

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: P551437

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-87-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: P551437
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-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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

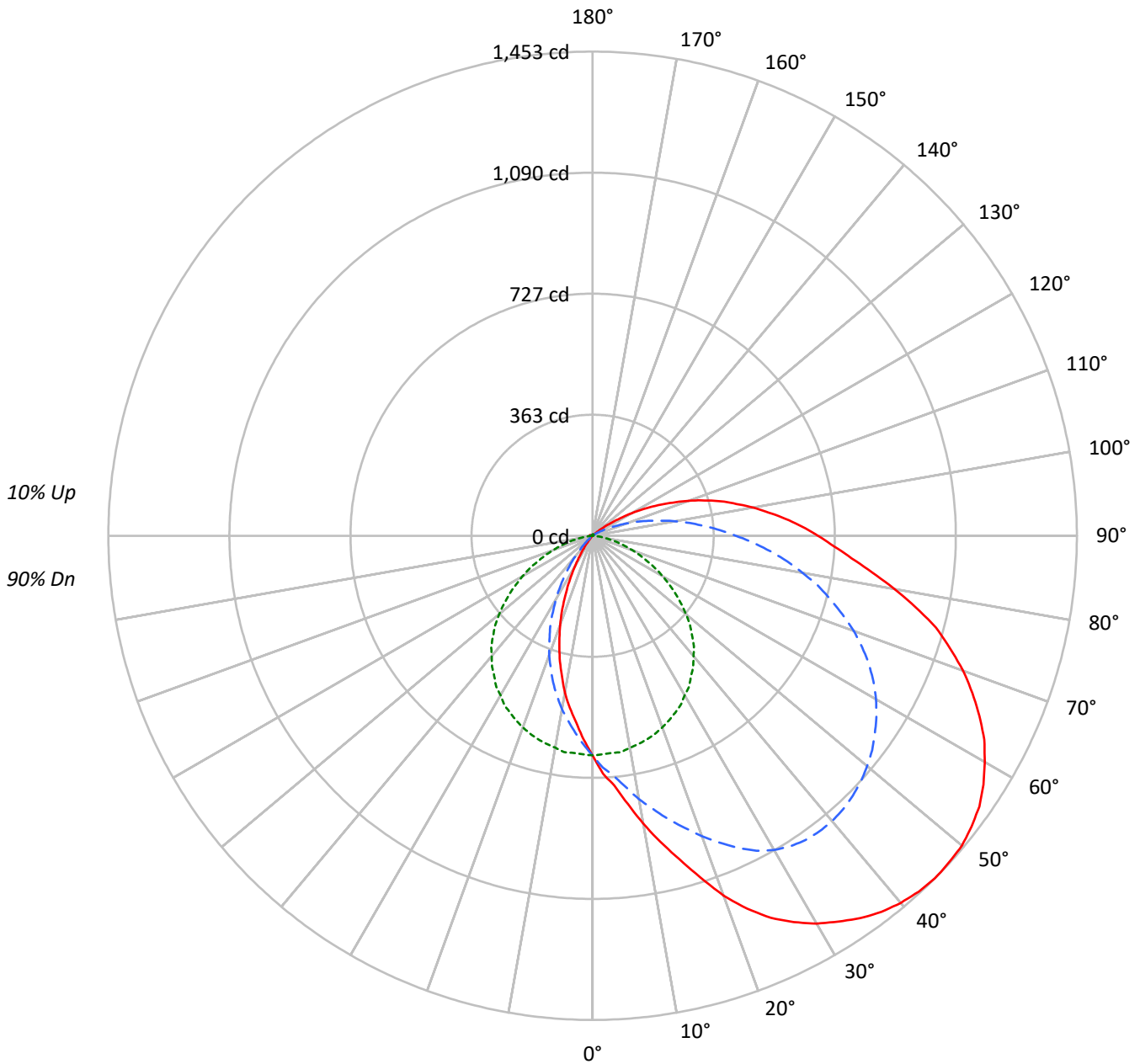
Lumens per Lamp: N/A
Luminaire Lumens: 3258.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	7093	7093	7093
5°	7787	6990	5831
10°	8812	6904	4806
15°	9875	6817	3745
20°	11138	6705	2758
25°	12184	6576	1812
30°	12964	6404	1020
35°	13637	6218	450
40°	14235	5990	108
45°	14748	5702	0
50°	15178	5323	0
55°	15506	4839	0
60°	15670	4279	0
65°	15736	3641	0
70°	15683	2970	0
75°	15483	2189	12
80°	14857	1338	68
85°	14359	641	92



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	1.9
10°-20°	189.0	5.8
20°-30°	306.1	9.4
30°-40°	393.2	12.1
40°-50°	445.1	13.7
50°-60°	461.1	14.2
60°-70°	434.9	13.3
70°-80°	364.4	11.2
80°-90°	264.2	8.1
90°-100°	173.6	5.3
100°-110°	100.3	3.1
110°-120°	44.2	1.4
120°-130°	12.0	0.4
130°-140°	2.8	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°	558.2	17.1
0°-40°	951.4	29.2
0°-60°	1857.6	57.0
0°-90°	2921.1	89.7
90°-120°	318.1	9.8
90°-150°	334.7	10.3
90°-180°	337.0	10.3
0°-180°	3258.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	659	659	659	659	659	
5°	752	722	654	594	563	76
15°	1005	881	632	457	381	290
25°	1265	1034	586	300	188	585
35°	1401	1114	515	146	46	879
45°	1453	1104	421	34	0	1122
55°	1416	1034	304	0	0	1265
65°	1280	915	181	0	0	1267
75°	1067	738	77	1	1	1119
85°	781	535	13	3	5	667
90°	677	429	3	5	6	371
95°	581	335	2	6	8	456
105°	400	173	2	4	7	422
115°	217	58	2	2	4	218
125°	65	8	3	2	3	65
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°	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
2.5°	714.4	713.6	711.1	706.9	701.0	690.9	682.5	675.0	664.9	656.5	640.5
5°	752.2	748.0	744.6	740.4	727.0	717.8	702.7	685.9	669.9	654.0	622.1
7.5°	812.6	805.9	800.9	789.1	770.7	749.7	726.2	710.2	699.3	654.8	600.2
10°	877.3	871.4	861.3	840.3	817.7	787.5	753.9	716.1	682.5	645.6	580.9
12.5°	941.1	932.7	918.4	891.6	859.7	821.9	775.7	731.2	683.4	639.7	558.3
15°	1004.9	995.7	980.5	947.8	905.8	856.3	800.1	743.8	687.6	632.2	534.8
17.5°	1074.6	1062.0	1039.3	1002.4	949.5	888.2	821.9	753.9	685.9	622.9	509.6
20°	1149.3	1131.7	1107.3	1057.8	995.7	923.5	843.7	764.0	685.0	612.0	481.0
22.5°	1211.4	1193.8	1166.9	1115.7	1041.0	952.8	862.2	770.7	681.7	599.4	454.2
25°	1265.1	1250.9	1221.5	1162.7	1083.8	983.9	879.8	775.7	676.6	586.0	425.6
27.5°	1307.1	1293.7	1260.9	1200.5	1119.9	1011.6	893.2	778.2	669.9	572.5	396.2
30°	1344.1	1330.6	1291.2	1229.0	1144.3	1033.4	906.7	779.1	661.5	552.4	364.3
32.5°	1372.6	1360.0	1319.7	1253.4	1161.0	1048.5	914.2	778.2	650.6	538.1	329.9
35°	1401.1	1388.5	1341.5	1271.0	1173.6	1055.3	920.1	774.0	637.2	514.6	297.2
37.5°	1423.0	1408.7	1360.8	1282.8	1179.5	1056.9	919.3	768.2	622.9	495.3	264.4
40°	1438.1	1423.0	1371.8	1289.5	1181.2	1054.4	912.5	758.1	606.1	471.0	230.0
42.5°	1448.2	1431.4	1376.8	1299.6	1177.8	1047.7	902.5	745.5	587.7	450.0	197.3
45°	1453.2	1435.6	1377.6	1291.2	1172.0	1035.1	887.4	729.5	567.5	421.4	164.5
47.5°	1450.7	1431.4	1373.4	1281.9	1161.0	1021.7	870.6	710.2	543.2	396.2	133.5
50°	1446.5	1426.3	1364.2	1270.2	1145.9	1004.9	852.1	686.7	518.0	365.2	105.8
52.5°	1433.0	1412.9	1354.1	1253.4	1128.3	985.6	826.9	662.4	491.1	335.0	80.6
55°	1416.3	1397.8	1336.5	1238.3	1105.6	962.1	803.4	636.3	465.1	303.9	57.9
57.5°	1390.2	1373.4	1314.7	1213.9	1083.0	936.1	777.4	607.8	432.3	272.8	40.3
60°	1358.3	1341.5	1284.4	1186.2	1056.9	906.7	748.8	578.4	403.0	241.8	25.2
62.5°	1324.7	1308.8	1249.2	1151.8	1024.2	875.6	717.8	549.0	371.9	213.2	15.1
65°	1280.3	1265.1	1211.4	1110.7	988.1	842.0	683.4	513.8	340.0	181.3	8.4
67.5°	1233.2	1219.8	1165.2	1072.9	946.1	805.1	648.1	479.4	306.4	153.6	4.2
70°	1182.9	1166.1	1115.7	1021.7	903.3	763.1	609.5	444.1	274.5	126.8	0.0
72.5°	1124.1	1111.5	1062.8	973.8	853.8	718.6	570.0	405.5	239.3	100.7	0.8
75°	1067.0	1051.1	1006.6	922.6	805.1	671.6	526.4	369.4	204.8	77.2	0.8
77.5°	993.1	988.1	946.1	864.7	758.9	626.3	478.5	325.7	172.1	55.4	0.8
80°	919.3	914.2	881.5	806.8	705.2	572.5	434.0	284.6	140.2	36.9	0.8
82.5°	846.2	839.5	808.4	746.3	650.6	527.2	387.9	243.5	110.8	22.7	0.8
85°	780.7	772.3	738.8	681.7	594.4	476.0	340.0	203.2	82.3	12.6	1.7
87.5°	724.5	718.6	681.7	622.9	537.3	428.1	298.0	164.5	57.9	5.9	2.5
90°	676.6	664.1	631.3	569.2	483.6	375.3	253.5	131.8	38.6	3.4	3.4
92.5°	629.6	618.7	582.6	518.8	435.7	329.9	210.7	100.7	24.3	1.7	4.2
95°	580.9	569.2	533.9	475.2	387.0	283.8	172.9	73.9	13.4	1.7	4.2
97.5°	533.1	522.2	485.2	426.5	343.4	243.5	136.8	52.0	6.7	1.7	3.4
100°	488.6	476.0	442.4	383.7	299.7	203.2	105.8	33.6	4.2	1.7	3.4
102.5°	441.6	431.5	397.1	340.0	254.4	165.4	78.9	21.0	1.7	1.7	2.5
105°	399.6	387.0	353.4	294.7	216.6	130.1	55.4	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°	260.2	250.2	220.8	171.3	110.0	51.2	15.1	2.5	2.5	2.5	2.5
115°	217.4	202.3	176.3	132.6	81.4	33.6	7.6	2.5	2.5	2.5	2.5
117.5°	173.8	161.2	142.7	100.7	53.7	21.8	4.2	2.5	2.5	2.5	2.5
120°	136.0	124.2	103.3	69.7	36.1	12.6	1.7	2.5	2.5	2.5	2.5
122.5°	97.4	88.1	69.7	45.3	21.8	5.9	2.5	2.5	3.4	3.4	2.5
125°	64.6	59.6	46.2	27.7	13.4	2.5	2.5	2.5	3.4	3.4	2.5
127.5°	42.0	37.8	26.9	16.0	5.9	2.5	2.5	3.4	3.4	3.4	2.5
130°	23.5	21.0	16.0	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°	659.0	659.0	659.0
2.5°	627.1	615.4	612.0
5°	593.5	574.2	563.3
7.5°	560.0	533.9	521.3
10°	528.9	492.0	478.5
12.5°	492.0	449.1	428.1
15°	456.7	401.3	381.1
17.5°	417.2	355.1	331.6
20°	380.3	308.9	284.6
22.5°	338.3	263.6	236.7
25°	300.5	218.3	188.1
27.5°	258.6	172.1	146.1
30°	219.1	131.8	105.8
32.5°	181.3	96.5	73.0
35°	146.1	65.5	46.2
37.5°	112.5	40.3	23.5
40°	81.4	21.0	10.9
42.5°	54.6	10.1	5.9
45°	33.6	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	7.6
97.5°	6.7	7.6	7.6
100°	5.9	7.6	8.4
102.5°	5.0	7.6	7.6
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°	352.6	342.5	308.9	253.5	177.1	99.1	36.9	6.7	1.7	2.5	2.5
110°	307.3	298.9	264.4	210.7	142.7	73.9	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)