

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: LUMARK

Report Number: P380998

Luminaire Tested: **PRV-PA2A-740-U-T4W**

Issue Date: 1/15/2020

Test Information

Test Method: LM-79-08
Report Number: P380998
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 1/15/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: PRV-PA2A-740-U-T4W
Description: PREVAIL AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15560 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Luminous Opening: Rectangular (W 1.1' x L: 1.12' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

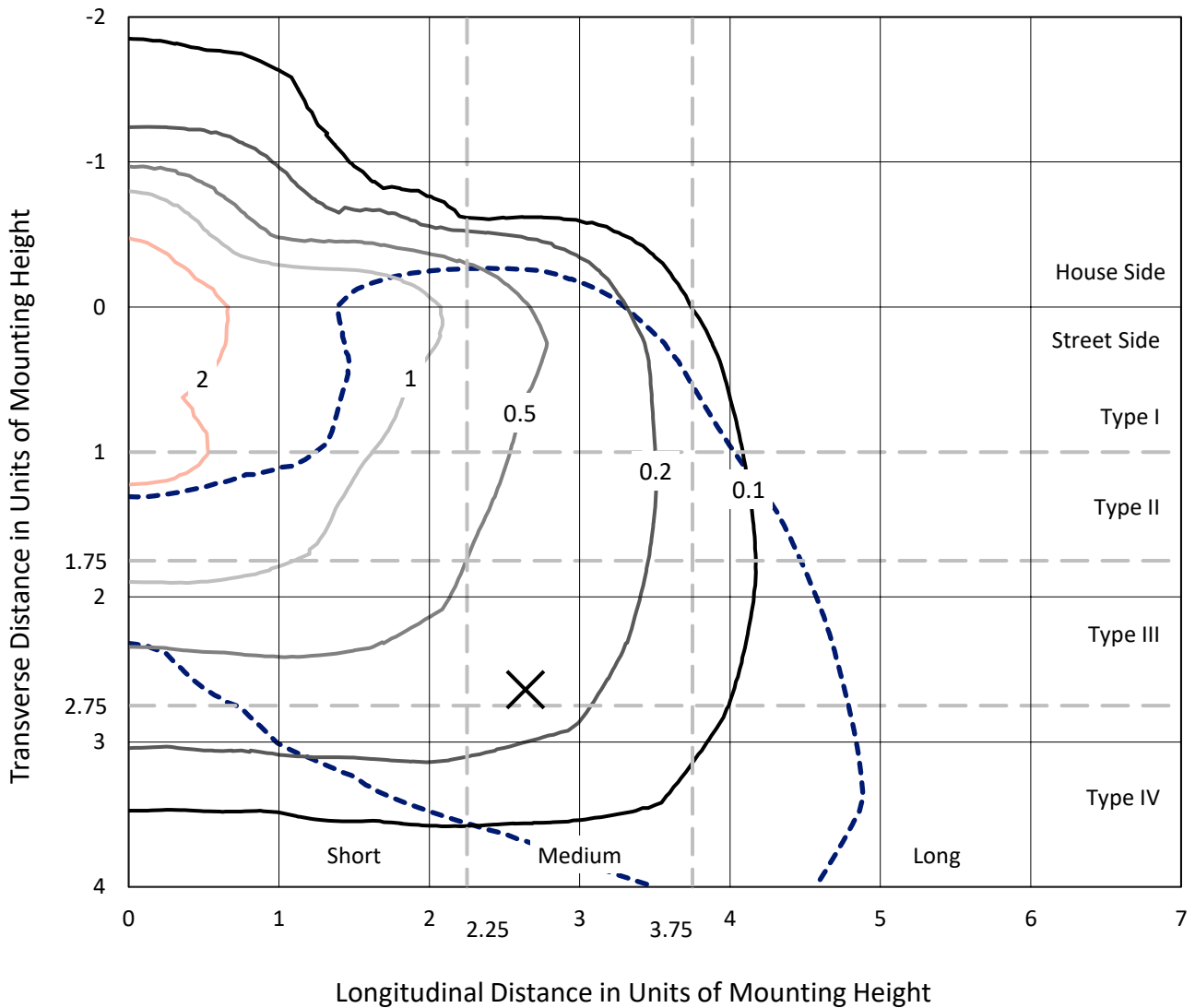
Input Watts (W): 112
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

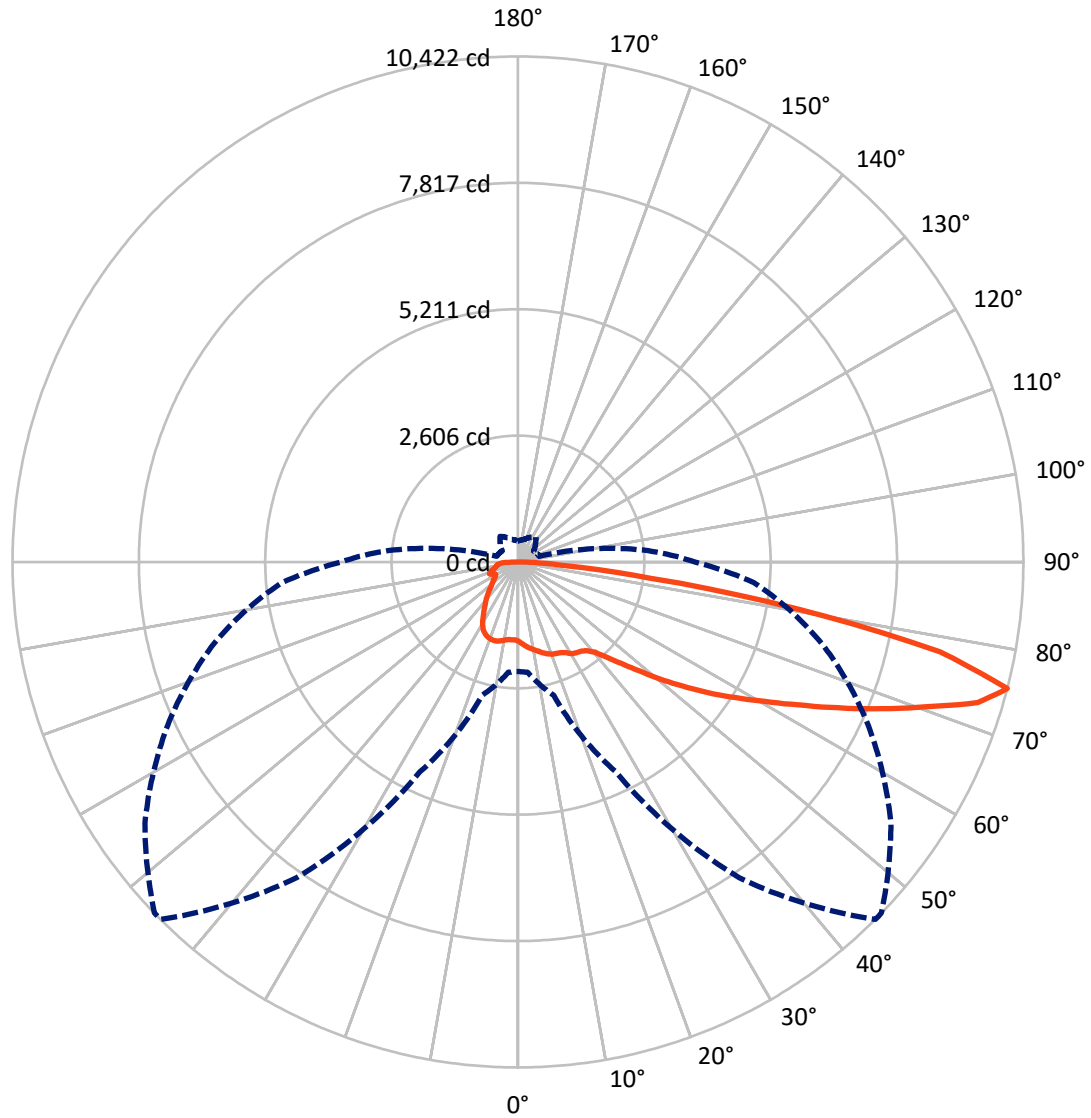
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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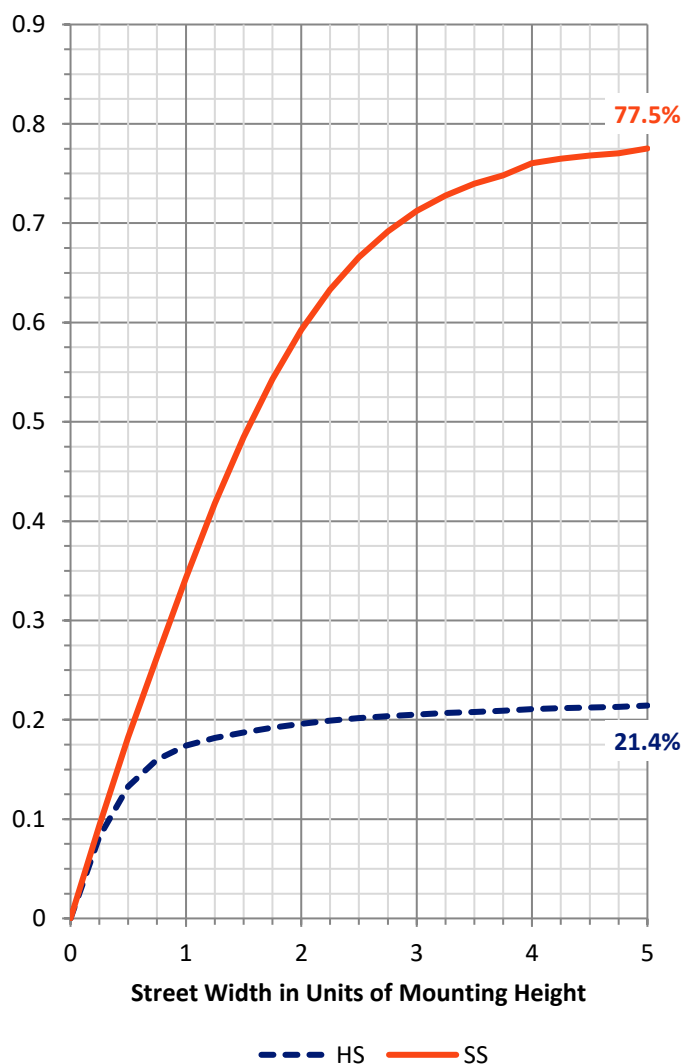
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3438.7 | 0.0 | 3438.7 |
| | % Fixture | 22.1 | 0.0 | 22.1 |
| Street Side | Lumens | 12121.3 | 0.0 | 12121.3 |
| | % Fixture | 77.9 | 0.0 | 77.9 |
| Total | Lumens | 15560.0 | 0.0 | 15560.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 161.7 | 1.0 |
| 10°-20° | 514.3 | 3.3 |
| 20°-30° | 876.8 | 5.6 |
| 30°-40° | 1228.5 | 7.9 |
| 40°-50° | 1804.9 | 11.6 |
| 50°-60° | 2872.5 | 18.5 |
| 60°-70° | 4086.2 | 26.3 |
| 70°-80° | 3421.3 | 22.0 |
| 80°-90° | 593.8 | 3.8 |
| 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° | 15560.0 | 100.0 |
| 0°-180° | 15560.0 | 100.0 |

Coefficient of Utilization



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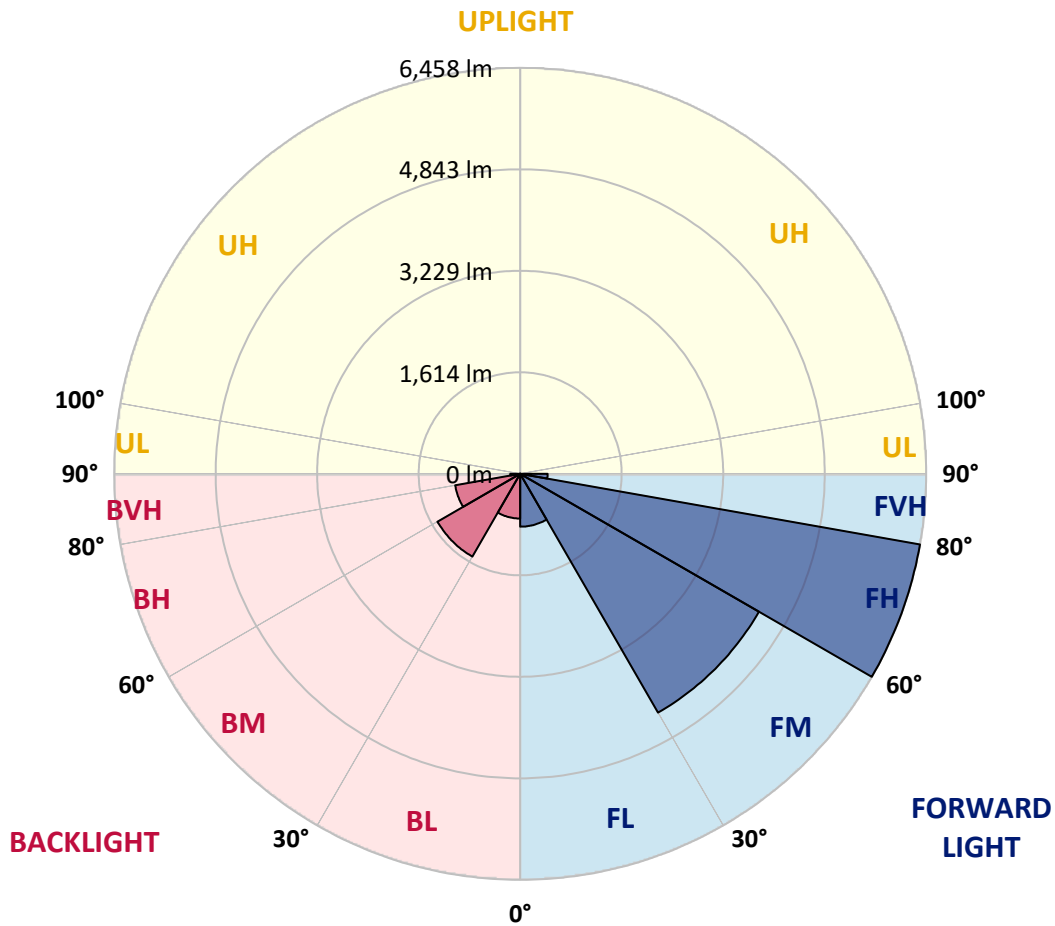
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 841.1 | 5.4 | | | |
| FM (30°-60°) | 4385.9 | 28.2 | | | |
| FH (60°-80°) | 6457.8 | 41.5 | | | G3/7500 |
| FVH (80°-90°) | 436.5 | 2.8 | | | G3/500 |
| BL (0°-30°) | 711.7 | 4.6 | B2/1000 | | |
| BM (30°-60°) | 1520.1 | 9.8 | B2/2500 | | |
| BH (60°-80°) | 1049.7 | 6.7 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 157.2 | 1.0 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 0° | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 |
| 2.5° | 1727.7 | 1719.4 | 1715.2 | 1715.2 | 1698.6 | 1688.2 | 1686.1 | 1671.6 | 1659.1 | 1646.6 | 1636.2 |
| 5° | 1827.5 | 1821.3 | 1808.8 | 1798.4 | 1775.5 | 1746.4 | 1742.3 | 1711.1 | 1679.9 | 1650.8 | 1625.8 |
| 7.5° | 1919.0 | 1906.5 | 1891.9 | 1871.2 | 1833.7 | 1794.2 | 1788.0 | 1744.3 | 1700.7 | 1657.0 | 1623.7 |
| 10° | 1995.9 | 1983.4 | 1962.6 | 1933.5 | 1885.7 | 1837.9 | 1831.7 | 1785.9 | 1740.2 | 1688.2 | 1640.4 |
| 12.5° | 2068.7 | 2058.3 | 2027.1 | 1987.6 | 1931.4 | 1887.8 | 1881.5 | 1842.0 | 1794.2 | 1736.0 | 1673.6 |
| 15° | 2131.0 | 2120.6 | 2087.4 | 2041.6 | 1977.2 | 1943.9 | 1935.6 | 1898.2 | 1850.4 | 1788.0 | 1723.5 |
| 17.5° | 2162.2 | 2162.2 | 2126.9 | 2077.0 | 2016.7 | 1991.7 | 1985.5 | 1939.8 | 1896.1 | 1835.8 | 1771.4 |
| 20° | 2172.6 | 2176.8 | 2151.8 | 2091.5 | 2039.6 | 2029.2 | 2022.9 | 1985.5 | 1935.6 | 1877.4 | 1817.1 |
| 22.5° | 2178.9 | 2187.2 | 2166.4 | 2097.8 | 2054.1 | 2047.9 | 2043.7 | 2018.8 | 1979.3 | 1923.1 | 1862.8 |
| 25° | 2199.6 | 2199.6 | 2185.1 | 2108.2 | 2072.8 | 2070.7 | 2070.7 | 2056.2 | 2029.2 | 1981.3 | 1921.1 |
| 27.5° | 2230.8 | 2228.8 | 2210.0 | 2131.0 | 2114.4 | 2120.6 | 2118.6 | 2116.5 | 2097.8 | 2050.0 | 1985.5 |
| 30° | 2282.8 | 2282.8 | 2262.0 | 2176.8 | 2166.4 | 2193.4 | 2195.5 | 2199.6 | 2170.5 | 2095.7 | 2043.7 |
| 32.5° | 2361.8 | 2353.5 | 2332.7 | 2222.5 | 2205.9 | 2230.8 | 2235.0 | 2232.9 | 2208.0 | 2137.3 | 2112.3 |
| 35° | 2605.1 | 2586.3 | 2511.5 | 2324.4 | 2241.2 | 2255.8 | 2257.9 | 2268.3 | 2272.4 | 2216.3 | 2203.8 |
| 37.5° | 3031.3 | 3006.3 | 2892.0 | 2565.6 | 2353.5 | 2318.2 | 2316.1 | 2343.1 | 2366.0 | 2316.1 | 2316.1 |
| 40° | 3494.9 | 3474.1 | 3407.6 | 2981.4 | 2561.4 | 2445.0 | 2436.7 | 2461.6 | 2490.7 | 2455.4 | 2465.8 |
| 42.5° | 3894.1 | 3910.7 | 3916.9 | 3422.1 | 2873.3 | 2682.0 | 2659.1 | 2623.8 | 2669.5 | 2638.3 | 2679.9 |
| 45° | 4193.5 | 4185.1 | 4299.5 | 3873.3 | 3276.6 | 2979.3 | 2948.1 | 2852.5 | 2910.7 | 2908.6 | 3000.1 |
| 47.5° | 4511.6 | 4497.0 | 4544.8 | 4297.4 | 3736.1 | 3343.1 | 3295.3 | 3153.9 | 3241.3 | 3301.5 | 3453.3 |
| 50° | 4813.0 | 4817.2 | 4833.8 | 4632.1 | 4235.0 | 3786.0 | 3725.7 | 3536.5 | 3661.2 | 3788.0 | 4002.2 |
| 52.5° | 5206.0 | 5176.9 | 5156.1 | 5023.0 | 4794.3 | 4247.5 | 4208.0 | 3991.8 | 4166.4 | 4316.1 | 4601.0 |
| 55° | 5549.0 | 5530.3 | 5517.8 | 5511.6 | 5262.1 | 4756.9 | 4715.3 | 4490.8 | 4742.3 | 4848.4 | 5268.3 |
| 57.5° | 5914.9 | 5904.5 | 5971.1 | 6077.1 | 5977.3 | 5274.6 | 5230.9 | 5014.7 | 5295.4 | 5370.2 | 5991.8 |
| 60° | 6183.1 | 6189.4 | 6372.3 | 6642.6 | 6574.0 | 5835.9 | 5783.9 | 5592.7 | 5833.8 | 5900.4 | 6715.4 |
| 62.5° | 6185.2 | 6247.6 | 6671.7 | 7156.1 | 7235.1 | 6482.5 | 6422.2 | 6214.3 | 6386.9 | 6386.9 | 7364.0 |
| 65° | 5594.7 | 5665.4 | 6617.6 | 7282.9 | 7904.6 | 7251.8 | 7193.5 | 6867.1 | 6931.6 | 6844.3 | 7973.2 |
| 67.5° | 5006.4 | 5089.5 | 5985.6 | 7293.3 | 8374.5 | 8075.1 | 8006.5 | 7520.0 | 7409.8 | 7189.4 | 8399.4 |
| 70° | 4615.5 | 4673.7 | 5422.2 | 7158.2 | 8657.2 | 8935.8 | 8883.8 | 8139.5 | 7786.1 | 7478.4 | 8310.0 |
| 72.5° | 3885.8 | 3865.0 | 4580.2 | 6515.8 | 8815.2 | 9913.0 | 9869.3 | 8813.1 | 8112.5 | 7341.2 | 7087.5 |
| 75° | 2255.8 | 2280.7 | 2842.1 | 4773.5 | 7946.2 | 10422.3 | 10418.2 | 9389.0 | 7969.0 | 6484.6 | 4883.7 |
| 77.5° | 650.7 | 669.5 | 933.5 | 2097.8 | 5025.1 | 8890.1 | 9174.9 | 8586.5 | 6736.2 | 4621.7 | 2532.3 |
| 80° | 284.8 | 299.4 | 405.4 | 698.6 | 2164.3 | 5806.8 | 6056.3 | 5806.8 | 4062.5 | 2120.6 | 993.8 |
| 82.5° | 168.4 | 178.8 | 264.0 | 432.4 | 1037.5 | 2763.1 | 3099.9 | 2706.9 | 1752.6 | 900.2 | 411.7 |
| 85° | 95.6 | 99.8 | 151.8 | 274.4 | 652.8 | 966.8 | 1085.3 | 1016.7 | 854.5 | 511.4 | 216.2 |
| 87.5° | 43.7 | 45.7 | 74.8 | 128.9 | 365.9 | 326.4 | 338.9 | 449.1 | 494.8 | 311.9 | 108.1 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 | 1634.1 |
| 2.5° | 1632.1 | 1625.8 | 1613.3 | 1609.2 | 1603.0 | 1605.0 | 1607.1 | 1607.1 | 1609.2 | 1603.0 | 1603.0 |
| 5° | 1615.4 | 1605.0 | 1592.6 | 1592.6 | 1592.6 | 1609.2 | 1623.7 | 1632.1 | 1636.2 | 1636.2 | 1632.1 |
| 7.5° | 1609.2 | 1596.7 | 1582.2 | 1586.3 | 1590.5 | 1611.3 | 1638.3 | 1665.3 | 1673.6 | 1673.6 | 1669.5 |
| 10° | 1621.7 | 1609.2 | 1598.8 | 1605.0 | 1615.4 | 1632.1 | 1652.9 | 1677.8 | 1698.6 | 1700.7 | 1698.6 |
| 12.5° | 1650.8 | 1636.2 | 1625.8 | 1638.3 | 1650.8 | 1661.2 | 1671.6 | 1682.0 | 1709.0 | 1713.1 | 1713.1 |
| 15° | 1698.6 | 1684.0 | 1671.6 | 1682.0 | 1686.1 | 1686.1 | 1686.1 | 1686.1 | 1713.1 | 1717.3 | 1717.3 |
| 17.5° | 1746.4 | 1733.9 | 1721.5 | 1723.5 | 1711.1 | 1694.4 | 1688.2 | 1686.1 | 1700.7 | 1713.1 | 1715.2 |
| 20° | 1792.1 | 1781.8 | 1769.3 | 1748.5 | 1717.3 | 1686.1 | 1675.7 | 1675.7 | 1684.0 | 1702.7 | 1702.7 |
| 22.5° | 1842.0 | 1829.6 | 1808.8 | 1761.0 | 1709.0 | 1665.3 | 1654.9 | 1661.2 | 1671.6 | 1696.5 | 1694.4 |
| 25° | 1898.2 | 1881.5 | 1846.2 | 1756.8 | 1682.0 | 1630.0 | 1632.1 | 1650.8 | 1669.5 | 1696.5 | 1696.5 |
| 27.5° | 1960.6 | 1937.7 | 1867.0 | 1723.5 | 1621.7 | 1571.8 | 1590.5 | 1634.1 | 1661.2 | 1690.3 | 1694.4 |
| 30° | 2029.2 | 2008.4 | 1883.6 | 1665.3 | 1524.0 | 1478.2 | 1524.0 | 1594.6 | 1636.2 | 1663.2 | 1669.5 |
| 32.5° | 2112.3 | 2095.7 | 1898.2 | 1590.5 | 1397.1 | 1357.6 | 1424.2 | 1511.5 | 1578.0 | 1609.2 | 1615.4 |
| 35° | 2216.3 | 2199.6 | 1916.9 | 1505.2 | 1278.6 | 1237.0 | 1297.3 | 1386.7 | 1474.1 | 1513.6 | 1526.0 |
| 37.5° | 2351.4 | 2326.5 | 1933.5 | 1413.8 | 1178.8 | 1131.0 | 1160.1 | 1241.2 | 1320.2 | 1374.3 | 1388.8 |
| 40° | 2524.0 | 2484.5 | 1948.1 | 1309.8 | 1091.5 | 1037.5 | 1047.8 | 1087.3 | 1133.1 | 1180.9 | 1199.6 |
| 42.5° | 2767.2 | 2688.2 | 1950.2 | 1199.6 | 1002.1 | 952.2 | 948.1 | 960.5 | 960.5 | 960.5 | 966.8 |
| 45° | 3106.1 | 2956.4 | 1954.3 | 1095.7 | 910.6 | 858.7 | 846.2 | 842.0 | 810.8 | 750.5 | 746.4 |
| 47.5° | 3534.4 | 3307.8 | 1973.0 | 1008.3 | 815.0 | 769.3 | 752.6 | 736.0 | 677.8 | 615.4 | 602.9 |
| 50° | 4083.3 | 3715.3 | 2010.5 | 925.2 | 733.9 | 702.7 | 681.9 | 642.4 | 578.0 | 530.2 | 517.7 |
| 52.5° | 4715.3 | 4199.7 | 2045.8 | 837.9 | 673.6 | 652.8 | 627.9 | 580.1 | 511.4 | 482.3 | 478.2 |
| 55° | 5440.9 | 4740.3 | 2116.5 | 760.9 | 621.6 | 607.1 | 584.2 | 538.5 | 486.5 | 465.7 | 463.6 |
| 57.5° | 6183.1 | 5345.3 | 2216.3 | 692.3 | 571.7 | 563.4 | 563.4 | 523.9 | 490.7 | 482.3 | 482.3 |
| 60° | 6898.3 | 5865.0 | 2139.4 | 627.9 | 526.0 | 530.2 | 569.7 | 559.3 | 534.3 | 544.7 | 551.0 |
| 62.5° | 7453.4 | 6170.6 | 1736.0 | 575.9 | 492.7 | 530.2 | 632.0 | 632.0 | 602.9 | 598.8 | 598.8 |
| 65° | 7690.4 | 6166.5 | 1220.4 | 536.4 | 480.3 | 582.1 | 704.8 | 671.5 | 594.6 | 565.5 | 559.3 |
| 67.5° | 7630.1 | 5896.2 | 842.0 | 509.4 | 476.1 | 636.2 | 738.1 | 644.5 | 557.2 | 532.2 | 513.5 |
| 70° | 7100.0 | 5324.5 | 648.7 | 484.4 | 469.9 | 613.3 | 727.7 | 613.3 | 528.1 | 505.2 | 488.6 |
| 72.5° | 5727.8 | 4270.4 | 538.5 | 459.5 | 444.9 | 567.6 | 692.3 | 584.2 | 505.2 | 480.3 | 463.6 |
| 75° | 3652.9 | 2686.1 | 455.3 | 426.2 | 397.1 | 509.4 | 644.5 | 555.1 | 480.3 | 447.0 | 434.5 |
| 77.5° | 1756.8 | 1158.0 | 397.1 | 386.7 | 357.6 | 471.9 | 596.7 | 517.7 | 447.0 | 420.0 | 411.7 |
| 80° | 711.0 | 530.2 | 345.1 | 347.2 | 328.5 | 449.1 | 563.4 | 482.3 | 413.7 | 384.6 | 370.1 |
| 82.5° | 370.1 | 307.7 | 291.1 | 299.4 | 299.4 | 428.3 | 538.5 | 453.2 | 384.6 | 372.2 | 324.3 |
| 85° | 199.6 | 191.3 | 224.5 | 241.2 | 259.9 | 386.7 | 501.1 | 422.0 | 351.4 | 301.5 | 291.1 |
| 87.5° | 97.7 | 124.7 | 126.8 | 145.5 | 180.9 | 309.8 | 422.0 | 353.4 | 293.1 | 243.2 | 239.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)