

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: P212734

Luminaire Tested: **LD4B30D010 EU4B30508040 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212734
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: LD4B30D010 EU4B30508040 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2743.5 lumens
Efficiency: N/A
Efficacy: 98.0 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

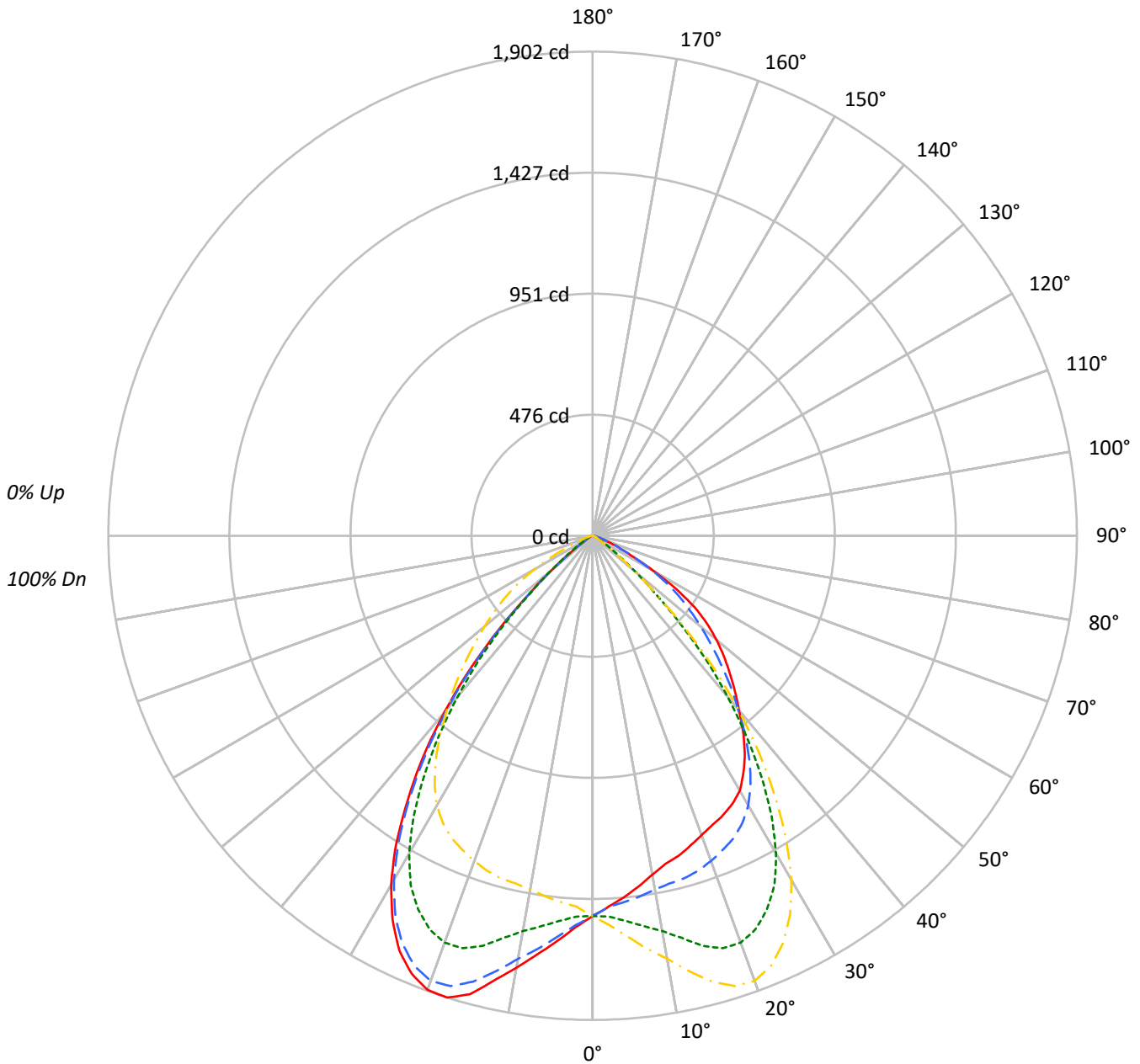
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWL11

Luminous Intensity Polar Plot





TEST NUMBER: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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°	184229	184229	184229	184229
5°	176377	188102	197884	188102
10°	169273	197454	215740	197454
15°	166287	212896	238091	212896
20°	164195	223250	249148	223250
25°	164868	220463	244620	220463
30°	164674	205138	225377	205138
35°	156871	174097	190435	174097
40°	143916	132484	146138	132484
45°	132851	84323	90864	84323
50°	121525	40892	39760	40892
55°	105222	17827	12731	17827
60°	68136	8758	5847	8758
65°	35695	5750	4611	5750
70°	19222	4256	3570	4256
75°	10342	3765	2812	3765
80°	7032	2770	1421	2770
85°	5519	2830	0	2830



TEST NUMBER: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.6	5.3
10°-20°	455.5	16.6
20°-30°	708.2	25.8
30°-40°	715.3	26.1
40°-50°	452.9	16.5
50°-60°	190.1	6.9
60°-70°	60.2	2.2
70°-80°	13.8	0.5
80°-90°	2.0	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°	1309.3	47.7
0°-40°	2024.6	73.8
0°-60°	2667.6	97.2
0°-90°	2743.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2743.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1494	1494	1494	1494	1494	
5°	1424	1519	1598	1519	1424	134
15°	1302	1667	1864	1667	1302	367
25°	1211	1620	1797	1620	1211	558
35°	1042	1156	1265	1156	1042	647
45°	762	483	521	483	762	588
55°	489	83	59	83	489	422
65°	122	20	16	20	122	135
75°	22	8	6	8	22	26
85°	4	2	0	2	4	4
90°	0	0	0	0	0	



TEST NUMBER: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1458.1	1444.3	1456.1	1460.1	1460.1	1458.1	1462.0	1458.1	1452.2	1475.8	1458.1
5°	1424.5	1414.7	1424.5	1428.5	1430.5	1432.4	1436.4	1436.4	1434.4	1456.1	1444.3
7.5°	1389.0	1383.1	1391.0	1396.9	1404.8	1402.8	1408.8	1410.7	1414.7	1440.3	1428.5
10°	1351.5	1345.6	1355.5	1359.4	1369.3	1371.3	1375.2	1381.1	1389.0	1414.7	1410.7
12.5°	1320.0	1318.0	1323.9	1331.8	1341.7	1343.6	1347.6	1357.5	1369.3	1396.9	1398.9
15°	1302.2	1300.2	1306.2	1314.0	1321.9	1325.9	1329.8	1343.6	1355.5	1385.1	1393.0
17.5°	1276.6	1276.6	1282.5	1290.4	1300.2	1304.2	1310.1	1323.9	1339.7	1369.3	1379.2
20°	1250.9	1252.9	1256.8	1264.7	1274.6	1278.5	1284.5	1298.3	1316.0	1345.6	1359.4
22.5°	1229.2	1235.1	1237.1	1243.0	1252.9	1258.8	1260.8	1276.6	1292.3	1318.0	1335.7
25°	1211.4	1219.3	1219.3	1223.3	1235.1	1237.1	1239.1	1254.9	1268.7	1292.3	1310.1
27.5°	1187.8	1195.7	1195.7	1201.6	1209.5	1213.4	1213.4	1227.2	1241.0	1258.8	1272.6
30°	1156.2	1162.1	1162.1	1164.1	1172.0	1175.9	1174.0	1187.8	1197.6	1209.5	1223.3
32.5°	1102.9	1112.8	1108.8	1114.8	1118.7	1122.7	1118.7	1130.6	1138.4	1150.3	1154.2
35°	1041.8	1049.7	1043.7	1047.7	1055.6	1055.6	1053.6	1061.5	1065.4	1071.4	1073.3
37.5°	970.7	976.7	972.7	974.7	978.6	980.6	976.7	984.5	984.5	986.5	982.6
40°	893.8	903.7	897.7	897.7	901.7	903.7	897.7	901.7	905.6	895.8	887.9
42.5°	826.7	836.6	830.7	830.7	830.7	832.6	824.7	826.7	826.7	812.9	801.1
45°	761.6	769.5	763.6	757.6	759.6	761.6	753.7	751.7	745.8	730.0	712.3
47.5°	698.5	706.3	698.5	694.5	694.5	694.5	684.6	678.7	670.8	649.1	627.4
50°	633.3	641.2	635.3	631.4	627.4	627.4	619.5	611.6	599.8	578.1	554.4
52.5°	566.3	572.2	566.3	562.3	558.4	558.4	548.5	542.6	528.8	507.1	481.4
55°	489.3	493.3	487.3	483.4	481.4	481.4	473.5	467.6	455.8	438.0	414.3
57.5°	386.7	394.6	384.7	388.7	388.7	386.7	380.8	378.8	374.9	359.1	341.3
60°	276.2	276.2	274.3	282.1	280.2	284.1	280.2	282.1	284.1	272.3	260.4
62.5°	181.5	187.4	183.5	187.4	191.4	191.4	189.4	193.4	197.3	191.4	185.5
65°	122.3	122.3	122.3	124.3	124.3	126.3	124.3	126.3	128.2	126.3	122.3
67.5°	80.9	82.9	80.9	82.9	80.9	82.9	82.9	82.9	84.8	82.9	80.9
70°	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	55.2	53.3	51.3
72.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
75°	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
77.5°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
80°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	7.9	9.9	7.9	7.9
82.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
85°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.0	3.9	2.0	2.0
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: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1467.9	1462.0	1491.6	1466.0	1479.8	1477.8	1479.8	1491.6	1491.6	1497.5	1495.6
5°	1460.1	1454.1	1487.7	1467.9	1483.7	1483.7	1489.6	1507.4	1507.4	1519.2	1521.2
7.5°	1448.2	1450.2	1485.7	1473.9	1491.6	1493.6	1503.5	1525.2	1531.1	1546.9	1554.8
10°	1434.4	1442.3	1479.8	1475.8	1499.5	1501.5	1521.2	1546.9	1554.8	1576.5	1590.3
12.5°	1428.5	1442.3	1485.7	1489.6	1513.3	1523.2	1544.9	1578.4	1592.2	1617.9	1637.6
15°	1426.5	1446.2	1493.6	1507.4	1535.0	1548.8	1578.4	1617.9	1633.7	1667.2	1690.9
17.5°	1416.6	1442.3	1493.6	1515.3	1544.9	1558.7	1596.2	1641.6	1661.3	1698.8	1726.4
20°	1398.9	1426.5	1477.8	1505.4	1537.0	1556.7	1594.2	1641.6	1661.3	1700.8	1732.3
22.5°	1375.2	1402.8	1452.2	1483.7	1511.4	1533.1	1572.5	1617.9	1635.7	1673.1	1704.7
25°	1345.6	1373.2	1414.7	1446.2	1471.9	1491.6	1525.2	1572.5	1584.4	1619.9	1653.4
27.5°	1304.2	1329.8	1361.4	1391.0	1414.7	1430.5	1460.1	1501.5	1511.4	1546.9	1574.5
30°	1248.9	1264.7	1292.3	1312.1	1329.8	1345.6	1367.3	1404.8	1408.8	1440.3	1466.0
32.5°	1174.0	1181.9	1201.6	1211.4	1227.2	1233.2	1250.9	1282.5	1278.5	1308.1	1329.8
35°	1083.2	1087.1	1087.1	1099.0	1102.9	1104.9	1118.7	1136.5	1130.6	1156.2	1172.0
37.5°	984.5	982.6	970.7	970.7	972.7	966.8	972.7	980.6	972.7	992.4	1006.3
40°	883.9	872.1	850.4	838.5	832.6	830.7	818.8	828.7	808.9	822.8	832.6
42.5°	787.2	767.5	734.0	710.3	700.4	690.6	670.8	670.8	645.2	655.0	657.0
45°	688.6	655.0	609.7	588.0	562.3	546.5	520.9	495.2	477.5	483.4	477.5
47.5°	597.8	558.4	505.1	467.6	438.0	416.3	380.8	351.2	333.4	325.6	317.7
50°	518.9	479.4	418.3	370.9	341.3	315.7	280.2	246.6	224.9	213.1	207.2
52.5°	447.9	406.4	347.3	297.9	266.4	242.7	203.2	169.7	146.0	132.2	124.3
55°	380.8	343.3	288.1	242.7	213.1	189.4	150.0	118.4	96.7	82.9	73.0
57.5°	313.7	280.2	234.8	191.4	165.7	144.0	110.5	82.9	65.1	53.3	45.4
60°	240.7	215.1	177.6	144.0	122.3	104.6	78.9	57.2	45.4	35.5	31.6
62.5°	169.7	153.9	126.3	102.6	88.8	75.0	55.2	41.4	31.6	25.6	23.7
65°	114.4	102.6	86.8	69.1	59.2	51.3	39.5	29.6	23.7	19.7	17.8
67.5°	75.0	69.1	57.2	47.4	41.4	35.5	27.6	21.7	17.8	15.8	13.8
70°	49.3	45.4	37.5	31.6	29.6	25.6	19.7	15.8	13.8	11.8	11.8
72.5°	31.6	27.6	25.6	21.7	19.7	17.8	13.8	11.8	9.9	9.9	9.9
75°	19.7	17.8	15.8	13.8	13.8	11.8	9.9	9.9	7.9	7.9	7.9
77.5°	11.8	11.8	9.9	9.9	7.9	7.9	7.9	5.9	5.9	5.9	5.9
80°	7.9	7.9	5.9	5.9	5.9	5.9	3.9	3.9	3.9	3.9	3.9
82.5°	3.9	3.9	3.9	3.9	3.9	3.9	2.0	2.0	2.0	2.0	2.0
85°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1505.4	1509.4	1505.4	1517.3	1497.5	1519.2	1511.4	1515.3	1531.1	1525.2	1531.1
5°	1535.0	1542.9	1542.9	1556.7	1539.0	1564.6	1556.7	1564.6	1580.4	1580.4	1588.3
7.5°	1572.5	1582.4	1586.3	1600.1	1582.4	1613.9	1606.1	1615.9	1635.7	1635.7	1641.6
10°	1612.0	1623.8	1631.7	1647.5	1627.8	1663.3	1655.4	1669.2	1687.0	1688.9	1698.8
12.5°	1661.3	1677.1	1687.0	1700.8	1687.0	1722.5	1714.6	1728.4	1752.1	1754.0	1765.9
15°	1716.5	1736.3	1748.1	1763.9	1748.1	1787.6	1779.7	1795.5	1813.2	1821.1	1833.0
17.5°	1752.1	1775.7	1785.6	1803.4	1787.6	1827.0	1817.2	1838.9	1854.7	1858.6	1872.4
20°	1758.0	1779.7	1793.5	1807.3	1793.5	1833.0	1823.1	1840.8	1860.6	1864.5	1874.4
22.5°	1732.3	1750.1	1765.9	1777.7	1765.9	1805.3	1791.5	1811.3	1829.0	1833.0	1840.8
25°	1673.1	1694.8	1710.6	1720.5	1708.7	1746.1	1734.3	1752.1	1767.8	1775.7	1777.7
27.5°	1590.3	1610.0	1625.8	1631.7	1623.8	1659.3	1643.5	1665.2	1679.1	1683.0	1688.9
30°	1477.8	1495.6	1511.4	1515.3	1509.4	1535.0	1527.1	1546.9	1560.7	1564.6	1568.6
32.5°	1339.7	1357.5	1367.3	1371.3	1365.3	1391.0	1383.1	1398.9	1414.7	1414.7	1414.7
35°	1183.8	1199.6	1205.5	1217.4	1203.6	1229.2	1221.3	1235.1	1248.9	1248.9	1250.9
37.5°	1016.1	1028.0	1031.9	1043.7	1029.9	1053.6	1047.7	1059.5	1071.4	1069.4	1073.3
40°	836.6	848.4	852.4	862.2	850.4	870.1	866.2	878.0	887.9	887.9	887.9
42.5°	662.9	670.8	670.8	680.7	668.9	686.6	686.6	694.5	704.4	702.4	702.4
45°	481.4	479.4	483.4	481.4	481.4	497.2	497.2	501.2	509.0	505.1	507.1
47.5°	319.6	321.6	313.7	319.6	311.7	325.6	325.6	325.6	331.5	327.5	331.5
50°	203.2	197.3	193.4	193.4	191.4	201.3	197.3	199.3	203.2	199.3	203.2
52.5°	114.4	112.5	108.5	110.5	106.5	108.5	108.5	108.5	110.5	108.5	112.5
55°	67.1	61.2	59.2	59.2	57.2	59.2	57.2	57.2	57.2	55.2	57.2
57.5°	39.5	37.5	35.5	35.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
60°	27.6	25.6	25.6	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
62.5°	21.7	19.7	19.7	19.7	17.8	17.8	17.8	17.8	17.8	19.7	17.8
65°	15.8	15.8	15.8	15.8	15.8	15.8	13.8	15.8	15.8	15.8	15.8
67.5°	13.8	13.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
75°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	3.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	0.0	2.0	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: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1537.0	1529.1	1511.4	1523.2	1525.2	1517.3	1527.1	1539.0	1527.1	1517.3	1525.2
5°	1594.2	1588.3	1572.5	1582.4	1584.4	1582.4	1588.3	1598.2	1588.3	1582.4	1584.4
7.5°	1651.4	1647.5	1629.7	1641.6	1645.5	1641.6	1647.5	1657.4	1647.5	1641.6	1645.5
10°	1706.7	1704.7	1687.0	1702.7	1704.7	1700.8	1706.7	1722.5	1706.7	1700.8	1704.7
12.5°	1769.8	1773.8	1754.0	1771.8	1773.8	1769.8	1777.7	1789.5	1777.7	1769.8	1773.8
15°	1842.8	1840.8	1825.1	1838.9	1842.8	1838.9	1848.7	1864.5	1848.7	1838.9	1842.8
17.5°	1878.3	1878.3	1866.5	1880.3	1882.3	1882.3	1890.2	1902.0	1890.2	1882.3	1882.3
20°	1880.3	1882.3	1868.5	1884.3	1884.3	1884.3	1892.1	1898.1	1892.1	1884.3	1884.3
22.5°	1848.7	1850.7	1836.9	1850.7	1850.7	1852.7	1856.6	1860.6	1856.6	1852.7	1850.7
25°	1787.6	1789.5	1777.7	1789.5	1787.6	1787.6	1791.5	1797.4	1791.5	1787.6	1787.6
27.5°	1696.8	1698.8	1683.0	1696.8	1694.8	1692.9	1698.8	1700.8	1698.8	1692.9	1694.8
30°	1576.5	1578.4	1564.6	1576.5	1574.5	1572.5	1580.4	1582.4	1580.4	1572.5	1574.5
32.5°	1432.4	1428.5	1418.6	1428.5	1426.5	1426.5	1430.5	1436.4	1430.5	1426.5	1426.5
35°	1258.8	1258.8	1252.9	1260.8	1254.9	1262.7	1262.7	1264.7	1262.7	1262.7	1254.9
37.5°	1081.2	1081.2	1077.3	1081.2	1079.3	1087.1	1087.1	1093.1	1087.1	1087.1	1079.3
40°	895.8	895.8	891.8	895.8	901.7	901.7	899.7	907.6	899.7	901.7	901.7
42.5°	708.3	708.3	706.3	716.2	716.2	716.2	710.3	718.2	710.3	716.2	716.2
45°	515.0	511.0	509.0	509.0	511.0	518.9	511.0	520.9	511.0	518.9	511.0
47.5°	327.5	329.5	331.5	337.4	333.4	331.5	331.5	337.4	331.5	331.5	333.4
50°	201.3	203.2	203.2	207.2	201.3	205.2	203.2	207.2	203.2	205.2	201.3
52.5°	110.5	110.5	110.5	114.4	110.5	112.5	110.5	114.4	110.5	112.5	110.5
55°	57.2	57.2	57.2	59.2	57.2	57.2	57.2	59.2	57.2	57.2	57.2
57.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
60°	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
62.5°	19.7	17.8	17.8	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
65°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
67.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
75°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1523.2	1511.4	1529.1	1537.0	1531.1	1525.2	1531.1	1515.3	1511.4	1519.2	1497.5
5°	1582.4	1572.5	1588.3	1594.2	1588.3	1580.4	1580.4	1564.6	1556.7	1564.6	1539.0
7.5°	1641.6	1629.7	1647.5	1651.4	1641.6	1635.7	1635.7	1615.9	1606.1	1613.9	1582.4
10°	1702.7	1687.0	1704.7	1706.7	1698.8	1688.9	1687.0	1669.2	1655.4	1663.3	1627.8
12.5°	1771.8	1754.0	1773.8	1769.8	1765.9	1754.0	1752.1	1728.4	1714.6	1722.5	1687.0
15°	1838.9	1825.1	1840.8	1842.8	1833.0	1821.1	1813.2	1795.5	1779.7	1787.6	1748.1
17.5°	1880.3	1866.5	1878.3	1878.3	1872.4	1858.6	1854.7	1838.9	1817.2	1827.0	1787.6
20°	1884.3	1868.5	1882.3	1880.3	1874.4	1864.5	1860.6	1840.8	1823.1	1833.0	1793.5
22.5°	1850.7	1836.9	1850.7	1848.7	1840.8	1833.0	1829.0	1811.3	1791.5	1805.3	1765.9
25°	1789.5	1777.7	1789.5	1787.6	1777.7	1775.7	1767.8	1752.1	1734.3	1746.1	1708.7
27.5°	1696.8	1683.0	1698.8	1696.8	1688.9	1683.0	1679.1	1665.2	1643.5	1659.3	1623.8
30°	1576.5	1564.6	1578.4	1576.5	1568.6	1564.6	1560.7	1546.9	1527.1	1535.0	1509.4
32.5°	1428.5	1418.6	1428.5	1432.4	1414.7	1414.7	1414.7	1398.9	1383.1	1391.0	1365.3
35°	1260.8	1252.9	1258.8	1258.8	1250.9	1248.9	1248.9	1235.1	1221.3	1229.2	1203.6
37.5°	1081.2	1077.3	1081.2	1081.2	1073.3	1069.4	1071.4	1059.5	1047.7	1053.6	1029.9
40°	895.8	891.8	895.8	895.8	887.9	887.9	887.9	878.0	866.2	870.1	850.4
42.5°	716.2	706.3	708.3	708.3	702.4	702.4	704.4	694.5	686.6	686.6	668.9
45°	509.0	509.0	511.0	515.0	507.1	505.1	509.0	501.2	497.2	497.2	481.4
47.5°	337.4	331.5	329.5	327.5	331.5	327.5	331.5	325.6	325.6	325.6	311.7
50°	207.2	203.2	203.2	201.3	203.2	199.3	203.2	199.3	197.3	201.3	191.4
52.5°	114.4	110.5	110.5	110.5	112.5	108.5	110.5	108.5	108.5	108.5	106.5
55°	59.2	57.2	57.2	57.2	57.2	55.2	57.2	57.2	57.2	59.2	57.2
57.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
60°	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
62.5°	19.7	17.8	17.8	19.7	17.8	19.7	17.8	17.8	17.8	17.8	17.8
65°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	13.8	15.8	15.8
67.5°	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
75°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1517.3	1505.4	1509.4	1505.4	1495.6	1497.5	1491.6	1491.6	1479.8	1477.8	1479.8
5°	1556.7	1542.9	1542.9	1535.0	1521.2	1519.2	1507.4	1507.4	1489.6	1483.7	1483.7
7.5°	1600.1	1586.3	1582.4	1572.5	1554.8	1546.9	1531.1	1525.2	1503.5	1493.6	1491.6
10°	1647.5	1631.7	1623.8	1612.0	1590.3	1576.5	1554.8	1546.9	1521.2	1501.5	1499.5
12.5°	1700.8	1687.0	1677.1	1661.3	1637.6	1617.9	1592.2	1578.4	1544.9	1523.2	1513.3
15°	1763.9	1748.1	1736.3	1716.5	1690.9	1667.2	1633.7	1617.9	1578.4	1548.8	1535.0
17.5°	1803.4	1785.6	1775.7	1752.1	1726.4	1698.8	1661.3	1641.6	1596.2	1558.7	1544.9
20°	1807.3	1793.5	1779.7	1758.0	1732.3	1700.8	1661.3	1641.6	1594.2	1556.7	1537.0
22.5°	1777.7	1765.9	1750.1	1732.3	1704.7	1673.1	1635.7	1617.9	1572.5	1533.1	1511.4
25°	1720.5	1710.6	1694.8	1673.1	1653.4	1619.9	1584.4	1572.5	1525.2	1491.6	1471.9
27.5°	1631.7	1625.8	1610.0	1590.3	1574.5	1546.9	1511.4	1501.5	1460.1	1430.5	1414.7
30°	1515.3	1511.4	1495.6	1477.8	1466.0	1440.3	1408.8	1404.8	1367.3	1345.6	1329.8
32.5°	1371.3	1367.3	1357.5	1339.7	1329.8	1308.1	1278.5	1282.5	1250.9	1233.2	1227.2
35°	1217.4	1205.5	1199.6	1183.8	1172.0	1156.2	1130.6	1136.5	1118.7	1104.9	1102.9
37.5°	1043.7	1031.9	1028.0	1016.1	1006.3	992.4	972.7	980.6	972.7	966.8	972.7
40°	862.2	852.4	848.4	836.6	832.6	822.8	808.9	828.7	818.8	830.7	832.6
42.5°	680.7	670.8	670.8	662.9	657.0	655.0	645.2	670.8	670.8	690.6	700.4
45°	481.4	483.4	479.4	481.4	477.5	483.4	477.5	495.2	520.9	546.5	562.3
47.5°	319.6	313.7	321.6	319.6	317.7	325.6	333.4	351.2	380.8	416.3	438.0
50°	193.4	193.4	197.3	203.2	207.2	213.1	224.9	246.6	280.2	315.7	341.3
52.5°	110.5	108.5	112.5	114.4	124.3	132.2	146.0	169.7	203.2	242.7	266.4
55°	59.2	59.2	61.2	67.1	73.0	82.9	96.7	118.4	150.0	189.4	213.1
57.5°	35.5	35.5	37.5	39.5	45.4	53.3	65.1	82.9	110.5	144.0	165.7
60°	23.7	25.6	25.6	27.6	31.6	35.5	45.4	57.2	78.9	104.6	122.3
62.5°	19.7	19.7	19.7	21.7	23.7	25.6	31.6	41.4	55.2	75.0	88.8
65°	15.8	15.8	15.8	15.8	17.8	19.7	23.7	29.6	39.5	51.3	59.2
67.5°	11.8	11.8	13.8	13.8	13.8	15.8	17.8	21.7	27.6	35.5	41.4
70°	9.9	9.9	9.9	9.9	11.8	11.8	13.8	15.8	19.7	25.6	29.6
72.5°	7.9	7.9	7.9	7.9	9.9	9.9	9.9	11.8	13.8	17.8	19.7
75°	5.9	5.9	5.9	5.9	7.9	7.9	7.9	9.9	9.9	11.8	13.8
77.5°	3.9	3.9	3.9	3.9	5.9	5.9	5.9	5.9	7.9	7.9	7.9
80°	2.0	2.0	2.0	3.9	3.9	3.9	3.9	3.9	3.9	5.9	5.9
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.9	3.9
85°	0.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6	1493.6
2.5°	1466.0	1491.6	1462.0	1467.9	1458.1	1475.8	1452.2	1458.1	1462.0	1458.1	1460.1
5°	1467.9	1487.7	1454.1	1460.1	1444.3	1456.1	1434.4	1436.4	1436.4	1432.4	1430.5
7.5°	1473.9	1485.7	1450.2	1448.2	1428.5	1440.3	1414.7	1410.7	1408.8	1402.8	1404.8
10°	1475.8	1479.8	1442.3	1434.4	1410.7	1414.7	1389.0	1381.1	1375.2	1371.3	1369.3
12.5°	1489.6	1485.7	1442.3	1428.5	1398.9	1396.9	1369.3	1357.5	1347.6	1343.6	1341.7
15°	1507.4	1493.6	1446.2	1426.5	1393.0	1385.1	1355.5	1343.6	1329.8	1325.9	1321.9
17.5°	1515.3	1493.6	1442.3	1416.6	1379.2	1369.3	1339.7	1323.9	1310.1	1304.2	1300.2
20°	1505.4	1477.8	1426.5	1398.9	1359.4	1345.6	1316.0	1298.3	1284.5	1278.5	1274.6
22.5°	1483.7	1452.2	1402.8	1375.2	1335.7	1318.0	1292.3	1276.6	1260.8	1258.8	1252.9
25°	1446.2	1414.7	1373.2	1345.6	1310.1	1292.3	1268.7	1254.9	1239.1	1237.1	1235.1
27.5°	1391.0	1361.4	1329.8	1304.2	1272.6	1258.8	1241.0	1227.2	1213.4	1213.4	1209.5
30°	1312.1	1292.3	1264.7	1248.9	1223.3	1209.5	1197.6	1187.8	1174.0	1175.9	1172.0
32.5°	1211.4	1201.6	1181.9	1174.0	1154.2	1150.3	1138.4	1130.6	1118.7	1122.7	1118.7
35°	1099.0	1087.1	1087.1	1083.2	1073.3	1071.4	1065.4	1061.5	1053.6	1055.6	1055.6
37.5°	970.7	970.7	982.6	984.5	982.6	986.5	984.5	984.5	976.7	980.6	978.6
40°	838.5	850.4	872.1	883.9	887.9	895.8	905.6	901.7	897.7	903.7	901.7
42.5°	710.3	734.0	767.5	787.2	801.1	812.9	826.7	826.7	824.7	832.6	830.7
45°	588.0	609.7	655.0	688.6	712.3	730.0	745.8	751.7	753.7	761.6	759.6
47.5°	467.6	505.1	558.4	597.8	627.4	649.1	670.8	678.7	684.6	694.5	694.5
50°	370.9	418.3	479.4	518.9	554.4	578.1	599.8	611.6	619.5	627.4	627.4
52.5°	297.9	347.3	406.4	447.9	481.4	507.1	528.8	542.6	548.5	558.4	558.4
55°	242.7	288.1	343.3	380.8	414.3	438.0	455.8	467.6	473.5	481.4	481.4
57.5°	191.4	234.8	280.2	313.7	341.3	359.1	374.9	378.8	380.8	386.7	388.7
60°	144.0	177.6	215.1	240.7	260.4	272.3	284.1	282.1	280.2	284.1	280.2
62.5°	102.6	126.3	153.9	169.7	185.5	191.4	197.3	193.4	189.4	191.4	191.4
65°	69.1	86.8	102.6	114.4	122.3	126.3	128.2	126.3	124.3	126.3	124.3
67.5°	47.4	57.2	69.1	75.0	80.9	82.9	84.8	82.9	82.9	82.9	80.9
70°	31.6	37.5	45.4	49.3	51.3	53.3	55.2	53.3	53.3	53.3	53.3
72.5°	21.7	25.6	27.6	31.6	33.5	33.5	33.5	33.5	33.5	33.5	33.5
75°	13.8	15.8	17.8	19.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
77.5°	9.9	9.9	11.8	11.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
80°	5.9	5.9	7.9	7.9	7.9	7.9	9.9	7.9	9.9	9.9	9.9
82.5°	3.9	3.9	3.9	3.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
85°	2.0	2.0	2.0	2.0	2.0	2.0	3.9	2.0	3.9	3.9	3.9
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: P212734

CATALOG NUMBER: LD4B30D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1493.6	1493.6	1493.6	1493.6
2.5°	1460.1	1456.1	1444.3	1458.1
5°	1428.5	1424.5	1414.7	1424.5
7.5°	1396.9	1391.0	1383.1	1389.0
10°	1359.4	1355.5	1345.6	1351.5
12.5°	1331.8	1323.9	1318.0	1320.0
15°	1314.0	1306.2	1300.2	1302.2
17.5°	1290.4	1282.5	1276.6	1276.6
20°	1264.7	1256.8	1252.9	1250.9
22.5°	1243.0	1237.1	1235.1	1229.2
25°	1223.3	1219.3	1219.3	1211.4
27.5°	1201.6	1195.7	1195.7	1187.8
30°	1164.1	1162.1	1162.1	1156.2
32.5°	1114.8	1108.8	1112.8	1102.9
35°	1047.7	1043.7	1049.7	1041.8
37.5°	974.7	972.7	976.7	970.7
40°	897.7	897.7	903.7	893.8
42.5°	830.7	830.7	836.6	826.7
45°	757.6	763.6	769.5	761.6
47.5°	694.5	698.5	706.3	698.5
50°	631.4	635.3	641.2	633.3
52.5°	562.3	566.3	572.2	566.3
55°	483.4	487.3	493.3	489.3
57.5°	388.7	384.7	394.6	386.7
60°	282.1	274.3	276.2	276.2
62.5°	187.4	183.5	187.4	181.5
65°	124.3	122.3	122.3	122.3
67.5°	82.9	80.9	82.9	80.9
70°	53.3	53.3	53.3	53.3
72.5°	33.5	33.5	33.5	33.5
75°	21.7	21.7	21.7	21.7
77.5°	13.8	13.8	13.8	13.8
80°	9.9	9.9	9.9	9.9
82.5°	5.9	5.9	5.9	5.9
85°	3.9	3.9	3.9	3.9
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)