

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: P884131

Luminaire Tested: **NVN-SB4D-750-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884131
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4D-750-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43945 lumens
Efficiency: N/A
Efficacy: 149.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

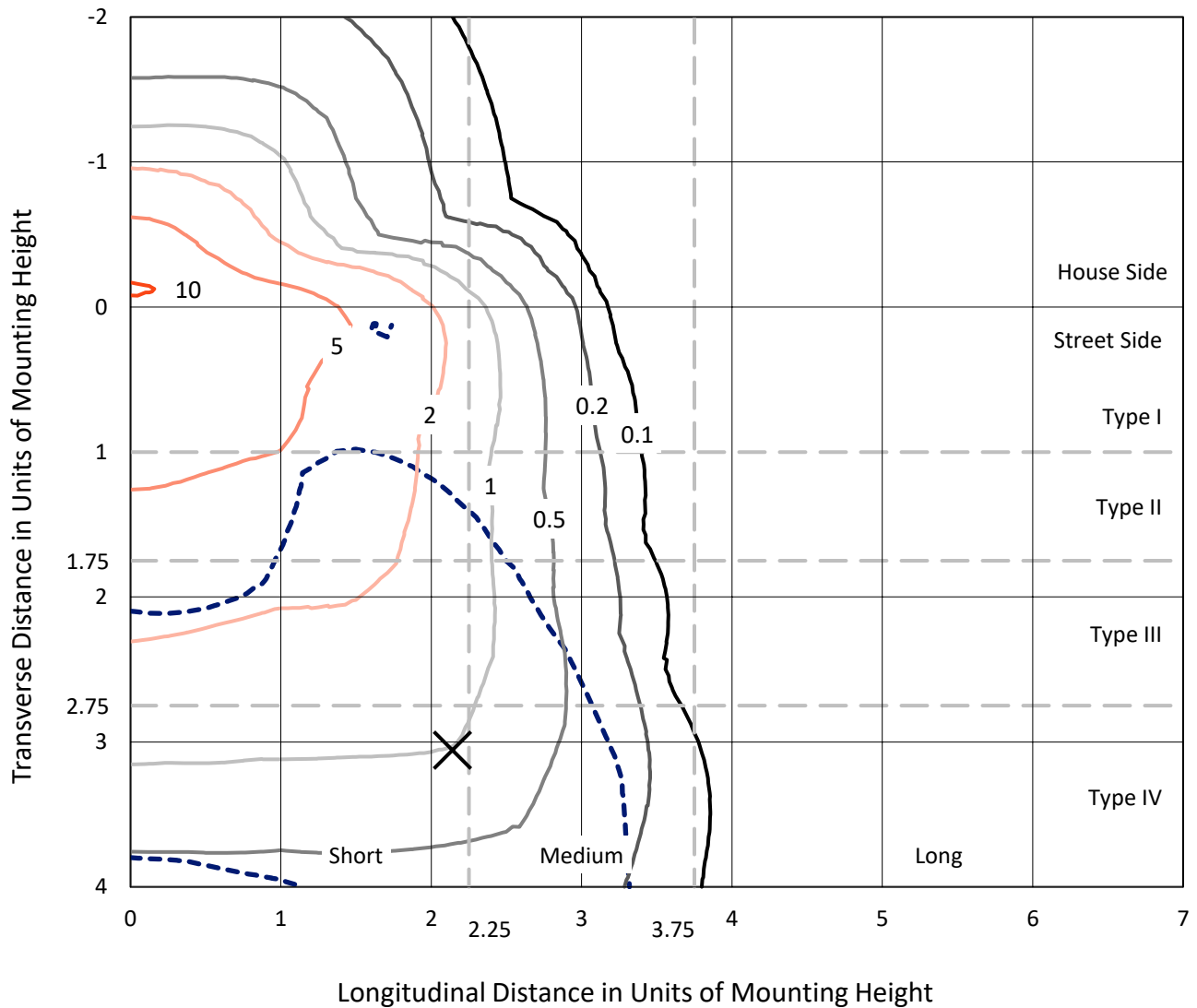
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

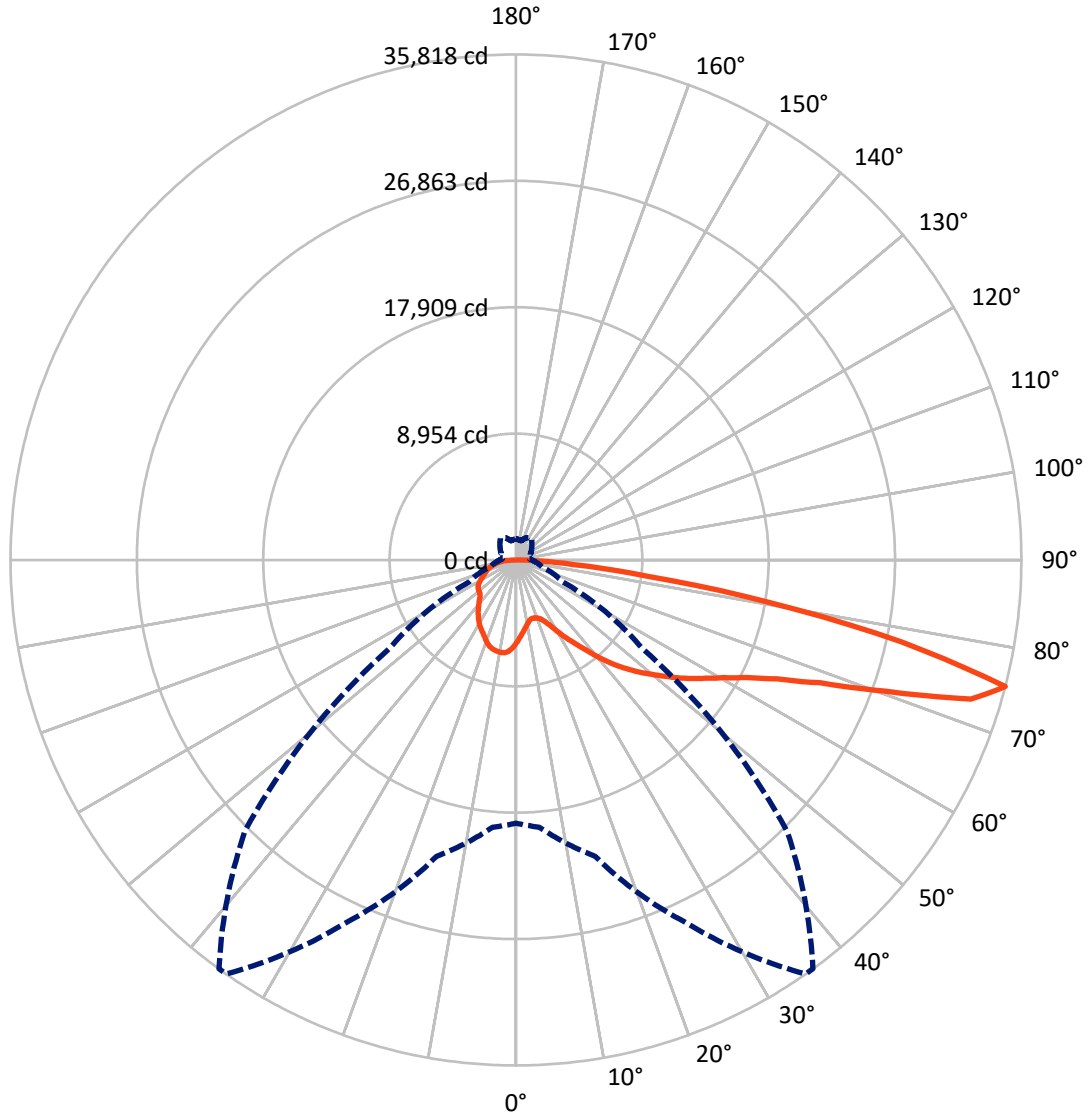
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 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 | 10457.8 | 0.0 | 10457.8 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| Street Side | Lumens | 33487.2 | 0.0 | 33487.2 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| Total | Lumens | 43945.0 | 0.0 | 43945.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 554.4 | 1.3 |
| 10°-20° | 1599.3 | 3.6 |
| 20°-30° | 2685.6 | 6.1 |
| 30°-40° | 4173.7 | 9.5 |
| 40°-50° | 6195.0 | 14.1 |
| 50°-60° | 8552.5 | 19.5 |
| 60°-70° | 10376.1 | 23.6 |
| 70°-80° | 8575.1 | 19.5 |
| 80°-90° | 1233.4 | 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° | 43945.0 | 100.0 |
| 0°-180° | 43945.0 | 100.0 |

Coefficient of Utilization



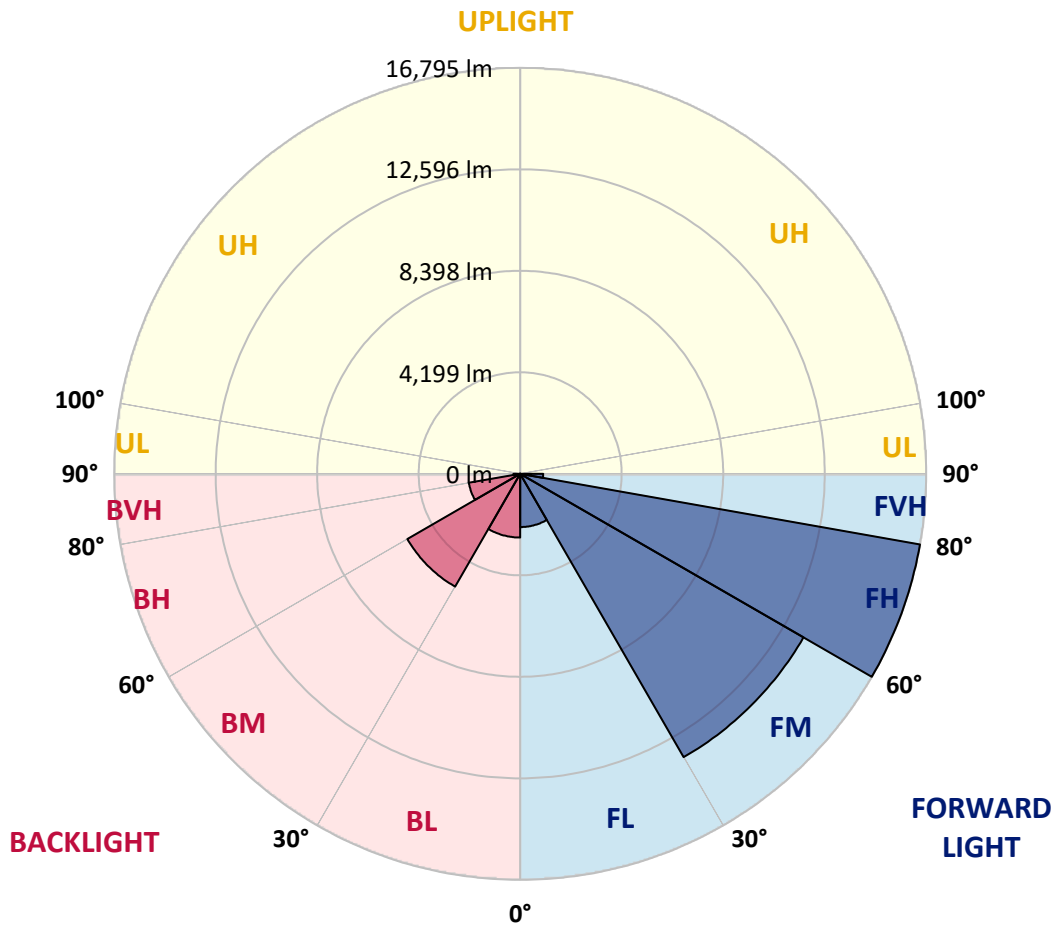
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2203.8 | 5.0 | | | |
| FM (30°-60°) | 13532.7 | 30.8 | | | |
| FH (60°-80°) | 16795.1 | 38.2 | | | G5 |
| FVH (80°-90°) | 955.6 | 2.2 | | | G5 |
| BL (0°-30°) | 2635.5 | 6.0 | B4/5000 | | |
| BM (30°-60°) | 5388.5 | 12.3 | B4/8500 | | |
| BH (60°-80°) | 2156.1 | 4.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 277.7 | 0.6 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 |
| 2.5° | 5399.8 | 5433.1 | 5447.4 | 5440.2 | 5475.9 | 5471.1 | 5521.0 | 5582.8 | 5668.3 | 5751.4 | 5872.6 |
| 5° | 4984.1 | 5019.7 | 5050.6 | 5079.1 | 5148.0 | 5169.4 | 5247.8 | 5366.6 | 5523.4 | 5682.5 | 5882.1 |
| 7.5° | 4596.9 | 4627.8 | 4675.3 | 4727.5 | 4843.9 | 4865.3 | 4996.0 | 5181.3 | 5399.8 | 5632.7 | 5908.2 |
| 10° | 4280.9 | 4311.8 | 4361.7 | 4421.1 | 4566.0 | 4592.1 | 4758.4 | 5005.5 | 5290.6 | 5585.1 | 5936.7 |
| 12.5° | 4145.5 | 4155.0 | 4183.5 | 4242.9 | 4368.8 | 4385.4 | 4568.4 | 4851.1 | 5183.7 | 5549.5 | 5979.5 |
| 15° | 4138.4 | 4157.4 | 4159.8 | 4190.6 | 4295.2 | 4302.3 | 4471.0 | 4751.3 | 5117.1 | 5542.4 | 6043.6 |
| 17.5° | 4209.6 | 4223.9 | 4202.5 | 4221.5 | 4309.4 | 4321.3 | 4454.3 | 4703.8 | 5095.8 | 5573.3 | 6152.9 |
| 20° | 4399.7 | 4411.6 | 4347.4 | 4321.3 | 4385.4 | 4394.9 | 4525.6 | 4734.7 | 5117.1 | 5637.4 | 6302.6 |
| 22.5° | 4803.6 | 4810.7 | 4653.9 | 4547.0 | 4551.7 | 4556.5 | 4670.5 | 4860.6 | 5200.3 | 5753.8 | 6492.6 |
| 25° | 5433.1 | 5428.4 | 5178.9 | 4972.2 | 4853.4 | 4827.3 | 4903.3 | 5064.9 | 5340.5 | 5908.2 | 6737.3 |
| 27.5° | 6169.6 | 6133.9 | 5884.5 | 5575.6 | 5316.7 | 5278.7 | 5262.1 | 5331.0 | 5540.0 | 6112.5 | 7036.7 |
| 30° | 7001.0 | 6967.8 | 6699.3 | 6295.5 | 5936.7 | 5875.0 | 5718.2 | 5682.5 | 5837.0 | 6390.5 | 7452.4 |
| 32.5° | 7913.3 | 7891.9 | 7571.2 | 7081.8 | 6601.9 | 6530.7 | 6267.0 | 6171.9 | 6293.1 | 6811.0 | 8032.1 |
| 35° | 8678.2 | 8659.2 | 8393.2 | 7889.5 | 7302.7 | 7214.8 | 6946.4 | 6839.5 | 6901.3 | 7350.3 | 8789.9 |
| 37.5° | 9369.5 | 9360.0 | 9132.0 | 8735.3 | 8129.5 | 8022.6 | 7720.9 | 7685.2 | 7673.3 | 8060.6 | 9709.3 |
| 40° | 10011.0 | 9987.2 | 9749.7 | 9540.6 | 9091.6 | 8994.2 | 8728.1 | 8697.2 | 8607.0 | 8934.8 | 10749.8 |
| 42.5° | 10721.3 | 10659.5 | 10315.1 | 10217.7 | 10096.5 | 10015.7 | 9856.6 | 9861.3 | 9661.8 | 9920.7 | 11852.1 |
| 45° | 11301.0 | 11265.3 | 10911.3 | 10854.3 | 10985.0 | 10951.7 | 11089.5 | 11125.2 | 10737.9 | 10954.1 | 12997.2 |
| 47.5° | 11923.4 | 11890.1 | 11590.8 | 11550.4 | 11904.4 | 11913.9 | 12400.9 | 12412.8 | 11788.0 | 12027.9 | 14144.6 |
| 50° | 12690.7 | 12643.2 | 12346.2 | 12396.1 | 12792.9 | 12828.5 | 13719.4 | 13638.6 | 12754.8 | 13118.3 | 15282.5 |
| 52.5° | 13196.7 | 13225.2 | 13161.1 | 13241.9 | 13783.5 | 13816.8 | 15016.5 | 14809.8 | 13712.2 | 14194.5 | 16399.1 |
| 55° | 13569.7 | 13626.7 | 13826.3 | 14011.6 | 14828.8 | 14862.0 | 16239.9 | 15924.0 | 14505.7 | 15192.3 | 17449.1 |
| 57.5° | 14049.6 | 13968.8 | 14341.8 | 14702.9 | 15821.8 | 15909.7 | 17430.1 | 16997.8 | 15208.9 | 16052.2 | 18168.9 |
| 60° | 14738.5 | 14681.5 | 14971.3 | 15505.8 | 16933.6 | 17073.8 | 18689.2 | 17964.6 | 15724.4 | 16734.1 | 18309.1 |
| 62.5° | 16135.4 | 15992.9 | 16038.0 | 16510.7 | 18335.2 | 18520.5 | 20109.8 | 18808.0 | 15981.0 | 17000.1 | 17558.4 |
| 65° | 18223.6 | 17978.9 | 17750.8 | 18078.7 | 20309.4 | 20492.3 | 21713.4 | 19470.8 | 15885.9 | 16484.6 | 15565.2 |
| 67.5° | 20853.4 | 20611.1 | 20330.8 | 20639.6 | 23217.2 | 23362.1 | 23692.3 | 19843.8 | 15137.6 | 14498.6 | 12042.2 |
| 70° | 23022.4 | 22932.1 | 23267.1 | 24538.1 | 27861.6 | 27866.3 | 26229.5 | 19534.9 | 13087.4 | 10279.4 | 6967.8 |
| 72.5° | 22734.9 | 22680.3 | 24445.4 | 28374.7 | 33715.2 | 33589.3 | 28631.3 | 17197.3 | 8816.0 | 4637.3 | 2610.8 |
| 75° | 18651.2 | 19005.2 | 21739.5 | 28305.8 | 35817.6 | 35801.0 | 27160.8 | 10932.7 | 3646.6 | 1921.9 | 1349.4 |
| 77.5° | 10001.5 | 10562.1 | 14113.7 | 20898.6 | 27961.4 | 28381.8 | 19095.4 | 3824.8 | 1565.6 | 1230.6 | 933.6 |
| 80° | 3261.8 | 3751.1 | 5625.5 | 10640.5 | 18168.9 | 18090.5 | 8184.1 | 1501.4 | 1071.4 | 871.9 | 646.2 |
| 82.5° | 1385.0 | 1442.0 | 2513.4 | 5024.5 | 9324.4 | 9179.5 | 2606.1 | 862.4 | 753.1 | 596.3 | 399.1 |
| 85° | 541.6 | 605.8 | 1109.4 | 2323.4 | 4038.6 | 3950.7 | 940.8 | 427.6 | 482.3 | 389.6 | 237.6 |
| 87.5° | 178.2 | 216.2 | 396.7 | 795.8 | 1256.7 | 1211.6 | 230.4 | 147.3 | 209.1 | 178.2 | 85.5 |
| 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° | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 | 5856.0 |
| 2.5° | 5905.9 | 5943.9 | 5989.0 | 6055.5 | 6112.5 | 6160.1 | 6209.9 | 6240.8 | 6252.7 | 6288.3 | 6286.0 |
| 5° | 5948.6 | 6031.8 | 6143.4 | 6252.7 | 6359.6 | 6423.7 | 6480.8 | 6509.3 | 6535.4 | 6554.4 | 6559.2 |
| 7.5° | 6019.9 | 6126.8 | 6302.6 | 6445.1 | 6535.4 | 6587.7 | 6625.7 | 6616.2 | 6625.7 | 6630.4 | 6637.6 |
| 10° | 6081.7 | 6231.3 | 6440.4 | 6575.8 | 6644.7 | 6647.1 | 6637.6 | 6604.3 | 6587.7 | 6590.0 | 6594.8 |
| 12.5° | 6155.3 | 6321.6 | 6547.3 | 6661.3 | 6680.3 | 6628.1 | 6587.7 | 6530.7 | 6509.3 | 6499.8 | 6495.0 |
| 15° | 6255.1 | 6445.1 | 6663.7 | 6706.4 | 6658.9 | 6592.4 | 6523.5 | 6430.9 | 6383.4 | 6345.4 | 6357.2 |
| 17.5° | 6376.2 | 6585.3 | 6754.0 | 6723.1 | 6620.9 | 6511.6 | 6400.0 | 6259.8 | 6162.4 | 6122.0 | 6124.4 |
| 20° | 6544.9 | 6732.6 | 6822.9 | 6687.4 | 6533.0 | 6366.7 | 6176.7 | 6005.6 | 5915.4 | 5875.0 | 5870.2 |
| 22.5° | 6749.2 | 6929.8 | 6889.4 | 6625.7 | 6407.1 | 6141.0 | 5903.5 | 5777.6 | 5732.4 | 5703.9 | 5708.7 |
| 25° | 6993.9 | 7148.3 | 6936.9 | 6535.4 | 6200.4 | 5841.7 | 5658.8 | 5618.4 | 5597.0 | 5575.6 | 5575.6 |
| 27.5° | 7312.2 | 7395.4 | 6972.5 | 6402.4 | 5877.3 | 5523.4 | 5456.9 | 5464.0 | 5456.9 | 5421.2 | 5428.4 |
| 30° | 7732.7 | 7716.1 | 7005.8 | 6186.2 | 5506.7 | 5235.9 | 5240.7 | 5271.6 | 5276.3 | 5252.6 | 5264.4 |
| 32.5° | 8286.3 | 8117.6 | 7022.4 | 5905.9 | 5152.8 | 4984.1 | 4988.9 | 5022.1 | 5045.9 | 5005.5 | 5024.5 |
| 35° | 8956.2 | 8585.6 | 6996.3 | 5554.3 | 4879.6 | 4744.2 | 4708.5 | 4718.0 | 4725.2 | 4687.2 | 4713.3 |
| 37.5° | 9737.8 | 9110.6 | 6879.9 | 5164.7 | 4653.9 | 4509.0 | 4433.0 | 4368.8 | 4330.8 | 4295.2 | 4318.9 |
| 40° | 10595.4 | 9683.1 | 6666.1 | 4784.6 | 4402.1 | 4259.5 | 4145.5 | 4024.3 | 3896.1 | 3848.5 | 3869.9 |
| 42.5° | 11493.4 | 10272.3 | 6407.1 | 4421.1 | 4112.2 | 3995.8 | 3874.7 | 3698.9 | 3506.5 | 3409.1 | 3420.9 |
| 45° | 12424.6 | 10875.7 | 6152.9 | 4062.4 | 3815.3 | 3765.4 | 3625.2 | 3413.8 | 3204.7 | 3081.2 | 3071.7 |
| 47.5° | 13336.9 | 11445.9 | 5779.9 | 3701.3 | 3537.3 | 3592.0 | 3482.7 | 3287.9 | 3055.1 | 2860.3 | 2838.9 |
| 50° | 14208.7 | 11980.4 | 5169.4 | 3335.4 | 3311.7 | 3539.7 | 3435.2 | 3154.9 | 2888.8 | 2639.3 | 2618.0 |
| 52.5° | 15073.5 | 12412.8 | 4387.8 | 3002.8 | 3190.5 | 3525.5 | 3373.4 | 3064.6 | 2739.1 | 2477.8 | 2449.3 |
| 55° | 15807.6 | 12636.1 | 3634.7 | 2717.7 | 3014.7 | 3404.3 | 3299.8 | 2957.7 | 2527.7 | 2249.7 | 2226.0 |
| 57.5° | 16225.7 | 12455.5 | 3007.6 | 2437.4 | 2772.4 | 3204.7 | 3173.9 | 2729.6 | 2275.9 | 2062.1 | 2033.6 |
| 60° | 16045.1 | 11723.8 | 2494.4 | 2192.7 | 2541.9 | 2988.6 | 2955.3 | 2503.9 | 2083.4 | 1881.5 | 1853.0 |
| 62.5° | 15049.7 | 10329.3 | 2088.2 | 1978.9 | 2332.9 | 2767.6 | 2736.7 | 2330.5 | 1936.2 | 1741.3 | 1710.5 |
| 65° | 13044.7 | 8402.7 | 1772.2 | 1800.7 | 2121.5 | 2501.6 | 2546.7 | 2185.6 | 1819.7 | 1629.7 | 1598.8 |
| 67.5° | 9949.2 | 6086.4 | 1525.2 | 1646.3 | 1914.8 | 2240.2 | 2370.9 | 2081.1 | 1722.3 | 1541.8 | 1513.3 |
| 70° | 5670.7 | 3456.6 | 1316.1 | 1496.7 | 1731.8 | 1997.9 | 2235.5 | 1997.9 | 1617.8 | 1468.1 | 1449.1 |
| 72.5° | 2150.0 | 1586.9 | 1137.9 | 1347.0 | 1556.0 | 1793.6 | 2085.8 | 1867.3 | 1496.7 | 1385.0 | 1366.0 |
| 75° | 1147.4 | 966.9 | 957.4 | 1171.2 | 1354.1 | 1594.1 | 1898.1 | 1739.0 | 1406.4 | 1463.4 | 1510.9 |
| 77.5° | 781.6 | 684.2 | 800.6 | 1002.5 | 1133.2 | 1373.1 | 1698.6 | 1544.2 | 1218.7 | 1214.0 | 1118.9 |
| 80° | 541.6 | 484.6 | 650.9 | 807.7 | 876.6 | 1154.6 | 1482.4 | 1325.6 | 993.0 | 926.5 | 886.1 |
| 82.5° | 325.5 | 316.0 | 487.0 | 603.4 | 620.0 | 890.9 | 1228.2 | 1111.8 | 812.5 | 707.9 | 712.7 |
| 85° | 178.2 | 187.7 | 311.2 | 354.0 | 361.1 | 622.4 | 962.1 | 860.0 | 624.8 | 525.0 | 529.8 |
| 87.5° | 49.9 | 64.1 | 114.0 | 140.2 | 173.4 | 323.1 | 572.5 | 510.8 | 313.6 | 218.6 | 218.6 |
| 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)