

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: P233742

Luminaire Tested: **VERD-C018-D-U-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233742
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-33)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-C018-D-U-T3-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1210mA LED AND TYPE III OPTIC WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5509 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 50
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

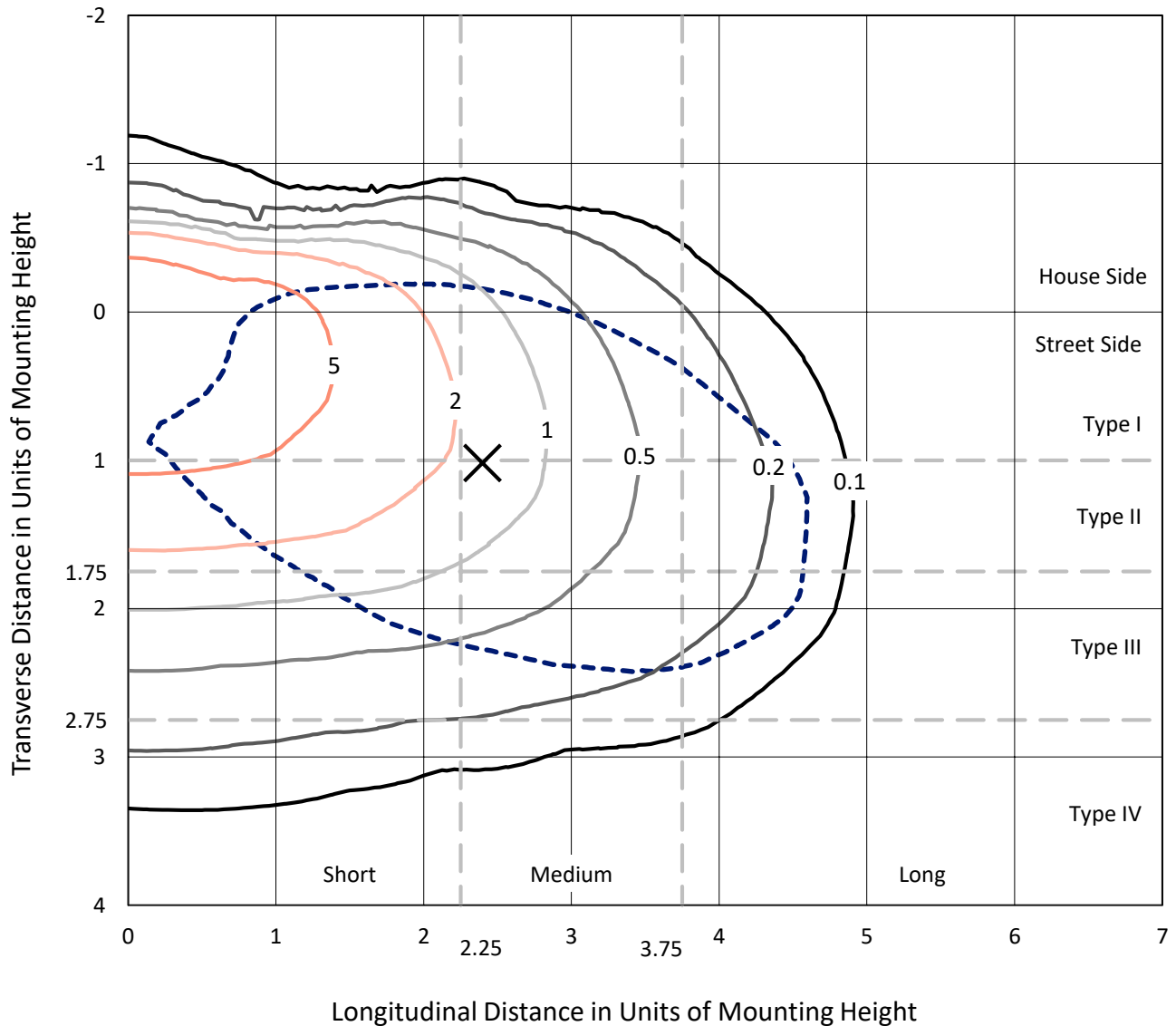


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

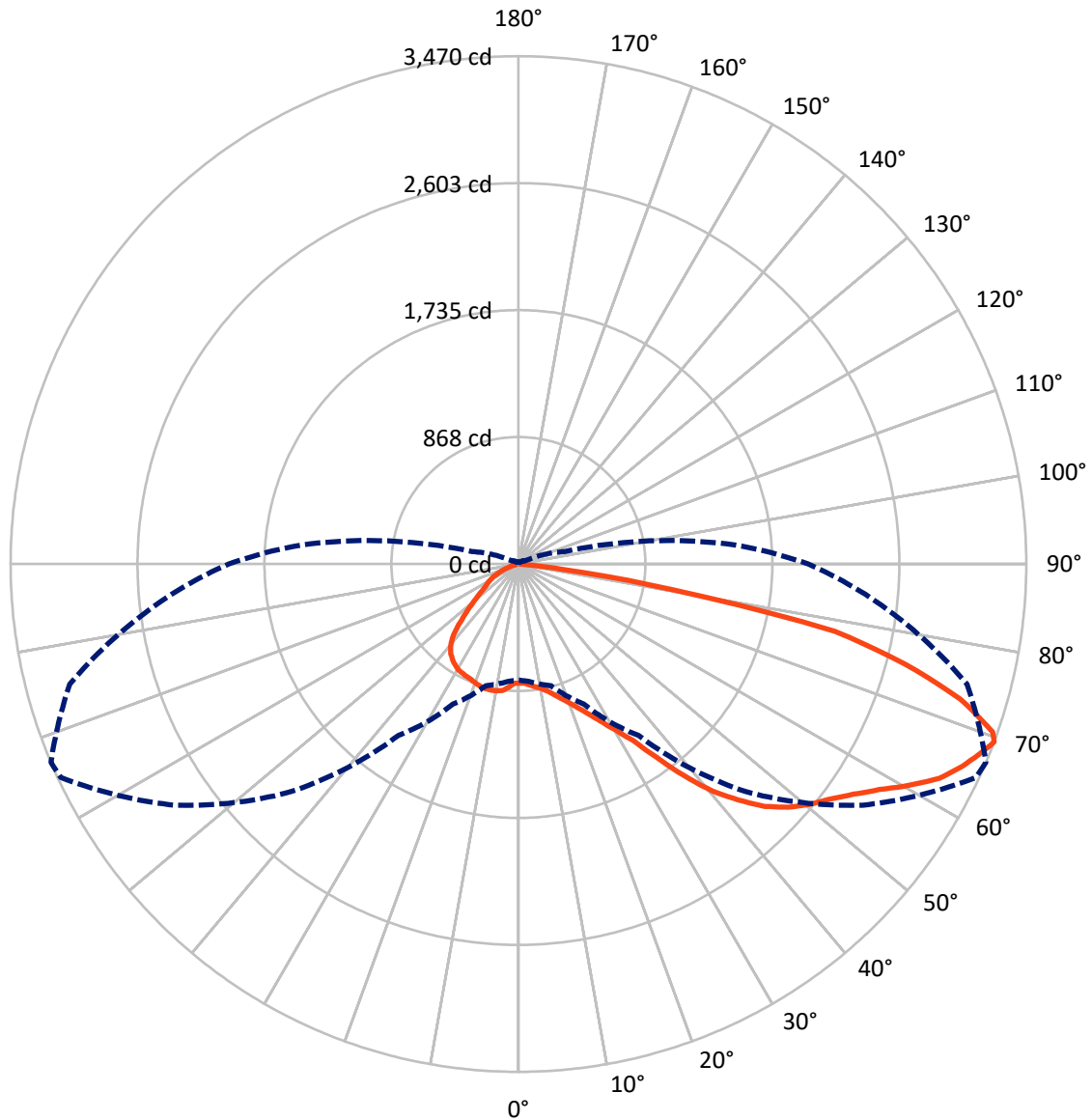


Based on 10 foot mounting height. Maximum calculated value = 10 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 993.1 | 0.0 | 993.1 |
| | % Fixture | 18.0 | 0.0 | 18.0 |
| Street Side | Lumens | 4515.9 | 0.0 | 4515.9 |
| | % Fixture | 82.0 | 0.0 | 82.0 |
| Total | Lumens | 5509.0 | 0.0 | 5509.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.2 | 1.5 |
| 10°-20° | 258.6 | 4.7 |
| 20°-30° | 441.4 | 8.0 |
| 30°-40° | 667.4 | 12.1 |
| 40°-50° | 942.9 | 17.1 |
| 50°-60° | 1139.5 | 20.7 |
| 60°-70° | 1202.4 | 21.8 |
| 70°-80° | 723.8 | 13.1 |
| 80°-90° | 50.6 | 0.9 |
| 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° | 5509.0 | 100.0 |
| 0°-180° | 5509.0 | 100.0 |

Coefficient of Utilization



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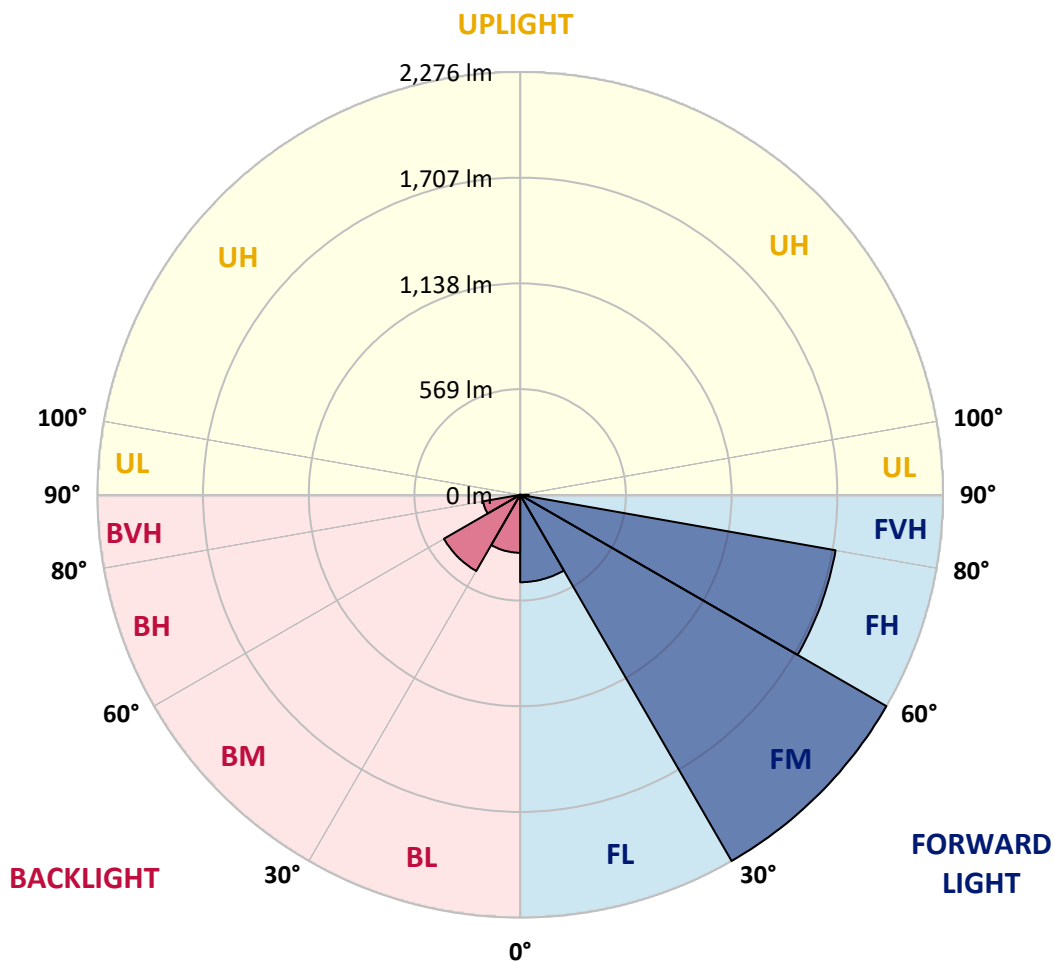
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 470.4 | 8.5 | | | |
| FM | (30°-60°) | 2276.0 | 41.3 | | | |
| FH | (60°-80°) | 1723.8 | 31.3 | | | G1/1800 |
| FVH | (80°-90°) | 45.7 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 311.9 | 5.7 | B1/500 | | |
| BM | (30°-60°) | 473.8 | 8.6 | B1/1000 | | |
| BH | (60°-80°) | 202.5 | 3.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 4.9 | 0.1 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 |
| 2.5° | 835.8 | 834.5 | 834.5 | 827.0 | 820.0 | 818.2 | 817.8 | 815.6 | 816.0 | 812.9 | 809.9 |
| 5° | 859.9 | 859.9 | 859.0 | 849.4 | 841.9 | 837.1 | 834.0 | 830.1 | 830.5 | 828.3 | 825.7 |
| 7.5° | 896.3 | 896.8 | 895.0 | 882.3 | 874.8 | 863.0 | 856.0 | 848.5 | 848.1 | 845.4 | 846.3 |
| 10° | 941.1 | 942.4 | 939.8 | 923.6 | 910.8 | 894.6 | 879.7 | 866.5 | 865.6 | 862.5 | 865.2 |
| 12.5° | 991.6 | 993.4 | 986.8 | 970.1 | 955.6 | 930.1 | 912.1 | 894.6 | 892.0 | 891.5 | 893.3 |
| 15° | 1049.5 | 1050.4 | 1048.2 | 1023.6 | 1006.1 | 982.8 | 953.4 | 931.0 | 928.4 | 928.8 | 926.6 |
| 17.5° | 1114.1 | 1116.3 | 1111.4 | 1089.5 | 1066.2 | 1034.2 | 999.1 | 971.4 | 970.1 | 968.8 | 959.1 |
| 20° | 1182.5 | 1184.7 | 1181.7 | 1161.0 | 1133.4 | 1093.0 | 1050.0 | 1018.4 | 1017.9 | 1014.9 | 992.5 |
| 22.5° | 1259.8 | 1262.9 | 1261.1 | 1236.1 | 1206.7 | 1162.8 | 1109.2 | 1076.3 | 1075.4 | 1065.8 | 1032.0 |
| 25° | 1343.6 | 1342.8 | 1344.5 | 1317.7 | 1290.1 | 1244.0 | 1177.7 | 1143.5 | 1143.5 | 1131.6 | 1081.6 |
| 27.5° | 1424.8 | 1424.4 | 1427.5 | 1408.6 | 1379.6 | 1336.2 | 1256.3 | 1221.6 | 1224.7 | 1207.6 | 1141.3 |
| 30° | 1503.9 | 1503.9 | 1511.3 | 1499.0 | 1477.5 | 1431.9 | 1353.7 | 1317.3 | 1321.3 | 1303.3 | 1216.8 |
| 32.5° | 1577.6 | 1581.1 | 1593.8 | 1586.4 | 1570.1 | 1528.9 | 1462.2 | 1428.8 | 1438.0 | 1445.5 | 1357.2 |
| 35° | 1632.0 | 1635.5 | 1665.0 | 1667.6 | 1663.6 | 1636.0 | 1586.4 | 1607.9 | 1618.9 | 1677.7 | 1579.4 |
| 37.5° | 1679.9 | 1684.3 | 1719.4 | 1741.3 | 1754.1 | 1736.9 | 1740.0 | 1812.0 | 1832.6 | 1902.0 | 1769.0 |
| 40° | 1715.0 | 1724.6 | 1759.3 | 1789.6 | 1834.4 | 1854.6 | 1904.6 | 2006.9 | 2040.3 | 2067.9 | 1899.4 |
| 42.5° | 1690.8 | 1697.4 | 1758.4 | 1839.7 | 1905.1 | 1976.2 | 2057.4 | 2179.0 | 2204.0 | 2195.2 | 2014.4 |
| 45° | 1655.3 | 1663.2 | 1727.3 | 1852.8 | 1961.2 | 2103.0 | 2202.2 | 2333.9 | 2362.4 | 2313.7 | 2113.6 |
| 47.5° | 1615.3 | 1626.3 | 1695.7 | 1835.3 | 2008.2 | 2219.8 | 2333.5 | 2466.9 | 2483.6 | 2419.5 | 2197.0 |
| 50° | 1575.0 | 1587.3 | 1665.8 | 1820.8 | 2044.6 | 2317.2 | 2429.2 | 2575.3 | 2580.2 | 2507.3 | 2272.0 |
| 52.5° | 1520.5 | 1533.3 | 1619.3 | 1790.5 | 2070.1 | 2381.3 | 2513.0 | 2664.4 | 2667.5 | 2602.1 | 2343.1 |
| 55° | 1451.6 | 1467.9 | 1558.7 | 1745.7 | 2076.3 | 2418.6 | 2566.1 | 2757.1 | 2777.7 | 2704.8 | 2401.5 |
| 57.5° | 1370.4 | 1385.3 | 1485.4 | 1681.2 | 2045.5 | 2431.4 | 2640.3 | 2879.5 | 2908.1 | 2808.9 | 2449.8 |
| 60° | 1276.9 | 1294.0 | 1394.6 | 1597.8 | 1983.6 | 2466.9 | 2763.2 | 3052.5 | 3069.6 | 2917.7 | 2492.4 |
| 62.5° | 1181.2 | 1193.5 | 1284.8 | 1480.6 | 1887.1 | 2488.4 | 2872.1 | 3214.9 | 3226.3 | 3022.6 | 2517.8 |
| 65° | 1045.1 | 1060.5 | 1149.6 | 1346.3 | 1747.9 | 2447.2 | 2913.8 | 3326.0 | 3333.0 | 3110.4 | 2505.5 |
| 67.5° | 897.2 | 909.5 | 974.5 | 1184.3 | 1565.3 | 2316.4 | 2896.7 | 3400.1 | 3422.5 | 3178.9 | 2449.8 |
| 69° | 792.3 | 804.6 | 860.8 | 1054.8 | 1429.7 | 2200.5 | 2872.5 | 3450.6 | 3470.4 | 3174.1 | 2378.7 |
| 70° | 710.7 | 723.0 | 776.1 | 958.2 | 1323.4 | 2102.6 | 2834.3 | 3425.2 | 3437.9 | 3120.1 | 2309.3 |
| 72.5° | 508.3 | 520.6 | 564.1 | 673.8 | 1002.6 | 1728.2 | 2597.7 | 3142.5 | 3159.6 | 2860.7 | 2064.0 |
| 75° | 266.0 | 295.4 | 373.5 | 435.4 | 593.9 | 1216.8 | 2159.7 | 2702.6 | 2727.7 | 2510.4 | 1697.4 |
| 77.5° | 34.2 | 36.0 | 105.3 | 176.9 | 245.4 | 513.1 | 1534.1 | 2170.2 | 2209.7 | 2009.1 | 1173.8 |
| 80° | 27.7 | 28.1 | 36.4 | 88.2 | 122.0 | 208.1 | 544.3 | 1015.7 | 1063.6 | 892.8 | 431.5 |
| 82.5° | 19.3 | 20.2 | 28.5 | 46.5 | 39.9 | 75.9 | 189.2 | 287.1 | 295.9 | 255.9 | 172.1 |
| 85° | 11.0 | 11.0 | 13.6 | 18.0 | 12.7 | 28.5 | 39.1 | 41.7 | 37.3 | 36.9 | 27.7 |
| 87.5° | 3.1 | 3.5 | 4.0 | 3.1 | 1.3 | 1.3 | 1.8 | 1.8 | 1.8 | 1.3 | 1.3 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 | 814.7 |
| 2.5° | 814.7 | 813.8 | 814.3 | 816.0 | 818.6 | 828.3 | 834.9 | 835.8 | 838.8 | 850.3 | 848.9 |
| 5° | 828.7 | 834.0 | 837.1 | 846.3 | 852.4 | 865.6 | 873.5 | 874.4 | 878.8 | 890.6 | 891.1 |
| 7.5° | 848.5 | 857.3 | 861.7 | 872.2 | 874.4 | 880.5 | 882.7 | 880.5 | 881.0 | 891.5 | 892.4 |
| 10° | 865.6 | 876.6 | 876.6 | 879.2 | 875.3 | 875.7 | 868.7 | 862.1 | 858.6 | 867.8 | 870.0 |
| 12.5° | 892.0 | 895.0 | 888.0 | 880.1 | 868.3 | 857.7 | 845.9 | 835.3 | 827.0 | 832.3 | 829.2 |
| 15° | 919.2 | 914.3 | 897.2 | 876.6 | 855.5 | 837.5 | 812.9 | 797.6 | 783.1 | 786.2 | 783.5 |
| 17.5° | 946.4 | 930.6 | 903.8 | 869.6 | 838.8 | 804.6 | 770.4 | 746.2 | 719.9 | 717.7 | 713.7 |
| 20° | 972.7 | 949.9 | 905.6 | 855.1 | 812.1 | 763.8 | 710.7 | 669.4 | 630.3 | 620.2 | 613.7 |
| 22.5° | 1004.3 | 971.4 | 907.8 | 841.0 | 783.1 | 717.3 | 636.9 | 572.8 | 530.7 | 516.6 | 510.1 |
| 25° | 1044.7 | 1001.3 | 913.9 | 830.5 | 753.7 | 659.7 | 549.6 | 476.3 | 430.6 | 406.5 | 404.3 |
| 27.5° | 1092.6 | 1037.2 | 924.4 | 816.9 | 712.0 | 582.9 | 459.1 | 382.8 | 334.0 | 309.5 | 301.6 |
| 30° | 1155.3 | 1082.0 | 934.1 | 806.4 | 653.2 | 499.1 | 364.3 | 279.2 | 221.2 | 205.4 | 197.1 |
| 32.5° | 1274.3 | 1154.9 | 946.4 | 781.8 | 583.8 | 407.3 | 258.1 | 172.1 | 132.6 | 122.0 | 122.0 |
| 35° | 1467.9 | 1315.1 | 977.1 | 748.0 | 500.4 | 296.7 | 155.0 | 96.6 | 79.0 | 72.9 | 69.8 |
| 37.5° | 1642.6 | 1476.6 | 1053.9 | 695.7 | 399.0 | 175.6 | 88.7 | 59.7 | 54.0 | 54.9 | 54.9 |
| 40° | 1765.9 | 1587.3 | 1138.6 | 625.1 | 270.8 | 93.9 | 56.2 | 47.8 | 48.7 | 49.2 | 49.2 |
| 42.5° | 1871.7 | 1681.6 | 1185.2 | 541.2 | 147.5 | 61.0 | 48.3 | 43.5 | 44.8 | 44.3 | 43.9 |
| 45° | 1960.4 | 1758.4 | 1200.5 | 425.8 | 71.5 | 54.0 | 43.9 | 39.9 | 39.9 | 39.5 | 39.5 |
| 47.5° | 2036.3 | 1826.5 | 1172.0 | 316.5 | 57.9 | 49.6 | 41.7 | 36.9 | 36.4 | 38.6 | 38.6 |
| 50° | 2105.7 | 1879.2 | 1100.9 | 239.7 | 56.2 | 45.7 | 39.5 | 34.2 | 34.7 | 37.8 | 37.8 |
| 52.5° | 2163.6 | 1910.3 | 995.5 | 179.5 | 52.2 | 42.1 | 36.4 | 32.0 | 32.0 | 35.1 | 35.1 |
| 55° | 2206.6 | 1910.3 | 915.2 | 134.3 | 50.0 | 38.6 | 33.8 | 30.7 | 29.0 | 29.8 | 30.3 |
| 57.5° | 2228.1 | 1874.3 | 850.7 | 108.9 | 47.4 | 35.1 | 31.2 | 26.8 | 23.7 | 24.6 | 24.1 |
| 60° | 2222.4 | 1853.7 | 776.5 | 97.0 | 44.3 | 32.5 | 27.7 | 22.8 | 19.8 | 18.9 | 18.9 |
| 62.5° | 2211.9 | 1830.4 | 683.9 | 84.3 | 41.3 | 30.3 | 22.8 | 18.4 | 16.7 | 15.8 | 16.2 |
| 65° | 2171.9 | 1754.9 | 566.7 | 70.2 | 38.2 | 29.4 | 19.3 | 16.2 | 14.5 | 13.6 | 13.6 |
| 67.5° | 2075.4 | 1618.9 | 428.4 | 59.3 | 35.6 | 23.7 | 16.7 | 14.0 | 12.3 | 11.4 | 11.4 |
| 69° | 1979.7 | 1488.9 | 328.8 | 54.0 | 33.8 | 21.5 | 15.4 | 12.7 | 11.4 | 10.1 | 10.1 |
| 70° | 1897.2 | 1388.4 | 257.7 | 50.5 | 32.5 | 20.6 | 14.9 | 12.3 | 11.0 | 9.7 | 9.7 |
| 72.5° | 1615.3 | 1101.3 | 130.8 | 43.9 | 27.2 | 18.0 | 13.2 | 11.0 | 9.2 | 7.9 | 7.9 |
| 75° | 1253.2 | 759.0 | 86.5 | 34.7 | 21.1 | 16.2 | 11.9 | 9.7 | 7.9 | 6.6 | 6.1 |
| 77.5° | 754.1 | 296.7 | 61.9 | 22.4 | 13.6 | 12.7 | 9.7 | 7.9 | 6.6 | 5.3 | 5.3 |
| 80° | 208.1 | 127.3 | 41.7 | 14.9 | 7.9 | 8.3 | 7.0 | 5.7 | 4.8 | 4.0 | 4.0 |
| 82.5° | 125.1 | 82.5 | 27.7 | 9.7 | 5.3 | 5.3 | 4.0 | 4.0 | 3.1 | 3.1 | 3.1 |
| 85° | 21.5 | 16.7 | 6.6 | 4.0 | 3.1 | 3.1 | 2.2 | 1.3 | 1.3 | 1.3 | 1.3 |
| 87.5° | 1.3 | 1.3 | 1.3 | 1.8 | 1.8 | 1.3 | 0.9 | 0.4 | 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)