

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: P271292

Luminaire Tested: **XNV2-AF-02-LED-U-5WQ-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271292
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: XNV2-AF-02-LED-U-5WQ-7027-1200
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11956.4 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 128
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

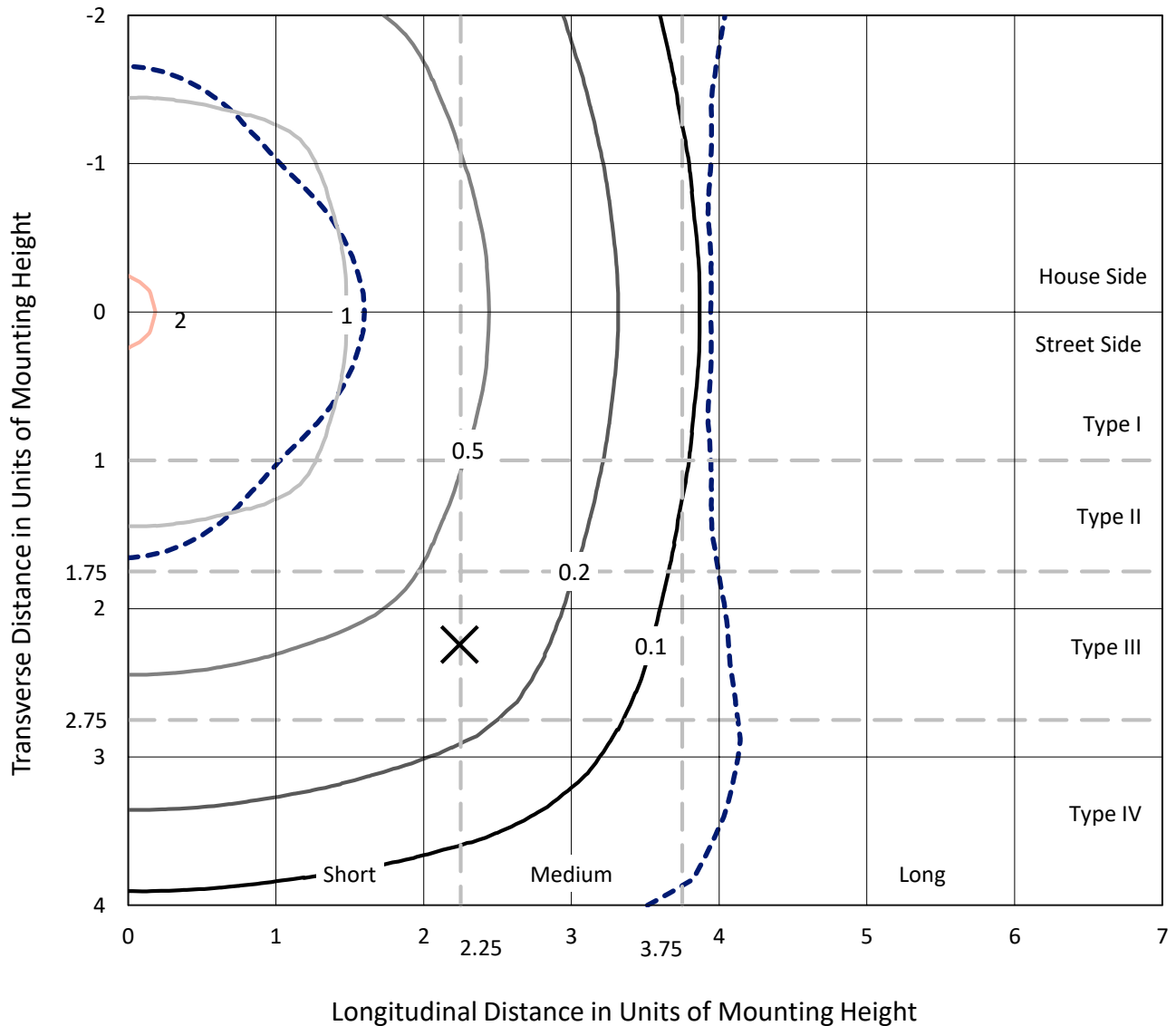


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

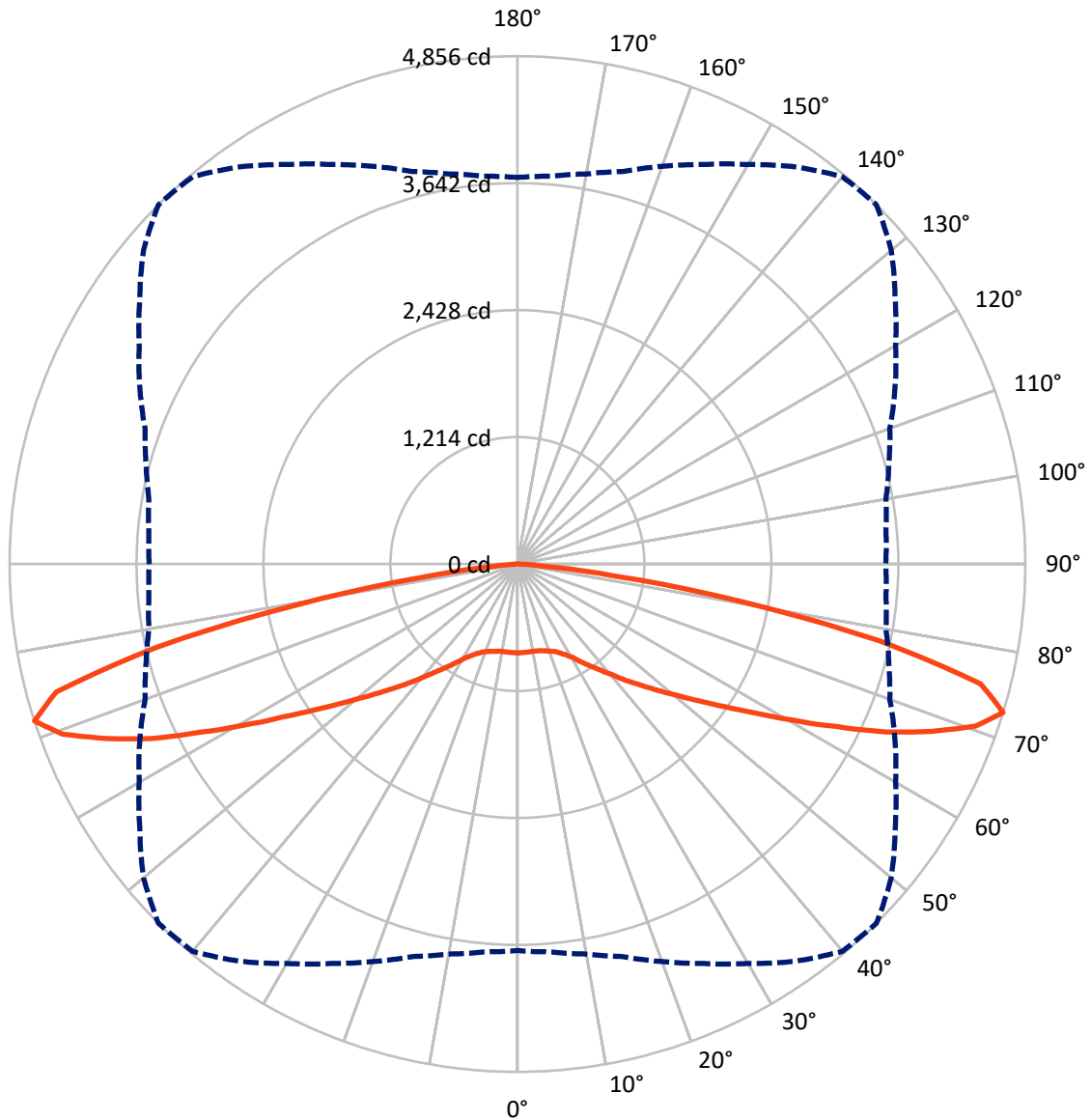


Based on 20 foot mounting height. Maximum calculated value = 2.1 fc
 Type V - Short - Semi-Cutoff

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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 |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5978.2 | 0.0 | 5978.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5978.2 | 0.0 | 5978.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 11956.4 | 0.0 | 11956.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 81.1 | 0.7 |
| 10°-20° | 245.5 | 2.1 |
| 20°-30° | 443.3 | 3.7 |
| 30°-40° | 756.1 | 6.3 |
| 40°-50° | 1287.3 | 10.8 |
| 50°-60° | 2071.7 | 17.3 |
| 60°-70° | 3445.2 | 28.8 |
| 70°-80° | 3332.9 | 27.9 |
| 80°-90° | 293.3 | 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° | 11956.4 | 100.0 |
| 0°-180° | 11956.4 | 100.0 |



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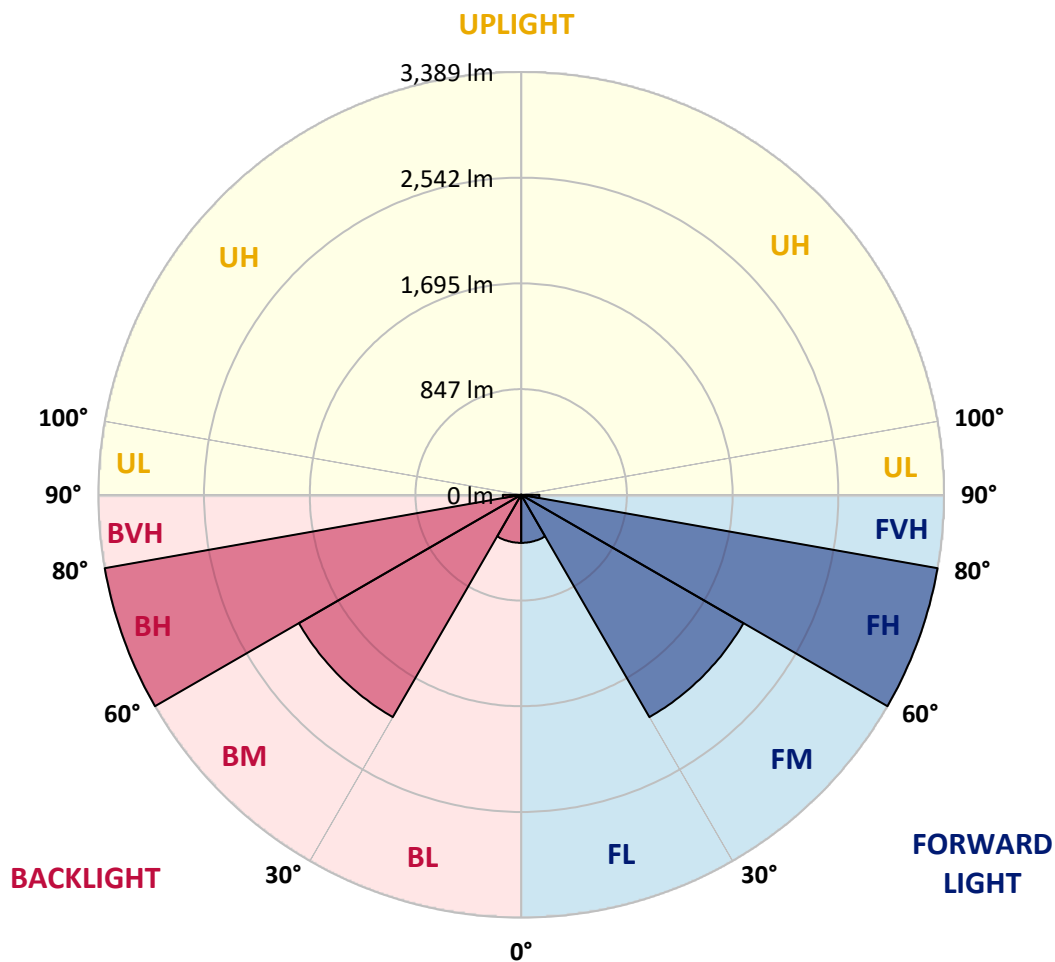
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 385.0 | 3.2 | | | |
| FM | (30°-60°) | 2057.5 | 17.2 | | | |
| FH | (60°-80°) | 3389.0 | 28.3 | | | G2/5000 |
| FVH | (80°-90°) | 146.7 | 1.2 | | | G2/225 |
| BL | (0°-30°) | 385.0 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 2057.5 | 17.2 | B2/2500 | | |
| BH | (60°-80°) | 3389.0 | 28.3 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 146.7 | 1.2 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 |
| 2.5° | 856.7 | 856.7 | 857.3 | 856.7 | 855.1 | 854.4 | 852.2 | 850.8 | 849.3 | 848.4 | 847.0 |
| 5° | 857.3 | 857.3 | 858.2 | 857.3 | 855.8 | 854.4 | 852.9 | 850.8 | 849.3 | 847.8 | 847.0 |
| 7.5° | 860.2 | 861.0 | 861.7 | 861.0 | 858.2 | 856.7 | 854.4 | 852.2 | 849.3 | 847.8 | 846.4 |
| 10° | 866.1 | 866.1 | 866.1 | 865.4 | 863.2 | 860.2 | 857.3 | 855.1 | 851.5 | 847.8 | 845.6 |
| 12.5° | 870.5 | 871.4 | 871.4 | 869.9 | 867.0 | 863.2 | 860.2 | 858.2 | 855.1 | 852.2 | 849.9 |
| 15° | 877.3 | 877.3 | 876.4 | 873.5 | 869.1 | 866.1 | 864.7 | 864.0 | 863.2 | 861.7 | 859.6 |
| 17.5° | 890.5 | 889.7 | 887.5 | 883.2 | 878.0 | 875.8 | 874.3 | 874.3 | 874.3 | 873.5 | 872.1 |
| 20° | 909.7 | 909.7 | 906.7 | 899.4 | 894.9 | 892.6 | 890.5 | 890.5 | 890.5 | 888.2 | 886.1 |
| 22.5° | 940.5 | 941.2 | 936.8 | 927.9 | 922.1 | 917.7 | 914.7 | 912.6 | 910.3 | 908.8 | 905.2 |
| 25° | 982.4 | 981.8 | 976.5 | 965.6 | 961.1 | 956.8 | 950.9 | 947.2 | 944.2 | 942.1 | 937.7 |
| 27.5° | 1026.7 | 1026.0 | 1020.0 | 1010.5 | 1007.4 | 1000.9 | 996.5 | 991.3 | 987.6 | 984.0 | 979.5 |
| 30° | 1083.3 | 1079.7 | 1075.2 | 1067.8 | 1066.4 | 1061.2 | 1055.4 | 1048.1 | 1042.2 | 1036.3 | 1031.1 |
| 32.5° | 1134.1 | 1134.1 | 1127.5 | 1123.8 | 1126.7 | 1124.5 | 1125.2 | 1120.8 | 1117.1 | 1114.9 | 1109.8 |
| 35° | 1204.7 | 1204.7 | 1201.8 | 1197.4 | 1198.1 | 1192.9 | 1192.2 | 1192.9 | 1196.0 | 1196.0 | 1190.1 |
| 37.5° | 1298.9 | 1300.3 | 1290.9 | 1289.3 | 1285.7 | 1278.3 | 1274.7 | 1276.1 | 1282.7 | 1286.5 | 1278.3 |
| 40° | 1416.0 | 1419.0 | 1416.0 | 1406.3 | 1402.0 | 1389.5 | 1382.1 | 1382.1 | 1387.3 | 1390.9 | 1388.1 |
| 42.5° | 1531.5 | 1536.6 | 1531.5 | 1524.2 | 1520.4 | 1510.9 | 1507.1 | 1510.1 | 1516.8 | 1521.2 | 1516.8 |
| 45° | 1660.2 | 1664.0 | 1657.4 | 1648.5 | 1644.1 | 1639.0 | 1636.7 | 1639.0 | 1646.4 | 1650.7 | 1649.3 |
| 47.5° | 1786.9 | 1791.9 | 1783.9 | 1780.3 | 1780.3 | 1775.1 | 1781.0 | 1786.9 | 1793.5 | 1803.7 | 1799.3 |
| 50° | 1910.4 | 1917.2 | 1912.0 | 1912.8 | 1918.6 | 1928.1 | 1939.3 | 1950.9 | 1962.7 | 1973.8 | 1975.3 |
| 52.5° | 2020.8 | 2031.2 | 2032.0 | 2045.3 | 2063.5 | 2078.3 | 2109.2 | 2134.9 | 2162.8 | 2172.6 | 2168.1 |
| 55° | 2137.2 | 2151.1 | 2169.5 | 2190.2 | 2219.6 | 2249.7 | 2302.0 | 2348.3 | 2385.2 | 2407.9 | 2404.4 |
| 57.5° | 2303.6 | 2317.4 | 2336.6 | 2370.4 | 2414.6 | 2455.8 | 2527.2 | 2599.3 | 2655.3 | 2689.9 | 2672.9 |
| 60° | 2519.1 | 2533.8 | 2558.8 | 2594.9 | 2652.3 | 2708.3 | 2806.1 | 2909.9 | 2996.7 | 3036.5 | 3005.5 |
| 62.5° | 2804.7 | 2818.6 | 2834.8 | 2882.8 | 2946.7 | 3018.8 | 3141.7 | 3275.0 | 3385.4 | 3423.6 | 3380.1 |
| 65° | 3211.6 | 3228.6 | 3233.7 | 3272.7 | 3335.2 | 3402.2 | 3534.7 | 3684.8 | 3810.7 | 3873.2 | 3786.4 |
| 67.5° | 3670.1 | 3676.8 | 3697.3 | 3743.0 | 3806.9 | 3867.4 | 3971.9 | 4113.9 | 4234.6 | 4269.1 | 4176.5 |
| 70° | 3938.8 | 3952.1 | 3988.0 | 4051.4 | 4127.9 | 4222.8 | 4336.8 | 4490.0 | 4626.9 | 4643.1 | 4525.3 |
| 72.5° | 3695.8 | 3723.1 | 3787.2 | 3885.8 | 4046.1 | 4214.8 | 4411.2 | 4637.2 | 4833.7 | 4856.4 | 4667.4 |
| 75° | 2964.3 | 2995.3 | 3071.8 | 3180.0 | 3369.9 | 3620.1 | 3904.2 | 4243.5 | 4537.8 | 4575.3 | 4325.1 |
| 77.5° | 1580.1 | 1618.3 | 1729.4 | 1875.2 | 2146.1 | 2477.2 | 2819.4 | 3206.5 | 3456.7 | 3541.4 | 3361.1 |
| 80° | 398.2 | 418.8 | 472.5 | 557.8 | 741.1 | 1008.3 | 1303.4 | 1719.8 | 2030.4 | 2162.2 | 2030.4 |
| 82.5° | 154.6 | 170.0 | 184.7 | 195.0 | 212.7 | 249.5 | 344.4 | 561.5 | 756.6 | 931.7 | 806.6 |
| 85° | 59.6 | 63.3 | 91.3 | 103.8 | 103.8 | 114.1 | 131.1 | 154.6 | 191.3 | 209.0 | 175.2 |
| 87.5° | 23.5 | 25.7 | 31.6 | 48.6 | 50.0 | 44.1 | 47.2 | 53.0 | 40.5 | 33.9 | 38.3 |
| 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° | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 | 849.9 |
| 2.5° | 846.4 | 845.6 | 844.1 | 844.9 | 844.1 | 844.1 | 844.1 | 844.1 |
| 5° | 845.6 | 845.6 | 844.1 | 844.1 | 844.1 | 844.9 | 844.1 | 844.1 |
| 7.5° | 844.9 | 844.1 | 842.7 | 841.9 | 841.9 | 841.3 | 841.3 | 841.3 |
| 10° | 843.4 | 841.9 | 840.5 | 839.7 | 839.7 | 838.3 | 838.3 | 838.3 |
| 12.5° | 847.0 | 844.9 | 843.4 | 842.7 | 842.7 | 842.7 | 843.4 | 843.4 |
| 15° | 857.3 | 852.9 | 850.8 | 849.9 | 850.8 | 852.2 | 852.9 | 853.7 |
| 17.5° | 868.4 | 864.0 | 860.2 | 858.8 | 859.6 | 861.7 | 864.0 | 865.4 |
| 20° | 882.3 | 878.7 | 874.3 | 872.9 | 872.9 | 875.8 | 877.3 | 879.4 |
| 22.5° | 902.3 | 899.4 | 895.6 | 893.5 | 891.9 | 895.6 | 897.9 | 899.4 |
| 25° | 933.9 | 931.0 | 927.9 | 925.9 | 925.1 | 928.8 | 930.3 | 931.0 |
| 27.5° | 975.9 | 973.0 | 971.4 | 970.7 | 968.6 | 970.0 | 972.1 | 971.4 |
| 30° | 1030.4 | 1032.5 | 1030.4 | 1030.4 | 1026.7 | 1028.1 | 1026.7 | 1025.1 |
| 32.5° | 1103.2 | 1101.0 | 1094.3 | 1090.0 | 1084.8 | 1084.8 | 1082.5 | 1080.3 |
| 35° | 1176.1 | 1168.7 | 1165.0 | 1167.2 | 1165.0 | 1166.4 | 1162.8 | 1159.2 |
| 37.5° | 1262.2 | 1257.7 | 1257.0 | 1263.6 | 1262.2 | 1263.6 | 1263.6 | 1258.4 |
| 40° | 1376.3 | 1373.2 | 1378.4 | 1389.5 | 1393.9 | 1393.1 | 1394.6 | 1388.1 |
| 42.5° | 1507.1 | 1502.1 | 1504.2 | 1513.9 | 1518.9 | 1520.4 | 1519.8 | 1513.9 |
| 45° | 1638.1 | 1639.6 | 1639.6 | 1649.9 | 1655.1 | 1658.1 | 1652.9 | 1650.7 |
| 47.5° | 1786.1 | 1788.3 | 1783.1 | 1789.9 | 1791.3 | 1796.4 | 1791.9 | 1788.3 |
| 50° | 1956.9 | 1948.8 | 1936.9 | 1939.3 | 1939.3 | 1937.7 | 1932.6 | 1928.1 |
| 52.5° | 2147.5 | 2129.1 | 2107.1 | 2099.7 | 2091.6 | 2083.4 | 2073.2 | 2065.1 |
| 55° | 2364.6 | 2332.9 | 2293.3 | 2274.8 | 2259.3 | 2240.9 | 2217.3 | 2209.3 |
| 57.5° | 2616.3 | 2561.7 | 2508.8 | 2475.6 | 2435.9 | 2411.7 | 2381.4 | 2380.0 |
| 60° | 2915.1 | 2841.5 | 2747.9 | 2698.7 | 2659.0 | 2630.2 | 2607.4 | 2598.5 |
| 62.5° | 3260.2 | 3133.6 | 3032.8 | 2979.8 | 2933.4 | 2915.8 | 2887.2 | 2890.7 |
| 65° | 3614.2 | 3485.5 | 3387.5 | 3344.8 | 3301.5 | 3289.7 | 3263.2 | 3272.7 |
| 67.5° | 3997.6 | 3891.6 | 3784.2 | 3744.4 | 3704.7 | 3692.9 | 3665.8 | 3673.8 |
| 70° | 4341.2 | 4206.7 | 4084.5 | 4006.5 | 3938.8 | 3884.4 | 3849.6 | 3835.8 |
| 72.5° | 4409.8 | 4176.5 | 3984.4 | 3789.4 | 3676.8 | 3578.2 | 3537.6 | 3522.3 |
| 75° | 3962.3 | 3600.1 | 3326.5 | 3097.5 | 2971.0 | 2827.4 | 2812.1 | 2790.7 |
| 77.5° | 3082.2 | 2670.0 | 2338.7 | 2044.5 | 1874.5 | 1699.2 | 1639.0 | 1593.4 |
| 80° | 1838.4 | 1413.0 | 1095.0 | 767.6 | 626.3 | 504.0 | 473.9 | 442.2 |
| 82.5° | 657.9 | 421.8 | 284.0 | 221.5 | 197.9 | 182.5 | 170.8 | 155.2 |
| 85° | 159.0 | 133.9 | 126.7 | 114.9 | 113.4 | 96.4 | 68.5 | 61.1 |
| 87.5° | 50.8 | 46.4 | 47.2 | 44.8 | 47.2 | 35.4 | 28.7 | 25.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)