

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: P333718

Luminaire Tested: **S125RDIW-S1090D1560U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333718  
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: S125RDIW-S1090D1560U835-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10462.8 lumens  
Efficiency: N/A  
Efficacy: 136.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

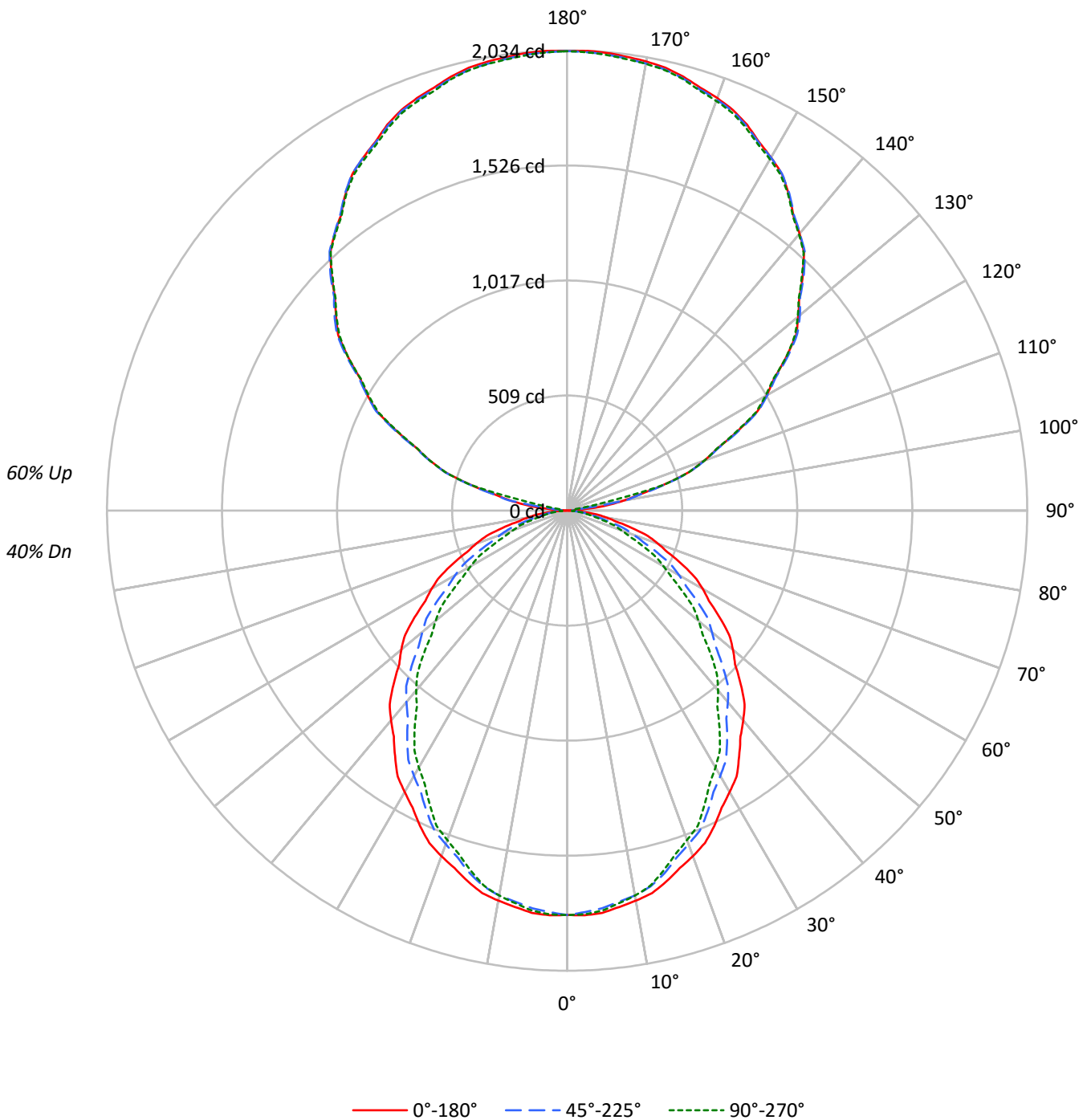
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	84	87	84	80	78	69	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	57	53	48	46	44	37	36	34	29
3	80	71	63	58	72	65	58	53	53	49	45	43	40	37	33	31	29	25
4	73	63	55	49	66	57	51	45	47	42	39	38	35	32	30	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	31	28	27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	22	20	16
7	57	45	37	32	52	41	35	30	35	29	26	28	24	21	22	19	17	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	20	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11544	11544	11544
5°	11570	11439	11509
10°	11482	11332	11332
15°	11346	11102	11012
20°	11171	10781	10652
25°	10967	10467	10236
30°	10712	10097	9775
35°	10452	9717	9260
40°	10209	9321	8752
45°	9913	8878	8199
50°	9616	8396	7623
55°	9272	7935	7007
60°	8928	7375	6347
65°	8520	6725	5590
70°	8055	5914	4817
75°	7411	4986	4007
80°	6527	3916	3362
85°	5498	3201	3001



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.1	1.6
10°-20°	469.7	4.5
20°-30°	681.1	6.5
30°-40°	776.2	7.4
40°-50°	756.6	7.2
50°-60°	636.9	6.1
60°-70°	446.5	4.3
70°-80°	229.5	2.2
80°-90°	62.2	0.6
90°-100°	73.8	0.7
100°-110°	454.8	4.3
110°-120°	824.9	7.9
120°-130°	1058.6	10.1
130°-140°	1138.6	10.9
140°-150°	1068.8	10.2
150°-160°	864.5	8.3
160°-170°	559.1	5.3
170°-180°	192.9	1.8
0°-30°	1318.9	12.6
0°-40°	2095.1	20.0
0°-60°	3488.6	33.3
0°-90°	4226.8	40.4
90°-120°	1353.5	12.9
90°-150°	4619.5	44.2
90°-180°	6236.0	59.6
0°-180°	10462.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1787	1787	1787	1787	1787	
5°	1785	1779	1764	1777	1775	169
15°	1697	1688	1660	1659	1647	478
25°	1539	1517	1469	1451	1436	708
35°	1326	1292	1232	1194	1174	830
45°	1085	1044	972	920	898	837
55°	824	778	705	646	622	736
65°	558	510	440	388	366	552
75°	297	256	200	171	161	314
85°	74	51	43	42	40	83
90°	2	13	24	31	36	7
95°	86	78	24	31	32	109
105°	443	448	449	448	447	469
115°	831	838	840	834	825	823
125°	1182	1192	1192	1186	1182	1055
135°	1474	1482	1480	1476	1468	1136
145°	1709	1711	1712	1712	1704	1068
155°	1882	1873	1876	1879	1868	867
165°	1986	1977	1978	1986	1975	561
175°	2031	2022	2023	2034	2022	193
180°	2031	2031	2031	2031	2031	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1790.6	1789.9	1789.2	1788.4	1787.7	1786.2	1783.8	1781.4	1779.0	1776.6	1779.0
5°	1784.7	1783.5	1782.3	1781.1	1779.9	1777.6	1774.3	1771.0	1767.7	1764.4	1767.4
7.5°	1767.1	1766.0	1764.8	1763.7	1762.5	1760.0	1756.0	1752.1	1748.1	1744.2	1746.3
10°	1750.9	1750.0	1749.1	1748.2	1747.3	1744.8	1740.6	1736.4	1732.2	1728.0	1728.9
12.5°	1732.5	1731.4	1730.3	1729.1	1728.0	1724.6	1719.0	1713.3	1707.7	1702.0	1702.7
15°	1696.9	1695.1	1693.3	1691.5	1689.7	1685.7	1679.4	1673.1	1666.8	1660.5	1660.2
17.5°	1656.7	1653.9	1651.2	1648.4	1645.6	1640.3	1632.4	1624.5	1616.5	1608.6	1607.1
20°	1625.4	1622.4	1619.4	1616.4	1613.4	1607.1	1597.5	1587.9	1578.3	1568.7	1567.2
22.5°	1590.8	1587.8	1584.8	1581.8	1578.8	1572.3	1562.2	1552.1	1542.0	1531.9	1529.0
25°	1539.0	1534.5	1530.0	1525.5	1521.0	1513.2	1502.1	1491.0	1479.9	1468.8	1464.9
27.5°	1479.6	1474.1	1468.6	1463.2	1457.7	1449.1	1437.2	1425.3	1413.4	1401.5	1396.1
30°	1436.4	1430.7	1425.0	1419.3	1413.6	1404.4	1391.8	1379.2	1366.6	1354.0	1347.1
32.5°	1394.2	1387.6	1380.9	1374.3	1367.6	1357.9	1345.0	1332.2	1319.3	1306.5	1298.9
35°	1325.7	1318.5	1311.3	1304.1	1296.9	1286.5	1273.0	1259.5	1246.0	1232.5	1223.8
37.5°	1258.4	1249.7	1240.9	1232.2	1223.4	1212.1	1198.1	1184.2	1170.3	1156.4	1145.9
40°	1210.9	1201.9	1192.9	1183.9	1174.9	1163.2	1148.8	1134.4	1120.0	1105.6	1094.2
42.5°	1161.2	1152.0	1142.8	1133.5	1124.3	1112.2	1097.3	1082.5	1067.6	1052.7	1041.8
45°	1085.4	1076.7	1068.0	1059.3	1050.6	1038.0	1021.5	1005.0	988.5	972.0	960.0
47.5°	1006.8	997.6	988.4	979.3	970.1	957.2	940.6	923.9	907.3	890.7	878.3
50°	957.1	947.2	937.3	927.4	917.5	904.0	886.9	869.8	852.7	835.6	823.0
52.5°	903.1	893.0	882.8	872.7	862.6	849.4	833.3	817.1	801.0	784.9	771.3
55°	823.5	813.9	804.3	794.7	785.1	771.9	755.1	738.3	721.5	704.7	691.2
57.5°	743.0	732.8	722.5	712.2	702.0	688.8	672.6	656.4	640.2	624.0	610.8
60°	691.2	680.7	670.2	659.7	649.2	635.8	619.6	603.4	587.2	571.0	557.8
62.5°	636.1	626.1	616.1	606.0	596.0	582.8	566.4	549.9	533.5	517.0	504.8
65°	557.5	547.3	537.1	526.9	516.7	503.7	487.8	471.9	456.0	440.1	428.1
67.5°	479.5	469.3	459.1	448.9	438.7	426.0	410.7	395.5	380.3	365.0	354.1
70°	426.6	416.4	406.2	396.0	385.8	373.2	358.2	343.2	328.2	313.2	303.9
72.5°	374.8	364.8	354.8	344.9	334.9	322.9	308.9	294.8	280.8	266.8	258.2
75°	297.0	288.0	279.0	270.0	261.0	250.2	237.6	225.0	212.4	199.8	193.2
77.5°	219.8	212.6	205.4	198.2	191.0	182.3	172.3	162.2	152.1	142.0	137.4
80°	175.5	168.3	161.1	153.9	146.7	138.9	130.5	122.1	113.7	105.3	102.6
82.5°	132.3	125.8	119.3	112.9	106.4	100.3	94.5	88.7	83.0	77.2	76.0
85°	74.2	68.8	63.4	58.0	52.6	49.2	47.7	46.2	44.7	43.2	42.9
87.5°	25.1	24.0	22.9	21.7	20.6	20.1	20.3	20.6	20.8	21.0	21.4
90°	1.5	4.2	6.9	9.5	12.2	14.7	17.1	19.4	21.7	24.1	25.8
92.5°	23.2	21.3	19.4	17.6	15.7	15.8	17.9	19.9	22.0	24.1	25.8
95°	85.8	84.8	83.8	82.8	81.8	74.9	62.2	49.5	36.8	24.1	25.8
97.5°	179.1	180.9	182.7	184.6	186.4	174.7	149.5	124.4	99.2	74.1	64.6
100°	251.4	252.4	253.4	254.4	255.4	256.6	257.9	259.3	260.6	261.9	212.1
102.5°	324.9	326.1	327.4	328.7	329.9	331.0	331.8	332.6	333.4	334.2	324.8
105°	442.6	443.9	445.3	446.6	447.9	448.6	448.6	448.6	448.6	448.6	448.6
107.5°	564.8	564.8	564.8	564.8	564.8	565.1	565.8	566.5	567.2	567.8	567.9
110°	644.3	644.3	644.3	644.3	644.3	644.6	645.3	646.0	646.6	647.3	646.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	719.0	719.8	720.6	721.4	722.2	722.8	723.2	723.6	724.0	724.4	723.1
115°	831.0	832.6	834.3	836.0	837.6	838.6	839.0	839.3	839.7	840.0	838.6
117.5°	946.9	946.8	946.7	946.7	946.6	947.2	948.5	949.7	951.0	952.3	950.5
120°	1019.1	1018.8	1018.5	1018.1	1017.8	1018.1	1019.1	1020.1	1021.1	1022.1	1021.5
122.5°	1083.0	1084.2	1085.5	1086.8	1088.0	1088.9	1089.4	1089.8	1090.3	1090.8	1090.1
125°	1181.7	1184.0	1186.4	1188.7	1191.1	1192.2	1192.2	1192.2	1192.2	1192.2	1190.9
127.5°	1275.9	1277.6	1279.3	1281.0	1282.6	1283.4	1283.2	1283.0	1282.8	1282.6	1281.8
130°	1333.7	1335.4	1337.1	1338.8	1340.4	1341.4	1341.8	1342.1	1342.4	1342.8	1341.8
132.5°	1391.5	1393.5	1395.4	1397.4	1399.3	1399.9	1399.2	1398.4	1397.7	1397.0	1396.8
135°	1473.7	1475.7	1477.8	1479.8	1481.8	1482.4	1481.8	1481.1	1480.4	1479.8	1479.1
137.5°	1549.3	1551.0	1552.8	1554.5	1556.3	1556.8	1556.2	1555.6	1555.0	1554.4	1554.6
140°	1598.7	1599.4	1600.0	1600.7	1601.4	1601.5	1601.2	1600.9	1600.5	1600.2	1600.9
142.5°	1643.2	1643.6	1644.0	1644.4	1644.8	1645.3	1645.8	1646.2	1646.7	1647.2	1647.3
145°	1708.6	1709.2	1709.9	1710.6	1711.3	1711.6	1711.6	1711.6	1711.6	1711.6	1711.9
147.5°	1765.8	1765.6	1765.5	1765.4	1765.2	1765.4	1765.8	1766.2	1766.6	1767.0	1767.4
150°	1801.9	1801.2	1800.6	1799.9	1799.2	1799.2	1799.9	1800.6	1801.2	1801.9	1802.6
152.5°	1836.8	1835.4	1833.9	1832.4	1830.9	1830.5	1831.2	1831.9	1832.6	1833.2	1833.9
155°	1881.7	1879.7	1877.7	1875.7	1873.7	1873.0	1873.7	1874.3	1875.0	1875.7	1876.7
157.5°	1916.3	1915.1	1913.9	1912.7	1911.5	1910.9	1911.0	1911.1	1911.1	1911.2	1912.3
160°	1940.4	1938.4	1936.4	1934.4	1932.4	1931.5	1931.9	1932.2	1932.5	1932.9	1934.2
162.5°	1959.7	1957.7	1955.7	1953.6	1951.6	1950.8	1951.1	1951.5	1951.8	1952.1	1954.0
165°	1985.6	1983.6	1981.5	1979.5	1977.5	1976.7	1977.0	1977.4	1977.7	1978.0	1980.0
167.5°	2004.8	2002.8	2000.7	1998.6	1996.5	1995.7	1996.0	1996.3	1996.7	1997.0	1999.4
170°	2015.7	2013.3	2011.0	2008.6	2006.3	2005.3	2005.6	2006.0	2006.3	2006.6	2009.3
172.5°	2022.9	2020.6	2018.2	2015.9	2013.5	2012.7	2013.3	2013.9	2014.5	2015.1	2017.5
175°	2030.7	2028.7	2026.7	2024.7	2022.7	2021.9	2022.2	2022.5	2022.9	2023.2	2025.9
177.5°	2034.3	2032.7	2031.1	2029.5	2027.9	2027.2	2027.5	2027.8	2028.0	2028.3	2030.2
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1781.4	1783.8	1786.2	1787.2	1787.0	1786.8	1786.5	1786.3
5°	1770.4	1773.4	1776.4	1777.6	1777.0	1776.4	1775.8	1775.2
7.5°	1748.4	1750.5	1752.6	1753.3	1752.6	1752.0	1751.3	1750.6
10°	1729.8	1730.7	1731.6	1731.6	1730.7	1729.8	1728.9	1728.0
12.5°	1703.4	1704.0	1704.7	1704.3	1702.9	1701.6	1700.2	1698.8
15°	1659.9	1659.6	1659.3	1657.8	1655.1	1652.4	1649.7	1647.0
17.5°	1605.6	1604.1	1602.6	1600.8	1598.5	1596.3	1594.1	1591.9
20°	1565.7	1564.2	1562.7	1560.6	1557.9	1555.2	1552.5	1549.8
22.5°	1526.1	1523.1	1520.2	1517.6	1515.4	1513.2	1510.9	1508.7
25°	1461.0	1457.1	1453.2	1449.6	1446.3	1443.0	1439.7	1436.4
27.5°	1390.6	1385.2	1379.7	1375.4	1372.2	1369.0	1365.8	1362.7
30°	1340.2	1333.3	1326.4	1321.6	1318.9	1316.2	1313.5	1310.8
32.5°	1291.3	1283.6	1276.0	1270.5	1267.1	1263.7	1260.2	1256.8
35°	1215.1	1206.4	1197.7	1191.3	1187.1	1182.9	1178.7	1174.5
37.5°	1135.5	1125.1	1114.6	1107.4	1103.3	1099.2	1095.1	1091.0
40°	1082.8	1071.4	1060.0	1052.5	1048.9	1045.3	1041.7	1038.1
42.5°	1030.9	1019.9	1009.0	1000.9	995.6	990.4	985.1	979.8
45°	948.0	936.0	924.0	915.7	911.2	906.7	902.2	897.7
47.5°	866.0	853.6	841.3	832.6	827.6	822.6	817.7	812.7
50°	810.4	797.8	785.2	776.7	772.2	767.7	763.2	758.7
52.5°	757.8	744.2	730.6	721.6	717.1	712.6	708.1	703.6
55°	677.7	664.2	650.7	641.5	636.7	631.9	627.1	622.3
57.5°	597.6	584.4	571.2	562.4	558.2	553.9	549.6	545.4
60°	544.6	531.4	518.2	509.4	504.9	500.4	495.9	491.4
62.5°	492.6	480.3	468.1	459.7	455.2	450.7	446.2	441.7
65°	416.1	404.1	392.1	383.8	379.3	374.8	370.3	365.8
67.5°	343.1	332.1	321.1	313.8	310.2	306.6	303.0	299.4
70°	294.6	285.3	276.0	269.5	265.9	262.3	258.7	255.1
72.5°	249.6	241.0	232.4	226.9	224.5	222.1	219.7	217.3
75°	186.6	180.0	173.4	169.0	166.9	164.8	162.7	160.6
77.5°	132.8	128.2	123.5	120.4	118.9	117.3	115.8	114.2
80°	99.9	97.2	94.5	92.8	92.2	91.6	91.0	90.4
82.5°	74.7	73.4	72.2	71.4	71.0	70.6	70.3	69.9
85°	42.6	42.3	42.0	41.7	41.4	41.1	40.8	40.5
87.5°	21.7	22.0	22.4	22.5	22.5	22.4	22.4	22.3
90°	27.4	29.1	30.8	32.1	33.1	34.1	35.1	36.1
92.5°	27.4	29.1	30.8	31.8	32.3	32.8	33.3	33.7
95°	27.4	29.1	30.8	31.6	31.6	31.6	31.6	31.6
97.5°	55.2	45.8	36.3	31.6	31.6	31.6	31.6	31.6
100°	162.2	112.4	62.6	37.0	35.6	34.3	33.0	31.6
102.5°	315.3	305.9	296.5	280.4	257.6	234.9	212.1	189.4
105°	448.6	448.6	448.6	448.4	448.1	447.8	447.4	447.1
107.5°	568.0	568.0	568.1	567.6	566.6	565.6	564.6	563.6
110°	645.3	644.3	643.3	643.0	643.3	643.6	644.0	644.3





TEST NUMBER: P333718

CATALOG NUMBER: S125RDIW-S1090D1560U835-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	721.8	720.6	719.3	718.4	718.0	717.5	717.0	716.5
115°	837.3	836.0	834.6	833.0	831.0	828.9	826.9	824.9
117.5°	948.8	947.1	945.3	944.0	943.2	942.3	941.4	940.5
120°	1020.8	1020.1	1019.5	1018.3	1016.6	1014.9	1013.3	1011.6
122.5°	1089.4	1088.8	1088.1	1086.8	1084.9	1082.9	1081.0	1079.0
125°	1189.6	1188.2	1186.9	1185.7	1184.7	1183.7	1182.7	1181.7
127.5°	1281.1	1280.4	1279.6	1278.0	1275.5	1273.1	1270.6	1268.1
130°	1340.8	1339.8	1338.8	1337.4	1335.8	1334.1	1332.4	1330.7
132.5°	1396.6	1396.4	1396.2	1395.2	1393.6	1391.9	1390.2	1388.5
135°	1478.4	1477.8	1477.1	1475.7	1473.7	1471.7	1469.7	1467.7
137.5°	1554.7	1554.8	1555.0	1554.2	1552.4	1550.7	1548.9	1547.2
140°	1601.5	1602.2	1602.9	1602.2	1600.2	1598.2	1596.2	1594.2
142.5°	1647.4	1647.6	1647.7	1646.8	1644.7	1642.7	1640.7	1638.7
145°	1712.3	1712.6	1712.9	1712.1	1710.1	1708.1	1706.1	1704.1
147.5°	1767.8	1768.2	1768.6	1767.6	1765.2	1762.8	1760.4	1758.0
150°	1803.2	1803.9	1804.6	1803.6	1800.9	1798.2	1795.6	1792.9
152.5°	1834.6	1835.2	1835.9	1835.0	1832.6	1830.2	1827.8	1825.4
155°	1877.7	1878.7	1879.7	1878.8	1876.2	1873.5	1870.8	1868.1
157.5°	1913.3	1914.4	1915.5	1914.7	1912.0	1909.3	1906.6	1904.0
160°	1935.5	1936.9	1938.2	1937.6	1934.9	1932.2	1929.5	1926.9
162.5°	1955.9	1957.8	1959.6	1959.1	1956.2	1953.2	1950.3	1947.3
165°	1982.0	1984.1	1986.1	1985.7	1983.1	1980.4	1977.7	1975.0
167.5°	2001.8	2004.2	2006.6	2006.3	2003.3	2000.3	1997.3	1994.3
170°	2012.0	2014.7	2017.3	2017.2	2014.2	2011.2	2008.1	2005.1
172.5°	2019.9	2022.3	2024.7	2024.4	2021.4	2018.4	2015.4	2012.4
175°	2028.5	2031.2	2033.9	2033.7	2030.7	2027.7	2024.7	2021.7
177.5°	2032.1	2033.9	2035.8	2035.7	2033.5	2031.4	2029.2	2027.1
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7

(END OF REPORT)