

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: P333488-840

Luminaire Tested: **S125DIW-S1270D1560U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333488-840  
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-S1270D1560U840-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11480.6 lumens  
Efficiency: N/A  
Efficacy: 138.5 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

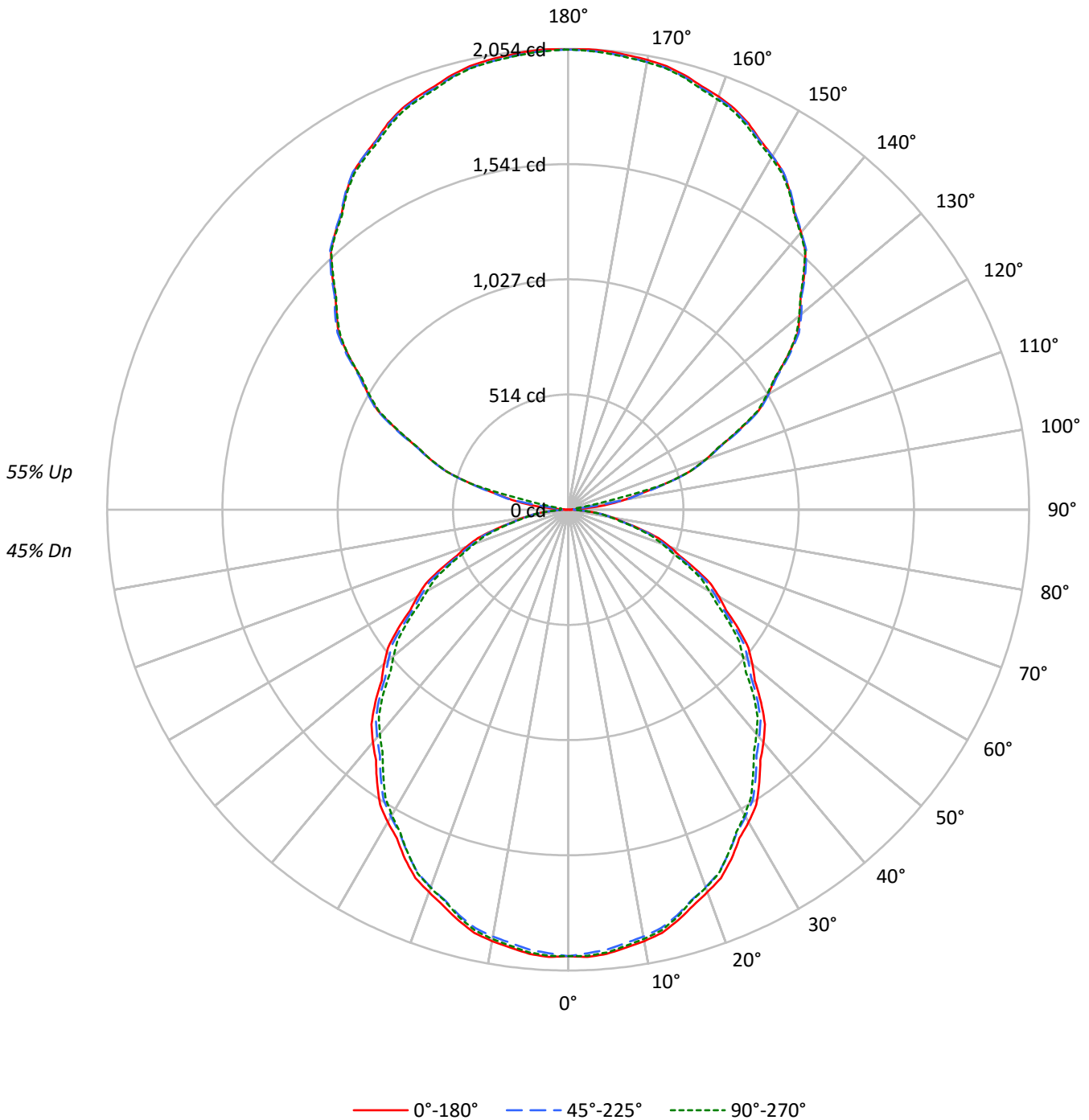
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	21	18
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°	12853	12853	12853
5°	12882	12759	12841
10°	12804	12669	12742
15°	12664	12517	12570
20°	12466	12304	12325
25°	12252	12050	12039
30°	11989	11777	11718
35°	11706	11483	11321
40°	11415	11163	11005
45°	11102	10872	10656
50°	10758	10520	10203
55°	10424	10124	9839
60°	10026	9722	9376
65°	9553	9239	8926
70°	9098	8682	8384
75°	8289	8015	7738
80°	7375	7260	7089
85°	6417	6536	6180



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.6	1.6
10°-20°	530.1	4.6
20°-30°	782.7	6.8
30°-40°	913.3	8.0
40°-50°	917.2	8.0
50°-60°	805.1	7.0
60°-70°	599.9	5.2
70°-80°	343.0	3.0
80°-90°	104.1	0.9
90°-100°	74.5	0.6
100°-110°	459.3	4.0
110°-120°	833.0	7.3
120°-130°	1069.1	9.3
130°-140°	1149.9	10.0
140°-150°	1079.3	9.4
150°-160°	873.1	7.6
160°-170°	564.7	4.9
170°-180°	194.8	1.7
0°-30°	1500.4	13.1
0°-40°	2413.6	21.0
0°-60°	4136.0	36.0
0°-90°	5183.0	45.1
90°-120°	1366.8	11.9
90°-150°	4665.0	40.6
90°-180°	6298.0	54.9
0°-180°	11480.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1990	1990	1990	1990	1990	
5°	1987	1983	1968	1981	1981	188
15°	1894	1889	1872	1880	1880	534
25°	1719	1711	1691	1694	1689	791
35°	1485	1478	1456	1448	1436	928
45°	1216	1208	1190	1172	1167	936
55°	926	920	899	885	874	826
65°	625	621	605	591	584	620
75°	332	329	321	316	310	354
85°	87	88	88	86	83	97
90°	2	14	24	32	36	8
95°	87	79	24	32	32	110
105°	447	453	453	453	452	474
115°	839	846	848	842	833	832
125°	1193	1203	1204	1198	1193	1065
135°	1488	1497	1494	1491	1482	1147
145°	1726	1728	1728	1729	1721	1079
155°	1900	1892	1894	1898	1886	875
165°	2005	1997	1998	2006	1994	566
175°	2051	2042	2043	2054	2042	195
180°	2051	2051	2051	2051	2051	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1
2.5°	1995.2	1994.4	1993.6	1992.7	1991.9	1990.0	1987.2	1984.4	1981.7	1978.8	1981.7
5°	1987.0	1986.3	1985.6	1984.9	1984.2	1982.2	1978.6	1975.1	1971.7	1968.1	1971.3
7.5°	1968.7	1968.0	1967.3	1966.6	1965.9	1963.7	1959.8	1956.0	1952.2	1948.3	1951.4
10°	1952.4	1951.7	1951.0	1950.3	1949.5	1947.3	1943.5	1939.6	1935.7	1931.9	1934.7
12.5°	1932.2	1931.0	1929.8	1928.4	1927.2	1924.8	1921.2	1917.6	1914.1	1910.5	1912.8
15°	1894.1	1893.1	1892.0	1891.0	1890.0	1887.4	1883.6	1879.8	1875.9	1872.1	1873.8
17.5°	1850.4	1848.9	1847.2	1845.7	1844.2	1841.4	1837.4	1833.4	1829.5	1825.4	1827.7
20°	1813.8	1813.1	1812.4	1811.7	1811.0	1808.4	1803.8	1799.3	1794.7	1790.2	1792.6
22.5°	1777.3	1776.0	1774.7	1773.5	1772.2	1769.5	1765.2	1761.0	1756.7	1752.4	1754.0
25°	1719.4	1717.6	1715.9	1714.1	1712.3	1709.2	1704.7	1700.1	1695.6	1691.0	1691.7
27.5°	1651.6	1650.6	1649.5	1648.5	1647.5	1644.6	1639.9	1635.2	1630.5	1625.8	1626.0
30°	1607.6	1606.5	1605.5	1604.4	1603.4	1600.2	1595.0	1589.7	1584.5	1579.2	1578.5
32.5°	1559.7	1558.1	1556.5	1554.9	1553.3	1550.1	1545.4	1540.8	1536.0	1531.4	1530.1
35°	1484.7	1483.4	1482.0	1480.6	1479.1	1476.0	1471.1	1466.2	1461.3	1456.4	1454.7
37.5°	1406.9	1405.2	1403.5	1401.7	1400.0	1396.7	1392.2	1387.6	1382.9	1378.4	1375.7
40°	1354.0	1352.3	1350.6	1348.8	1347.1	1343.7	1338.9	1333.9	1329.1	1324.1	1321.0
42.5°	1297.4	1296.0	1294.4	1292.9	1291.5	1288.3	1283.4	1278.5	1273.6	1268.7	1265.9
45°	1215.5	1214.2	1212.7	1211.3	1209.9	1207.1	1203.0	1198.7	1194.6	1190.3	1186.1
47.5°	1127.3	1127.4	1127.5	1127.5	1127.6	1125.1	1120.1	1115.1	1110.0	1105.0	1100.8
50°	1070.7	1069.6	1068.5	1067.5	1066.4	1063.8	1059.7	1055.4	1051.3	1047.0	1042.5
52.5°	1012.7	1012.0	1011.2	1010.4	1009.7	1007.0	1002.5	998.0	993.6	989.1	985.1
55°	925.8	924.7	923.7	922.6	921.6	918.7	913.7	908.9	903.9	899.1	895.9
57.5°	834.1	833.6	833.0	832.5	831.9	829.6	825.5	821.3	817.2	813.0	809.0
60°	776.2	774.9	773.5	772.0	770.6	768.0	764.2	760.3	756.5	752.7	749.1
62.5°	715.8	714.7	713.6	712.4	711.2	709.1	705.8	702.5	699.2	695.9	692.2
65°	625.1	624.4	623.7	623.0	622.3	620.0	616.1	612.3	608.4	604.6	601.5
67.5°	537.2	535.7	534.3	532.8	531.4	529.2	526.3	523.4	520.6	517.7	515.0
70°	481.8	480.1	478.3	476.6	474.8	472.3	469.2	466.1	462.9	459.8	457.7
72.5°	421.3	420.1	419.0	417.8	416.6	415.0	412.9	410.9	408.9	406.9	404.5
75°	332.2	331.5	330.8	330.1	329.4	328.2	326.5	324.7	323.0	321.2	320.1
77.5°	250.0	249.7	249.4	249.2	248.9	248.3	247.3	246.3	245.3	244.4	243.8
80°	198.3	198.3	198.3	198.3	198.3	198.0	197.3	196.6	195.9	195.2	194.9
82.5°	153.0	152.5	151.9	151.4	150.8	150.5	150.3	150.2	150.1	149.9	149.3
85°	86.6	86.9	87.3	87.7	88.0	88.2	88.2	88.2	88.2	88.2	87.9
87.5°	34.3	34.8	35.3	36.0	36.5	36.9	37.1	37.3	37.5	37.6	38.0
90°	1.5	4.2	7.0	9.6	12.3	14.8	17.3	19.6	21.9	24.3	26.1
92.5°	23.4	21.5	19.6	17.8	15.9	16.0	18.1	20.1	22.2	24.3	26.1
95°	86.6	85.6	84.6	83.6	82.6	75.6	62.8	50.0	37.2	24.3	26.1
97.5°	180.9	182.7	184.5	186.4	188.2	176.4	151.0	125.6	100.2	74.8	65.2
100°	253.9	254.9	255.9	256.9	257.9	259.1	260.4	261.9	263.2	264.5	214.2
102.5°	328.1	329.3	330.6	331.9	333.2	334.3	335.1	335.9	336.7	337.5	328.0
105°	447.0	448.3	449.7	451.0	452.3	453.0	453.0	453.0	453.0	453.0	453.0
107.5°	570.4	570.4	570.4	570.4	570.4	570.7	571.4	572.1	572.8	573.4	573.5
110°	650.7	650.7	650.7	650.7	650.7	651.0	651.7	652.4	653.0	653.7	652.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	726.1	726.9	727.7	728.5	729.3	729.9	730.3	730.7	731.1	731.5	730.2
115°	839.2	840.8	842.5	844.2	845.9	846.9	847.3	847.6	848.0	848.3	846.9
117.5°	956.2	956.1	956.0	956.0	955.9	956.5	957.9	959.1	960.4	961.7	959.9
120°	1029.2	1028.9	1028.5	1028.1	1027.8	1028.1	1029.2	1030.2	1031.2	1032.2	1031.6
122.5°	1093.7	1094.9	1096.2	1097.5	1098.7	1099.6	1100.1	1100.6	1101.1	1101.6	1100.9
125°	1193.4	1195.7	1198.1	1200.4	1202.9	1204.0	1204.0	1204.0	1204.0	1204.0	1202.6
127.5°	1288.5	1290.2	1291.9	1293.6	1295.3	1296.1	1295.9	1295.7	1295.5	1295.3	1294.4
130°	1346.9	1348.6	1350.3	1352.0	1353.6	1354.6	1355.0	1355.3	1355.6	1356.0	1355.0
132.5°	1405.2	1407.2	1409.2	1411.2	1413.1	1413.7	1413.0	1412.2	1411.5	1410.8	1410.6
135°	1488.2	1490.3	1492.4	1494.4	1496.4	1497.0	1496.4	1495.7	1495.0	1494.4	1493.7
137.5°	1564.6	1566.3	1568.1	1569.8	1571.7	1572.2	1571.6	1570.9	1570.3	1569.7	1569.9
140°	1614.5	1615.2	1615.8	1616.5	1617.2	1617.3	1617.0	1616.7	1616.3	1616.0	1616.7
142.5°	1659.4	1659.8	1660.2	1660.6	1661.0	1661.5	1662.0	1662.4	1662.9	1663.4	1663.6
145°	1725.5	1726.1	1726.8	1727.5	1728.2	1728.5	1728.5	1728.5	1728.5	1728.5	1728.8
147.5°	1783.2	1783.0	1782.9	1782.8	1782.6	1782.8	1783.2	1783.6	1784.0	1784.4	1784.8
150°	1819.7	1819.0	1818.4	1817.7	1816.9	1816.9	1817.7	1818.4	1819.0	1819.7	1820.4
152.5°	1854.9	1853.5	1852.0	1850.5	1849.0	1848.6	1849.3	1850.0	1850.7	1851.3	1852.0
155°	1900.3	1898.2	1896.2	1894.2	1892.2	1891.5	1892.2	1892.8	1893.5	1894.2	1895.2
157.5°	1935.2	1934.0	1932.8	1931.6	1930.4	1929.8	1929.9	1930.0	1930.0	1930.1	1931.2
160°	1959.5	1957.5	1955.5	1953.5	1951.5	1950.6	1951.0	1951.3	1951.6	1952.0	1953.3
162.5°	1979.0	1977.0	1975.0	1972.9	1970.9	1970.0	1970.3	1970.8	1971.1	1971.4	1973.3
165°	2005.2	2003.2	2001.0	1999.0	1997.0	1996.2	1996.5	1996.9	1997.2	1997.5	1999.5
167.5°	2024.6	2022.6	2020.4	2018.3	2016.2	2015.4	2015.7	2016.0	2016.4	2016.7	2019.1
170°	2035.6	2033.2	2030.8	2028.4	2026.1	2025.1	2025.4	2025.8	2026.1	2026.4	2029.1
172.5°	2042.9	2040.5	2038.1	2035.8	2033.4	2032.6	2033.2	2033.8	2034.4	2035.0	2037.4
175°	2050.7	2048.7	2046.7	2044.7	2042.7	2041.8	2042.1	2042.5	2042.9	2043.2	2045.9
177.5°	2054.4	2052.8	2051.1	2049.5	2047.9	2047.2	2047.5	2047.8	2048.0	2048.3	2050.2
180°	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1
2.5°	1984.4	1987.2	1990.0	1991.3	1991.0	1990.7	1990.4	1990.1
5°	1974.4	1977.6	1980.7	1982.2	1981.8	1981.5	1981.1	1980.7
7.5°	1954.4	1957.5	1960.6	1962.0	1961.7	1961.3	1961.0	1960.6
10°	1937.5	1940.4	1943.1	1944.3	1944.0	1943.6	1943.3	1943.0
12.5°	1915.0	1917.2	1919.5	1920.6	1920.5	1920.4	1920.4	1920.3
15°	1875.6	1877.3	1879.1	1880.0	1880.0	1880.0	1880.0	1880.0
17.5°	1829.8	1832.0	1834.1	1834.3	1832.6	1830.9	1829.1	1827.4
20°	1795.1	1797.6	1800.0	1800.4	1798.6	1796.9	1795.1	1793.3
22.5°	1755.7	1757.3	1758.9	1759.1	1757.9	1756.7	1755.4	1754.3
25°	1692.4	1693.1	1693.8	1693.6	1692.6	1691.5	1690.5	1689.4
27.5°	1626.1	1626.3	1626.4	1625.9	1624.9	1623.9	1622.8	1621.7
30°	1577.8	1577.1	1576.4	1575.6	1574.5	1573.5	1572.4	1571.3
32.5°	1528.8	1527.6	1526.3	1524.7	1522.9	1521.0	1519.0	1517.2
35°	1452.9	1451.2	1449.5	1447.1	1444.3	1441.6	1438.8	1435.9
37.5°	1373.1	1370.6	1368.0	1365.8	1364.2	1362.6	1361.0	1359.4
40°	1317.9	1314.7	1311.5	1309.5	1308.4	1307.4	1306.3	1305.3
42.5°	1263.0	1260.1	1257.3	1255.1	1253.4	1251.8	1250.2	1248.6
45°	1181.9	1177.7	1173.6	1170.9	1169.8	1168.8	1167.7	1166.7
47.5°	1096.4	1092.2	1087.9	1084.6	1082.1	1079.6	1077.2	1074.8
50°	1037.9	1033.4	1028.9	1025.3	1022.9	1020.5	1018.0	1015.5
52.5°	981.1	977.1	973.1	969.8	967.0	964.3	961.6	958.9
55°	892.7	889.6	886.5	883.6	881.2	878.8	876.3	873.8
57.5°	805.0	800.9	796.9	794.2	792.8	791.5	790.1	788.8
60°	745.6	742.1	738.6	735.7	733.2	730.7	728.3	725.9
62.5°	688.3	684.6	680.9	678.0	676.1	674.2	672.3	670.4
65°	598.3	595.1	592.0	589.8	588.3	586.9	585.5	584.1
67.5°	512.4	509.7	507.1	505.3	504.4	503.6	502.8	501.9
70°	455.6	453.4	451.3	449.6	448.2	446.8	445.5	444.0
72.5°	402.1	399.7	397.4	395.5	394.0	392.6	391.2	389.8
75°	319.1	318.0	317.0	315.8	314.4	313.0	311.5	310.1
77.5°	243.1	242.5	241.9	241.1	240.0	239.0	238.1	237.1
80°	194.5	194.2	193.8	193.3	192.6	191.9	191.2	190.6
82.5°	148.7	148.0	147.3	147.0	146.8	146.7	146.5	146.4
85°	87.5	87.2	86.7	86.2	85.5	84.8	84.1	83.4
87.5°	38.3	38.7	39.0	39.0	38.6	38.3	37.9	37.6
90°	27.7	29.4	31.1	32.4	33.4	34.4	35.4	36.5
92.5°	27.7	29.4	31.1	32.1	32.6	33.1	33.6	34.0
95°	27.7	29.4	31.1	31.9	31.9	31.9	31.9	31.9
97.5°	55.7	46.3	36.7	31.9	31.9	31.9	31.9	31.9
100°	163.8	113.5	63.2	37.4	36.0	34.6	33.3	31.9
102.5°	318.4	308.9	299.4	283.2	260.1	237.2	214.2	191.3
105°	453.0	453.0	453.0	452.8	452.5	452.2	451.8	451.5
107.5°	573.6	573.6	573.7	573.2	572.2	571.2	570.2	569.2
110°	651.7	650.7	649.6	649.3	649.6	649.9	650.4	650.7





TEST NUMBER: P333488-840

CATALOG NUMBER: S125DIW-S1270D1560U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	728.9	727.7	726.4	725.5	725.1	724.6	724.1	723.6
115°	845.6	844.2	842.8	841.2	839.2	837.1	835.1	833.0
117.5°	958.2	956.4	954.6	953.3	952.5	951.6	950.7	949.8
120°	1030.9	1030.2	1029.6	1028.3	1026.6	1024.9	1023.3	1021.6
122.5°	1100.1	1099.5	1098.8	1097.5	1095.6	1093.6	1091.7	1089.6
125°	1201.3	1199.9	1198.6	1197.4	1196.4	1195.4	1194.4	1193.4
127.5°	1293.7	1293.0	1292.2	1290.6	1288.1	1285.7	1283.1	1280.6
130°	1354.0	1353.0	1352.0	1350.6	1349.0	1347.3	1345.5	1343.8
132.5°	1410.4	1410.2	1410.0	1409.0	1407.3	1405.6	1403.9	1402.2
135°	1493.0	1492.4	1491.7	1490.3	1488.2	1486.2	1484.2	1482.2
137.5°	1570.0	1570.1	1570.3	1569.5	1567.7	1566.0	1564.2	1562.5
140°	1617.3	1618.0	1618.7	1618.0	1616.0	1614.0	1611.9	1609.9
142.5°	1663.7	1663.9	1664.0	1663.0	1660.9	1658.9	1656.9	1654.9
145°	1729.2	1729.5	1729.8	1729.0	1727.0	1725.0	1722.9	1720.9
147.5°	1785.2	1785.6	1786.0	1785.0	1782.6	1780.2	1777.8	1775.3
150°	1821.0	1821.7	1822.4	1821.4	1818.7	1815.9	1813.3	1810.6
152.5°	1852.7	1853.3	1854.0	1853.1	1850.7	1848.3	1845.8	1843.4
155°	1896.2	1897.2	1898.2	1897.3	1894.7	1892.0	1889.3	1886.5
157.5°	1932.2	1933.3	1934.4	1933.6	1930.9	1928.1	1925.4	1922.8
160°	1954.6	1956.0	1957.3	1956.7	1954.0	1951.3	1948.5	1945.9
162.5°	1975.2	1977.1	1978.9	1978.4	1975.5	1972.5	1969.5	1966.5
165°	2001.6	2003.7	2005.7	2005.3	2002.7	1999.9	1997.2	1994.5
167.5°	2021.5	2024.0	2026.4	2026.1	2023.1	2020.0	2017.0	2014.0
170°	2031.8	2034.6	2037.2	2037.1	2034.1	2031.0	2027.9	2024.9
172.5°	2039.8	2042.3	2044.7	2044.4	2041.3	2038.3	2035.3	2032.3
175°	2048.5	2051.2	2054.0	2053.8	2050.7	2047.7	2044.7	2041.6
177.5°	2052.1	2054.0	2055.9	2055.8	2053.6	2051.4	2049.2	2047.1
180°	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7	2050.7

(END OF REPORT)