

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: STREETWORKS

Report Number: P299170

Luminaire Tested: **GAA-AF-03-LED-U-T3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299170
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-03-LED-U-T3-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14633.5 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

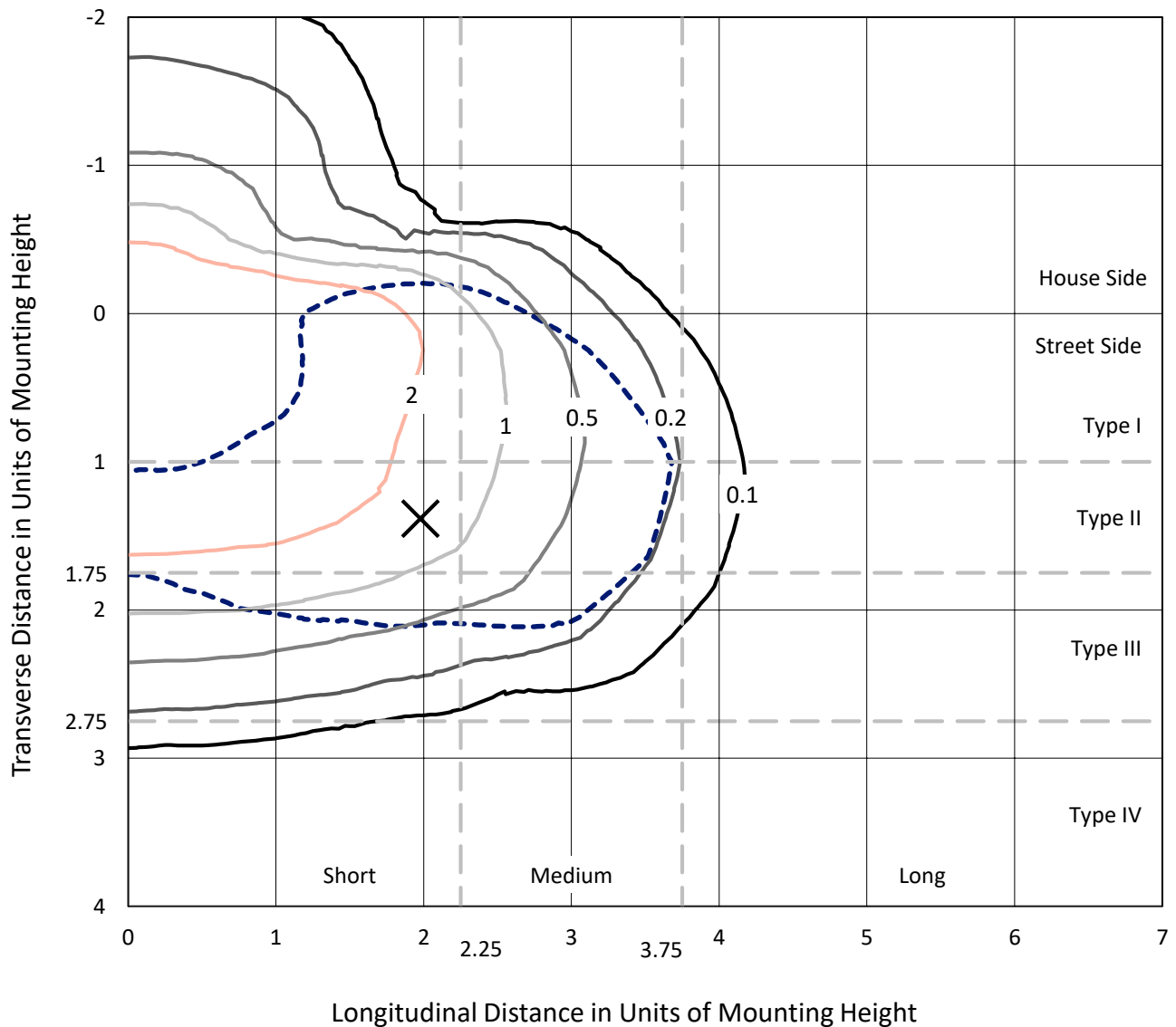
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

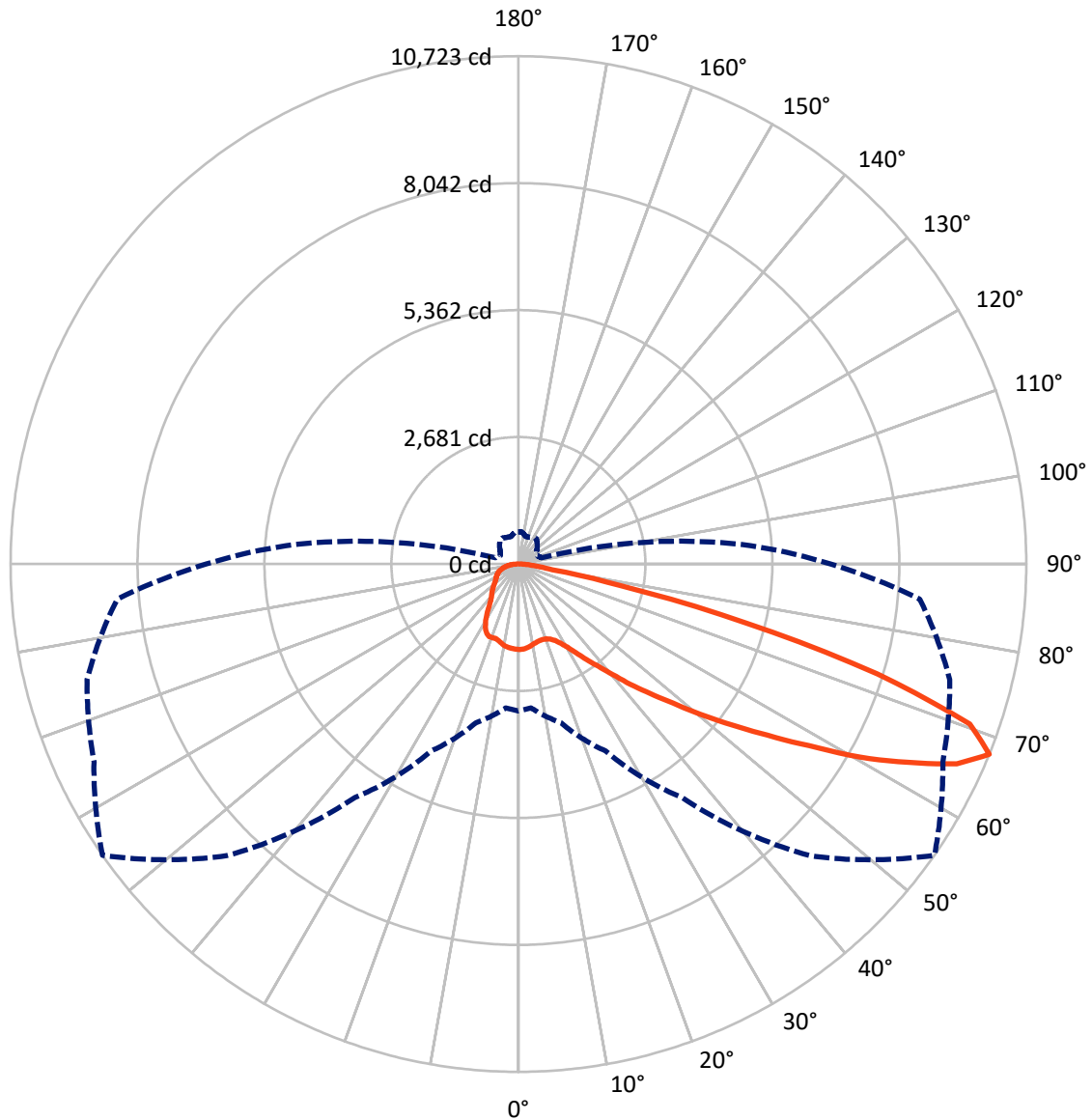
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3161.2 | 0.0 | 3161.2 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 11472.4 | 0.0 | 11472.4 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 14633.5 | 0.0 | 14633.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 168.4 | 1.2 |
| 10°-20° | 477.0 | 3.3 |
| 20°-30° | 799.1 | 5.5 |
| 30°-40° | 1314.0 | 9.0 |
| 40°-50° | 2211.9 | 15.1 |
| 50°-60° | 3481.3 | 23.8 |
| 60°-70° | 4154.6 | 28.4 |
| 70°-80° | 1784.1 | 12.2 |
| 80°-90° | 243.2 | 1.7 |
| 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° | 14633.5 | 100.0 |
| 0°-180° | 14633.5 | 100.0 |



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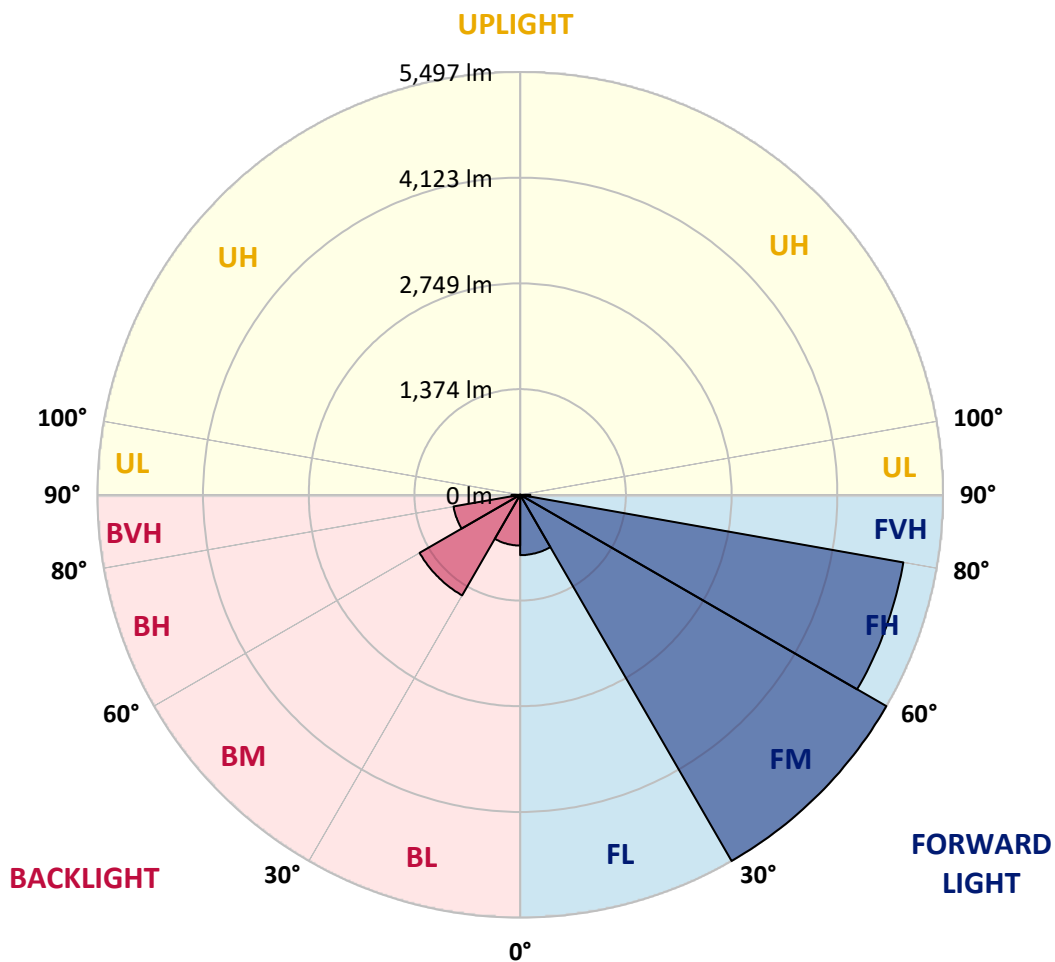
CATALOG NUMBER: GAA-AF-03-LED-U-T3-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 784.4 | 5.4 | | | |
| FM (30°-60°) | 5497.4 | 37.6 | | | |
| FH (60°-80°) | 5058.9 | 34.6 | | | G3/7500 |
| FVH (80°-90°) | 131.7 | 0.9 | | | G2/225 |
| BL (0°-30°) | 660.1 | 4.5 | B2/1000 | | |
| BM (30°-60°) | 1509.7 | 10.3 | B2/2500 | | |
| BH (60°-80°) | 879.7 | 6.0 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 111.6 | 0.8 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|
| 0° | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 |
| 2.5° | 1788.9 | 1789.6 | 1791.0 | 1796.7 | 1801.6 | 1800.2 | 1800.9 | 1798.1 | 1797.4 | 1793.2 | 1797.4 |
| 5° | 1766.3 | 1768.4 | 1769.1 | 1778.3 | 1784.0 | 1785.4 | 1783.3 | 1779.7 | 1775.5 | 1771.3 | 1773.4 |
| 7.5° | 1714.7 | 1720.4 | 1721.1 | 1733.8 | 1743.0 | 1755.0 | 1755.7 | 1756.4 | 1754.3 | 1751.5 | 1755.7 |
| 10° | 1682.2 | 1683.6 | 1682.9 | 1692.1 | 1699.2 | 1712.6 | 1720.4 | 1733.8 | 1739.5 | 1740.9 | 1743.7 |
| 12.5° | 1680.1 | 1678.7 | 1676.5 | 1676.5 | 1674.4 | 1680.1 | 1694.2 | 1713.3 | 1726.7 | 1731.0 | 1734.5 |
| 15° | 1702.7 | 1702.0 | 1694.9 | 1684.3 | 1670.9 | 1666.6 | 1678.7 | 1699.9 | 1717.5 | 1726.7 | 1730.3 |
| 17.5° | 1753.6 | 1749.3 | 1738.0 | 1714.0 | 1685.0 | 1673.7 | 1675.1 | 1692.8 | 1713.3 | 1725.3 | 1728.8 |
| 20° | 1846.9 | 1846.9 | 1822.9 | 1777.6 | 1726.0 | 1699.2 | 1686.4 | 1697.0 | 1716.8 | 1733.1 | 1738.0 |
| 22.5° | 2008.0 | 2009.5 | 1969.2 | 1894.9 | 1808.0 | 1750.8 | 1719.0 | 1716.8 | 1740.2 | 1758.5 | 1764.2 |
| 25° | 2236.3 | 2230.7 | 2174.1 | 2068.1 | 1935.9 | 1841.2 | 1786.1 | 1773.4 | 1793.2 | 1813.7 | 1820.7 |
| 27.5° | 2502.1 | 2481.6 | 2414.5 | 2286.5 | 2115.5 | 1976.9 | 1892.1 | 1871.6 | 1890.7 | 1914.0 | 1921.1 |
| 30° | 2765.0 | 2743.8 | 2664.0 | 2524.0 | 2333.9 | 2158.6 | 2037.0 | 2003.8 | 2030.7 | 2063.9 | 2068.1 |
| 32.5° | 3028.0 | 3028.0 | 2938.9 | 2775.6 | 2568.5 | 2375.6 | 2230.0 | 2190.4 | 2234.9 | 2275.2 | 2284.4 |
| 35° | 3342.5 | 3343.9 | 3257.7 | 3061.2 | 2838.5 | 2634.3 | 2473.8 | 2444.8 | 2512.0 | 2540.3 | 2562.2 |
| 37.5° | 3729.1 | 3736.9 | 3625.9 | 3388.4 | 3144.6 | 2929.7 | 2738.9 | 2699.3 | 2766.4 | 2843.5 | 2914.2 |
| 40° | 4146.8 | 4156.7 | 4034.5 | 3741.8 | 3498.0 | 3273.2 | 3066.8 | 2995.4 | 3107.1 | 3254.1 | 3345.3 |
| 42.5° | 4545.5 | 4596.4 | 4478.3 | 4177.2 | 3915.0 | 3682.5 | 3473.2 | 3369.3 | 3509.3 | 3731.2 | 3810.4 |
| 45° | 5121.5 | 5158.3 | 4952.6 | 4679.8 | 4433.1 | 4173.0 | 3895.9 | 3786.4 | 3982.1 | 4262.0 | 4278.3 |
| 47.5° | 5505.3 | 5477.8 | 5373.1 | 5203.5 | 5047.3 | 4804.2 | 4387.1 | 4267.0 | 4527.1 | 4856.5 | 4765.3 |
| 50° | 5709.6 | 5718.1 | 5703.9 | 5713.8 | 5719.5 | 5566.8 | 4989.3 | 4824.7 | 5134.9 | 5532.9 | 5323.0 |
| 52.5° | 5900.4 | 5843.9 | 5890.5 | 6122.4 | 6402.3 | 6345.7 | 5644.6 | 5472.8 | 5786.6 | 6283.5 | 5912.4 |
| 55° | 5896.2 | 5809.9 | 5961.9 | 6371.2 | 6978.3 | 7043.3 | 6380.3 | 6182.4 | 6475.8 | 7088.6 | 6537.3 |
| 57.5° | 5687.7 | 5691.9 | 5925.9 | 6461.6 | 7379.8 | 7699.2 | 7234.2 | 6937.3 | 7206.6 | 7904.2 | 7107.6 |
| 60° | 5400.7 | 5439.6 | 5776.7 | 6446.8 | 7701.4 | 8237.1 | 8281.7 | 7750.8 | 7922.6 | 8645.7 | 7579.8 |
| 62.5° | 4937.8 | 4978.7 | 5443.8 | 6292.7 | 7652.6 | 8755.2 | 9228.8 | 8673.9 | 8671.1 | 9095.2 | 7718.3 |
| 65° | 4207.6 | 4195.6 | 4684.0 | 5716.7 | 7243.4 | 9138.3 | 10169.5 | 9471.9 | 9235.1 | 9102.3 | 7439.8 |
| 67.5° | 3102.9 | 3049.2 | 3468.3 | 4353.9 | 6020.6 | 8709.3 | 10723.0 | 9887.5 | 9427.4 | 8503.6 | 6588.9 |
| 70° | 1610.1 | 1556.4 | 1895.7 | 2542.4 | 3959.5 | 6797.4 | 10110.2 | 9672.6 | 9002.6 | 7128.1 | 5161.8 |
| 72.5° | 688.4 | 679.2 | 817.1 | 1115.3 | 1915.4 | 3920.7 | 7927.5 | 8372.1 | 7724.7 | 5310.9 | 3548.9 |
| 75° | 463.0 | 460.1 | 511.7 | 607.9 | 861.6 | 1591.0 | 4961.1 | 5942.8 | 5651.6 | 3293.0 | 1996.0 |
| 77.5° | 363.3 | 359.8 | 390.2 | 436.8 | 558.4 | 627.6 | 2201.7 | 3190.5 | 2953.0 | 1433.4 | 873.6 |
| 80° | 284.1 | 281.3 | 300.4 | 325.8 | 401.5 | 395.8 | 724.5 | 1269.4 | 982.5 | 549.2 | 424.8 |
| 82.5° | 224.1 | 224.1 | 239.6 | 240.3 | 284.8 | 270.0 | 378.1 | 559.1 | 490.5 | 320.2 | 260.1 |
| 85° | 205.0 | 205.0 | 221.2 | 179.5 | 185.9 | 170.3 | 234.7 | 331.5 | 311.0 | 131.5 | 113.1 |
| 87.5° | 103.2 | 100.4 | 185.9 | 159.0 | 101.1 | 90.5 | 114.5 | 160.4 | 172.5 | 72.8 | 56.5 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 | 1804.5 |
| 2.5° | 1796.0 | 1795.3 | 1796.7 | 1797.4 | 1803.1 | 1810.8 | 1814.4 | 1819.3 | 1822.1 | 1820.7 |
| 5° | 1774.8 | 1776.2 | 1781.9 | 1786.1 | 1796.0 | 1808.7 | 1815.8 | 1821.4 | 1826.4 | 1824.3 |
| 7.5° | 1757.1 | 1760.7 | 1769.1 | 1772.7 | 1778.3 | 1781.9 | 1781.2 | 1783.3 | 1787.5 | 1782.6 |
| 10° | 1747.2 | 1751.5 | 1757.8 | 1752.9 | 1739.5 | 1720.4 | 1702.7 | 1693.5 | 1696.3 | 1692.8 |
| 12.5° | 1737.3 | 1743.0 | 1738.0 | 1714.7 | 1677.3 | 1652.5 | 1639.1 | 1640.5 | 1646.9 | 1648.3 |
| 15° | 1731.7 | 1733.8 | 1712.6 | 1668.8 | 1630.6 | 1627.1 | 1634.1 | 1632.7 | 1633.4 | 1633.4 |
| 17.5° | 1731.7 | 1726.0 | 1686.4 | 1642.6 | 1626.4 | 1620.0 | 1598.1 | 1570.5 | 1558.5 | 1554.3 |
| 20° | 1740.9 | 1726.0 | 1678.0 | 1649.0 | 1613.6 | 1559.2 | 1501.3 | 1450.4 | 1427.7 | 1421.4 |
| 22.5° | 1768.4 | 1743.0 | 1702.0 | 1651.8 | 1551.4 | 1460.3 | 1368.4 | 1307.6 | 1266.6 | 1259.5 |
| 25° | 1824.3 | 1796.0 | 1749.3 | 1614.3 | 1452.5 | 1322.4 | 1217.8 | 1150.0 | 1109.0 | 1103.3 |
| 27.5° | 1921.8 | 1903.4 | 1774.8 | 1531.6 | 1321.0 | 1181.8 | 1084.9 | 1032.6 | 1002.3 | 1000.1 |
| 30° | 2068.8 | 2059.6 | 1762.1 | 1409.4 | 1159.2 | 1045.4 | 998.7 | 968.3 | 945.7 | 945.0 |
| 32.5° | 2303.5 | 2229.3 | 1720.4 | 1260.2 | 1011.4 | 948.5 | 929.5 | 911.1 | 893.4 | 893.4 |
| 35° | 2605.3 | 2366.4 | 1641.2 | 1100.5 | 921.7 | 894.8 | 870.8 | 841.8 | 818.5 | 817.1 |
| 37.5° | 2960.1 | 2451.2 | 1499.1 | 971.9 | 879.3 | 858.8 | 823.4 | 780.3 | 739.3 | 732.3 |
| 40° | 3318.5 | 2476.7 | 1299.1 | 892.7 | 852.4 | 822.7 | 779.6 | 728.7 | 689.1 | 687.0 |
| 42.5° | 3647.1 | 2427.9 | 1087.1 | 838.3 | 825.6 | 786.0 | 740.7 | 695.5 | 664.4 | 663.7 |
| 45° | 3922.8 | 2301.4 | 909.0 | 786.7 | 797.3 | 752.7 | 712.5 | 675.7 | 651.7 | 646.7 |
| 47.5° | 4182.2 | 2122.5 | 783.8 | 732.3 | 769.0 | 734.4 | 700.4 | 665.8 | 642.5 | 639.0 |
| 50° | 4483.3 | 1929.6 | 696.2 | 679.2 | 744.3 | 728.0 | 710.3 | 674.3 | 635.4 | 631.2 |
| 52.5° | 4848.0 | 1762.8 | 627.6 | 632.6 | 725.2 | 736.5 | 735.8 | 698.3 | 630.5 | 624.8 |
| 55° | 5255.1 | 1577.6 | 576.0 | 594.4 | 717.4 | 752.0 | 742.1 | 720.9 | 634.7 | 626.2 |
| 57.5° | 5655.9 | 1361.3 | 540.0 | 565.4 | 706.1 | 750.6 | 711.8 | 681.4 | 644.6 | 632.6 |
| 60° | 5956.3 | 1070.8 | 512.4 | 540.0 | 681.4 | 727.3 | 678.5 | 638.2 | 642.5 | 633.3 |
| 62.5° | 5976.0 | 827.7 | 479.2 | 518.1 | 643.9 | 704.0 | 656.6 | 619.2 | 651.7 | 643.2 |
| 65° | 5624.8 | 625.5 | 447.4 | 491.9 | 603.6 | 689.1 | 635.4 | 608.6 | 670.8 | 661.6 |
| 67.5° | 4735.6 | 503.2 | 420.5 | 465.1 | 563.3 | 658.0 | 616.3 | 598.7 | 687.7 | 671.5 |
| 70° | 3418.8 | 429.0 | 394.4 | 432.6 | 527.3 | 622.7 | 599.4 | 581.0 | 641.8 | 616.3 |
| 72.5° | 2104.9 | 371.8 | 364.7 | 389.5 | 499.7 | 585.9 | 573.9 | 547.8 | 578.2 | 557.7 |
| 75° | 1051.0 | 322.3 | 331.5 | 347.0 | 460.8 | 544.2 | 531.5 | 505.4 | 509.6 | 505.4 |
| 77.5° | 503.2 | 275.7 | 292.6 | 304.6 | 410.7 | 496.9 | 483.5 | 456.6 | 451.6 | 452.4 |
| 80° | 318.8 | 230.4 | 246.7 | 255.2 | 366.8 | 441.8 | 428.3 | 401.5 | 458.0 | 424.8 |
| 82.5° | 199.3 | 187.3 | 191.5 | 207.1 | 319.5 | 384.5 | 366.8 | 342.8 | 412.8 | 326.5 |
| 85° | 110.3 | 130.8 | 136.4 | 149.8 | 246.0 | 321.6 | 303.9 | 273.5 | 245.3 | 241.0 |
| 87.5° | 65.7 | 77.7 | 79.9 | 89.8 | 165.4 | 232.5 | 205.7 | 195.1 | 161.9 | 161.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)