

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: P551389

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-87-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: P551389
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-50-UNV-80-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

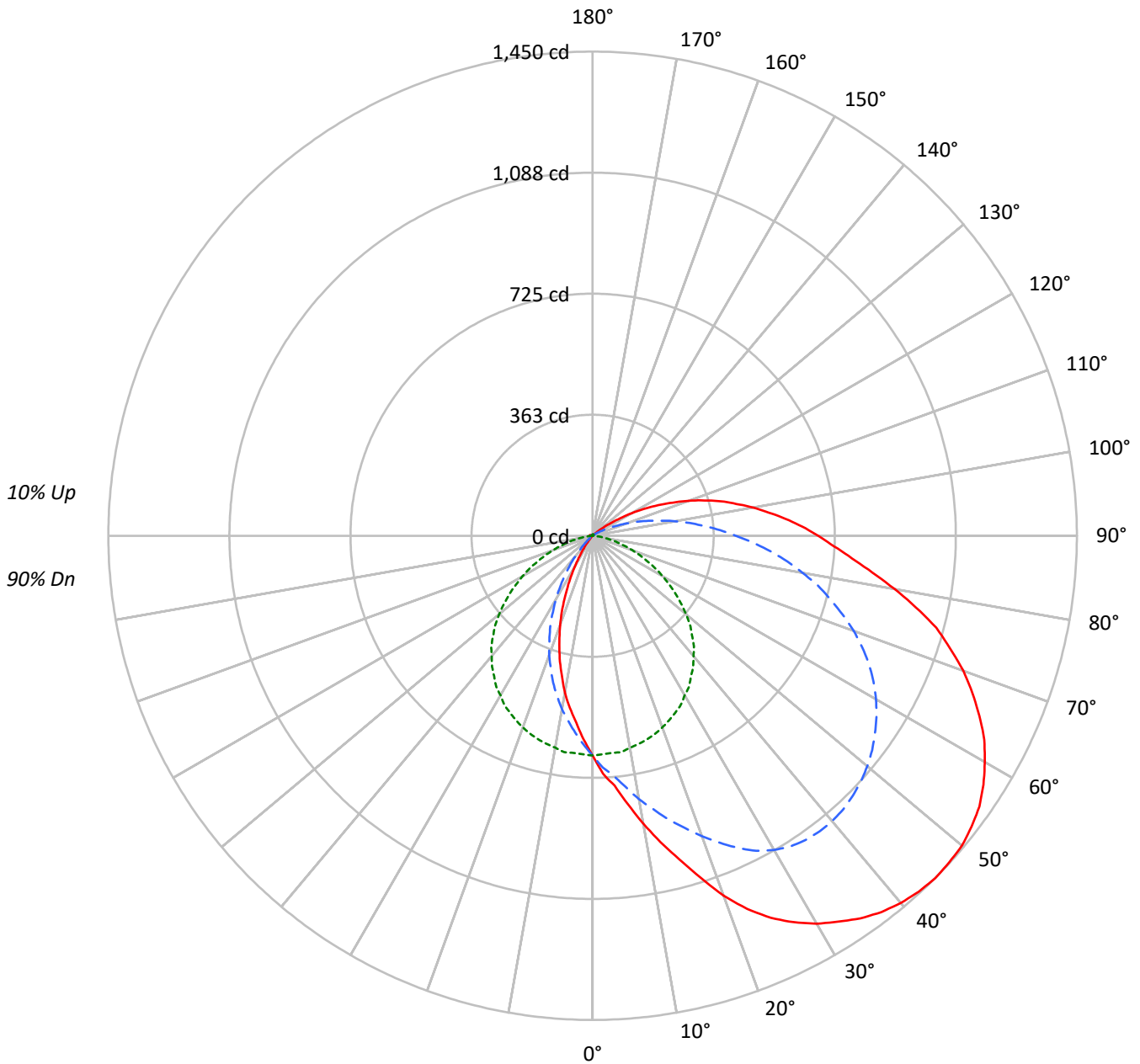
Lumens per Lamp: N/A
Luminaire Lumens: 3252.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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°	7081	7081	7081
5°	7772	6977	5821
10°	8796	6891	4797
15°	9857	6804	3738
20°	11118	6693	2753
25°	12162	6564	1808
30°	12940	6392	1018
35°	13612	6207	449
40°	14208	5978	108
45°	14720	5693	0
50°	15150	5312	0
55°	15477	4830	0
60°	15641	4270	0
65°	15706	3635	0
70°	15654	2963	0
75°	15456	2186	12
80°	14829	1338	68
85°	14333	641	92



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	1.9
10°-20°	188.7	5.8
20°-30°	305.5	9.4
30°-40°	392.5	12.1
40°-50°	444.3	13.7
50°-60°	460.3	14.2
60°-70°	434.1	13.3
70°-80°	363.8	11.2
80°-90°	263.7	8.1
90°-100°	173.3	5.3
100°-110°	100.1	3.1
110°-120°	44.2	1.4
120°-130°	12.0	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	557.2	17.1
0°-40°	949.7	29.2
0°-60°	1854.2	57.0
0°-90°	2915.7	89.7
90°-120°	317.6	9.8
90°-150°	334.1	10.3
90°-180°	336.0	10.3
0°-180°	3252.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	658	658	658	658	658	
5°	751	721	653	592	562	76
15°	1003	879	631	456	380	289
25°	1263	1032	585	300	188	584
35°	1399	1112	514	146	46	877
45°	1450	1102	421	34	0	1120
55°	1414	1032	303	0	0	1262
65°	1278	913	181	0	0	1264
75°	1065	737	77	1	1	1117
85°	779	534	13	3	5	666
90°	675	429	3	5	6	370
95°	580	335	2	6	8	455
105°	399	173	2	4	7	421
115°	217	57	2	2	4	217
125°	64	8	3	2	3	64
135°	3	2	4	3	2	6
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°	657.8	657.8	657.8	657.8	657.8	657.8	657.8	657.8	657.8	657.8	657.8
2.5°	713.1	712.3	709.8	705.6	699.7	689.6	681.3	673.7	663.7	655.3	639.4
5°	750.8	746.6	743.3	739.1	725.7	716.5	701.4	684.6	668.7	652.8	620.9
7.5°	811.1	804.4	799.4	787.7	769.3	748.3	724.8	708.9	698.0	653.6	599.1
10°	875.7	869.8	859.8	838.8	816.2	786.0	752.5	714.8	681.3	644.4	579.9
12.5°	939.4	931.0	916.7	889.9	858.1	820.4	774.3	729.9	682.1	638.5	557.2
15°	1003.0	993.8	978.7	946.1	904.2	854.7	798.6	742.4	686.3	631.0	533.8
17.5°	1072.6	1060.0	1037.4	1000.5	947.7	886.6	820.4	752.5	684.6	621.8	508.6
20°	1147.2	1129.6	1105.3	1055.8	993.8	921.8	842.2	762.5	683.8	610.9	480.2
22.5°	1209.2	1191.6	1164.8	1113.7	1039.1	951.1	860.6	769.3	680.4	598.3	453.3
25°	1262.8	1248.6	1219.2	1160.6	1081.8	982.1	878.2	774.3	675.4	584.9	424.8
27.5°	1304.7	1291.3	1258.6	1198.3	1117.8	1009.7	891.6	776.8	668.7	571.5	395.5
30°	1341.6	1328.2	1288.8	1226.8	1142.1	1031.5	905.0	777.6	660.3	551.4	363.7
32.5°	1370.1	1357.5	1317.3	1251.1	1158.9	1046.6	912.5	776.8	649.4	537.1	329.3
35°	1398.6	1386.0	1339.1	1268.7	1171.5	1053.3	918.4	772.6	636.0	513.7	296.6
37.5°	1420.3	1406.1	1358.3	1280.4	1177.3	1055.0	917.6	766.7	621.8	494.4	264.0
40°	1435.4	1420.3	1369.2	1287.1	1179.0	1052.5	910.9	756.7	605.0	470.1	229.6
42.5°	1445.5	1428.7	1374.3	1297.2	1175.7	1045.8	900.8	744.1	586.6	449.1	196.9
45°	1450.5	1432.9	1375.1	1288.8	1169.8	1033.2	885.7	728.2	566.5	420.7	164.2
47.5°	1448.0	1428.7	1370.9	1279.6	1158.9	1019.8	869.0	708.9	542.2	395.5	133.2
50°	1443.8	1423.7	1361.7	1267.8	1143.8	1003.0	850.5	685.5	517.0	364.5	105.6
52.5°	1430.4	1410.3	1351.6	1251.1	1126.2	983.8	825.4	661.2	490.2	334.3	80.4
55°	1413.6	1395.2	1334.0	1236.0	1103.6	960.3	801.9	635.2	464.2	303.3	57.8
57.5°	1387.7	1370.9	1312.3	1211.7	1081.0	934.3	776.0	606.7	431.6	272.3	40.2
60°	1355.8	1339.1	1282.1	1184.0	1055.0	905.0	747.5	577.4	402.2	241.3	25.1
62.5°	1322.3	1306.4	1246.9	1149.7	1022.3	874.0	716.5	548.0	371.2	212.8	15.1
65°	1277.9	1262.8	1209.2	1108.6	986.3	840.5	682.1	512.8	339.4	181.0	8.4
67.5°	1231.0	1217.6	1163.1	1070.9	944.4	803.6	646.9	478.5	305.9	153.3	4.2
70°	1180.7	1163.9	1113.7	1019.8	901.6	761.7	608.4	443.3	274.0	126.5	0.0
72.5°	1122.0	1109.5	1060.9	972.0	852.2	717.3	569.0	404.7	238.8	100.6	0.8
75°	1065.1	1049.1	1004.7	920.9	803.6	670.4	525.4	368.7	204.5	77.1	0.8
77.5°	991.3	986.3	944.4	863.1	757.5	625.1	477.6	325.1	171.8	55.3	0.8
80°	917.6	912.5	879.9	805.3	703.9	571.5	433.2	284.1	139.9	36.9	0.8
82.5°	844.7	838.0	807.0	744.9	649.4	526.2	387.1	243.0	110.6	22.6	0.8
85°	779.3	770.9	737.4	680.4	593.3	475.1	339.4	202.8	82.1	12.6	1.7
87.5°	723.2	717.3	680.4	621.8	536.3	427.4	297.5	164.2	57.8	5.9	2.5
90°	675.4	662.8	630.1	568.1	482.7	374.6	253.1	131.6	38.5	3.4	3.4
92.5°	628.5	617.6	581.5	517.9	434.9	329.3	210.3	100.6	24.3	1.7	4.2
95°	579.9	568.1	532.9	474.3	386.3	283.2	172.6	73.7	13.4	1.7	4.2
97.5°	532.1	521.2	484.3	425.7	342.7	243.0	136.6	52.0	6.7	1.7	3.4
100°	487.7	475.1	441.6	382.9	299.2	202.8	105.6	33.5	4.2	1.7	3.4
102.5°	440.8	430.7	396.4	339.4	253.9	165.1	78.8	20.9	1.7	1.7	2.5
105°	398.9	386.3	352.8	294.1	216.2	129.9	55.3	12.6	1.7	1.7	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	259.8	249.7	220.4	170.9	109.8	51.1	15.1	2.5	2.5	2.5	2.5
115°	217.0	201.9	176.0	132.4	81.3	33.5	7.5	2.5	2.5	2.5	2.5
117.5°	173.5	160.9	142.5	100.6	53.6	21.8	4.2	2.5	2.5	2.5	2.5
120°	135.8	124.0	103.1	69.6	36.0	12.6	1.7	2.5	2.5	2.5	2.5
122.5°	97.2	88.0	69.6	45.3	21.8	5.9	2.5	2.5	3.4	3.4	2.5
125°	64.5	59.5	46.1	27.7	13.4	2.5	2.5	2.5	3.4	3.4	2.5
127.5°	41.9	37.7	26.8	15.9	5.9	2.5	2.5	3.4	3.4	3.4	2.5
130°	23.5	20.9	15.9	9.2	2.5	2.5	2.5	3.4	3.4	3.4	2.5
132.5°	13.4	12.6	8.4	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.4	4.2	4.2	4.2	3.4
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	3.4
142.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
145°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
150°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
152.5°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
157.5°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	3.4
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	657.8	657.8	657.8
2.5°	626.0	614.2	610.9
5°	592.4	573.2	562.3
7.5°	558.9	532.9	520.4
10°	527.9	491.0	477.6
12.5°	491.0	448.3	427.4
15°	455.9	400.5	380.4
17.5°	416.5	354.5	331.0
20°	379.6	308.4	284.1
22.5°	337.7	263.1	236.3
25°	300.0	217.9	187.7
27.5°	258.1	171.8	145.8
30°	218.7	131.6	105.6
32.5°	181.0	96.4	72.9
35°	145.8	65.4	46.1
37.5°	112.3	40.2	23.5
40°	81.3	20.9	10.9
42.5°	54.5	10.1	5.9
45°	33.5	5.0	0.0
47.5°	19.3	0.0	0.0
50°	10.1	0.0	0.0
52.5°	4.2	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°	0.8	0.8	0.8
77.5°	0.8	1.7	2.5
80°	1.7	3.4	4.2
82.5°	3.4	4.2	4.2
85°	3.4	4.2	5.0
87.5°	4.2	5.0	5.9
90°	5.0	5.9	5.9
92.5°	5.0	6.7	6.7
95°	5.9	6.7	7.5
97.5°	6.7	7.5	7.5
100°	5.9	7.5	8.4
102.5°	5.0	7.5	7.5
105°	4.2	5.9	6.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.2	4.2
115°	2.5	3.4	4.2
117.5°	2.5	3.4	3.4
120°	2.5	2.5	3.4
122.5°	2.5	2.5	3.4
125°	2.5	2.5	3.4
127.5°	3.4	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.4	2.5	2.5
135°	3.4	2.5	2.5
137.5°	3.4	2.5	2.5
140°	3.4	2.5	2.5
142.5°	3.4	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.4	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	351.9	341.9	308.4	253.1	176.8	98.9	36.9	6.7	1.7	2.5	2.5
110°	306.7	298.3	264.0	210.3	142.5	73.7	24.3	4.2	2.5	2.5	2.5





107.5°	3.4	5.0	5.9
110°	3.4	4.2	5.0



(END OF REPORT)