

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: P509129

Luminaire Tested: **VERD-CA2-110-740-U-T4**

Issue Date: 3/4/2021

Test Information

Test Method: LM-79-08
Report Number: P509129
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-139-6)
Test Lab: INNOVATION CENTER
Issue Date: 3/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-CA2-110-740-U-T4
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 1020mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16168 lumens
Efficiency: N/A
Efficacy: 142.3 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

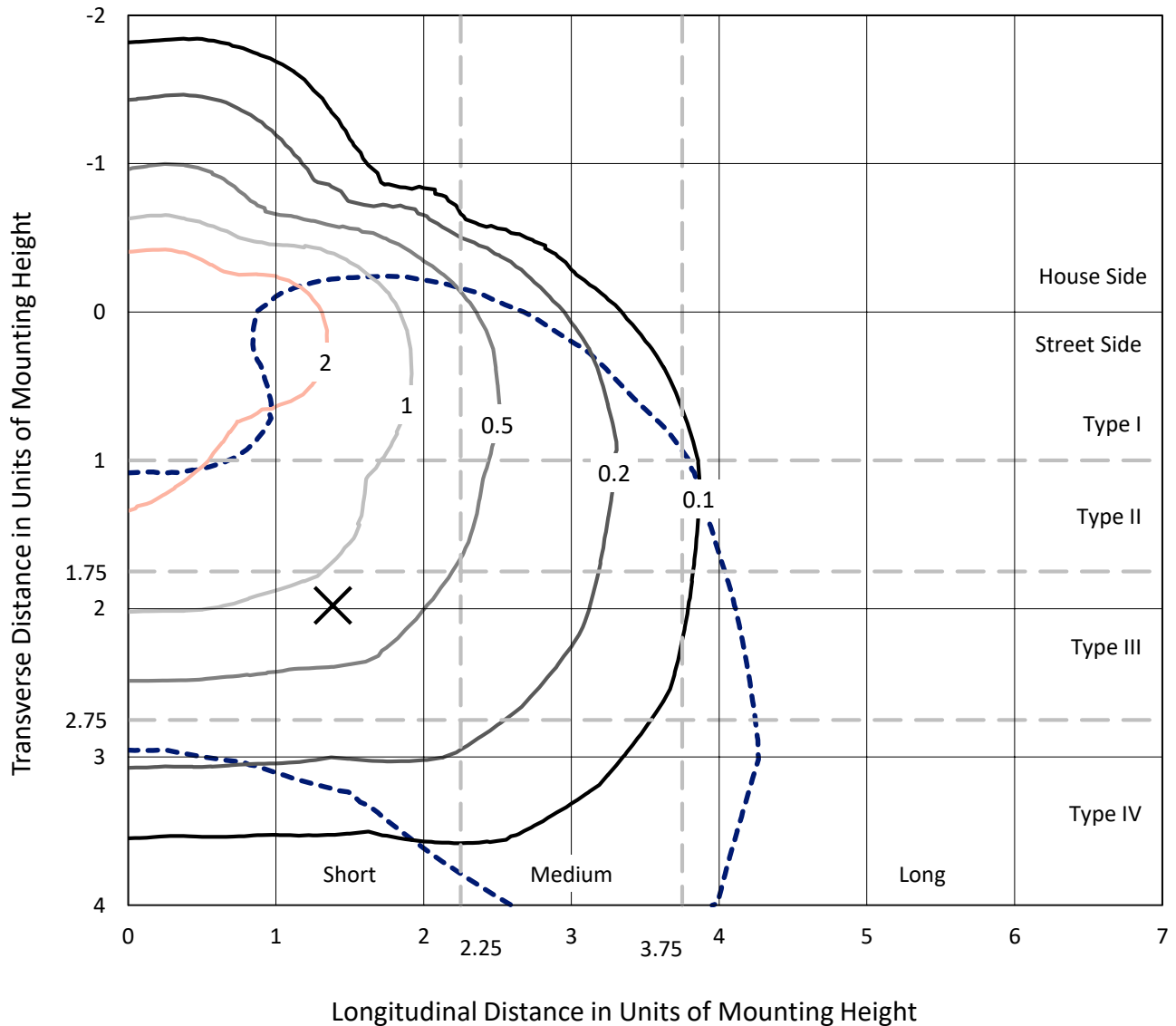
Input Watts (W): 113.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P509129
 CATALOG NUMBER: VERD-CA2-110-740-U-T4

Iso-Footcandle Lines of Horizontal Illumination

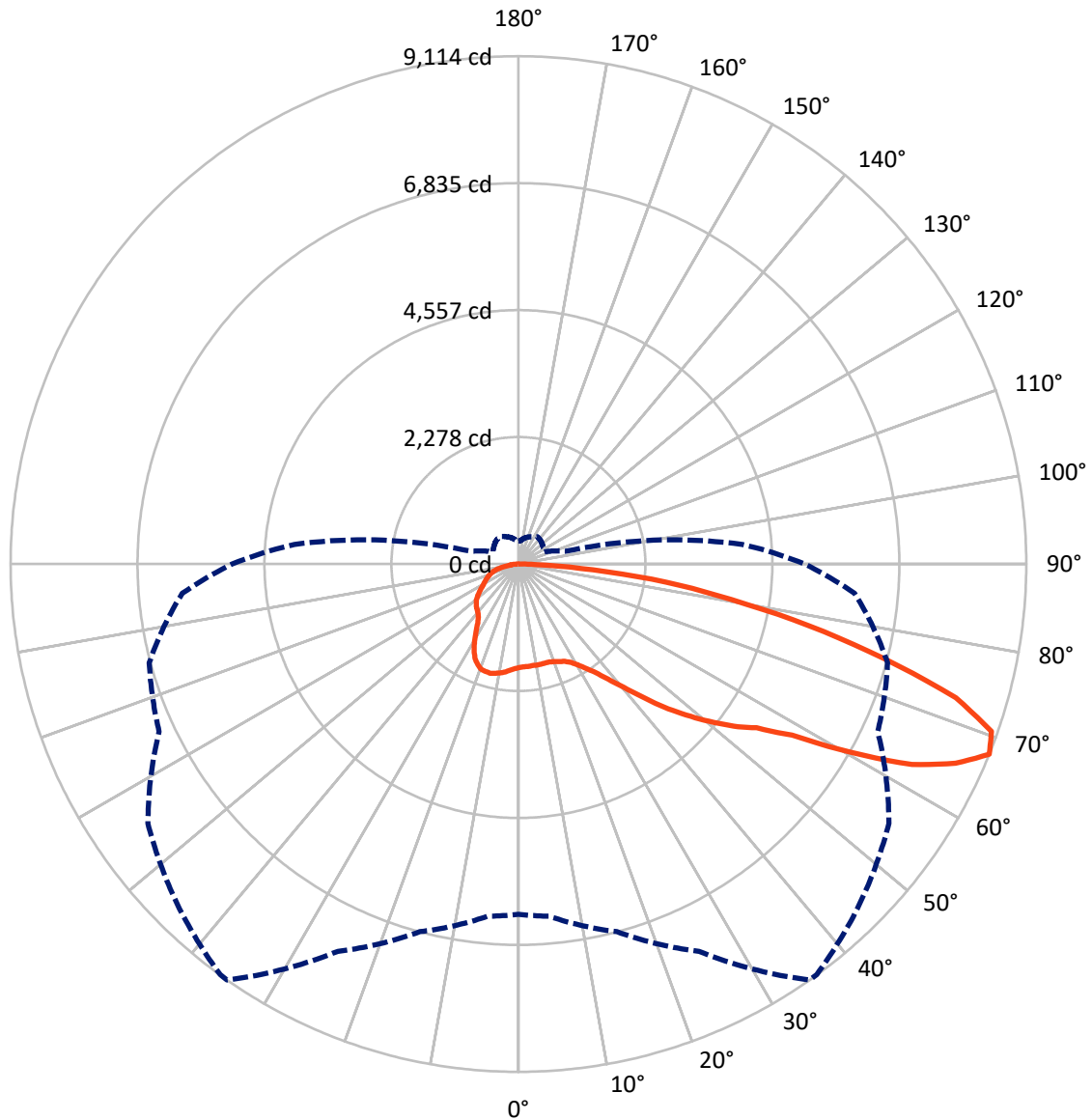
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P509129
CATALOG NUMBER: VERD-CA2-110-740-U-T4

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P509129

CATALOG NUMBER: VERD-CA2-110-740-U-T4

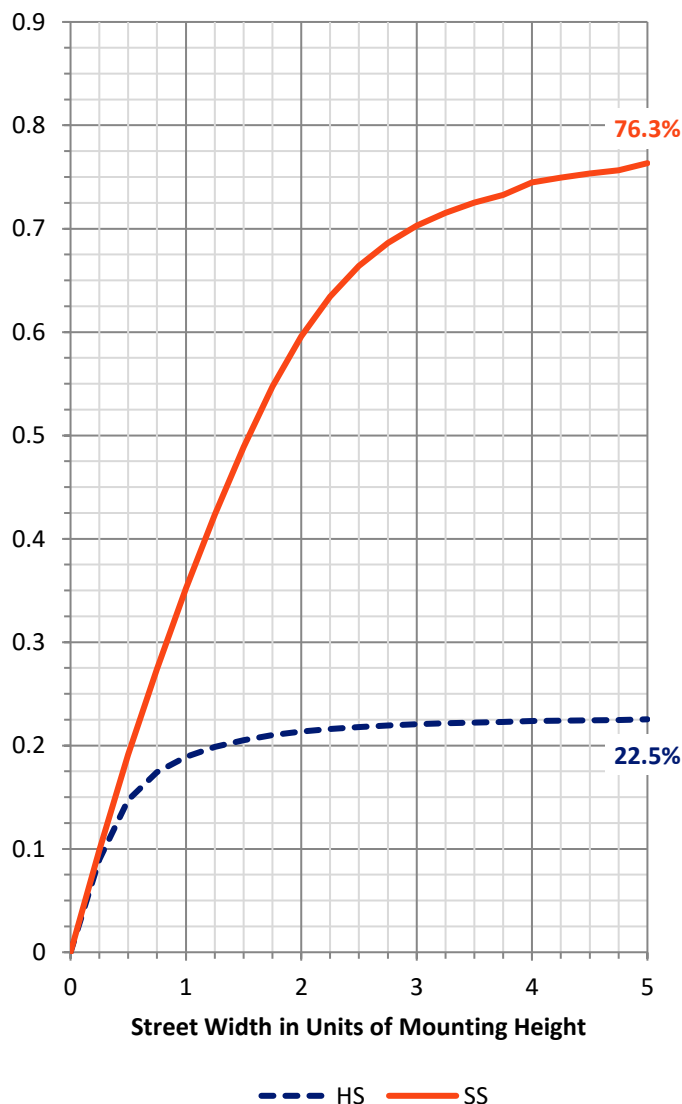
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3683.4 | 0.0 | 3683.4 |
| | % Fixture | 22.8 | 0.0 | 22.8 |
| Street Side | Lumens | 12484.6 | 0.0 | 12484.6 |
| | % Fixture | 77.2 | 0.0 | 77.2 |
| Total | Lumens | 16168.0 | 0.0 | 16168.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 179.8 | 1.1 |
| 10°-20° | 551.5 | 3.4 |
| 20°-30° | 920.5 | 5.7 |
| 30°-40° | 1416.2 | 8.8 |
| 40°-50° | 2333.9 | 14.4 |
| 50°-60° | 3333.5 | 20.6 |
| 60°-70° | 4150.4 | 25.7 |
| 70°-80° | 2800.8 | 17.3 |
| 80°-90° | 481.4 | 3.0 |
| 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° | 16168.0 | 100.0 |
| 0°-180° | 16168.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P509129

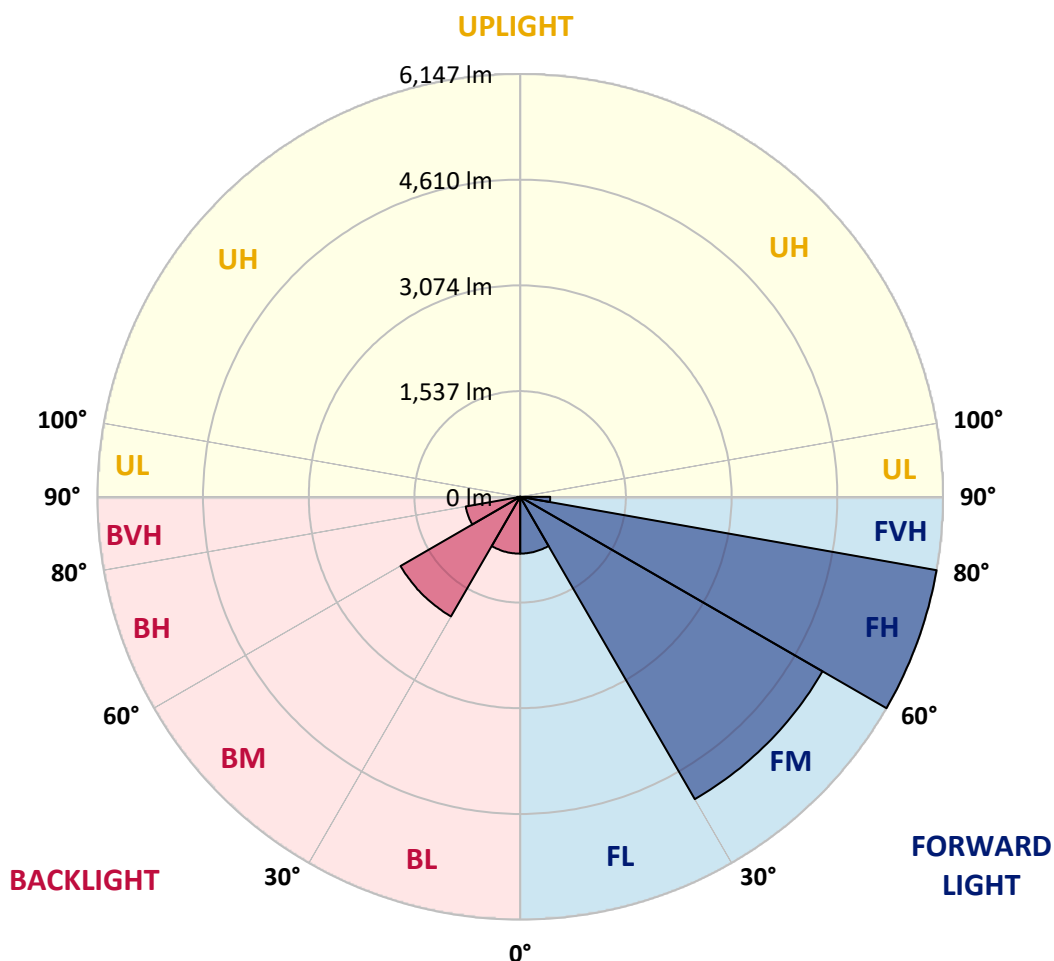
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 825.1 | 5.1 | | | |
| FM (30°-60°) | 5075.3 | 31.4 | | | |
| FH (60°-80°) | 6147.2 | 38.0 | | | G3/7500 |
| FVH (80°-90°) | 437.0 | 2.7 | | | G3/500 |
| BL (0°-30°) | 826.7 | 5.1 | B2/1000 | | |
| BM (30°-60°) | 2008.2 | 12.4 | B2/2500 | | |
| BH (60°-80°) | 804.1 | 5.0 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 44.4 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type IV Short





REPORT NUMBER: P509129

CATALOG NUMBER: VERD-CA2-110-740-U-T4

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 |
| 2.5° | 1831.8 | 1849.2 | 1847.5 | 1844.0 | 1845.7 | 1847.5 | 1838.7 | 1833.5 | 1840.5 | 1842.2 | 1850.9 |
| 5° | 1830.0 | 1844.0 | 1842.2 | 1842.2 | 1847.5 | 1845.7 | 1831.8 | 1821.3 | 1833.5 | 1842.2 | 1850.9 |
| 7.5° | 1828.3 | 1840.5 | 1840.5 | 1835.3 | 1838.7 | 1838.7 | 1831.8 | 1838.7 | 1838.7 | 1852.7 | 1863.1 |
| 10° | 1826.5 | 1837.0 | 1837.0 | 1838.7 | 1844.0 | 1845.7 | 1845.7 | 1850.9 | 1870.1 | 1875.3 | 1896.3 |
| 12.5° | 1805.6 | 1814.3 | 1821.3 | 1831.8 | 1842.2 | 1845.7 | 1854.4 | 1870.1 | 1894.5 | 1906.7 | 1931.1 |
| 15° | 1788.2 | 1800.4 | 1812.6 | 1823.1 | 1838.7 | 1842.2 | 1861.4 | 1887.5 | 1913.7 | 1939.8 | 1976.4 |
| 17.5° | 1795.2 | 1810.9 | 1824.8 | 1833.5 | 1845.7 | 1849.2 | 1868.4 | 1903.2 | 1945.1 | 1983.4 | 2033.9 |
| 20° | 1810.9 | 1828.3 | 1842.2 | 1852.7 | 1868.4 | 1871.9 | 1887.5 | 1920.7 | 1974.7 | 2033.9 | 2091.5 |
| 22.5° | 1849.2 | 1861.4 | 1877.1 | 1882.3 | 1899.7 | 1903.2 | 1913.7 | 1946.8 | 2016.5 | 2091.5 | 2164.7 |
| 25° | 1884.1 | 1898.0 | 1910.2 | 1915.4 | 1934.6 | 1938.1 | 1957.3 | 1985.1 | 2067.1 | 2152.5 | 2258.8 |
| 27.5° | 1929.4 | 1943.3 | 1959.0 | 1964.2 | 1997.3 | 2000.8 | 2009.5 | 2051.4 | 2133.3 | 2232.6 | 2365.1 |
| 30° | 2016.5 | 2025.2 | 2042.7 | 2063.6 | 2096.7 | 2100.2 | 2119.3 | 2162.9 | 2222.2 | 2344.2 | 2520.2 |
| 32.5° | 2149.0 | 2161.2 | 2154.2 | 2182.1 | 2230.9 | 2230.9 | 2297.1 | 2370.3 | 2443.5 | 2528.9 | 2762.5 |
| 35° | 2403.4 | 2396.5 | 2389.5 | 2365.1 | 2394.7 | 2405.2 | 2497.5 | 2621.3 | 2825.2 | 3065.7 | 3295.8 |
| 37.5° | 2718.9 | 2717.2 | 2680.5 | 2624.8 | 2623.0 | 2626.5 | 2710.2 | 2919.3 | 3243.5 | 3778.6 | 4026.1 |
| 40° | 3203.4 | 3217.4 | 3088.4 | 2973.4 | 2908.9 | 2894.9 | 2961.2 | 3224.3 | 3660.0 | 4372.9 | 4541.9 |
| 42.5° | 3687.9 | 3658.3 | 3553.7 | 3367.2 | 3259.2 | 3250.5 | 3262.7 | 3492.7 | 4064.4 | 4853.9 | 4914.9 |
| 45° | 4116.7 | 4139.3 | 3975.5 | 3862.2 | 3663.5 | 3667.0 | 3613.0 | 3823.9 | 4465.3 | 5193.8 | 5204.2 |
| 47.5° | 4554.1 | 4571.6 | 4367.7 | 4238.7 | 4048.7 | 4048.7 | 3963.3 | 4130.6 | 4822.5 | 5518.0 | 5497.0 |
| 50° | 5021.2 | 5061.3 | 4805.1 | 4609.9 | 4435.6 | 4428.7 | 4402.5 | 4507.1 | 5174.6 | 5791.6 | 5707.9 |
| 52.5° | 5652.2 | 5514.5 | 5272.2 | 5007.3 | 4834.8 | 4813.8 | 4789.4 | 4864.4 | 5579.0 | 6014.7 | 5843.9 |
| 55° | 6304.0 | 6117.5 | 5870.0 | 5514.5 | 5188.6 | 5218.2 | 5157.2 | 5242.6 | 5950.2 | 6281.3 | 6021.7 |
| 57.5° | 6699.6 | 6769.3 | 6635.1 | 6330.1 | 5793.3 | 5788.1 | 5558.0 | 5603.4 | 6283.1 | 6506.2 | 6209.9 |
| 60° | 7116.2 | 7213.8 | 7304.4 | 7123.2 | 6868.7 | 6753.7 | 6162.8 | 5986.8 | 6657.8 | 6670.0 | 6189.0 |
| 62.5° | 7334.0 | 7314.9 | 7708.8 | 7729.7 | 7926.6 | 7940.6 | 7363.7 | 6483.5 | 6879.1 | 6807.7 | 6262.2 |
| 65° | 6945.4 | 6955.8 | 7604.2 | 7942.3 | 8620.3 | 8660.4 | 8449.5 | 7356.7 | 7065.6 | 6872.2 | 6178.5 |
| 67.5° | 6286.6 | 6345.8 | 6832.1 | 7668.7 | 9113.5 | 9106.5 | 8649.9 | 8116.6 | 7114.4 | 6858.2 | 6056.5 |
| 70° | 5141.5 | 5204.2 | 5702.7 | 6917.5 | 9005.5 | 8947.9 | 8564.5 | 8177.6 | 7072.6 | 6732.7 | 5448.2 |
| 72.5° | 3944.1 | 3935.4 | 4451.3 | 5524.9 | 8210.7 | 8266.5 | 8127.1 | 7747.1 | 6872.2 | 6195.9 | 4463.5 |
| 75° | 2779.9 | 2736.3 | 3194.7 | 4188.1 | 6771.1 | 6976.8 | 7452.6 | 7348.0 | 6114.0 | 5099.7 | 2983.8 |
| 77.5° | 1824.8 | 1891.0 | 2257.0 | 3097.1 | 5324.5 | 5497.0 | 6154.1 | 5946.7 | 4524.5 | 3254.0 | 1077.1 |
| 80° | 1159.0 | 1218.3 | 1514.6 | 2211.7 | 3870.9 | 3949.4 | 4486.2 | 3782.1 | 2417.4 | 1073.6 | 149.9 |
| 82.5° | 704.1 | 712.8 | 976.0 | 1495.4 | 2670.1 | 2670.1 | 2825.2 | 2114.1 | 946.4 | 139.4 | 97.6 |
| 85° | 374.7 | 395.6 | 526.3 | 807.0 | 1345.5 | 1446.6 | 1281.0 | 807.0 | 183.0 | 76.7 | 59.3 |
| 87.5° | 118.5 | 120.3 | 172.5 | 312.0 | 289.3 | 298.0 | 99.3 | 41.8 | 20.9 | 13.9 | 12.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P509129
 CATALOG NUMBER: VERD-CA2-110-740-U-T4

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 | 1857.9 |
| 2.5° | 1854.4 | 1856.2 | 1866.6 | 1871.9 | 1873.6 | 1868.4 | 1880.6 | 1898.0 | 1892.8 | 1911.9 | 1905.0 |
| 5° | 1854.4 | 1863.1 | 1877.1 | 1875.3 | 1889.3 | 1896.3 | 1910.2 | 1927.6 | 1922.4 | 1950.3 | 1939.8 |
| 7.5° | 1868.4 | 1882.3 | 1892.8 | 1913.7 | 1924.1 | 1920.7 | 1952.0 | 1966.0 | 1959.0 | 1979.9 | 1969.5 |
| 10° | 1903.2 | 1918.9 | 1932.9 | 1955.5 | 1971.2 | 1964.2 | 1981.7 | 1990.4 | 1978.2 | 1999.1 | 1993.9 |
| 12.5° | 1943.3 | 1960.7 | 1988.6 | 2004.3 | 2016.5 | 2004.3 | 2004.3 | 1999.1 | 1981.7 | 2000.8 | 1988.6 |
| 15° | 1988.6 | 2011.3 | 2049.6 | 2067.1 | 2063.6 | 2042.7 | 2023.5 | 1986.9 | 1939.8 | 1948.5 | 1931.1 |
| 17.5° | 2049.6 | 2077.5 | 2121.1 | 2131.5 | 2117.6 | 2067.1 | 2016.5 | 1950.3 | 1866.6 | 1845.7 | 1831.8 |
| 20° | 2115.9 | 2147.2 | 2208.2 | 2203.0 | 2171.6 | 2082.7 | 2002.6 | 1899.7 | 1769.0 | 1709.8 | 1681.9 |
| 22.5° | 2206.5 | 2237.9 | 2295.4 | 2264.0 | 2199.5 | 2082.7 | 1946.8 | 1803.9 | 1648.8 | 1561.6 | 1542.4 |
| 25° | 2305.8 | 2349.4 | 2373.8 | 2304.1 | 2192.5 | 2035.7 | 1871.9 | 1683.6 | 1484.9 | 1390.8 | 1371.6 |
| 27.5° | 2427.8 | 2457.5 | 2433.1 | 2309.3 | 2157.7 | 1957.3 | 1749.9 | 1523.3 | 1333.3 | 1253.1 | 1225.2 |
| 30° | 2570.7 | 2574.2 | 2478.4 | 2298.9 | 2079.3 | 1845.7 | 1600.0 | 1361.2 | 1214.8 | 1139.8 | 1122.4 |
| 32.5° | 2760.7 | 2725.9 | 2518.5 | 2250.1 | 1972.9 | 1692.3 | 1432.6 | 1253.1 | 1131.1 | 1037.0 | 1012.6 |
| 35° | 3255.7 | 3097.1 | 2607.3 | 2194.3 | 1844.0 | 1521.5 | 1288.0 | 1155.5 | 1052.7 | 946.4 | 927.2 |
| 37.5° | 3897.1 | 3616.5 | 2764.2 | 2136.8 | 1697.6 | 1364.7 | 1192.1 | 1098.0 | 1010.9 | 892.4 | 866.2 |
| 40° | 4378.1 | 4053.9 | 3006.5 | 2074.0 | 1563.4 | 1253.1 | 1139.8 | 1075.4 | 979.5 | 871.4 | 843.6 |
| 42.5° | 4745.9 | 4418.2 | 3255.7 | 2004.3 | 1437.9 | 1166.0 | 1103.2 | 1059.7 | 967.3 | 866.2 | 843.6 |
| 45° | 5000.3 | 4672.7 | 3470.1 | 1922.4 | 1277.5 | 1091.0 | 1075.4 | 1033.5 | 944.6 | 847.0 | 824.4 |
| 47.5° | 5258.3 | 4852.2 | 3590.3 | 1837.0 | 1143.3 | 1049.2 | 1035.3 | 988.2 | 906.3 | 813.9 | 796.5 |
| 50° | 5483.1 | 5056.1 | 3693.2 | 1749.9 | 1037.0 | 998.7 | 990.0 | 927.2 | 848.8 | 761.6 | 739.0 |
| 52.5° | 5547.6 | 5104.9 | 3651.3 | 1744.6 | 941.2 | 944.6 | 927.2 | 876.7 | 803.5 | 709.4 | 686.7 |
| 55° | 5694.0 | 5240.8 | 3550.2 | 1584.3 | 848.8 | 861.0 | 857.5 | 831.4 | 763.4 | 676.2 | 658.8 |
| 57.5° | 5756.7 | 5138.0 | 3403.8 | 1178.2 | 752.9 | 763.4 | 793.0 | 793.0 | 733.8 | 655.3 | 639.6 |
| 60° | 5748.0 | 5141.5 | 3142.4 | 824.4 | 658.8 | 686.7 | 728.5 | 728.5 | 681.5 | 604.8 | 585.6 |
| 62.5° | 5681.8 | 5009.0 | 2708.4 | 629.2 | 599.6 | 639.6 | 688.4 | 657.1 | 615.2 | 529.8 | 515.9 |
| 65° | 5572.0 | 4644.8 | 1877.1 | 552.5 | 566.4 | 613.5 | 637.9 | 599.6 | 549.0 | 472.3 | 463.6 |
| 67.5° | 5132.8 | 4034.8 | 873.2 | 505.4 | 538.6 | 575.2 | 596.1 | 542.0 | 489.7 | 420.0 | 409.6 |
| 70° | 4369.4 | 2952.4 | 376.5 | 468.8 | 505.4 | 531.6 | 552.5 | 496.7 | 440.9 | 379.9 | 376.5 |
| 72.5° | 3177.3 | 1575.6 | 313.7 | 411.3 | 449.7 | 477.5 | 503.7 | 447.9 | 393.9 | 322.4 | 322.4 |
| 75° | 1530.2 | 261.4 | 270.1 | 341.6 | 376.5 | 432.2 | 444.4 | 366.0 | 305.0 | 245.7 | 240.5 |
| 77.5° | 188.2 | 169.1 | 233.5 | 271.9 | 301.5 | 331.1 | 360.8 | 317.2 | 263.2 | 202.2 | 191.7 |
| 80° | 118.5 | 118.5 | 184.7 | 190.0 | 205.7 | 237.0 | 264.9 | 247.5 | 207.4 | 116.8 | 108.1 |
| 82.5° | 87.1 | 94.1 | 122.0 | 90.6 | 108.1 | 135.9 | 155.1 | 176.0 | 149.9 | 81.9 | 76.7 |
| 85° | 55.8 | 61.0 | 57.5 | 45.3 | 59.3 | 90.6 | 123.7 | 122.0 | 101.1 | 61.0 | 57.5 |
| 87.5° | 12.2 | 12.2 | 12.2 | 10.5 | 12.2 | 15.7 | 29.6 | 57.5 | 41.8 | 33.1 | 31.4 |
| 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)