

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: LUMARK

Report Number: P233631

Luminaire Tested: **VRDN-C02-D-UNV-T5-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233631
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1710-389-16)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: VRDN-C02-D-UNV-T5-7030
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 1140mA LEDS AND TYPE V OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10925 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B4 - U0 - G3

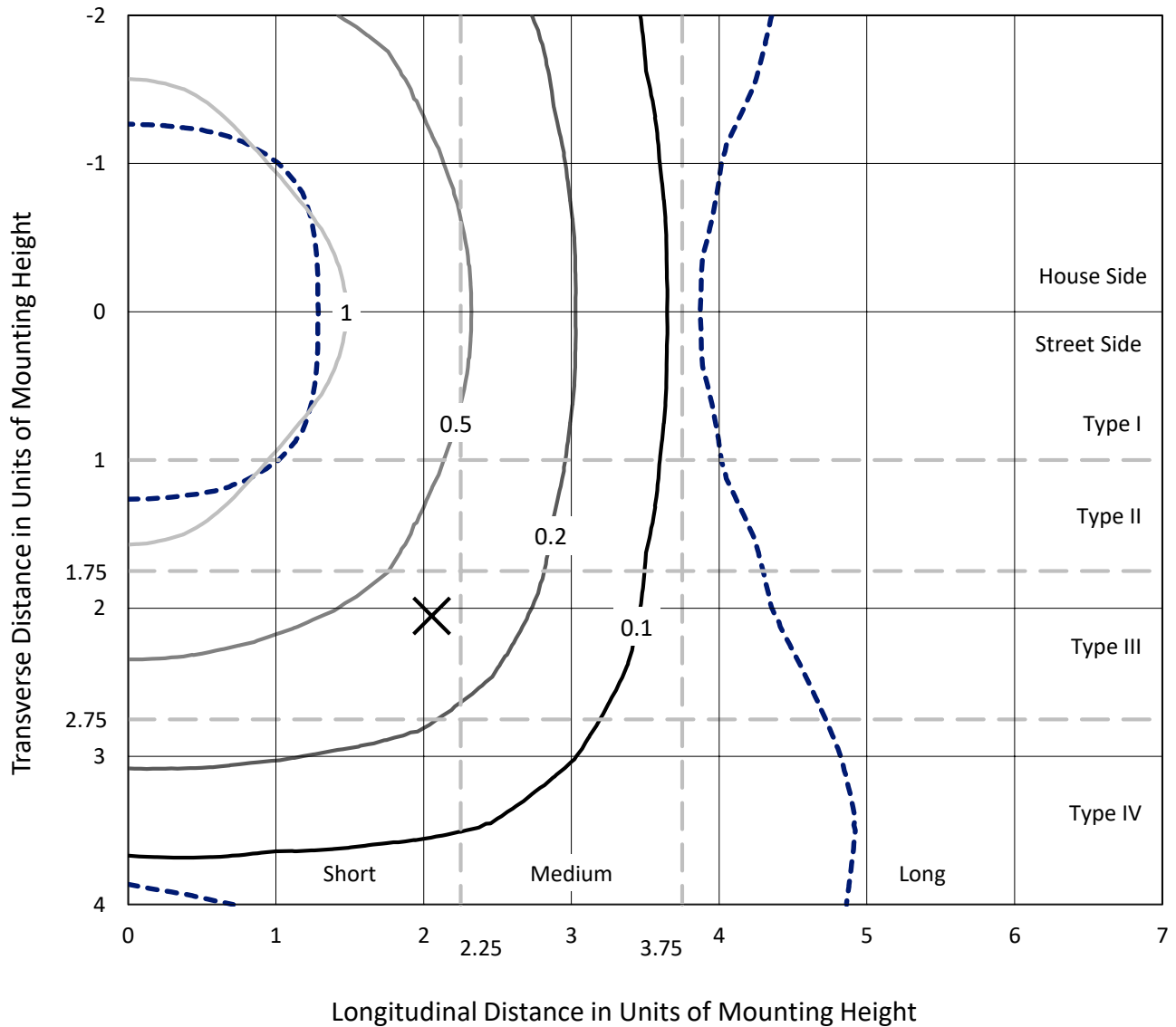
Input Watts (W): 90
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

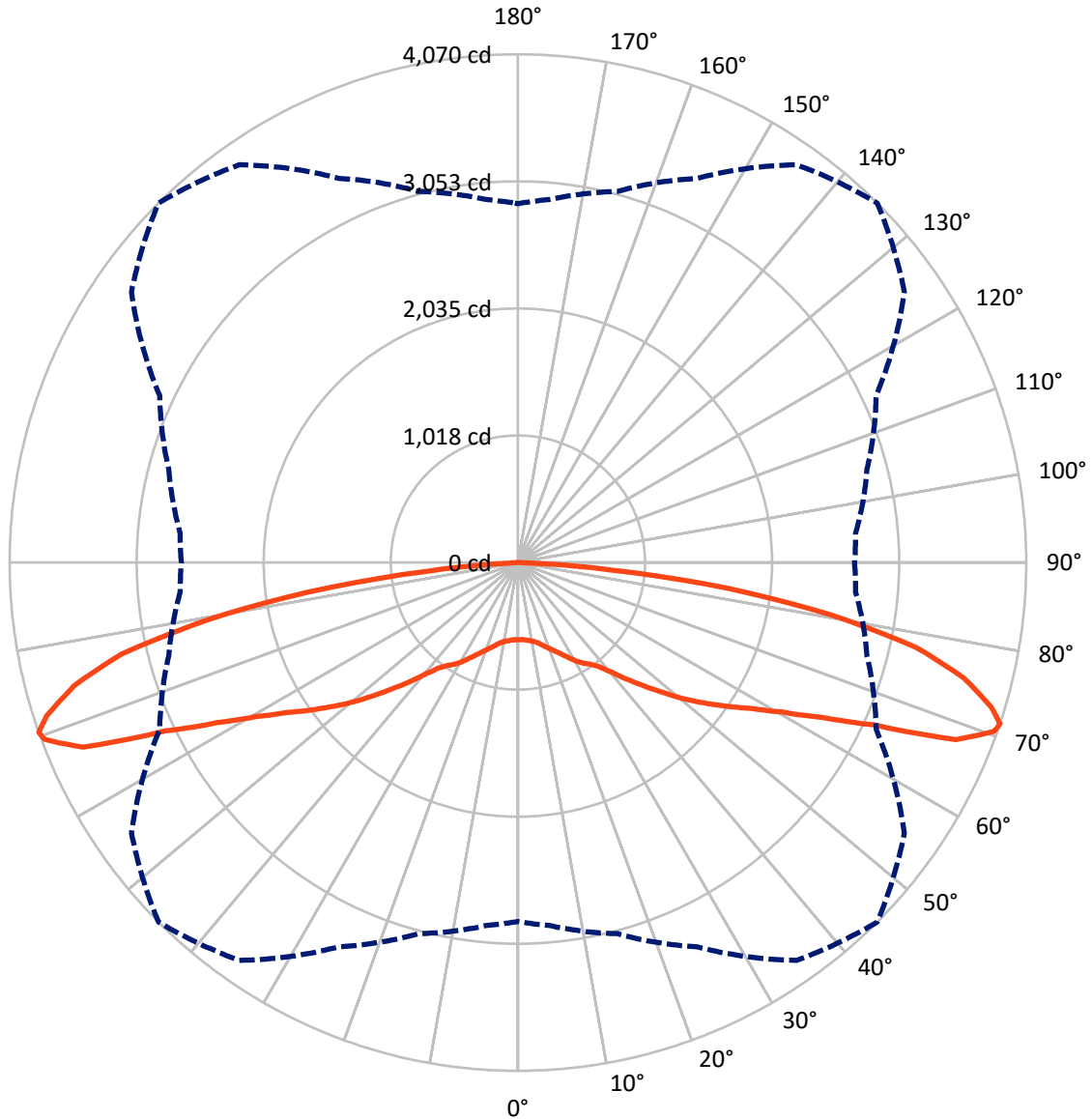
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.6 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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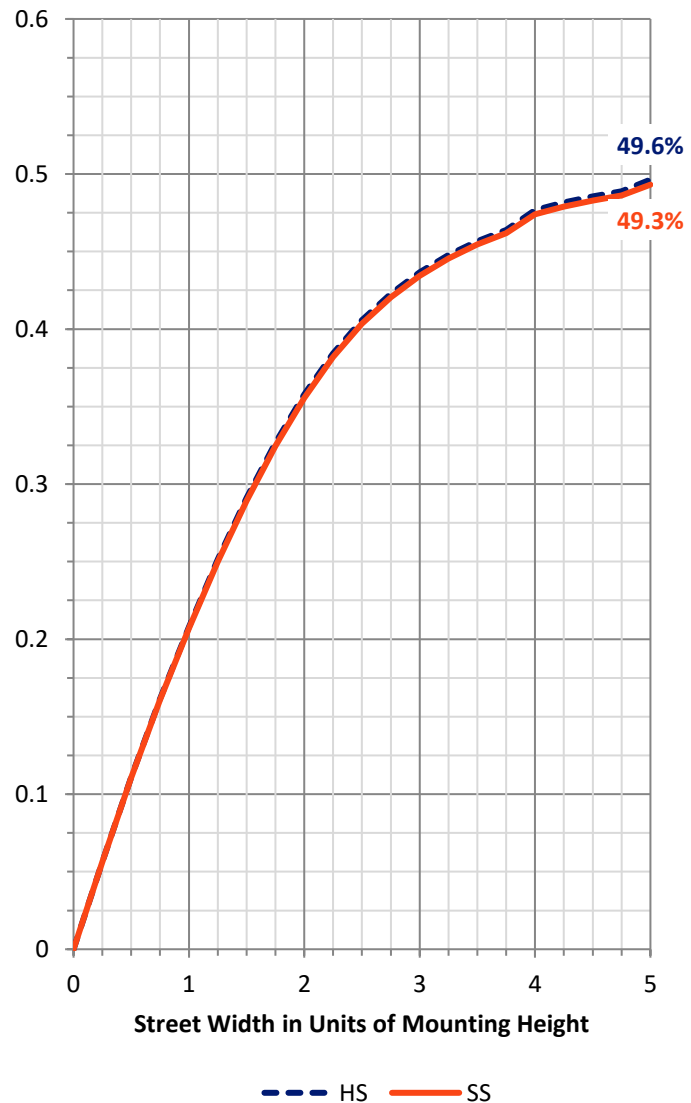
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5462.5 | 0.0 | 5462.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5462.5 | 0.0 | 5462.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10925.0 | 0.0 | 10925.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 60.2 | 0.6 |
| 10°-20° | 193.1 | 1.8 |
| 20°-30° | 372.3 | 3.4 |
| 30°-40° | 629.6 | 5.8 |
| 40°-50° | 1145.1 | 10.5 |
| 50°-60° | 1953.0 | 17.9 |
| 60°-70° | 3131.7 | 28.7 |
| 70°-80° | 2847.6 | 26.1 |
| 80°-90° | 592.4 | 5.4 |
| 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° | 10925.0 | 100.0 |
| 0°-180° | 10925.0 | 100.0 |



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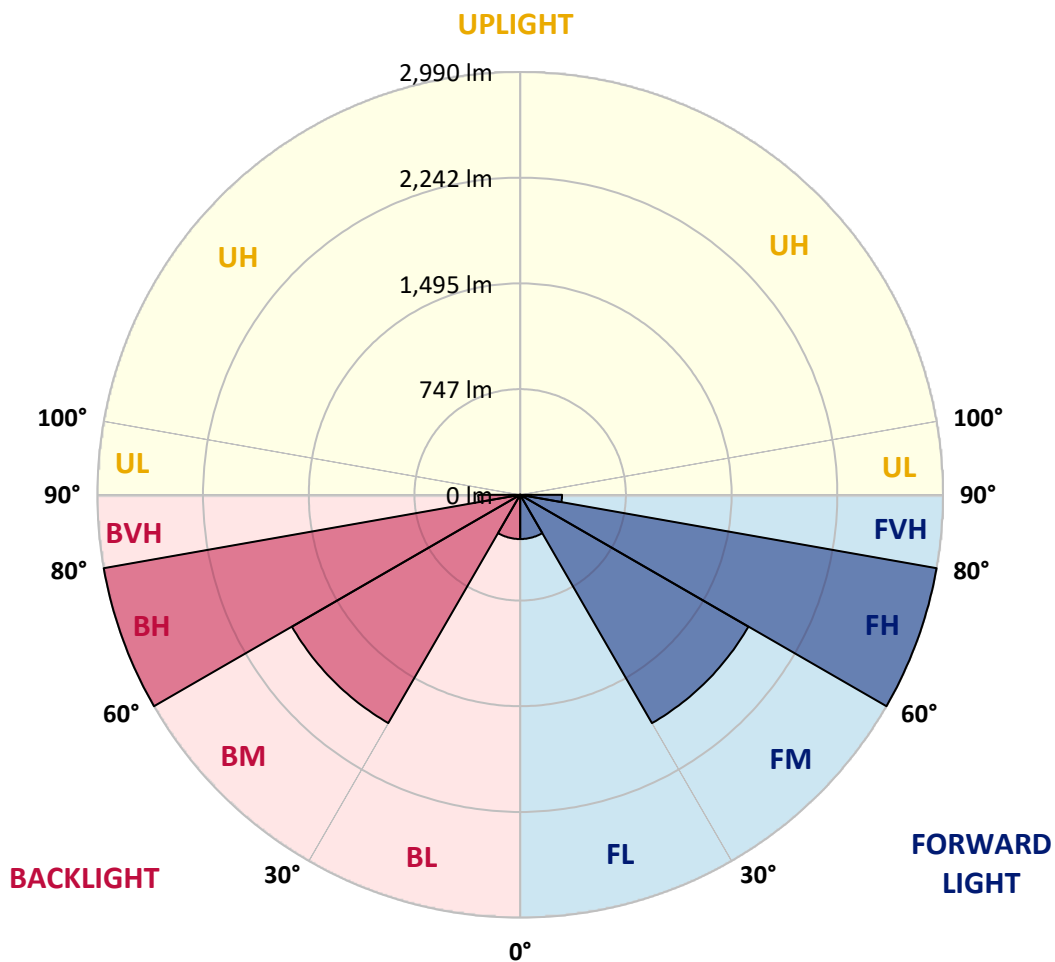
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 312.8 | 2.9 | | | |
| FM | (30°-60°) | 1863.9 | 17.1 | | | |
| FH | (60°-80°) | 2989.7 | 27.4 | | | G2/5000 |
| FVH | (80°-90°) | 296.2 | 2.7 | | | G3/500 |
| BL | (0°-30°) | 312.8 | 2.9 | B1/500 | | |
| BM | (30°-60°) | 1863.9 | 17.1 | B2/2500 | | |
| BH | (60°-80°) | 2989.7 | 27.4 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 296.2 | 2.7 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 619.0 | 619.0 | 619.0 | 619.0 | 619.0 | 619.0 | 619.0 | 619.0 | 619.0 | 619.0 | 619.0 |
| 2.5° | 624.8 | 624.8 | 623.8 | 619.0 | 619.9 | 617.0 | 615.1 | 616.1 | 617.0 | 617.0 | 616.1 |
| 5° | 629.7 | 629.7 | 628.7 | 624.8 | 625.8 | 622.9 | 621.9 | 622.9 | 624.8 | 626.8 | 624.8 |
| 7.5° | 639.4 | 638.4 | 636.5 | 632.6 | 632.6 | 630.7 | 628.7 | 629.7 | 631.6 | 632.6 | 631.6 |
| 10° | 650.1 | 649.1 | 646.2 | 642.3 | 642.3 | 640.4 | 636.5 | 636.5 | 636.5 | 635.5 | 634.5 |
| 12.5° | 661.8 | 660.8 | 657.9 | 654.0 | 656.9 | 654.0 | 651.1 | 650.1 | 647.2 | 645.3 | 644.3 |
| 15° | 680.3 | 679.3 | 676.4 | 673.5 | 681.3 | 677.4 | 672.5 | 667.6 | 665.7 | 663.7 | 661.8 |
| 17.5° | 702.7 | 701.7 | 699.8 | 697.8 | 707.5 | 707.5 | 698.8 | 690.0 | 691.0 | 688.1 | 686.1 |
| 20° | 728.9 | 728.0 | 726.0 | 728.0 | 738.7 | 737.7 | 726.0 | 715.3 | 719.2 | 713.4 | 711.4 |
| 22.5° | 762.0 | 760.1 | 757.2 | 760.1 | 775.7 | 772.7 | 758.1 | 748.4 | 751.3 | 748.4 | 746.5 |
| 25° | 798.0 | 794.2 | 790.3 | 794.2 | 819.5 | 813.6 | 799.0 | 787.3 | 793.2 | 791.2 | 790.3 |
| 27.5° | 833.1 | 829.2 | 826.3 | 823.4 | 862.3 | 861.3 | 841.8 | 830.2 | 837.0 | 838.0 | 838.9 |
| 30° | 867.1 | 866.2 | 861.3 | 857.4 | 899.3 | 912.9 | 879.8 | 874.9 | 879.8 | 885.6 | 887.6 |
| 32.5° | 912.9 | 910.9 | 906.1 | 899.3 | 927.5 | 960.6 | 923.6 | 927.5 | 935.3 | 947.0 | 946.0 |
| 35° | 974.2 | 969.3 | 962.5 | 955.7 | 973.2 | 999.5 | 983.0 | 990.7 | 1004.4 | 1018.0 | 1016.1 |
| 37.5° | 1039.4 | 1038.4 | 1031.6 | 1015.1 | 1034.5 | 1057.9 | 1053.0 | 1067.6 | 1091.0 | 1118.2 | 1114.3 |
| 40° | 1132.8 | 1133.8 | 1119.2 | 1097.8 | 1114.3 | 1152.3 | 1157.2 | 1187.3 | 1228.2 | 1267.1 | 1268.1 |
| 42.5° | 1279.8 | 1276.9 | 1266.2 | 1236.0 | 1246.7 | 1274.9 | 1298.3 | 1345.0 | 1395.6 | 1435.5 | 1441.4 |
| 45° | 1461.8 | 1457.9 | 1436.5 | 1388.8 | 1385.9 | 1406.3 | 1440.4 | 1500.7 | 1562.0 | 1601.0 | 1603.9 |
| 47.5° | 1670.1 | 1656.4 | 1623.3 | 1561.1 | 1538.7 | 1548.4 | 1583.4 | 1650.6 | 1713.9 | 1756.7 | 1753.8 |
| 50° | 1875.4 | 1876.4 | 1836.5 | 1754.7 | 1710.0 | 1710.0 | 1730.4 | 1800.5 | 1864.7 | 1904.6 | 1905.6 |
| 52.5° | 2107.0 | 2098.3 | 2059.4 | 1961.1 | 1888.1 | 1867.6 | 1874.4 | 1940.6 | 2006.8 | 2049.6 | 2049.6 |
| 55° | 2340.6 | 2331.9 | 2293.9 | 2184.9 | 2090.5 | 2031.1 | 2024.3 | 2086.6 | 2158.6 | 2199.5 | 2204.4 |
| 57.5° | 2581.0 | 2575.2 | 2535.3 | 2416.5 | 2298.8 | 2204.4 | 2188.8 | 2259.8 | 2335.8 | 2376.6 | 2379.5 |
| 60° | 2831.1 | 2823.3 | 2783.4 | 2691.0 | 2546.9 | 2428.2 | 2399.0 | 2471.0 | 2561.5 | 2615.1 | 2612.1 |
| 62.5° | 3122.1 | 3112.4 | 3081.2 | 2962.5 | 2860.3 | 2731.9 | 2674.4 | 2757.2 | 2865.2 | 2927.5 | 2932.3 |
| 65° | 3355.7 | 3359.6 | 3388.8 | 3371.3 | 3275.9 | 3135.7 | 3078.3 | 3210.7 | 3273.0 | 3283.7 | 3275.9 |
| 67.5° | 3294.4 | 3309.0 | 3373.2 | 3518.2 | 3690.5 | 3782.9 | 3557.2 | 3398.5 | 3279.8 | 3210.7 | 3201.0 |
| 70° | 3029.7 | 3040.4 | 3194.1 | 3431.6 | 3888.1 | 4045.7 | 3760.6 | 3243.8 | 2994.6 | 2887.6 | 2874.9 |
| 71° | 2873.9 | 2917.7 | 3076.4 | 3394.6 | 3889.0 | 4070.0 | 3777.1 | 3164.9 | 2894.4 | 2714.3 | 2694.9 |
| 72.5° | 2636.5 | 2674.4 | 2873.9 | 3255.5 | 3832.6 | 3964.9 | 3601.9 | 2980.0 | 2666.7 | 2516.8 | 2467.1 |
| 75° | 2149.9 | 2219.9 | 2396.1 | 2898.3 | 3574.7 | 3685.6 | 3288.5 | 2628.7 | 2292.9 | 2130.4 | 2117.7 |
| 77.5° | 1528.9 | 1576.6 | 1843.3 | 2385.4 | 3151.3 | 3255.5 | 2907.0 | 2210.2 | 1855.0 | 1704.1 | 1687.6 |
| 80° | 849.6 | 897.3 | 1178.6 | 1676.9 | 2433.1 | 2538.2 | 2224.8 | 1614.6 | 1260.3 | 1099.8 | 1033.6 |
| 82.5° | 380.5 | 408.8 | 616.1 | 993.7 | 1561.1 | 1697.3 | 1351.8 | 887.6 | 607.3 | 430.2 | 395.1 |
| 85° | 132.4 | 147.0 | 245.3 | 450.6 | 799.0 | 737.7 | 463.3 | 221.9 | 77.9 | 38.0 | 35.0 |
| 87.5° | 25.3 | 28.2 | 53.5 | 125.5 | 130.4 | 60.3 | 19.5 | 14.6 | 14.6 | 15.6 | 15.6 |
| 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)