

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: P551370

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-85-ED1D**

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: P551370
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-40-UNV-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

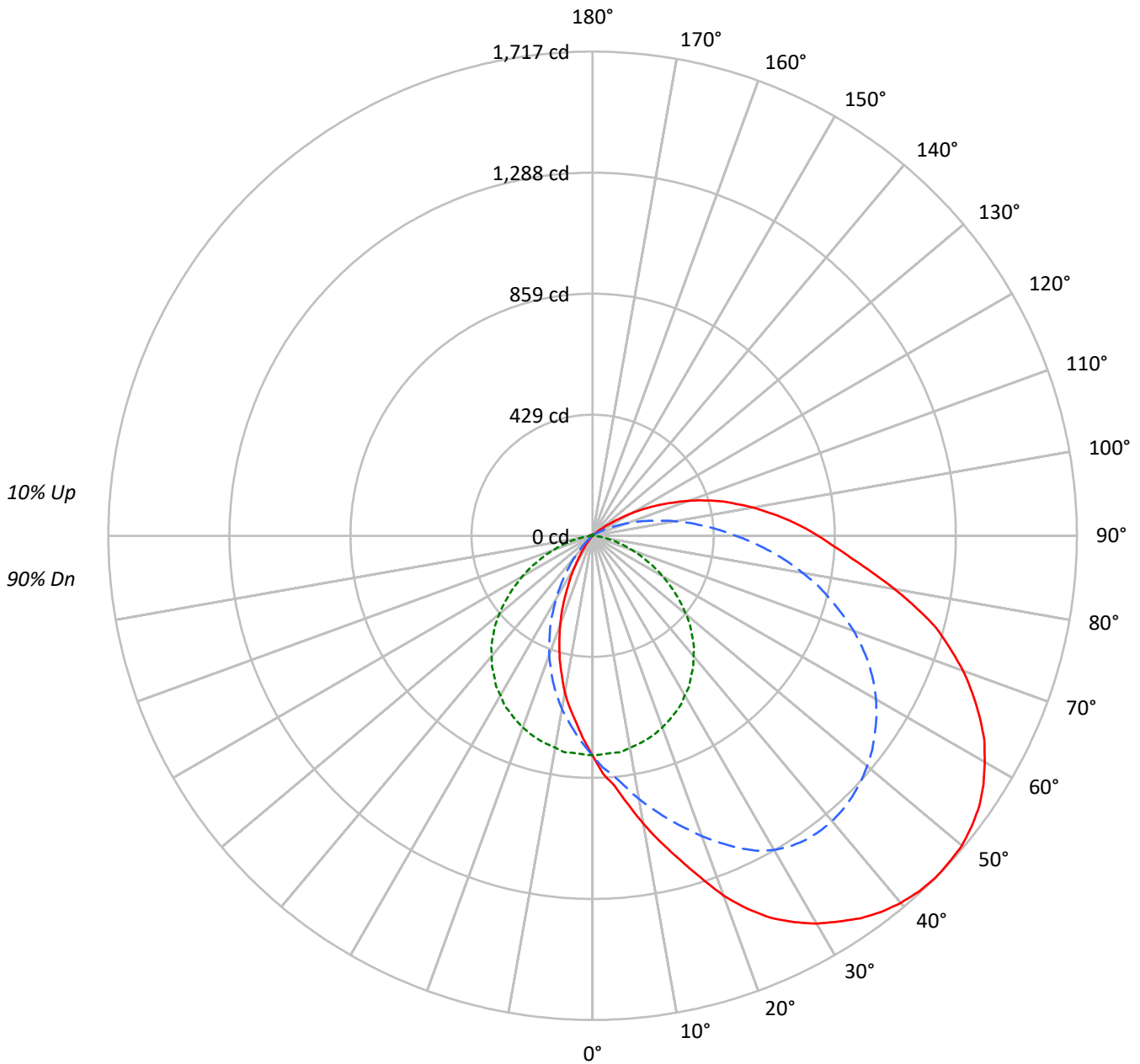
Lumens per Lamp: N/A
Luminaire Lumens: 3850.1 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551370

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-85-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551370

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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°	8383	8383	8383
5°	9202	8260	6891
10°	10413	8159	5680
15°	11670	8055	4426
20°	13161	7924	3259
25°	14399	7772	2140
30°	15319	7568	1206
35°	16115	7348	531
40°	16821	7077	128
45°	17427	6738	0
50°	17936	6289	0
55°	18323	5718	0
60°	18518	5056	0
65°	18595	4304	0
70°	18532	3509	0
75°	18297	2589	15
80°	17555	1585	81
85°	16968	758	110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	1.9
10°-20°	223.4	5.8
20°-30°	361.7	9.4
30°-40°	464.6	12.1
40°-50°	526.0	13.7
50°-60°	544.9	14.2
60°-70°	513.9	13.3
70°-80°	430.7	11.2
80°-90°	312.2	8.1
90°-100°	205.2	5.3
100°-110°	118.5	3.1
110°-120°	52.3	1.4
120°-130°	14.2	0.4
130°-140°	3.3	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	659.6	17.1
0°-40°	1124.3	29.2
0°-60°	2195.1	57.0
0°-90°	3451.9	89.7
90°-120°	376.0	9.8
90°-150°	395.6	10.3
90°-180°	398.0	10.3
0°-180°	3850.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	779	779	779	779	779	
5°	889	854	773	701	666	90
15°	1188	1041	747	540	450	342
25°	1495	1222	692	355	222	691
35°	1656	1317	608	173	55	1038
45°	1717	1304	498	40	0	1326
55°	1674	1222	359	0	0	1494
65°	1513	1081	214	0	0	1497
75°	1261	872	91	1	1	1323
85°	923	632	15	4	6	788
90°	800	507	4	6	7	438
95°	686	396	2	7	9	539
105°	472	205	2	5	8	498
115°	257	68	3	3	5	257
125°	76	9	4	3	4	76
135°	4	3	5	4	3	7
145°	1	4	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	4	5	3	1	0
180°	3	3	3	3	3	



TEST NUMBER: P551370

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-85-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	778.8	778.8	778.8	778.8	778.8	778.8	778.8	778.8	778.8	778.8	778.8
2.5°	844.2	843.2	840.3	835.3	828.4	816.5	806.5	797.6	785.7	775.8	756.9
5°	888.9	883.9	880.0	875.0	859.1	848.2	830.3	810.5	791.7	772.8	735.1
7.5°	960.3	952.4	946.4	932.5	910.7	885.9	858.1	839.3	826.4	773.8	709.3
10°	1036.7	1029.8	1017.8	993.0	966.3	930.5	890.9	846.2	806.5	762.9	686.5
12.5°	1112.1	1102.2	1085.3	1053.6	1015.9	971.2	916.7	864.1	807.5	755.9	659.7
15°	1187.5	1176.6	1158.7	1120.0	1070.4	1011.9	945.4	879.0	812.5	747.0	631.9
17.5°	1269.8	1254.9	1228.2	1184.5	1122.0	1049.6	971.2	890.9	810.5	736.1	602.2
20°	1358.1	1337.3	1308.5	1250.0	1176.6	1091.3	997.0	902.8	809.5	723.2	568.4
22.5°	1431.5	1410.7	1379.0	1318.4	1230.1	1126.0	1018.8	910.7	805.5	708.3	536.7
25°	1495.0	1478.2	1443.4	1374.0	1280.7	1162.7	1039.7	916.7	799.6	692.5	503.0
27.5°	1544.6	1528.8	1490.1	1418.6	1323.4	1195.4	1055.5	919.6	791.7	676.6	468.2
30°	1588.3	1572.4	1525.8	1452.4	1352.2	1221.2	1071.4	920.6	781.7	652.8	430.6
32.5°	1622.0	1607.1	1559.5	1481.1	1372.0	1239.1	1080.3	919.6	768.8	635.9	389.9
35°	1655.7	1640.9	1585.3	1502.0	1386.9	1247.0	1087.3	914.7	753.0	608.1	351.2
37.5°	1681.5	1664.7	1608.1	1515.9	1393.8	1249.0	1086.3	907.7	736.1	585.3	312.5
40°	1699.4	1681.5	1621.0	1523.8	1395.8	1246.0	1078.4	895.8	716.3	556.5	271.8
42.5°	1711.3	1691.5	1627.0	1535.7	1391.9	1238.1	1066.5	880.9	694.4	531.7	233.1
45°	1717.2	1696.4	1628.0	1525.8	1384.9	1223.2	1048.6	862.1	670.6	498.0	194.4
47.5°	1714.3	1691.5	1623.0	1514.9	1372.0	1207.3	1028.8	839.3	641.9	468.2	157.7
50°	1709.3	1685.5	1612.1	1501.0	1354.2	1187.5	1006.9	811.5	612.1	431.5	125.0
52.5°	1693.4	1669.6	1600.2	1481.1	1333.3	1164.7	977.2	782.7	580.4	395.8	95.2
55°	1673.6	1651.8	1579.4	1463.3	1306.5	1136.9	949.4	752.0	549.6	359.1	68.5
57.5°	1642.8	1623.0	1553.6	1434.5	1279.7	1106.1	918.6	718.2	510.9	322.4	47.6
60°	1605.1	1585.3	1517.8	1401.8	1249.0	1071.4	884.9	683.5	476.2	285.7	29.8
62.5°	1565.5	1546.6	1476.2	1361.1	1210.3	1034.7	848.2	648.8	439.5	252.0	17.9
65°	1512.9	1495.0	1431.5	1312.5	1167.6	995.0	807.5	607.1	401.8	214.3	9.9
67.5°	1457.3	1441.5	1377.0	1267.8	1118.0	951.4	765.9	566.5	362.1	181.5	5.0
70°	1397.8	1378.0	1318.4	1207.3	1067.5	901.8	720.2	524.8	324.4	149.8	0.0
72.5°	1328.4	1313.5	1255.9	1150.8	1008.9	849.2	673.6	479.2	282.7	119.0	1.0
75°	1260.9	1242.1	1189.5	1090.3	951.4	793.6	622.0	436.5	242.1	91.3	1.0
77.5°	1173.6	1167.6	1118.0	1021.8	896.8	740.1	565.5	384.9	203.4	65.5	1.0
80°	1086.3	1080.3	1041.7	953.4	833.3	676.6	512.9	336.3	165.7	43.7	1.0
82.5°	1000.0	992.1	955.3	881.9	768.8	623.0	458.3	287.7	131.0	26.8	1.0
85°	922.6	912.7	873.0	805.5	702.4	562.5	401.8	240.1	97.2	14.9	2.0
87.5°	856.1	849.2	805.5	736.1	634.9	505.9	352.2	194.4	68.5	6.9	3.0
90°	799.6	784.7	746.0	672.6	571.4	443.4	299.6	155.8	45.6	4.0	4.0
92.5°	744.0	731.1	688.5	613.1	514.9	389.9	249.0	119.0	28.8	2.0	5.0
95°	686.5	672.6	630.9	561.5	457.3	335.3	204.4	87.3	15.9	2.0	5.0
97.5°	630.0	617.1	573.4	504.0	405.8	287.7	161.7	61.5	7.9	2.0	4.0
100°	577.4	562.5	522.8	453.4	354.2	240.1	125.0	39.7	5.0	2.0	4.0
102.5°	521.8	509.9	469.2	401.8	300.6	195.4	93.3	24.8	2.0	2.0	3.0
105°	472.2	457.3	417.7	348.2	255.9	153.8	65.5	14.9	2.0	2.0	3.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	307.5	295.6	260.9	202.4	130.0	60.5	17.9	3.0	3.0	3.0	3.0
115°	256.9	239.1	208.3	156.7	96.2	39.7	8.9	3.0	3.0	3.0	3.0
117.5°	205.4	190.5	168.6	119.0	63.5	25.8	5.0	3.0	3.0	3.0	3.0
120°	160.7	146.8	122.0	82.3	42.7	14.9	2.0	3.0	3.0	3.0	3.0
122.5°	115.1	104.2	82.3	53.6	25.8	6.9	3.0	3.0	4.0	4.0	3.0
125°	76.4	70.4	54.6	32.7	15.9	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	49.6	44.6	31.7	18.8	6.9	3.0	3.0	4.0	4.0	4.0	3.0
130°	27.8	24.8	18.8	10.9	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	15.9	14.9	9.9	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
135°	4.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
160°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
162.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
165°	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
167.5°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
170°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	4.0
180°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	778.8	778.8	778.8
2.5°	741.1	727.2	723.2
5°	701.4	678.6	665.7
7.5°	661.7	630.9	616.1
10°	625.0	581.3	565.5
12.5°	581.3	530.7	505.9
15°	539.7	474.2	450.4
17.5°	493.1	419.6	391.9
20°	449.4	365.1	336.3
22.5°	399.8	311.5	279.8
25°	355.2	257.9	222.2
27.5°	305.6	203.4	172.6
30°	258.9	155.8	125.0
32.5°	214.3	114.1	86.3
35°	172.6	77.4	54.6
37.5°	132.9	47.6	27.8
40°	96.2	24.8	12.9
42.5°	64.5	11.9	6.9
45°	39.7	6.0	0.0
47.5°	22.8	0.0	0.0
50°	11.9	0.0	0.0
52.5°	5.0	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°	1.0	1.0	1.0
77.5°	1.0	2.0	3.0
80°	2.0	4.0	5.0
82.5°	4.0	5.0	5.0
85°	4.0	5.0	6.0
87.5°	5.0	6.0	6.9
90°	6.0	6.9	6.9
92.5°	6.0	7.9	7.9
95°	6.9	7.9	8.9
97.5°	7.9	8.9	8.9
100°	6.9	8.9	9.9
102.5°	6.0	8.9	8.9
105°	5.0	6.9	7.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.0	5.0	5.0
115°	3.0	4.0	5.0
117.5°	3.0	4.0	4.0
120°	3.0	3.0	4.0
122.5°	3.0	3.0	4.0
125°	3.0	3.0	4.0
127.5°	4.0	3.0	3.0
130°	3.0	3.0	3.0
132.5°	4.0	3.0	3.0
135°	4.0	3.0	3.0
137.5°	4.0	3.0	3.0
140°	4.0	3.0	3.0
142.5°	4.0	3.0	3.0
145°	3.0	3.0	3.0
147.5°	3.0	3.0	3.0
150°	3.0	3.0	2.0
152.5°	3.0	2.0	2.0
155°	3.0	2.0	1.0
157.5°	4.0	2.0	1.0
160°	3.0	2.0	1.0
162.5°	3.0	2.0	1.0
165°	3.0	2.0	0.0
167.5°	3.0	2.0	1.0
170°	3.0	2.0	1.0
172.5°	3.0	2.0	1.0
175°	3.0	1.0	1.0
177.5°	3.0	1.0	1.0
180°	3.0	3.0	3.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	416.7	404.8	365.1	299.6	209.3	117.1	43.7	7.9	2.0	3.0	3.0
110°	363.1	353.2	312.5	249.0	168.6	87.3	28.8	5.0	3.0	3.0	3.0





107.5°	4.0	6.0	6.9
110°	4.0	5.0	6.0



(END OF REPORT)