

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: P232744

Luminaire Tested: **CST-8-3-D-U-T5**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232744
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-21)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-8-3-D-U-T5
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K LEDS AND TYPE V OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31889 lumens
Efficiency: N/A
Efficacy: 141.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U0 - G5

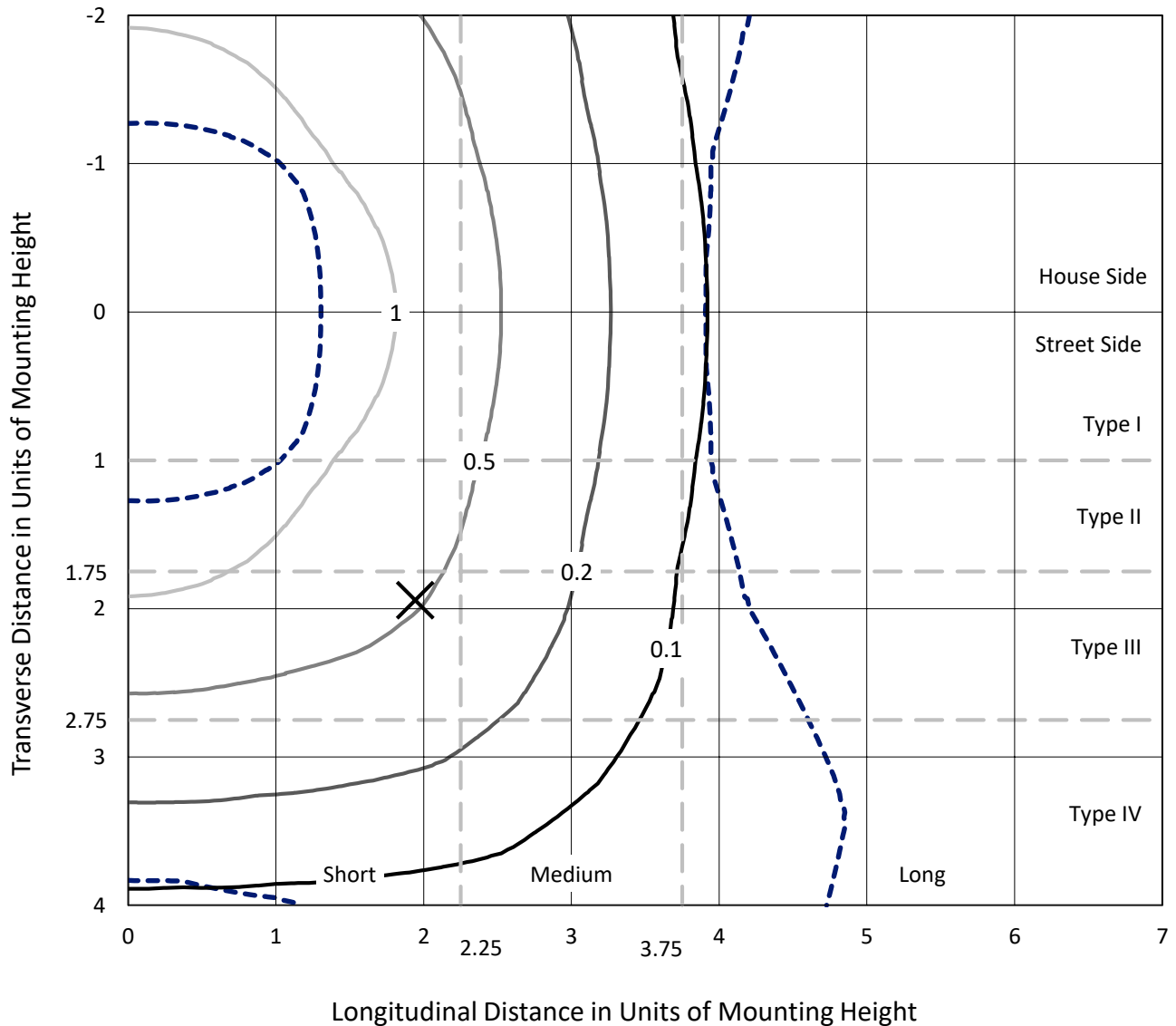
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

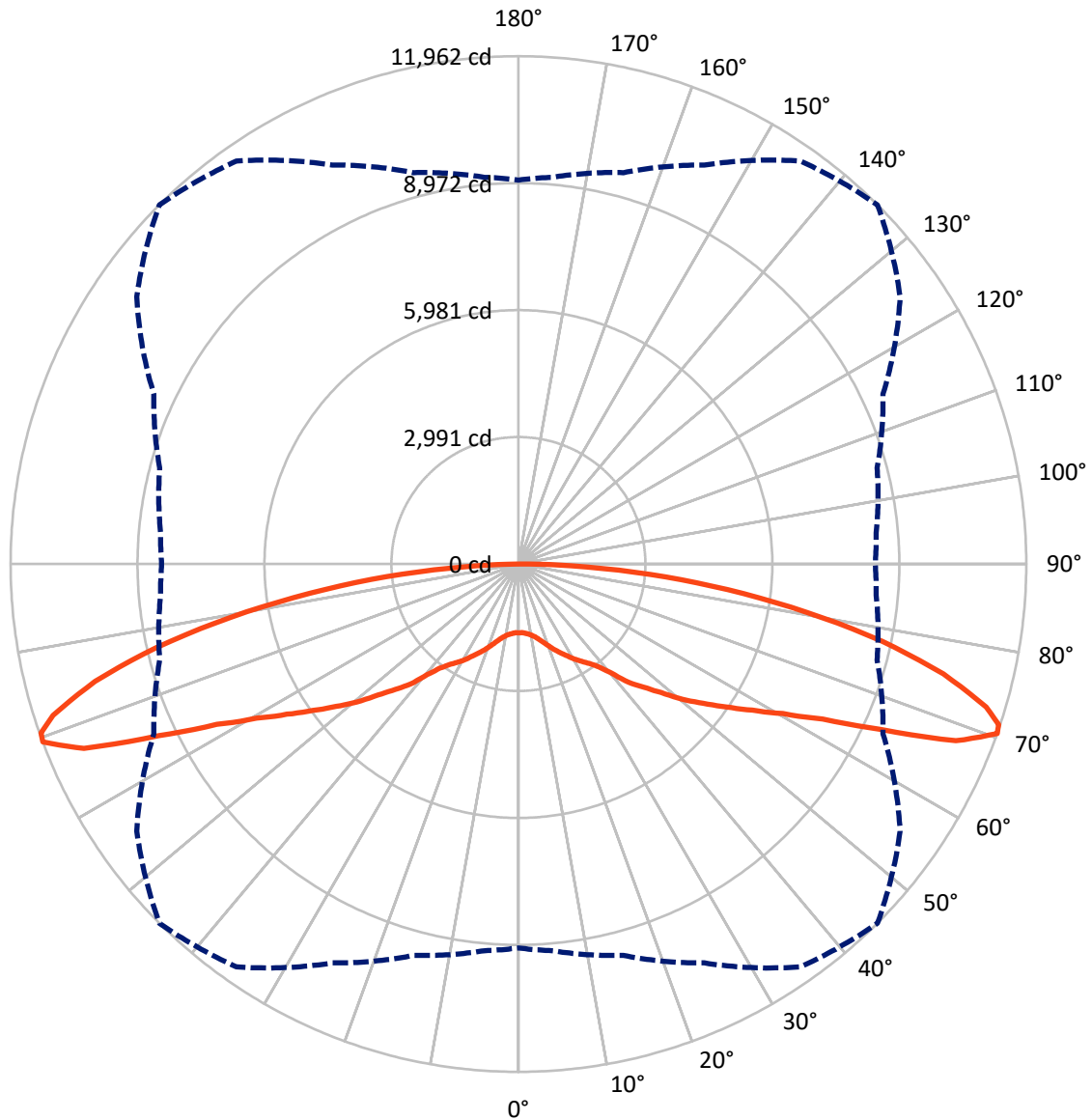
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 1.9 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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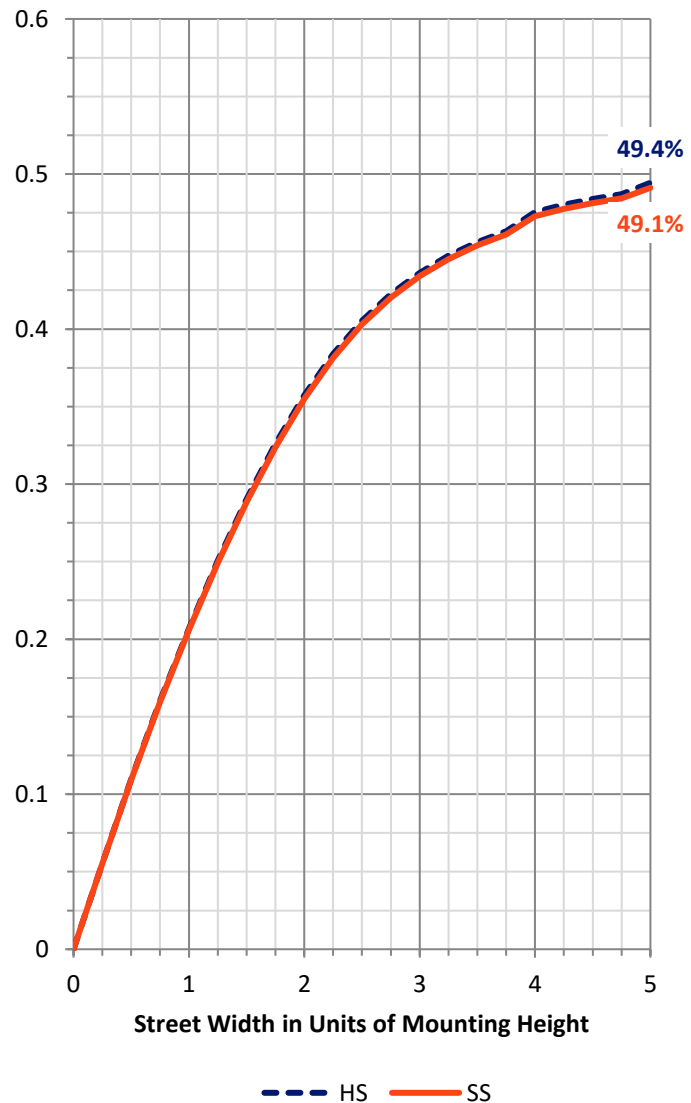
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 15944.5 | 0.0 | 15944.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 15944.5 | 0.0 | 15944.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 31889.0 | 0.0 | 31889.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 158.9 | 0.5 |
| 10°-20° | 528.8 | 1.7 |
| 20°-30° | 1056.7 | 3.3 |
| 30°-40° | 1817.2 | 5.7 |
| 40°-50° | 3361.6 | 10.5 |
| 50°-60° | 5713.8 | 17.9 |
| 60°-70° | 9210.0 | 28.9 |
| 70°-80° | 8140.0 | 25.5 |
| 80°-90° | 1902.0 | 6.0 |
| 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° | 31889.0 | 100.0 |
| 0°-180° | 31889.0 | 100.0 |



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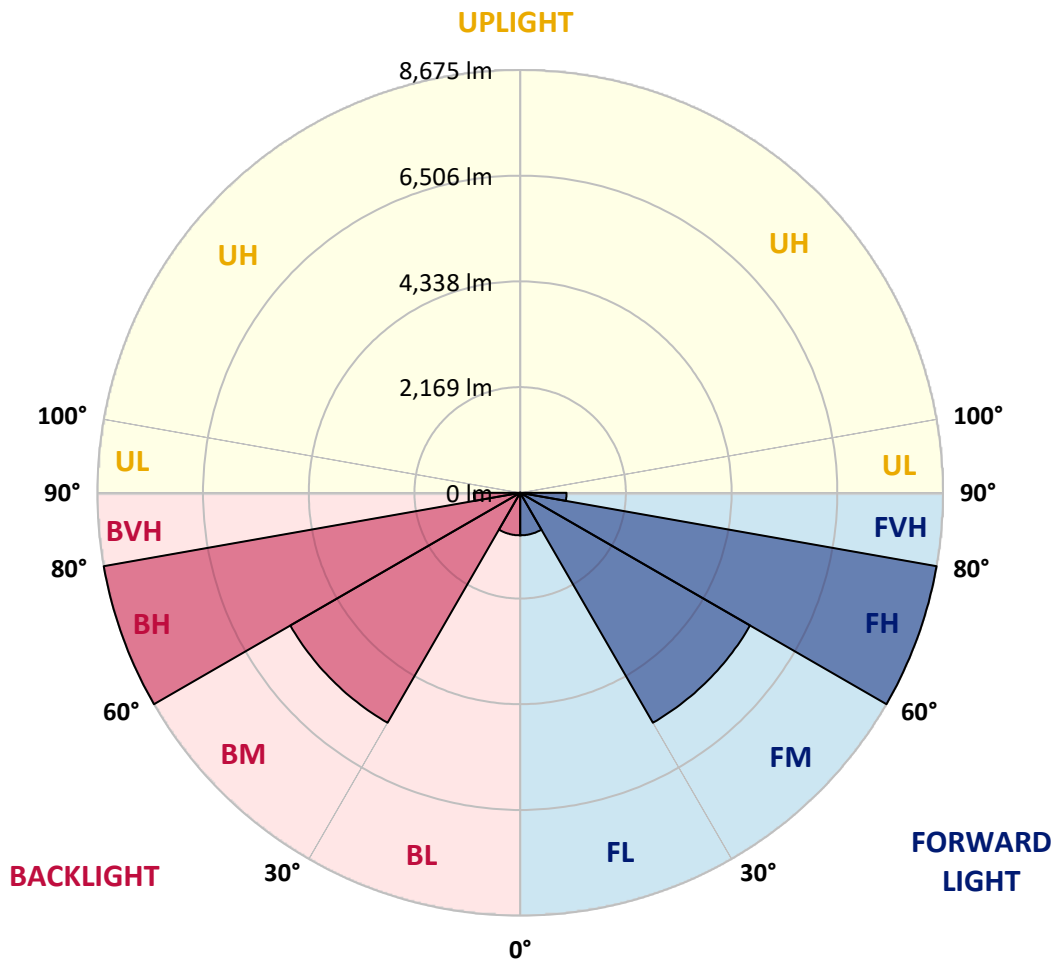
CATALOG NUMBER: CST-8-3-D-U-T5

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 872.2 | 2.7 | | | |
| FM | (30°-60°) | 5446.3 | 17.1 | | | |
| FH | (60°-80°) | 8675.0 | 27.2 | | | G4/12000 |
| FVH | (80°-90°) | 951.0 | 3.0 | | | G5 |
| BL | (0°-30°) | 872.2 | 2.7 | B2/1000 | | |
| BM | (30°-60°) | 5446.3 | 17.1 | B4/8500 | | |
| BH | (60°-80°) | 8675.0 | 27.2 | B5 | | G4/12000 |
| BVH | (80°-90°) | 951.0 | 3.0 | | | G5 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 1620.2 | 1620.2 | 1620.2 | 1620.2 | 1620.2 | 1620.2 | 1620.2 | 1620.2 | 1620.2 | 1620.2 | 1620.2 |
| 2.5° | 1634.2 | 1631.2 | 1632.2 | 1632.2 | 1614.2 | 1618.2 | 1619.2 | 1630.2 | 1630.2 | 1635.3 | 1636.3 |
| 5° | 1650.3 | 1645.3 | 1646.3 | 1650.3 | 1633.2 | 1636.3 | 1636.3 | 1647.3 | 1645.3 | 1651.3 | 1654.3 |
| 7.5° | 1678.4 | 1674.4 | 1674.4 | 1678.4 | 1658.3 | 1663.3 | 1660.3 | 1670.4 | 1666.4 | 1669.4 | 1675.4 |
| 10° | 1723.5 | 1722.5 | 1719.5 | 1721.5 | 1699.5 | 1702.5 | 1696.4 | 1707.5 | 1699.5 | 1700.5 | 1711.5 |
| 12.5° | 1775.7 | 1774.7 | 1774.7 | 1777.7 | 1758.6 | 1763.7 | 1753.6 | 1757.6 | 1743.6 | 1745.6 | 1754.6 |
| 15° | 1839.9 | 1841.9 | 1843.9 | 1853.0 | 1840.9 | 1845.9 | 1830.9 | 1828.9 | 1812.8 | 1812.8 | 1823.9 |
| 17.5° | 1928.2 | 1928.2 | 1929.2 | 1949.3 | 1942.2 | 1950.3 | 1929.2 | 1915.2 | 1899.1 | 1901.1 | 1903.1 |
| 20° | 2038.5 | 2034.5 | 2036.5 | 2060.6 | 2062.6 | 2068.6 | 2035.5 | 2016.5 | 1999.4 | 2000.4 | 1998.4 |
| 22.5° | 2155.9 | 2147.9 | 2146.9 | 2180.0 | 2194.0 | 2196.1 | 2149.9 | 2131.8 | 2109.8 | 2112.8 | 2110.8 |
| 25° | 2268.3 | 2260.3 | 2256.2 | 2283.3 | 2320.5 | 2318.4 | 2268.3 | 2242.2 | 2232.2 | 2232.2 | 2234.2 |
| 27.5° | 2379.6 | 2369.6 | 2365.6 | 2381.6 | 2439.8 | 2449.9 | 2383.7 | 2360.6 | 2350.5 | 2359.6 | 2363.6 |
| 30° | 2492.0 | 2484.0 | 2482.0 | 2487.0 | 2553.2 | 2597.3 | 2495.0 | 2485.0 | 2484.0 | 2492.0 | 2501.0 |
| 32.5° | 2628.4 | 2627.4 | 2619.4 | 2618.4 | 2667.6 | 2731.8 | 2628.4 | 2634.5 | 2650.5 | 2668.6 | 2680.6 |
| 35° | 2804.0 | 2802.0 | 2779.9 | 2790.0 | 2814.0 | 2874.2 | 2815.0 | 2819.1 | 2862.2 | 2889.3 | 2904.3 |
| 37.5° | 3037.8 | 3022.7 | 2994.6 | 2995.6 | 3007.7 | 3068.9 | 3045.8 | 3076.9 | 3155.1 | 3205.3 | 3200.3 |
| 40° | 3368.8 | 3344.7 | 3302.6 | 3290.6 | 3288.6 | 3375.8 | 3397.9 | 3468.1 | 3591.5 | 3665.8 | 3660.8 |
| 42.5° | 3842.3 | 3817.3 | 3753.1 | 3736.0 | 3743.0 | 3811.2 | 3875.4 | 3986.8 | 4094.1 | 4180.4 | 4175.4 |
| 45° | 4327.9 | 4295.8 | 4192.5 | 4134.3 | 4084.1 | 4136.3 | 4236.6 | 4411.2 | 4539.6 | 4652.9 | 4650.9 |
| 47.5° | 4889.7 | 4839.5 | 4715.1 | 4603.8 | 4503.5 | 4522.5 | 4629.9 | 4829.5 | 4985.0 | 5098.4 | 5091.4 |
| 50° | 5499.7 | 5449.5 | 5313.1 | 5145.5 | 4990.0 | 5003.1 | 5055.2 | 5265.9 | 5420.4 | 5530.8 | 5532.8 |
| 52.5° | 6151.8 | 6115.6 | 5959.1 | 5737.4 | 5523.7 | 5450.5 | 5483.6 | 5678.2 | 5855.8 | 5960.1 | 5969.2 |
| 55° | 6855.0 | 6819.9 | 6655.4 | 6399.6 | 6106.6 | 5942.1 | 5941.1 | 6136.7 | 6316.3 | 6407.6 | 6421.6 |
| 57.5° | 7560.3 | 7541.2 | 7396.8 | 7117.9 | 6748.7 | 6496.9 | 6439.7 | 6643.3 | 6845.0 | 6939.3 | 6958.3 |
| 60° | 8286.6 | 8260.5 | 8140.1 | 7906.4 | 7501.1 | 7156.0 | 7059.7 | 7263.3 | 7491.1 | 7588.4 | 7600.4 |
| 62.5° | 9109.3 | 9083.2 | 8990.9 | 8744.1 | 8445.1 | 8045.8 | 7906.4 | 8094.0 | 8304.7 | 8460.2 | 8444.1 |
| 65° | 9931.9 | 9925.9 | 9965.0 | 9853.6 | 9624.9 | 9396.2 | 9121.3 | 9327.0 | 9482.5 | 9467.4 | 9462.4 |
| 67.5° | 9800.5 | 9838.6 | 10109.5 | 10495.7 | 10978.3 | 11114.7 | 10479.7 | 9903.8 | 9564.7 | 9368.1 | 9305.9 |
| 70° | 9044.0 | 9142.4 | 9543.6 | 10367.3 | 11584.2 | 11962.4 | 10975.2 | 9474.4 | 8746.1 | 8459.2 | 8404.0 |
| 71° | 8626.7 | 8704.0 | 9166.4 | 10172.7 | 11588.2 | 11929.3 | 10857.9 | 9151.4 | 8411.0 | 8017.7 | 7979.6 |
| 72.5° | 7814.1 | 7933.5 | 8444.1 | 9640.0 | 11236.1 | 11523.0 | 10346.2 | 8549.5 | 7774.0 | 7390.7 | 7369.7 |
| 75° | 6247.1 | 6283.2 | 6942.3 | 8300.7 | 10117.5 | 10345.2 | 9184.5 | 7418.8 | 6619.3 | 6357.4 | 6342.4 |
| 77.5° | 4409.2 | 4410.2 | 5042.2 | 6470.8 | 8387.9 | 8757.1 | 7954.5 | 6116.6 | 5309.0 | 4980.0 | 4906.8 |
| 80° | 2335.5 | 2430.8 | 3057.8 | 4447.3 | 6283.2 | 6891.1 | 6321.3 | 4624.9 | 3733.0 | 3252.4 | 3185.2 |
| 82.5° | 1064.4 | 1132.6 | 1538.9 | 2521.1 | 4132.3 | 4962.9 | 4336.9 | 3002.6 | 2000.4 | 1481.8 | 1438.6 |
| 85° | 413.3 | 423.4 | 635.0 | 1197.8 | 2310.4 | 3113.0 | 2525.1 | 1407.5 | 696.2 | 425.4 | 394.3 |
| 87.5° | 135.4 | 144.5 | 206.7 | 461.5 | 983.2 | 1243.0 | 976.1 | 423.4 | 135.4 | 84.3 | 81.3 |
| 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)