

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: P233663

Luminaire Tested: **VERD-C016-D-U-T2-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233663
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-32)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-C016-D-U-T2-8027-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 950mA LED AND TYPE II OPTIC WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3889 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

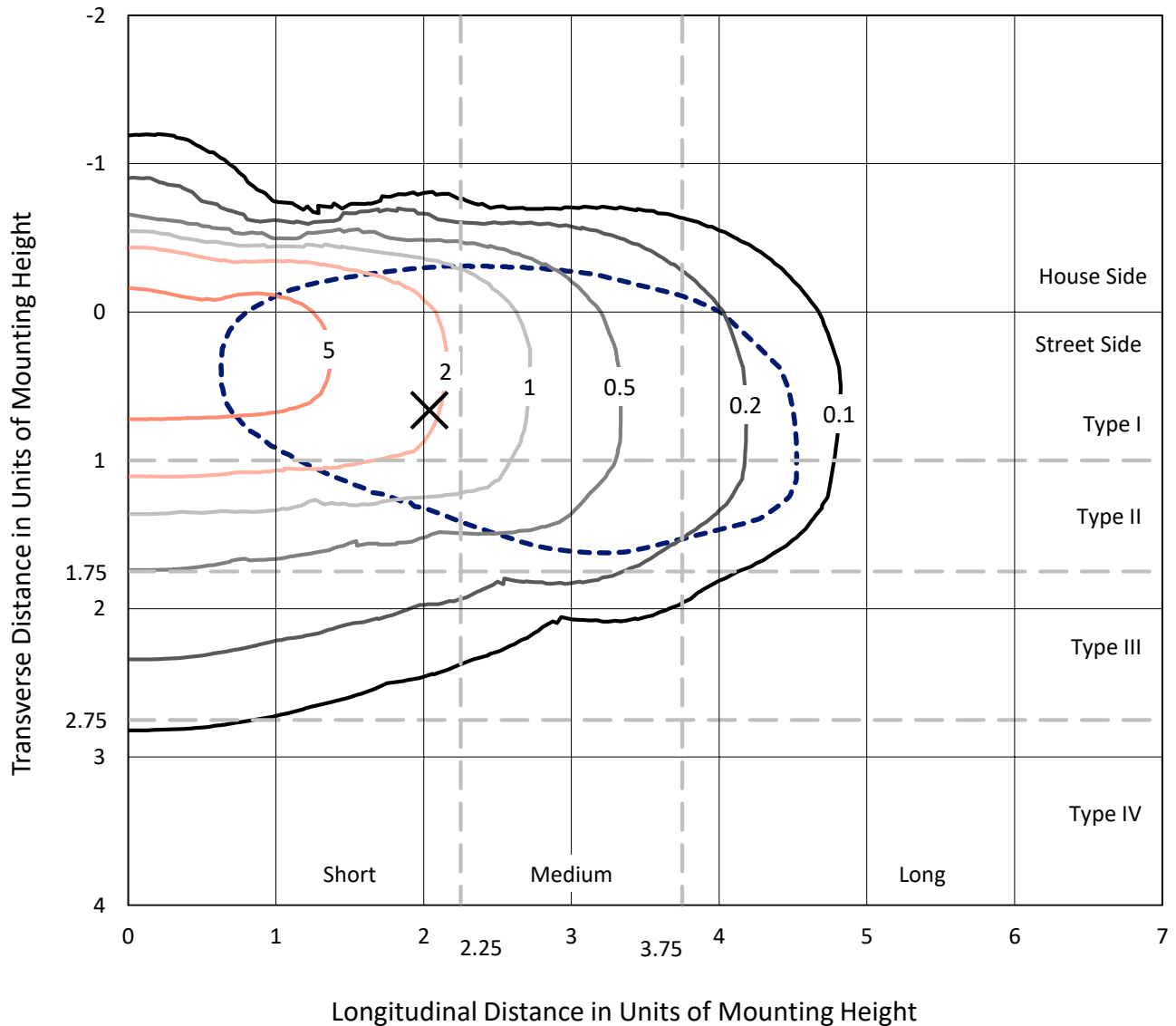
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

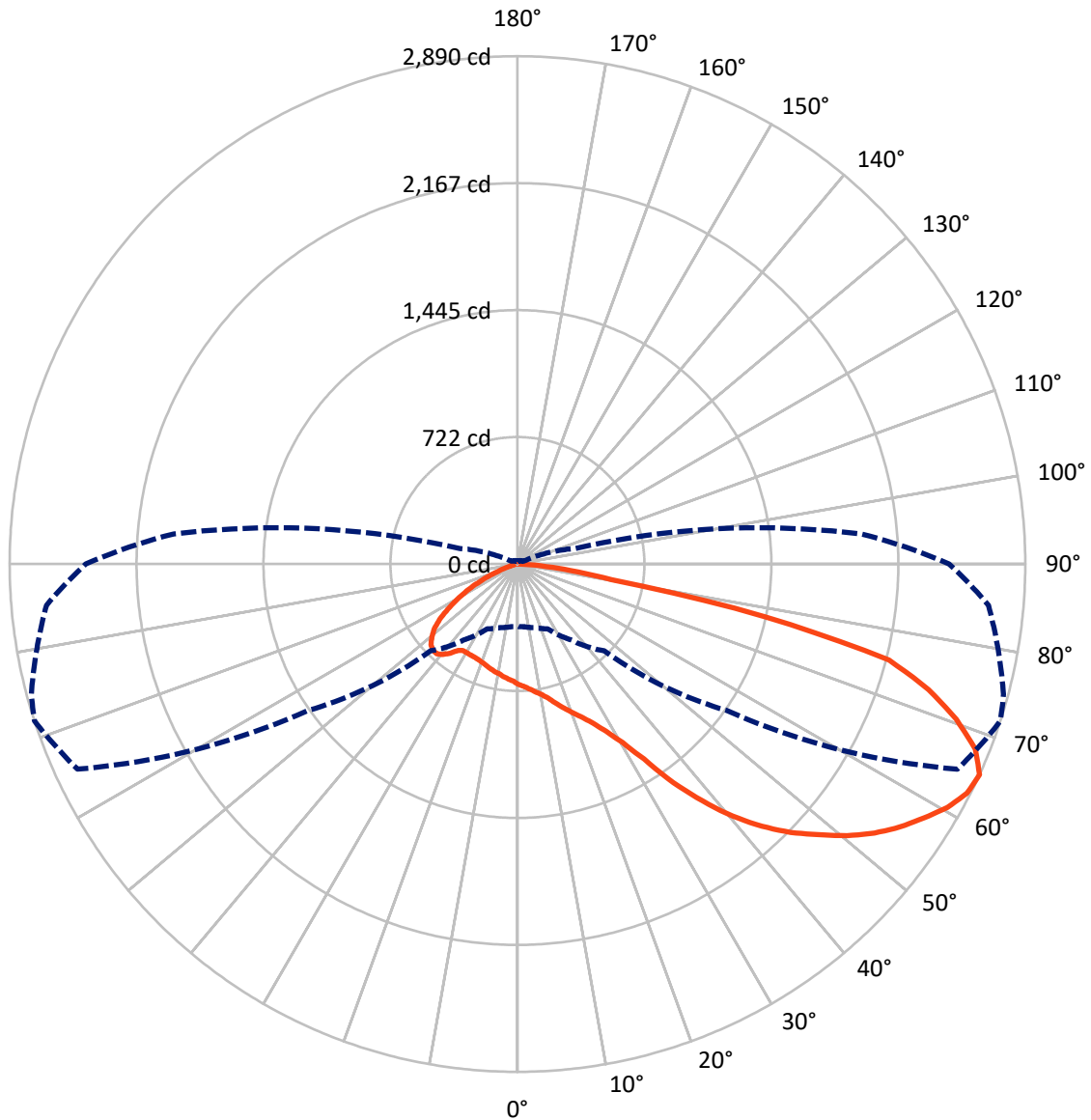
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.6 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 808.2 | 0.0 | 808.2 |
| | % Fixture | 20.8 | 0.0 | 20.8 |
| Street Side | Lumens | 3080.9 | 0.0 | 3080.9 |
| | % Fixture | 79.2 | 0.0 | 79.2 |
| Total | Lumens | 3889.0 | 0.0 | 3889.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 65.7 | 1.7 |
| 10°-20° | 199.4 | 5.1 |
| 20°-30° | 333.2 | 8.6 |
| 30°-40° | 492.9 | 12.7 |
| 40°-50° | 681.4 | 17.5 |
| 50°-60° | 797.4 | 20.5 |
| 60°-70° | 792.6 | 20.4 |
| 70°-80° | 474.7 | 12.2 |
| 80°-90° | 51.7 | 1.3 |
| 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° | 3889.0 | 100.0 |
| 0°-180° | 3889.0 | 100.0 |



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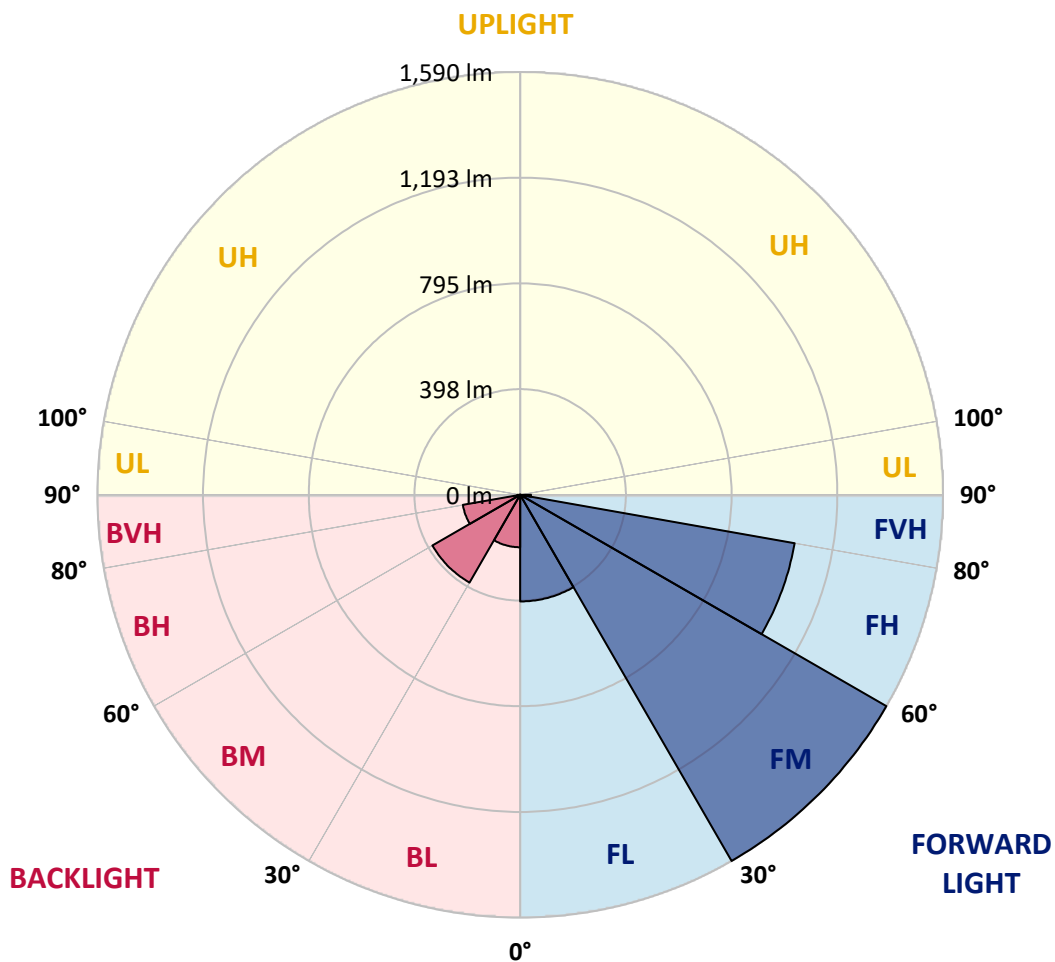
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 401.0 | 10.3 | | | |
| FM | (30°-60°) | 1590.5 | 40.9 | | | |
| FH | (60°-80°) | 1048.5 | 27.0 | | | G1/1800 |
| FVH | (80°-90°) | 40.8 | 1.1 | | | G1/100 |
| BL | (0°-30°) | 197.3 | 5.1 | B1/500 | | |
| BM | (30°-60°) | 381.2 | 9.8 | B1/1000 | | |
| BH | (60°-80°) | 218.8 | 5.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 10.8 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 72° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 |
| 2.5° | 743.2 | 743.8 | 744.1 | 732.4 | 726.0 | 718.7 | 711.7 | 704.1 | 696.2 | 693.3 | 682.9 |
| 5° | 788.8 | 789.5 | 787.6 | 776.8 | 765.0 | 754.3 | 740.9 | 727.3 | 714.0 | 710.2 | 692.4 |
| 7.5° | 833.0 | 832.6 | 831.0 | 817.4 | 802.8 | 788.5 | 769.8 | 751.4 | 733.9 | 727.9 | 701.6 |
| 10° | 869.4 | 870.1 | 871.0 | 856.4 | 842.2 | 825.0 | 802.2 | 774.9 | 754.9 | 745.4 | 711.1 |
| 12.5° | 909.4 | 907.5 | 910.1 | 895.8 | 876.1 | 860.6 | 839.9 | 807.9 | 784.1 | 772.0 | 729.5 |
| 15° | 955.1 | 955.1 | 951.6 | 939.9 | 919.9 | 900.9 | 880.2 | 850.7 | 822.2 | 803.8 | 754.3 |
| 17.5° | 986.5 | 984.6 | 983.7 | 973.5 | 956.4 | 939.9 | 924.0 | 893.9 | 862.8 | 840.2 | 777.4 |
| 20° | 999.9 | 1000.5 | 1004.9 | 997.6 | 988.4 | 978.6 | 961.1 | 937.7 | 903.4 | 879.3 | 802.2 |
| 22.5° | 1025.6 | 1026.2 | 1031.6 | 1026.5 | 1024.0 | 1021.4 | 1005.3 | 984.6 | 948.1 | 925.0 | 833.3 |
| 25° | 1027.1 | 1027.8 | 1042.4 | 1050.6 | 1063.6 | 1069.7 | 1058.6 | 1040.8 | 1003.7 | 981.1 | 879.6 |
| 27.5° | 1031.9 | 1033.8 | 1048.7 | 1071.6 | 1105.8 | 1117.9 | 1111.6 | 1110.9 | 1079.5 | 1055.7 | 939.9 |
| 30° | 1027.8 | 1029.7 | 1051.3 | 1083.0 | 1130.6 | 1166.1 | 1173.4 | 1192.2 | 1179.5 | 1161.7 | 1023.7 |
| 32.5° | 998.6 | 1005.6 | 1031.3 | 1081.7 | 1151.9 | 1216.3 | 1239.7 | 1303.8 | 1322.9 | 1324.8 | 1191.8 |
| 35° | 945.6 | 949.4 | 996.1 | 1067.1 | 1166.1 | 1263.5 | 1328.3 | 1446.6 | 1527.2 | 1523.7 | 1378.1 |
| 37.5° | 905.3 | 906.6 | 954.5 | 1042.4 | 1174.1 | 1314.3 | 1429.2 | 1618.6 | 1711.3 | 1715.4 | 1546.3 |
| 40° | 853.6 | 862.8 | 908.8 | 1012.6 | 1169.6 | 1357.2 | 1529.5 | 1778.9 | 1886.8 | 1882.3 | 1693.8 |
| 42.5° | 805.3 | 810.7 | 856.4 | 965.9 | 1153.4 | 1389.8 | 1627.8 | 1934.0 | 2040.0 | 2025.4 | 1835.3 |
| 45° | 755.2 | 764.4 | 806.3 | 905.6 | 1121.4 | 1408.2 | 1717.0 | 2081.3 | 2178.4 | 2160.3 | 1960.1 |
| 47.5° | 705.1 | 711.7 | 756.2 | 850.4 | 1061.1 | 1407.6 | 1804.6 | 2219.3 | 2301.2 | 2288.5 | 2078.1 |
| 50° | 536.6 | 551.2 | 667.9 | 792.7 | 976.4 | 1381.0 | 1875.3 | 2350.3 | 2430.0 | 2410.3 | 2193.3 |
| 52.5° | 491.8 | 496.6 | 529.3 | 725.7 | 885.9 | 1317.5 | 1930.5 | 2473.5 | 2543.6 | 2521.1 | 2301.8 |
| 55° | 464.9 | 470.6 | 483.9 | 589.9 | 811.7 | 1213.1 | 1953.4 | 2588.3 | 2640.7 | 2617.8 | 2398.6 |
| 57.5° | 429.0 | 434.7 | 461.1 | 508.0 | 734.3 | 1054.1 | 1919.8 | 2690.2 | 2726.7 | 2701.6 | 2488.4 |
| 60° | 404.3 | 406.8 | 432.2 | 469.0 | 649.5 | 893.6 | 1807.4 | 2773.0 | 2811.1 | 2781.3 | 2577.2 |
| 62.5° | 381.4 | 384.3 | 402.4 | 438.8 | 579.4 | 775.8 | 1632.6 | 2793.3 | 2871.1 | 2847.9 | 2658.5 |
| 65° | 355.1 | 357.6 | 374.1 | 406.5 | 525.2 | 699.0 | 1452.3 | 2762.2 | 2889.5 | 2863.1 | 2689.9 |
| 67.5° | 320.2 | 323.7 | 336.7 | 365.9 | 454.1 | 612.1 | 1184.2 | 2704.8 | 2808.9 | 2781.6 | 2625.5 |
| 70° | 277.0 | 278.6 | 294.2 | 320.5 | 383.6 | 531.2 | 928.8 | 2500.4 | 2649.3 | 2619.1 | 2444.0 |
| 72.5° | 223.7 | 226.6 | 243.4 | 271.0 | 315.1 | 437.6 | 663.5 | 2160.6 | 2447.1 | 2435.7 | 2179.6 |
| 75° | 149.5 | 160.6 | 200.5 | 228.5 | 260.5 | 341.7 | 445.5 | 1516.4 | 2184.7 | 2193.6 | 1862.0 |
| 77.5° | 28.6 | 29.5 | 84.1 | 125.0 | 152.3 | 208.8 | 275.7 | 745.1 | 1440.0 | 1595.8 | 1404.1 |
| 80° | 18.7 | 20.3 | 35.9 | 87.6 | 100.9 | 103.4 | 141.5 | 326.5 | 542.6 | 686.4 | 809.8 |
| 82.5° | 9.8 | 11.7 | 21.6 | 50.8 | 46.3 | 25.7 | 46.3 | 168.5 | 300.8 | 345.6 | 408.4 |
| 85° | 4.1 | 4.8 | 10.5 | 17.5 | 13.0 | 10.8 | 10.8 | 67.3 | 133.3 | 154.2 | 160.2 |
| 87.5° | 0.6 | 0.6 | 2.2 | 3.2 | 1.9 | 1.3 | 1.0 | 0.3 | 0.3 | 0.3 | 0.3 |
| 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° | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 | 685.4 |
| 2.5° | 682.9 | 677.1 | 669.2 | 660.0 | 653.4 | 649.9 | 647.0 | 639.4 | 636.9 | 641.9 | 640.7 |
| 5° | 685.7 | 679.1 | 661.0 | 646.1 | 631.1 | 621.9 | 611.8 | 598.5 | 592.7 | 595.9 | 595.0 |
| 7.5° | 687.6 | 679.4 | 652.4 | 629.2 | 604.2 | 586.7 | 573.4 | 555.9 | 547.4 | 550.5 | 546.7 |
| 10° | 690.5 | 678.1 | 642.2 | 611.5 | 578.8 | 553.4 | 533.7 | 513.4 | 504.5 | 507.1 | 503.9 |
| 12.5° | 702.5 | 682.5 | 637.5 | 596.2 | 556.3 | 524.5 | 499.8 | 478.2 | 465.5 | 468.0 | 465.5 |
| 15° | 722.2 | 691.4 | 630.5 | 576.9 | 532.5 | 496.3 | 467.7 | 443.0 | 428.4 | 431.9 | 428.7 |
| 17.5° | 742.8 | 702.2 | 624.2 | 555.3 | 507.1 | 466.8 | 436.9 | 416.0 | 392.5 | 394.7 | 390.0 |
| 20° | 760.6 | 712.4 | 620.7 | 535.0 | 483.3 | 435.4 | 399.5 | 385.2 | 352.9 | 344.6 | 339.2 |
| 22.5° | 785.4 | 727.3 | 617.8 | 518.5 | 453.8 | 403.9 | 361.4 | 334.8 | 299.9 | 282.4 | 280.8 |
| 25° | 820.6 | 749.5 | 617.5 | 505.5 | 427.1 | 370.9 | 311.6 | 266.9 | 236.1 | 215.5 | 212.6 |
| 27.5° | 865.3 | 779.0 | 621.0 | 492.5 | 400.5 | 329.4 | 250.4 | 200.9 | 173.3 | 157.4 | 154.5 |
| 30° | 929.7 | 817.7 | 625.4 | 477.6 | 370.6 | 275.4 | 186.6 | 147.9 | 125.0 | 113.6 | 111.4 |
| 32.5° | 1067.8 | 917.0 | 632.1 | 462.0 | 334.8 | 207.5 | 135.5 | 107.3 | 89.8 | 82.8 | 86.3 |
| 35° | 1234.0 | 1051.9 | 661.9 | 442.0 | 287.8 | 147.9 | 97.7 | 76.5 | 64.4 | 66.0 | 67.9 |
| 37.5° | 1379.4 | 1180.7 | 728.9 | 416.3 | 225.0 | 108.5 | 67.3 | 57.1 | 57.1 | 62.2 | 66.6 |
| 40° | 1516.4 | 1296.9 | 788.8 | 381.4 | 157.7 | 74.9 | 52.0 | 53.0 | 52.0 | 55.2 | 54.3 |
| 42.5° | 1645.9 | 1407.0 | 835.8 | 339.8 | 103.1 | 51.7 | 47.3 | 49.2 | 47.6 | 48.2 | 45.4 |
| 45° | 1768.4 | 1520.9 | 861.8 | 278.6 | 68.5 | 45.1 | 43.5 | 46.6 | 46.3 | 45.7 | 42.8 |
| 47.5° | 1881.7 | 1621.2 | 874.8 | 200.9 | 47.3 | 40.6 | 40.9 | 43.2 | 44.1 | 43.5 | 41.9 |
| 50° | 1992.7 | 1721.1 | 863.1 | 120.3 | 42.5 | 37.1 | 39.3 | 39.3 | 41.3 | 37.8 | 36.5 |
| 52.5° | 2099.0 | 1821.4 | 826.0 | 73.0 | 39.0 | 34.6 | 36.5 | 35.9 | 36.8 | 33.3 | 32.7 |
| 55° | 2199.0 | 1896.0 | 752.7 | 57.4 | 36.8 | 33.0 | 33.3 | 34.0 | 32.4 | 28.6 | 29.8 |
| 57.5° | 2304.7 | 1959.4 | 650.5 | 52.0 | 35.9 | 30.8 | 31.4 | 31.1 | 28.6 | 25.1 | 25.1 |
| 60° | 2391.6 | 2005.4 | 548.0 | 47.3 | 35.2 | 30.1 | 27.9 | 27.3 | 23.5 | 21.6 | 21.3 |
| 62.5° | 2451.6 | 2018.4 | 448.0 | 42.2 | 33.3 | 27.9 | 25.1 | 23.2 | 19.7 | 17.8 | 17.1 |
| 65° | 2456.3 | 1962.9 | 341.1 | 38.1 | 31.4 | 26.0 | 23.2 | 19.0 | 15.5 | 14.0 | 13.3 |
| 67.5° | 2358.9 | 1808.7 | 240.5 | 34.9 | 28.2 | 24.1 | 20.3 | 15.2 | 12.4 | 11.1 | 10.8 |
| 70° | 2155.2 | 1617.0 | 147.2 | 30.5 | 25.7 | 22.5 | 20.9 | 12.4 | 10.2 | 8.6 | 8.6 |
| 72.5° | 1891.2 | 1400.6 | 86.3 | 26.0 | 21.6 | 18.1 | 14.0 | 10.5 | 8.6 | 6.7 | 6.7 |
| 75° | 1620.8 | 1111.9 | 53.0 | 19.7 | 15.9 | 14.3 | 10.8 | 8.9 | 7.0 | 5.1 | 5.1 |
| 77.5° | 1167.1 | 820.9 | 41.3 | 12.7 | 9.8 | 10.2 | 7.9 | 7.0 | 5.7 | 4.1 | 4.1 |
| 80° | 716.2 | 499.8 | 29.5 | 8.6 | 5.7 | 5.7 | 5.7 | 5.4 | 4.1 | 3.5 | 3.2 |
| 82.5° | 363.0 | 228.5 | 14.6 | 5.1 | 3.5 | 3.5 | 3.5 | 3.8 | 3.2 | 2.5 | 2.5 |
| 85° | 127.6 | 64.1 | 4.4 | 2.5 | 2.2 | 2.2 | 1.9 | 1.9 | 1.6 | 1.3 | 1.3 |
| 87.5° | 0.3 | 0.6 | 0.6 | 1.0 | 1.3 | 1.3 | 1.0 | 0.6 | 0.3 | 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)