

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: P212732

Luminaire Tested: **LD4B30D010 EU4B30508030 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212732
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 EU4B30508030 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2648.6 lumens
Efficiency: N/A
Efficacy: 94.6 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

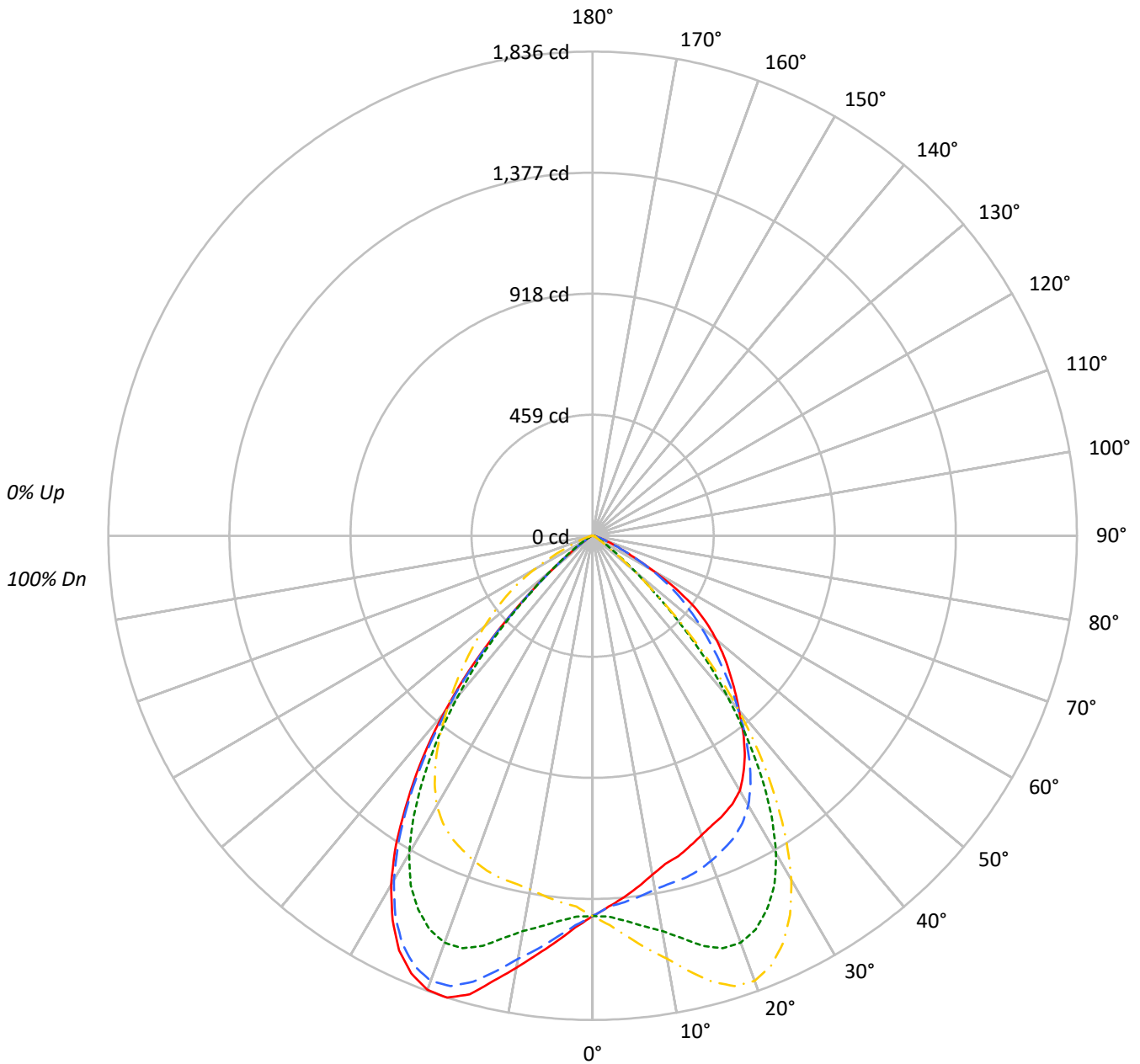
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82					82			
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60					60			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54					54			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49					49			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45					45			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41					41			
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	177852	177852	177852	177852
5°	170273	181602	191037	181602
10°	163424	190616	208276	190616
15°	160540	205528	229854	205528
20°	158512	215519	240524	215519
25°	159165	212828	236169	212828
30°	158977	198045	217572	198045
35°	151435	168074	183855	168074
40°	138941	127895	141082	127895
45°	128246	81410	87724	81410
50°	117323	39472	38378	39472
55°	101588	17204	12279	17204
60°	65793	8462	5649	8462
65°	34469	5545	4436	5545
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°	439.7	16.6
20°-30°	683.7	25.8
30°-40°	690.5	26.1
40°-50°	437.2	16.5
50°-60°	183.5	6.9
60°-70°	58.1	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°	1264.0	47.7
0°-40°	1954.5	73.8
0°-60°	2575.3	97.2
0°-90°	2648.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2648.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1442	1442	1442	1442	1442	
5°	1375	1467	1543	1467	1375	129
15°	1257	1610	1800	1610	1257	354
25°	1170	1564	1735	1564	1170	539
35°	1006	1116	1221	1116	1006	625
45°	735	467	503	467	735	567
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°	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1407.6	1394.3	1405.7	1409.5	1409.5	1407.6	1411.4	1407.6	1401.9	1424.8	1407.6
5°	1375.2	1365.7	1375.2	1379.1	1381.0	1382.9	1386.7	1386.7	1384.8	1405.7	1394.3
7.5°	1341.0	1335.2	1342.9	1348.6	1356.2	1354.3	1360.0	1361.9	1365.7	1390.5	1379.1
10°	1304.8	1299.1	1308.6	1312.4	1321.9	1323.8	1327.6	1333.3	1341.0	1365.7	1361.9
12.5°	1274.3	1272.4	1278.1	1285.7	1295.2	1297.2	1301.0	1310.5	1321.9	1348.6	1350.5
15°	1257.2	1255.2	1261.0	1268.6	1276.2	1280.0	1283.8	1297.2	1308.6	1337.2	1344.8
17.5°	1232.4	1232.4	1238.1	1245.7	1255.2	1259.1	1264.8	1278.1	1293.3	1321.9	1331.4
20°	1207.6	1209.5	1213.3	1221.0	1230.5	1234.3	1240.0	1253.3	1270.5	1299.1	1312.4
22.5°	1186.7	1192.4	1194.3	1200.0	1209.5	1215.2	1217.2	1232.4	1247.6	1272.4	1289.5
25°	1169.5	1177.2	1177.2	1181.0	1192.4	1194.3	1196.2	1211.4	1224.8	1247.6	1264.8
27.5°	1146.7	1154.3	1154.3	1160.0	1167.6	1171.4	1171.4	1184.8	1198.1	1215.2	1228.6
30°	1116.2	1121.9	1121.9	1123.8	1131.4	1135.2	1133.3	1146.7	1156.2	1167.6	1181.0
32.5°	1064.8	1074.3	1070.5	1076.2	1080.0	1083.8	1080.0	1091.4	1099.1	1110.5	1114.3
35°	1005.7	1013.3	1007.6	1011.4	1019.1	1019.1	1017.2	1024.8	1028.6	1034.3	1036.2
37.5°	937.1	942.9	939.1	941.0	944.8	946.7	942.9	950.5	950.5	952.4	948.6
40°	862.9	872.4	866.7	866.7	870.5	872.4	866.7	870.5	874.3	864.8	857.1
42.5°	798.1	807.6	801.9	801.9	801.9	803.8	796.2	798.1	798.1	784.8	773.3
45°	735.2	742.9	737.1	731.4	733.3	735.2	727.6	725.7	720.0	704.8	687.6
47.5°	674.3	681.9	674.3	670.5	670.5	670.5	661.0	655.2	647.6	626.7	605.7
50°	611.4	619.1	613.3	609.5	605.7	605.7	598.1	590.5	579.1	558.1	535.2
52.5°	546.7	552.4	546.7	542.9	539.1	539.1	529.5	523.8	510.5	489.5	464.8
55°	472.4	476.2	470.5	466.7	464.8	464.8	457.1	451.4	440.0	422.9	400.0
57.5°	373.3	381.0	371.4	375.2	375.2	373.3	367.6	365.7	361.9	346.7	329.5
60°	266.7	266.7	264.8	272.4	270.5	274.3	270.5	272.4	274.3	262.9	251.4
62.5°	175.2	181.0	177.1	181.0	184.8	184.8	182.9	186.7	190.5	184.8	179.0
65°	118.1	118.1	118.1	120.0	120.0	121.9	120.0	121.9	123.8	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	53.3	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°	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1417.2	1411.4	1440.0	1415.2	1428.6	1426.7	1428.6	1440.0	1440.0	1445.7	1443.8
5°	1409.5	1403.8	1436.2	1417.2	1432.4	1432.4	1438.1	1455.2	1455.2	1466.7	1468.6
7.5°	1398.1	1400.0	1434.3	1422.9	1440.0	1441.9	1451.4	1472.4	1478.1	1493.3	1501.0
10°	1384.8	1392.4	1428.6	1424.8	1447.6	1449.5	1468.6	1493.3	1501.0	1521.9	1535.2
12.5°	1379.1	1392.4	1434.3	1438.1	1461.0	1470.5	1491.4	1523.8	1537.2	1561.9	1581.0
15°	1377.2	1396.2	1441.9	1455.2	1481.9	1495.2	1523.8	1561.9	1577.2	1609.5	1632.4
17.5°	1367.6	1392.4	1441.9	1462.9	1491.4	1504.8	1541.0	1584.8	1603.8	1640.0	1666.7
20°	1350.5	1377.2	1426.7	1453.3	1483.8	1502.9	1539.1	1584.8	1603.8	1641.9	1672.4
22.5°	1327.6	1354.3	1401.9	1432.4	1459.1	1480.0	1518.1	1561.9	1579.1	1615.3	1645.7
25°	1299.1	1325.7	1365.7	1396.2	1421.0	1440.0	1472.4	1518.1	1529.5	1563.8	1596.2
27.5°	1259.1	1283.8	1314.3	1342.9	1365.7	1381.0	1409.5	1449.5	1459.1	1493.3	1520.0
30°	1205.7	1221.0	1247.6	1266.7	1283.8	1299.1	1320.0	1356.2	1360.0	1390.5	1415.2
32.5°	1133.3	1141.0	1160.0	1169.5	1184.8	1190.5	1207.6	1238.1	1234.3	1262.9	1283.8
35°	1045.7	1049.5	1049.5	1061.0	1064.8	1066.7	1080.0	1097.2	1091.4	1116.2	1131.4
37.5°	950.5	948.6	937.1	937.1	939.1	933.3	939.1	946.7	939.1	958.1	971.4
40°	853.3	841.9	821.0	809.5	803.8	801.9	790.5	800.0	781.0	794.3	803.8
42.5°	760.0	741.0	708.6	685.7	676.2	666.7	647.6	647.6	622.9	632.4	634.3
45°	664.8	632.4	588.6	567.6	542.9	527.6	502.9	478.1	461.0	466.7	461.0
47.5°	577.1	539.1	487.6	451.4	422.9	401.9	367.6	339.1	321.9	314.3	306.7
50°	501.0	462.9	403.8	358.1	329.5	304.8	270.5	238.1	217.1	205.7	200.0
52.5°	432.4	392.4	335.2	287.6	257.1	234.3	196.2	163.8	141.0	127.6	120.0
55°	367.6	331.4	278.1	234.3	205.7	182.9	144.8	114.3	93.3	80.0	70.5
57.5°	302.9	270.5	226.7	184.8	160.0	139.0	106.7	80.0	62.9	51.4	43.8
60°	232.4	207.6	171.4	139.0	118.1	101.0	76.2	55.2	43.8	34.3	30.5
62.5°	163.8	148.6	121.9	99.0	85.7	72.4	53.3	40.0	30.5	24.8	22.9
65°	110.5	99.0	83.8	66.7	57.1	49.5	38.1	28.6	22.9	19.0	17.1
67.5°	72.4	66.7	55.2	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	19.0	15.2	13.3	11.4	11.4
72.5°	30.5	26.7	24.8	21.0	19.0	17.1	13.3	11.4	9.5	9.5	9.5
75°	19.0	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°	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1453.3	1457.2	1453.3	1464.8	1445.7	1466.7	1459.1	1462.9	1478.1	1472.4	1478.1
5°	1481.9	1489.5	1489.5	1502.9	1485.7	1510.5	1502.9	1510.5	1525.7	1525.7	1533.3
7.5°	1518.1	1527.6	1531.4	1544.8	1527.6	1558.1	1550.5	1560.0	1579.1	1579.1	1584.8
10°	1556.2	1567.6	1575.3	1590.5	1571.4	1605.7	1598.1	1611.4	1628.6	1630.5	1640.0
12.5°	1603.8	1619.1	1628.6	1641.9	1628.6	1662.9	1655.3	1668.6	1691.4	1693.3	1704.8
15°	1657.2	1676.2	1687.6	1702.9	1687.6	1725.7	1718.1	1733.3	1750.5	1758.1	1769.5
17.5°	1691.4	1714.3	1723.8	1741.0	1725.7	1763.8	1754.3	1775.3	1790.5	1794.3	1807.6
20°	1697.2	1718.1	1731.4	1744.8	1731.4	1769.5	1760.0	1777.2	1796.2	1800.0	1809.5
22.5°	1672.4	1689.5	1704.8	1716.2	1704.8	1742.9	1729.5	1748.6	1765.7	1769.5	1777.2
25°	1615.3	1636.2	1651.4	1661.0	1649.5	1685.7	1674.3	1691.4	1706.7	1714.3	1716.2
27.5°	1535.2	1554.3	1569.5	1575.3	1567.6	1601.9	1586.7	1607.6	1621.0	1624.8	1630.5
30°	1426.7	1443.8	1459.1	1462.9	1457.2	1481.9	1474.3	1493.3	1506.7	1510.5	1514.3
32.5°	1293.3	1310.5	1320.0	1323.8	1318.1	1342.9	1335.2	1350.5	1365.7	1365.7	1365.7
35°	1142.9	1158.1	1163.8	1175.2	1161.9	1186.7	1179.1	1192.4	1205.7	1205.7	1207.6
37.5°	981.0	992.4	996.2	1007.6	994.3	1017.2	1011.4	1022.9	1034.3	1032.4	1036.2
40°	807.6	819.1	822.9	832.4	821.0	840.0	836.2	847.6	857.1	857.1	857.1
42.5°	640.0	647.6	647.6	657.1	645.7	662.9	662.9	670.5	680.0	678.1	678.1
45°	464.8	462.9	466.7	464.8	464.8	480.0	480.0	483.8	491.4	487.6	489.5
47.5°	308.6	310.5	302.9	308.6	301.0	314.3	314.3	314.3	320.0	316.2	320.0
50°	196.2	190.5	186.7	186.7	184.8	194.3	190.5	192.4	196.2	192.4	196.2
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	59.0	57.1	57.1	55.2	57.1	55.2	55.2	55.2	53.3	55.2
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	19.0	19.0	19.0	17.1	17.1	17.1	17.1	17.1	19.0	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: P212732

CATALOG NUMBER: LD4B30D010 EU4B30508030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1483.8	1476.2	1459.1	1470.5	1472.4	1464.8	1474.3	1485.7	1474.3	1464.8	1472.4
5°	1539.1	1533.3	1518.1	1527.6	1529.5	1527.6	1533.3	1542.9	1533.3	1527.6	1529.5
7.5°	1594.3	1590.5	1573.3	1584.8	1588.6	1584.8	1590.5	1600.0	1590.5	1584.8	1588.6
10°	1647.6	1645.7	1628.6	1643.8	1645.7	1641.9	1647.6	1662.9	1647.6	1641.9	1645.7
12.5°	1708.6	1712.4	1693.3	1710.5	1712.4	1708.6	1716.2	1727.6	1716.2	1708.6	1712.4
15°	1779.1	1777.2	1761.9	1775.3	1779.1	1775.3	1784.8	1800.0	1784.8	1775.3	1779.1
17.5°	1813.3	1813.3	1801.9	1815.3	1817.2	1817.2	1824.8	1836.2	1824.8	1817.2	1817.2
20°	1815.3	1817.2	1803.8	1819.1	1819.1	1819.1	1826.7	1832.4	1826.7	1819.1	1819.1
22.5°	1784.8	1786.7	1773.3	1786.7	1786.7	1788.6	1792.4	1796.2	1792.4	1788.6	1786.7
25°	1725.7	1727.6	1716.2	1727.6	1725.7	1725.7	1729.5	1735.3	1729.5	1725.7	1725.7
27.5°	1638.1	1640.0	1624.8	1638.1	1636.2	1634.3	1640.0	1641.9	1640.0	1634.3	1636.2
30°	1521.9	1523.8	1510.5	1521.9	1520.0	1518.1	1525.7	1527.6	1525.7	1518.1	1520.0
32.5°	1382.9	1379.1	1369.5	1379.1	1377.2	1377.2	1381.0	1386.7	1381.0	1377.2	1377.2
35°	1215.2	1215.2	1209.5	1217.2	1211.4	1219.1	1219.1	1221.0	1219.1	1219.1	1211.4
37.5°	1043.8	1043.8	1040.0	1043.8	1041.9	1049.5	1049.5	1055.2	1049.5	1049.5	1041.9
40°	864.8	864.8	861.0	864.8	870.5	870.5	868.6	876.2	868.6	870.5	870.5
42.5°	683.8	683.8	681.9	691.4	691.4	691.4	685.7	693.3	685.7	691.4	691.4
45°	497.1	493.3	491.4	491.4	493.3	501.0	493.3	502.9	493.3	501.0	493.3
47.5°	316.2	318.1	320.0	325.7	321.9	320.0	320.0	325.7	320.0	320.0	321.9
50°	194.3	196.2	196.2	200.0	194.3	198.1	196.2	200.0	196.2	198.1	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°	55.2	55.2	55.2	57.1	55.2	55.2	55.2	57.1	55.2	55.2	55.2
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°	19.0	17.1	17.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
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: P212732

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1470.5	1459.1	1476.2	1483.8	1478.1	1472.4	1478.1	1462.9	1459.1	1466.7	1445.7
5°	1527.6	1518.1	1533.3	1539.1	1533.3	1525.7	1525.7	1510.5	1502.9	1510.5	1485.7
7.5°	1584.8	1573.3	1590.5	1594.3	1584.8	1579.1	1579.1	1560.0	1550.5	1558.1	1527.6
10°	1643.8	1628.6	1645.7	1647.6	1640.0	1630.5	1628.6	1611.4	1598.1	1605.7	1571.4
12.5°	1710.5	1693.3	1712.4	1708.6	1704.8	1693.3	1691.4	1668.6	1655.3	1662.9	1628.6
15°	1775.3	1761.9	1777.2	1779.1	1769.5	1758.1	1750.5	1733.3	1718.1	1725.7	1687.6
17.5°	1815.3	1801.9	1813.3	1813.3	1807.6	1794.3	1790.5	1775.3	1754.3	1763.8	1725.7
20°	1819.1	1803.8	1817.2	1815.3	1809.5	1800.0	1796.2	1777.2	1760.0	1769.5	1731.4
22.5°	1786.7	1773.3	1786.7	1784.8	1777.2	1769.5	1765.7	1748.6	1729.5	1742.9	1704.8
25°	1727.6	1716.2	1727.6	1725.7	1716.2	1714.3	1706.7	1691.4	1674.3	1685.7	1649.5
27.5°	1638.1	1624.8	1640.0	1638.1	1630.5	1624.8	1621.0	1607.6	1586.7	1601.9	1567.6
30°	1521.9	1510.5	1523.8	1521.9	1514.3	1510.5	1506.7	1493.3	1474.3	1481.9	1457.2
32.5°	1379.1	1369.5	1379.1	1382.9	1365.7	1365.7	1365.7	1350.5	1335.2	1342.9	1318.1
35°	1217.2	1209.5	1215.2	1215.2	1207.6	1205.7	1205.7	1192.4	1179.1	1186.7	1161.9
37.5°	1043.8	1040.0	1043.8	1043.8	1036.2	1032.4	1034.3	1022.9	1011.4	1017.2	994.3
40°	864.8	861.0	864.8	864.8	857.1	857.1	857.1	847.6	836.2	840.0	821.0
42.5°	691.4	681.9	683.8	683.8	678.1	678.1	680.0	670.5	662.9	662.9	645.7
45°	491.4	491.4	493.3	497.1	489.5	487.6	491.4	483.8	480.0	480.0	464.8
47.5°	325.7	320.0	318.1	316.2	320.0	316.2	320.0	314.3	314.3	314.3	301.0
50°	200.0	196.2	196.2	194.3	196.2	192.4	196.2	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°	57.1	55.2	55.2	55.2	55.2	53.3	55.2	55.2	55.2	57.1	55.2
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°	19.0	17.1	17.1	19.0	17.1	19.0	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: P212732

CATALOG NUMBER: LD4B30D010 EU4B30508030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1464.8	1453.3	1457.2	1453.3	1443.8	1445.7	1440.0	1440.0	1428.6	1426.7	1428.6
5°	1502.9	1489.5	1489.5	1481.9	1468.6	1466.7	1455.2	1455.2	1438.1	1432.4	1432.4
7.5°	1544.8	1531.4	1527.6	1518.1	1501.0	1493.3	1478.1	1472.4	1451.4	1441.9	1440.0
10°	1590.5	1575.3	1567.6	1556.2	1535.2	1521.9	1501.0	1493.3	1468.6	1449.5	1447.6
12.5°	1641.9	1628.6	1619.1	1603.8	1581.0	1561.9	1537.2	1523.8	1491.4	1470.5	1461.0
15°	1702.9	1687.6	1676.2	1657.2	1632.4	1609.5	1577.2	1561.9	1523.8	1495.2	1481.9
17.5°	1741.0	1723.8	1714.3	1691.4	1666.7	1640.0	1603.8	1584.8	1541.0	1504.8	1491.4
20°	1744.8	1731.4	1718.1	1697.2	1672.4	1641.9	1603.8	1584.8	1539.1	1502.9	1483.8
22.5°	1716.2	1704.8	1689.5	1672.4	1645.7	1615.3	1579.1	1561.9	1518.1	1480.0	1459.1
25°	1661.0	1651.4	1636.2	1615.3	1596.2	1563.8	1529.5	1518.1	1472.4	1440.0	1421.0
27.5°	1575.3	1569.5	1554.3	1535.2	1520.0	1493.3	1459.1	1449.5	1409.5	1381.0	1365.7
30°	1462.9	1459.1	1443.8	1426.7	1415.2	1390.5	1360.0	1356.2	1320.0	1299.1	1283.8
32.5°	1323.8	1320.0	1310.5	1293.3	1283.8	1262.9	1234.3	1238.1	1207.6	1190.5	1184.8
35°	1175.2	1163.8	1158.1	1142.9	1131.4	1116.2	1091.4	1097.2	1080.0	1066.7	1064.8
37.5°	1007.6	996.2	992.4	981.0	971.4	958.1	939.1	946.7	939.1	933.3	939.1
40°	832.4	822.9	819.1	807.6	803.8	794.3	781.0	800.0	790.5	801.9	803.8
42.5°	657.1	647.6	647.6	640.0	634.3	632.4	622.9	647.6	647.6	666.7	676.2
45°	464.8	466.7	462.9	464.8	461.0	466.7	461.0	478.1	502.9	527.6	542.9
47.5°	308.6	302.9	310.5	308.6	306.7	314.3	321.9	339.1	367.6	401.9	422.9
50°	186.7	186.7	190.5	196.2	200.0	205.7	217.1	238.1	270.5	304.8	329.5
52.5°	106.7	104.8	108.6	110.5	120.0	127.6	141.0	163.8	196.2	234.3	257.1
55°	57.1	57.1	59.0	64.8	70.5	80.0	93.3	114.3	144.8	182.9	205.7
57.5°	34.3	34.3	36.2	38.1	43.8	51.4	62.9	80.0	106.7	139.0	160.0
60°	22.9	24.8	24.8	26.7	30.5	34.3	43.8	55.2	76.2	101.0	118.1
62.5°	19.0	19.0	19.0	21.0	22.9	24.8	30.5	40.0	53.3	72.4	85.7
65°	15.2	15.2	15.2	15.2	17.1	19.0	22.9	28.6	38.1	49.5	57.1
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	19.0	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	19.0
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: P212732

CATALOG NUMBER: LD4B30D010 EU4B30508030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1415.2	1440.0	1411.4	1417.2	1407.6	1424.8	1401.9	1407.6	1411.4	1407.6	1409.5
5°	1417.2	1436.2	1403.8	1409.5	1394.3	1405.7	1384.8	1386.7	1386.7	1382.9	1381.0
7.5°	1422.9	1434.3	1400.0	1398.1	1379.1	1390.5	1365.7	1361.9	1360.0	1354.3	1356.2
10°	1424.8	1428.6	1392.4	1384.8	1361.9	1365.7	1341.0	1333.3	1327.6	1323.8	1321.9
12.5°	1438.1	1434.3	1392.4	1379.1	1350.5	1348.6	1321.9	1310.5	1301.0	1297.2	1295.2
15°	1455.2	1441.9	1396.2	1377.2	1344.8	1337.2	1308.6	1297.2	1283.8	1280.0	1276.2
17.5°	1462.9	1441.9	1392.4	1367.6	1331.4	1321.9	1293.3	1278.1	1264.8	1259.1	1255.2
20°	1453.3	1426.7	1377.2	1350.5	1312.4	1299.1	1270.5	1253.3	1240.0	1234.3	1230.5
22.5°	1432.4	1401.9	1354.3	1327.6	1289.5	1272.4	1247.6	1232.4	1217.2	1215.2	1209.5
25°	1396.2	1365.7	1325.7	1299.1	1264.8	1247.6	1224.8	1211.4	1196.2	1194.3	1192.4
27.5°	1342.9	1314.3	1283.8	1259.1	1228.6	1215.2	1198.1	1184.8	1171.4	1171.4	1167.6
30°	1266.7	1247.6	1221.0	1205.7	1181.0	1167.6	1156.2	1146.7	1133.3	1135.2	1131.4
32.5°	1169.5	1160.0	1141.0	1133.3	1114.3	1110.5	1099.1	1091.4	1080.0	1083.8	1080.0
35°	1061.0	1049.5	1049.5	1045.7	1036.2	1034.3	1028.6	1024.8	1017.2	1019.1	1019.1
37.5°	937.1	937.1	948.6	950.5	948.6	952.4	950.5	950.5	942.9	946.7	944.8
40°	809.5	821.0	841.9	853.3	857.1	864.8	874.3	870.5	866.7	872.4	870.5
42.5°	685.7	708.6	741.0	760.0	773.3	784.8	798.1	798.1	796.2	803.8	801.9
45°	567.6	588.6	632.4	664.8	687.6	704.8	720.0	725.7	727.6	735.2	733.3
47.5°	451.4	487.6	539.1	577.1	605.7	626.7	647.6	655.2	661.0	670.5	670.5
50°	358.1	403.8	462.9	501.0	535.2	558.1	579.1	590.5	598.1	605.7	605.7
52.5°	287.6	335.2	392.4	432.4	464.8	489.5	510.5	523.8	529.5	539.1	539.1
55°	234.3	278.1	331.4	367.6	400.0	422.9	440.0	451.4	457.1	464.8	464.8
57.5°	184.8	226.7	270.5	302.9	329.5	346.7	361.9	365.7	367.6	373.3	375.2
60°	139.0	171.4	207.6	232.4	251.4	262.9	274.3	272.4	270.5	274.3	270.5
62.5°	99.0	121.9	148.6	163.8	179.0	184.8	190.5	186.7	182.9	184.8	184.8
65°	66.7	83.8	99.0	110.5	118.1	121.9	123.8	121.9	120.0	121.9	120.0
67.5°	45.7	55.2	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	53.3	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	19.0	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: P212732

CATALOG NUMBER: LD4B30D010 EU4B30508030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1441.9	1441.9	1441.9	1441.9
2.5°	1409.5	1405.7	1394.3	1407.6
5°	1379.1	1375.2	1365.7	1375.2
7.5°	1348.6	1342.9	1335.2	1341.0
10°	1312.4	1308.6	1299.1	1304.8
12.5°	1285.7	1278.1	1272.4	1274.3
15°	1268.6	1261.0	1255.2	1257.2
17.5°	1245.7	1238.1	1232.4	1232.4
20°	1221.0	1213.3	1209.5	1207.6
22.5°	1200.0	1194.3	1192.4	1186.7
25°	1181.0	1177.2	1177.2	1169.5
27.5°	1160.0	1154.3	1154.3	1146.7
30°	1123.8	1121.9	1121.9	1116.2
32.5°	1076.2	1070.5	1074.3	1064.8
35°	1011.4	1007.6	1013.3	1005.7
37.5°	941.0	939.1	942.9	937.1
40°	866.7	866.7	872.4	862.9
42.5°	801.9	801.9	807.6	798.1
45°	731.4	737.1	742.9	735.2
47.5°	670.5	674.3	681.9	674.3
50°	609.5	613.3	619.1	611.4
52.5°	542.9	546.7	552.4	546.7
55°	466.7	470.5	476.2	472.4
57.5°	375.2	371.4	381.0	373.3
60°	272.4	264.8	266.7	266.7
62.5°	181.0	177.1	181.0	175.2
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)