

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: P333459-840

Luminaire Tested: **S125DIW-S1090D1560U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333459-840
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-S1090D1560U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9949.5 lumens
Efficiency: N/A
Efficacy: 129.9 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

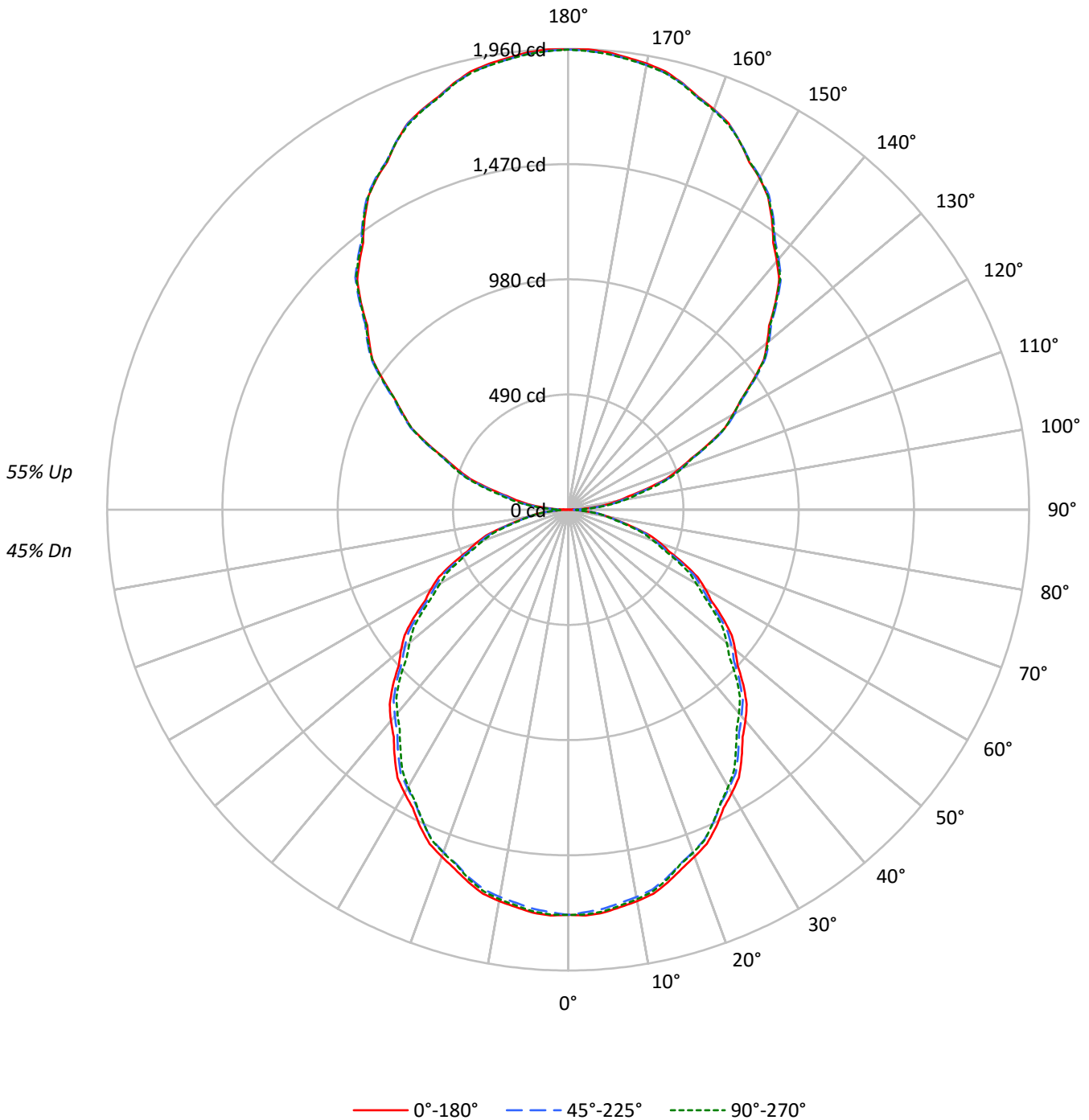
Input Watts (W): 76.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333459-840

CATALOG NUMBER: S125DIW-S1090D1560U840-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333459-840

CATALOG NUMBER: S125DIW-S1090D1560U840-4F0-1E-UDD-F1

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



TEST NUMBER: P333459-840

CATALOG NUMBER: S125DIW-S1090D1560U840-4F0-1E-UDD-F1

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	7.9
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°	90.7	0.9
90°-100°	131.1	1.3
100°-110°	387.1	3.9
110°-120°	655.6	6.6
120°-130°	862.9	8.7
130°-140°	966.8	9.7
140°-150°	947.6	9.5
150°-160°	795.9	8.0
160°-170°	529.1	5.3
170°-180°	185.2	1.9
0°-30°	1299.1	13.1
0°-40°	2089.8	21.0
0°-60°	3581.2	36.0
0°-90°	4488.3	45.1
90°-120°	1173.8	11.8
90°-150°	3951.1	39.7
90°-180°	5461.0	54.9
0°-180°	9949.5	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°	2	14	24	32	37	10
95°	99	103	117	128	131	106
105°	347	355	364	373	378	371
115°	656	662	666	664	663	649
125°	958	967	969	966	964	858
135°	1246	1255	1256	1256	1250	960
145°	1509	1515	1520	1520	1515	943
155°	1727	1727	1729	1734	1727	795
165°	1878	1875	1876	1882	1873	530
175°	1953	1947	1946	1954	1945	185
180°	1957	1957	1957	1957	1957	



TEST NUMBER: P333459-840

CATALOG NUMBER: S125DIW-S1090D1560U840-4F0-1E-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°	29.8	30.3	30.8	31.4	31.9	32.3	32.5	32.7	33.0	33.2	33.5
90°	1.5	4.2	7.0	9.7	12.3	14.8	17.3	19.6	22.0	24.3	26.1
92.5°	36.9	38.8	40.7	42.5	44.4	46.9	49.8	52.6	55.5	58.5	60.7
95°	99.0	99.7	100.4	101.0	101.7	103.7	107.1	110.5	113.9	117.2	119.7
97.5°	164.5	164.7	165.0	165.3	165.6	168.0	172.7	177.4	182.1	186.7	188.9
100°	213.2	213.2	213.2	213.2	213.2	215.4	219.8	224.2	228.6	233.0	236.1
102.5°	265.6	267.0	268.3	269.6	271.0	272.9	275.1	277.3	279.5	281.8	285.1
105°	347.3	348.9	350.6	352.3	354.1	355.9	357.9	359.9	361.9	364.1	366.1
107.5°	437.4	439.1	440.8	442.5	444.1	445.9	447.4	448.9	450.5	452.0	453.0
110°	499.6	501.3	502.9	504.6	506.3	507.7	508.7	509.7	510.7	511.7	512.7



TEST NUMBER: P333459-840

CATALOG NUMBER: S125DIW-S1090D1560U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	562.9	563.8	564.7	565.5	566.4	567.5	568.8	570.1	571.4	572.7	573.1
115°	656.4	657.8	659.1	660.5	661.9	662.9	663.6	664.2	664.9	665.6	665.2
117.5°	750.2	750.8	751.4	752.0	752.7	753.3	753.9	754.5	755.1	755.8	756.0
120°	808.7	810.4	812.1	813.9	815.5	816.5	816.9	817.2	817.5	817.9	817.9
122.5°	872.1	872.7	873.3	873.9	874.5	875.3	876.2	877.1	877.9	878.8	878.5
125°	958.0	960.0	962.1	964.1	966.1	967.3	967.7	968.0	968.4	968.7	968.0
127.5°	1049.4	1050.6	1051.7	1052.8	1054.0	1054.8	1055.2	1055.6	1056.0	1056.4	1056.0
130°	1104.2	1105.9	1107.6	1109.2	1111.0	1112.2	1112.9	1113.5	1114.2	1114.9	1114.5
132.5°	1159.0	1161.8	1164.6	1167.4	1170.1	1171.4	1171.3	1171.1	1171.0	1170.9	1170.5
135°	1245.9	1247.9	1249.9	1251.9	1253.9	1255.2	1255.5	1255.9	1256.2	1256.5	1256.5
137.5°	1327.5	1329.5	1331.4	1333.3	1335.3	1336.7	1337.5	1338.2	1338.9	1339.7	1340.1
140°	1379.9	1381.6	1383.2	1384.9	1386.6	1388.0	1389.0	1390.1	1391.1	1392.1	1392.7
142.5°	1432.3	1433.7	1435.1	1436.5	1437.9	1439.3	1440.6	1441.9	1443.2	1444.4	1444.8
145°	1509.3	1510.7	1512.1	1513.4	1514.8	1515.9	1516.9	1517.9	1518.9	1519.9	1519.9
147.5°	1580.6	1581.3	1582.1	1582.9	1583.6	1584.4	1585.2	1586.0	1586.8	1587.6	1588.4
150°	1628.1	1627.8	1627.5	1627.1	1626.8	1627.3	1628.6	1630.0	1631.3	1632.7	1632.7
152.5°	1667.1	1667.6	1668.1	1668.5	1669.0	1669.5	1670.1	1670.6	1671.1	1671.7	1672.5
155°	1727.2	1727.2	1727.2	1727.2	1727.2	1727.3	1727.7	1728.0	1728.3	1728.7	1730.0
157.5°	1780.7	1780.0	1779.3	1778.5	1777.8	1777.6	1777.9	1778.3	1778.6	1778.9	1780.3
160°	1812.4	1811.4	1810.4	1809.4	1808.4	1808.1	1808.4	1808.7	1809.1	1809.4	1810.7
162.5°	1840.5	1839.7	1839.0	1838.3	1837.4	1837.1	1837.1	1837.2	1837.3	1837.3	1839.1
165°	1877.9	1877.2	1876.5	1875.9	1875.2	1875.0	1875.4	1875.7	1876.0	1876.4	1877.7
167.5°	1909.6	1908.2	1906.9	1905.5	1904.2	1903.5	1903.5	1903.5	1903.5	1903.5	1905.5
170°	1926.6	1925.3	1923.9	1922.6	1921.3	1920.6	1920.6	1920.6	1920.6	1920.6	1922.6
172.5°	1938.8	1937.5	1936.1	1934.8	1933.4	1932.8	1932.8	1932.8	1932.8	1932.8	1934.8
175°	1952.6	1951.2	1949.8	1948.4	1947.1	1946.4	1946.4	1946.4	1946.4	1946.4	1948.4
177.5°	1959.5	1958.4	1957.4	1956.3	1955.2	1954.5	1954.3	1954.0	1953.7	1953.5	1955.1
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1



TEST NUMBER: P333459-840

CATALOG NUMBER: S125DIW-S1090D1560U840-4F0-1E-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°	33.9	34.2	34.5	34.6	34.3	34.0	33.7	33.5
90°	27.8	29.5	31.1	32.5	33.5	34.5	35.5	36.6
92.5°	62.9	65.1	67.5	68.9	69.7	70.4	71.1	71.9
95°	122.0	124.4	126.7	128.3	129.0	129.7	130.3	131.0
97.5°	191.2	193.4	195.6	197.0	197.4	197.8	198.2	198.6
100°	239.1	242.2	245.2	247.1	247.7	248.4	249.1	249.7
102.5°	288.4	291.8	295.0	297.2	298.1	299.0	300.0	300.9
105°	368.1	370.1	372.1	373.7	374.7	375.7	376.7	377.7
107.5°	454.0	455.0	456.1	456.6	456.5	456.5	456.4	456.3
110°	513.8	514.8	515.8	516.1	515.8	515.4	515.1	514.8



TEST NUMBER: P333459-840

CATALOG NUMBER: S125DIW-S1090D1560U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	573.6	574.1	574.5	574.5	573.9	573.3	572.7	572.1
115°	664.9	664.6	664.2	663.9	663.6	663.2	662.9	662.6
117.5°	756.3	756.6	756.8	756.3	754.9	753.6	752.2	750.8
120°	817.9	817.9	817.9	817.2	815.9	814.5	813.1	811.8
122.5°	878.3	878.0	877.7	877.1	876.0	874.8	873.7	872.7
125°	967.3	966.6	965.9	965.4	965.1	964.7	964.4	964.1
127.5°	1055.7	1055.4	1055.0	1054.5	1053.8	1053.2	1052.5	1051.8
130°	1114.2	1113.9	1113.5	1113.0	1112.4	1111.7	1111.0	1110.3
132.5°	1170.2	1169.9	1169.5	1168.9	1168.0	1167.0	1166.1	1165.1
135°	1256.5	1256.5	1256.5	1255.9	1254.5	1253.1	1251.7	1250.4
137.5°	1340.5	1340.9	1341.3	1340.7	1339.0	1337.3	1335.5	1333.8
140°	1393.4	1394.1	1394.7	1394.2	1392.6	1390.9	1389.2	1387.5
142.5°	1445.2	1445.6	1446.1	1445.4	1443.7	1442.1	1440.4	1438.7
145°	1519.9	1519.9	1519.9	1519.4	1518.4	1517.4	1516.4	1515.4
147.5°	1589.2	1590.0	1590.8	1590.1	1587.8	1585.5	1583.3	1580.9
150°	1632.7	1632.7	1632.7	1632.3	1631.6	1631.0	1630.3	1629.6
152.5°	1673.3	1674.2	1675.0	1674.8	1673.5	1672.3	1671.1	1669.9
155°	1731.3	1732.7	1734.0	1733.9	1732.2	1730.5	1728.8	1727.2
157.5°	1781.6	1783.0	1784.3	1783.9	1781.6	1779.4	1777.2	1774.9
160°	1812.1	1813.4	1814.8	1814.6	1812.9	1811.2	1809.6	1807.9
162.5°	1840.7	1842.3	1843.9	1843.7	1841.8	1839.8	1837.9	1835.8
165°	1879.1	1880.5	1881.8	1881.5	1879.5	1877.4	1875.4	1873.3
167.5°	1907.5	1909.6	1911.6	1911.6	1909.5	1907.4	1905.3	1903.2
170°	1924.6	1926.6	1928.6	1928.5	1926.1	1923.8	1921.4	1919.0
172.5°	1936.8	1938.8	1940.9	1940.9	1938.7	1936.6	1934.5	1932.5
175°	1950.6	1952.6	1954.6	1954.4	1952.1	1949.6	1947.3	1944.9
177.5°	1956.7	1958.3	1959.9	1959.8	1957.9	1956.0	1954.1	1952.3
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1

(END OF REPORT)