

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P212755

Luminaire Tested: **LD4B40D010 EU4B30509727 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212755
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29201)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B40D010 EU4B30509727 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2649.4 lumens
Efficiency: N/A
Efficacy: 61.6 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

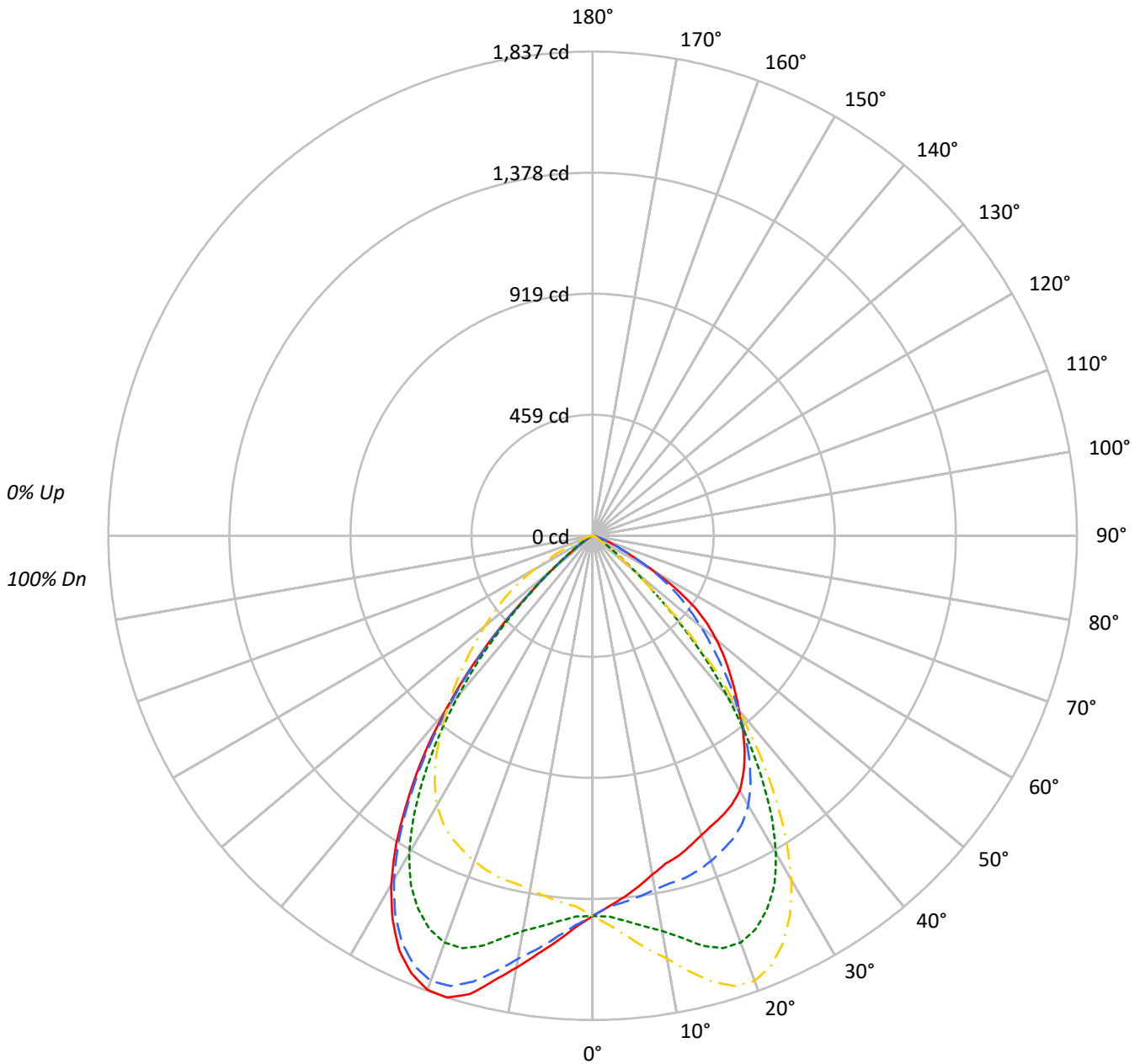
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	112	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91																			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82																			
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73																			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66																			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60																			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49																			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41																			
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	177914	177914	177914	177914
5°	170335	181652	191099	181652
10°	163474	190678	208338	190678
15°	160591	205605	229931	205605
20°	158564	215584	240603	215584
25°	159220	212896	236237	212896
30°	159034	198102	217643	198102
35°	151481	168135	183915	168135
40°	138973	127927	141131	127927
45°	128298	81427	87742	81427
50°	117361	39491	38398	39491
55°	101609	17204	12301	17204
60°	65817	8462	5649	8462
65°	34469	5575	4436	5575
70°	18537	4111	3426	4111
75°	10008	3622	2716	3622
80°	6748	2699	1350	2699
85°	5378	2689	0	2689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.6	5.3
10°-20°	439.9	16.6
20°-30°	683.9	25.8
30°-40°	690.8	26.1
40°-50°	437.4	16.5
50°-60°	183.6	6.9
60°-70°	58.2	2.2
70°-80°	13.3	0.5
80°-90°	1.9	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1264.4	47.7
0°-40°	1955.2	73.8
0°-60°	2576.1	97.2
0°-90°	2649.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2649.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1442	1442	1442	1442	1442	
5°	1376	1467	1543	1467	1376	129
15°	1258	1610	1801	1610	1258	355
25°	1170	1564	1736	1564	1170	539
35°	1006	1117	1221	1117	1006	625
45°	736	467	503	467	736	568
55°	472	80	57	80	472	408
65°	118	19	15	19	118	130
75°	21	8	6	8	21	26
85°	4	2	0	2	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1408.1	1394.7	1406.2	1410.0	1410.0	1408.1	1411.9	1408.1	1402.4	1425.2	1408.1
5°	1375.7	1366.2	1375.7	1379.5	1381.4	1383.3	1387.1	1387.1	1385.2	1406.2	1394.7
7.5°	1341.4	1335.7	1343.3	1349.0	1356.6	1354.7	1360.4	1362.4	1366.2	1390.9	1379.5
10°	1305.2	1299.5	1309.0	1312.8	1322.3	1324.2	1328.1	1333.8	1341.4	1366.2	1362.4
12.5°	1274.7	1272.8	1278.5	1286.1	1295.7	1297.6	1301.4	1310.9	1322.3	1349.0	1350.9
15°	1257.6	1255.6	1261.4	1269.0	1276.6	1280.4	1284.2	1297.6	1309.0	1337.6	1345.2
17.5°	1232.8	1232.8	1238.5	1246.1	1255.6	1259.5	1265.2	1278.5	1293.8	1322.3	1331.9
20°	1208.0	1209.9	1213.7	1221.4	1230.9	1234.7	1240.4	1253.7	1270.9	1299.5	1312.8
22.5°	1187.1	1192.8	1194.7	1200.4	1209.9	1215.6	1217.5	1232.8	1248.0	1272.8	1289.9
25°	1169.9	1177.5	1177.5	1181.3	1192.8	1194.7	1196.6	1211.8	1225.2	1248.0	1265.2
27.5°	1147.0	1154.7	1154.7	1160.4	1168.0	1171.8	1171.8	1185.1	1198.5	1215.6	1229.0
30°	1116.6	1122.3	1122.3	1124.2	1131.8	1135.6	1133.7	1147.0	1156.6	1168.0	1181.3
32.5°	1065.1	1074.6	1070.8	1076.5	1080.4	1084.2	1080.4	1091.8	1099.4	1110.8	1114.7
35°	1006.0	1013.7	1007.9	1011.8	1019.4	1019.4	1017.5	1025.1	1028.9	1034.6	1036.5
37.5°	937.4	943.2	939.4	941.3	945.1	947.0	943.2	950.8	950.8	952.7	948.9
40°	863.1	872.7	867.0	867.0	870.8	872.7	867.0	870.8	874.6	865.0	857.4
42.5°	798.4	807.9	802.2	802.2	802.2	804.1	796.5	798.4	798.4	785.0	773.6
45°	735.5	743.1	737.4	731.7	733.6	735.5	727.9	726.0	720.2	705.0	687.8
47.5°	674.5	682.1	674.5	670.7	670.7	670.7	661.2	655.5	647.8	626.9	605.9
50°	611.6	619.3	613.5	609.7	605.9	605.9	598.3	590.7	579.2	558.3	535.4
52.5°	546.8	552.6	546.8	543.0	539.2	539.2	529.7	524.0	510.6	489.7	464.9
55°	472.5	476.3	470.6	466.8	464.9	464.9	457.3	451.6	440.1	423.0	400.1
57.5°	373.5	381.1	371.6	375.4	375.4	373.5	367.7	365.8	362.0	346.8	329.6
60°	266.8	266.8	264.8	272.5	270.6	274.4	270.6	272.5	274.4	262.9	251.5
62.5°	175.3	181.0	177.2	181.0	184.8	184.8	182.9	186.7	190.5	184.8	179.1
65°	118.1	118.1	118.1	120.0	120.0	121.9	120.0	121.9	123.9	121.9	118.1
67.5°	78.1	80.0	78.1	80.0	78.1	80.0	80.0	80.0	81.9	80.0	78.1
70°	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	53.4	51.4	49.5
72.5°	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
75°	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
77.5°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
80°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	7.6	9.5	7.6	7.6
82.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	1.9	3.8	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1417.6	1411.9	1440.5	1415.7	1429.0	1427.1	1429.0	1440.5	1440.5	1446.2	1444.3
5°	1410.0	1404.3	1436.7	1417.6	1432.8	1432.8	1438.6	1455.7	1455.7	1467.1	1469.1
7.5°	1398.6	1400.5	1434.8	1423.3	1440.5	1442.4	1451.9	1472.9	1478.6	1493.8	1501.4
10°	1385.2	1392.8	1429.0	1425.2	1448.1	1450.0	1469.1	1493.8	1501.4	1522.4	1535.7
12.5°	1379.5	1392.8	1434.8	1438.6	1461.4	1471.0	1491.9	1524.3	1537.6	1562.4	1581.5
15°	1377.6	1396.6	1442.4	1455.7	1482.4	1495.7	1524.3	1562.4	1577.7	1610.1	1632.9
17.5°	1368.1	1392.8	1442.4	1463.3	1491.9	1505.3	1541.5	1585.3	1604.3	1640.5	1667.2
20°	1350.9	1377.6	1427.1	1453.8	1484.3	1503.3	1539.6	1585.3	1604.3	1642.4	1672.9
22.5°	1328.1	1354.7	1402.4	1432.8	1459.5	1480.5	1518.6	1562.4	1579.6	1615.8	1646.3
25°	1299.5	1326.1	1366.2	1396.6	1421.4	1440.5	1472.9	1518.6	1530.0	1564.3	1596.7
27.5°	1259.5	1284.2	1314.7	1343.3	1366.2	1381.4	1410.0	1450.0	1459.5	1493.8	1520.5
30°	1206.1	1221.4	1248.0	1267.1	1284.2	1299.5	1320.4	1356.6	1360.4	1390.9	1415.7
32.5°	1133.7	1141.3	1160.4	1169.9	1185.1	1190.9	1208.0	1238.5	1234.7	1263.3	1284.2
35°	1046.1	1049.9	1049.9	1061.3	1065.1	1067.0	1080.4	1097.5	1091.8	1116.6	1131.8
37.5°	950.8	948.9	937.4	937.4	939.4	933.6	939.4	947.0	939.4	958.4	971.7
40°	853.6	842.2	821.2	809.8	804.1	802.2	790.7	800.3	781.2	794.5	804.1
42.5°	760.2	741.2	708.8	685.9	676.4	666.9	647.8	647.8	623.1	632.6	634.5
45°	665.0	632.6	588.8	567.8	543.0	527.8	503.0	478.3	461.1	466.8	461.1
47.5°	577.3	539.2	487.8	451.6	423.0	402.0	367.7	339.2	322.0	314.4	306.8
50°	501.1	463.0	403.9	358.2	329.6	304.9	270.6	238.2	217.2	205.8	200.1
52.5°	432.5	392.5	335.3	287.7	257.2	234.4	196.3	163.9	141.0	127.7	120.0
55°	367.7	331.5	278.2	234.4	205.8	182.9	144.8	114.3	93.4	80.0	70.5
57.5°	303.0	270.6	226.7	184.8	160.1	139.1	106.7	80.0	62.9	51.4	43.8
60°	232.5	207.7	171.5	139.1	118.1	101.0	76.2	55.3	43.8	34.3	30.5
62.5°	163.9	148.6	121.9	99.1	85.7	72.4	53.4	40.0	30.5	24.8	22.9
65°	110.5	99.1	83.8	66.7	57.2	49.5	38.1	28.6	22.9	19.1	17.1
67.5°	72.4	66.7	55.3	45.7	40.0	34.3	26.7	21.0	17.1	15.2	13.3
70°	47.6	43.8	36.2	30.5	28.6	24.8	19.1	15.2	13.3	11.4	11.4
72.5°	30.5	26.7	24.8	21.0	19.1	17.1	13.3	11.4	9.5	9.5	9.5
75°	19.1	17.1	15.2	13.3	13.3	11.4	9.5	9.5	7.6	7.6	7.6
77.5°	11.4	11.4	9.5	9.5	7.6	7.6	7.6	5.7	5.7	5.7	5.7
80°	7.6	7.6	5.7	5.7	5.7	5.7	3.8	3.8	3.8	3.8	3.8
82.5°	3.8	3.8	3.8	3.8	3.8	3.8	1.9	1.9	1.9	1.9	1.9
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1453.8	1457.6	1453.8	1465.2	1446.2	1467.1	1459.5	1463.3	1478.6	1472.9	1478.6
5°	1482.4	1490.0	1490.0	1503.3	1486.2	1511.0	1503.3	1511.0	1526.2	1526.2	1533.8
7.5°	1518.6	1528.1	1531.9	1545.3	1528.1	1558.6	1551.0	1560.5	1579.6	1579.6	1585.3
10°	1556.7	1568.1	1575.8	1591.0	1571.9	1606.2	1598.6	1612.0	1629.1	1631.0	1640.5
12.5°	1604.3	1619.6	1629.1	1642.4	1629.1	1663.4	1655.8	1669.1	1692.0	1693.9	1705.3
15°	1657.7	1676.7	1688.2	1703.4	1688.2	1726.3	1718.7	1733.9	1751.0	1758.7	1770.1
17.5°	1692.0	1714.8	1724.4	1741.5	1726.3	1764.4	1754.9	1775.8	1791.1	1794.9	1808.2
20°	1697.7	1718.7	1732.0	1745.3	1732.0	1770.1	1760.6	1777.7	1796.8	1800.6	1810.1
22.5°	1672.9	1690.1	1705.3	1716.8	1705.3	1743.4	1730.1	1749.1	1766.3	1770.1	1777.7
25°	1615.8	1636.7	1652.0	1661.5	1650.1	1686.3	1674.8	1692.0	1707.2	1714.8	1716.8
27.5°	1535.7	1554.8	1570.0	1575.8	1568.1	1602.4	1587.2	1608.1	1621.5	1625.3	1631.0
30°	1427.1	1444.3	1459.5	1463.3	1457.6	1482.4	1474.8	1493.8	1507.2	1511.0	1514.8
32.5°	1293.8	1310.9	1320.4	1324.2	1318.5	1343.3	1335.7	1350.9	1366.2	1366.2	1366.2
35°	1143.2	1158.5	1164.2	1175.6	1162.3	1187.1	1179.4	1192.8	1206.1	1206.1	1208.0
37.5°	981.3	992.7	996.5	1007.9	994.6	1017.5	1011.8	1023.2	1034.6	1032.7	1036.5
40°	807.9	819.3	823.1	832.7	821.2	840.3	836.5	847.9	857.4	857.4	857.4
42.5°	640.2	647.8	647.8	657.4	645.9	663.1	663.1	670.7	680.2	678.3	678.3
45°	464.9	463.0	466.8	464.9	464.9	480.2	480.2	484.0	491.6	487.8	489.7
47.5°	308.7	310.6	303.0	308.7	301.1	314.4	314.4	314.4	320.1	316.3	320.1
50°	196.3	190.5	186.7	186.7	184.8	194.3	190.5	192.4	196.3	192.4	196.3
52.5°	110.5	108.6	104.8	106.7	102.9	104.8	104.8	104.8	106.7	104.8	108.6
55°	64.8	59.1	57.2	57.2	55.3	57.2	55.3	55.3	55.3	53.4	55.3
57.5°	38.1	36.2	34.3	34.3	32.4	32.4	32.4	32.4	32.4	32.4	32.4
60°	26.7	24.8	24.8	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
62.5°	21.0	19.1	19.1	19.1	17.1	17.1	17.1	17.1	17.1	19.1	17.1
65°	15.2	15.2	15.2	15.2	15.2	15.2	13.3	15.2	15.2	15.2	15.2
67.5°	13.3	13.3	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
70°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
75°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	3.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
85°	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P212755

CATALOG NUMBER: LD4B40D010 EU4B30509727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1484.3	1476.7	1459.5	1471.0	1472.9	1465.2	1474.8	1486.2	1474.8	1465.2	1472.9
5°	1539.6	1533.8	1518.6	1528.1	1530.0	1528.1	1533.8	1543.4	1533.8	1528.1	1530.0
7.5°	1594.8	1591.0	1573.8	1585.3	1589.1	1585.3	1591.0	1600.5	1591.0	1585.3	1589.1
10°	1648.2	1646.3	1629.1	1644.3	1646.3	1642.4	1648.2	1663.4	1648.2	1642.4	1646.3
12.5°	1709.1	1712.9	1693.9	1711.0	1712.9	1709.1	1716.8	1728.2	1716.8	1709.1	1712.9
15°	1779.6	1777.7	1762.5	1775.8	1779.6	1775.8	1785.3	1800.6	1785.3	1775.8	1779.6
17.5°	1813.9	1813.9	1802.5	1815.8	1817.7	1817.7	1825.4	1836.8	1825.4	1817.7	1817.7
20°	1815.8	1817.7	1804.4	1819.6	1819.6	1819.6	1827.3	1833.0	1827.3	1819.6	1819.6
22.5°	1785.3	1787.3	1773.9	1787.3	1787.3	1789.2	1793.0	1796.8	1793.0	1789.2	1787.3
25°	1726.3	1728.2	1716.8	1728.2	1726.3	1726.3	1730.1	1735.8	1730.1	1726.3	1726.3
27.5°	1638.6	1640.5	1625.3	1638.6	1636.7	1634.8	1640.5	1642.4	1640.5	1634.8	1636.7
30°	1522.4	1524.3	1511.0	1522.4	1520.5	1518.6	1526.2	1528.1	1526.2	1518.6	1520.5
32.5°	1383.3	1379.5	1370.0	1379.5	1377.6	1377.6	1381.4	1387.1	1381.4	1377.6	1377.6
35°	1215.6	1215.6	1209.9	1217.5	1211.8	1219.4	1219.4	1221.4	1219.4	1219.4	1211.8
37.5°	1044.2	1044.2	1040.3	1044.2	1042.2	1049.9	1049.9	1055.6	1049.9	1049.9	1042.2
40°	865.0	865.0	861.2	865.0	870.8	870.8	868.9	876.5	868.9	870.8	870.8
42.5°	684.0	684.0	682.1	691.7	691.7	691.7	685.9	693.6	685.9	691.7	691.7
45°	497.3	493.5	491.6	491.6	493.5	501.1	493.5	503.0	493.5	501.1	493.5
47.5°	316.3	318.2	320.1	325.8	322.0	320.1	320.1	325.8	320.1	320.1	322.0
50°	194.3	196.3	196.3	200.1	194.3	198.2	196.3	200.1	196.3	198.2	194.3
52.5°	106.7	106.7	106.7	110.5	106.7	108.6	106.7	110.5	106.7	108.6	106.7
55°	55.3	55.3	55.3	57.2	55.3	55.3	55.3	57.2	55.3	55.3	55.3
57.5°	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
60°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
62.5°	19.1	17.1	17.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
65°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
67.5°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
70°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
75°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P212755

CATALOG NUMBER: LD4B40D010 EU4B30509727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1471.0	1459.5	1476.7	1484.3	1478.6	1472.9	1478.6	1463.3	1459.5	1467.1	1446.2
5°	1528.1	1518.6	1533.8	1539.6	1533.8	1526.2	1526.2	1511.0	1503.3	1511.0	1486.2
7.5°	1585.3	1573.8	1591.0	1594.8	1585.3	1579.6	1579.6	1560.5	1551.0	1558.6	1528.1
10°	1644.3	1629.1	1646.3	1648.2	1640.5	1631.0	1629.1	1612.0	1598.6	1606.2	1571.9
12.5°	1711.0	1693.9	1712.9	1709.1	1705.3	1693.9	1692.0	1669.1	1655.8	1663.4	1629.1
15°	1775.8	1762.5	1777.7	1779.6	1770.1	1758.7	1751.0	1733.9	1718.7	1726.3	1688.2
17.5°	1815.8	1802.5	1813.9	1813.9	1808.2	1794.9	1791.1	1775.8	1754.9	1764.4	1726.3
20°	1819.6	1804.4	1817.7	1815.8	1810.1	1800.6	1796.8	1777.7	1760.6	1770.1	1732.0
22.5°	1787.3	1773.9	1787.3	1785.3	1777.7	1770.1	1766.3	1749.1	1730.1	1743.4	1705.3
25°	1728.2	1716.8	1728.2	1726.3	1716.8	1714.8	1707.2	1692.0	1674.8	1686.3	1650.1
27.5°	1638.6	1625.3	1640.5	1638.6	1631.0	1625.3	1621.5	1608.1	1587.2	1602.4	1568.1
30°	1522.4	1511.0	1524.3	1522.4	1514.8	1511.0	1507.2	1493.8	1474.8	1482.4	1457.6
32.5°	1379.5	1370.0	1379.5	1383.3	1366.2	1366.2	1366.2	1350.9	1335.7	1343.3	1318.5
35°	1217.5	1209.9	1215.6	1215.6	1208.0	1206.1	1206.1	1192.8	1179.4	1187.1	1162.3
37.5°	1044.2	1040.3	1044.2	1044.2	1036.5	1032.7	1034.6	1023.2	1011.8	1017.5	994.6
40°	865.0	861.2	865.0	865.0	857.4	857.4	857.4	847.9	836.5	840.3	821.2
42.5°	691.7	682.1	684.0	684.0	678.3	678.3	680.2	670.7	663.1	663.1	645.9
45°	491.6	491.6	493.5	497.3	489.7	487.8	491.6	484.0	480.2	480.2	464.9
47.5°	325.8	320.1	318.2	316.3	320.1	316.3	320.1	314.4	314.4	314.4	301.1
50°	200.1	196.3	196.3	194.3	196.3	192.4	196.3	192.4	190.5	194.3	184.8
52.5°	110.5	106.7	106.7	106.7	108.6	104.8	106.7	104.8	104.8	104.8	102.9
55°	57.2	55.3	55.3	55.3	55.3	53.4	55.3	55.3	55.3	57.2	55.3
57.5°	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4	32.4
60°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
62.5°	19.1	17.1	17.1	19.1	17.1	19.1	17.1	17.1	17.1	17.1	17.1
65°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	13.3	15.2	15.2
67.5°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
70°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
75°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P212755

CATALOG NUMBER: LD4B40D010 EU4B30509727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1465.2	1453.8	1457.6	1453.8	1444.3	1446.2	1440.5	1440.5	1429.0	1427.1	1429.0
5°	1503.3	1490.0	1490.0	1482.4	1469.1	1467.1	1455.7	1455.7	1438.6	1432.8	1432.8
7.5°	1545.3	1531.9	1528.1	1518.6	1501.4	1493.8	1478.6	1472.9	1451.9	1442.4	1440.5
10°	1591.0	1575.8	1568.1	1556.7	1535.7	1522.4	1501.4	1493.8	1469.1	1450.0	1448.1
12.5°	1642.4	1629.1	1619.6	1604.3	1581.5	1562.4	1537.6	1524.3	1491.9	1471.0	1461.4
15°	1703.4	1688.2	1676.7	1657.7	1632.9	1610.1	1577.7	1562.4	1524.3	1495.7	1482.4
17.5°	1741.5	1724.4	1714.8	1692.0	1667.2	1640.5	1604.3	1585.3	1541.5	1505.3	1491.9
20°	1745.3	1732.0	1718.7	1697.7	1672.9	1642.4	1604.3	1585.3	1539.6	1503.3	1484.3
22.5°	1716.8	1705.3	1690.1	1672.9	1646.3	1615.8	1579.6	1562.4	1518.6	1480.5	1459.5
25°	1661.5	1652.0	1636.7	1615.8	1596.7	1564.3	1530.0	1518.6	1472.9	1440.5	1421.4
27.5°	1575.8	1570.0	1554.8	1535.7	1520.5	1493.8	1459.5	1450.0	1410.0	1381.4	1366.2
30°	1463.3	1459.5	1444.3	1427.1	1415.7	1390.9	1360.4	1356.6	1320.4	1299.5	1284.2
32.5°	1324.2	1320.4	1310.9	1293.8	1284.2	1263.3	1234.7	1238.5	1208.0	1190.9	1185.1
35°	1175.6	1164.2	1158.5	1143.2	1131.8	1116.6	1091.8	1097.5	1080.4	1067.0	1065.1
37.5°	1007.9	996.5	992.7	981.3	971.7	958.4	939.4	947.0	939.4	933.6	939.4
40°	832.7	823.1	819.3	807.9	804.1	794.5	781.2	800.3	790.7	802.2	804.1
42.5°	657.4	647.8	647.8	640.2	634.5	632.6	623.1	647.8	647.8	666.9	676.4
45°	464.9	466.8	463.0	464.9	461.1	466.8	461.1	478.3	503.0	527.8	543.0
47.5°	308.7	303.0	310.6	308.7	306.8	314.4	322.0	339.2	367.7	402.0	423.0
50°	186.7	186.7	190.5	196.3	200.1	205.8	217.2	238.2	270.6	304.9	329.6
52.5°	106.7	104.8	108.6	110.5	120.0	127.7	141.0	163.9	196.3	234.4	257.2
55°	57.2	57.2	59.1	64.8	70.5	80.0	93.4	114.3	144.8	182.9	205.8
57.5°	34.3	34.3	36.2	38.1	43.8	51.4	62.9	80.0	106.7	139.1	160.1
60°	22.9	24.8	24.8	26.7	30.5	34.3	43.8	55.3	76.2	101.0	118.1
62.5°	19.1	19.1	19.1	21.0	22.9	24.8	30.5	40.0	53.4	72.4	85.7
65°	15.2	15.2	15.2	15.2	17.1	19.1	22.9	28.6	38.1	49.5	57.2
67.5°	11.4	11.4	13.3	13.3	13.3	15.2	17.1	21.0	26.7	34.3	40.0
70°	9.5	9.5	9.5	9.5	11.4	11.4	13.3	15.2	19.1	24.8	28.6
72.5°	7.6	7.6	7.6	7.6	9.5	9.5	9.5	11.4	13.3	17.1	19.1
75°	5.7	5.7	5.7	5.7	7.6	7.6	7.6	9.5	9.5	11.4	13.3
77.5°	3.8	3.8	3.8	3.8	5.7	5.7	5.7	5.7	7.6	7.6	7.6
80°	1.9	1.9	1.9	3.8	3.8	3.8	3.8	3.8	3.8	5.7	5.7
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.8	3.8
85°	0.0	0.0	1.9	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P212755

CATALOG NUMBER: LD4B40D010 EU4B30509727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4	1442.4
2.5°	1415.7	1440.5	1411.9	1417.6	1408.1	1425.2	1402.4	1408.1	1411.9	1408.1	1410.0
5°	1417.6	1436.7	1404.3	1410.0	1394.7	1406.2	1385.2	1387.1	1387.1	1383.3	1381.4
7.5°	1423.3	1434.8	1400.5	1398.6	1379.5	1390.9	1366.2	1362.4	1360.4	1354.7	1356.6
10°	1425.2	1429.0	1392.8	1385.2	1362.4	1366.2	1341.4	1333.8	1328.1	1324.2	1322.3
12.5°	1438.6	1434.8	1392.8	1379.5	1350.9	1349.0	1322.3	1310.9	1301.4	1297.6	1295.7
15°	1455.7	1442.4	1396.6	1377.6	1345.2	1337.6	1309.0	1297.6	1284.2	1280.4	1276.6
17.5°	1463.3	1442.4	1392.8	1368.1	1331.9	1322.3	1293.8	1278.5	1265.2	1259.5	1255.6
20°	1453.8	1427.1	1377.6	1350.9	1312.8	1299.5	1270.9	1253.7	1240.4	1234.7	1230.9
22.5°	1432.8	1402.4	1354.7	1328.1	1289.9	1272.8	1248.0	1232.8	1217.5	1215.6	1209.9
25°	1396.6	1366.2	1326.1	1299.5	1265.2	1248.0	1225.2	1211.8	1196.6	1194.7	1192.8
27.5°	1343.3	1314.7	1284.2	1259.5	1229.0	1215.6	1198.5	1185.1	1171.8	1171.8	1168.0
30°	1267.1	1248.0	1221.4	1206.1	1181.3	1168.0	1156.6	1147.0	1133.7	1135.6	1131.8
32.5°	1169.9	1160.4	1141.3	1133.7	1114.7	1110.8	1099.4	1091.8	1080.4	1084.2	1080.4
35°	1061.3	1049.9	1049.9	1046.1	1036.5	1034.6	1028.9	1025.1	1017.5	1019.4	1019.4
37.5°	937.4	937.4	948.9	950.8	948.9	952.7	950.8	950.8	943.2	947.0	945.1
40°	809.8	821.2	842.2	853.6	857.4	865.0	874.6	870.8	867.0	872.7	870.8
42.5°	685.9	708.8	741.2	760.2	773.6	785.0	798.4	798.4	796.5	804.1	802.2
45°	567.8	588.8	632.6	665.0	687.8	705.0	720.2	726.0	727.9	735.5	733.6
47.5°	451.6	487.8	539.2	577.3	605.9	626.9	647.8	655.5	661.2	670.7	670.7
50°	358.2	403.9	463.0	501.1	535.4	558.3	579.2	590.7	598.3	605.9	605.9
52.5°	287.7	335.3	392.5	432.5	464.9	489.7	510.6	524.0	529.7	539.2	539.2
55°	234.4	278.2	331.5	367.7	400.1	423.0	440.1	451.6	457.3	464.9	464.9
57.5°	184.8	226.7	270.6	303.0	329.6	346.8	362.0	365.8	367.7	373.5	375.4
60°	139.1	171.5	207.7	232.5	251.5	262.9	274.4	272.5	270.6	274.4	270.6
62.5°	99.1	121.9	148.6	163.9	179.1	184.8	190.5	186.7	182.9	184.8	184.8
65°	66.7	83.8	99.1	110.5	118.1	121.9	123.9	121.9	120.0	121.9	120.0
67.5°	45.7	55.3	66.7	72.4	78.1	80.0	81.9	80.0	80.0	80.0	78.1
70°	30.5	36.2	43.8	47.6	49.5	51.4	53.4	51.4	51.4	51.4	51.4
72.5°	21.0	24.8	26.7	30.5	32.4	32.4	32.4	32.4	32.4	32.4	32.4
75°	13.3	15.2	17.1	19.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0
77.5°	9.5	9.5	11.4	11.4	13.3	13.3	13.3	13.3	13.3	13.3	13.3
80°	5.7	5.7	7.6	7.6	7.6	7.6	9.5	7.6	9.5	9.5	9.5
82.5°	3.8	3.8	3.8	3.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7
85°	1.9	1.9	1.9	1.9	1.9	1.9	3.8	1.9	3.8	3.8	3.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P212755

CATALOG NUMBER: LD4B40D010 EU4B30509727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1442.4	1442.4	1442.4	1442.4
2.5°	1410.0	1406.2	1394.7	1408.1
5°	1379.5	1375.7	1366.2	1375.7
7.5°	1349.0	1343.3	1335.7	1341.4
10°	1312.8	1309.0	1299.5	1305.2
12.5°	1286.1	1278.5	1272.8	1274.7
15°	1269.0	1261.4	1255.6	1257.6
17.5°	1246.1	1238.5	1232.8	1232.8
20°	1221.4	1213.7	1209.9	1208.0
22.5°	1200.4	1194.7	1192.8	1187.1
25°	1181.3	1177.5	1177.5	1169.9
27.5°	1160.4	1154.7	1154.7	1147.0
30°	1124.2	1122.3	1122.3	1116.6
32.5°	1076.5	1070.8	1074.6	1065.1
35°	1011.8	1007.9	1013.7	1006.0
37.5°	941.3	939.4	943.2	937.4
40°	867.0	867.0	872.7	863.1
42.5°	802.2	802.2	807.9	798.4
45°	731.7	737.4	743.1	735.5
47.5°	670.7	674.5	682.1	674.5
50°	609.7	613.5	619.3	611.6
52.5°	543.0	546.8	552.6	546.8
55°	466.8	470.6	476.3	472.5
57.5°	375.4	371.6	381.1	373.5
60°	272.5	264.8	266.8	266.8
62.5°	181.0	177.2	181.0	175.3
65°	120.0	118.1	118.1	118.1
67.5°	80.0	78.1	80.0	78.1
70°	51.4	51.4	51.4	51.4
72.5°	32.4	32.4	32.4	32.4
75°	21.0	21.0	21.0	21.0
77.5°	13.3	13.3	13.3	13.3
80°	9.5	9.5	9.5	9.5
82.5°	5.7	5.7	5.7	5.7
85°	3.8	3.8	3.8	3.8
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°





















(END OF REPORT)