

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: P299173

Luminaire Tested: **GAA-AF-04-LED-U-T3-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299173  
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-04-LED-U-T3-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

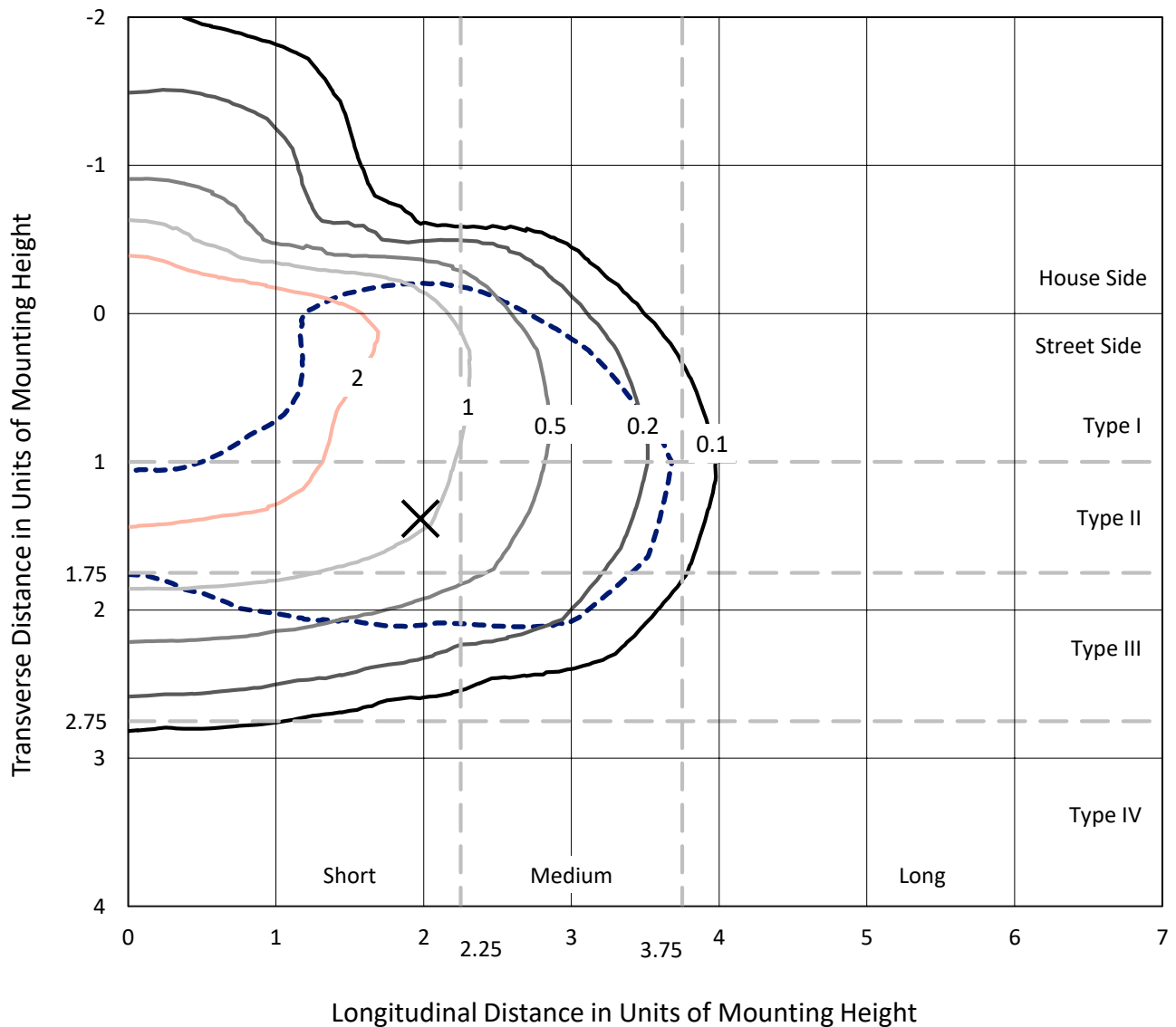
Lumens per Lamp: N/A  
Luminaire Lumens: 16799.5 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (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

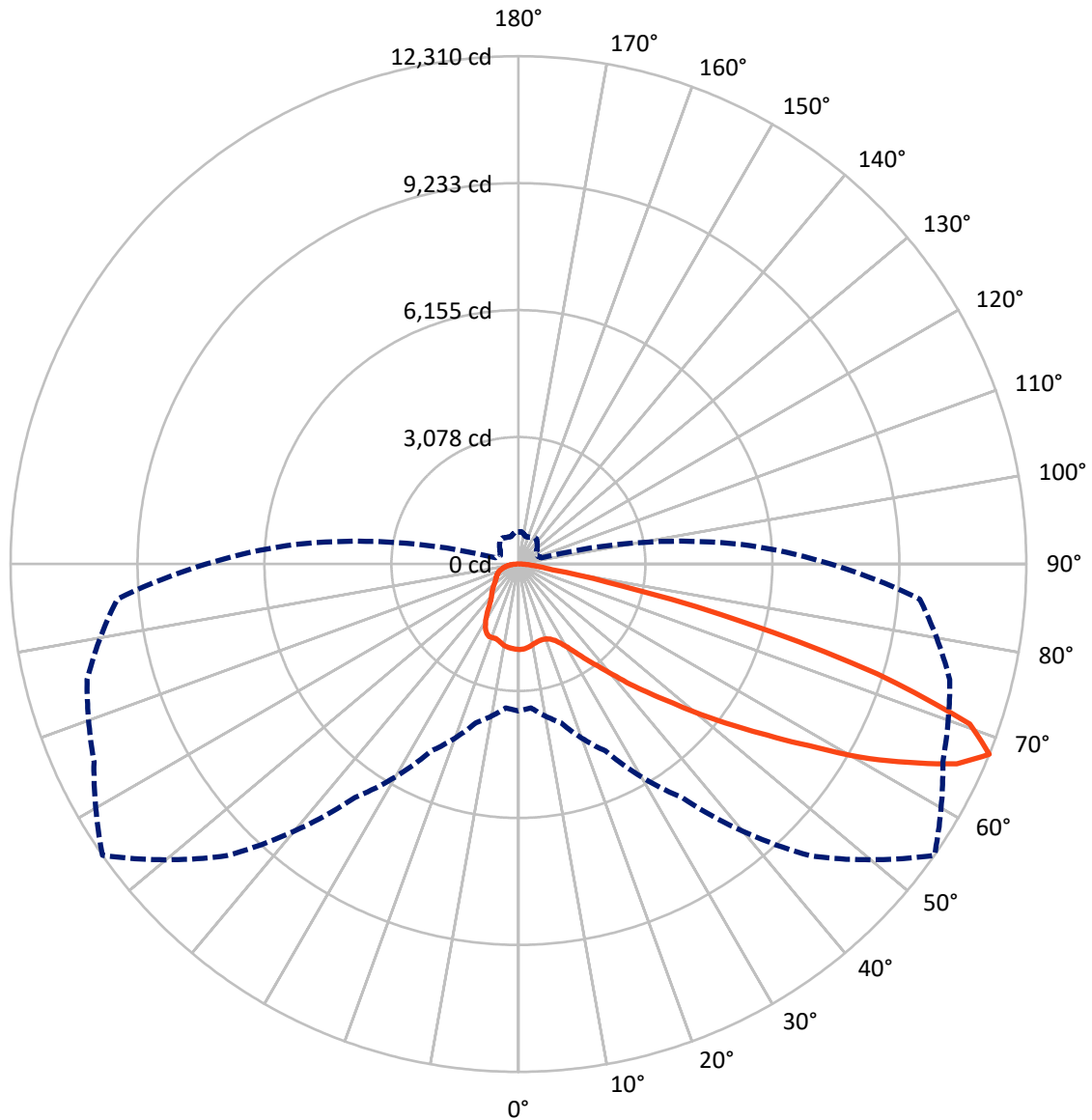
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3629.0   | 0.0    | 3629.0  |
|                    | % Fixture | 21.6     | 0.0    | 21.6    |
| <b>Street Side</b> | Lumens    | 13170.4  | 0.0    | 13170.4 |
|                    | % Fixture | 78.4     | 0.0    | 78.4    |
| <b>Total</b>       | Lumens    | 16799.5  | 0.0    | 16799.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 193.4   | 1.2       |
| 10°-20°   | 547.6   | 3.3       |
| 20°-30°   | 917.3   | 5.5       |
| 30°-40°   | 1508.5  | 9.0       |
| 40°-50°   | 2539.2  | 15.1      |
| 50°-60°   | 3996.6  | 23.8      |
| 60°-70°   | 4769.5  | 28.4      |
| 70°-80°   | 2048.1  | 12.2      |
| 80°-90°   | 279.2   | 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°    | 16799.5 | 100.0     |
| 0°-180°   | 16799.5 | 100.0     |

**Coefficient of Utilization**



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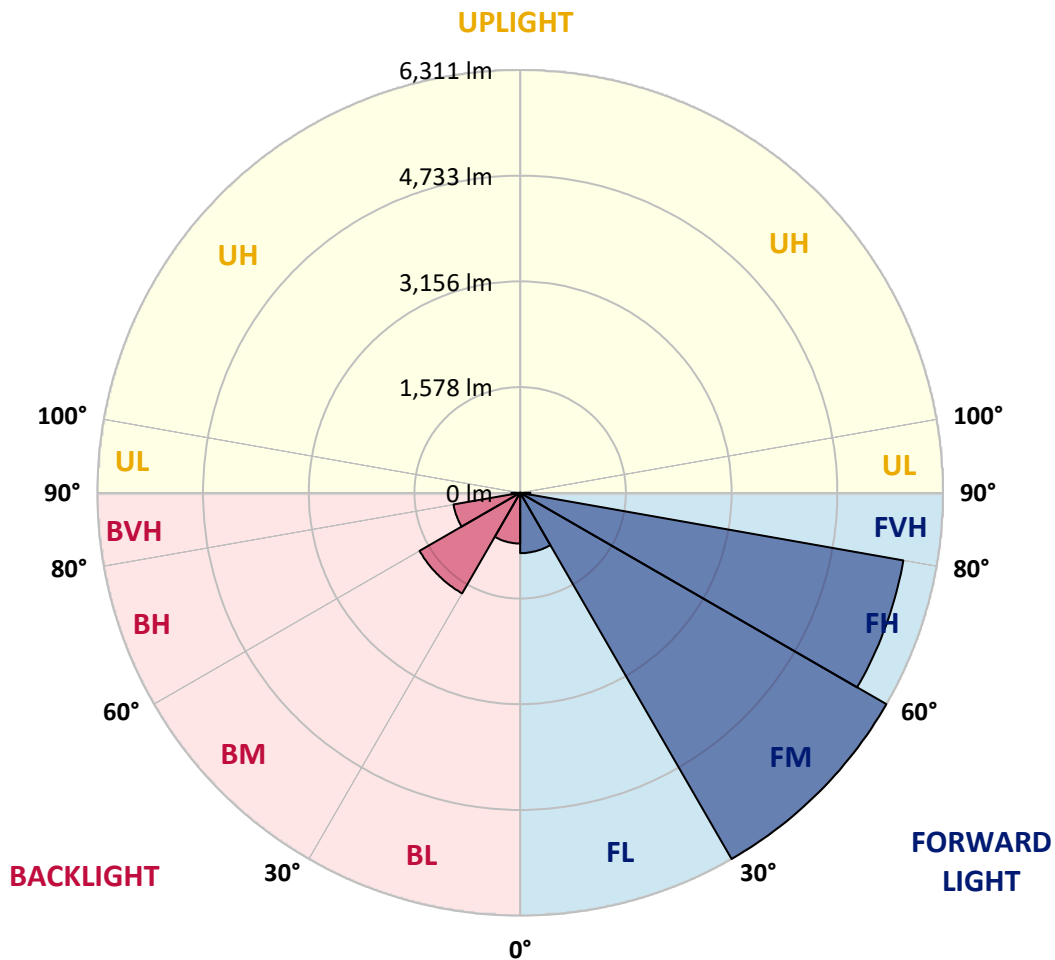
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 900.5  | 5.4       |                         |      |         |
| FM   | (30°-60°)   | 6311.1 | 37.6      |                         |      |         |
| FH   | (60°-80°)   | 5807.7 | 34.6      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 151.2  | 0.9       |                         |      | G2/225  |
| BL   | (0°-30°)    | 757.8  | 4.5       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1733.2 | 10.3      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1009.9 | 6.0       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 128.1  | 0.8       |                         |      | 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 III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 65°     | 75°     | 85°     | 90°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0°    | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6  | 2071.6  | 2071.6  | 2071.6  | 2071.6  | 2071.6 |
| 2.5°  | 2053.7 | 2054.5 | 2056.1 | 2062.6 | 2068.3 | 2066.7  | 2067.5  | 2064.3  | 2063.4  | 2058.6  | 2063.4 |
| 5°    | 2027.7 | 2030.2 | 2031.0 | 2041.5 | 2048.0 | 2049.6  | 2047.2  | 2043.2  | 2038.3  | 2033.4  | 2035.9 |
| 7.5°  | 1968.5 | 1975.0 | 1975.8 | 1990.4 | 2001.0 | 2014.8  | 2015.6  | 2016.4  | 2013.9  | 2010.7  | 2015.6 |
| 10°   | 1931.2 | 1932.8 | 1932.0 | 1942.5 | 1950.7 | 1966.1  | 1975.0  | 1990.4  | 1996.9  | 1998.5  | 2001.8 |
| 12.5° | 1928.7 | 1927.1 | 1924.7 | 1924.7 | 1922.3 | 1928.7  | 1945.0  | 1966.9  | 1982.3  | 1987.2  | 1991.2 |
| 15°   | 1954.7 | 1953.9 | 1945.8 | 1933.6 | 1918.2 | 1913.3  | 1927.1  | 1951.5  | 1971.8  | 1982.3  | 1986.4 |
| 17.5° | 2013.1 | 2008.3 | 1995.3 | 1967.7 | 1934.4 | 1921.4  | 1923.1  | 1943.4  | 1966.9  | 1980.7  | 1984.7 |
| 20°   | 2120.2 | 2120.2 | 2092.7 | 2040.7 | 1981.5 | 1950.7  | 1936.0  | 1948.2  | 1970.9  | 1989.6  | 1995.3 |
| 22.5° | 2305.2 | 2306.9 | 2260.6 | 2175.4 | 2075.6 | 2009.9  | 1973.4  | 1970.9  | 1997.7  | 2018.8  | 2025.3 |
| 25°   | 2567.3 | 2560.8 | 2495.9 | 2374.2 | 2222.5 | 2113.8  | 2050.5  | 2035.9  | 2058.6  | 2082.1  | 2090.2 |
| 27.5° | 2872.4 | 2848.9 | 2771.8 | 2624.9 | 2428.6 | 2269.5  | 2172.2  | 2148.6  | 2170.5  | 2197.3  | 2205.4 |
| 30°   | 3174.3 | 3149.9 | 3058.2 | 2897.6 | 2679.3 | 2478.1  | 2338.5  | 2300.4  | 2331.2  | 2369.3  | 2374.2 |
| 32.5° | 3476.1 | 3476.1 | 3373.9 | 3186.4 | 2948.7 | 2727.2  | 2560.0  | 2514.6  | 2565.7  | 2612.0  | 2622.5 |
| 35°   | 3837.2 | 3838.8 | 3739.8 | 3514.3 | 3258.7 | 3024.2  | 2840.0  | 2806.7  | 2883.8  | 2916.2  | 2941.4 |
| 37.5° | 4281.1 | 4290.0 | 4162.6 | 3889.9 | 3610.0 | 3363.3  | 3144.3  | 3098.8  | 3175.9  | 3264.3  | 3345.5 |
| 40°   | 4760.6 | 4772.0 | 4631.6 | 4295.7 | 4015.7 | 3757.7  | 3520.8  | 3438.8  | 3567.0  | 3735.8  | 3840.5 |
| 42.5° | 5218.2 | 5276.7 | 5141.2 | 4795.5 | 4494.5 | 4227.5  | 3987.3  | 3868.0  | 4028.7  | 4283.5  | 4374.4 |
| 45°   | 5879.6 | 5921.7 | 5685.6 | 5372.4 | 5089.2 | 4790.6  | 4472.5  | 4346.8  | 4571.5  | 4892.9  | 4911.5 |
| 47.5° | 6320.2 | 6288.5 | 6168.4 | 5973.7 | 5794.4 | 5515.2  | 5036.5  | 4898.5  | 5197.1  | 5575.3  | 5470.6 |
| 50°   | 6554.7 | 6564.4 | 6548.2 | 6559.5 | 6566.0 | 6390.7  | 5727.8  | 5538.8  | 5895.0  | 6351.8  | 6110.8 |
| 52.5° | 6773.7 | 6708.8 | 6762.4 | 7028.5 | 7349.8 | 7284.9  | 6480.0  | 6282.8  | 6643.1  | 7213.5  | 6787.5 |
| 55°   | 6768.9 | 6669.9 | 6844.3 | 7314.1 | 8011.2 | 8085.8  | 7324.7  | 7097.5  | 7434.2  | 8137.7  | 7504.8 |
| 57.5° | 6529.5 | 6534.4 | 6802.9 | 7418.0 | 8472.0 | 8838.8  | 8304.9  | 7964.1  | 8273.2  | 9074.1  | 8159.6 |
| 60°   | 6200.1 | 6244.7 | 6631.7 | 7401.0 | 8841.2 | 9456.3  | 9507.4  | 8898.0  | 9095.2  | 9925.3  | 8701.7 |
| 62.5° | 5668.6 | 5715.6 | 6249.6 | 7224.1 | 8785.2 | 10051.1 | 10594.7 | 9957.8  | 9954.5  | 10441.4 | 8860.7 |
| 65°   | 4830.4 | 4816.6 | 5377.3 | 6562.8 | 8315.4 | 10490.9 | 11674.7 | 10873.8 | 10602.0 | 10449.5 | 8541.0 |
| 67.5° | 3562.1 | 3500.5 | 3981.6 | 4998.3 | 6911.7 | 9998.3  | 12310.1 | 11351.0 | 10822.7 | 9762.2  | 7564.1 |
| 70°   | 1848.4 | 1786.7 | 2176.2 | 2918.7 | 4545.6 | 7803.4  | 11606.6 | 11104.3 | 10335.1 | 8183.2  | 5925.8 |
| 72.5° | 790.3  | 779.8  | 938.0  | 1280.4 | 2198.9 | 4500.9  | 9100.9  | 9611.3  | 8868.0  | 6097.0  | 4074.1 |
| 75°   | 531.5  | 528.2  | 587.5  | 697.8  | 989.1  | 1826.5  | 5695.4  | 6822.4  | 6488.1  | 3780.4  | 2291.5 |
| 77.5° | 417.1  | 413.0  | 447.9  | 501.5  | 641.0  | 720.5   | 2527.6  | 3662.8  | 3390.1  | 1645.6  | 1002.9 |
| 80°   | 326.2  | 322.9  | 344.9  | 374.1  | 460.9  | 454.4   | 831.7   | 1457.3  | 1127.9  | 630.5   | 487.7  |
| 82.5° | 257.2  | 257.2  | 275.1  | 275.9  | 327.0  | 310.0   | 434.1   | 641.8   | 563.1   | 367.6   | 298.6  |
| 85°   | 235.3  | 235.3  | 254.0  | 206.1  | 213.4  | 195.6   | 269.4   | 380.6   | 357.0   | 150.9   | 129.8  |
| 87.5° | 118.5  | 115.2  | 213.4  | 182.6  | 116.0  | 103.9   | 131.5   | 184.2   | 198.0   | 83.6    | 64.9   |
| 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°    | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6 | 2071.6 |
| 2.5°  | 2061.8 | 2061.0 | 2062.6 | 2063.4 | 2069.9 | 2078.9 | 2082.9 | 2088.6 | 2091.8 | 2090.2 |
| 5°    | 2037.5 | 2039.1 | 2045.6 | 2050.5 | 2061.8 | 2076.4 | 2084.5 | 2091.0 | 2096.7 | 2094.3 |
| 7.5°  | 2017.2 | 2021.2 | 2031.0 | 2035.0 | 2041.5 | 2045.6 | 2044.8 | 2047.2 | 2052.1 | 2046.4 |
| 10°   | 2005.8 | 2010.7 | 2018.0 | 2012.3 | 1996.9 | 1975.0 | 1954.7 | 1944.2 | 1947.4 | 1943.4 |
| 12.5° | 1994.5 | 2001.0 | 1995.3 | 1968.5 | 1925.5 | 1897.1 | 1881.7 | 1883.3 | 1890.6 | 1892.2 |
| 15°   | 1988.0 | 1990.4 | 1966.1 | 1915.8 | 1871.9 | 1867.9 | 1876.0 | 1874.4 | 1875.2 | 1875.2 |
| 17.5° | 1988.0 | 1981.5 | 1936.0 | 1885.7 | 1867.1 | 1859.8 | 1834.6 | 1803.0 | 1789.2 | 1784.3 |
| 20°   | 1998.5 | 1981.5 | 1926.3 | 1893.0 | 1852.5 | 1790.0 | 1723.5 | 1665.0 | 1639.1 | 1631.8 |
| 22.5° | 2030.2 | 2001.0 | 1953.9 | 1896.3 | 1781.1 | 1676.4 | 1570.9 | 1501.1 | 1454.1 | 1446.0 |
| 25°   | 2094.3 | 2061.8 | 2008.3 | 1853.3 | 1667.5 | 1518.2 | 1398.1 | 1320.2 | 1273.1 | 1266.6 |
| 27.5° | 2206.3 | 2185.2 | 2037.5 | 1758.3 | 1516.5 | 1356.7 | 1245.5 | 1185.5 | 1150.6 | 1148.2 |
| 30°   | 2375.0 | 2364.5 | 2022.9 | 1618.0 | 1330.7 | 1200.1 | 1146.5 | 1111.6 | 1085.7 | 1084.9 |
| 32.5° | 2644.4 | 2559.2 | 1975.0 | 1446.8 | 1161.1 | 1088.9 | 1067.0 | 1045.9 | 1025.6 | 1025.6 |
| 35°   | 2990.9 | 2716.6 | 1884.1 | 1263.4 | 1058.1 | 1027.3 | 999.7  | 966.4  | 939.6  | 938.0  |
| 37.5° | 3398.2 | 2814.0 | 1721.0 | 1115.7 | 1009.4 | 985.9  | 945.3  | 895.8  | 848.7  | 840.6  |
| 40°   | 3809.6 | 2843.2 | 1491.4 | 1024.8 | 978.6  | 944.5  | 895.0  | 836.6  | 791.1  | 788.7  |
| 42.5° | 4186.9 | 2787.2 | 1248.0 | 962.3  | 947.7  | 902.3  | 850.4  | 798.4  | 762.7  | 761.9  |
| 45°   | 4503.4 | 2642.0 | 1043.5 | 903.1  | 915.3  | 864.2  | 817.9  | 775.7  | 748.1  | 742.4  |
| 47.5° | 4801.2 | 2436.7 | 899.9  | 840.6  | 882.8  | 843.1  | 804.1  | 764.4  | 737.6  | 733.5  |
| 50°   | 5146.8 | 2215.2 | 799.2  | 779.8  | 854.4  | 835.8  | 815.5  | 774.1  | 729.5  | 724.6  |
| 52.5° | 5565.5 | 2023.7 | 720.5  | 726.2  | 832.5  | 845.5  | 844.7  | 801.7  | 723.8  | 717.3  |
| 55°   | 6032.9 | 1811.1 | 661.3  | 682.4  | 823.6  | 863.4  | 852.0  | 827.6  | 728.7  | 718.9  |
| 57.5° | 6493.0 | 1562.8 | 619.9  | 649.1  | 810.6  | 861.7  | 817.1  | 782.2  | 740.0  | 726.2  |
| 60°   | 6837.8 | 1229.3 | 588.3  | 619.9  | 782.2  | 835.0  | 779.0  | 732.7  | 737.6  | 727.0  |
| 62.5° | 6860.6 | 950.2  | 550.1  | 594.8  | 739.2  | 808.2  | 753.8  | 710.8  | 748.1  | 738.4  |
| 65°   | 6457.3 | 718.1  | 513.6  | 564.7  | 693.0  | 791.1  | 729.5  | 698.6  | 770.0  | 759.5  |
| 67.5° | 5436.5 | 577.7  | 482.8  | 533.9  | 646.7  | 755.4  | 707.6  | 687.3  | 789.5  | 770.8  |
| 70°   | 3924.8 | 492.5  | 452.8  | 496.6  | 605.3  | 714.9  | 688.1  | 667.0  | 736.8  | 707.6  |
| 72.5° | 2416.4 | 426.8  | 418.7  | 447.1  | 573.7  | 672.7  | 658.9  | 628.9  | 663.7  | 640.2  |
| 75°   | 1206.6 | 370.0  | 380.6  | 398.4  | 529.0  | 624.8  | 610.2  | 580.2  | 585.0  | 580.2  |
| 77.5° | 577.7  | 316.5  | 335.9  | 349.7  | 471.4  | 570.4  | 555.0  | 524.2  | 518.5  | 519.3  |
| 80°   | 366.0  | 264.5  | 283.2  | 292.9  | 421.1  | 507.1  | 491.7  | 460.9  | 525.8  | 487.7  |
| 82.5° | 228.8  | 215.0  | 219.9  | 237.7  | 366.8  | 441.4  | 421.1  | 393.5  | 473.9  | 374.9  |
| 85°   | 126.6  | 150.1  | 156.6  | 172.0  | 282.4  | 369.2  | 348.9  | 314.0  | 281.6  | 276.7  |
| 87.5° | 75.5   | 89.3   | 91.7   | 103.1  | 189.9  | 267.0  | 236.1  | 224.0  | 185.8  | 185.0  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)