

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: P333452-840

Luminaire Tested: **S125DIW-S1090D1340U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333452-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D1340U840-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9904.2 lumens
Efficiency: N/A
Efficacy: 141.9 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

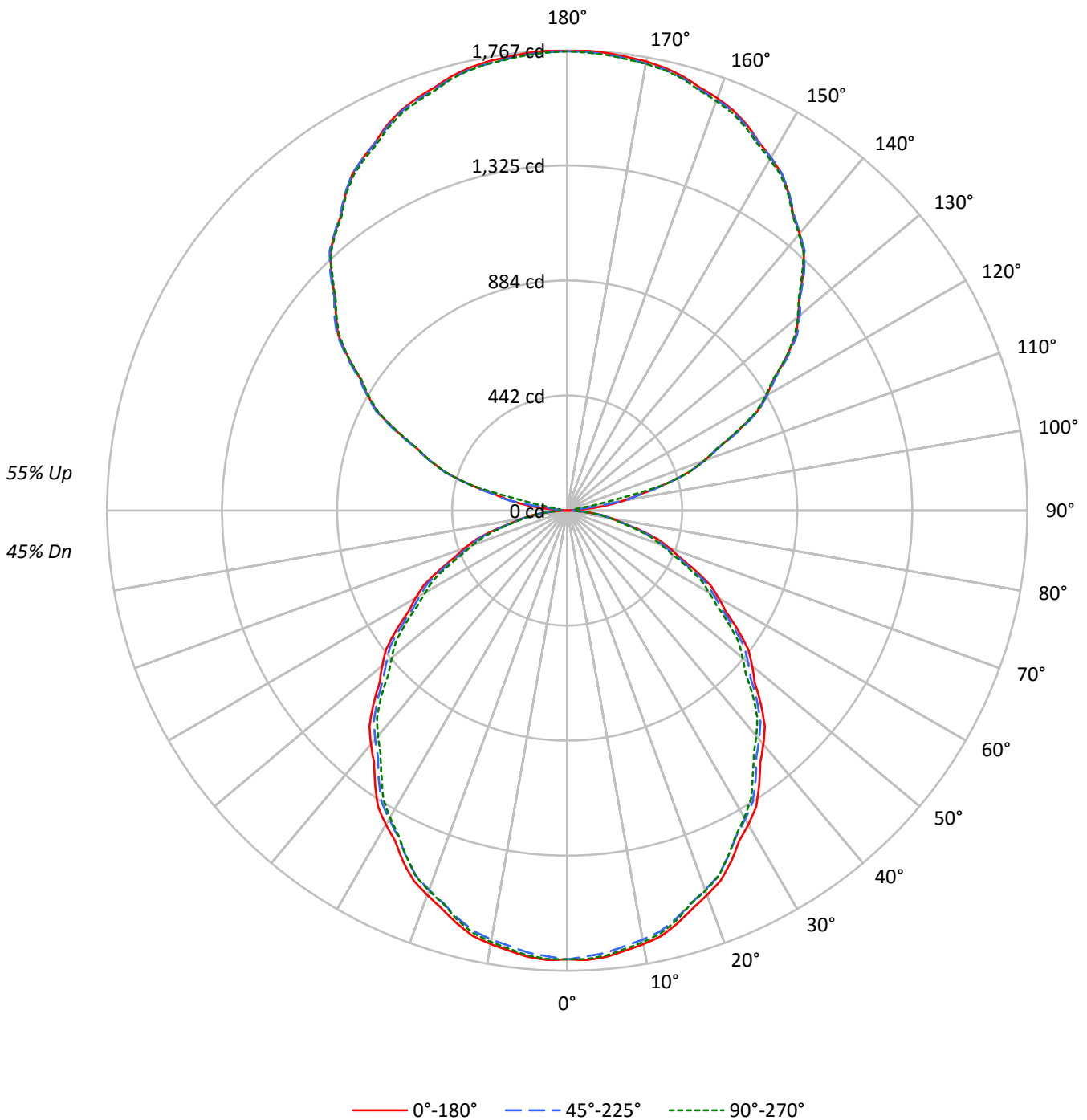
Input Watts (W): 69.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45					45			
1	97	92	88	85	88	85	81	78	71	68	66	58	56	55	46	45	44	38					38			
2	88	81	74	69	80	74	69	64	62	58	55	51	48	45	40	38	37	32					32			
3	80	71	64	58	73	65	59	54	55	50	46	45	41	38	36	33	31	27					27			
4	73	63	55	49	67	58	51	45	48	43	39	40	36	33	32	29	27	23					23			
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	29	26	23	20					20			
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21	18					18			
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18	16					16			
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14					14			
9	49	37	30	25	45	35	28	23	29	24	20	25	21	18	20	17	15	13					13			
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	11					11			

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	1.6
10°-20°	459.0	4.6
20°-30°	677.7	6.8
30°-40°	790.7	8.0
40°-50°	794.2	8.0
50°-60°	697.1	7.0
60°-70°	519.5	5.2
70°-80°	297.0	3.0
80°-90°	90.1	0.9
90°-100°	64.1	0.6
100°-110°	395.0	4.0
110°-120°	716.5	7.2
120°-130°	919.5	9.3
130°-140°	989.0	10.0
140°-150°	928.3	9.4
150°-160°	750.9	7.6
160°-170°	485.7	4.9
170°-180°	167.5	1.7
0°-30°	1299.1	13.1
0°-40°	2089.8	21.1
0°-60°	3581.2	36.2
0°-90°	4487.7	45.3
90°-120°	1175.6	11.9
90°-150°	4012.4	40.5
90°-180°	5416.0	54.7
0°-180°	9904.2	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	12	21	27	31	7
95°	74	68	21	27	28	95
105°	384	389	390	390	388	408
115°	722	728	730	724	716	715
125°	1026	1035	1036	1030	1026	916
135°	1280	1287	1285	1282	1275	986
145°	1484	1486	1487	1487	1480	928
155°	1634	1627	1629	1632	1623	753
165°	1725	1717	1718	1725	1716	487
175°	1764	1757	1757	1767	1756	168
180°	1764	1764	1764	1764	1764	



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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	30.2	30.6	31.1	31.6	31.9	32.0	32.2	32.4	32.5	32.8
90°	1.3	3.6	6.0	8.3	10.6	12.8	14.8	16.9	18.9	20.9	22.4
92.5°	20.1	18.5	16.9	15.2	13.6	13.7	15.6	17.3	19.1	20.9	22.4
95°	74.5	73.6	72.8	71.9	71.0	65.0	54.0	43.0	31.9	20.9	22.4
97.5°	155.6	157.1	158.8	160.3	161.9	151.7	129.9	108.1	86.1	64.3	56.1
100°	218.3	219.2	220.0	221.0	221.9	222.9	224.0	225.2	226.3	227.5	184.2
102.5°	282.2	283.3	284.4	285.5	286.6	287.5	288.2	288.9	289.5	290.2	282.1
105°	384.5	385.6	386.8	387.9	389.1	389.6	389.6	389.6	389.6	389.6	389.6
107.5°	490.6	490.6	490.6	490.6	490.6	490.9	491.5	492.0	492.6	493.2	493.2
110°	559.7	559.7	559.7	559.7	559.7	559.9	560.5	561.1	561.7	562.2	561.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	624.5	625.2	625.9	626.5	627.2	627.8	628.1	628.4	628.8	629.1	628.0
115°	721.8	723.2	724.7	726.1	727.6	728.4	728.7	729.0	729.3	729.6	728.4
117.5°	822.4	822.3	822.3	822.2	822.2	822.7	823.8	825.0	826.1	827.2	825.7
120°	885.1	884.9	884.6	884.3	884.0	884.3	885.1	886.1	887.0	887.8	887.3
122.5°	940.6	941.7	942.8	943.9	945.0	945.8	946.2	946.6	947.1	947.5	946.8
125°	1026.4	1028.4	1030.5	1032.5	1034.5	1035.5	1035.5	1035.5	1035.5	1035.5	1034.4
127.5°	1108.2	1109.7	1111.2	1112.6	1114.1	1114.7	1114.5	1114.4	1114.2	1114.0	1113.4
130°	1158.4	1159.9	1161.3	1162.9	1164.3	1165.2	1165.5	1165.7	1166.0	1166.3	1165.5
132.5°	1208.7	1210.3	1212.0	1213.8	1215.4	1216.0	1215.3	1214.7	1214.1	1213.4	1213.3
135°	1280.1	1281.8	1283.5	1285.3	1287.1	1287.6	1287.1	1286.5	1285.9	1285.3	1284.8
137.5°	1345.7	1347.2	1348.7	1350.2	1351.7	1352.2	1351.7	1351.2	1350.7	1350.2	1350.3
140°	1388.6	1389.2	1389.8	1390.3	1390.9	1391.1	1390.8	1390.5	1390.2	1389.9	1390.5
142.5°	1427.2	1427.6	1427.9	1428.4	1428.7	1429.1	1429.5	1429.9	1430.3	1430.7	1430.8
145°	1484.0	1484.6	1485.2	1485.8	1486.3	1486.6	1486.6	1486.6	1486.6	1486.6	1486.9
147.5°	1533.7	1533.6	1533.5	1533.4	1533.3	1533.4	1533.7	1534.1	1534.4	1534.8	1535.1
150°	1565.1	1564.5	1564.0	1563.4	1562.8	1562.8	1563.4	1564.0	1564.5	1565.1	1565.7
152.5°	1595.4	1594.2	1592.9	1591.6	1590.3	1589.9	1590.5	1591.1	1591.7	1592.3	1592.9
155°	1634.4	1632.6	1630.9	1629.2	1627.4	1626.9	1627.4	1628.0	1628.6	1629.2	1630.0
157.5°	1664.5	1663.4	1662.3	1661.3	1660.3	1659.8	1659.8	1659.9	1660.0	1660.0	1660.9
160°	1685.4	1683.6	1681.9	1680.1	1678.4	1677.7	1678.0	1678.3	1678.6	1678.9	1680.0
162.5°	1702.1	1700.4	1698.6	1696.9	1695.2	1694.5	1694.8	1695.1	1695.3	1695.6	1697.2
165°	1724.6	1722.8	1721.1	1719.4	1717.7	1716.9	1717.2	1717.5	1717.8	1718.1	1719.8
167.5°	1741.3	1739.6	1737.8	1736.0	1734.1	1733.4	1733.6	1733.9	1734.2	1734.5	1736.7
170°	1750.8	1748.8	1746.7	1744.6	1742.6	1741.7	1742.0	1742.3	1742.6	1742.9	1745.2
172.5°	1757.1	1755.0	1753.0	1750.9	1748.9	1748.2	1748.7	1749.2	1749.7	1750.2	1752.3
175°	1763.8	1762.1	1760.4	1758.6	1756.9	1756.2	1756.5	1756.8	1757.1	1757.3	1759.6
177.5°	1767.0	1765.5	1764.2	1762.8	1761.4	1760.8	1761.1	1761.3	1761.5	1761.7	1763.4
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8



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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°	33.1	33.4	33.7	33.7	33.4	33.0	32.7	32.4
90°	23.8	25.2	26.8	27.9	28.8	29.6	30.5	31.4
92.5°	23.8	25.2	26.8	27.7	28.1	28.5	28.9	29.3
95°	23.8	25.2	26.8	27.5	27.5	27.5	27.5	27.5
97.5°	48.0	39.8	31.5	27.5	27.5	27.5	27.5	27.5
100°	140.9	97.7	54.3	32.1	30.9	29.8	28.6	27.5
102.5°	273.9	265.7	257.5	243.5	223.8	204.0	184.2	164.5
105°	389.6	389.6	389.6	389.5	389.2	388.9	388.6	388.3
107.5°	493.3	493.4	493.4	493.0	492.1	491.3	490.4	489.6
110°	560.5	559.7	558.8	558.5	558.8	559.1	559.4	559.7



TEST NUMBER: P333452-840

CATALOG NUMBER: S125DIW-S1090D1340U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	626.9	625.9	624.8	624.0	623.6	623.2	622.8	622.4
115°	727.3	726.1	725.0	723.5	721.8	720.0	718.2	716.5
117.5°	824.2	822.6	821.1	819.9	819.2	818.5	817.7	817.0
120°	886.7	886.1	885.4	884.4	883.0	881.5	880.1	878.7
122.5°	946.2	945.6	945.1	943.9	942.3	940.6	938.9	937.3
125°	1033.2	1032.1	1030.9	1029.9	1029.1	1028.1	1027.2	1026.4
127.5°	1112.8	1112.1	1111.5	1110.0	1107.9	1105.8	1103.6	1101.5
130°	1164.6	1163.7	1162.9	1161.6	1160.2	1158.7	1157.3	1155.9
132.5°	1213.0	1212.8	1212.6	1211.8	1210.4	1209.0	1207.5	1206.1
135°	1284.1	1283.5	1282.9	1281.8	1280.1	1278.3	1276.6	1274.9
137.5°	1350.4	1350.5	1350.6	1349.9	1348.4	1346.9	1345.3	1343.8
140°	1391.1	1391.6	1392.2	1391.6	1389.9	1388.2	1386.4	1384.6
142.5°	1430.9	1431.1	1431.2	1430.4	1428.6	1426.8	1425.1	1423.4
145°	1487.2	1487.5	1487.8	1487.1	1485.3	1483.6	1481.9	1480.2
147.5°	1535.5	1535.8	1536.2	1535.3	1533.2	1531.1	1529.0	1526.9
150°	1566.3	1566.8	1567.4	1566.5	1564.2	1561.9	1559.5	1557.2
152.5°	1593.5	1594.1	1594.6	1593.9	1591.7	1589.7	1587.6	1585.5
155°	1630.9	1631.7	1632.6	1631.9	1629.6	1627.3	1625.0	1622.7
157.5°	1661.9	1662.8	1663.8	1663.0	1660.7	1658.4	1656.1	1653.8
160°	1681.2	1682.3	1683.5	1682.9	1680.6	1678.3	1676.0	1673.6
162.5°	1698.8	1700.5	1702.1	1701.6	1699.1	1696.5	1693.9	1691.4
165°	1721.5	1723.3	1725.1	1724.7	1722.4	1720.1	1717.8	1715.5
167.5°	1738.8	1740.8	1742.9	1742.6	1740.0	1737.5	1734.8	1732.2
170°	1747.6	1749.9	1752.2	1752.1	1749.5	1746.9	1744.2	1741.6
172.5°	1754.4	1756.6	1758.6	1758.4	1755.8	1753.1	1750.5	1747.9
175°	1761.9	1764.2	1766.6	1766.5	1763.8	1761.2	1758.6	1756.0
177.5°	1765.0	1766.7	1768.3	1768.2	1766.3	1764.4	1762.5	1760.7
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8

(END OF REPORT)