

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: NEO-RAY

Report Number: P333447-840

Luminaire Tested: **S125DIW-S1090D1050U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333447-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D1050U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8156.0 lumens
Efficiency: N/A
Efficacy: 133.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

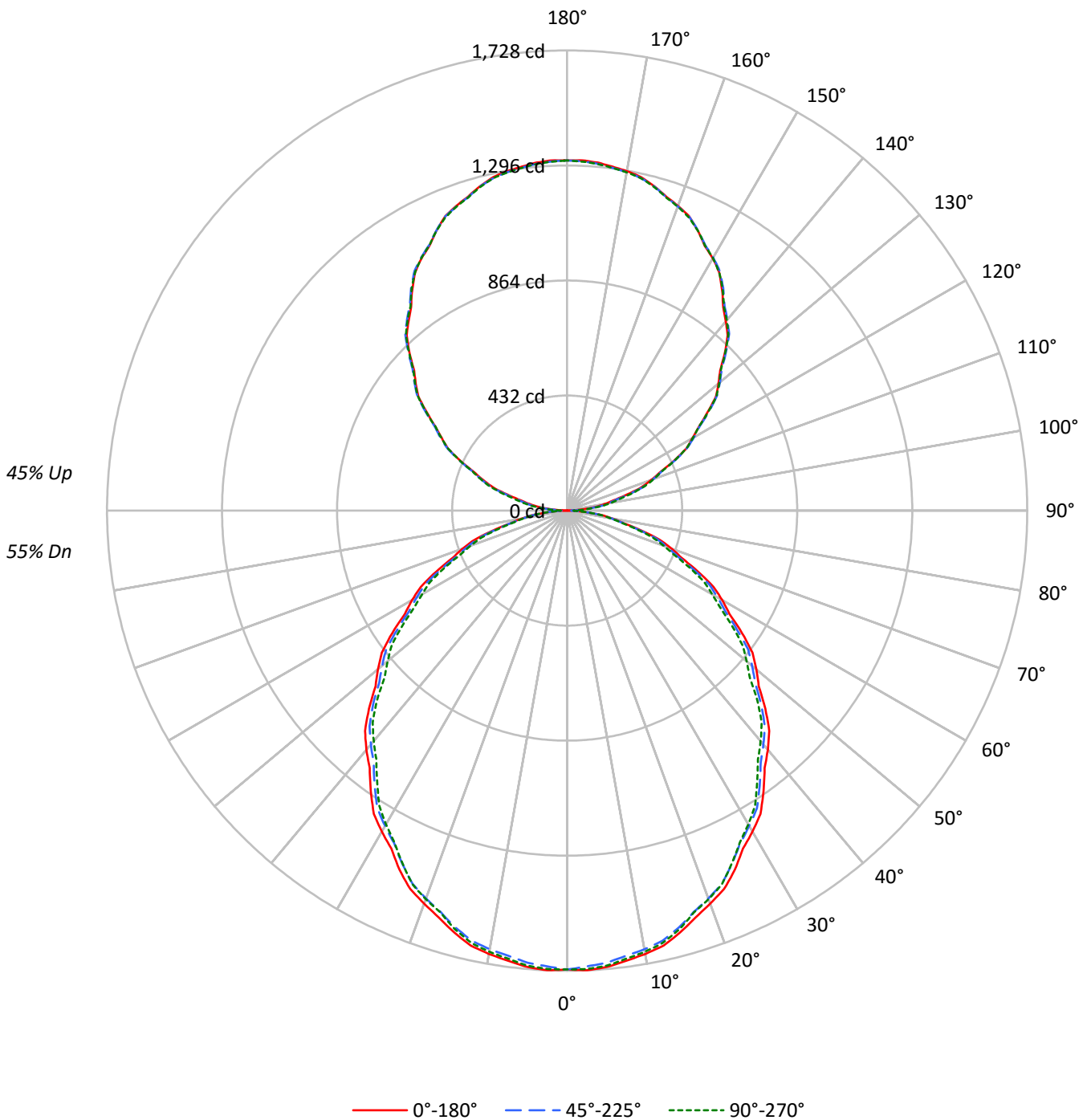
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333447-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-UDD-F1

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	0
RCR																		
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	94	90	87	92	88	84	81	75	73	71	64	62	61	54	52	51	46
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43	39
3	82	72	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	69	60	53	47	52	46	42	44	40	37	37	34	32	28
5	69	57	49	43	64	53	46	41	46	41	36	40	35	32	34	30	27	24
6	64	51	43	37	59	48	41	35	42	36	32	36	31	28	30	27	24	21
7	59	46	38	33	54	43	36	31	38	32	28	33	28	25	28	24	21	19
8	55	42	34	29	51	39	32	27	35	29	25	30	25	22	26	22	19	17
9	51	38	31	26	47	36	29	25	32	26	22	28	23	20	24	20	17	15
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11129	11129	11129
5°	11154	11048	11119
10°	11086	10970	11032
15°	10965	10838	10884
20°	10794	10653	10672
25°	10608	10434	10424
30°	10380	10197	10147
35°	10136	9942	9802
40°	9885	9666	9528
45°	9613	9414	9227
50°	9315	9109	8835
55°	9026	8765	8519
60°	8681	8418	8117
65°	8270	8000	7728
70°	7878	7517	7260
75°	7177	6939	6700
80°	6390	6289	6133
85°	5550	5654	5350



TEST NUMBER: P333447-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	2.0
10°-20°	459.0	5.6
20°-30°	677.7	8.3
30°-40°	790.7	9.7
40°-50°	794.2	9.7
50°-60°	697.1	8.5
60°-70°	519.5	6.4
70°-80°	297.0	3.6
80°-90°	89.3	1.1
90°-100°	88.1	1.1
100°-110°	260.1	3.2
110°-120°	440.5	5.4
120°-130°	579.7	7.1
130°-140°	649.6	8.0
140°-150°	636.6	7.8
150°-160°	534.7	6.6
160°-170°	355.4	4.4
170°-180°	124.4	1.5
0°-30°	1299.1	15.9
0°-40°	2089.8	25.6
0°-60°	3581.2	43.9
0°-90°	4486.9	55.0
90°-120°	788.6	9.7
90°-150°	2654.6	32.5
90°-180°	3669.0	45.0
0°-180°	8156.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1720	1717	1704	1716	1715	163
15°	1640	1635	1621	1627	1628	462
25°	1489	1481	1464	1466	1463	685
35°	1286	1279	1261	1254	1243	804
45°	1052	1046	1031	1015	1010	811
55°	802	797	778	766	757	715
65°	541	538	524	512	506	537
75°	288	285	278	274	268	307
85°	75	76	76	75	72	84
90°	1	9	16	21	24	8
95°	67	69	79	86	88	71
105°	233	238	245	251	254	249
115°	441	445	447	446	445	436
125°	644	649	651	649	648	576
135°	837	843	844	844	840	645
145°	1014	1018	1021	1021	1018	634
155°	1160	1160	1161	1165	1160	534
165°	1262	1260	1261	1264	1259	356
175°	1312	1308	1308	1313	1307	125
180°	1315	1315	1315	1315	1315	



TEST NUMBER: P333447-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1727.6	1726.9	1726.1	1725.4	1724.6	1723.0	1720.6	1718.2	1715.8	1713.3	1715.8
5°	1720.5	1719.9	1719.3	1718.7	1718.1	1716.3	1713.2	1710.2	1707.2	1704.1	1706.9
7.5°	1704.7	1704.0	1703.4	1702.8	1702.2	1700.2	1696.9	1693.5	1690.2	1686.9	1689.6
10°	1690.5	1689.9	1689.3	1688.7	1688.1	1686.1	1682.7	1679.4	1676.1	1672.7	1675.2
12.5°	1673.0	1671.9	1670.8	1669.7	1668.7	1666.6	1663.4	1660.4	1657.3	1654.2	1656.2
15°	1640.0	1639.1	1638.2	1637.3	1636.4	1634.3	1630.9	1627.6	1624.3	1620.9	1622.4
17.5°	1602.2	1600.8	1599.4	1598.1	1596.8	1594.4	1590.9	1587.5	1584.1	1580.5	1582.5
20°	1570.5	1569.9	1569.3	1568.7	1568.1	1565.8	1561.9	1557.9	1554.0	1550.0	1552.2
22.5°	1538.8	1537.8	1536.7	1535.6	1534.5	1532.1	1528.4	1524.7	1521.1	1517.3	1518.7
25°	1488.7	1487.2	1485.7	1484.2	1482.7	1480.0	1476.0	1472.1	1468.1	1464.2	1464.8
27.5°	1430.1	1429.2	1428.3	1427.3	1426.4	1424.0	1419.9	1415.8	1411.8	1407.8	1407.9
30°	1391.9	1391.0	1390.1	1389.2	1388.3	1385.5	1381.0	1376.4	1371.9	1367.4	1366.8
32.5°	1350.5	1349.1	1347.7	1346.3	1344.9	1342.2	1338.1	1334.0	1330.0	1326.0	1324.8
35°	1285.6	1284.3	1283.1	1281.9	1280.7	1278.0	1273.7	1269.5	1265.3	1261.0	1259.5
37.5°	1218.2	1216.7	1215.2	1213.7	1212.1	1209.4	1205.4	1201.4	1197.4	1193.5	1191.1
40°	1172.5	1170.9	1169.4	1167.9	1166.4	1163.5	1159.2	1155.0	1150.7	1146.5	1143.8
42.5°	1123.4	1122.1	1120.8	1119.5	1118.2	1115.5	1111.3	1107.0	1102.8	1098.5	1096.0
45°	1052.5	1051.3	1050.1	1048.8	1047.6	1045.2	1041.6	1037.9	1034.3	1030.7	1027.0
47.5°	976.1	976.1	976.2	976.3	976.3	974.2	969.9	965.4	961.1	956.7	953.0
50°	927.1	926.1	925.2	924.3	923.4	921.1	917.5	913.8	910.2	906.6	902.6
52.5°	876.9	876.2	875.6	874.8	874.2	871.9	868.1	864.1	860.3	856.4	852.9
55°	801.6	800.7	799.8	798.9	798.0	795.4	791.1	786.9	782.6	778.4	775.7
57.5°	722.3	721.8	721.3	720.8	720.3	718.3	714.7	711.1	707.6	704.0	700.4
60°	672.1	670.9	669.6	668.4	667.2	665.0	661.7	658.3	655.0	651.7	648.6
62.5°	619.8	618.7	617.8	616.8	615.9	614.0	611.1	608.2	605.4	602.6	599.3
65°	541.2	540.6	540.0	539.4	538.8	536.8	533.5	530.2	526.8	523.5	520.8
67.5°	465.1	463.8	462.6	461.3	460.1	458.2	455.7	453.2	450.7	448.3	446.0
70°	417.2	415.7	414.1	412.6	411.1	409.0	406.3	403.5	400.8	398.1	396.3
72.5°	364.9	363.8	362.7	361.7	360.7	359.3	357.6	355.8	354.1	352.2	350.2
75°	287.6	287.0	286.4	285.8	285.2	284.2	282.7	281.1	279.6	278.1	277.2
77.5°	216.5	216.2	216.0	215.8	215.5	215.0	214.1	213.3	212.5	211.6	211.1
80°	171.8	171.8	171.8	171.8	171.8	171.5	170.9	170.3	169.7	169.1	168.7
82.5°	132.5	132.0	131.6	131.1	130.6	130.3	130.2	130.1	129.9	129.8	129.3
85°	74.9	75.2	75.5	75.8	76.1	76.3	76.3	76.3	76.3	76.3	76.0
87.5°	29.7	30.0	30.4	30.7	31.1	31.3	31.4	31.5	31.5	31.6	31.8
90°	1.0	2.8	4.6	6.5	8.3	10.0	11.6	13.2	14.7	16.4	17.5
92.5°	24.7	26.1	27.3	28.6	29.9	31.5	33.4	35.3	37.4	39.3	40.8
95°	66.6	67.0	67.5	67.9	68.4	69.7	72.0	74.2	76.5	78.8	80.4
97.5°	110.5	110.7	110.9	111.1	111.3	112.9	116.0	119.2	122.3	125.4	126.9
100°	143.3	143.3	143.3	143.3	143.3	144.7	147.6	150.7	153.6	156.5	158.6
102.5°	178.4	179.4	180.3	181.2	182.1	183.3	184.8	186.3	187.8	189.3	191.6
105°	233.3	234.4	235.6	236.7	237.8	239.1	240.4	241.9	243.2	244.6	245.9
107.5°	293.9	295.0	296.2	297.3	298.4	299.5	300.5	301.6	302.7	303.7	304.4
110°	335.6	336.8	337.9	339.0	340.2	341.1	341.7	342.4	343.2	343.9	344.5



TEST NUMBER: P333447-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	378.2	378.8	379.4	380.0	380.5	381.3	382.1	383.0	383.8	384.8	385.1
115°	441.0	441.9	442.8	443.7	444.6	445.4	445.8	446.3	446.7	447.2	447.0
117.5°	504.0	504.4	504.8	505.2	505.7	506.1	506.5	507.0	507.4	507.8	508.0
120°	543.3	544.5	545.6	546.7	547.9	548.6	548.8	549.1	549.3	549.5	549.5
122.5°	585.9	586.3	586.7	587.1	587.5	588.0	588.7	589.3	589.9	590.5	590.3
125°	643.6	645.0	646.3	647.7	649.0	649.8	650.2	650.4	650.6	650.8	650.4
127.5°	705.0	705.8	706.6	707.3	708.1	708.6	708.9	709.2	709.4	709.7	709.5
130°	741.8	743.0	744.2	745.3	746.4	747.2	747.7	748.1	748.6	749.0	748.8
132.5°	778.7	780.5	782.4	784.3	786.2	787.1	787.0	786.9	786.8	786.7	786.5
135°	837.0	838.4	839.7	841.1	842.5	843.2	843.5	843.7	843.9	844.1	844.1
137.5°	891.9	893.2	894.5	895.9	897.2	898.1	898.6	899.1	899.6	900.1	900.3
140°	927.1	928.2	929.4	930.5	931.6	932.5	933.2	933.9	934.5	935.2	935.7
142.5°	962.3	963.2	964.2	965.1	966.1	967.0	967.9	968.8	969.6	970.5	970.7
145°	1014.0	1014.9	1015.8	1016.7	1017.6	1018.4	1019.2	1019.9	1020.6	1021.2	1021.2
147.5°	1062.0	1062.5	1063.0	1063.4	1063.9	1064.5	1065.0	1065.5	1066.1	1066.6	1067.2
150°	1093.9	1093.7	1093.4	1093.2	1093.0	1093.3	1094.2	1095.1	1096.0	1096.9	1096.9
152.5°	1120.0	1120.3	1120.6	1121.1	1121.4	1121.7	1122.1	1122.4	1122.8	1123.2	1123.7
155°	1160.3	1160.3	1160.3	1160.3	1160.3	1160.4	1160.7	1160.9	1161.1	1161.4	1162.4
157.5°	1196.4	1195.9	1195.4	1194.9	1194.4	1194.3	1194.5	1194.7	1195.0	1195.2	1196.1
160°	1217.7	1217.0	1216.3	1215.7	1215.0	1214.8	1215.0	1215.2	1215.4	1215.7	1216.6
162.5°	1236.5	1236.0	1235.5	1235.0	1234.5	1234.3	1234.4	1234.4	1234.5	1234.5	1235.6
165°	1261.7	1261.2	1260.7	1260.3	1259.8	1259.7	1260.0	1260.2	1260.4	1260.6	1261.5
167.5°	1282.9	1282.0	1281.1	1280.2	1279.3	1278.9	1278.9	1278.9	1278.9	1278.9	1280.2
170°	1294.4	1293.5	1292.6	1291.7	1290.8	1290.3	1290.3	1290.3	1290.3	1290.3	1291.7
172.5°	1302.6	1301.7	1300.8	1299.9	1299.0	1298.5	1298.5	1298.5	1298.5	1298.5	1299.9
175°	1311.8	1310.9	1310.0	1309.1	1308.2	1307.7	1307.7	1307.7	1307.7	1307.7	1309.1
177.5°	1316.6	1315.8	1315.0	1314.3	1313.6	1313.1	1312.9	1312.8	1312.6	1312.4	1313.5
180°	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8



TEST NUMBER: P333447-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1718.2	1720.6	1723.0	1724.1	1723.9	1723.6	1723.4	1723.2
5°	1709.6	1712.3	1715.1	1716.3	1716.0	1715.7	1715.4	1715.1
7.5°	1692.2	1695.0	1697.6	1698.8	1698.5	1698.2	1697.9	1697.6
10°	1677.6	1680.0	1682.4	1683.5	1683.2	1682.9	1682.6	1682.3
12.5°	1658.1	1660.0	1661.9	1662.9	1662.8	1662.7	1662.7	1662.6
15°	1624.0	1625.5	1627.0	1627.8	1627.8	1627.8	1627.8	1627.8
17.5°	1584.4	1586.2	1588.1	1588.3	1586.8	1585.3	1583.8	1582.3
20°	1554.3	1556.4	1558.5	1558.8	1557.3	1555.8	1554.3	1552.8
22.5°	1520.1	1521.6	1522.9	1523.1	1522.1	1521.1	1520.0	1518.9
25°	1465.4	1466.0	1466.6	1466.4	1465.5	1464.6	1463.7	1462.8
27.5°	1408.0	1408.1	1408.3	1407.9	1406.9	1406.0	1405.1	1404.2
30°	1366.1	1365.5	1364.9	1364.2	1363.3	1362.4	1361.5	1360.6
32.5°	1323.7	1322.6	1321.6	1320.2	1318.6	1317.0	1315.2	1313.6
35°	1258.0	1256.5	1255.0	1253.0	1250.6	1248.2	1245.8	1243.3
37.5°	1188.9	1186.7	1184.5	1182.7	1181.2	1179.8	1178.4	1177.1
40°	1141.0	1138.3	1135.6	1133.8	1132.9	1132.0	1131.0	1130.1
42.5°	1093.6	1091.1	1088.6	1086.6	1085.3	1083.9	1082.5	1081.1
45°	1023.4	1019.8	1016.1	1013.8	1012.9	1012.0	1011.1	1010.2
47.5°	949.4	945.6	942.0	939.1	937.0	934.8	932.7	930.6
50°	898.7	894.7	890.8	887.8	885.7	883.5	881.4	879.3
52.5°	849.5	846.1	842.6	839.7	837.3	835.0	832.6	830.2
55°	773.0	770.2	767.5	765.1	763.0	760.8	758.7	756.6
57.5°	697.0	693.5	689.9	687.6	686.5	685.3	684.2	683.0
60°	645.6	642.6	639.5	636.9	634.8	632.7	630.6	628.4
62.5°	596.0	592.8	589.5	587.0	585.4	583.8	582.1	580.5
65°	518.1	515.3	512.6	510.6	509.4	508.2	507.0	505.7
67.5°	443.6	441.3	439.0	437.5	436.8	436.1	435.4	434.6
70°	394.5	392.6	390.8	389.3	388.1	386.9	385.7	384.5
72.5°	348.2	346.1	344.1	342.4	341.2	340.0	338.8	337.6
75°	276.3	275.4	274.5	273.4	272.2	270.9	269.7	268.5
77.5°	210.5	210.0	209.4	208.7	207.8	207.0	206.1	205.3
80°	168.4	168.1	167.8	167.3	166.7	166.1	165.5	164.9
82.5°	128.7	128.2	127.6	127.2	127.1	127.0	126.9	126.7
85°	75.7	75.4	75.1	74.6	74.0	73.4	72.8	72.2
87.5°	32.1	32.3	32.5	32.5	32.1	31.8	31.4	31.1
90°	18.7	19.8	20.9	21.8	22.5	23.2	23.8	24.5
92.5°	42.3	43.8	45.3	46.3	46.8	47.3	47.8	48.3
95°	82.0	83.5	85.1	86.1	86.6	87.1	87.6	88.0
97.5°	128.5	130.0	131.5	132.3	132.6	132.9	133.2	133.4
100°	160.7	162.7	164.7	166.0	166.4	166.9	167.3	167.8
102.5°	193.8	196.0	198.2	199.7	200.3	201.0	201.6	202.2
105°	247.3	248.6	250.0	251.1	251.8	252.4	253.1	253.8
107.5°	305.1	305.8	306.4	306.8	306.7	306.7	306.6	306.6
110°	345.2	345.9	346.6	346.8	346.6	346.3	346.1	345.9



TEST NUMBER: P333447-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	385.4	385.7	386.0	386.0	385.6	385.2	384.8	384.4
115°	446.7	446.5	446.3	446.1	445.8	445.6	445.4	445.1
117.5°	508.1	508.3	508.5	508.1	507.2	506.2	505.3	504.4
120°	549.5	549.5	549.5	549.1	548.2	547.2	546.3	545.4
122.5°	590.1	589.9	589.7	589.3	588.5	587.7	587.0	586.3
125°	649.8	649.4	648.9	648.6	648.4	648.1	647.9	647.7
127.5°	709.2	709.0	708.8	708.5	708.0	707.6	707.1	706.7
130°	748.6	748.3	748.1	747.8	747.3	746.9	746.4	746.0
132.5°	786.2	786.0	785.8	785.4	784.7	784.1	783.5	782.7
135°	844.1	844.1	844.1	843.7	842.8	841.9	841.0	840.1
137.5°	900.6	900.9	901.1	900.7	899.6	898.5	897.3	896.2
140°	936.1	936.6	937.1	936.8	935.6	934.4	933.3	932.2
142.5°	971.0	971.3	971.6	971.1	970.0	968.9	967.8	966.5
145°	1021.2	1021.2	1021.2	1020.9	1020.2	1019.5	1018.9	1018.1
147.5°	1067.7	1068.2	1068.8	1068.3	1066.8	1065.2	1063.7	1062.2
150°	1096.9	1096.9	1096.9	1096.7	1096.2	1095.8	1095.3	1094.9
152.5°	1124.2	1124.8	1125.3	1125.2	1124.4	1123.6	1122.7	1121.9
155°	1163.3	1164.2	1165.1	1164.9	1163.8	1162.7	1161.5	1160.3
157.5°	1197.0	1197.9	1198.8	1198.5	1197.0	1195.5	1194.0	1192.5
160°	1217.5	1218.4	1219.3	1219.1	1218.0	1216.9	1215.8	1214.6
162.5°	1236.7	1237.7	1238.8	1238.7	1237.4	1236.1	1234.8	1233.4
165°	1262.4	1263.3	1264.3	1264.0	1262.7	1261.3	1260.0	1258.6
167.5°	1281.6	1282.9	1284.3	1284.3	1282.9	1281.5	1280.1	1278.7
170°	1293.0	1294.4	1295.8	1295.7	1294.0	1292.5	1290.9	1289.3
172.5°	1301.2	1302.6	1303.9	1303.9	1302.5	1301.1	1299.7	1298.3
175°	1310.4	1311.8	1313.2	1313.0	1311.5	1309.9	1308.3	1306.7
177.5°	1314.6	1315.8	1316.8	1316.7	1315.5	1314.1	1312.9	1311.6
180°	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8	1314.8

(END OF REPORT)