.0	3.0	2.3
132.5°	12.1	11.3	7.5	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°	592.1	592.1	592.1
2.5°	563.4	552.8	549.8
5°	533.2	515.9	506.1
7.5°	503.1	479.7	468.4
10°	475.2	442.0	429.9
12.5°	442.0	403.5	384.7
15°	410.3	360.5	342.4
17.5°	374.8	319.0	297.9
20°	341.7	277.6	255.7
22.5°	304.0	236.8	212.7
25°	270.0	196.1	168.9
27.5°	232.3	154.6	131.2
30°	196.9	118.4	95.0
32.5°	162.9	86.7	65.6
35°	131.2	58.8	41.5
37.5°	101.1	36.2	21.1
40°	73.2	18.9	9.8
42.5°	49.0	9.1	5.3
45°	30.2	4.5	0.0
47.5°	17.3	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	4.5
87.5°	3.8	4.5	5.3
90°	4.5	5.3	5.3
92.5°	4.5	6.0	6.0
95°	5.3	6.0	6.8
97.5°	6.0	6.8	6.8
100°	5.3	6.8	7.5
102.5°	4.5	6.8	6.8
105°	3.8	5.3	6.0



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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°	316.8	307.7	277.6	227.8	159.1	89.0	33.2	6.0	1.5	2.3	2.3
110°	276.0	268.5	237.6	189.3	128.2	66.4	21.9	3.8	2.3	2.3	2.3





107.5°	3.0	4.5	5.3
110°	3.0	3.8	4.5



(END OF REPORT)