

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: INVUE

Report Number: P140934

Luminaire Tested: **ECM-F04-LED-E1-SL2-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140934
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33690)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F04-LED-E1-SL2-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8679.6 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 102.2
Input Voltage (V): NR
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

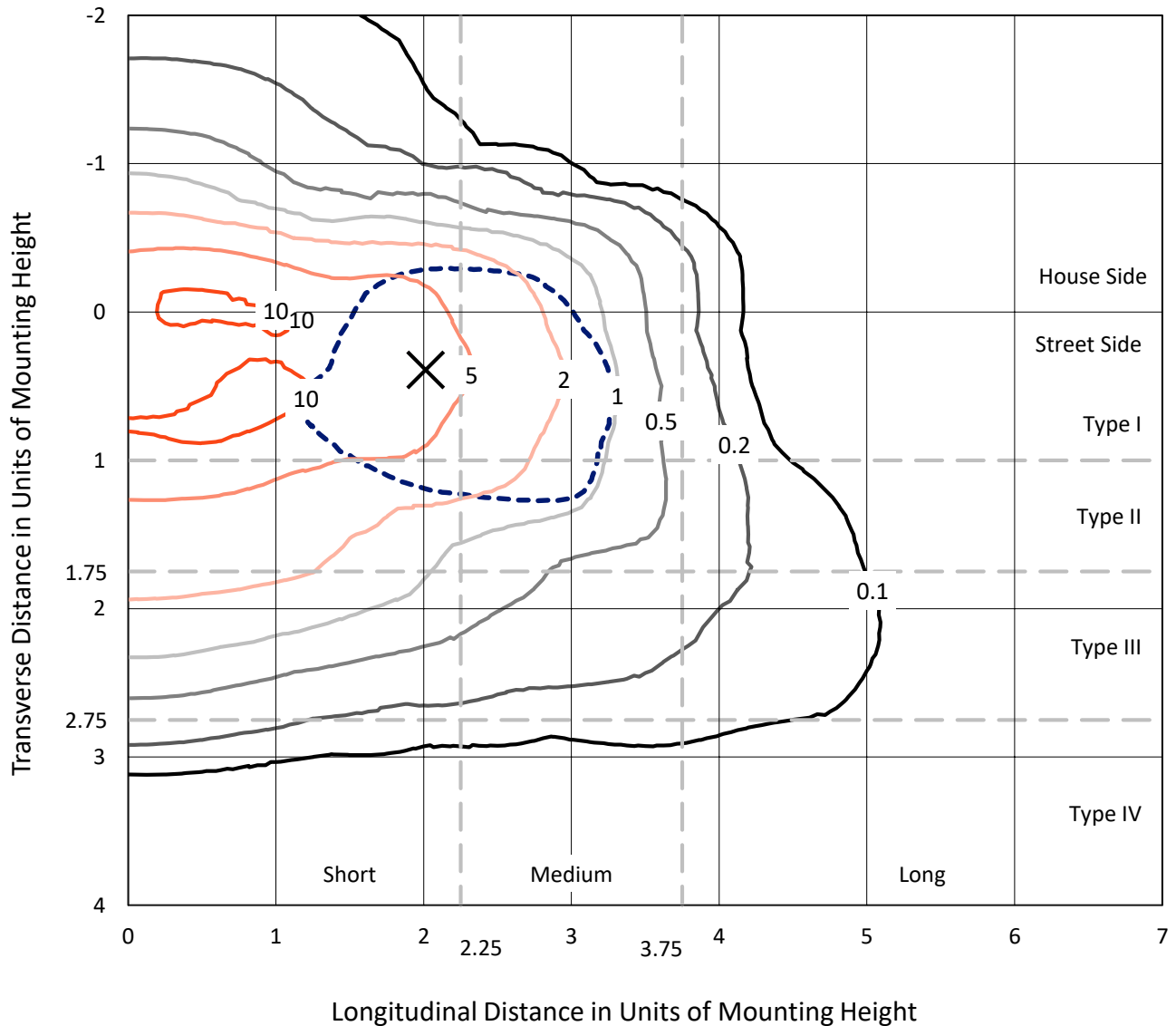


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Iso-Footcandle Lines of Horizontal Illumination

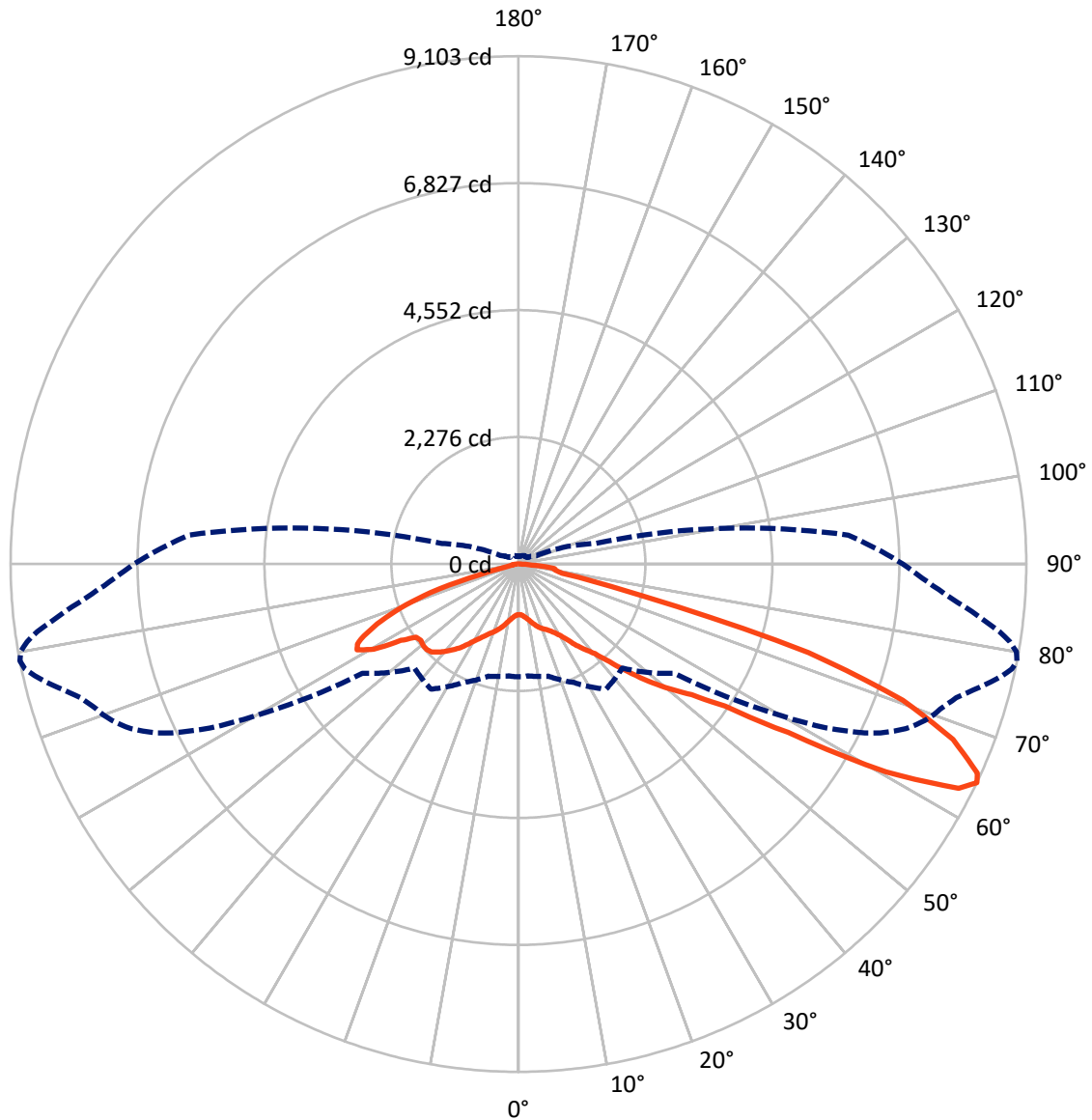
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2068.9 | 0.0 | 2068.9 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| Street Side | Lumens | 6610.7 | 0.0 | 6610.7 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| Total | Lumens | 8679.6 | 0.0 | 8679.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 90.0 | 1.0 |
| 10°-20° | 291.6 | 3.4 |
| 20°-30° | 500.5 | 5.8 |
| 30°-40° | 836.6 | 9.6 |
| 40°-50° | 1433.2 | 16.5 |
| 50°-60° | 1933.3 | 22.3 |
| 60°-70° | 2445.6 | 28.2 |
| 70°-80° | 975.8 | 11.2 |
| 80°-90° | 173.1 | 2.0 |
| 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°-90° | 8679.6 | 100.0 |
| 0°-180° | 8679.6 | 100.0 |



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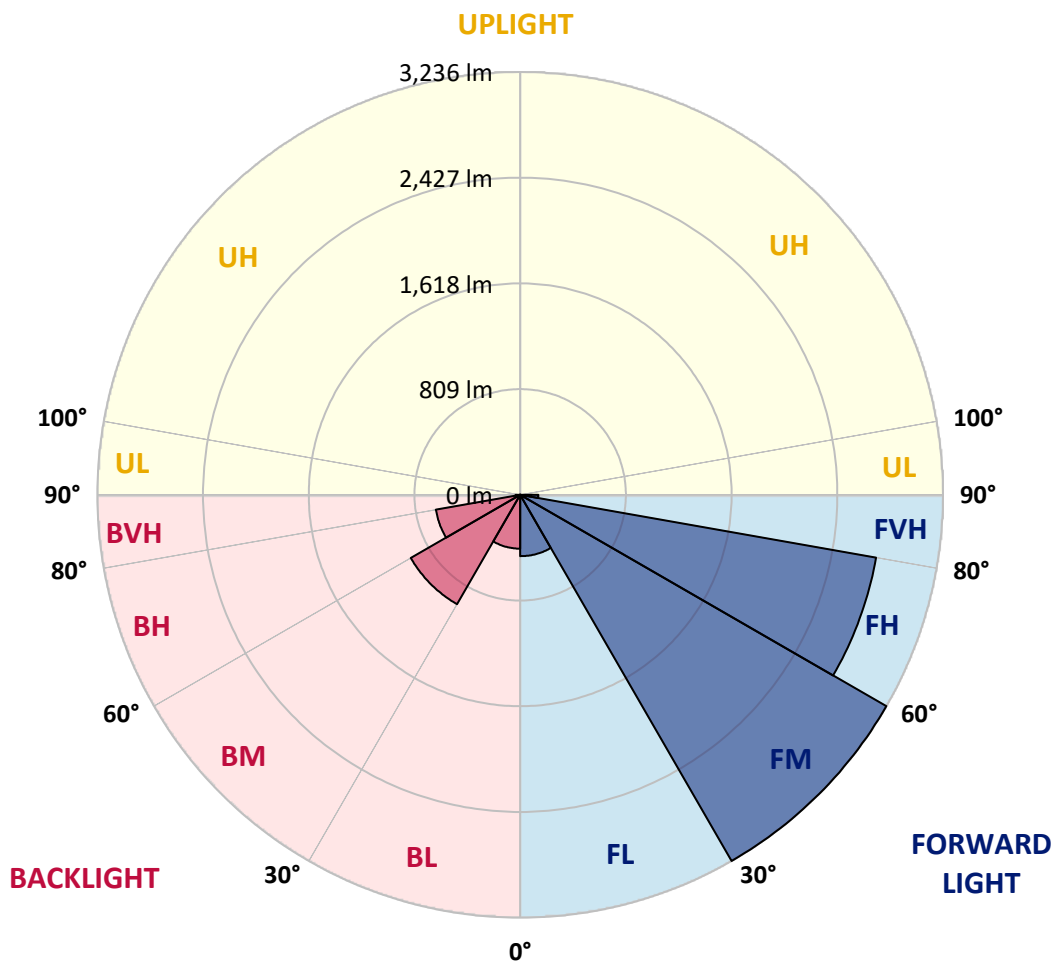
CATALOG NUMBER: ECM-F04-LED-E1-SL2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 469.7 | 5.4 | | | |
| FM | (30°-60°) | 3236.4 | 37.3 | | | |
| FH | (60°-80°) | 2766.0 | 31.9 | | | G2/5000 |
| FVH | (80°-90°) | 138.6 | 1.6 | | | G2/225 |
| BL | (0°-30°) | 412.3 | 4.7 | B1/500 | | |
| BM | (30°-60°) | 966.8 | 11.1 | B1/1000 | | |
| BH | (60°-80°) | 655.4 | 7.6 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 34.5 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 61° | 62° | 64° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 |
| 2.5° | 903.8 | 904.8 | 903.8 | 906.8 | 908.8 | 911.8 | 911.8 | 911.8 | 911.8 | 911.8 | 911.8 |
| 5° | 902.8 | 903.8 | 902.8 | 907.8 | 912.8 | 918.9 | 924.9 | 926.9 | 926.9 | 927.9 | 928.9 |
| 7.5° | 911.8 | 912.8 | 911.8 | 917.9 | 924.9 | 935.0 | 946.0 | 952.0 | 953.0 | 954.1 | 956.1 |
| 10° | 940.0 | 938.0 | 933.9 | 940.0 | 947.0 | 962.1 | 975.2 | 985.2 | 988.2 | 989.2 | 993.3 |
| 12.5° | 977.2 | 976.2 | 969.1 | 966.1 | 970.1 | 987.2 | 1011.4 | 1025.4 | 1028.4 | 1029.5 | 1033.5 |
| 15° | 1005.3 | 1002.3 | 996.3 | 992.3 | 999.3 | 1017.4 | 1049.6 | 1067.7 | 1073.7 | 1074.7 | 1081.7 |
| 17.5° | 1023.4 | 1021.4 | 1011.4 | 1008.3 | 1019.4 | 1047.5 | 1087.8 | 1109.9 | 1113.9 | 1116.9 | 1125.0 |
| 20° | 1053.6 | 1047.5 | 1032.5 | 1019.4 | 1028.4 | 1071.7 | 1118.9 | 1142.0 | 1148.1 | 1151.1 | 1158.1 |
| 22.5° | 1093.8 | 1088.8 | 1070.7 | 1037.5 | 1037.5 | 1085.8 | 1147.1 | 1173.2 | 1178.2 | 1184.3 | 1192.3 |
| 25° | 1163.2 | 1159.1 | 1124.0 | 1067.7 | 1053.6 | 1099.8 | 1173.2 | 1208.4 | 1213.4 | 1220.5 | 1232.5 |
| 27.5° | 1234.5 | 1229.5 | 1190.3 | 1114.9 | 1081.7 | 1126.0 | 1211.4 | 1253.6 | 1260.7 | 1268.7 | 1282.8 |
| 30° | 1326.0 | 1317.0 | 1277.8 | 1190.3 | 1137.0 | 1168.2 | 1271.7 | 1325.0 | 1333.1 | 1343.1 | 1362.2 |
| 32.5° | 1531.1 | 1535.1 | 1463.8 | 1371.3 | 1277.8 | 1264.7 | 1365.2 | 1430.6 | 1442.6 | 1455.7 | 1481.8 |
| 35° | 1864.9 | 1848.8 | 1822.7 | 1728.2 | 1624.6 | 1522.1 | 1547.2 | 1617.6 | 1630.6 | 1634.7 | 1645.7 |
| 37.5° | 2078.0 | 2087.1 | 2108.2 | 2108.2 | 2030.8 | 1987.5 | 1916.1 | 1882.0 | 1885.0 | 1889.0 | 1880.0 |
| 40° | 2196.6 | 2215.7 | 2288.1 | 2385.6 | 2456.0 | 2495.2 | 2483.2 | 2323.3 | 2304.2 | 2279.1 | 2198.6 |
| 42.5° | 2282.1 | 2301.2 | 2424.8 | 2611.8 | 2786.8 | 2925.5 | 3001.9 | 2876.2 | 2862.2 | 2801.8 | 2705.3 |
| 45° | 2334.4 | 2349.4 | 2498.2 | 2763.6 | 3028.0 | 3264.3 | 3473.4 | 3429.2 | 3425.1 | 3373.9 | 3247.2 |
| 47.5° | 2324.3 | 2337.4 | 2492.2 | 2811.9 | 3158.7 | 3479.4 | 3803.1 | 3883.6 | 3887.6 | 3874.5 | 3797.1 |
| 50° | 2175.5 | 2206.7 | 2360.5 | 2705.3 | 3086.3 | 3562.9 | 4016.3 | 4226.4 | 4232.4 | 4244.5 | 4214.3 |
| 52.5° | 2042.8 | 2066.9 | 2204.7 | 2513.3 | 2879.2 | 3480.4 | 4143.9 | 4477.7 | 4529.0 | 4558.1 | 4614.4 |
| 55° | 1988.5 | 2002.6 | 2108.2 | 2370.6 | 2708.3 | 3260.3 | 4187.2 | 4659.7 | 4751.2 | 4806.5 | 4935.1 |
| 57.5° | 1978.5 | 1989.5 | 2071.0 | 2271.0 | 2594.7 | 3033.1 | 4173.1 | 4904.0 | 5048.7 | 5153.3 | 5402.6 |
| 60° | 2045.8 | 2055.9 | 2113.2 | 2281.1 | 2516.3 | 2867.2 | 4044.4 | 5225.7 | 5428.8 | 5710.2 | 6112.4 |
| 62.5° | 2096.1 | 2101.1 | 2171.5 | 2406.7 | 2602.8 | 2705.3 | 3716.7 | 5450.9 | 5811.8 | 6169.7 | 6767.8 |
| 64° | 2022.7 | 2012.7 | 2082.0 | 2341.4 | 2736.5 | 2636.0 | 3413.1 | 5439.8 | 5863.1 | 6260.2 | 6907.6 |
| 65° | 1915.1 | 1922.2 | 1984.5 | 2213.7 | 2713.4 | 2632.9 | 3214.0 | 5319.2 | 5758.5 | 6179.7 | 6842.2 |
| 67.5° | 1487.9 | 1515.0 | 1532.1 | 1742.2 | 2222.8 | 2718.4 | 2691.3 | 4551.1 | 4992.4 | 5394.6 | 6177.7 |
| 70° | 800.2 | 797.2 | 835.4 | 1001.3 | 1546.2 | 2307.2 | 2309.2 | 3208.0 | 3696.6 | 4196.2 | 4975.4 |
| 72.5° | 294.6 | 309.6 | 339.8 | 457.4 | 803.3 | 1664.8 | 2116.2 | 2224.8 | 2442.9 | 2840.0 | 3675.5 |
| 75° | 168.9 | 170.9 | 176.9 | 215.1 | 387.0 | 918.9 | 1966.4 | 1968.4 | 1984.5 | 2049.9 | 2504.3 |
| 77.5° | 131.7 | 127.7 | 130.7 | 139.7 | 211.1 | 483.6 | 1577.4 | 1869.9 | 1867.9 | 1857.8 | 1924.2 |
| 80° | 98.5 | 102.5 | 108.6 | 108.6 | 130.7 | 259.4 | 896.7 | 1663.8 | 1720.1 | 1762.3 | 1786.5 |
| 82.5° | 79.4 | 82.4 | 97.5 | 97.5 | 95.5 | 146.8 | 423.2 | 1232.5 | 1409.5 | 1524.1 | 1702.0 |
| 85° | 51.3 | 54.3 | 82.4 | 81.4 | 77.4 | 86.5 | 221.2 | 413.2 | 445.4 | 542.9 | 772.1 |
| 87.5° | 14.1 | 17.1 | 38.2 | 33.2 | 40.2 | 32.2 | 82.4 | 125.7 | 154.8 | 174.9 | 220.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: ECM-F04-LED-E1-SL2-7030

CANDELA DISTRIBUTION (continued):

| | 65° | 66° | 67° | 68° | 69° | 70° | 71° | 72° | 73° | 74° | 75° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 |
| 2.5° | 911.8 | 911.8 | 911.8 | 912.8 | 912.8 | 912.8 | 912.8 | 912.8 | 913.8 | 911.8 | 911.8 |
| 5° | 929.9 | 928.9 | 929.9 | 929.9 | 932.9 | 931.9 | 932.9 | 932.9 | 931.9 | 933.9 | 933.9 |
| 7.5° | 959.1 | 957.1 | 959.1 | 960.1 | 961.1 | 965.1 | 965.1 | 967.1 | 968.1 | 969.1 | 967.1 |
| 10° | 994.3 | 997.3 | 998.3 | 998.3 | 1003.3 | 1005.3 | 1005.3 | 1008.3 | 1011.4 | 1013.4 | 1012.4 |
| 12.5° | 1037.5 | 1039.5 | 1040.5 | 1046.5 | 1047.5 | 1050.6 | 1055.6 | 1058.6 | 1058.6 | 1063.6 | 1066.6 |
| 15° | 1085.8 | 1087.8 | 1093.8 | 1095.8 | 1099.8 | 1104.9 | 1107.9 | 1110.9 | 1110.9 | 1119.9 | 1122.9 |
| 17.5° | 1127.0 | 1131.0 | 1135.0 | 1138.0 | 1145.1 | 1150.1 | 1155.1 | 1158.1 | 1163.2 | 1167.2 | 1174.2 |
| 20° | 1162.2 | 1167.2 | 1172.2 | 1178.2 | 1183.3 | 1188.3 | 1194.3 | 1198.3 | 1204.4 | 1210.4 | 1217.4 |
| 22.5° | 1196.3 | 1202.4 | 1208.4 | 1213.4 | 1220.5 | 1225.5 | 1230.5 | 1237.6 | 1241.6 | 1247.6 | 1255.7 |
| 25° | 1233.5 | 1243.6 | 1249.6 | 1256.7 | 1263.7 | 1270.7 | 1276.8 | 1282.8 | 1288.8 | 1296.9 | 1304.9 |
| 27.5° | 1292.8 | 1297.9 | 1305.9 | 1309.9 | 1322.0 | 1330.0 | 1338.1 | 1339.1 | 1347.1 | 1362.2 | 1364.2 |
| 30° | 1370.3 | 1379.3 | 1384.3 | 1398.4 | 1400.4 | 1403.4 | 1416.5 | 1425.6 | 1435.6 | 1447.7 | 1452.7 |
| 32.5° | 1486.9 | 1494.9 | 1502.0 | 1506.0 | 1517.0 | 1535.1 | 1537.1 | 1545.2 | 1562.3 | 1565.3 | 1583.4 |
| 35° | 1657.8 | 1659.8 | 1670.8 | 1676.9 | 1691.0 | 1701.0 | 1706.0 | 1713.1 | 1722.1 | 1743.2 | 1748.3 |
| 37.5° | 1862.9 | 1880.0 | 1865.9 | 1851.8 | 1876.9 | 1873.9 | 1880.0 | 1871.9 | 1896.0 | 1897.0 | 1906.1 |
| 40° | 2181.6 | 2174.5 | 2144.4 | 2112.2 | 2097.1 | 2088.1 | 2070.0 | 2065.9 | 2079.0 | 2073.0 | 2076.0 |
| 42.5° | 2651.0 | 2584.7 | 2533.4 | 2495.2 | 2448.0 | 2396.7 | 2367.5 | 2323.3 | 2323.3 | 2310.2 | 2322.3 |
| 45° | 3203.0 | 3128.6 | 3033.1 | 2942.6 | 2884.3 | 2816.9 | 2747.6 | 2701.3 | 2654.1 | 2618.9 | 2650.0 |
| 47.5° | 3746.8 | 3696.6 | 3590.0 | 3506.6 | 3390.0 | 3289.4 | 3179.8 | 3084.3 | 3028.0 | 2986.8 | 2992.9 |
| 50° | 4219.3 | 4173.1 | 4117.8 | 4005.2 | 3916.7 | 3814.2 | 3698.6 | 3572.9 | 3451.3 | 3402.0 | 3359.8 |
| 52.5° | 4617.5 | 4601.4 | 4554.1 | 4501.8 | 4429.5 | 4319.9 | 4246.5 | 4126.9 | 3983.1 | 3879.5 | 3835.3 |
| 55° | 4969.3 | 4997.5 | 5022.6 | 5011.5 | 4985.4 | 4971.3 | 4880.9 | 4799.4 | 4701.9 | 4671.7 | 4580.3 |
| 57.5° | 5523.3 | 5604.7 | 5701.2 | 5754.5 | 5806.8 | 5926.4 | 5955.5 | 5924.4 | 5936.4 | 5928.4 | 5880.1 |
| 60° | 6307.4 | 6504.5 | 6673.3 | 6808.1 | 6951.8 | 7091.6 | 7256.4 | 7365.0 | 7410.2 | 7585.2 | 7582.2 |
| 62.5° | 6980.0 | 7242.4 | 7458.5 | 7620.4 | 7788.2 | 7914.9 | 8021.5 | 8130.1 | 8262.8 | 8389.4 | 8549.3 |
| 64° | 7162.9 | 7369.0 | 7545.0 | 7689.7 | 7810.4 | 7913.9 | 7995.3 | 8094.9 | 8204.5 | 8368.3 | 8545.3 |
| 65° | 7068.4 | 7300.7 | 7428.3 | 7559.0 | 7667.6 | 7748.0 | 7831.5 | 7922.0 | 8060.7 | 8190.4 | 8379.4 |
| 67.5° | 6426.0 | 6602.0 | 6786.9 | 6908.6 | 7013.1 | 7060.4 | 7138.8 | 7214.2 | 7291.6 | 7422.3 | 7658.6 |
| 70° | 5418.7 | 5615.7 | 5882.2 | 5996.8 | 6105.3 | 6122.4 | 6195.8 | 6252.1 | 6303.4 | 6477.3 | 6593.9 |
| 72.5° | 4065.5 | 4447.6 | 4708.9 | 4910.0 | 4932.1 | 5017.6 | 5047.7 | 5070.9 | 5129.2 | 5161.3 | 5196.5 |
| 75° | 2801.8 | 3145.7 | 3367.8 | 3444.2 | 3537.7 | 3492.5 | 3440.2 | 3256.2 | 3257.3 | 3101.4 | 2924.5 |
| 77.5° | 1971.4 | 2024.7 | 2026.7 | 2027.7 | 1904.1 | 1831.7 | 1749.3 | 1643.7 | 1602.5 | 1520.1 | 1407.5 |
| 80° | 1787.5 | 1781.4 | 1744.2 | 1699.0 | 1631.6 | 1535.1 | 1435.6 | 1366.2 | 1311.9 | 1250.6 | 1170.2 |
| 82.5° | 1725.1 | 1739.2 | 1712.1 | 1673.9 | 1634.7 | 1539.2 | 1424.5 | 1316.0 | 1226.5 | 1129.0 | 1030.5 |
| 85° | 840.5 | 864.6 | 943.0 | 994.3 | 1006.3 | 947.0 | 865.6 | 767.1 | 672.6 | 566.0 | 516.7 |
| 87.5° | 252.3 | 270.4 | 276.5 | 293.6 | 314.7 | 286.5 | 252.3 | 226.2 | 182.0 | 157.8 | 123.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 76° | 77° | 78° | 79° | 80° | 81° | 82° | 83° | 84° | 85° | 86° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 |
| 2.5° | 911.8 | 912.8 | 912.8 | 911.8 | 912.8 | 912.8 | 913.8 | 912.8 | 912.8 | 912.8 | 911.8 |
| 5° | 931.9 | 936.0 | 935.0 | 935.0 | 937.0 | 937.0 | 936.0 | 938.0 | 937.0 | 937.0 | 936.0 |
| 7.5° | 970.1 | 970.1 | 973.2 | 974.2 | 972.1 | 972.1 | 974.2 | 975.2 | 977.2 | 978.2 | 978.2 |
| 10° | 1014.4 | 1019.4 | 1019.4 | 1020.4 | 1021.4 | 1024.4 | 1025.4 | 1025.4 | 1027.4 | 1027.4 | 1029.5 |
| 12.5° | 1068.7 | 1070.7 | 1072.7 | 1077.7 | 1078.7 | 1078.7 | 1083.7 | 1082.7 | 1082.7 | 1087.8 | 1088.8 |
| 15° | 1127.0 | 1130.0 | 1135.0 | 1137.0 | 1139.0 | 1144.1 | 1147.1 | 1150.1 | 1149.1 | 1156.1 | 1158.1 |
| 17.5° | 1178.2 | 1181.3 | 1187.3 | 1192.3 | 1195.3 | 1198.3 | 1200.4 | 1204.4 | 1210.4 | 1215.4 | 1216.4 |
| 20° | 1219.5 | 1223.5 | 1230.5 | 1236.5 | 1241.6 | 1244.6 | 1252.6 | 1256.7 | 1258.7 | 1262.7 | 1267.7 |
| 22.5° | 1259.7 | 1266.7 | 1273.7 | 1275.8 | 1286.8 | 1289.8 | 1295.9 | 1301.9 | 1305.9 | 1315.0 | 1318.0 |
| 25° | 1309.9 | 1316.0 | 1325.0 | 1331.0 | 1338.1 | 1344.1 | 1350.2 | 1355.2 | 1364.2 | 1372.3 | 1376.3 |
| 27.5° | 1376.3 | 1381.3 | 1388.4 | 1399.4 | 1405.4 | 1409.5 | 1420.5 | 1430.6 | 1434.6 | 1442.6 | 1449.7 |
| 30° | 1463.8 | 1468.8 | 1478.8 | 1489.9 | 1494.9 | 1508.0 | 1516.0 | 1523.1 | 1531.1 | 1542.2 | 1552.2 |
| 32.5° | 1591.4 | 1597.5 | 1606.5 | 1620.6 | 1620.6 | 1629.6 | 1646.7 | 1661.8 | 1667.8 | 1680.9 | 1687.9 |
| 35° | 1759.3 | 1760.3 | 1770.4 | 1791.5 | 1797.5 | 1795.5 | 1811.6 | 1825.7 | 1829.7 | 1849.8 | 1862.9 |
| 37.5° | 1922.2 | 1925.2 | 1937.3 | 1945.3 | 1956.4 | 1964.4 | 1975.5 | 1996.6 | 1996.6 | 2025.7 | 2037.8 |
| 40° | 2091.1 | 2106.2 | 2108.2 | 2110.2 | 2128.3 | 2160.4 | 2171.5 | 2192.6 | 2211.7 | 2239.9 | 2252.9 |
| 42.5° | 2336.4 | 2352.5 | 2371.6 | 2393.7 | 2420.8 | 2438.9 | 2460.0 | 2490.2 | 2498.2 | 2533.4 | 2542.5 |
| 45° | 2672.2 | 2691.3 | 2742.5 | 2747.6 | 2795.8 | 2819.9 | 2855.1 | 2895.3 | 2905.4 | 2928.5 | 2916.4 |
| 47.5° | 3006.9 | 3029.0 | 3085.3 | 3143.7 | 3187.9 | 3230.1 | 3240.2 | 3257.3 | 3272.3 | 3258.3 | 3262.3 |
| 50° | 3377.9 | 3410.1 | 3463.3 | 3514.6 | 3547.8 | 3596.0 | 3596.0 | 3600.1 | 3586.0 | 3562.9 | 3525.7 |
| 52.5° | 3812.2 | 3817.2 | 3851.4 | 3891.6 | 3921.8 | 3931.8 | 3931.8 | 3908.7 | 3874.5 | 3837.3 | 3764.9 |
| 55° | 4537.0 | 4481.7 | 4491.8 | 4491.8 | 4469.7 | 4451.6 | 4437.5 | 4381.2 | 4313.8 | 4246.5 | 4180.1 |
| 57.5° | 5842.9 | 5895.2 | 5739.4 | 5697.2 | 5699.2 | 5561.5 | 5505.2 | 5408.6 | 5336.3 | 5215.6 | 5114.1 |
| 60° | 7705.8 | 7669.6 | 7618.4 | 7570.1 | 7574.1 | 7392.2 | 7264.5 | 7120.7 | 6995.0 | 6729.6 | 6617.0 |
| 62.5° | 8692.0 | 8820.7 | 8894.1 | 8856.9 | 8771.5 | 8657.9 | 8448.7 | 8230.6 | 8009.4 | 7784.2 | 7582.2 |
| 64° | 8728.2 | 8898.1 | 9042.9 | 9103.2 | 9063.0 | 8919.2 | 8706.1 | 8434.7 | 8171.3 | 7905.9 | 7661.6 |
| 65° | 8553.3 | 8768.4 | 8955.4 | 9039.9 | 9041.9 | 8915.2 | 8702.1 | 8428.6 | 8147.2 | 7839.5 | 7585.2 |
| 67.5° | 7827.5 | 8074.8 | 8258.7 | 8400.5 | 8522.1 | 8457.8 | 8310.0 | 8019.5 | 7753.1 | 7404.2 | 7125.7 |
| 70° | 6738.7 | 6891.5 | 7098.6 | 7305.7 | 7403.2 | 7418.3 | 7363.0 | 7216.2 | 6904.6 | 6621.1 | 6262.2 |
| 72.5° | 5193.5 | 5430.8 | 5309.1 | 5436.8 | 5518.2 | 5438.8 | 5448.9 | 5198.5 | 5098.0 | 4848.7 | 4596.3 |
| 75° | 2750.6 | 2758.6 | 2706.3 | 2326.3 | 2279.1 | 2105.1 | 2298.2 | 1953.3 | 1835.7 | 1727.1 | 1587.4 |
| 77.5° | 1275.8 | 1110.9 | 957.1 | 799.2 | 653.5 | 572.0 | 446.4 | 393.1 | 353.9 | 311.7 | 320.7 |
| 80° | 1066.6 | 940.0 | 805.3 | 667.5 | 561.0 | 453.4 | 363.9 | 282.5 | 226.2 | 190.0 | 172.9 |
| 82.5° | 944.0 | 832.4 | 738.9 | 654.5 | 578.1 | 472.5 | 388.1 | 299.6 | 230.2 | 173.9 | 134.7 |
| 85° | 426.3 | 333.8 | 303.6 | 239.3 | 203.1 | 172.9 | 137.7 | 113.6 | 93.5 | 79.4 | 62.3 |
| 87.5° | 99.5 | 68.4 | 58.3 | 55.3 | 48.3 | 45.2 | 38.2 | 40.2 | 33.2 | 26.1 | 27.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P140934

CATALOG NUMBER: ECM-F04-LED-E1-SL2-7030

CANDELA DISTRIBUTION (continued):

| | 87° | 88° | 89° | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 0° | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 | 907.8 |
| 2.5° | 911.8 | 911.8 | 912.8 | 912.8 | 913.8 | 915.9 | 918.9 | 915.9 | 915.9 | 915.9 | 916.9 |
| 5° | 938.0 | 939.0 | 938.0 | 938.0 | 940.0 | 943.0 | 944.0 | 938.0 | 935.0 | 931.9 | 927.9 |
| 7.5° | 976.2 | 980.2 | 979.2 | 979.2 | 981.2 | 981.2 | 979.2 | 970.1 | 961.1 | 947.0 | 935.0 |
| 10° | 1029.5 | 1031.5 | 1031.5 | 1031.5 | 1034.5 | 1036.5 | 1027.4 | 1007.3 | 983.2 | 958.1 | 936.0 |
| 12.5° | 1092.8 | 1091.8 | 1094.8 | 1097.8 | 1095.8 | 1095.8 | 1078.7 | 1047.5 | 1008.3 | 967.1 | 928.9 |
| 15° | 1159.1 | 1160.1 | 1160.1 | 1165.2 | 1166.2 | 1162.2 | 1135.0 | 1086.8 | 1026.4 | 964.1 | 902.8 |
| 17.5° | 1221.5 | 1223.5 | 1224.5 | 1228.5 | 1233.5 | 1222.5 | 1183.3 | 1117.9 | 1029.5 | 936.0 | 853.5 |
| 20° | 1273.7 | 1276.8 | 1279.8 | 1282.8 | 1287.8 | 1279.8 | 1227.5 | 1133.0 | 1013.4 | 890.7 | 796.2 |
| 22.5° | 1321.0 | 1326.0 | 1328.0 | 1333.1 | 1341.1 | 1331.0 | 1267.7 | 1133.0 | 977.2 | 841.5 | 731.9 |
| 25° | 1378.3 | 1384.3 | 1394.4 | 1396.4 | 1410.5 | 1399.4 | 1299.9 | 1125.0 | 936.0 | 779.1 | 662.5 |
| 27.5° | 1453.7 | 1459.7 | 1468.8 | 1473.8 | 1490.9 | 1475.8 | 1324.0 | 1103.8 | 884.7 | 711.8 | 595.2 |
| 30° | 1553.2 | 1559.3 | 1570.3 | 1575.3 | 1606.5 | 1556.2 | 1340.1 | 1071.7 | 825.4 | 633.4 | 517.7 |
| 32.5° | 1692.0 | 1708.0 | 1707.0 | 1720.1 | 1748.3 | 1645.7 | 1347.1 | 1026.4 | 751.0 | 553.9 | 445.4 |
| 35° | 1873.9 | 1885.0 | 1895.0 | 1913.1 | 1926.2 | 1741.2 | 1342.1 | 967.1 | 658.5 | 471.5 | 382.0 |
| 37.5° | 2048.9 | 2068.0 | 2075.0 | 2087.1 | 2084.0 | 1805.6 | 1322.0 | 874.6 | 558.0 | 398.1 | 338.8 |
| 40° | 2267.0 | 2278.1 | 2300.2 | 2311.2 | 2258.0 | 1866.9 | 1274.8 | 751.0 | 457.4 | 349.9 | 310.6 |
| 42.5° | 2557.5 | 2571.6 | 2560.6 | 2557.5 | 2455.0 | 1901.1 | 1184.3 | 627.3 | 383.0 | 314.7 | 287.5 |
| 45° | 2910.4 | 2916.4 | 2883.3 | 2861.2 | 2682.2 | 1898.1 | 1052.6 | 510.7 | 331.8 | 288.5 | 267.4 |
| 47.5° | 3229.1 | 3217.0 | 3173.8 | 3140.6 | 2879.2 | 1827.7 | 887.7 | 421.2 | 304.6 | 267.4 | 251.3 |
| 50° | 3492.5 | 3439.2 | 3393.0 | 3350.7 | 3037.1 | 1720.1 | 729.9 | 354.9 | 278.5 | 250.3 | 235.2 |
| 52.5° | 3730.8 | 3658.4 | 3604.1 | 3532.7 | 3180.8 | 1578.4 | 604.2 | 309.6 | 252.3 | 233.2 | 218.2 |
| 55° | 4083.6 | 3999.2 | 3929.8 | 3859.4 | 3435.2 | 1467.8 | 522.8 | 275.5 | 226.2 | 215.1 | 201.1 |
| 57.5° | 5096.0 | 4869.8 | 4808.5 | 4745.1 | 4116.8 | 1443.6 | 475.5 | 248.3 | 206.1 | 198.0 | 189.0 |
| 60° | 6480.3 | 6333.5 | 6235.0 | 6080.2 | 5248.8 | 1521.1 | 440.3 | 228.2 | 192.0 | 187.0 | 178.9 |
| 62.5° | 7383.1 | 7206.2 | 7043.3 | 6885.5 | 5913.3 | 1519.0 | 397.1 | 215.1 | 184.0 | 183.0 | 170.9 |
| 64° | 7440.4 | 7242.4 | 7060.4 | 6890.5 | 5934.4 | 1419.5 | 357.9 | 206.1 | 184.0 | 184.0 | 165.9 |
| 65° | 7345.9 | 7146.9 | 6958.9 | 6781.9 | 5813.8 | 1343.1 | 331.8 | 202.1 | 187.0 | 186.0 | 162.9 |
| 67.5° | 6864.4 | 6664.3 | 6453.2 | 6263.2 | 5303.1 | 1052.6 | 262.4 | 195.0 | 203.1 | 196.0 | 159.8 |
| 70° | 6012.8 | 5785.6 | 5626.8 | 5490.1 | 4552.1 | 734.9 | 208.1 | 199.1 | 222.2 | 208.1 | 167.9 |
| 72.5° | 4358.1 | 4173.1 | 4171.1 | 4016.3 | 3446.3 | 466.5 | 167.9 | 198.0 | 221.2 | 206.1 | 173.9 |
| 75° | 1693.0 | 1451.7 | 1443.6 | 1497.9 | 1465.8 | 252.3 | 144.8 | 174.9 | 181.0 | 171.9 | 153.8 |
| 77.5° | 289.5 | 284.5 | 281.5 | 296.6 | 326.7 | 139.7 | 132.7 | 148.8 | 134.7 | 121.6 | 127.7 |
| 80° | 160.9 | 153.8 | 151.8 | 151.8 | 142.8 | 114.6 | 117.6 | 118.6 | 97.5 | 90.5 | 105.6 |
| 82.5° | 111.6 | 103.5 | 99.5 | 96.5 | 93.5 | 102.5 | 104.6 | 93.5 | 70.4 | 69.4 | 98.5 |
| 85° | 54.3 | 51.3 | 50.3 | 50.3 | 57.3 | 96.5 | 86.5 | 72.4 | 47.3 | 47.3 | 106.6 |
| 87.5° | 23.1 | 23.1 | 20.1 | 20.1 | 31.2 | 61.3 | 39.2 | 30.2 | 19.1 | 22.1 | 43.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P140934

CATALOG NUMBER: ECM-F04-LED-E1-SL2-7030

CANDELA DISTRIBUTION (continued):

| | 165° | 175° | 180° |
|-------|-------|-------|-------|
| 0° | 907.8 | 907.8 | 907.8 |
| 2.5° | 915.9 | 917.9 | 916.9 |
| 5° | 922.9 | 922.9 | 920.9 |
| 7.5° | 921.9 | 917.9 | 915.9 |
| 10° | 915.9 | 904.8 | 903.8 |
| 12.5° | 899.8 | 881.7 | 876.6 |
| 15° | 853.5 | 829.4 | 823.4 |
| 17.5° | 795.2 | 767.1 | 759.0 |
| 20° | 728.9 | 696.7 | 685.6 |
| 22.5° | 664.5 | 627.3 | 616.3 |
| 25° | 594.1 | 556.9 | 550.9 |
| 27.5° | 516.7 | 481.6 | 472.5 |
| 30° | 445.4 | 415.2 | 408.2 |
| 32.5° | 381.0 | 359.9 | 359.9 |
| 35° | 338.8 | 320.7 | 320.7 |
| 37.5° | 305.6 | 297.6 | 296.6 |
| 40° | 283.5 | 276.5 | 275.5 |
| 42.5° | 266.4 | 258.4 | 257.4 |
| 45° | 248.3 | 240.3 | 240.3 |
| 47.5° | 231.2 | 222.2 | 223.2 |
| 50° | 214.1 | 207.1 | 207.1 |
| 52.5° | 200.1 | 193.0 | 192.0 |
| 55° | 187.0 | 180.0 | 178.9 |
| 57.5° | 174.9 | 166.9 | 165.9 |
| 60° | 162.9 | 154.8 | 152.8 |
| 62.5° | 152.8 | 143.8 | 141.8 |
| 64° | 146.8 | 137.7 | 135.7 |
| 65° | 143.8 | 133.7 | 132.7 |
| 67.5° | 140.7 | 127.7 | 126.7 |
| 70° | 151.8 | 125.7 | 120.6 |
| 72.5° | 152.8 | 122.6 | 116.6 |
| 75° | 144.8 | 116.6 | 111.6 |
| 77.5° | 127.7 | 106.6 | 100.5 |
| 80° | 122.6 | 83.4 | 73.4 |
| 82.5° | 112.6 | 68.4 | 57.3 |
| 85° | 92.5 | 44.2 | 41.2 |
| 87.5° | 53.3 | 29.2 | 21.1 |
| 90° | 0.0 | 0.0 | 0.0 |

(END OF REPORT)