

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: P884638

Luminaire Tested: **NAV-SB5C-750-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884638
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-750-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32133 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

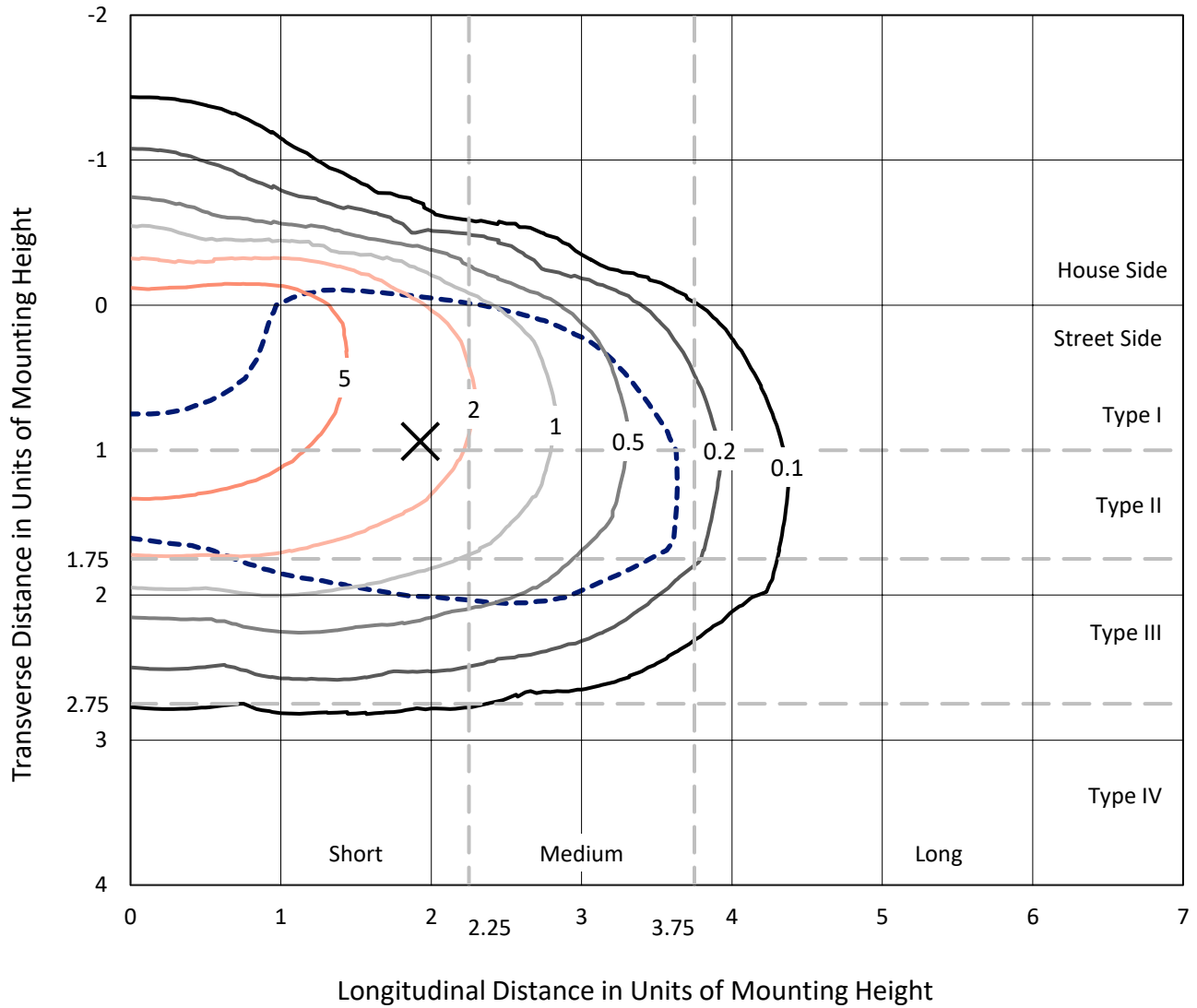
Input Watts (W): 249.5
Input Voltage (V): 120.0
Input Current (Ain): 2.116
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 7.885
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884638
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Iso-Footcandle Lines of Horizontal Illumination

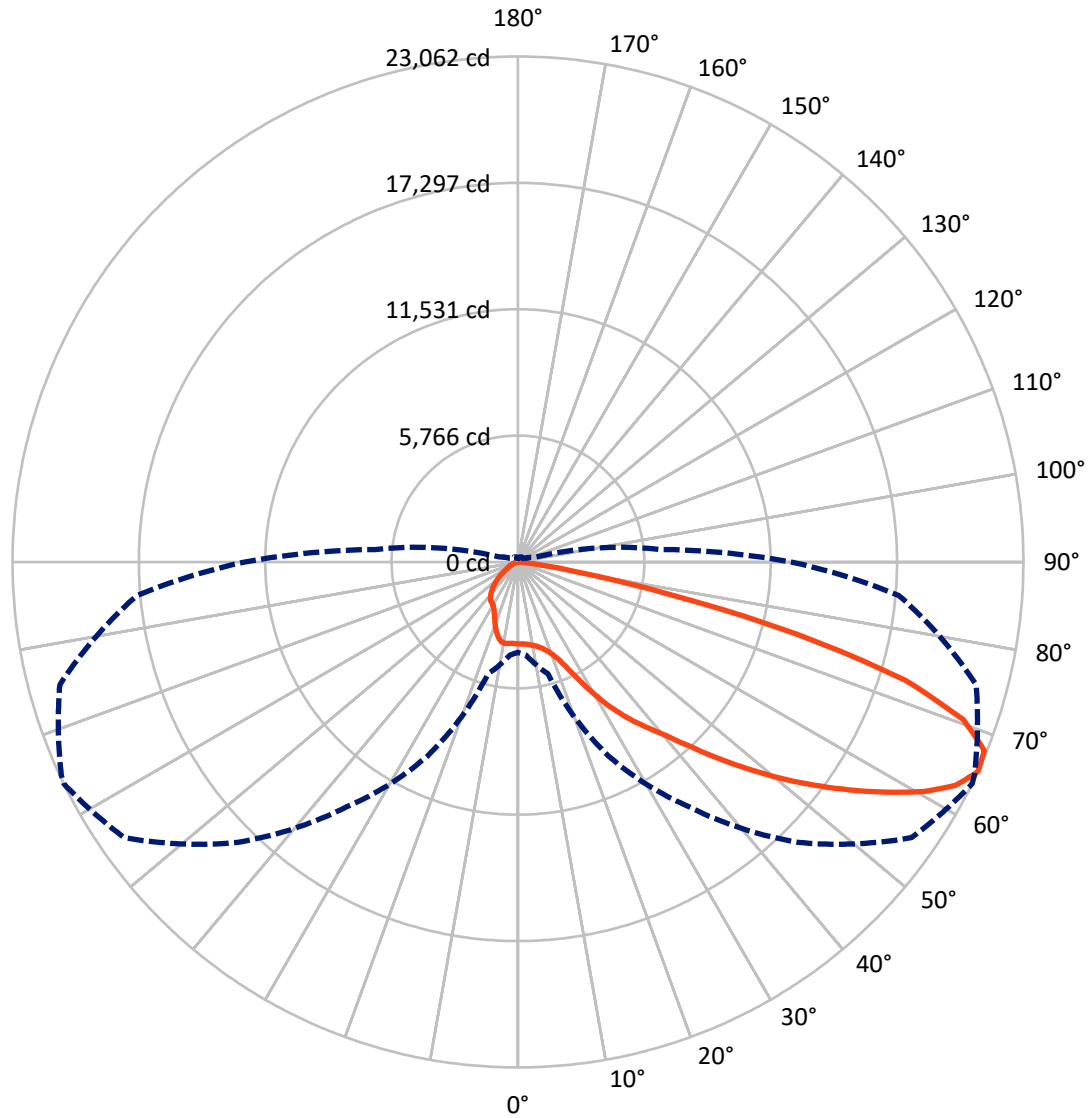
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4297.2 | 0.0 | 4297.2 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 27835.8 | 0.0 | 27835.8 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 32133.0 | 0.0 | 32133.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 344.8 | 1.1 |
| 10°-20° | 935.2 | 2.9 |
| 20°-30° | 1772.2 | 5.5 |
| 30°-40° | 3586.1 | 11.2 |
| 40°-50° | 6108.9 | 19.0 |
| 50°-60° | 8307.6 | 25.9 |
| 60°-70° | 7801.3 | 24.3 |
| 70°-80° | 3125.5 | 9.7 |
| 80°-90° | 151.4 | 0.5 |
| 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° | 32133.0 | 100.0 |
| 0°-180° | 32133.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P884638

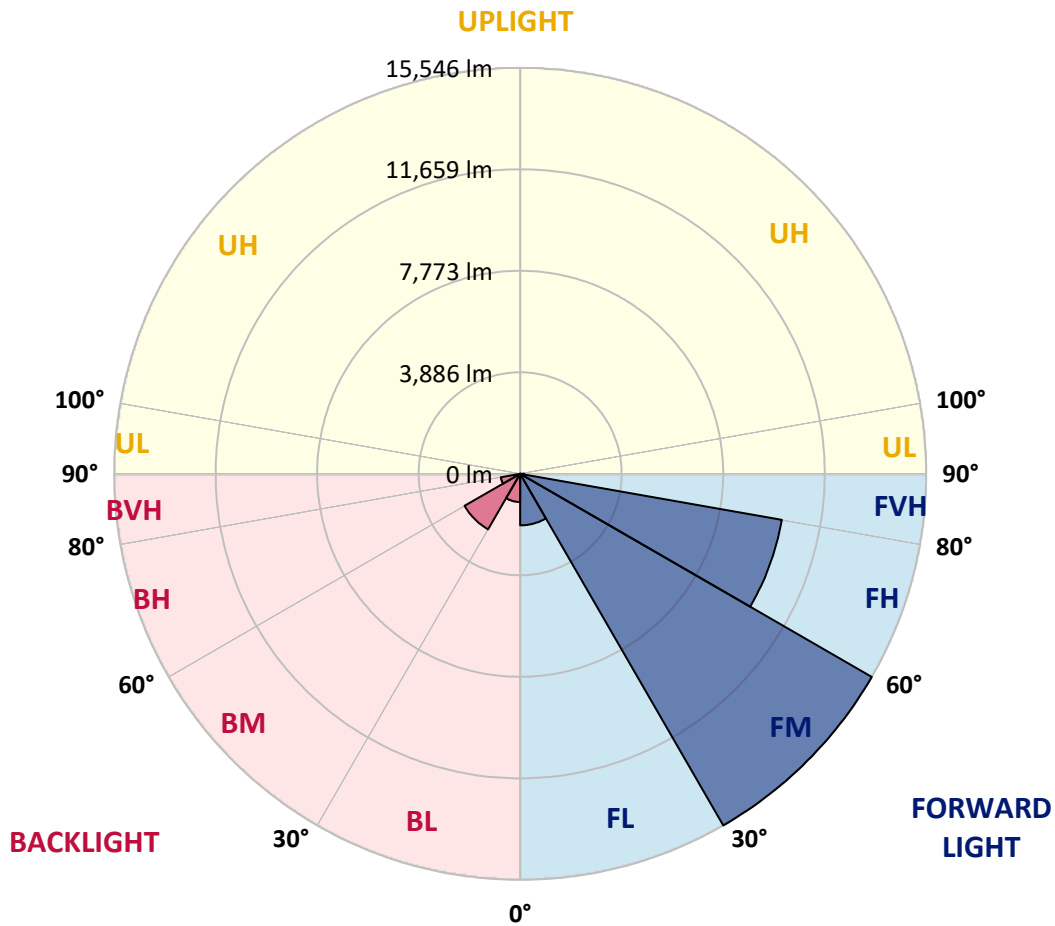
CATALOG NUMBER: NAV-SB5C-750-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1973.3 | 6.1 | | | |
| FM (30°-60°) | 15545.9 | 48.4 | | | |
| FH (60°-80°) | 10172.6 | 31.7 | | | G4/12000 |
| FVH (80°-90°) | 144.0 | 0.4 | | | G2/225 |
| BL (0°-30°) | 1078.9 | 3.4 | B3/2500 | | |
| BM (30°-60°) | 2456.7 | 7.6 | B2/2500 | | |
| BH (60°-80°) | 754.2 | 2.3 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 7.4 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type III Short



REPORT NUMBER: P884638

CATALOG NUMBER: NAV-SB5C-750-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 |
| 2.5° | 3724.5 | 3750.3 | 3743.9 | 3737.4 | 3735.2 | 3739.6 | 3741.7 | 3739.6 | 3739.6 | 3739.6 | 3741.7 |
| 5° | 3653.4 | 3674.9 | 3674.9 | 3690.0 | 3711.6 | 3737.4 | 3756.8 | 3761.1 | 3765.4 | 3771.9 | 3769.7 |
| 7.5° | 3517.7 | 3534.9 | 3547.8 | 3597.4 | 3651.2 | 3720.2 | 3778.3 | 3808.5 | 3812.8 | 3836.5 | 3845.1 |
| 10° | 3425.1 | 3446.6 | 3468.1 | 3519.8 | 3597.4 | 3700.8 | 3799.9 | 3873.1 | 3883.9 | 3939.9 | 3965.7 |
| 12.5° | 3420.7 | 3442.3 | 3470.3 | 3526.3 | 3616.8 | 3726.6 | 3847.3 | 3952.8 | 3972.2 | 4054.1 | 4107.9 |
| 15° | 3466.0 | 3491.8 | 3517.7 | 3586.6 | 3683.5 | 3817.1 | 3946.4 | 4077.8 | 4097.1 | 4213.5 | 4271.6 |
| 17.5° | 3558.6 | 3593.1 | 3612.5 | 3681.4 | 3784.8 | 3933.4 | 4103.6 | 4254.4 | 4271.6 | 4407.3 | 4480.6 |
| 20° | 3741.7 | 3782.6 | 3789.1 | 3845.1 | 3946.4 | 4105.8 | 4308.2 | 4495.7 | 4517.2 | 4672.3 | 4754.1 |
| 22.5° | 4120.8 | 4179.0 | 4127.3 | 4155.3 | 4245.8 | 4405.2 | 4624.9 | 4861.9 | 4892.0 | 5068.6 | 5141.9 |
| 25° | 4788.6 | 4870.5 | 4736.9 | 4689.5 | 4728.3 | 4894.2 | 5169.9 | 5469.3 | 5503.8 | 5646.0 | 5682.6 |
| 27.5° | 6100.5 | 5994.9 | 5792.4 | 5594.3 | 5477.9 | 5572.7 | 5882.9 | 6253.4 | 6296.5 | 6434.4 | 6391.3 |
| 30° | 7541.6 | 7449.0 | 7175.4 | 6735.9 | 6460.2 | 6445.1 | 6731.6 | 7145.2 | 7194.8 | 7326.2 | 7194.8 |
| 32.5° | 8984.8 | 8896.5 | 8599.3 | 8058.6 | 7580.4 | 7343.4 | 7541.6 | 8000.4 | 8026.3 | 8110.3 | 7916.4 |
| 35° | 10404.4 | 10313.9 | 10016.7 | 9463.1 | 8875.0 | 8336.5 | 8297.7 | 8814.7 | 8823.3 | 8911.6 | 8623.0 |
| 37.5° | 11832.6 | 11757.2 | 11440.5 | 10897.7 | 10318.2 | 9575.1 | 9215.3 | 9585.8 | 9596.6 | 9682.8 | 9383.4 |
| 40° | 12851.5 | 12883.8 | 12666.2 | 12246.2 | 11748.6 | 10936.5 | 10245.0 | 10406.6 | 10341.9 | 10486.3 | 10307.5 |
| 42.5° | 13726.1 | 13790.7 | 13601.1 | 13390.0 | 13101.4 | 12386.2 | 11520.2 | 11492.2 | 11388.8 | 11466.4 | 11281.1 |
| 45° | 14482.2 | 14536.0 | 14365.8 | 14316.3 | 14309.8 | 13807.9 | 12914.0 | 12745.9 | 12601.6 | 12586.5 | 12364.7 |
| 47.5° | 14760.0 | 14863.4 | 14936.7 | 15102.5 | 15425.7 | 15214.6 | 14355.1 | 14094.4 | 13932.9 | 13814.4 | 13463.3 |
| 50° | 14865.6 | 14975.5 | 15225.3 | 15707.9 | 16472.6 | 16563.0 | 15789.7 | 15496.8 | 15298.6 | 15083.2 | 14566.2 |
| 52.5° | 14723.4 | 14919.4 | 15255.5 | 16067.6 | 17177.0 | 17644.4 | 17166.2 | 16909.9 | 16683.7 | 16332.6 | 15565.7 |
| 55° | 13885.5 | 14081.5 | 14768.7 | 16063.3 | 17528.1 | 18402.7 | 18467.3 | 18353.1 | 18098.9 | 17545.3 | 16373.5 |
| 57.5° | 12119.1 | 12409.9 | 13497.7 | 15516.1 | 17521.6 | 19055.4 | 19742.5 | 19824.4 | 19540.0 | 18747.3 | 17008.9 |
| 60° | 9672.0 | 10066.2 | 11393.2 | 14303.4 | 16980.9 | 19408.6 | 20860.5 | 21269.8 | 20968.2 | 19932.1 | 17523.8 |
| 62.5° | 6748.9 | 7205.5 | 8461.4 | 12403.4 | 15744.5 | 19154.5 | 21676.9 | 22433.0 | 22204.7 | 20991.9 | 17722.0 |
| 65° | 4116.5 | 4263.0 | 5275.4 | 9760.3 | 13642.1 | 18090.3 | 21929.0 | 23062.0 | 22986.6 | 21640.3 | 17429.0 |
| 67.5° | 2742.2 | 2865.0 | 3155.8 | 6692.9 | 10589.7 | 15964.2 | 21325.8 | 22952.2 | 22973.7 | 21534.8 | 16356.2 |
| 70° | 1652.2 | 1757.8 | 1947.3 | 3892.5 | 6863.0 | 12636.1 | 19458.2 | 21552.0 | 21676.9 | 20123.8 | 14322.8 |
| 72.5° | 680.7 | 751.8 | 924.1 | 1764.2 | 3554.3 | 8019.8 | 15494.6 | 18503.9 | 18794.7 | 16920.6 | 10992.5 |
| 75° | 385.6 | 422.2 | 542.8 | 885.3 | 1542.4 | 3737.4 | 9385.5 | 13135.8 | 13564.5 | 11662.4 | 6613.2 |
| 77.5° | 256.3 | 273.6 | 351.1 | 573.0 | 868.1 | 1275.2 | 4011.0 | 6843.6 | 7662.2 | 6369.7 | 2862.8 |
| 80° | 172.3 | 187.4 | 241.3 | 383.4 | 564.4 | 547.1 | 1277.4 | 2535.4 | 3119.2 | 2188.6 | 697.9 |
| 82.5° | 116.3 | 118.5 | 172.3 | 252.0 | 357.6 | 265.0 | 377.0 | 788.4 | 990.9 | 633.3 | 265.0 |
| 85° | 66.8 | 64.6 | 127.1 | 146.5 | 159.4 | 109.9 | 114.2 | 237.0 | 310.2 | 267.1 | 150.8 |
| 87.5° | 8.6 | 12.9 | 49.5 | 38.8 | 21.5 | 23.7 | 23.7 | 40.9 | 60.3 | 64.6 | 32.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

REPORT NUMBER: P884638

CATALOG NUMBER: NAV-SB5C-750-U-T3-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 | 3737.4 |
| 2.5° | 3741.7 | 3739.6 | 3733.1 | 3726.6 | 3711.6 | 3702.9 | 3707.2 | 3702.9 | 3700.8 | 3702.9 | 3711.6 |
| 5° | 3769.7 | 3763.3 | 3746.0 | 3724.5 | 3694.3 | 3657.7 | 3634.0 | 3599.5 | 3567.2 | 3547.8 | 3552.1 |
| 7.5° | 3845.1 | 3838.6 | 3814.9 | 3754.6 | 3657.7 | 3504.8 | 3364.7 | 3242.0 | 3149.3 | 3095.5 | 3097.6 |
| 10° | 3965.7 | 3955.0 | 3918.3 | 3784.8 | 3530.6 | 3196.7 | 2918.8 | 2688.3 | 2537.6 | 2466.5 | 2460.0 |
| 12.5° | 4107.9 | 4095.0 | 4030.4 | 3756.8 | 3289.3 | 2768.0 | 2384.6 | 2128.3 | 1988.3 | 1925.8 | 1919.3 |
| 15° | 4275.9 | 4258.7 | 4131.6 | 3623.2 | 2938.2 | 2294.1 | 1943.0 | 1751.3 | 1660.8 | 1604.8 | 1607.0 |
| 17.5° | 4484.9 | 4454.7 | 4207.0 | 3422.9 | 2556.9 | 1932.2 | 1671.6 | 1527.3 | 1447.6 | 1393.7 | 1389.4 |
| 20° | 4756.3 | 4706.8 | 4267.3 | 3183.8 | 2205.8 | 1703.9 | 1488.5 | 1367.9 | 1307.6 | 1260.2 | 1251.5 |
| 22.5° | 5135.4 | 5064.3 | 4340.6 | 2925.3 | 1958.1 | 1546.7 | 1352.8 | 1264.5 | 1214.9 | 1161.1 | 1152.5 |
| 25° | 5605.0 | 5521.0 | 4431.0 | 2686.2 | 1787.9 | 1410.9 | 1253.7 | 1180.5 | 1122.3 | 1059.8 | 1053.4 |
| 27.5° | 6262.0 | 6111.2 | 4538.7 | 2490.2 | 1641.4 | 1294.6 | 1163.2 | 1081.4 | 1014.6 | 962.9 | 952.1 |
| 30° | 6994.4 | 6746.7 | 4633.5 | 2371.7 | 1507.9 | 1186.9 | 1044.7 | 962.9 | 900.4 | 863.8 | 857.3 |
| 32.5° | 7688.1 | 7352.0 | 4696.0 | 2320.0 | 1387.3 | 1064.1 | 915.5 | 827.2 | 779.8 | 769.0 | 775.5 |
| 35° | 8342.9 | 7899.2 | 4689.5 | 2270.4 | 1279.5 | 941.4 | 788.4 | 697.9 | 661.3 | 667.8 | 667.8 |
| 37.5° | 9096.9 | 8482.9 | 4644.3 | 2192.9 | 1191.2 | 829.3 | 678.5 | 598.8 | 566.5 | 568.7 | 577.3 |
| 40° | 9973.6 | 9157.2 | 4616.3 | 2046.4 | 1094.3 | 725.9 | 588.1 | 523.5 | 499.8 | 491.1 | 489.0 |
| 42.5° | 10908.5 | 9809.9 | 4620.6 | 1880.5 | 973.7 | 633.3 | 525.6 | 471.8 | 450.2 | 443.7 | 441.6 |
| 45° | 11847.7 | 10432.4 | 4627.1 | 1708.2 | 846.6 | 562.2 | 480.4 | 435.1 | 422.2 | 413.6 | 413.6 |
| 47.5° | 12730.9 | 10962.3 | 4506.4 | 1523.0 | 721.6 | 508.4 | 443.7 | 413.6 | 402.8 | 392.1 | 392.1 |
| 50° | 13553.7 | 11315.6 | 4215.6 | 1307.6 | 622.5 | 465.3 | 415.7 | 394.2 | 383.4 | 372.7 | 372.7 |
| 52.5° | 14193.5 | 11371.6 | 3735.2 | 1085.7 | 553.6 | 433.0 | 398.5 | 379.1 | 366.2 | 355.4 | 353.3 |
| 55° | 14477.9 | 11020.5 | 3052.4 | 878.9 | 499.8 | 405.0 | 381.3 | 361.9 | 346.8 | 336.0 | 333.9 |
| 57.5° | 14404.6 | 10281.6 | 2380.3 | 706.6 | 448.1 | 377.0 | 359.7 | 346.8 | 329.6 | 312.3 | 310.2 |
| 60° | 14044.9 | 9292.9 | 1794.4 | 588.1 | 400.7 | 346.8 | 336.0 | 325.3 | 301.6 | 275.7 | 271.4 |
| 62.5° | 13422.3 | 8050.0 | 1279.5 | 486.8 | 349.0 | 312.3 | 308.0 | 299.4 | 265.0 | 217.6 | 213.3 |
| 65° | 12470.2 | 6539.9 | 861.6 | 405.0 | 299.4 | 273.6 | 275.7 | 260.6 | 215.4 | 161.6 | 157.3 |
| 67.5° | 11078.6 | 4782.2 | 551.5 | 331.7 | 249.9 | 228.3 | 230.5 | 221.9 | 183.1 | 137.9 | 131.4 |
| 70° | 9305.8 | 3166.6 | 359.7 | 252.0 | 200.3 | 176.6 | 189.6 | 191.7 | 155.1 | 112.0 | 107.7 |
| 72.5° | 6822.1 | 1869.8 | 252.0 | 187.4 | 146.5 | 122.8 | 155.1 | 159.4 | 124.9 | 84.0 | 79.7 |
| 75° | 3888.2 | 887.5 | 189.6 | 135.7 | 90.5 | 86.2 | 120.6 | 120.6 | 86.2 | 56.0 | 51.7 |
| 77.5° | 1632.8 | 370.5 | 133.6 | 88.3 | 51.7 | 49.5 | 81.9 | 75.4 | 43.1 | 25.8 | 25.8 |
| 80° | 471.8 | 165.9 | 71.1 | 43.1 | 21.5 | 19.4 | 32.3 | 23.7 | 10.8 | 4.3 | 4.3 |
| 82.5° | 185.3 | 73.2 | 28.0 | 17.2 | 8.6 | 8.6 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 109.9 | 30.2 | 12.9 | 6.5 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 28.0 | 6.5 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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)