

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: EPHESUS

Report Number: P638786

Luminaire Tested: **EPH-VN-03-E-735-U-77-VI**

Issue Date: 11/2/2022

Test Information

Test Method: LM-79-08
Report Number: P638786
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/2/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: EPHESUS
Catalog Number: EPH-VN-03-E-735-U-77-VI
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/
Nema 7 distribution lens and Visor
Light Source: (48) 3500K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20463.2 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G2

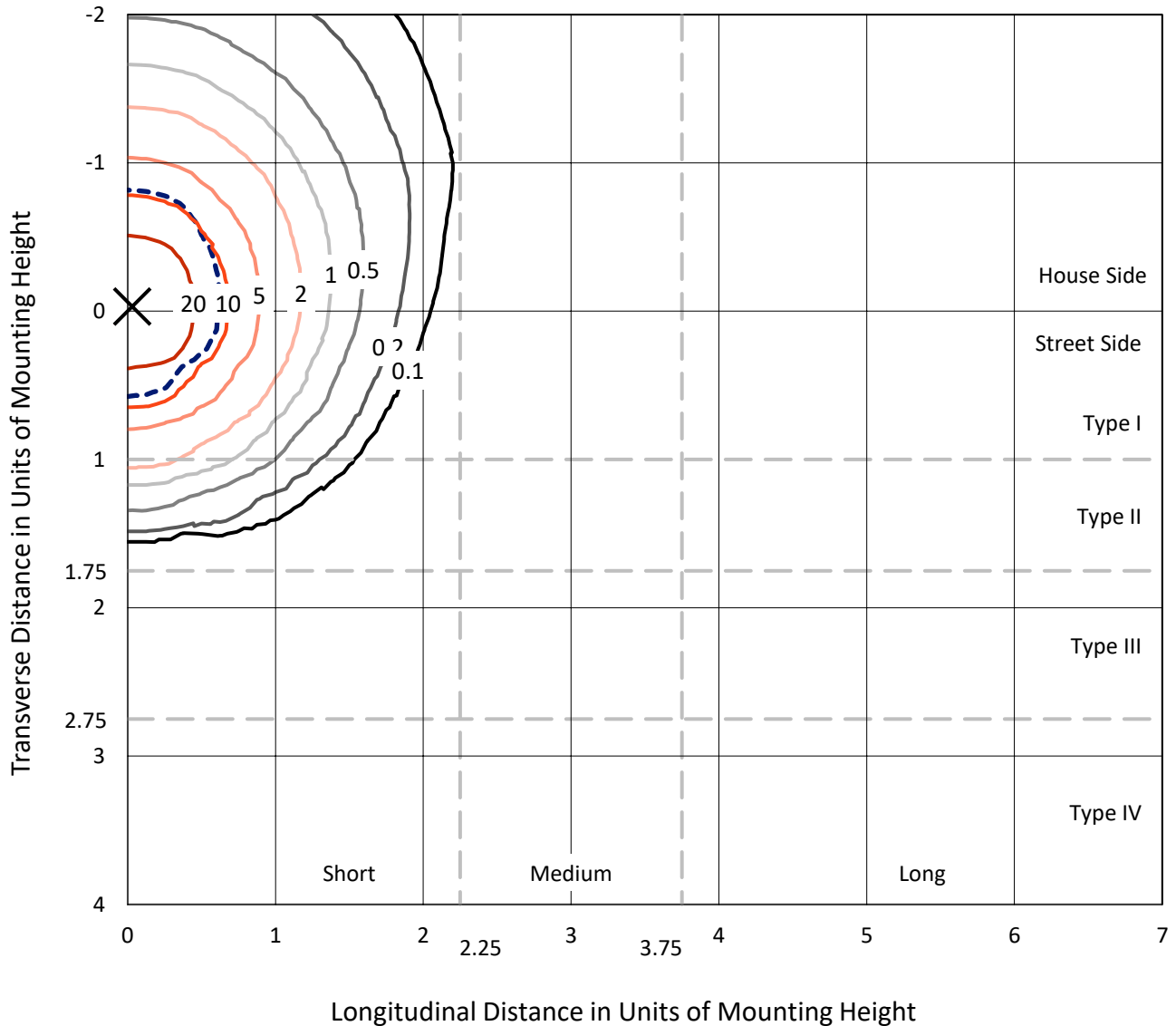
Input Watts (W): 232.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

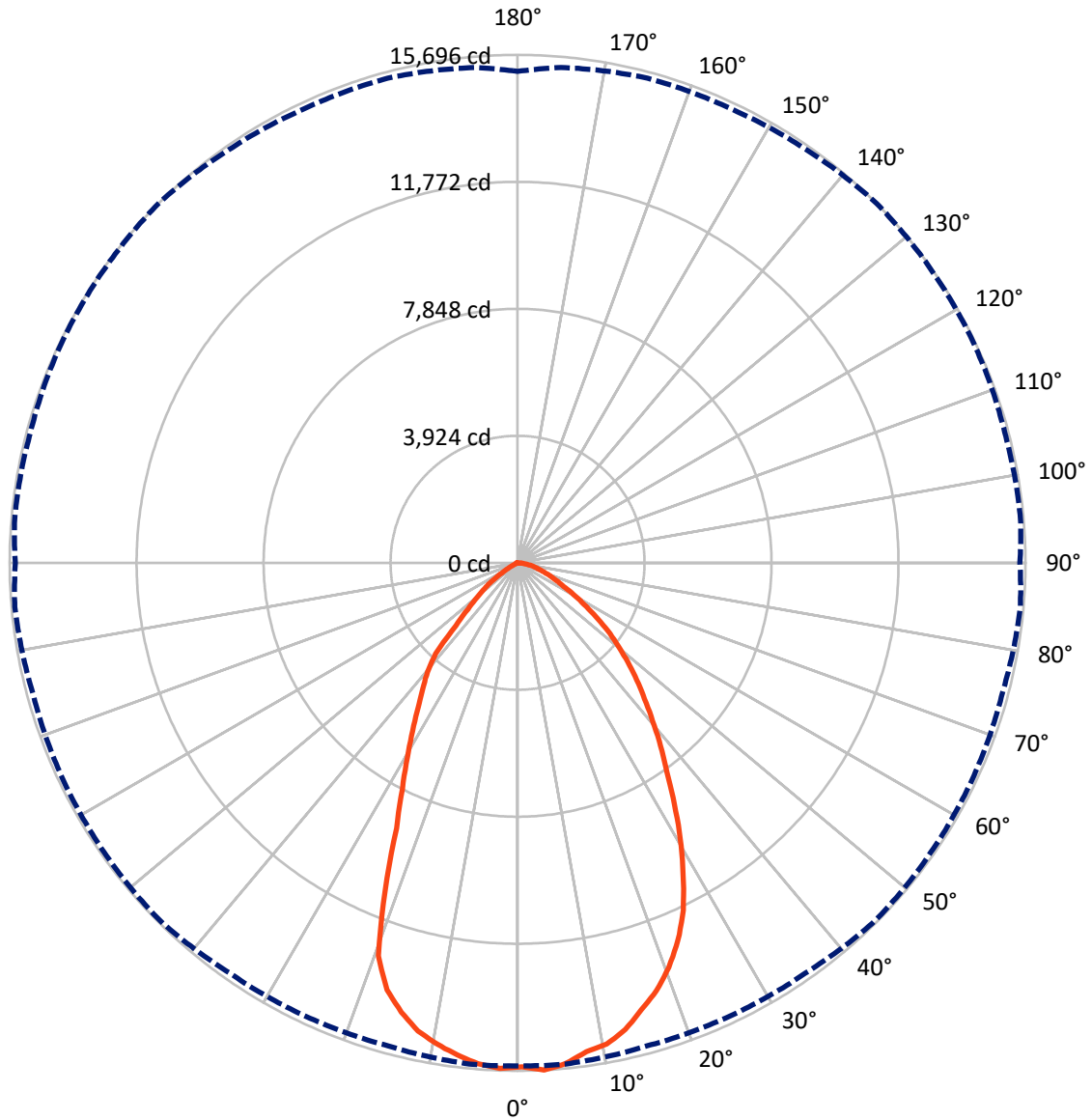
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 38.9 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 135-Deg Lateral - - - Horizontal Cone Through 2.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 12119.4 | 0.0 | 12119.4 |
| | % Fixture | 59.2 | 0.0 | 59.2 |
| Street Side | Lumens | 8343.9 | 0.0 | 8343.9 |
| | % Fixture | 40.8 | 0.0 | 40.8 |
| Total | Lumens | 20463.2 | 0.0 | 20463.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1460.4 | 7.1 |
| 10°-20° | 3916.3 | 19.1 |
| 20°-30° | 4776.1 | 23.3 |
| 30°-40° | 4360.6 | 21.3 |
| 40°-50° | 3151.3 | 15.4 |
| 50°-60° | 1720.6 | 8.4 |
| 60°-70° | 711.4 | 3.5 |
| 70°-80° | 288.1 | 1.4 |
| 80°-90° | 78.4 | 0.4 |
| 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° | 20463.2 | 100.0 |
| 0°-180° | 20463.2 | 100.0 |

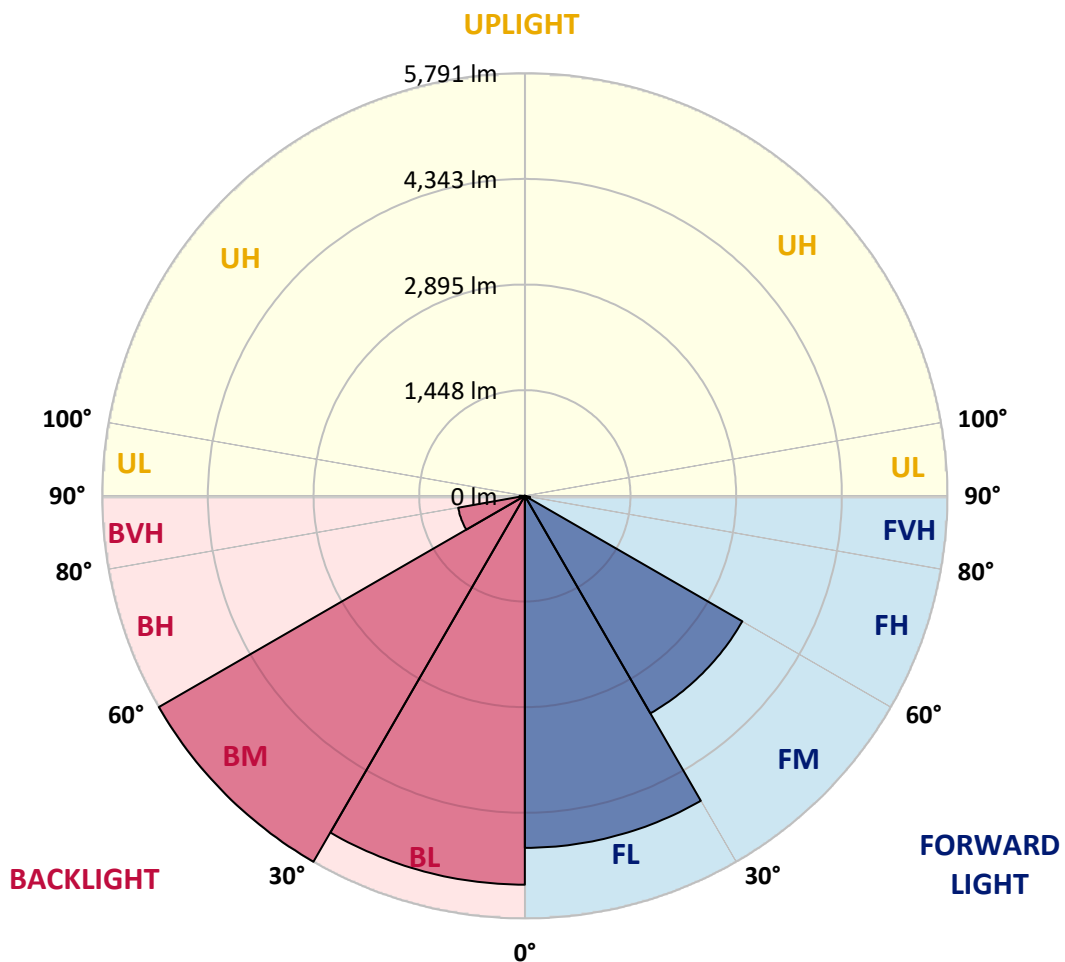


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 4823.9 | 23.6 | | | |
| FM (30°-60°) | 3441.5 | 16.8 | | | |
| FH (60°-80°) | 72.1 | 0.4 | | | G0/660 |
| FVH (80°-90°) | 6.3 | 0.0 | | | G0/10 |
| BL (0°-30°) | 5328.9 | 26.0 | B5 | | |
| BM (30°-60°) | 5790.9 | 28.3 | B4/8500 | | |
| BH (60°-80°) | 927.4 | 4.5 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 72.1 | 0.4 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G2
 Type I Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 |
| 2.5° | 15543.6 | 15563.8 | 15454.3 | 15465.8 | 15486.0 | 15633.0 | 15595.5 | 15560.9 | 15511.9 | 15595.5 |
| 5° | 15523.5 | 15535.0 | 15419.7 | 15379.4 | 15396.7 | 15529.2 | 15408.2 | 15408.2 | 15396.7 | 15382.3 |
| 7.5° | 15367.9 | 15373.6 | 15284.3 | 15212.3 | 15258.4 | 15318.9 | 15229.5 | 15272.8 | 15209.4 | 15258.4 |
| 10° | 15134.4 | 15097.0 | 14990.4 | 14970.2 | 15022.1 | 15079.7 | 15019.2 | 15059.5 | 15001.9 | 15039.4 |
| 12.5° | 14791.5 | 14733.9 | 14647.4 | 14621.5 | 14710.8 | 14788.6 | 14739.7 | 14716.6 | 14641.7 | 14733.9 |
| 15° | 13468.9 | 13425.6 | 13621.6 | 13964.5 | 14272.8 | 14339.1 | 14287.2 | 14310.3 | 14154.7 | 14180.6 |
| 17.5° | 11085.7 | 11005.0 | 11215.4 | 12028.0 | 13186.4 | 13797.4 | 13751.3 | 13601.4 | 13370.9 | 13422.7 |
| 20° | 10074.3 | 10051.2 | 10028.2 | 10221.2 | 11031.0 | 12883.9 | 12947.3 | 12566.9 | 12238.4 | 12166.3 |
| 22.5° | 9503.7 | 9495.0 | 9472.0 | 9515.2 | 9728.5 | 10918.6 | 11644.8 | 11293.2 | 11074.2 | 11054.0 |
| 25° | 8982.1 | 8967.7 | 8898.5 | 8953.3 | 8953.3 | 9022.5 | 9953.2 | 10166.5 | 9973.4 | 9950.4 |
| 27.5° | 8451.9 | 8426.0 | 8414.4 | 8440.4 | 8307.8 | 7841.0 | 8077.3 | 9117.6 | 9016.7 | 9022.5 |
| 30° | 7878.4 | 7869.8 | 7838.1 | 7892.9 | 7483.7 | 6904.4 | 6754.6 | 8166.6 | 8186.8 | 8181.0 |
| 32.5° | 7025.5 | 7062.9 | 7207.0 | 7267.5 | 6593.2 | 6114.9 | 5864.2 | 7065.8 | 7477.9 | 7469.2 |
| 35° | 5103.4 | 5103.4 | 5573.1 | 6446.3 | 5777.7 | 5417.5 | 5282.1 | 5991.0 | 6777.7 | 6806.5 |
| 37.5° | 4195.7 | 4210.1 | 4302.3 | 4700.0 | 4985.3 | 4858.5 | 4818.1 | 5042.9 | 5878.6 | 5924.7 |
| 40° | 3775.0 | 3775.0 | 3775.0 | 3610.7 | 3602.1 | 4377.2 | 4354.2 | 4282.1 | 5077.5 | 5178.3 |
| 42.5° | 3391.7 | 3400.4 | 3406.1 | 2991.2 | 2760.6 | 3783.6 | 3731.7 | 3622.2 | 4359.9 | 4478.1 |
| 45° | 2996.9 | 3011.3 | 3028.6 | 2501.3 | 2400.4 | 2723.2 | 3158.3 | 3037.3 | 3651.1 | 3803.8 |
| 47.5° | 1829.9 | 1852.9 | 2244.8 | 2120.9 | 2132.4 | 2100.7 | 2576.2 | 2556.0 | 2994.0 | 3210.2 |
| 50° | 1236.2 | 1244.9 | 1282.3 | 1345.7 | 1829.9 | 1651.2 | 1824.1 | 2115.1 | 2273.6 | 2602.1 |
| 52.5° | 1037.4 | 1051.8 | 959.6 | 873.1 | 1201.6 | 1291.0 | 1273.7 | 1570.5 | 1633.9 | 2040.2 |
| 55° | 729.1 | 775.2 | 731.9 | 723.3 | 683.0 | 1002.8 | 965.4 | 1207.4 | 1247.8 | 1550.3 |
| 57.5° | 74.9 | 86.4 | 149.8 | 538.9 | 446.7 | 567.7 | 688.7 | 884.7 | 925.0 | 1144.0 |
| 60° | 5.8 | 5.8 | 14.4 | 74.9 | 325.6 | 340.0 | 475.5 | 544.6 | 622.4 | 798.2 |
| 62.5° | 0.0 | 2.9 | 5.8 | 11.5 | 51.9 | 181.5 | 239.2 | 285.3 | 374.6 | 515.8 |
| 65° | 0.0 | 0.0 | 2.9 | 8.6 | 11.5 | 69.2 | 92.2 | 149.8 | 204.6 | 319.9 |
| 67.5° | 0.0 | 0.0 | 2.9 | 5.8 | 8.6 | 17.3 | 31.7 | 54.8 | 109.5 | 181.5 |
| 70° | 0.0 | 0.0 | 2.9 | 5.8 | 8.6 | 14.4 | 23.1 | 34.6 | 49.0 | 98.0 |
| 72.5° | 0.0 | 0.0 | 2.9 | 2.9 | 5.8 | 14.4 | 17.3 | 23.1 | 34.6 | 49.0 |
| 75° | 0.0 | 0.0 | 2.9 | 2.9 | 8.6 | 17.3 | 14.4 | 17.3 | 23.1 | 31.7 |
| 77.5° | 0.0 | 0.0 | 2.9 | 5.8 | 8.6 | 17.3 | 14.4 | 17.3 | 17.3 | 20.2 |
| 80° | 0.0 | 0.0 | 2.9 | 5.8 | 11.5 | 20.2 | 17.3 | 17.3 | 14.4 | 14.4 |
| 82.5° | 0.0 | 0.0 | 2.9 | 8.6 | 11.5 | 25.9 | 25.9 | 23.1 | 11.5 | 8.6 |
| 85° | 0.0 | 0.0 | 5.8 | 11.5 | 17.3 | 28.8 | 28.8 | 23.1 | 8.6 | 5.8 |
| 87.5° | 0.0 | 0.0 | 5.8 | 8.6 | 14.4 | 20.2 | 28.8 | 23.1 | 8.6 | 2.9 |
| 90° | 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° |
|---------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 15572.5 | 0° | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 | 15572.5 |
| 15523.5 | 2.5° | 15601.3 | 15584.0 | 15641.6 | 15664.7 | 15696.4 | 15575.3 | 15500.4 | 15503.3 | 15365.0 |
| 15347.7 | 5° | 15439.9 | 15442.8 | 15517.7 | 15511.9 | 15543.6 | 15477.4 | 15448.5 | 15399.6 | 15278.5 |
| 15125.8 | 7.5° | 15235.3 | 15209.4 | 15281.4 | 15336.2 | 15255.5 | 15301.6 | 15235.3 | 15258.4 | 15186.3 |
| 14929.8 | 10° | 15076.8 | 15016.3 | 15082.6 | 15120.0 | 15122.9 | 15076.8 | 15013.4 | 14952.9 | 14927.0 |
| 14624.4 | 12.5° | 14725.3 | 14647.4 | 14759.8 | 14811.7 | 14803.1 | 14713.7 | 14641.7 | 14656.1 | 14572.5 |
| 14088.4 | 15° | 14241.1 | 14244.0 | 14324.7 | 14373.7 | 14327.6 | 14307.4 | 14313.2 | 14278.6 | 14206.6 |
| 13347.8 | 17.5° | 13500.5 | 13543.8 | 13757.0 | 13875.2 | 13901.1 | 13860.8 | 13840.6 | 13800.2 | 13728.2 |
| 12166.3 | 20° | 12267.2 | 12526.5 | 12906.9 | 13272.9 | 13344.9 | 13333.4 | 13261.4 | 13244.1 | 13203.7 |
| 10996.4 | 22.5° | 11183.7 | 11376.8 | 11817.7 | 12388.2 | 12682.2 | 12711.0 | 12624.5 | 12598.6 | 12555.4 |
| 9950.4 | 25° | 10062.7 | 10270.2 | 10667.9 | 11287.4 | 11895.5 | 12019.4 | 12005.0 | 11927.2 | 11881.1 |
| 9022.5 | 27.5° | 9117.6 | 9325.0 | 9685.2 | 10244.3 | 10895.5 | 11293.2 | 11330.7 | 11206.8 | 11203.9 |
| 8195.4 | 30° | 8264.6 | 8549.9 | 8823.6 | 9278.9 | 9910.0 | 10506.5 | 10569.9 | 10483.5 | 10492.1 |
| 7437.5 | 32.5° | 7596.0 | 7832.3 | 8065.7 | 8371.2 | 8895.7 | 9590.1 | 9838.0 | 9757.3 | 9725.6 |
| 6806.5 | 35° | 6913.1 | 7074.5 | 7313.6 | 7593.2 | 7950.5 | 8639.2 | 9068.6 | 9008.1 | 8976.4 |
| 5953.5 | 37.5° | 6135.0 | 6411.7 | 6584.6 | 6898.7 | 7178.2 | 7725.7 | 8330.9 | 8322.2 | 8255.9 |
| 5227.3 | 40° | 5336.8 | 5627.9 | 5890.1 | 6207.1 | 6423.2 | 6858.3 | 7529.8 | 7526.9 | 7535.5 |
| 4475.2 | 42.5° | 4613.5 | 4881.5 | 5198.5 | 5544.3 | 5751.8 | 6068.8 | 6789.2 | 6829.5 | 6878.5 |
| 3855.7 | 45° | 3959.4 | 4201.5 | 4495.4 | 4916.1 | 5166.8 | 5348.3 | 5988.1 | 6172.5 | 6169.6 |
| 3302.4 | 47.5° | 3371.5 | 3599.2 | 3847.0 | 4256.2 | 4576.1 | 4740.3 | 5270.5 | 5532.8 | 5515.5 |
| 2708.8 | 50° | 2829.8 | 3031.5 | 3290.8 | 3587.7 | 4017.0 | 4161.1 | 4555.9 | 4901.7 | 4875.8 |
| 2158.4 | 52.5° | 2276.5 | 2556.0 | 2775.0 | 3045.9 | 3498.3 | 3639.5 | 3945.0 | 4282.1 | 4262.0 |
| 1619.5 | 55° | 1775.1 | 2046.0 | 2311.1 | 2544.5 | 2924.9 | 3135.2 | 3354.2 | 3700.0 | 3694.3 |
| 1267.9 | 57.5° | 1342.9 | 1639.7 | 1890.4 | 2112.3 | 2414.8 | 2674.2 | 2850.0 | 3164.1 | 3204.4 |
| 867.4 | 60° | 994.2 | 1221.8 | 1492.7 | 1740.5 | 1979.7 | 2247.7 | 2365.8 | 2674.2 | 2691.5 |
| 593.6 | 62.5° | 677.2 | 927.9 | 1193.0 | 1417.8 | 1596.4 | 1873.1 | 1979.7 | 2233.3 | 2265.0 |
| 380.4 | 65° | 469.7 | 631.1 | 933.7 | 1095.0 | 1314.0 | 1550.3 | 1657.0 | 1858.7 | 1922.1 |
| 219.0 | 67.5° | 311.2 | 449.5 | 729.1 | 876.0 | 1092.1 | 1253.5 | 1389.0 | 1553.2 | 1622.4 |
| 138.3 | 70° | 170.0 | 331.4 | 521.6 | 691.6 | 878.9 | 1034.5 | 1167.1 | 1299.6 | 1360.1 |
| 63.4 | 72.5° | 115.3 | 221.9 | 363.1 | 547.5 | 708.9 | 861.6 | 979.8 | 1077.7 | 1080.6 |
| 37.5 | 75° | 57.6 | 149.8 | 276.6 | 423.6 | 553.3 | 703.1 | 809.7 | 867.4 | 798.2 |
| 23.1 | 77.5° | 34.6 | 109.5 | 224.8 | 340.0 | 449.5 | 567.7 | 628.2 | 659.9 | 547.5 |
| 17.3 | 80° | 20.2 | 77.8 | 175.8 | 270.9 | 311.2 | 417.8 | 475.5 | 484.1 | 366.0 |
| 11.5 | 82.5° | 14.4 | 57.6 | 138.3 | 198.8 | 190.2 | 293.9 | 357.3 | 345.8 | 233.4 |
| 8.6 | 85° | 8.6 | 40.3 | 86.4 | 123.9 | 115.3 | 193.1 | 207.5 | 213.2 | 135.4 |
| 5.8 | 87.5° | 5.8 | 23.1 | 46.1 | 66.3 | 54.8 | 83.6 | 83.6 | 100.9 | 66.3 |
| 0.0 | 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



| 180° |
|---------|
| 15572.5 |
| 15186.3 |
| 15249.7 |
| 15065.3 |
| 14811.7 |
| 14500.5 |
| 14134.5 |
| 13696.5 |
| 13111.5 |
| 12543.8 |
| 11832.1 |
| 11198.1 |
| 10448.9 |
| 9728.5 |
| 8933.1 |
| 8310.7 |
| 7535.5 |
| 6852.6 |
| 6175.4 |
| 5521.2 |
| 4898.8 |
| 4305.2 |
| 3708.7 |
| 3187.1 |
| 2717.4 |
| 2270.7 |
| 1907.7 |
| 1613.7 |
| 1337.1 |
| 1054.7 |
| 746.3 |
| 527.3 |
| 342.9 |
| 216.1 |
| 123.9 |
| 57.6 |
| 0.0 |

(END OF REPORT)