

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: P638264

Luminaire Tested: **IFLD-M-SA4E-827-U-77-VI**

Issue Date: 01/17/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P638264  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 01/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: IFLD-M-SA4E-827-U-77-VI  
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ Nema 7 distribution lens and Visor  
Light Source: (64) 2700K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20471.1 lumens  
Efficiency: N/A  
Efficacy: 65.0 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 0.5' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G2

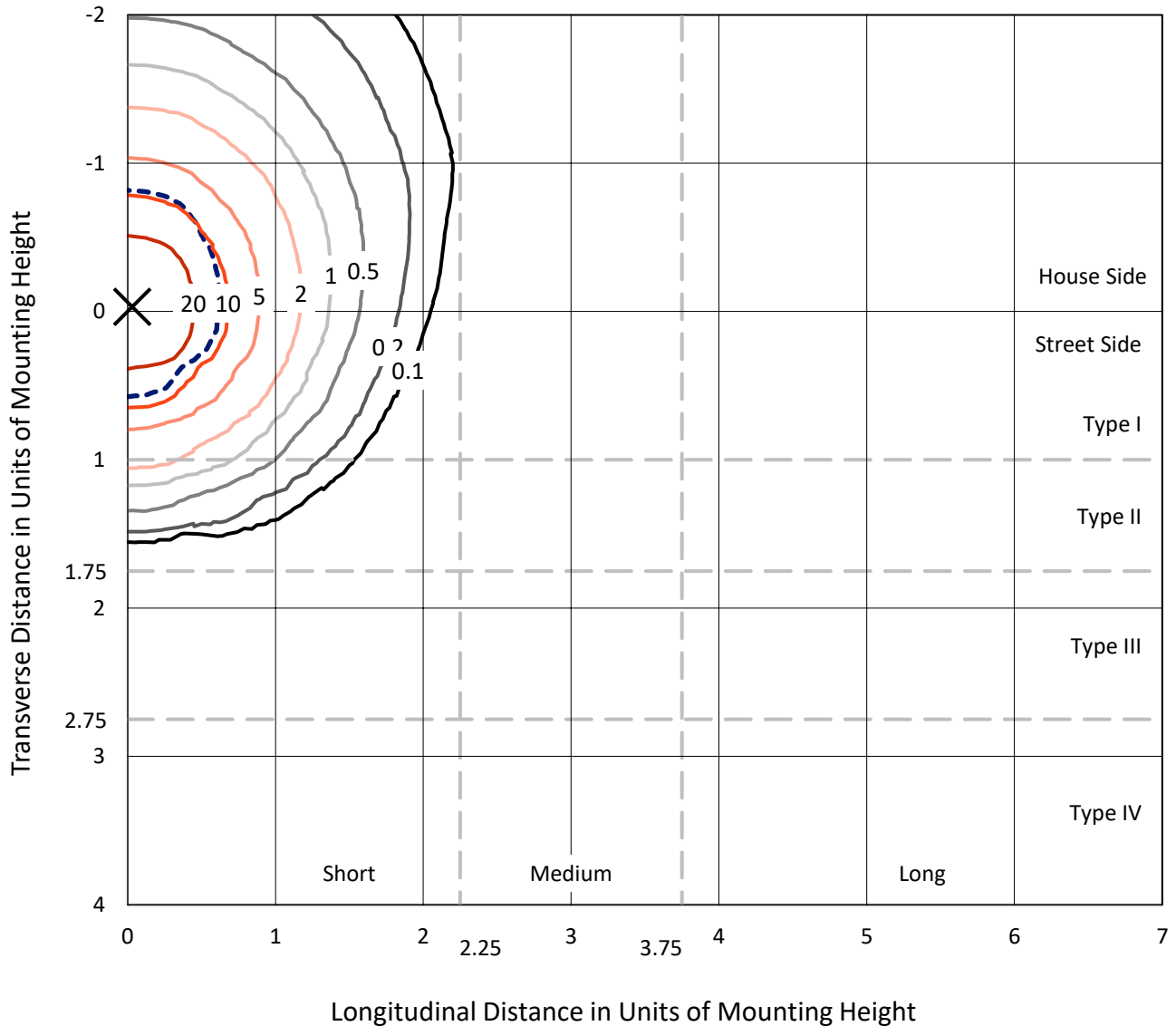
Input Watts (W): 314.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

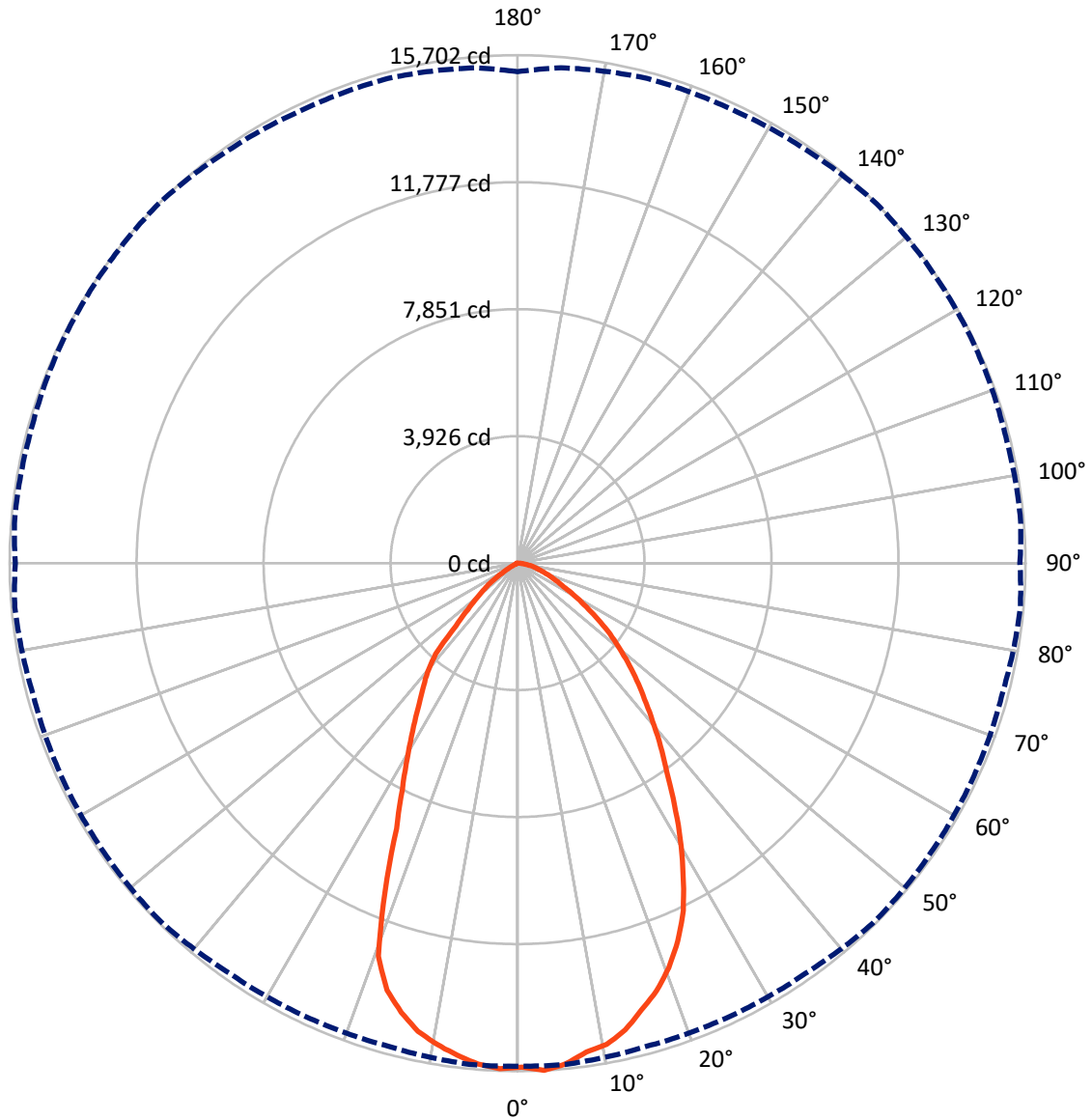
× Max cd  
 - - - 1/2 Max cd



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   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 12124.0  | 0.0    | 12124.0 |
|                    | % Fixture | 59.2     | 0.0    | 59.2    |
| <b>Street Side</b> | Lumens    | 8347.1   | 0.0    | 8347.1  |
|                    | % Fixture | 40.8     | 0.0    | 40.8    |
| <b>Total</b>       | Lumens    | 20471.1  | 0.0    | 20471.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1461.0  | 7.1       |
| 10°-20°   | 3917.8  | 19.1      |
| 20°-30°   | 4778.0  | 23.3      |
| 30°-40°   | 4362.2  | 21.3      |
| 40°-50°   | 3152.5  | 15.4      |
| 50°-60°   | 1721.3  | 8.4       |
| 60°-70°   | 711.7   | 3.5       |
| 70°-80°   | 288.2   | 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°    | 20471.1 | 100.0     |
| 0°-180°   | 20471.1 | 100.0     |



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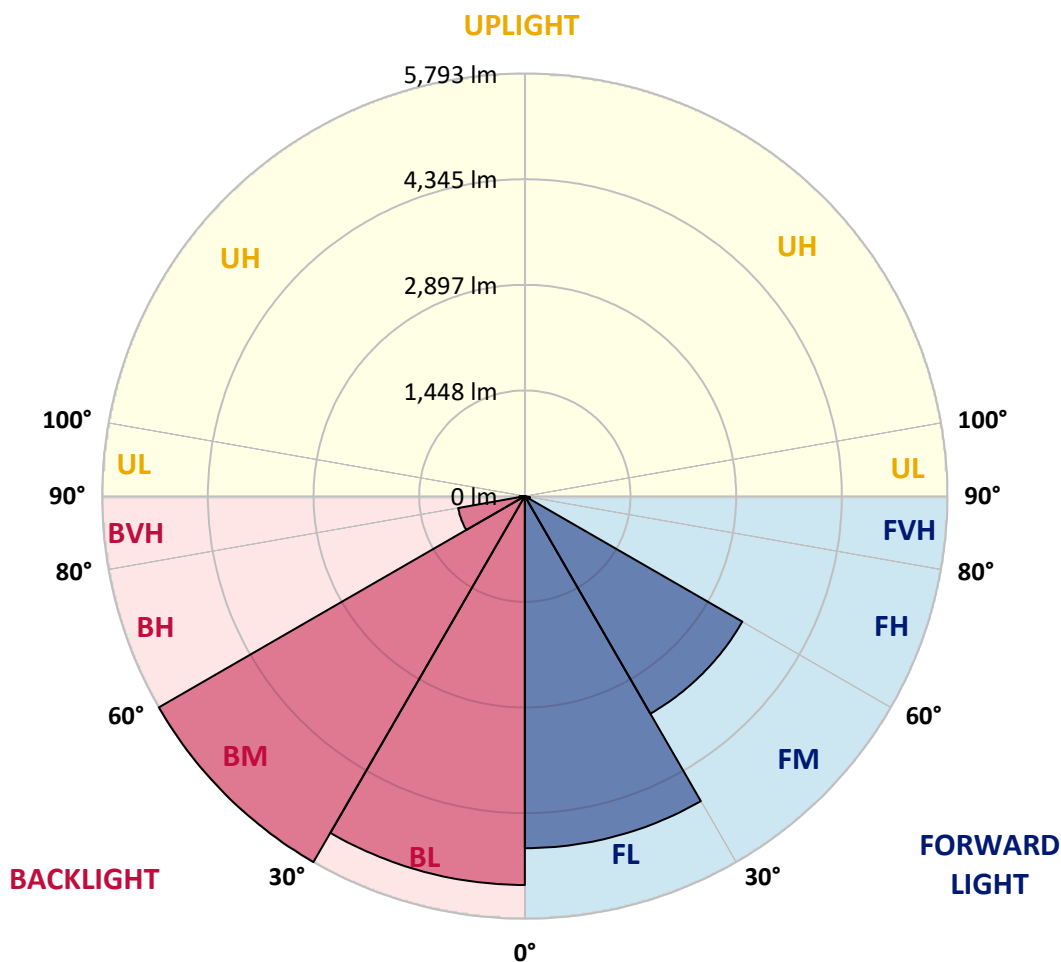
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 4825.8 | 23.6      |                         |      |         |
| FM (30°-60°)   | 3442.9 | 16.8      |                         |      |         |
| FH (60°-80°)   | 72.1   | 0.4       |                         |      | G0/660  |
| FVH (80°-90°)  | 6.3    | 0.0       |                         |      | G0/10   |
| BL (0°-30°)    | 5331.0 | 26.0      | B5                      |      |         |
| BM (30°-60°)   | 5793.1 | 28.3      | B4/8500                 |      |         |
| BH (60°-80°)   | 927.8  | 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°    | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 |
| 2.5°  | 15549.6 | 15569.8 | 15460.2 | 15471.8 | 15491.9 | 15639.0 | 15601.5 | 15566.9 | 15517.9 | 15601.5 |
| 5°    | 15529.4 | 15540.9 | 15425.6 | 15385.3 | 15402.6 | 15535.2 | 15414.1 | 15414.1 | 15402.6 | 15388.2 |
| 7.5°  | 15373.7 | 15379.5 | 15290.1 | 15218.1 | 15264.2 | 15324.7 | 15235.4 | 15278.6 | 15215.2 | 15264.2 |
| 10°   | 15140.2 | 15102.8 | 14996.1 | 14975.9 | 15027.8 | 15085.5 | 15024.9 | 15065.3 | 15007.6 | 15045.1 |
| 12.5° | 14797.2 | 14739.5 | 14653.1 | 14627.1 | 14716.5 | 14794.3 | 14745.3 | 14722.2 | 14647.3 | 14739.5 |
| 15°   | 13474.0 | 13430.8 | 13626.8 | 13969.8 | 14278.3 | 14344.6 | 14292.7 | 14315.8 | 14160.1 | 14186.0 |
| 17.5° | 11090.0 | 11009.2 | 11219.7 | 12032.6 | 13191.5 | 13802.6 | 13756.5 | 13606.6 | 13376.0 | 13427.9 |
| 20°   | 10078.1 | 10055.1 | 10032.0 | 10225.1 | 11035.2 | 12888.8 | 12952.2 | 12571.7 | 12243.1 | 12171.0 |
| 22.5° | 9507.3  | 9498.7  | 9475.6  | 9518.9  | 9732.2  | 10922.8 | 11649.2 | 11297.5 | 11078.4 | 11058.3 |
| 25°   | 8985.6  | 8971.1  | 8902.0  | 8956.7  | 8956.7  | 9025.9  | 9957.0  | 10170.4 | 9977.2  | 9954.2  |
| 27.5° | 8455.1  | 8429.2  | 8417.6  | 8443.6  | 8311.0  | 7844.0  | 8080.4  | 9121.0  | 9020.1  | 9025.9  |
| 30°   | 7881.5  | 7872.8  | 7841.1  | 7895.9  | 7486.5  | 6907.1  | 6757.2  | 8169.7  | 8189.9  | 8184.1  |
| 32.5° | 7028.2  | 7065.6  | 7209.8  | 7270.3  | 6595.7  | 6117.2  | 5866.4  | 7068.5  | 7480.8  | 7472.1  |
| 35°   | 5105.4  | 5105.4  | 5575.3  | 6448.7  | 5779.9  | 5419.6  | 5284.1  | 5993.3  | 6780.2  | 6809.1  |
| 37.5° | 4197.3  | 4211.7  | 4304.0  | 4701.8  | 4987.2  | 4860.3  | 4820.0  | 5044.8  | 5880.8  | 5926.9  |
| 40°   | 3776.4  | 3776.4  | 3776.4  | 3612.1  | 3603.4  | 4378.9  | 4355.8  | 4283.8  | 5079.4  | 5180.3  |
| 42.5° | 3393.0  | 3401.7  | 3407.4  | 2992.3  | 2761.7  | 3785.1  | 3733.2  | 3623.6  | 4361.6  | 4479.8  |
| 45°   | 2998.1  | 3012.5  | 3029.8  | 2502.2  | 2401.3  | 2724.2  | 3159.5  | 3038.4  | 3652.5  | 3805.2  |
| 47.5° | 1830.6  | 1853.6  | 2245.7  | 2121.7  | 2133.2  | 2101.5  | 2577.2  | 2557.0  | 2995.2  | 3211.4  |
| 50°   | 1236.7  | 1245.4  | 1282.8  | 1346.2  | 1830.6  | 1651.8  | 1824.8  | 2115.9  | 2274.5  | 2603.1  |
| 52.5° | 1037.8  | 1052.2  | 960.0   | 873.5   | 1202.1  | 1291.5  | 1274.2  | 1571.1  | 1634.5  | 2041.0  |
| 55°   | 729.3   | 775.5   | 732.2   | 723.6   | 683.2   | 1003.2  | 965.7   | 1207.9  | 1248.2  | 1550.9  |
| 57.5° | 75.0    | 86.5    | 149.9   | 539.1   | 446.8   | 567.9   | 689.0   | 885.0   | 925.4   | 1144.5  |
| 60°   | 5.8     | 5.8     | 14.4    | 75.0    | 325.8   | 340.2   | 475.7   | 544.8   | 622.7   | 798.5   |
| 62.5° | 0.0     | 2.9     | 5.8     | 11.5    | 51.9    | 181.6   | 239.3   | 285.4   | 374.8   | 516.0   |
| 65°   | 0.0     | 0.0     | 2.9     | 8.6     | 11.5    | 69.2    | 92.2    | 149.9   | 204.7   | 320.0   |
| 67.5° | 0.0     | 0.0     | 2.9     | 5.8     | 8.6     | 17.3    | 31.7    | 54.8    | 109.5   | 181.6   |
| 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°    |
|---------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 15578.4 | 0°    | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 | 15578.4 |
| 15529.4 | 2.5°  | 15607.2 | 15589.9 | 15647.6 | 15670.7 | 15702.4 | 15581.3 | 15506.3 | 15509.2 | 15370.9 |
| 15353.6 | 5°    | 15445.8 | 15448.7 | 15523.6 | 15517.9 | 15549.6 | 15483.3 | 15454.5 | 15405.5 | 15284.4 |
| 15131.6 | 7.5°  | 15241.1 | 15215.2 | 15287.3 | 15342.0 | 15261.3 | 15307.4 | 15241.1 | 15264.2 | 15192.1 |
| 14935.6 | 10°   | 15082.6 | 15022.0 | 15088.3 | 15125.8 | 15128.7 | 15082.6 | 15019.2 | 14958.6 | 14932.7 |
| 14630.0 | 12.5° | 14730.9 | 14653.1 | 14765.5 | 14817.4 | 14808.7 | 14719.4 | 14647.3 | 14661.7 | 14578.1 |
| 14093.8 | 15°   | 14246.6 | 14249.5 | 14330.2 | 14379.2 | 14333.1 | 14312.9 | 14318.7 | 14284.1 | 14212.0 |
| 13352.9 | 17.5° | 13505.7 | 13549.0 | 13762.3 | 13880.5 | 13906.4 | 13866.1 | 13845.9 | 13805.5 | 13733.5 |
| 12171.0 | 20°   | 12271.9 | 12531.3 | 12911.9 | 13278.0 | 13350.0 | 13338.5 | 13266.4 | 13249.2 | 13208.8 |
| 11000.6 | 22.5° | 11188.0 | 11381.1 | 11822.2 | 12393.0 | 12687.0 | 12715.8 | 12629.4 | 12603.4 | 12560.2 |
| 9954.2  | 25°   | 10066.6 | 10274.1 | 10672.0 | 11291.8 | 11900.0 | 12024.0 | 12009.6 | 11931.7 | 11885.6 |
| 9025.9  | 27.5° | 9121.0  | 9328.6  | 9688.9  | 10248.2 | 10899.7 | 11297.5 | 11335.0 | 11211.0 | 11208.2 |
| 8198.6  | 30°   | 8267.7  | 8553.1  | 8827.0  | 9282.5  | 9913.8  | 10510.5 | 10574.0 | 10487.5 | 10496.1 |
| 7440.4  | 32.5° | 7598.9  | 7835.3  | 8068.8  | 8374.4  | 8899.1  | 9593.8  | 9841.7  | 9761.0  | 9729.3  |
| 6809.1  | 35°   | 6915.7  | 7077.2  | 7316.4  | 7596.1  | 7953.5  | 8642.5  | 9072.0  | 9011.5  | 8979.8  |
| 5955.8  | 37.5° | 6137.4  | 6414.1  | 6587.1  | 6901.3  | 7180.9  | 7728.7  | 8334.0  | 8325.4  | 8259.1  |
| 5229.3  | 40°   | 5338.9  | 5630.0  | 5892.4  | 6209.5  | 6425.7  | 6861.0  | 7532.6  | 7529.8  | 7538.4  |
| 4476.9  | 42.5° | 4615.3  | 4883.4  | 5200.5  | 5546.4  | 5754.0  | 6071.1  | 6791.8  | 6832.1  | 6881.1  |
| 3857.1  | 45°   | 3960.9  | 4203.1  | 4497.1  | 4918.0  | 5168.8  | 5350.4  | 5990.4  | 6174.9  | 6172.0  |
| 3303.6  | 47.5° | 3372.8  | 3600.6  | 3848.5  | 4257.8  | 4577.8  | 4742.1  | 5272.6  | 5534.9  | 5517.6  |
| 2709.8  | 50°   | 2830.9  | 3032.7  | 3292.1  | 3589.0  | 4018.6  | 4162.7  | 4557.6  | 4903.6  | 4877.6  |
| 2159.2  | 52.5° | 2277.4  | 2557.0  | 2776.1  | 3047.1  | 3499.7  | 3640.9  | 3946.5  | 4283.8  | 4263.6  |
| 1620.1  | 55°   | 1775.8  | 2046.8  | 2312.0  | 2545.5  | 2926.0  | 3136.4  | 3355.5  | 3701.5  | 3695.7  |
| 1268.4  | 57.5° | 1343.4  | 1640.3  | 1891.1  | 2113.1  | 2415.8  | 2675.2  | 2851.0  | 3165.3  | 3205.6  |
| 867.7   | 60°   | 994.6   | 1222.3  | 1493.3  | 1741.2  | 1980.5  | 2248.6  | 2366.7  | 2675.2  | 2692.5  |
| 593.8   | 62.5° | 677.4   | 928.2   | 1193.5  | 1418.3  | 1597.0  | 1873.8  | 1980.5  | 2234.1  | 2265.8  |
| 380.5   | 65°   | 469.9   | 631.3   | 934.0   | 1095.4  | 1314.5  | 1550.9  | 1657.6  | 1859.4  | 1922.8  |
| 219.1   | 67.5° | 311.3   | 449.7   | 729.3   | 876.4   | 1092.6  | 1254.0  | 1389.5  | 1553.8  | 1623.0  |
| 138.4   | 70°   | 170.1   | 331.5   | 521.8   | 691.9   | 879.2   | 1034.9  | 1167.5  | 1300.1  | 1360.7  |
| 63.4    | 72.5° | 115.3   | 222.0   | 363.2   | 547.7   | 709.2   | 861.9   | 980.1   | 1078.2  | 1081.0  |
| 37.5    | 75°   | 57.7    | 149.9   | 276.7   | 423.8   | 553.5   | 703.4   | 810.1   | 867.7   | 798.5   |
| 23.1    | 77.5° | 34.6    | 109.5   | 224.9   | 340.2   | 449.7   | 567.9   | 628.4   | 660.2   | 547.7   |
| 17.3    | 80°   | 20.2    | 77.8    | 175.8   | 271.0   | 311.3   | 418.0   | 475.7   | 484.3   | 366.1   |
| 11.5    | 82.5° | 14.4    | 57.7    | 138.4   | 198.9   | 190.3   | 294.0   | 357.5   | 345.9   | 233.5   |
| 8.6     | 85°   | 8.6     | 40.4    | 86.5    | 124.0   | 115.3   | 193.1   | 207.6   | 213.3   | 135.5   |
| 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°           |
|----------------|
| 15578.4        |
| <i>15192.1</i> |
| 15255.5        |
| 15071.1        |
| 14817.4        |
| 14506.0        |
| 14139.9        |
| 13701.7        |
| 13116.5        |
| 12548.6        |
| 11836.6        |
| 11202.4        |
| 10452.9        |
| 9732.2         |
| 8936.5         |
| 8313.9         |
| 7538.4         |
| 6855.2         |
| 6177.7         |
| 5523.4         |
| 4900.7         |
| 4306.8         |
| 3710.1         |
| 3188.3         |
| 2718.4         |
| 2271.6         |
| 1908.4         |
| 1614.3         |
| 1337.6         |
| 1055.1         |
| 746.6          |
| 527.5          |
| 343.0          |
| 216.2          |
| 124.0          |
| 57.7           |
| 0.0            |

(END OF REPORT)