

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: P962997

Luminaire Tested: **NVN-SB2D-735-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB2D-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20616.8 lumens
Efficiency: N/A
Efficacy: 139.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

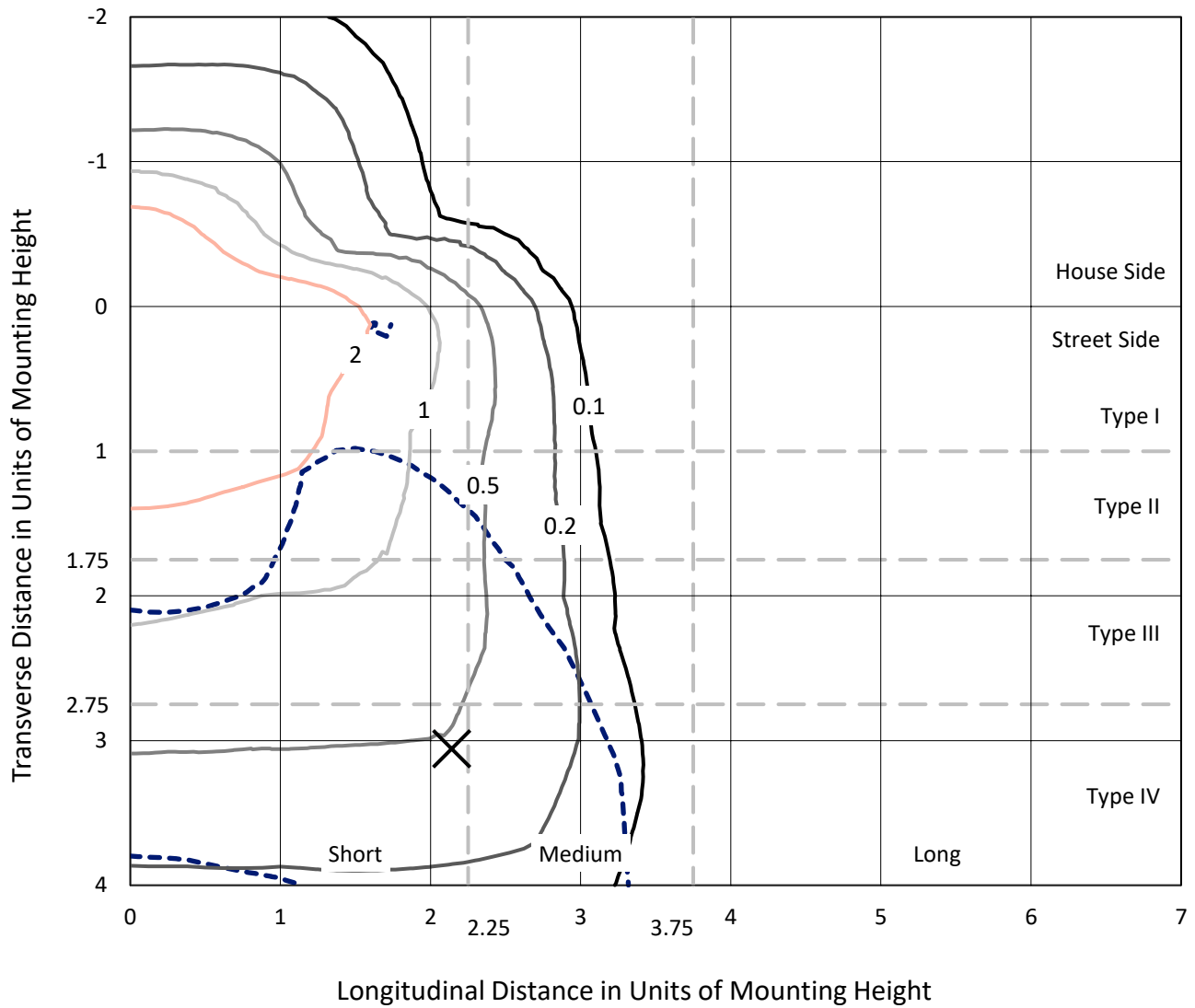
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

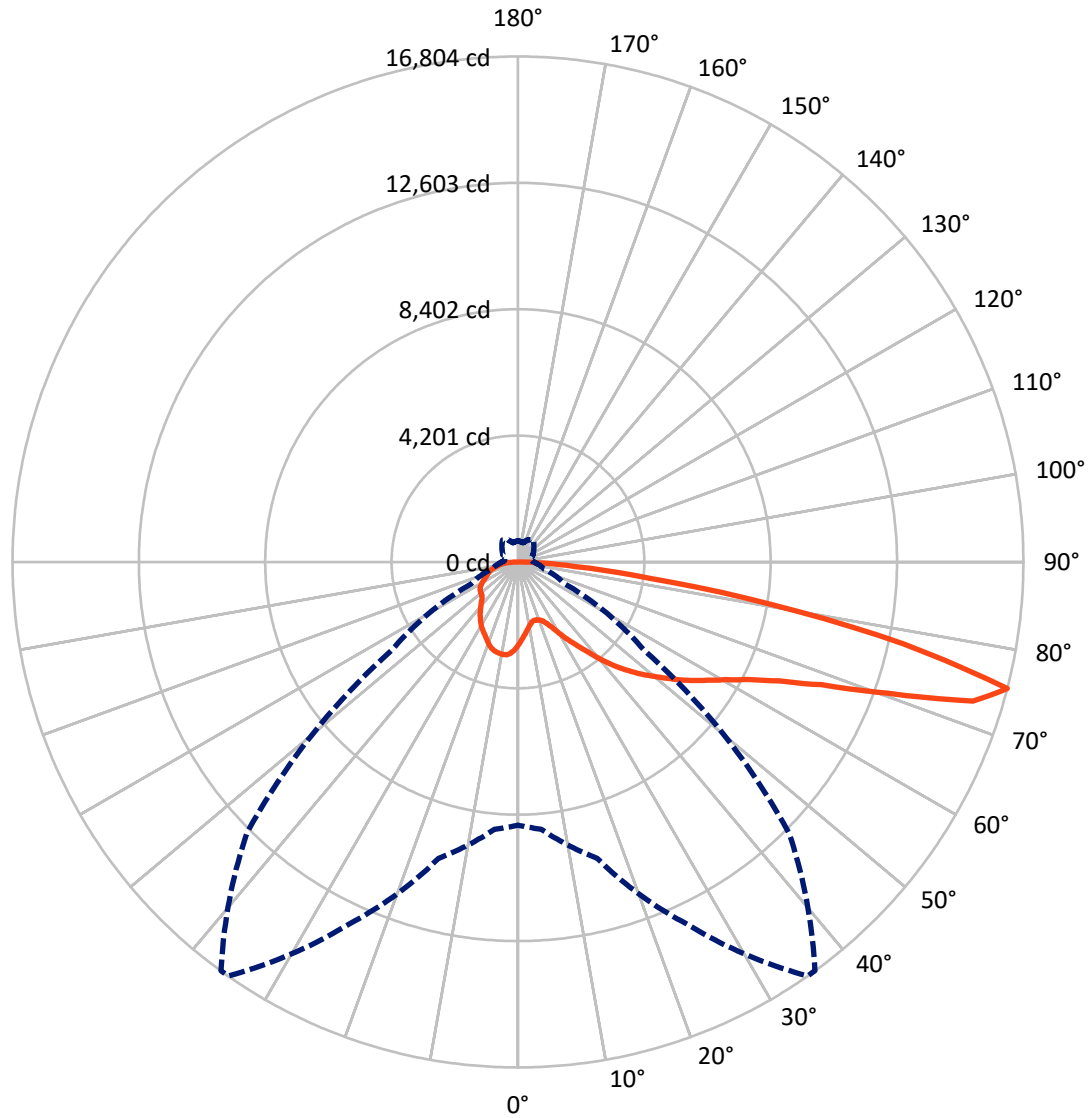
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4906.3 | 0.0 | 4906.3 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| Street Side | Lumens | 15710.5 | 0.0 | 15710.5 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| Total | Lumens | 20616.8 | 0.0 | 20616.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 260.1 | 1.3 |
| 10°-20° | 750.3 | 3.6 |
| 20°-30° | 1259.9 | 6.1 |
| 30°-40° | 1958.1 | 9.5 |
| 40°-50° | 2906.4 | 14.1 |
| 50°-60° | 4012.4 | 19.5 |
| 60°-70° | 4868.0 | 23.6 |
| 70°-80° | 4023.0 | 19.5 |
| 80°-90° | 578.6 | 2.8 |
| 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° | 20616.8 | 100.0 |
| 0°-180° | 20616.8 | 100.0 |



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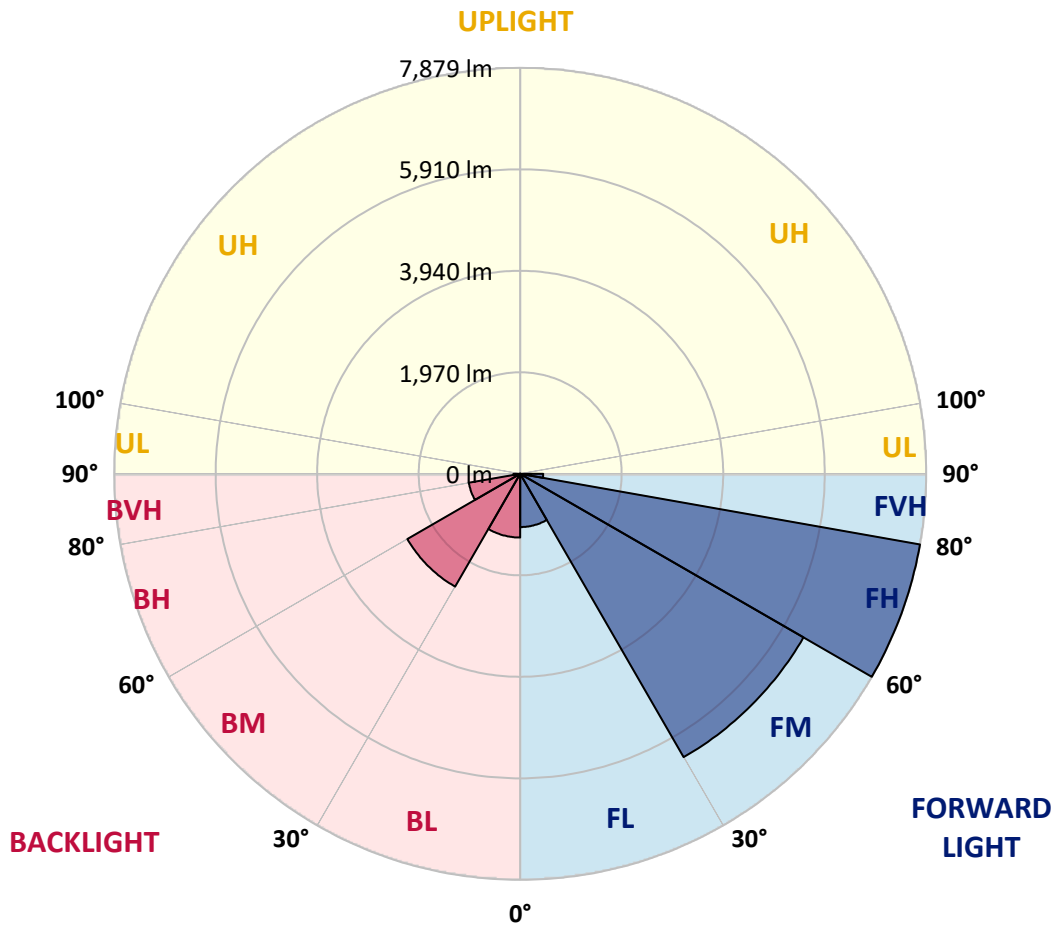
CATALOG NUMBER: NVN-SB2D-735-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1033.9 | 5.0 | | | |
| FM (30°-60°) | 6348.9 | 30.8 | | | |
| FH (60°-80°) | 7879.5 | 38.2 | | | G4/12000 |
| FVH (80°-90°) | 448.3 | 2.2 | | | G3/500 |
| BL (0°-30°) | 1236.4 | 6.0 | B3/2500 | | |
| BM (30°-60°) | 2528.0 | 12.3 | B3/5000 | | |
| BH (60°-80°) | 1011.5 | 4.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 130.3 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 |
| 2.5° | 2533.4 | 2549.0 | 2555.6 | 2552.2 | 2569.0 | 2566.8 | 2590.2 | 2619.2 | 2659.3 | 2698.3 | 2755.1 |
| 5° | 2338.3 | 2355.0 | 2369.5 | 2382.9 | 2415.2 | 2425.3 | 2462.0 | 2517.7 | 2591.3 | 2665.9 | 2759.6 |
| 7.5° | 2156.6 | 2171.2 | 2193.4 | 2217.9 | 2272.5 | 2282.6 | 2343.9 | 2430.8 | 2533.4 | 2642.6 | 2771.8 |
| 10° | 2008.4 | 2022.8 | 2046.3 | 2074.2 | 2142.1 | 2154.4 | 2232.4 | 2348.4 | 2482.0 | 2620.3 | 2785.2 |
| 12.5° | 1944.8 | 1949.3 | 1962.7 | 1990.5 | 2049.6 | 2057.5 | 2143.3 | 2275.9 | 2431.9 | 2603.6 | 2805.3 |
| 15° | 1941.6 | 1950.5 | 1951.6 | 1966.1 | 2015.0 | 2018.4 | 2097.6 | 2229.1 | 2400.8 | 2600.2 | 2835.4 |
| 17.5° | 1975.0 | 1981.6 | 1971.6 | 1980.5 | 2021.8 | 2027.3 | 2089.8 | 2206.8 | 2390.7 | 2614.7 | 2886.6 |
| 20° | 2064.1 | 2069.7 | 2039.6 | 2027.3 | 2057.5 | 2061.9 | 2123.2 | 2221.3 | 2400.8 | 2644.8 | 2956.8 |
| 22.5° | 2253.6 | 2256.9 | 2183.4 | 2133.2 | 2135.5 | 2137.6 | 2191.1 | 2280.3 | 2439.7 | 2699.4 | 3046.0 |
| 25° | 2549.0 | 2546.7 | 2429.7 | 2332.7 | 2277.0 | 2264.7 | 2300.4 | 2376.2 | 2505.5 | 2771.8 | 3160.8 |
| 27.5° | 2894.5 | 2877.7 | 2760.7 | 2615.8 | 2494.3 | 2476.5 | 2468.7 | 2501.0 | 2599.1 | 2867.7 | 3301.2 |
| 30° | 3284.5 | 3268.9 | 3143.0 | 2953.5 | 2785.2 | 2756.2 | 2682.7 | 2665.9 | 2738.4 | 2998.1 | 3496.3 |
| 32.5° | 3712.6 | 3702.5 | 3552.0 | 3322.4 | 3097.3 | 3063.8 | 2940.1 | 2895.5 | 2952.4 | 3195.3 | 3768.2 |
| 35° | 4071.4 | 4062.5 | 3937.6 | 3701.4 | 3426.1 | 3384.9 | 3258.9 | 3208.8 | 3237.8 | 3448.4 | 4123.8 |
| 37.5° | 4395.7 | 4391.3 | 4284.3 | 4098.2 | 3813.9 | 3763.8 | 3622.2 | 3605.5 | 3600.0 | 3781.6 | 4555.1 |
| 40° | 4696.7 | 4685.5 | 4574.1 | 4476.0 | 4265.3 | 4219.6 | 4094.8 | 4080.3 | 4038.0 | 4191.7 | 5043.3 |
| 42.5° | 5029.9 | 5001.0 | 4839.3 | 4793.6 | 4736.8 | 4698.9 | 4624.2 | 4626.4 | 4532.9 | 4654.3 | 5560.4 |
| 45° | 5301.8 | 5285.1 | 5119.1 | 5092.3 | 5153.6 | 5138.0 | 5202.7 | 5219.4 | 5037.7 | 5139.1 | 6097.6 |
| 47.5° | 5593.8 | 5578.3 | 5437.8 | 5418.9 | 5584.9 | 5589.4 | 5817.9 | 5823.4 | 5530.3 | 5642.9 | 6636.0 |
| 50° | 5953.8 | 5931.6 | 5792.3 | 5815.6 | 6001.8 | 6018.5 | 6436.5 | 6398.6 | 5984.0 | 6154.5 | 7169.8 |
| 52.5° | 6191.2 | 6204.6 | 6174.5 | 6212.4 | 6466.5 | 6482.1 | 7045.0 | 6948.1 | 6433.1 | 6659.3 | 7693.6 |
| 55° | 6366.3 | 6393.0 | 6486.6 | 6573.5 | 6957.0 | 6972.6 | 7618.9 | 7470.7 | 6805.4 | 7127.4 | 8186.3 |
| 57.5° | 6591.4 | 6553.4 | 6728.5 | 6897.8 | 7422.8 | 7464.0 | 8177.3 | 7974.5 | 7135.2 | 7530.9 | 8524.0 |
| 60° | 6914.5 | 6887.8 | 7023.8 | 7274.6 | 7944.5 | 8010.2 | 8768.1 | 8428.2 | 7377.1 | 7850.8 | 8589.7 |
| 62.5° | 7569.9 | 7503.1 | 7524.2 | 7746.0 | 8602.0 | 8688.9 | 9434.5 | 8823.8 | 7497.5 | 7975.6 | 8237.5 |
| 65° | 8549.6 | 8434.8 | 8327.8 | 8481.7 | 9528.2 | 9614.0 | 10186.9 | 9134.7 | 7452.9 | 7733.7 | 7302.4 |
| 67.5° | 9783.4 | 9669.7 | 9538.2 | 9683.1 | 10892.4 | 10960.3 | 11115.3 | 9309.8 | 7101.8 | 6802.0 | 5649.6 |
| 70° | 10800.9 | 10758.6 | 10915.7 | 11512.1 | 13071.3 | 13073.6 | 12305.6 | 9164.8 | 6140.0 | 4822.6 | 3268.9 |
| 72.5° | 10666.2 | 10640.5 | 11468.6 | 13312.1 | 15817.5 | 15758.5 | 13432.4 | 8068.2 | 4136.1 | 2175.6 | 1224.9 |
| 75° | 8750.2 | 8916.3 | 10199.2 | 13279.7 | 16803.8 | 16796.1 | 12742.5 | 5129.1 | 1710.8 | 901.7 | 633.0 |
| 77.5° | 4692.2 | 4955.3 | 6621.5 | 9804.5 | 13118.2 | 13315.4 | 8958.6 | 1794.4 | 734.5 | 577.3 | 438.0 |
| 80° | 1530.2 | 1759.8 | 2639.3 | 4992.1 | 8524.0 | 8487.2 | 3839.5 | 704.4 | 502.7 | 409.1 | 303.2 |
| 82.5° | 649.7 | 676.5 | 1179.2 | 2357.3 | 4374.6 | 4306.5 | 1222.6 | 404.6 | 353.3 | 279.7 | 187.3 |
| 85° | 254.1 | 284.2 | 520.5 | 1090.0 | 1894.7 | 1853.5 | 441.4 | 200.6 | 226.2 | 182.8 | 111.4 |
| 87.5° | 83.6 | 101.4 | 186.1 | 373.4 | 589.6 | 568.5 | 108.1 | 69.1 | 98.1 | 83.6 | 40.1 |
| 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° | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 | 2747.3 |
| 2.5° | 2770.8 | 2788.6 | 2809.7 | 2841.0 | 2867.7 | 2890.0 | 2913.4 | 2927.9 | 2933.4 | 2950.2 | 2949.0 |
| 5° | 2790.8 | 2829.8 | 2882.2 | 2933.4 | 2983.6 | 3013.7 | 3040.5 | 3053.8 | 3066.1 | 3075.0 | 3077.3 |
| 7.5° | 2824.3 | 2874.4 | 2956.8 | 3023.7 | 3066.1 | 3090.6 | 3108.4 | 3104.0 | 3108.4 | 3110.7 | 3114.1 |
| 10° | 2853.2 | 2923.4 | 3021.5 | 3085.0 | 3117.3 | 3118.5 | 3114.1 | 3098.4 | 3090.6 | 3091.7 | 3094.0 |
| 12.5° | 2887.7 | 2965.7 | 3071.6 | 3125.1 | 3134.0 | 3109.5 | 3090.6 | 3063.8 | 3053.8 | 3049.4 | 3047.1 |
| 15° | 2934.6 | 3023.7 | 3126.2 | 3146.3 | 3124.1 | 3092.8 | 3060.5 | 3017.1 | 2994.7 | 2976.9 | 2982.5 |
| 17.5° | 2991.5 | 3089.5 | 3168.6 | 3154.1 | 3106.3 | 3054.9 | 3002.5 | 2936.8 | 2891.1 | 2872.2 | 2873.3 |
| 20° | 3070.6 | 3158.6 | 3201.0 | 3137.4 | 3065.0 | 2987.0 | 2897.8 | 2817.5 | 2775.2 | 2756.2 | 2754.1 |
| 22.5° | 3166.4 | 3251.1 | 3232.1 | 3108.4 | 3005.9 | 2881.1 | 2769.7 | 2710.5 | 2689.4 | 2676.0 | 2678.2 |
| 25° | 3281.2 | 3353.6 | 3254.5 | 3066.1 | 2909.0 | 2740.6 | 2654.9 | 2635.9 | 2625.8 | 2615.8 | 2615.8 |
| 27.5° | 3430.6 | 3469.5 | 3271.2 | 3003.7 | 2757.4 | 2591.3 | 2560.1 | 2563.4 | 2560.1 | 2543.3 | 2546.7 |
| 30° | 3627.8 | 3620.0 | 3286.8 | 2902.3 | 2583.5 | 2456.4 | 2458.7 | 2473.1 | 2475.4 | 2464.2 | 2469.8 |
| 32.5° | 3887.5 | 3808.4 | 3294.6 | 2770.8 | 2417.5 | 2338.3 | 2340.5 | 2356.2 | 2367.2 | 2348.4 | 2357.3 |
| 35° | 4201.8 | 4027.9 | 3282.4 | 2605.8 | 2289.2 | 2225.7 | 2209.0 | 2213.5 | 2216.8 | 2198.9 | 2211.2 |
| 37.5° | 4568.5 | 4274.2 | 3227.7 | 2423.0 | 2183.4 | 2115.4 | 2079.7 | 2049.6 | 2031.8 | 2015.0 | 2026.2 |
| 40° | 4970.8 | 4542.9 | 3127.4 | 2244.6 | 2065.3 | 1998.3 | 1944.8 | 1888.0 | 1827.9 | 1805.5 | 1815.6 |
| 42.5° | 5392.1 | 4819.2 | 3005.9 | 2074.2 | 1929.3 | 1874.6 | 1817.8 | 1735.3 | 1645.0 | 1599.4 | 1604.9 |
| 45° | 5829.1 | 5102.3 | 2886.6 | 1905.9 | 1790.0 | 1766.6 | 1700.8 | 1601.6 | 1503.5 | 1445.6 | 1441.0 |
| 47.5° | 6257.0 | 5369.9 | 2711.6 | 1736.5 | 1659.6 | 1685.2 | 1634.0 | 1542.5 | 1433.3 | 1341.9 | 1331.9 |
| 50° | 6666.1 | 5620.6 | 2425.3 | 1564.8 | 1553.7 | 1660.7 | 1611.6 | 1480.1 | 1355.3 | 1238.2 | 1228.3 |
| 52.5° | 7071.8 | 5823.4 | 2058.5 | 1408.8 | 1496.8 | 1653.9 | 1582.6 | 1437.8 | 1285.0 | 1162.5 | 1149.1 |
| 55° | 7416.2 | 5928.2 | 1705.3 | 1275.0 | 1414.4 | 1597.2 | 1548.1 | 1387.6 | 1185.8 | 1055.4 | 1044.4 |
| 57.5° | 7612.3 | 5843.5 | 1411.0 | 1143.5 | 1300.6 | 1503.5 | 1489.0 | 1280.6 | 1067.7 | 967.4 | 954.1 |
| 60° | 7527.6 | 5500.3 | 1170.2 | 1028.7 | 1192.6 | 1402.1 | 1386.5 | 1174.8 | 977.4 | 882.7 | 869.3 |
| 62.5° | 7060.6 | 4846.0 | 979.7 | 928.4 | 1094.5 | 1298.5 | 1283.9 | 1093.4 | 908.4 | 816.9 | 802.5 |
| 65° | 6120.0 | 3942.2 | 831.5 | 844.8 | 995.3 | 1173.6 | 1194.7 | 1025.4 | 853.7 | 764.5 | 750.1 |
| 67.5° | 4667.6 | 2855.4 | 715.6 | 772.3 | 898.3 | 1051.0 | 1112.3 | 976.3 | 808.0 | 723.3 | 709.9 |
| 70° | 2660.4 | 1621.7 | 617.5 | 702.1 | 812.5 | 937.4 | 1048.8 | 937.4 | 759.0 | 688.8 | 679.9 |
| 72.5° | 1008.7 | 744.6 | 533.8 | 631.9 | 730.0 | 841.5 | 978.6 | 876.1 | 702.1 | 649.7 | 640.8 |
| 75° | 538.3 | 453.7 | 449.2 | 549.5 | 635.3 | 747.8 | 890.5 | 815.8 | 659.8 | 686.5 | 708.9 |
| 77.5° | 366.6 | 321.0 | 375.6 | 470.4 | 531.7 | 644.2 | 796.9 | 724.5 | 571.7 | 569.5 | 524.9 |
| 80° | 254.1 | 227.3 | 305.3 | 378.9 | 411.2 | 541.7 | 695.5 | 621.9 | 465.9 | 434.7 | 415.7 |
| 82.5° | 152.7 | 148.2 | 228.5 | 283.1 | 290.9 | 418.0 | 576.3 | 521.6 | 381.2 | 332.1 | 334.4 |
| 85° | 83.6 | 88.0 | 146.0 | 166.0 | 169.4 | 292.0 | 451.4 | 403.4 | 293.2 | 246.3 | 248.6 |
| 87.5° | 23.4 | 30.1 | 53.5 | 65.8 | 81.4 | 151.6 | 268.7 | 239.6 | 147.1 | 102.5 | 102.5 |
| 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)