

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: P322389

Luminaire Tested: **GAN-SA5A-830-U-T3-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P322389  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA5A-830-U-T3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 13488 lumens  
Efficiency: N/A  
Efficacy: 83.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - 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: 24 FT

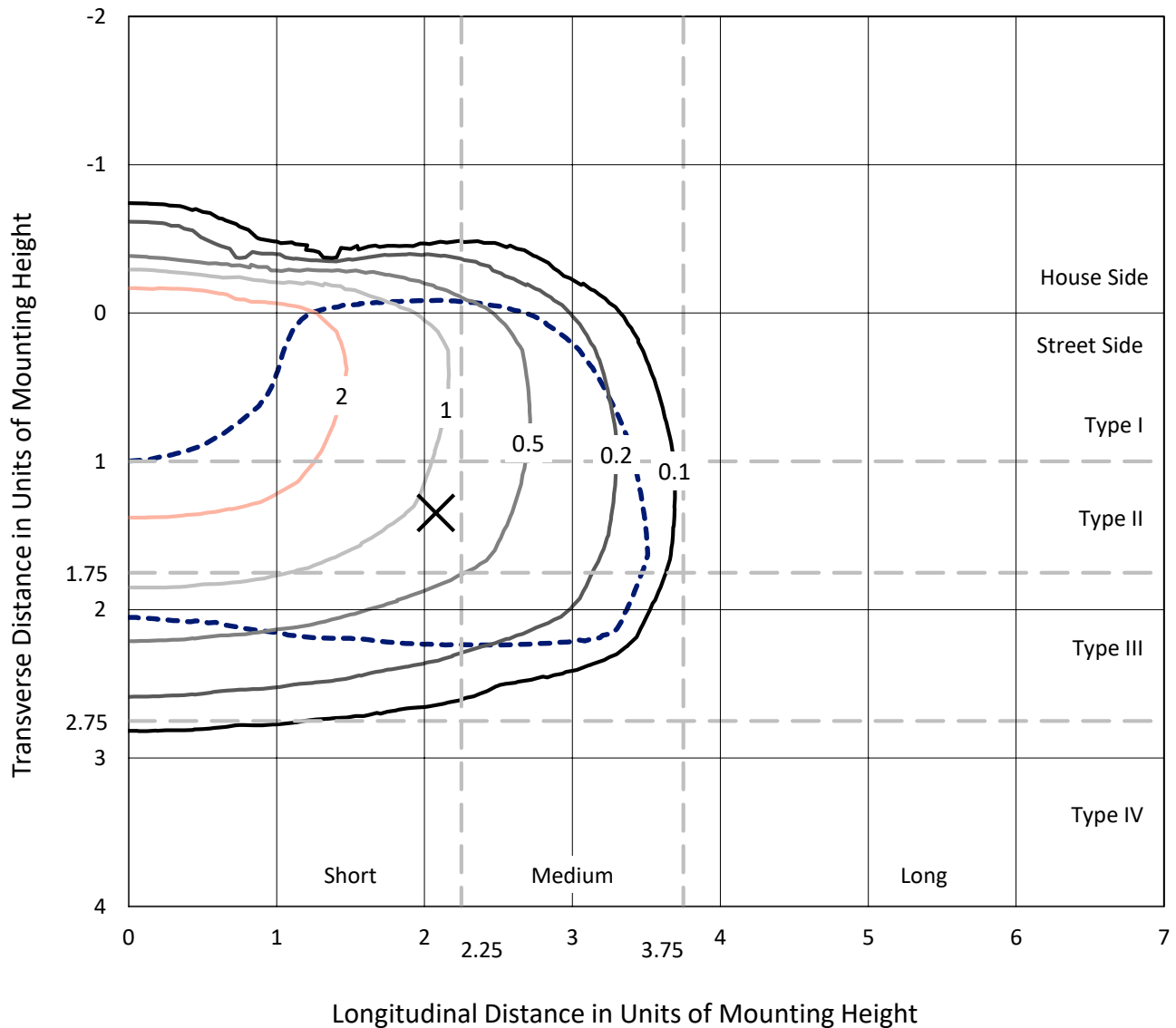


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## Iso-Footcandle Lines of Horizontal Illumination

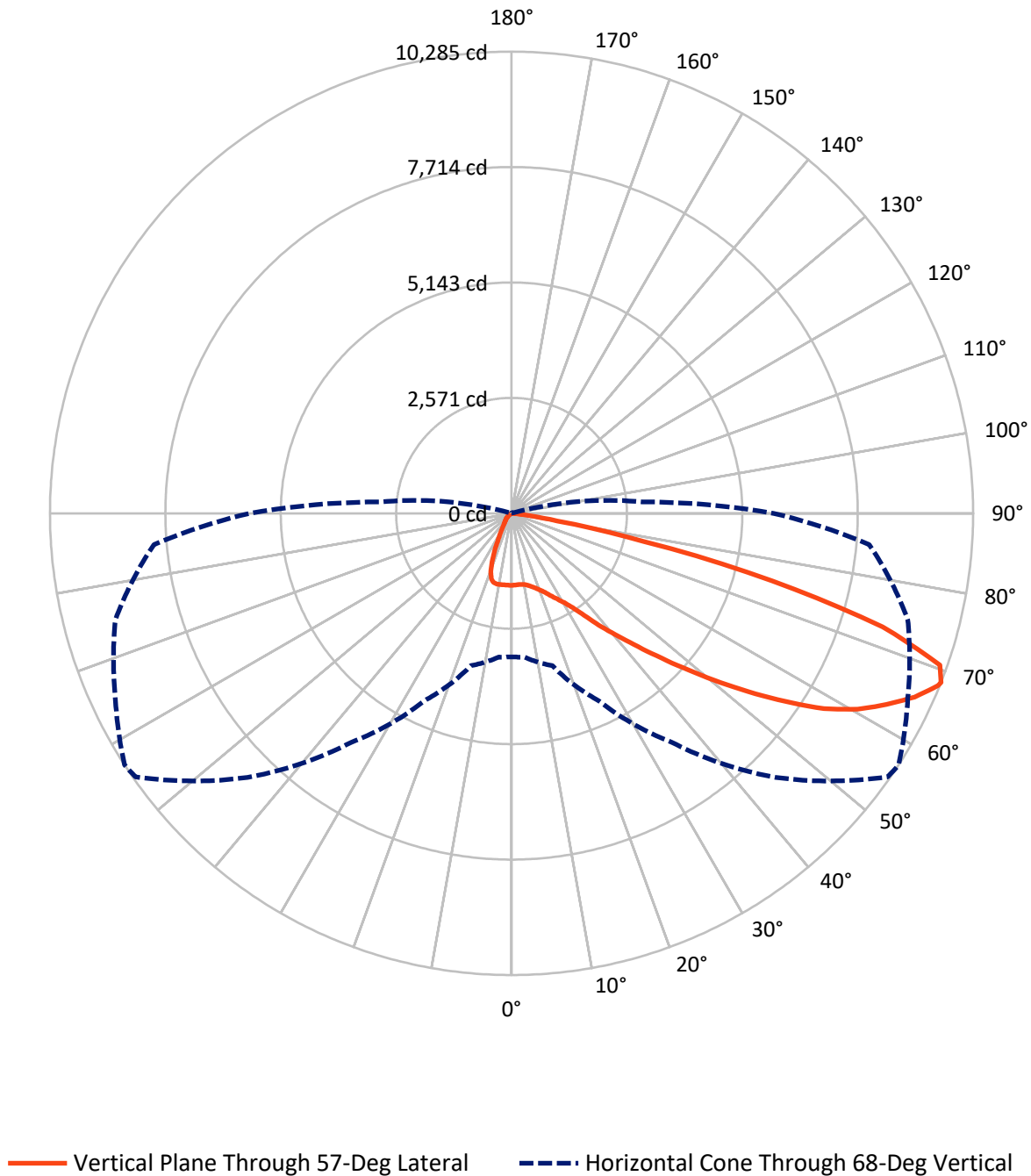
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc  
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1479.0   | 0.0    | 1479.0  |
|                    | % Fixture | 11.0     | 0.0    | 11.0    |
| <b>Street Side</b> | Lumens    | 12009.0  | 0.0    | 12009.0 |
|                    | % Fixture | 89.0     | 0.0    | 89.0    |
| <b>Total</b>       | Lumens    | 13488.0  | 0.0    | 13488.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 150.0   | 1.1       |
| 10°-20°   | 415.6   | 3.1       |
| 20°-30°   | 717.0   | 5.3       |
| 30°-40°   | 1237.5  | 9.2       |
| 40°-50°   | 2116.8  | 15.7      |
| 50°-60°   | 3386.7  | 25.1      |
| 60°-70°   | 3913.0  | 29.0      |
| 70°-80°   | 1495.2  | 11.1      |
| 80°-90°   | 56.1    | 0.4       |
| 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°    | 13488.0 | 100.0     |
| 0°-180°   | 13488.0 | 100.0     |

**Coefficient of Utilization**



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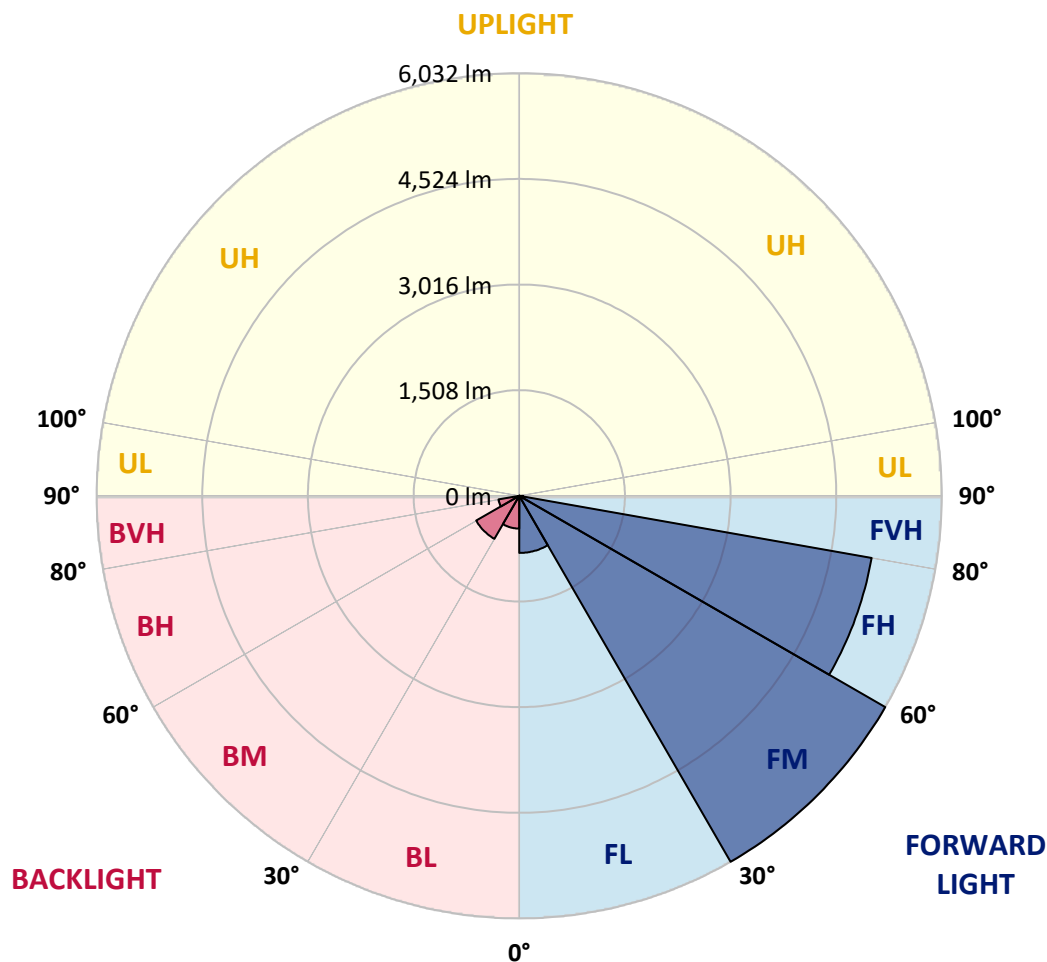
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 815.2  | 6.0       |                         |      |         |
| FM   | (30°-60°)   | 6031.7 | 44.7      |                         |      |         |
| FH   | (60°-80°)   | 5107.0 | 37.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 55.0   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 467.4  | 3.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 709.4  | 5.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 301.2  | 2.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.0    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 57°     | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|
| 0°    | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7  | 1602.7  | 1602.7 | 1602.7 | 1602.7 |
| 2.5°  | 1565.1 | 1572.1 | 1577.2 | 1580.4 | 1584.2 | 1592.5 | 1595.1  | 1598.9  | 1600.8 | 1600.8 | 1605.3 |
| 5°    | 1503.2 | 1510.9 | 1521.7 | 1530.7 | 1548.5 | 1571.5 | 1588.1  | 1594.4  | 1605.9 | 1616.1 | 1621.9 |
| 7.5°  | 1445.8 | 1454.8 | 1467.5 | 1488.6 | 1519.2 | 1556.2 | 1590.6  | 1599.5  | 1621.9 | 1643.5 | 1654.4 |
| 10°   | 1408.8 | 1415.9 | 1432.4 | 1462.4 | 1502.6 | 1554.3 | 1602.7  | 1613.6  | 1651.8 | 1688.2 | 1708.6 |
| 12.5° | 1396.1 | 1402.5 | 1419.7 | 1453.5 | 1503.2 | 1563.8 | 1630.8  | 1646.7  | 1702.9 | 1755.8 | 1784.5 |
| 15°   | 1414.6 | 1415.9 | 1434.4 | 1466.2 | 1515.4 | 1587.4 | 1677.3  | 1696.5  | 1767.3 | 1836.2 | 1871.9 |
| 17.5° | 1486.0 | 1480.3 | 1489.8 | 1503.9 | 1542.8 | 1618.7 | 1726.5  | 1755.2  | 1849.5 | 1930.5 | 1964.3 |
| 20°   | 1664.6 | 1664.6 | 1642.9 | 1604.6 | 1605.3 | 1667.1 | 1792.8  | 1825.3  | 1940.8 | 2034.5 | 2065.1 |
| 22.5° | 1970.1 | 1964.3 | 1921.0 | 1827.2 | 1741.1 | 1750.7 | 1873.8  | 1915.9  | 2050.4 | 2150.6 | 2160.8 |
| 25°   | 2337.4 | 2330.4 | 2263.5 | 2131.4 | 1982.2 | 1885.9 | 1983.5  | 2032.0  | 2181.2 | 2269.8 | 2248.8 |
| 27.5° | 2726.5 | 2720.8 | 2654.4 | 2490.5 | 2278.1 | 2101.5 | 2114.2  | 2160.1  | 2314.5 | 2401.9 | 2334.9 |
| 30°   | 3103.4 | 3105.3 | 3039.6 | 2871.3 | 2630.8 | 2376.4 | 2280.0  | 2306.8  | 2444.0 | 2532.6 | 2436.9 |
| 32.5° | 3461.8 | 3464.4 | 3407.6 | 3219.5 | 2995.0 | 2695.9 | 2509.6  | 2502.6  | 2594.5 | 2681.8 | 2572.1 |
| 35°   | 3781.4 | 3787.7 | 3748.8 | 3602.8 | 3364.9 | 3051.8 | 2807.5  | 2790.9  | 2808.1 | 2907.0 | 2779.4 |
| 37.5° | 4089.4 | 4093.2 | 4063.9 | 3940.8 | 3741.8 | 3442.7 | 3183.8  | 3160.2  | 3123.2 | 3199.1 | 3053.0 |
| 40°   | 4426.8 | 4417.2 | 4383.4 | 4271.8 | 4100.9 | 3874.5 | 3588.1  | 3547.3  | 3482.9 | 3550.5 | 3412.7 |
| 42.5° | 4740.6 | 4729.7 | 4735.5 | 4609.2 | 4465.1 | 4318.4 | 4059.4  | 3989.3  | 3951.7 | 4029.5 | 3854.1 |
| 45°   | 5132.8 | 5127.1 | 5146.2 | 5036.5 | 4919.8 | 4813.3 | 4599.6  | 4523.1  | 4506.5 | 4597.7 | 4387.9 |
| 47.5° | 5519.9 | 5534.0 | 5593.3 | 5546.7 | 5499.5 | 5405.8 | 5171.7  | 5137.3  | 5147.5 | 5257.8 | 4951.1 |
| 50°   | 5842.7 | 5859.2 | 6021.9 | 6075.5 | 6143.7 | 6088.8 | 5854.1  | 5833.1  | 5873.3 | 5972.8 | 5556.9 |
| 52.5° | 6076.1 | 6109.9 | 6312.1 | 6558.9 | 6807.6 | 6844.6 | 6610.5  | 6591.4  | 6645.6 | 6660.9 | 6025.1 |
| 55°   | 6238.1 | 6268.1 | 6497.0 | 6948.6 | 7455.0 | 7614.4 | 7469.0  | 7395.0  | 7384.8 | 7233.7 | 6517.4 |
| 57.5° | 6266.8 | 6263.6 | 6592.7 | 7200.5 | 7962.6 | 8374.0 | 8282.2  | 8209.4  | 8000.3 | 7763.0 | 7081.9 |
| 60°   | 6104.8 | 6123.3 | 6505.3 | 7287.9 | 8281.5 | 8948.6 | 8955.6  | 8861.3  | 8535.4 | 8277.7 | 7629.1 |
| 62.5° | 5606.0 | 5681.3 | 6067.2 | 7058.9 | 8277.7 | 9180.1 | 9449.3  | 9377.2  | 8987.5 | 8699.3 | 8183.9 |
| 65°   | 4797.3 | 4824.1 | 5192.1 | 6274.4 | 7718.4 | 9083.2 | 9893.8  | 9867.0  | 9395.1 | 9108.7 | 8469.0 |
| 67.5° | 3503.3 | 3445.3 | 3831.8 | 4940.8 | 6534.6 | 8518.1 | 10212.7 | 10246.5 | 9709.5 | 9192.9 | 8165.4 |
| 68°   | 3197.2 | 3214.4 | 3515.4 | 4611.1 | 6224.7 | 8318.5 | 10233.7 | 10285.4 | 9740.7 | 9138.0 | 7999.6 |
| 70°   | 1905.7 | 1938.8 | 2207.3 | 3174.8 | 4735.5 | 7189.0 | 10006.7 | 10124.7 | 9554.5 | 8572.3 | 6919.2 |
| 72.5° | 486.6  | 526.2  | 780.0  | 1421.0 | 2704.8 | 5065.2 | 8447.3  | 8647.0  | 8295.5 | 6954.3 | 4671.1 |
| 75°   | 200.3  | 210.5  | 278.7  | 468.1  | 1007.7 | 2282.0 | 5567.8  | 5995.1  | 5750.8 | 4163.4 | 2111.0 |
| 77.5° | 138.4  | 145.4  | 179.2  | 259.6  | 436.2  | 773.6  | 2729.7  | 3038.4  | 2737.3 | 1421.0 | 460.5  |
| 80°   | 99.5   | 105.2  | 128.2  | 172.8  | 250.6  | 276.2  | 889.7   | 1028.7  | 817.0  | 311.9  | 114.2  |
| 82.5° | 59.3   | 63.8   | 95.7   | 123.1  | 152.4  | 132.0  | 221.3   | 251.3   | 236.6  | 155.0  | 51.0   |
| 85°   | 29.3   | 34.4   | 64.4   | 88.0   | 82.3   | 55.5   | 67.6    | 75.3    | 93.1   | 94.4   | 27.4   |
| 87.5° | 1.9    | 3.8    | 37.6   | 52.9   | 23.0   | 12.8   | 19.8    | 24.2    | 33.2   | 46.6   | 11.5   |
| 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 | 1602.7 |
| 2.5°  | 1607.2 | 1607.8 | 1603.4 | 1601.5 | 1602.7 | 1595.1 | 1591.9 | 1593.2 | 1593.2 | 1595.1 | 1591.9 |
| 5°    | 1623.1 | 1623.1 | 1615.5 | 1605.3 | 1599.5 | 1584.9 | 1575.3 | 1572.8 | 1570.8 | 1569.6 | 1567.0 |
| 7.5°  | 1657.6 | 1653.8 | 1640.4 | 1618.0 | 1598.9 | 1567.0 | 1542.8 | 1530.0 | 1523.6 | 1521.1 | 1519.2 |
| 10°   | 1713.1 | 1706.0 | 1683.7 | 1642.3 | 1598.3 | 1541.5 | 1488.6 | 1450.9 | 1419.7 | 1406.9 | 1399.3 |
| 12.5° | 1787.7 | 1777.5 | 1739.9 | 1671.0 | 1593.8 | 1489.2 | 1374.4 | 1264.1 | 1161.4 | 1119.3 | 1098.2 |
| 15°   | 1873.8 | 1859.1 | 1799.8 | 1695.2 | 1567.7 | 1371.2 | 1121.8 | 928.6  | 786.4  | 732.8  | 709.8  |
| 17.5° | 1961.2 | 1942.0 | 1852.1 | 1710.5 | 1489.2 | 1126.9 | 787.0  | 594.4  | 499.4  | 473.9  | 464.9  |
| 20°   | 2049.2 | 2021.1 | 1897.4 | 1699.0 | 1311.9 | 812.5  | 519.1  | 434.3  | 406.9  | 399.2  | 396.7  |
| 22.5° | 2132.7 | 2089.4 | 1938.2 | 1654.4 | 1038.9 | 545.3  | 410.7  | 383.9  | 375.0  | 370.5  | 369.3  |
| 25°   | 2205.4 | 2144.8 | 1973.9 | 1516.6 | 735.4  | 412.0  | 369.9  | 361.0  | 349.5  | 341.2  | 341.8  |
| 27.5° | 2273.7 | 2200.3 | 1995.6 | 1289.6 | 490.4  | 352.1  | 342.5  | 330.4  | 309.3  | 297.2  | 297.2  |
| 30°   | 2355.9 | 2274.3 | 2011.5 | 992.4  | 361.0  | 311.2  | 303.6  | 285.1  | 256.4  | 240.4  | 240.4  |
| 32.5° | 2479.7 | 2386.6 | 2001.3 | 696.5  | 299.1  | 273.6  | 255.7  | 230.2  | 199.0  | 183.7  | 183.0  |
| 35°   | 2669.1 | 2560.0 | 1928.6 | 456.6  | 264.0  | 237.9  | 209.2  | 177.9  | 150.5  | 137.8  | 137.1  |
| 37.5° | 2924.2 | 2792.2 | 1765.4 | 326.5  | 236.6  | 204.7  | 170.3  | 135.8  | 115.4  | 107.1  | 106.5  |
| 40°   | 3255.2 | 3062.0 | 1531.9 | 264.7  | 211.1  | 172.8  | 131.4  | 105.2  | 91.2   | 84.8   | 85.5   |
| 42.5° | 3652.5 | 3350.9 | 1252.0 | 228.3  | 186.2  | 142.2  | 102.7  | 82.9   | 74.0   | 69.5   | 68.2   |
| 45°   | 4093.9 | 3636.0 | 958.6  | 203.5  | 161.4  | 114.8  | 80.4   | 65.7   | 58.7   | 56.1   | 56.1   |
| 47.5° | 4579.2 | 3913.4 | 701.6  | 181.8  | 134.6  | 88.7   | 64.4   | 53.6   | 47.8   | 45.9   | 45.3   |
| 50°   | 5019.9 | 4106.0 | 505.8  | 158.8  | 110.3  | 70.2   | 52.3   | 44.6   | 40.8   | 38.3   | 38.3   |
| 52.5° | 5387.3 | 4166.6 | 372.5  | 133.9  | 89.3   | 56.1   | 43.4   | 38.3   | 34.4   | 32.5   | 32.5   |
| 55°   | 5710.6 | 4141.7 | 276.8  | 110.3  | 72.1   | 45.9   | 37.0   | 32.5   | 29.3   | 27.4   | 27.4   |
| 57.5° | 6020.6 | 4061.4 | 206.6  | 89.9   | 58.0   | 37.0   | 31.3   | 27.4   | 24.2   | 23.0   | 23.0   |
| 60°   | 6273.8 | 3927.4 | 153.7  | 72.7   | 46.6   | 30.0   | 26.1   | 22.3   | 19.8   | 17.9   | 17.9   |
| 62.5° | 6479.2 | 3779.5 | 112.9  | 60.0   | 37.0   | 23.6   | 20.4   | 18.5   | 14.7   | 12.8   | 12.8   |
| 65°   | 6480.4 | 3533.9 | 84.8   | 49.7   | 28.7   | 18.5   | 15.3   | 14.7   | 9.6    | 7.7    | 7.0    |
| 67.5° | 6011.7 | 3046.7 | 65.1   | 42.7   | 22.3   | 14.0   | 11.5   | 12.1   | 5.1    | 3.2    | 2.6    |
| 68°   | 5841.4 | 2922.9 | 61.2   | 42.1   | 21.0   | 13.4   | 10.8   | 12.1   | 4.5    | 2.6    | 1.9    |
| 70°   | 4924.9 | 2325.3 | 49.1   | 40.8   | 18.5   | 10.2   | 8.9    | 12.1   | 3.8    | 1.9    | 1.3    |
| 72.5° | 3150.0 | 1349.5 | 36.4   | 32.5   | 14.0   | 7.7    | 5.7    | 10.8   | 3.8    | 1.3    | 0.6    |
| 75°   | 1340.6 | 418.4  | 24.9   | 23.0   | 8.3    | 5.7    | 3.8    | 7.0    | 2.6    | 0.6    | 0.0    |
| 77.5° | 282.5  | 94.4   | 14.7   | 14.0   | 5.7    | 3.8    | 2.6    | 1.9    | 0.6    | 0.0    | 0.0    |
| 80°   | 72.7   | 27.4   | 7.7    | 7.0    | 3.2    | 1.9    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 23.0   | 10.8   | 4.5    | 3.2    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 11.5   | 6.4    | 2.6    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 6.4    | 1.9    | 0.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)