

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: P242980

Luminaire Tested: **S121DR-H880D830-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242980  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121DR-H880D830-X4F0-XX-UDD-A-W  
Description: DEFINE 1 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3267.3 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.2 / 1.28  
Luminous Opening: Rectangular (W 3.88' x L: 0.09' x H: 0')  
CIE Type: Direct

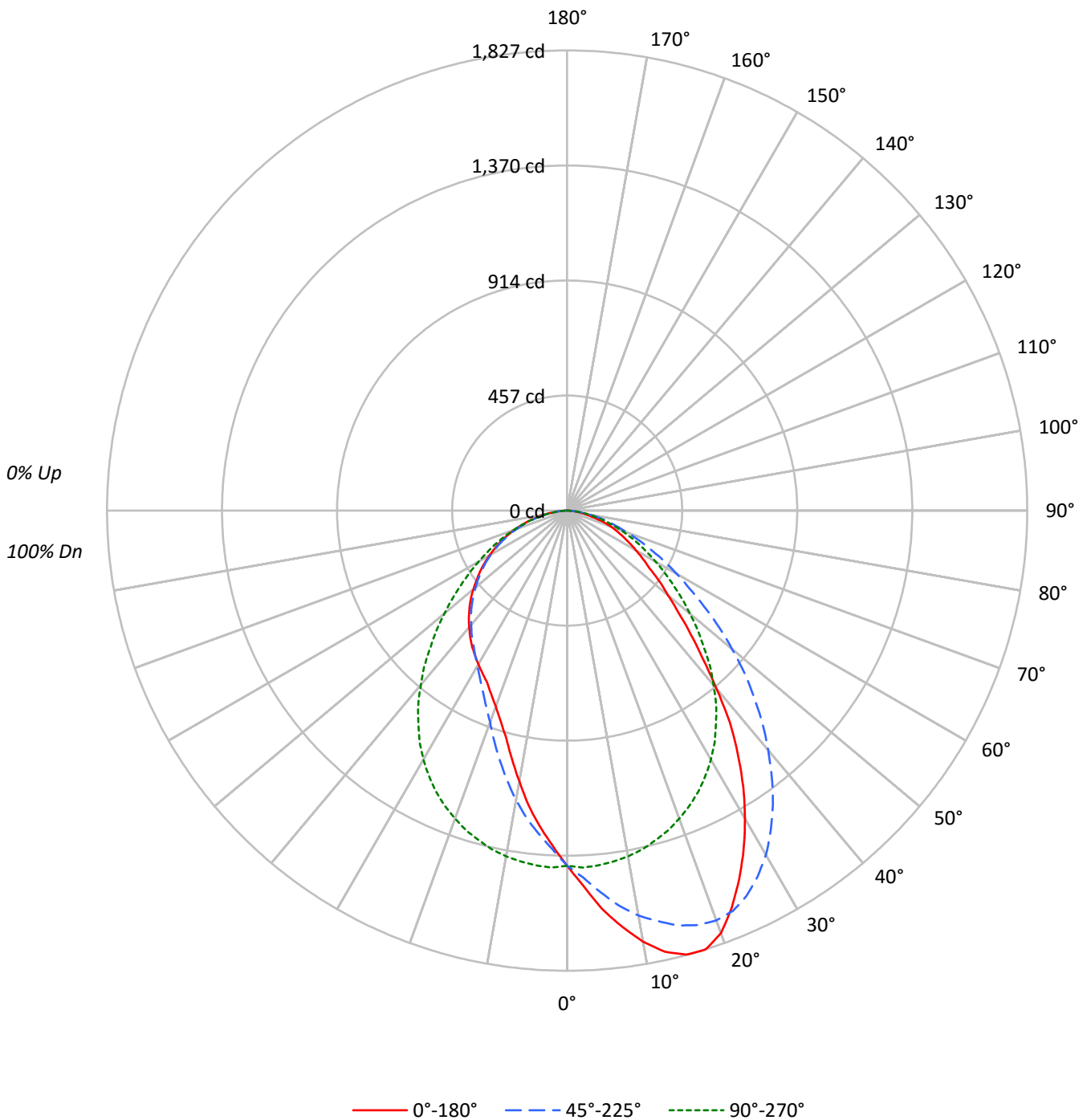
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242980

CATALOG NUMBER: S121DR-H880D830-X4F0-XX-UDD-A-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242980

CATALOG NUMBER: S121DR-H880D830-X4F0-XX-UDD-A-W

**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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |    | 100 |   |  |   |
| 1   | 110 | 105 | 102 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  | 95  | 93  | 91  | 92  | 90  | 88  |     |    |    |    | 86 |     |   |  |   |
| 2   | 101 | 93  | 87  | 81  | 98  | 91  | 85  | 80  | 88  | 83  | 79  | 84  | 80  | 77  | 81  | 78  | 75  |     |    |    |    | 73 |     |   |  |   |
| 3   | 92  | 83  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 65  |     |    |    |    | 63 |     |   |  |   |
| 4   | 85  | 74  | 66  | 59  | 83  | 72  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 57  |     |    |    |    | 54 |     |   |  |   |
| 5   | 79  | 66  | 58  | 52  | 77  | 65  | 57  | 51  | 63  | 56  | 51  | 61  | 55  | 50  | 60  | 54  | 50  |     |    |    |    | 48 |     |   |  |   |
| 6   | 73  | 60  | 52  | 46  | 71  | 59  | 51  | 45  | 57  | 50  | 45  | 56  | 49  | 45  | 54  | 49  | 44  |     |    |    |    | 42 |     |   |  |   |
| 7   | 68  | 55  | 46  | 41  | 66  | 54  | 46  | 40  | 53  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 40  |     |    |    |    | 38 |     |   |  |   |
| 8   | 63  | 50  | 42  | 37  | 62  | 50  | 42  | 36  | 48  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 36  |     |    |    |    | 34 |     |   |  |   |
| 9   | 59  | 46  | 38  | 33  | 58  | 46  | 38  | 33  | 45  | 38  | 33  | 44  | 37  | 33  | 43  | 37  | 33  |     |    |    |    | 31 |     |   |  |   |
| 10  | 56  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 30  |     |    |    |    | 28 |     |   |  |   |

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

|     | 0°    | 90°   | 180°  |
|-----|-------|-------|-------|
| 0°  | 41769 | 41769 | 41769 |
| 5°  | 47193 | 42062 | 37372 |
| 10° | 52282 | 41935 | 32852 |
| 15° | 55985 | 41571 | 28653 |
| 20° | 56296 | 41032 | 26089 |
| 25° | 52802 | 40261 | 24601 |
| 30° | 48309 | 39048 | 24114 |
| 35° | 42780 | 37256 | 23811 |
| 40° | 35646 | 34946 | 23401 |
| 45° | 29060 | 32152 | 22971 |
| 50° | 24117 | 29298 | 22393 |
| 55° | 20637 | 26562 | 21810 |
| 60° | 18696 | 24047 | 21120 |
| 65° | 17268 | 21881 | 20374 |
| 70° | 15932 | 19717 | 19172 |
| 75° | 12868 | 17481 | 17676 |
| 80° | 10272 | 14145 | 15101 |
| 85° | 7717  | 10403 | 12341 |



TEST NUMBER: P242980

CATALOG NUMBER: S121DR-H880D830-X4F0-XX-UDD-A-W

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 134.7  | 4.1       |
| 10°-20°   | 385.8  | 11.8      |
| 20°-30°   | 561.8  | 17.2      |
| 30°-40°   | 626.3  | 19.2      |
| 40°-50°   | 579.0  | 17.7      |
| 50°-60°   | 461.3  | 14.1      |
| 60°-70°   | 315.7  | 9.7       |
| 70°-80°   | 163.9  | 5.0       |
| 80°-90°   | 38.8   | 1.2       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1082.3 | 33.1      |
| 0°-40°    | 1708.5 | 52.3      |
| 0°-60°    | 2748.8 | 84.1      |
| 0°-90°    | 3267.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3267.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1410 | 1410 | 1410 | 1410 | 1410 |      |
| 5°  | 1587 | 1521 | 1414 | 1288 | 1256 | 156  |
| 15° | 1825 | 1705 | 1355 | 1029 | 934  | 512  |
| 25° | 1615 | 1687 | 1232 | 792  | 752  | 740  |
| 35° | 1183 | 1424 | 1030 | 648  | 658  | 734  |
| 45° | 694  | 1049 | 767  | 536  | 548  | 540  |
| 55° | 400  | 663  | 514  | 412  | 422  | 365  |
| 65° | 246  | 366  | 312  | 283  | 291  | 245  |
| 75° | 112  | 165  | 153  | 144  | 154  | 123  |
| 85° | 23   | 31   | 31   | 32   | 36   | 28   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



TEST NUMBER: P242980

CATALOG NUMBER: S121DR-H880D830-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 |
| 2.5°  | 1491.4 | 1491.4 | 1487.4 | 1489.1 | 1486.9 | 1482.9 | 1476.6 | 1469.8 | 1461.3 | 1457.9 | 1456.2 |
| 5°    | 1586.7 | 1589.0 | 1586.2 | 1580.5 | 1579.4 | 1574.8 | 1561.2 | 1553.3 | 1535.1 | 1520.9 | 1516.4 |
| 7.5°  | 1666.2 | 1670.2 | 1670.2 | 1660.0 | 1655.4 | 1644.1 | 1634.4 | 1621.4 | 1598.7 | 1582.8 | 1569.7 |
| 10°   | 1737.7 | 1739.4 | 1733.2 | 1727.5 | 1718.4 | 1709.3 | 1692.9 | 1676.4 | 1652.0 | 1632.7 | 1611.1 |
| 12.5° | 1794.4 | 1797.9 | 1793.3 | 1784.2 | 1773.5 | 1761.5 | 1741.1 | 1720.1 | 1696.3 | 1670.2 | 1646.9 |
| 15°   | 1825.1 | 1830.2 | 1830.8 | 1823.4 | 1815.4 | 1801.3 | 1786.5 | 1763.8 | 1737.7 | 1705.4 | 1667.3 |
| 17.5° | 1827.4 | 1829.6 | 1831.3 | 1825.7 | 1820.6 | 1815.4 | 1800.7 | 1782.0 | 1757.0 | 1725.2 | 1690.0 |
| 20°   | 1785.4 | 1790.5 | 1796.2 | 1791.0 | 1793.3 | 1793.3 | 1787.1 | 1777.4 | 1757.0 | 1731.5 | 1697.4 |
| 22.5° | 1707.1 | 1719.0 | 1726.3 | 1731.5 | 1736.6 | 1743.9 | 1751.3 | 1746.8 | 1738.8 | 1720.1 | 1689.5 |
| 25°   | 1615.1 | 1624.8 | 1639.0 | 1643.5 | 1647.5 | 1669.0 | 1682.1 | 1691.2 | 1691.2 | 1687.2 | 1666.8 |
| 27.5° | 1517.5 | 1523.7 | 1535.7 | 1551.6 | 1566.3 | 1579.4 | 1606.6 | 1623.6 | 1637.3 | 1637.3 | 1626.5 |
| 30°   | 1412.0 | 1421.0 | 1435.2 | 1446.0 | 1464.2 | 1490.8 | 1513.5 | 1534.0 | 1565.2 | 1578.8 | 1576.5 |
| 32.5° | 1300.7 | 1309.8 | 1324.6 | 1333.6 | 1359.7 | 1381.3 | 1416.5 | 1448.3 | 1484.0 | 1504.5 | 1516.9 |
| 35°   | 1182.7 | 1183.2 | 1208.2 | 1223.0 | 1245.7 | 1272.3 | 1315.5 | 1351.2 | 1390.4 | 1424.4 | 1451.1 |
| 37.5° | 1061.2 | 1060.7 | 1078.3 | 1104.4 | 1122.5 | 1160.0 | 1204.2 | 1244.0 | 1298.5 | 1334.8 | 1376.8 |
| 40°   | 921.6  | 933.5  | 948.3  | 972.1  | 1003.3 | 1047.6 | 1089.6 | 1141.3 | 1195.7 | 1241.1 | 1286.0 |
| 42.5° | 796.8  | 806.4  | 830.3  | 856.9  | 890.4  | 927.9  | 978.9  | 1036.3 | 1089.6 | 1148.6 | 1198.6 |
| 45°   | 693.5  | 698.6  | 712.8  | 734.4  | 769.5  | 812.1  | 865.4  | 926.2  | 989.2  | 1049.3 | 1104.9 |
| 47.5° | 598.1  | 613.5  | 620.9  | 640.7  | 666.3  | 706.0  | 761.6  | 816.1  | 888.7  | 955.7  | 1016.4 |
| 50°   | 523.2  | 526.1  | 539.1  | 553.9  | 584.0  | 613.5  | 655.5  | 711.7  | 779.2  | 854.7  | 916.5  |
| 52.5° | 461.9  | 460.8  | 471.6  | 484.6  | 505.6  | 536.9  | 573.2  | 627.7  | 685.0  | 759.9  | 827.4  |
| 55°   | 399.5  | 405.2  | 410.3  | 423.4  | 442.1  | 465.9  | 496.6  | 542.5  | 596.4  | 662.8  | 733.8  |
| 57.5° | 356.4  | 357.0  | 359.8  | 370.6  | 383.1  | 401.8  | 431.3  | 470.5  | 518.7  | 576.6  | 645.3  |
| 60°   | 315.5  | 316.1  | 321.2  | 324.6  | 333.1  | 349.0  | 371.7  | 404.1  | 446.6  | 502.2  | 562.4  |
| 62.5° | 280.3  | 280.9  | 283.8  | 287.2  | 295.1  | 301.3  | 320.6  | 348.4  | 383.1  | 432.4  | 484.1  |
| 65°   | 246.3  | 246.9  | 246.9  | 251.4  | 256.5  | 262.2  | 275.8  | 293.4  | 326.9  | 366.0  | 412.0  |
| 67.5° | 213.4  | 216.8  | 215.7  | 219.1  | 223.6  | 226.4  | 236.1  | 252.0  | 274.7  | 307.6  | 347.3  |
| 70°   | 183.9  | 183.3  | 185.0  | 186.7  | 188.4  | 193.0  | 199.2  | 210.0  | 229.3  | 252.5  | 287.7  |
| 72.5° | 152.1  | 148.7  | 151.0  | 153.2  | 156.1  | 159.5  | 164.6  | 172.5  | 187.3  | 206.0  | 232.1  |
| 75°   | 112.4  | 110.7  | 114.1  | 114.6  | 119.7  | 124.3  | 130.0  | 137.9  | 148.7  | 164.6  | 181.6  |
| 77.5° | 81.7   | 84.0   | 85.1   | 86.3   | 86.8   | 91.9   | 98.2   | 105.0  | 111.2  | 126.0  | 139.0  |
| 80°   | 60.2   | 60.2   | 60.7   | 61.9   | 63.0   | 64.1   | 68.1   | 72.6   | 77.7   | 86.8   | 99.9   |
| 82.5° | 42.0   | 41.4   | 41.4   | 42.0   | 42.6   | 43.7   | 45.4   | 47.1   | 51.6   | 56.2   | 63.0   |
| 85°   | 22.7   | 23.3   | 23.8   | 22.7   | 23.3   | 23.8   | 25.0   | 26.7   | 27.8   | 31.2   | 34.1   |
| 87.5° | 7.9    | 9.6    | 9.1    | 9.1    | 9.6    | 9.6    | 9.6    | 10.8   | 10.8   | 10.8   | 12.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



TEST NUMBER: P242980

CATALOG NUMBER: S121DR-H880D830-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    | 100°   | 105°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 |
| 2.5°  | 1454.5 | 1452.8 | 1448.3 | 1439.2 | 1432.9 | 1421.6 | 1419.3 | 1418.8 | 1408.5 | 1393.2 | 1392.1 |
| 5°    | 1508.4 | 1495.4 | 1484.6 | 1468.7 | 1452.8 | 1433.5 | 1422.2 | 1414.2 | 1396.1 | 1373.4 | 1363.1 |
| 7.5°  | 1557.8 | 1539.1 | 1516.9 | 1492.0 | 1468.7 | 1441.5 | 1421.6 | 1405.7 | 1379.0 | 1350.1 | 1332.5 |
| 10°   | 1597.5 | 1574.3 | 1546.5 | 1513.0 | 1481.2 | 1445.4 | 1417.6 | 1393.8 | 1358.6 | 1322.9 | 1299.0 |
| 12.5° | 1624.8 | 1598.7 | 1566.9 | 1527.7 | 1489.1 | 1448.3 | 1408.0 | 1377.9 | 1333.6 | 1292.2 | 1261.6 |
| 15°   | 1655.4 | 1612.3 | 1579.4 | 1535.1 | 1489.7 | 1440.9 | 1398.3 | 1355.2 | 1304.1 | 1257.6 | 1217.9 |
| 17.5° | 1662.8 | 1623.1 | 1583.9 | 1535.1 | 1488.0 | 1428.4 | 1379.0 | 1331.4 | 1274.6 | 1217.3 | 1178.7 |
| 20°   | 1669.6 | 1624.2 | 1576.0 | 1523.2 | 1473.8 | 1412.5 | 1356.9 | 1301.3 | 1235.5 | 1173.6 | 1125.4 |
| 22.5° | 1664.5 | 1620.2 | 1566.3 | 1506.7 | 1453.4 | 1390.4 | 1330.2 | 1268.9 | 1195.2 | 1130.5 | 1076.0 |
| 25°   | 1649.7 | 1608.9 | 1553.3 | 1488.0 | 1423.9 | 1359.7 | 1296.7 | 1231.5 | 1151.5 | 1076.6 | 1016.4 |
| 27.5° | 1619.7 | 1583.3 | 1530.0 | 1460.8 | 1393.2 | 1322.3 | 1256.5 | 1188.4 | 1102.7 | 1026.0 | 961.9  |
| 30°   | 1579.4 | 1550.4 | 1496.5 | 1427.3 | 1354.1 | 1278.0 | 1210.5 | 1141.3 | 1052.2 | 968.7  | 900.6  |
| 32.5° | 1523.7 | 1503.3 | 1456.8 | 1389.3 | 1310.4 | 1229.8 | 1160.5 | 1090.2 | 994.8  | 915.4  | 846.1  |
| 35°   | 1461.3 | 1451.7 | 1410.2 | 1342.7 | 1261.0 | 1176.4 | 1102.1 | 1030.0 | 942.1  | 858.1  | 791.7  |
| 37.5° | 1388.1 | 1394.9 | 1357.5 | 1290.5 | 1205.9 | 1119.7 | 1041.4 | 971.6  | 882.5  | 801.9  | 736.6  |
| 40°   | 1315.5 | 1325.7 | 1297.3 | 1234.9 | 1146.9 | 1057.8 | 978.4  | 903.5  | 820.6  | 749.7  | 685.0  |
| 42.5° | 1234.9 | 1255.3 | 1233.2 | 1172.5 | 1086.8 | 992.6  | 909.7  | 839.9  | 761.0  | 695.8  | 639.0  |
| 45°   | 1149.2 | 1175.3 | 1166.2 | 1104.4 | 1019.8 | 927.3  | 839.9  | 767.3  | 703.7  | 645.8  | 594.2  |
| 47.5° | 1062.4 | 1092.4 | 1088.5 | 1036.8 | 955.7  | 860.9  | 774.6  | 703.1  | 644.7  | 598.1  | 555.0  |
| 50°   | 973.3  | 1003.9 | 1004.5 | 958.5  | 883.0  | 792.8  | 700.3  | 635.6  | 589.1  | 548.2  | 513.0  |
| 52.5° | 886.4  | 917.1  | 917.7  | 881.9  | 806.4  | 718.5  | 633.3  | 574.3  | 534.6  | 502.8  | 473.3  |
| 55°   | 795.6  | 831.4  | 834.8  | 800.2  | 733.2  | 648.7  | 570.3  | 514.2  | 479.0  | 458.5  | 433.0  |
| 57.5° | 703.7  | 742.3  | 749.1  | 721.3  | 656.6  | 577.7  | 511.9  | 458.0  | 429.6  | 415.4  | 396.1  |
| 60°   | 618.0  | 656.0  | 666.8  | 635.0  | 581.7  | 514.2  | 451.2  | 405.8  | 383.1  | 371.7  | 358.1  |
| 62.5° | 539.1  | 577.2  | 582.8  | 555.6  | 502.8  | 446.1  | 398.4  | 357.0  | 338.2  | 329.7  | 318.9  |
| 65°   | 461.9  | 496.0  | 503.4  | 479.0  | 431.3  | 384.2  | 342.2  | 312.1  | 295.7  | 288.3  | 281.5  |
| 67.5° | 391.0  | 422.8  | 427.9  | 405.8  | 366.0  | 325.7  | 295.1  | 269.0  | 257.6  | 248.0  | 245.2  |
| 70°   | 324.0  | 353.0  | 357.5  | 335.4  | 304.2  | 271.3  | 245.7  | 227.6  | 216.8  | 211.1  | 207.1  |
| 72.5° | 262.2  | 284.9  | 288.9  | 275.2  | 250.8  | 221.9  | 202.0  | 186.7  | 179.9  | 174.8  | 173.1  |
| 75°   | 204.9  | 227.0  | 227.6  | 215.7  | 195.8  | 175.9  | 160.6  | 152.7  | 144.7  | 139.6  | 138.5  |
| 77.5° | 157.2  | 169.7  | 171.4  | 165.1  | 145.8  | 133.4  | 121.4  | 115.8  | 112.9  | 107.8  | 107.8  |
| 80°   | 112.4  | 119.7  | 122.6  | 113.5  | 104.4  | 93.6   | 87.4   | 82.9   | 80.6   | 77.2   | 77.2   |
| 82.5° | 69.8   | 76.0   | 79.5   | 72.6   | 68.1   | 62.4   | 57.9   | 55.0   | 53.3   | 51.6   | 51.1   |
| 85°   | 38.0   | 42.6   | 42.6   | 40.3   | 36.3   | 33.5   | 31.8   | 30.6   | 30.1   | 29.5   | 28.9   |
| 87.5° | 13.6   | 17.0   | 15.3   | 15.9   | 14.2   | 13.6   | 13.1   | 13.1   | 13.6   | 12.5   | 12.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



TEST NUMBER: P242980

CATALOG NUMBER: S121DR-H880D830-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

|       | 110°   | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   | 150°   | 155°   | 160°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 | 1409.7 |
| 2.5°  | 1384.7 | 1381.9 | 1373.4 | 1365.4 | 1359.2 | 1345.6 | 1342.7 | 1343.9 | 1343.9 | 1344.4 | 1338.2 |
| 5°    | 1351.2 | 1339.3 | 1325.7 | 1313.2 | 1303.6 | 1288.2 | 1279.7 | 1277.5 | 1275.8 | 1272.3 | 1266.1 |
| 7.5°  | 1313.2 | 1299.6 | 1280.3 | 1268.9 | 1248.5 | 1231.5 | 1219.6 | 1211.6 | 1206.5 | 1199.1 | 1188.9 |
| 10°   | 1274.6 | 1254.8 | 1233.2 | 1210.5 | 1190.1 | 1167.4 | 1148.6 | 1139.5 | 1128.8 | 1121.4 | 1110.0 |
| 12.5° | 1236.0 | 1208.2 | 1178.7 | 1152.6 | 1124.8 | 1098.1 | 1078.8 | 1066.3 | 1047.0 | 1036.3 | 1024.3 |
| 15°   | 1185.5 | 1151.5 | 1126.5 | 1081.1 | 1067.5 | 1028.9 | 1005.6 | 996.0  | 977.2  | 973.8  | 955.1  |
| 17.5° | 1137.8 | 1098.7 | 1061.8 | 1023.8 | 987.5  | 960.8  | 940.9  | 928.4  | 913.7  | 904.6  | 892.1  |
| 20°   | 1078.3 | 1037.4 | 993.1  | 953.4  | 922.8  | 894.4  | 881.9  | 866.0  | 857.5  | 848.4  | 839.3  |
| 22.5° | 1021.5 | 971.6  | 927.3  | 895.0  | 863.7  | 840.5  | 826.9  | 816.1  | 808.7  | 799.6  | 793.4  |
| 25°   | 960.8  | 914.2  | 873.4  | 839.9  | 809.8  | 791.7  | 780.3  | 774.1  | 769.5  | 762.7  | 758.8  |
| 27.5° | 902.9  | 855.8  | 815.5  | 790.0  | 765.6  | 749.7  | 744.0  | 738.3  | 732.6  | 730.4  | 729.8  |
| 30°   | 841.0  | 797.9  | 765.0  | 742.9  | 720.7  | 712.2  | 709.4  | 703.7  | 704.8  | 705.4  | 703.7  |
| 32.5° | 788.8  | 746.8  | 721.9  | 703.1  | 686.1  | 679.9  | 679.3  | 677.0  | 677.6  | 680.4  | 679.3  |
| 35°   | 734.9  | 703.7  | 678.7  | 663.4  | 652.6  | 648.1  | 648.7  | 649.2  | 652.6  | 653.2  | 655.5  |
| 37.5° | 689.0  | 658.9  | 642.4  | 627.7  | 622.6  | 622.6  | 623.1  | 623.7  | 626.5  | 629.9  | 631.1  |
| 40°   | 643.6  | 619.1  | 605.0  | 595.3  | 592.5  | 592.5  | 594.7  | 597.6  | 599.3  | 602.7  | 603.3  |
| 42.5° | 602.7  | 582.3  | 571.5  | 561.8  | 563.0  | 565.8  | 566.4  | 568.1  | 572.6  | 573.2  | 574.3  |
| 45°   | 562.4  | 547.1  | 536.3  | 533.5  | 533.5  | 535.7  | 538.6  | 539.7  | 543.1  | 543.7  | 544.8  |
| 47.5° | 527.8  | 511.9  | 503.9  | 501.1  | 502.8  | 505.6  | 509.6  | 511.3  | 514.2  | 513.6  | 516.4  |
| 50°   | 489.2  | 476.1  | 469.9  | 468.8  | 469.9  | 475.0  | 476.7  | 480.7  | 483.5  | 485.2  | 486.4  |
| 52.5° | 452.3  | 442.1  | 439.2  | 438.7  | 441.0  | 444.4  | 446.6  | 450.6  | 454.0  | 454.0  | 453.4  |
| 55°   | 417.1  | 408.0  | 404.6  | 407.5  | 410.3  | 412.0  | 416.5  | 418.8  | 422.2  | 422.8  | 422.2  |
| 57.5° | 381.4  | 373.4  | 372.3  | 373.4  | 379.1  | 382.5  | 385.3  | 385.3  | 387.0  | 387.6  | 389.3  |
| 60°   | 344.5  | 339.4  | 338.2  | 341.1  | 347.3  | 349.6  | 351.3  | 351.9  | 354.1  | 353.0  | 356.4  |
| 62.5° | 309.9  | 304.7  | 307.0  | 309.9  | 312.1  | 315.5  | 316.7  | 319.5  | 318.9  | 320.1  | 321.8  |
| 65°   | 274.1  | 271.3  | 271.8  | 275.2  | 278.1  | 282.6  | 282.6  | 282.6  | 285.5  | 285.5  | 286.6  |
| 67.5° | 239.5  | 237.8  | 240.1  | 242.9  | 243.5  | 246.3  | 245.7  | 249.1  | 251.4  | 252.5  | 253.7  |
| 70°   | 206.0  | 204.9  | 204.9  | 207.7  | 210.5  | 211.7  | 212.8  | 215.1  | 215.7  | 217.4  | 220.2  |
| 72.5° | 174.2  | 170.8  | 171.4  | 175.4  | 175.4  | 177.6  | 180.5  | 180.5  | 183.9  | 184.4  | 187.3  |
| 75°   | 139.6  | 138.5  | 139.6  | 141.9  | 144.7  | 144.1  | 147.6  | 147.0  | 148.1  | 152.1  | 152.7  |
| 77.5° | 109.0  | 107.3  | 110.1  | 111.2  | 111.8  | 112.4  | 113.5  | 116.3  | 118.6  | 120.3  | 120.9  |
| 80°   | 78.3   | 77.7   | 80.6   | 81.7   | 81.2   | 82.3   | 84.0   | 86.8   | 86.8   | 88.0   | 89.7   |
| 82.5° | 52.8   | 51.6   | 53.3   | 55.0   | 56.2   | 56.8   | 56.8   | 57.9   | 58.5   | 59.6   | 59.6   |
| 85°   | 30.1   | 30.1   | 31.2   | 31.8   | 32.9   | 32.3   | 33.5   | 32.9   | 34.1   | 35.2   | 34.6   |
| 87.5° | 13.1   | 13.1   | 13.1   | 13.1   | 13.6   | 13.6   | 14.2   | 14.2   | 13.6   | 14.2   | 13.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |





TEST NUMBER: P242980

CATALOG NUMBER: S121DR-H880D830-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

|       | 165°   | 170°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|
| 0°    | 1409.7 | 1409.7 | 1409.7 | 1409.7 |
| 2.5°  | 1335.9 | 1337.0 | 1334.2 | 1331.4 |
| 5°    | 1265.5 | 1261.6 | 1257.6 | 1256.5 |
| 7.5°  | 1186.7 | 1186.7 | 1177.0 | 1179.3 |
| 10°   | 1102.1 | 1098.7 | 1091.3 | 1091.9 |
| 12.5° | 1019.8 | 1017.0 | 1013.0 | 1011.3 |
| 15°   | 945.5  | 947.2  | 950.0  | 934.1  |
| 17.5° | 887.0  | 882.5  | 880.2  | 877.4  |
| 20°   | 834.8  | 832.5  | 828.0  | 827.4  |
| 22.5° | 794.5  | 789.4  | 788.3  | 788.8  |
| 25°   | 755.9  | 755.9  | 755.9  | 752.5  |
| 27.5° | 728.7  | 728.7  | 727.0  | 727.5  |
| 30°   | 704.8  | 706.0  | 704.3  | 704.8  |
| 32.5° | 682.1  | 682.7  | 681.6  | 681.0  |
| 35°   | 656.6  | 658.3  | 657.7  | 658.3  |
| 37.5° | 632.2  | 633.3  | 632.2  | 632.2  |
| 40°   | 604.4  | 607.2  | 606.7  | 605.0  |
| 42.5° | 576.6  | 576.6  | 578.3  | 577.7  |
| 45°   | 547.6  | 546.5  | 546.5  | 548.2  |
| 47.5° | 517.0  | 519.3  | 518.1  | 518.7  |
| 50°   | 488.6  | 488.1  | 486.4  | 485.8  |
| 52.5° | 455.1  | 456.3  | 455.7  | 452.9  |
| 55°   | 422.8  | 422.8  | 422.2  | 422.2  |
| 57.5° | 388.2  | 389.9  | 389.3  | 389.3  |
| 60°   | 355.3  | 356.4  | 357.0  | 356.4  |
| 62.5° | 321.8  | 322.3  | 321.8  | 322.3  |
| 65°   | 289.4  | 289.4  | 288.9  | 290.6  |
| 67.5° | 254.2  | 254.8  | 254.2  | 255.4  |
| 70°   | 220.8  | 221.9  | 222.5  | 221.3  |
| 72.5° | 189.0  | 187.8  | 188.4  | 187.3  |
| 75°   | 153.8  | 154.4  | 153.8  | 154.4  |
| 77.5° | 120.9  | 121.4  | 120.9  | 121.4  |
| 80°   | 89.1   | 89.1   | 89.7   | 88.5   |
| 82.5° | 60.2   | 60.2   | 61.9   | 60.2   |
| 85°   | 35.2   | 35.2   | 34.1   | 36.3   |
| 87.5° | 13.6   | 13.6   | 13.6   | 13.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)