

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: P195485

Luminaire Tested: **NVN-AF-05-LED-U-5WQ-7050-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195485  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-AF-05-LED-U-5WQ-7050-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20612 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G3

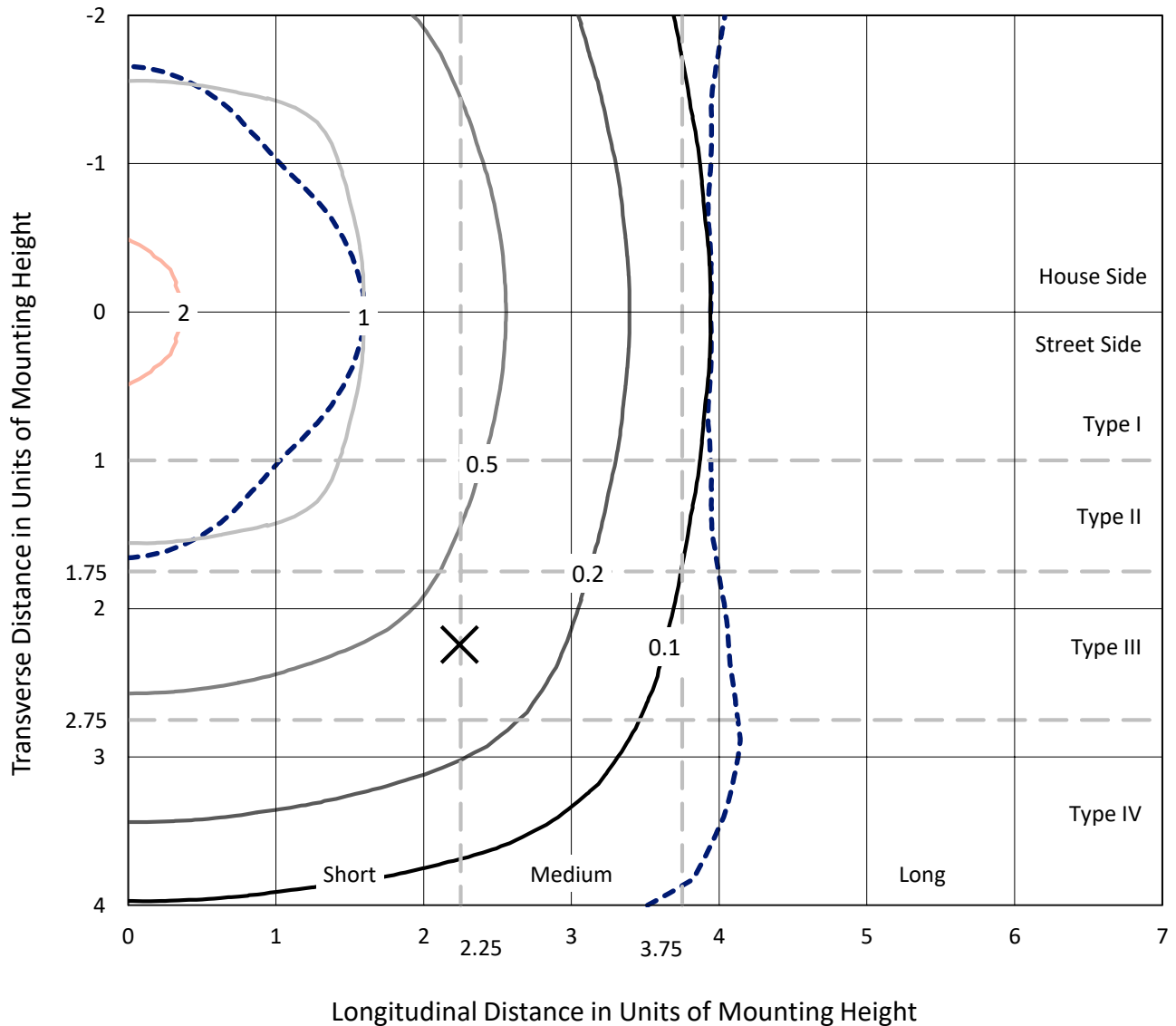
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

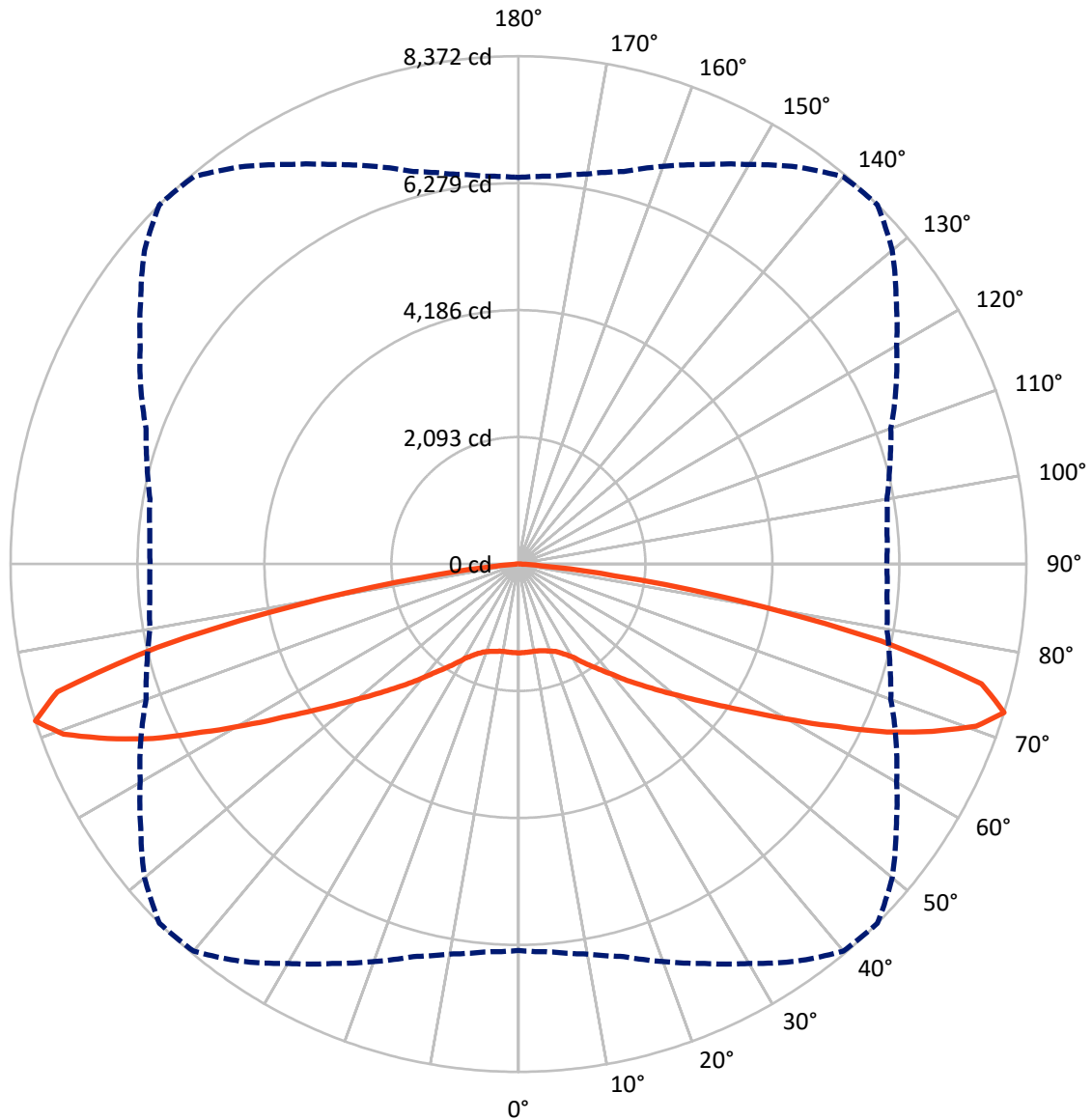
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10306.0  | 0.0    | 10306.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 10306.0  | 0.0    | 10306.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 20612.0  | 0.0    | 20612.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 139.9   | 0.7       |
| 10°-20°   | 423.3   | 2.1       |
| 20°-30°   | 764.2   | 3.7       |
| 30°-40°   | 1303.5  | 6.3       |
| 40°-50°   | 2219.2  | 10.8      |
| 50°-60°   | 3571.4  | 17.3      |
| 60°-70°   | 5939.3  | 28.8      |
| 70°-80°   | 5745.6  | 27.9      |
| 80°-90°   | 505.7   | 2.5       |
| 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°    | 20612.0 | 100.0     |
| 0°-180°   | 20612.0 | 100.0     |



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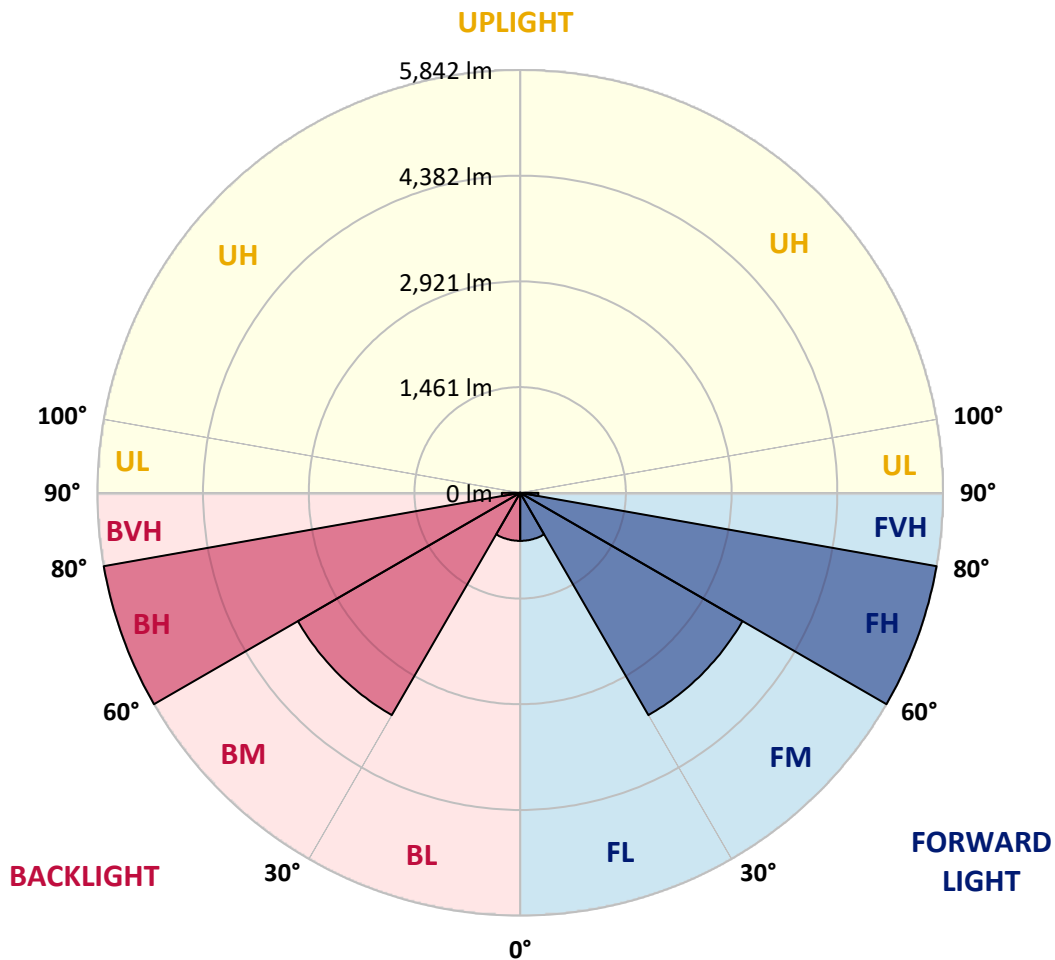
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 663.7  | 3.2       |                         |      |         |
| FM (30°-60°)   | 3547.0 | 17.2      |                         |      |         |
| FH (60°-80°)   | 5842.5 | 28.3      |                         |      | G3/7500 |
| FVH (80°-90°)  | 252.8  | 1.2       |                         |      | G3/500  |
| BL (0°-30°)    | 663.7  | 3.2       | B2/1000                 |      |         |
| BM (30°-60°)   | 3547.0 | 17.2      | B3/5000                 |      |         |
| BH (60°-80°)   | 5842.5 | 28.3      | B5                      |      | G3/7500 |
| BVH (80°-90°)  | 252.8  | 1.2       |                         |      | G3/500  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 |
| 2.5°  | 1476.8 | 1476.8 | 1478.0 | 1476.8 | 1474.2 | 1473.0 | 1469.2 | 1466.6 | 1464.1 | 1462.8 | 1460.3 |
| 5°    | 1478.0 | 1478.0 | 1479.3 | 1478.0 | 1475.5 | 1473.0 | 1470.4 | 1466.6 | 1464.1 | 1461.6 | 1460.3 |
| 7.5°  | 1483.1 | 1484.4 | 1485.7 | 1484.4 | 1479.3 | 1476.8 | 1473.0 | 1469.2 | 1464.1 | 1461.6 | 1459.0 |
| 10°   | 1493.3 | 1493.3 | 1493.3 | 1492.0 | 1488.2 | 1483.1 | 1478.0 | 1474.2 | 1467.9 | 1461.6 | 1457.7 |
| 12.5° | 1500.9 | 1502.2 | 1502.2 | 1499.6 | 1494.5 | 1488.2 | 1483.1 | 1479.3 | 1474.2 | 1469.2 | 1465.4 |
| 15°   | 1512.3 | 1512.3 | 1511.0 | 1506.0 | 1498.3 | 1493.3 | 1490.7 | 1489.5 | 1488.2 | 1485.7 | 1481.9 |
| 17.5° | 1535.1 | 1533.9 | 1530.1 | 1522.5 | 1513.6 | 1509.8 | 1507.2 | 1507.2 | 1507.2 | 1506.0 | 1503.4 |
| 20°   | 1568.1 | 1568.1 | 1563.0 | 1550.4 | 1542.7 | 1538.9 | 1535.1 | 1535.1 | 1535.1 | 1531.3 | 1527.5 |
| 22.5° | 1621.4 | 1622.7 | 1615.1 | 1599.8 | 1589.7 | 1582.1 | 1577.0 | 1573.2 | 1569.4 | 1566.9 | 1560.5 |
| 25°   | 1693.7 | 1692.5 | 1683.6 | 1664.5 | 1656.9 | 1649.3 | 1639.2 | 1632.8 | 1627.8 | 1623.9 | 1616.3 |
| 27.5° | 1769.8 | 1768.6 | 1758.4 | 1741.9 | 1736.9 | 1725.4 | 1717.8 | 1709.0 | 1702.6 | 1696.3 | 1688.7 |
| 30°   | 1867.5 | 1861.2 | 1853.6 | 1840.9 | 1838.4 | 1829.5 | 1819.3 | 1806.6 | 1796.5 | 1786.3 | 1777.5 |
| 32.5° | 1955.1 | 1955.1 | 1943.7 | 1937.3 | 1942.4 | 1938.6 | 1939.9 | 1932.2 | 1925.9 | 1922.1 | 1913.2 |
| 35°   | 2076.9 | 2076.9 | 2071.8 | 2064.2 | 2065.5 | 2056.6 | 2055.3 | 2056.6 | 2061.7 | 2061.7 | 2051.5 |
| 37.5° | 2239.3 | 2241.8 | 2225.3 | 2222.8 | 2216.4 | 2203.7 | 2197.4 | 2199.9 | 2211.4 | 2217.7 | 2203.7 |
| 40°   | 2441.0 | 2446.1 | 2441.0 | 2424.5 | 2416.9 | 2395.3 | 2382.6 | 2382.6 | 2391.5 | 2397.9 | 2392.8 |
| 42.5° | 2640.2 | 2649.1 | 2640.2 | 2627.5 | 2621.2 | 2604.7 | 2598.3 | 2603.4 | 2614.8 | 2622.4 | 2614.8 |
| 45°   | 2862.2 | 2868.6 | 2857.1 | 2841.9 | 2834.3 | 2825.4 | 2821.6 | 2825.4 | 2838.1 | 2845.7 | 2843.2 |
| 47.5° | 3080.4 | 3089.3 | 3075.3 | 3069.0 | 3069.0 | 3060.1 | 3070.3 | 3080.4 | 3091.8 | 3109.6 | 3102.0 |
| 50°   | 3293.6 | 3305.0 | 3296.1 | 3297.4 | 3307.5 | 3324.0 | 3343.0 | 3363.3 | 3383.6 | 3402.7 | 3405.2 |
| 52.5° | 3483.9 | 3501.6 | 3502.9 | 3525.7 | 3557.5 | 3582.8 | 3636.1 | 3680.5 | 3728.7 | 3745.2 | 3737.6 |
| 55°   | 3684.3 | 3708.4 | 3740.2 | 3775.7 | 3826.4 | 3878.4 | 3968.5 | 4048.4 | 4111.9 | 4151.2 | 4144.9 |
| 57.5° | 3971.1 | 3995.2 | 4028.1 | 4086.5 | 4162.6 | 4233.7 | 4356.7 | 4481.1 | 4577.5 | 4637.1 | 4607.9 |
| 60°   | 4342.8 | 4368.2 | 4411.3 | 4473.5 | 4572.4 | 4668.8 | 4837.6 | 5016.5 | 5166.2 | 5234.7 | 5181.4 |
| 62.5° | 4835.0 | 4859.2 | 4887.1 | 4969.5 | 5079.9 | 5204.2 | 5416.1 | 5645.8 | 5836.1 | 5902.0 | 5827.2 |
| 65°   | 5536.6 | 5565.8 | 5574.7 | 5641.9 | 5749.8 | 5865.2 | 6093.6 | 6352.4 | 6569.4 | 6677.2 | 6527.5 |
| 67.5° | 6327.0 | 6338.5 | 6374.0 | 6452.7 | 6563.0 | 6667.1 | 6847.2 | 7092.1 | 7300.1 | 7359.8 | 7199.9 |
| 70°   | 6790.1 | 6813.0 | 6875.1 | 6984.2 | 7116.2 | 7279.9 | 7476.5 | 7740.4 | 7976.4 | 8004.3 | 7801.3 |
| 72.5° | 6371.5 | 6418.4 | 6528.8 | 6698.8 | 6975.4 | 7265.9 | 7604.6 | 7994.1 | 8332.9 | 8372.2 | 8046.2 |
| 75°   | 5110.4 | 5163.6 | 5295.6 | 5482.1 | 5809.4 | 6240.8 | 6730.5 | 7315.4 | 7822.9 | 7887.6 | 7456.2 |
| 77.5° | 2723.9 | 2789.9 | 2981.5 | 3232.7 | 3699.6 | 4270.5 | 4860.4 | 5527.8 | 5959.1 | 6105.0 | 5794.2 |
| 80°   | 686.4  | 721.9  | 814.5  | 961.7  | 1277.6 | 1738.1 | 2246.9 | 2965.0 | 3500.4 | 3727.5 | 3500.4 |
| 82.5° | 266.4  | 293.1  | 318.4  | 336.2  | 366.7  | 430.1  | 593.8  | 968.0  | 1304.2 | 1606.2 | 1390.5 |
| 85°   | 102.8  | 109.1  | 157.3  | 178.9  | 178.9  | 196.6  | 225.8  | 266.4  | 329.9  | 360.3  | 302.0  |
| 87.5° | 40.6   | 44.4   | 54.6   | 83.7   | 86.3   | 76.1   | 81.2   | 91.3   | 69.8   | 58.4   | 66.0   |
| 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):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 | 1465.4 |
| 2.5°  | 1459.0 | 1457.7 | 1455.2 | 1456.5 | 1455.2 | 1455.2 | 1455.2 | 1455.2 |
| 5°    | 1457.7 | 1457.7 | 1455.2 | 1455.2 | 1455.2 | 1456.5 | 1455.2 | 1455.2 |
| 7.5°  | 1456.5 | 1455.2 | 1452.7 | 1451.4 | 1451.4 | 1450.1 | 1450.1 | 1450.1 |
| 10°   | 1453.9 | 1451.4 | 1448.9 | 1447.6 | 1447.6 | 1445.1 | 1445.1 | 1445.1 |
| 12.5° | 1460.3 | 1456.5 | 1453.9 | 1452.7 | 1452.7 | 1452.7 | 1453.9 | 1453.9 |
| 15°   | 1478.0 | 1470.4 | 1466.6 | 1465.4 | 1466.6 | 1469.2 | 1470.4 | 1471.7 |
| 17.5° | 1497.1 | 1489.5 | 1483.1 | 1480.6 | 1481.9 | 1485.7 | 1489.5 | 1492.0 |
| 20°   | 1521.2 | 1514.8 | 1507.2 | 1504.7 | 1504.7 | 1509.8 | 1512.3 | 1516.1 |
| 22.5° | 1555.4 | 1550.4 | 1544.0 | 1540.2 | 1537.7 | 1544.0 | 1547.8 | 1550.4 |
| 25°   | 1610.0 | 1604.9 | 1599.8 | 1596.0 | 1594.8 | 1601.1 | 1603.6 | 1604.9 |
| 27.5° | 1682.3 | 1677.2 | 1674.7 | 1673.4 | 1669.6 | 1672.2 | 1676.0 | 1674.7 |
| 30°   | 1776.2 | 1780.0 | 1776.2 | 1776.2 | 1769.8 | 1772.4 | 1769.8 | 1767.3 |
| 32.5° | 1901.8 | 1898.0 | 1886.6 | 1879.0 | 1870.1 | 1870.1 | 1866.3 | 1862.5 |
| 35°   | 2027.4 | 2014.7 | 2008.4 | 2012.2 | 2008.4 | 2010.9 | 2004.6 | 1998.2 |
| 37.5° | 2175.8 | 2168.2 | 2167.0 | 2178.4 | 2175.8 | 2178.4 | 2178.4 | 2169.5 |
| 40°   | 2372.5 | 2367.4 | 2376.3 | 2395.3 | 2402.9 | 2401.7 | 2404.2 | 2392.8 |
| 42.5° | 2598.3 | 2589.4 | 2593.2 | 2609.7 | 2618.6 | 2621.2 | 2619.9 | 2609.7 |
| 45°   | 2824.1 | 2826.7 | 2826.7 | 2844.4 | 2853.3 | 2858.4 | 2849.5 | 2845.7 |
| 47.5° | 3079.2 | 3083.0 | 3074.1 | 3085.5 | 3088.0 | 3096.9 | 3089.3 | 3083.0 |
| 50°   | 3373.5 | 3359.5 | 3339.2 | 3343.0 | 3343.0 | 3340.5 | 3331.6 | 3324.0 |
| 52.5° | 3702.1 | 3670.4 | 3632.3 | 3619.6 | 3605.7 | 3591.7 | 3574.0 | 3560.0 |
| 55°   | 4076.4 | 4021.8 | 3953.3 | 3921.6 | 3894.9 | 3863.2 | 3822.6 | 3808.7 |
| 57.5° | 4510.3 | 4416.4 | 4325.0 | 4267.9 | 4199.4 | 4157.6 | 4105.5 | 4103.0 |
| 60°   | 5025.4 | 4898.5 | 4737.4 | 4652.4 | 4583.8 | 4534.4 | 4495.0 | 4479.8 |
| 62.5° | 5620.4 | 5402.2 | 5228.3 | 5137.0 | 5057.1 | 5026.6 | 4977.1 | 4983.5 |
| 65°   | 6230.6 | 6008.6 | 5839.9 | 5766.3 | 5691.4 | 5671.1 | 5625.5 | 5641.9 |
| 67.5° | 6891.6 | 6708.9 | 6523.7 | 6455.2 | 6386.7 | 6366.4 | 6319.4 | 6333.4 |
| 70°   | 7484.1 | 7251.9 | 7041.3 | 6906.8 | 6790.1 | 6696.2 | 6636.6 | 6612.5 |
| 72.5° | 7602.1 | 7199.9 | 6868.8 | 6532.6 | 6338.5 | 6168.5 | 6098.7 | 6072.0 |
| 75°   | 6830.7 | 6206.5 | 5734.6 | 5340.0 | 5121.8 | 4874.4 | 4847.7 | 4810.9 |
| 77.5° | 5313.4 | 4602.9 | 4032.0 | 3524.5 | 3231.4 | 2929.4 | 2825.4 | 2746.8 |
| 80°   | 3169.2 | 2435.9 | 1887.8 | 1323.3 | 1079.7 | 869.1  | 817.0  | 762.5  |
| 82.5° | 1134.2 | 727.0  | 489.7  | 381.9  | 341.3  | 314.6  | 294.3  | 267.7  |
| 85°   | 274.0  | 230.9  | 218.2  | 197.9  | 195.4  | 166.2  | 118.0  | 105.3  |
| 87.5° | 87.5   | 79.9   | 81.2   | 77.4   | 81.2   | 60.9   | 49.5   | 44.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)